



Defense Planning in a Time of Conflict

A Comparative Analysis of the 2001–
2014 Quadrennial Defense Reviews, and
Implications for the Army

Eric V. Larson, Derek Eaton, Michael E. Linick, John E. Peters,
Agnes Gereben Schaefer, Keith Walters, Stephanie Young,
H. G. Massey, Michelle Darrah Ziegler

For more information on this publication, visit www.rand.org/t/rr1309

Library of Congress Cataloging-in-Publication Data is available for this publication.

ISBN 978-0-8330-9248-9

Published by the RAND Corporation, Santa Monica, Calif.

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Preface

This is the final report of a RAND Arroyo Center study for the U.S. Army. The purpose of the project was to perform a comparative historical analysis of the four Quadrennial Defense Reviews (QDRs) conducted since the first QDR in 1997—including QDR reports in September 2001, February 2006, February 2010, and March 2014—to identify larger trends, as well as implications and recommendations for the Army to shape the conduct of and thereby improve future reviews.¹

The purpose of this document is to report the results of our analysis to Army and Department of Defense senior leaders and planners well enough in advance that measures can be taken to improve the organization, processes, and analytics associated with the next Defense Strategy Review.² Therefore, this report may be of interest to defense planners in the Army, Office of the Secretary of Defense, and Joint Staff, as well as students of defense planning in the scholarly community.

This research was sponsored by the Office of the Deputy Chief of Staff, G-3/5/7, and conducted within the RAND Arroyo Center's Strategy, Doctrine, and Resources Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center sponsored by the United States Army.

The Project Unique Identification Code (PUIC) for the project that produced this document is HQD146687.

¹ An earlier study assessed the three major defense planning exercises following the end of the Cold War. See Eric V. Larson, David T. Orletsky, and Kristin J. Leuschner, *Defense Planning in a Decade of Change: Lessons from the Base Force, Bottom-Up Review, and Quadrennial Defense Review*, Santa Monica, Calif.: RAND Corporation, MR-1387-AF, 2001.

² The research in this report was conducted in 2015, and no attempt has been made to update the content as of the time of publication.

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Summary

The National Defense Authorization Act for fiscal year (FY) 1997 established that the U.S. Department of Defense (DoD) would conduct a Quadrennial Defense Review (QDR) and report the results by May 1997. The statutory language associated with producing that report was subsequently amended to synchronize the QDR's release with the President's budget submission the year following the review. Since the Bill Clinton administration published the first QDR in May 1997, four QDR reports have been published: two by the George W. Bush administration in September 2001 and February 2006, and two by the Barack Obama administration in February 2010 and March 2014. The QDRs published during the Bush and Obama years were developed during a period of nearly a decade and a half of conflict in Afghanistan, Iraq, and elsewhere.

The study reported here systematically compares these most-recent four QDRs by examining them in the following categories: organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception. This report also details between-QDR changes in each dimension of defense planning, so that readers can better understand and appreciate the multiplicity of forces at work in shaping the defense strategy, program, and resources. Because the U.S. Army is a key player in the QDR development process, this report provides Army strategists and planners, among others, with a DoD-wide picture of that process while highlighting the Army's experience during and resulting from each review. It also identifies observations and offers recommendations to the Army and DoD for improving future defense reviews.

To meet these objectives, we conducted a multidisciplinary analysis built on a mix of mutually reinforcing analytic efforts, including

- a detailed review of each QDR, as well as other publicly available information
- analysis of budget documents to develop a budget database
- a review of assessments of QDRs, budget plans that implemented them, and various issues relevant to each QDR
- semistructured conversations with individuals associated with QDRs to better understand the key issues, dynamics, and debates associated with developing each QDR.

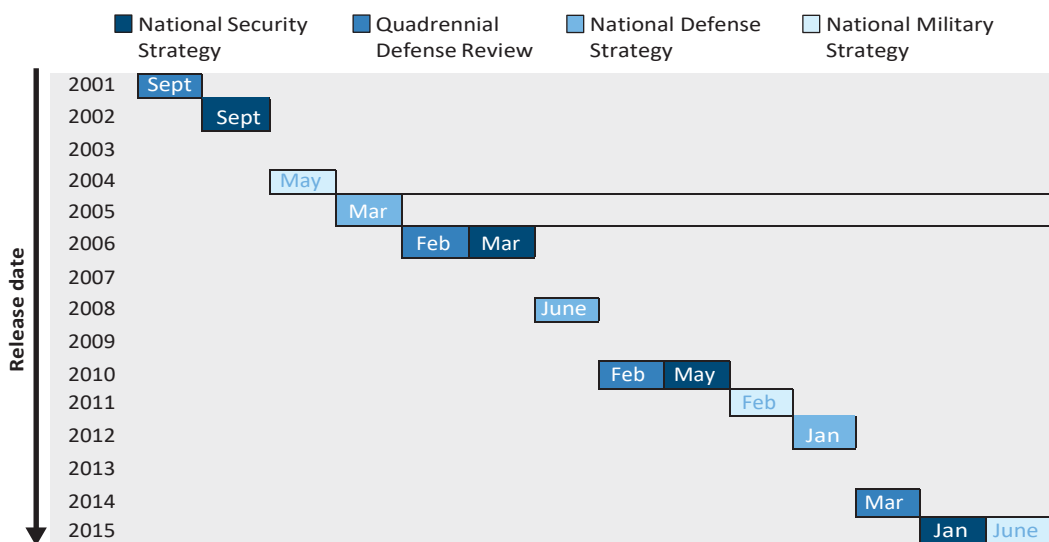
Key Trends from the Comparative Assessment

The main report contains a detailed discussion of the individual QDRs that includes all the areas discussed above. In this summary, we focus on key trends for a subset of those areas: strategy development, force planning, and resources. Discussions of organization and process, modernization and transformation, defense reform and infrastructure, risk assessments, and reception can be found in the main report.

Strategy Development

Although existing statutory guidance anticipates that a strategy review and updated statement of National Security Strategy will precede and influence the development of the National Defense Strategy and National Military Strategy, the historical record shows a different pattern. As Figure S.1 shows, neither the Bush nor Obama administration submitted its first National Security Strategy before releasing its first QDR, and neither preceded its second QDR with an updated National Security Strategy. Thus, the Bush and Obama periods demonstrate the somewhat chaotic nature of strategy development; moreover, there is little reason to believe that this is likely to change with the Defense Strategy Review (which, by statute, replaces the QDR), the results of which are expected in 2018.¹

Figure S.1
Release of Defense Strategy Documents, 2001–2015



RAND RR1309-S.1

¹ After the conduct of this research, the National Defense Authorization Act for FY 2017 established a requirement for a National Defense Strategy while dropping a formal requirement for a Defense Strategy Review. References in this document to a “Defense Strategy Review” should be construed as referring to the collection of analytic activities conducted to create a National Defense Strategy.

That said, although the four QDRs highlighted different themes and used different frameworks to portray their strategic logic, there was significant continuity in the basic national security, defense, and military strategies described in them. Each QDR characterized the nation's crucial role in the world; its interests, values, and objectives; and the importance of defense and military capabilities to securing those interests in similar ways. Notable among these recurring elements are preventing attacks on the homeland, ensuring the security and well-being of allies and friends, and ensuring the security of the global commons.

There was also continuity in QDR assessments of current, emerging, and future threats and areas of competition. Regionally, the four QDRs stressed the Middle East, Southwest Asia, and Northeast Asia, while expressing increasing concern about the military intentions and capabilities of China. Recent QDRs also focused on responses to terrorism, weapons of mass destruction (WMD), adversary anti-access and area-denial capabilities, cyber threats, and space.

Whereas the 2001 QDR strongly emphasized longer-term threats and capabilities-based planning to better address and guide transformation efforts, the focus on addressing what the 2001 QDR called sources of "future challenges risk" has arguably fallen off since the 2006 QDR. While near-term defense planning will need to focus on resetting the force and putting it on a sustainable course, it will be important for the 2018 Defense Strategy Review to return to considering longer-term challenges—for example, the emergence of regional powers with full-spectrum capabilities—to guide the identification of needed capabilities and the continued transformation of the force.

Force Planning

The history of the QDRs shows that the force-planning constructs continued to evolve over time to better address challenges in the emerging security environment. To underwrite their declaratory strategy, all of the QDRs embraced force-planning constructs that were said to be capable of supporting multiple, simultaneous military operations of various types and sizes. Notably, each QDR aimed to provide military support to homeland defense activities, while attempting to preserve, in one fashion or another, a capacity to conduct two overlapping, large-scale military campaigns—a staple of post-Cold War defense planning—as well as supporting some number of additional operations, including smaller-scale contingencies.

But while there have been nagging concerns about the actual capacity to conduct two major regional contingency operations, these doubts appear to have increased significantly in recent years. In part, this has been because of actual and planned force-structure and end-strength cuts that are reducing military capacity and capability, even as U.S. strategy declares the continued aim of its traditional global leadership role.

Another issue that emerged from the study is that the most important decisions in each QDR are which scenarios and scenario combinations are considered and which concepts of operations are used in those scenarios. Once those initial con-

ditions and assumptions have been set, they tend to drive the results. However, the ongoing steady-state requirements associated with smaller-scale operations were not seriously addressed until the force-planning construct developed in the 2010 QDR report. While it appears that these operations were mostly considered to be “lesser-included cases” that could be managed using a force structure designed largely for major combat operations, it became clear in the 1990s that the accumulation of such cases over time could create significant force, operational tempo, and personnel tempo demands. In addition, although the WMD elimination mission is critical and the ground-force requirements for such operations in North Korea, for example, would be substantial, this mission was not included among those that were to be used for force planning in the January 2012 Defense Strategic Guidance. Despite the rhetorical importance given to countering WMD over the past four QDRs, this mission has remained a neglected area for investment in the development of needed Army ground forces and other capabilities.

Force Structure

There were changes both to the size and shape of the force over the years reviewed. While retaining ten active-component and eight reserve-component division flags, the Army transformed its force structure into more-highly deployable modular brigade combat teams, which peaked in number over the 2010–2013 period. Meanwhile, as other major naval force elements remained relatively stable, the number of naval surface combatants also peaked and then dropped well below the initial 2001 levels. Air Force fighter squadrons fell significantly over the period, while special operations forces grew in an even more dramatic fashion.

Looking ahead – and similar to 2001 – DoD is again facing a classic “bow wave” in deferred procurement just beyond the period for the FY15–19 Future Years Defense Program. According to the Congressional Budget Office, Army and Air Force modernization plans reflected in the FY15–19 program are likely to face rising costs and potential affordability concerns; Navy modernization plans suggest rising costs, affordability concerns, and potential shortfalls in achieving force structure goals.

As described above, even if the latest force-structure changes have resulted in more-capable forces, there is still the question of whether current and planned military forces will provide the military capabilities necessary to support the nation’s traditional global leadership role, especially in the face of growing capabilities that might be used by adversaries.

Manpower and End Strength

The wars in Afghanistan and Iraq created significant demands for U.S. military forces, especially Army ground forces. The total number of personnel in Afghanistan and Iraq peaked in 2007 at nearly 190,000. As described in Chapter Five’s discussion on the 2014 QDR, at the time, an average of 11,661 mission personnel were expected to be in Afghanistan in FY15, with another 63,309 providing in-theater support, for a total

of 74,970 personnel; another 2,904 personnel were planned for Iraq that year—a high level of peacetime activity.

Overall active DoD end strength grew from 1.45 million in FY01 to a peak of 151 million in FY10, an increase of 3.8 percent, with an emphasis on increasing personnel for ground operations in Afghanistan and Iraq. For example, over the four QDRs (2001–2015), the Army began the period with about 480,000 personnel in active-duty end strength in FY01 and saw only modest growth until the permanent end-strength increase announced by Defense Secretary Robert Gates in January 2007. Thereafter, end strength peaked in FY10 and FY11 at 566,000 personnel, and was estimated at 490,000 for FY15.

The QDRs over the period generally looked at force structure rather than end strength and did not anticipate or address the near-term increases in manpower requirements associated with the conduct of operations in Afghanistan and Iraq. Rather, key manpower-related decisions were taken off-cycle; that is, they occurred between QDRs. Increases occurred in early 2004, early 2007, and mid-2009, for example, while decisions to undertake “surges” were announced in January 2007 (Iraq) and December 2009 (Afghanistan).

Resources

As described in Chapters Two through Five of the main report, each QDR was influenced by the nation’s economic and budgetary outlook at the time. The 2001 QDR was conducted when the outlook was quite positive, and the 2006 QDR was conducted during a period of relatively strong economic growth. The 2010 QDR was conducted in the wake of the financial crisis of 2008–2009, while the 2014 QDR was conducted under the shadow of sequestration. Because the government never raised taxes to pay for the wars, it financed them through deficit spending.

Defense budgets grew dramatically between 2001 and 2014, in terms of both DoD base budgets and war-related funding (labeled *global war on terrorism* funding or, beginning in FY09, *overseas contingency operations* [OCO] funding). DoD budget authority, including both types of spending, peaked over FYs 08–10 at the highest levels seen since 1948—a period that included wars in Korea and Vietnam, as well as the Ronald Reagan buildup of the 1980s.

Although QDR themes and priorities have frequently been highlighted in post-QDR budget presentations and have led to some major initiatives, the chain of causality linking QDR guidance and directives with the detailed elements of defense programs and budgets developed after a QDR is often opaque, or at best indirect. While additional efforts to establish more-direct and more-explicit links could improve the transparency of defense strategy, programs, and budgets, real-world events can still render QDR priorities obsolete. For example, the September 11, 2001, attacks and the post-invasion counterinsurgency demands of Iraq reduced DoD’s latitude to promote the 2001 QDR’s transformation agenda, and the Defense Strategic Guidance released

five months after the Budget Control Act of 2011 significantly revised defense strategy less than two years after the release of the 2010 QDR report.

Observations and Recommendations

The four QDRs sought to wrestle with the emerging national security and military threats and challenges and provide strategic and other guidance for the future development of U.S. military capabilities. Assessing the implications of these reviews for defense programs, force structure, end strength, and budgets is complicated by the wars conducted over this period, the combination of annual defense budget requests and supplemental appropriations, and the somewhat elastic boundaries between base budget spending and OCO spending. Still, we offer some observations and recommendations that may improve the conduct of future Defense Strategy Reviews.

QDR Value, Timing, Organization, and Process

A QDR's principal value appears to lie in the opportunity it presents to codify DoD senior leadership's thinking about defense strategy and departmental priorities and communicate this thinking to Congress, the American public, allies, and adversaries. The first QDR of a new administration also has some value in signaling departures from the strategic thinking of the previous administration.

Our research suggests that the unrealistic timing requirements for release of National Security Strategy reports has mitigated against a top-down QDR process. Neither the Bush nor Obama administration produced a National Security Strategy report within the first 150 days of entering office; moreover, the 2001 and 2010 QDRs were the first publicly available strategic statements of each administration. To provide a firmer foundation for the services to contribute to the QDR and for the Chairman of the Joint Chiefs of Staff to develop a new National Military Strategy, the value of an administration's first QDR — and subsequent ones as well — would be enhanced if new National Security Strategy reports were released prior to, or simultaneously with, the QDR, in accordance with current statutory requirements. Given this, *we recommend that the DoD and White House consult with Congress on the current statutorily mandated deadlines for producing the National Security Strategy and QDR reports, and consider whether a different schedule would better ensure that each future Defense Strategy Review is preceded or accompanied by a new National Security Strategy.*

Given the complexity of the analytics and the range of stakeholders who need to be involved in QDRs, complex organizations and processes seem unavoidable, and the short timelines for concluding QDRs have frequently led administrations to narrow scope and involvement as deadlines approach. Although DoD efforts to improve the Support for Strategic Analysis process began in 2002, the unwieldy and confusing organization associated with the 2006 QDR probably undermined any resulting gains

from these efforts, and the benefits of what came to be called the “Analytic Agenda” were not fully realized until the 2010 QDR. Although the Analytic Agenda fell into disuse after that, recent DoD efforts to revive the Support for Strategic Analysis process offer some promise in helping to standardize future QDR organizations and analytic processes. Although Army organization and processes in the QDRs appear to have worked well, our research suggests that personalities, leadership styles, and the cultivation of good professional working relationships at all levels may have mattered more. *Therefore, we recommend that the Army develop a cadre of senior Army staff who have experience and contacts in the Office of the Secretary of Defense (OSD) and the Joint Staff, intimate knowledge of how the system works, and credibility outside the Army, and that the Army involve these individuals in future Defense Strategy Reviews.*

Our research shows that force-planning constructs were adapted over the various QDRs to better address an increasingly rich portfolio of threats and challenges that required forces and capability development. However, with the exception of the 2010 QDR, none of these constructs explicitly included the steady-state requirements of planned or potential smaller-scale contingency operations, or the potentially large ground force requirements for WMD elimination operations, both of which could be important future considerations for defense planning.

These observations lead to a series of recommendations:

- *Consider a greater range and combination of mission types in developing scenarios for assessing the next force-planning construct.*
- *Focus greater attention on the requirements of WMD elimination and other missions for countering WMD, promote such missions to the first rank of missions that drive force requirements, and reassess the force requirements associated with these missions.*
- *More explicitly consider in future QDRs the ongoing steady-state requirements of smaller-scale contingency operations and the challenges of disengaging from these operations to meet emerging threats.*
- *Adapt the 2001 QDR’s force-planning construct to better address the growing portfolio of demands on the force capable of ensuring homeland defense; deterring aggression and coercion in four key regions; conducting two major campaigns of various types (including a conventional campaign that includes WMD elimination operations of the kind that might be encountered in North Korea); achieving decisive victory (regime change) in one of these campaigns; and sustaining current ongoing, smaller-scale contingency operations.*

QDR Analytics

Our semistructured conversations brought to our attention the contributions of the “Analytic Agenda,” developed between the 2006 and 2010 QDRs, that resulted in an agreed-upon set of defense planning scenarios, models, and data that helped to ensure

that OSD, the Joint Staff, and the services had a common analytical picture during the conduct of the 2010 QDR. Reviving the Support for Strategic Analysis process could greatly facilitate collaborative planning, improve transparency, and reduce misunderstanding in future Defense Strategy Reviews. This observation leads to a series of recommendations for the Army:

- *Promote and shape DoD-wide efforts to reinvigorate the Support for Strategic Analysis process, including the organizational arrangements and processes and common analytic resources that can support the next Defense Strategy Review.*
- *Press to institutionalize these elements within the department so they are available during the conduct of future Defense Strategy Reviews.*
- *Serve as a thought leader on how the Army fits into future joint force campaigns, while improving its ability to conduct analyses of ground force requirements in these future campaigns.*
- *As part of this effort, develop new scenarios that could stress ground and joint force capacity and capabilities in key emerging mission areas.*
 - *Include a scenario detailing a WMD elimination operation as part of a larger joint campaign in North Korea in the next Defense Strategy Review.*
 - *Consider the steady-state rotational requirements of various numbers and combinations of smaller-scale contingencies.*

Our structured conversations suggest that the Army analytic community is widely viewed within DoD as having the greatest expertise for assessing the ground force requirements associated with conventional ground campaigns. However, while the Army's Total Army Analysis process has improved over the period to consider nonconventional mission areas and the generating force, critiques of that process suggest that the techniques and tools for assessing the requirements for nonconventional ground force missions and the generating force are underdeveloped. The credibility of Army analyses of other missions is accordingly not yet as high as it is for conventional missions. Therefore, *we recommend that the Army review its analytic capabilities and capacity to assess the full range of missions of contemporary concern; identify shortfalls and gaps that impede its ability to conduct equally credible assessments of nonconventional missions and the generating force; and identify doctrinal, organizational, training, materiel, leadership and education, personnel, and facility changes that will improve its analytic ability to address this fuller set of missions.*

Further developing the Army's analytic capabilities for evaluating force structure requirements, manpower requirements, and risk assessments in nonconventional mission areas (and the generating force) will help to improve the analytic transparency of Army arguments to the OSD and Joint Staff analytic communities. It will also show that Army positions rest on clean analytic arguments, thus facilitating socialization of Army positions and improving the overall persuasiveness of Army arguments.

Indeed, our structured conversations suggested that the Army needs to be heavily engaged with OSD and the Joint Staff to socialize these external audiences to Army issues and analyses well before the kickoff of any future Defense Strategy Reviews. There are several opportunities for doing so, including Program Objective Memorandum guidance, annual Program Budget Reviews, and the requirements process — not to mention less-formal vehicles, such as briefings, workshops, and conferences. Thus, in anticipation of the next Defense Strategy Review, *we recommend that the Army consider creating additional informal mechanisms for discussing issues related to the Army and ground force with OSD and the Joint Staff to better socialize these audiences to emerging issues and analytic results.*

Risk Assessments

In many ways, the risk assessments conducted by OSD and the Chairman of the Joint Chiefs of Staff lie at the heart of the QDR process. This is where assessments of ends, ways, and means take place and where judgments about the ability of the force to execute the defense strategy are made. The estimated risk in executing the defense strategy is also one of the bottom-line topics of greatest interest to Congress.

The 2001 QDR introduced a sophisticated risk assessment framework that focused on the risks associated with achieving various defense objectives, including operational risk, force management risk, institutional risk, and future challenges risk; the framework was used again in the 2006 QDR and, with the addition of strategic, military, and political risk, in the 2010 QDR. Nonetheless, the analytic underpinnings of that framework were never fully developed, and the framework was not used in the 2014 QDR. Given this, *we recommend that the Army, OSD, and Joint Staff review, refine, and build out the analytics of the risk framework from the 2001, 2006, and 2010 QDRs, and, in connection with the reinvigoration of the Support for Strategic Analysis process, develop the necessary analytic underpinnings to assess with greater fidelity the level of risk associated with different force, end strength, and resource levels, importantly including future challenges risk.*

In addition to the failure of the QDR force-planning constructs to capture the full range of operational demands on the force, end-strength and active-reserve mix issues were largely unexamined in the QDRs from 2001 to 2014. Our historical review suggests a recurring tendency toward a peacetime requirement for 480,000 or more active Army personnel:

- In 2001, before 9/11, the active Army had 480,000 active personnel.
- The 2006 QDR called for a post-war Army of 482,400, which was the permanent end-strength level at the time.
- The post-QDR plan in 2010 was to return active-Army end strength to 482,400.
- The FY13 budget following the release of the Defense Strategic Guidance called for 490,000 active Army personnel.

- In 2014, the National Defense Panel endorsed a comparable number.

Yet the Army is on a path to an active end strength of 440,000–450,000, or possibly even 420,000. In 2014, GEN Raymond T. Odierno, Chief of Staff of the Army, described the 440,000–450,000 level as “an absolute floor” that already accepts higher risk in some areas.²

The argument that the Army may not have the end strength to execute the defense strategy at low to moderate risk is a powerful and compelling one. In this regard, the key challenge for the Army, the service most reliant on manpower, is its ability to generate credible, transparent, and persuasive estimates of the types and levels of risk associated with the 490,000, 440,000–450,000, and 420,000 active end-strength forces and their associated budgets. This leads to the following recommendations for the Army:

- *Continue to refine capabilities for assessing the risk associated with different end strengths and mixes of active- and reserve-component forces, and press for fuller consideration of these issues for the 2018 Defense Strategy Review.*
- *In the next Defense Strategy Review, provide additional assessments of the active end strength required to support the defense strategy and the risks accepted at different end strengths, and share the details of these assessments with other stakeholders.*
- *Continue efforts with DoD to develop new capabilities and concepts of operations that can better meet emerging challenges.*

In a similar vein, the QDRs were consistently criticized for not focusing sufficient attention on the long-term implications of the mix of active-component and reserve-component forces—for example, the decision to shift from treating reserve forces as a strategic reserve to relying on them as an operational reserve. As a result, before or during the next Defense Strategy Review, *we recommend that the Army address the active-reserve mix that will best support the strategy in the emerging post-war environment, including the rotational depth and readiness requirements that can meet the demands of steady-state and contingency response operations.*

The costs associated with Army major acquisition programs continued to grow over the period, both because of buying increasingly sophisticated (and, thus, expensive) systems and because of difficulties in implementing acquisition reforms that might have helped to reduce the cost growth in major acquisition programs. Therefore, the Army is now facing increasingly scarce resources and a future “bow wave” in procurement, and *we recommend that the Army focus attention on the sort of high-low mix in platforms and capabilities that will best meet operational requirements at an affordable cost over the longer-term.*

² Raymond T. Odierno, “Total Force Policy for the U.S. Army,” statement before the Senate Armed Services Committee, Washington, D.C., April 8, 2014.

Finally, our review suggests that over time – and quite properly, given the wars being fought in Afghanistan, Iraq, and elsewhere – the QDRs became increasingly focused on shorter-term planning considerations at the expense of considering longer-term threats and transformation. Nonetheless, longer-term challenges continue to grow. As the Army achieves a reset of the force, in the next defense review, *we recommend that the Army consider future challenges risk and longer-term capability development and transformation requirements. Through sound analyses, the Army can influence the development of future defense strategy and force structure.*

Conclusions

The period under study here thus ends much as it began, with an increasingly apparent strategy-forces-resources gap that will need to be closed. As in 2001, the defense strategy, program, and budget in 2015 appear to be out of balance: A low- to moderate-risk strategy to ensure continued U.S. leadership in the presence of expansive commitments and growing threats requires greater defense capabilities and resources than are being afforded. Also like 2001, near-term considerations have eclipsed planning for future threats and capabilities.

Since the completion of our study, the outlook for closing the gap between defense requirements and budget caps has clarified, if only a little. The Bipartisan Budget Act of 2015 provided guidance to appropriators to raise the caps on defense by \$25 billion in FY16 and \$15 billion in FY17.³ In addition, the act set a target on OCO funding of \$74 billion in FY16 and FY17, with \$59 billion allocated to defense programs in each year and \$15 billion allocated to non-defense programs. In late November 2015, President Obama signed the FY16 National Defense Authorization Act, which included about \$582 billion in base budget and OCO funding in FY16. In February 2016, the White House requested \$583 billion for DoD in FY17; the chairmen of the House and Senate Armed Services Committees rejected the request as inadequate and vowed to increase defense resources for FY17.⁴

As defense needs and strategies continue to evolve, it will be left to civilian and military senior leaders in DoD to estimate the funding levels needed to ensure low to moderate risk in executing the strategy, and it will be left to the White House and Congress both to agree on a stable level of defense funding and to determine how best

³ Public Law 114-67, Bipartisan Budget Act of 2015, November 2, 2015.

⁴ Peter G. Peterson Foundation, “Understanding the Bipartisan Budget Act of 2015,” Washington, D.C., November 16, 2015; Pat Towell, *Fact Sheet: Selected Highlights of the FY2016 Defense Budget Debate and the National Defense Authorization Acts (H.R. 1735 and S. 1356)*, Washington, D.C.: Congressional Research Service, R44019, December 4, 2015; and Bob Work, Deputy Secretary of Defense, and Paul Selva, Vice Chairman of the Joint Chiefs of Staff, “Fiscal Year 2017 Defense Budget Request,” briefing, Washington, D.C., February 9, 2016.

to pay that bill while also addressing pressing domestic requirements and achieving deficit reduction targets.

Although we cannot entirely rule out an eventual strategy of trimming the nation's aims and role in the world and accepting the resulting risks to U.S. leadership and global security, we doubt that policymakers would choose this option. Rather, the focus of future defense reviews will most likely be the adequacy of U.S. forces to support the chosen strategy and the budgets needed to support those forces in the near, mid-, and long terms.

Acknowledgments

We would like to thank Daniel Klippstein, Deputy Director of Strategy, Plans, and Policy, Headquarters, Department of the Army G-35 SS, for sponsoring our study, as well as COL Jeff Hannon, Headquarters, Department of the Army G-35 SSP, who served as Action Officer for the study. We also wish to thank Tim Muchmore, Headquarters, Department of the Army G-8, QDR, for his support of our study.

Achieving the study's goals required an in-depth understanding of the four Quadrennial Defense Reviews from the perspective of participants in the reviews. Accordingly, the authors would like to gratefully acknowledge the assistance of the many defense professionals who agreed to participate in structured conversations about their participation in and perspectives on the conduct of the Quadrennial Defense Reviews. As they were promised anonymity, these individuals will remain nameless.

We wish to express our gratitude to RAND colleagues Richard Darilek and Burgess Laird and to our external reviewer, GEN Walter L. Sharp, U.S. Army (Ret.), for their very helpful reviews.

We also would like to thank RAND colleagues Michael Johnson for his early advice and other assistance on this project, Joshua Klimas for his assistance with data on Army force structure changes, Robert Leonard and Akesha James for data from Selected Acquisition Reports, and Irina Danescu for her expert assistance in finalizing the data on force structure and Army global posture over time. We also wish to thank Donna Mead, Angela Grant Clayton, and David Richardson for their administrative support in the preparation of this report.

We also wish to thank Terrence Kelly, Director, Strategy, Doctrine, and Resources research program, Arroyo Center; Bruce Held, former Deputy Director, Arroyo Center; and Timothy Bonds, Director, Arroyo Center for their support and assistance over the course of this study. Finally, we would like to thank the Army Fellows class of fiscal year 2015 for their comments on a briefing in which we previewed emerging findings from the study.

We have benefited greatly from the assistance provided by all of these individuals. Errors of fact or interpretation, of course, remain the authors' responsibility.

Abbreviations

ALCM	air-launched cruise missile
BCA	Budget Control Act of 2011
BCT	brigade combat team
BRAC	base realignment and closure
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
CAPE	Office of Cost Assessment and Program Evaluation
CBO	Congressional Budget Office
CBRNE	chemical, biological, radiological, nuclear, and enhanced high-explosive
CJCS	Chairman of the Joint Chiefs of Staff
DoD	U.S. Department of Defense
FCS	Future Combat Systems
FHTV	family of heavy tactical vehicles
FMTV	family of medium tactical vehicles
FY	fiscal year
FYDP	Future Years Defense Program
GAO	U.S. Government Accountability Office
GDP	gross domestic product
GWOT	global war on terrorism

HMMWV	high mobility multipurpose wheeled vehicle
HQDA	Headquarters, Department of the Army
IED	improvised explosive device
ISR	intelligence, surveillance, and reconnaissance
JTRS	Joint Tactical Radio System
MEADS	Medium Extended Air Defense System
MRAP	mine-resistant, ambush-protected vehicle
NLOS-C	Non-Line of Sight Cannon
NLOS-LS	Non-Line of Sight Launch System
O&M	operation and maintenance
OCO	overseas contingency operations
OMB	Office of Management and Budget
OPA	other procurement, Army
OSD	Office of the Secretary of Defense
OUSD	Office of the Under Secretary of Defense
PAC	Patriot Advanced Capability
POM	Program Objective Memorandum
QDR	Quadrennial Defense Review
RDT&E	research, development, test, and evaluation
SEAL	sea, air, and land
START	Strategic Arms Reduction Treaty
UAV	unmanned aerial vehicle
WIN-T	Warfighter Information Network-Tactical
WMD	weapons of mass destruction

Introduction

The National Defense Authorization Act for fiscal year (FY) 1997 established the requirement for a Quadrennial Defense Review (QDR). As of June 2014, the language of the statute read as follows:

(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. 3043);

(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 and are fully independent of the budget submitted to Congress by the President pursuant to section 1105 of title 31.¹

The statutory language associated with producing the report was amended in 2006 to synchronize its release with the President’s budget submission the year following the review:

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 31.²

As amended, the statutory language in early 2014 called for the report to address a broad array of 17 distinct issues.³

The Quadrennial Defense Review is one of a number of statutorily required strategy reports, including the following:

- *Annual National Security Strategy report.* A National Security Strategy report is to be produced within 150 days of an administration entering office, with subsequent annual reports submitted simultaneously with each new President’s Budget.⁴ As will be described, however, neither the George W. Bush administration nor the Barack Obama administration met the 150-day requirement or the requirement for annual reports after its first such report.
- *Biennial review of National Military Strategy.* Not later than February 15 of each even-numbered year, the Chairman shall submit a report containing the results of a comprehensive examination of the national military strategy consistent with the most recent National Security Strategy and Quadrennial Defense Review.⁵

In addition, although there is no statutory requirement for doing so, the U.S. Department of Defense (DoD) periodically produces a National Defense Strategy

¹ United States Code, Title 10, Section 118, Quadrennial Defense Review, 2011. The statutory language was subsequently amended in December 2014 to require a quadrennial Defense Strategy Review (Public Law 113-291, Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015, December 19, 2014). Appendixes A and B report the language used in the June 2014 and December 2014 versions of the statute, respectively.

² 10 U.S.C. 118.

³ See Appendix A for the precise language associated with these 17 required reporting items.

⁴ United States Code, Title 50, Section 3043, Annual National Security Strategy Report, 2013.

⁵ United States Code, Title 10, Section 153, Chairman: Functions, 2010.

report to support its Planning, Programming, Budgeting, and Execution process.⁶ That process presumes that a National Defense Strategy will establish the plans for military force structure, force modernization, business processes, supporting infrastructure, and required resources (funding and manpower), and that the report will provide a link between the National Security Strategy and the National Military Strategy. There is no statutory requirement for a National Defense Strategy outside of the provision for the QDR.

Since the results of the first QDR were published by the Bill Clinton administration in May 1997,⁷ subsequent QDR reports have been published by the Bush administration in September 2001⁸ and February 2006,⁹ and by the Obama administration in February 2010¹⁰ and March 2014.¹¹

While the details of the individual QDRs differ, we argue that at the heart of each assessment is the Chairman of the Joint Chiefs of Staff (CJCS)'s assessment of the risk in executing the strategy in the QDR, or the *Chairman's risk assessment*. Accordingly, we provide a bit of background on the statutory requirements for this assessment.

By statute, the CJCS has been responsible for most of the assessments of risk associated with the national defense and military strategies, including the Chairman's risk assessment and other outputs of the Joint Combat Capability Assessment process. For example, the CJCS's responsibilities have included advising the Secretary of Defense on his risk assessment of the national defense strategy in the QDR, as well as providing Congress with an independent assessment of each QDR, including a risk assessment. The relevant language regarding the risk assessment of the QDR as of June 2014 read as follows:

(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.¹²

⁶ After the conduct of this research, the National Defense Authorization Act for FY 2017 established a requirement for a National Defense Strategy while dropping a formal requirement for a Defense Strategy Review. References in this document to a "Defense Strategy Review" should be construed as referring to the collection of analytic activities conducted to create a National Defense Strategy.

⁷ DoD, *Report of the Quadrennial Defense Review*, Washington, D.C., May 1997.

⁸ DoD, *Quadrennial Defense Review Report*, Washington, D.C., September 2001i.

⁹ DoD, *Quadrennial Defense Review Report*, Washington, D.C., February 2006a.

¹⁰ DoD, *Quadrennial Defense Review Report*, Washington, D.C., February 2010a.

¹¹ DoD, *Quadrennial Defense Review Report*, Washington, D.C., March 2014b.

¹² 10 U.S.C. 118(c).

(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'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.¹³

In addition, the CJCS is responsible for providing Congress with an annual Chairman's risk assessment of the nature and magnitude of the strategic and military risks associated with executing the missions called for under the current National Military Strategy:

(d) BIENNIAL REVIEW OF NATIONAL MILITARY STRATEGY. — (1) Not later than February 15 of each even-numbered year, the Chairman shall submit . . . a report containing the results of a comprehensive examination of the national military strategy

(3) (A) As part of the assessment under this subsection, the Chairman, in conjunction with the other members of the Joint Chiefs of Staff and the commanders of the unified and specified commands, shall undertake an assessment of the nature and magnitude of the strategic and military risks associated with successfully executing the missions called for under the current National Military Strategy.

(4) Before submitting a report . . . the Chairman shall provide the report to the Secretary of Defense. The Secretary's assessment and comments thereon (if any) shall be included with the report. If the Chairman's assessment in such report in any year is that the risk associated with executing the missions called for under the National Military Strategy is significant, the Secretary shall include with the report . . . the Secretary's plan for mitigating the risk.¹⁴

The CJCS describes the Chairman's risk assessment as follows:

[The assessment] is produced by the Joint Staff J-5, is informed by the full scope of the [Joint Strategy Review] process, and provides to Congress the Chairman's assessment of the nature and magnitude of strategic and military risk in executing the missions called for in the [National Military Strategy]. By considering the range of operational, future challenges, force management, and institutional fac-

¹³ 10 U.S.C. 118(e).

¹⁴ 10 U.S.C. 153(d).

tors, the [Chairman's risk assessment] provides a holistic assessment of the ability of the Armed Forces to meet strategic requirements in the near-term.¹⁵

The present report provides a systematic comparative assessment of the QDRs conducted in the Bush and Obama years, over a period of nearly a decade and a half of conflict in Afghanistan, Iraq, and elsewhere.¹⁶ It does so by comparing the QDRs in the following categories: organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception. The report also details between-QDR changes in each of these dimensions of defense planning, so that readers can better understand and appreciate the multiplicity of other forces at work in shaping the defense strategy, program, and resources.

The intent of the report is to provide an overall DoD-wide picture of each QDR's development process, its contents, and the implementation of decisions taken from it, while highlighting the Army's experience during and as a result of each review. We also aim to identify key lessons and offer recommendations to the Army and DoD for improving the organization, process, and outcomes of future defense reviews.

Approach

We conducted an interdisciplinary analysis built upon a mix of mutually reinforcing analytic efforts, which included the following:

- *Analysis of official documents.* We conducted a detailed review of each QDR report produced between 2001 and 2014, as well as other publicly available information, including DoD press briefings, news releases, interviews, congressional hearings, annual budget requests, posture reports, manpower requirements reports, modernization and other planning documents, Selected Acquisition Reports, QDR Terms of Reference, and other available official sources.
- *Budget analysis.* We spent considerable effort analyzing budget documents to develop a budget database that would enable us to separately assess base budget spending and spending on overseas contingency operations (OCO) by service and appropriation title.

¹⁵ Joint Chiefs of Staff, *CJCS Guide to the Chairman's Readiness System*, Washington, D.C., CJCS Guide 3401D, November 15, 2010b.

¹⁶ This study picks up where an earlier RAND review of post-Cold War defense reviews—including the 1989–1992 Base Force Review, 1993 Bottom-Up Review, and 1997 QDR—left off, but it highlights the Army's experience and Army-relevant developments in the more-recent reviews. See Eric V. Larson, David T. Orletsky, and Kristin J. Leuschner, *Defense Planning in a Decade of Change: Lessons from the Base Force, Bottom-Up Review, and Quadrennial Defense Review*, Santa Monica, Calif.: RAND Corporation, MR-1387-AF, 2001.

- *Secondary analysis of other official assessments.* We also reviewed assessments of the QDRs, the budget plans that implemented them, and various issues relevant to each QDR, including assessments produced by the U.S. Government Accountability Office (GAO), the Congressional Budget Office (CBO), the Congressional Research Service, internal memoranda, and press reporting.
- *Structured conversations.* Finally, to gain a better understanding of the key issues, dynamics, and debates associated with the development of each QDR, we developed a protocol for conducting structured conversations with more than a dozen individuals who were involved in some capacity with each QDR, either in the Office of the Secretary of Defense (OSD), the Joint Staff, or Headquarters, Department of the Army (HQDA).

Organization of This Report

Chapter Two provides an overview of the 2001 QDR report in the following categories: organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception. Chapters Three, Four, and Five address the same issues with respect to the 2006, 2010, and 2014 QDRs, respectively. Chapter Six summarizes key trends and developments over the four QDRs, and Chapter Seven offers recommendations and conclusions for the Army in making preparations for the 2018 Defense Strategy Review.

The report also includes additional details in seven appendixes. Appendix A provides the text of 10 U.S.C. 118 as of June 2014, which mandated that DoD conduct QDRs. Appendix B provides the amended text of 10 U.S.C. 118 as of December 2014, following the repeal of the requirement for QDRs and the substitution of a requirement for quadrennial Defense Strategy Reviews. Appendix C describes major DoD force structure elements over FYs 99–15, and Appendix D describes Army global posture over FYs 01–14. Appendix E provides technical information on the methodology for our analysis of budget data, and Appendix F provides technical details of the structured conversations we conducted with defense professionals involved in the various QDRs, including our protocol. Finally, Appendix G provides additional detail on the CJCS and Total Army Analysis risk assessment processes.

2001 Quadrennial Defense Review

This chapter describes the 2001 QDR's organization and process,¹ strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception.

As will be described, the 2001 QDR report was the first strategy statement of the incoming Bush administration, and the QDR was developed without the benefit of a clear definition of the administration's national security strategy.²

Most of the work on the QDR was conducted prior to the attacks of September 11, 2001, and the QDR retained its focus on repairing the health of the current force while preparing for future threats and challenges through the transformation of the force.³ The QDR also introduced an innovative risk assessment framework that focused defense planners on future challenges risk, in addition to operational, force management, and institutional risks, thereby further underwriting its long-term perspective.

Importantly, following the September 11, 2001, attacks, the United States embarked on multiple wars and military operations, including Operation Noble Eagle, a homeland defense mission begun immediately after the attacks; Operation Enduring Freedom in Afghanistan, which began on October 7, 2001, and aimed to overthrow the Afghan Taliban, destroy the al-Qa'ida organization, and eliminate the sanctuary that al-Qa'ida had previously enjoyed in Afghanistan under the Taliban regime; a global effort, dubbed the global war on terrorism (GWOT), that aimed to elimi-

¹ For a good snapshot of the QDR process just before the formal kickoff of the 2001 QDR, see Jeffrey D. Brake, *Quadrennial Defense Review (QDR): Background, Process, and Issues*, Washington, D.C.: Congressional Research Service, RS20771, June 21, 2001.

² The Bush administration does not appear to have been much influenced by the December 2000 National Security Strategy of the Clinton administration and failed to meet the statutory requirement for a National Security Strategy report within 150 days of taking office (50 U.S.C. 3043(a)(3), transferred from Section 404a(3)).

³ There had been increasing calls in the 1990s for the transformation of U.S. military forces, perhaps most notably in the 1997 QDR (DoD, 1997) and the National Defense Panel report that criticized that QDR, largely on account of its failure to press for the resources needed to accomplish transformation (National Defense Panel, *Transforming Defense: National Security in the 21st Century*, Arlington, Va., December 1997). See also Larson, Orletsky, and Leuschner, 2001, pp. 83–120.

nate al-Qa'ida-related elements outside of Afghanistan; and, beginning on March 19, 2003, a war in Iraq to overthrow Saddam Hussein.

Defense planners in the years following the 9/11 attacks thus faced significant challenges in developing strategy, programs, and budgets that could reconcile near-term operational requirements with longer-term defense needs to address future threats and challenges.

Organization and Process

Organization

Work on the 2001 QDR began in early 2000:

Some preliminary planning for the 2001 QDR began in February 2000 when the Chairman of the Joint Chiefs of Staff organized eight panels within the Joint Staff to conduct preparatory work for the review. Although [OSD] has the lead role in conducting the QDR, the Joint Staff plays a supporting role in the process and has primary responsibility for leading the analytical work to support the Chairman's risk assessment. Each Joint Staff panel was assigned to address specific topics, such as strategy and operational risk assessment, modernization, and readiness.

At the same time, the military services set up separate QDR offices, which were composed of panels that paralleled those of the Joint Staff, and assigned representatives to the Joint Staff panels. These panels continued to operate throughout 2000, but they were put on hold in early 2001 when the newly confirmed Secretary of Defense decided to undertake a series of strategic reviews led by defense experts from the private sector.⁴

In January 2000, the Army's Center for Land Warfare, a small cell that had been a part of the Army QDR Office during the 1997 QDR, received additional personnel. In April 2000, BG H. Lynn Hartsell was named director of the Army QDR office and oversaw its further growth and reorganization.⁵ The office initially established seven panels, each led by a general officer and staffed by Army Staff and Secretariat personnel to address the range of issues that were anticipated to be the focus of effort in the 2001 QDR. By mid-2000, these review panels had identified 13 areas of Army concern, as well as a strategy for addressing them in the next QDR, and the Army QDR office had conducted a separate analysis of Army force structure that suggested that further cuts

⁴ U.S. General Accounting Office, *Quadrennial Defense Review: Future Reviews Can Benefit from Better Analysis and Changes in Timing and Scope*, Washington, D.C., GAO-03-13, November 2002b, pp. 6–7.

⁵ Center for Military History, *Department of the Army Historical Summary: Fiscal Year 2001*, Washington, D.C., 2002, pp. 9.

in personnel would reduce effectiveness. As part of a December 2000 reorganization of HQDA, an Office of the Deputy Chief of Staff for Programs was added to the Army Staff, absorbing both the Army QDR office and a QDR communications cell.⁶

The Army panel organization for participation in the QDR paralleled the Joint Staff structure for conducting the QDR, while senior oversight of the Army's QDR process was provided by three groups:

- A *Senior Review Group* that was led by the Chief and Vice Chief of Staff of the Army, and included Assistant Secretaries of the Army and three-star general officers, who met monthly or as needed
- A *Panel Leaders Meeting*, consisting of Army general officer and Senior Executive Service representatives to the OSD issue teams, and including Assistant Secretaries of the Army and three-star general officers, who met monthly
- The *Army QDR Council of Colonels*, which held a weekly HQDA staff session, to which OSD and Joint Staff representatives were invited.⁷

As a result of the new strategic perspective and priorities that the new administration brought to the department, many of the studies and analyses that the Army QDR office had undertaken during the late Clinton administration appeared irrelevant to Secretary of Defense Donald Rumsfeld and other civilian appointees,⁸ and the Army accordingly postponed plans to argue for increases in end strength until force require-

⁶ Center for Military History, 2002, pp. 1, 3–4. Other offices under the new Office of the Deputy Chief of Staff for Programs were an Executive Services division, a Program Analysis and Evaluation division, and a Force Development division.

⁷ HQDA, "2013 QDA: USA/ASA Update, 5 March 12," briefing, March 2012b, and Don Tison, Deputy Chief of Staff (G-8), HQDA, email communication with authors, July 2015.

⁸ Center for Military History, 2002, p. 10. The early work on the QDR in 2000 was predicated upon the existing Shape-Respond-Prepare defense strategy developed by the Clinton administration in the National Security Strategy and Quadrennial Defense Reviews of 1997. See William S. Cohen, "New Defense Strategy: Shape, Respond, Prepare," statement to the Senate Armed Services Committee, Washington, D.C., February 3, 1998. For additional details on OSD, Joint Staff, and service planning for the QDR in early 2000, see Military Operations Research Society, *Joint Analysis: QDR 2001 and Beyond: Mini-Symposium Held in Fairfax, Virginia on 1–3 February 2000*, Alexandria, Va., April 11, 2001. In March 2001, DoD announced that the Dynamic Commitment war games that had been conducted under the previous administration had been postponed indefinitely. See Elaine M. Grossman, "Services Meet Snags in Ready Dynamic Commitment War Games," *Inside Defense*, April 27, 2000. (InsideDefense.com is a subscription-based service that provides access to electronic versions of a number of defense-related newsletters, including *Inside the Pentagon*, *Inside the Army*, *Inside the Navy*, and *Inside the Air Force*. For brevity, we cite all of the products from this source as *Inside Defense*.) For a detailed discussion of Joint Staff participation in the 2001 QDR, see John Y. Schrader, Roger Allen Brown, and Leslie Lewis, *Managing Quadrennial Defense Review Integration: An Overview*, Santa Monica, Calif.: RAND Corporation, DB-317-JS, 2001; and John Y. Schrader, Leslie Lewis, and Roger Allen Brown, *Quadrennial Defense Review 2001: Lessons on Managing Change in the Department of Defense*, Santa Monica, Calif.: RAND Corporation, DB-379-JS, 2003.

ments could be assessed against a new defense strategy.⁹ The panels established by the Joint Staff and the military services were soon sidelined, while a number of review panels established by Secretary Rumsfeld conducted their studies. By March 2001, the Army began reorganizing its working panels to better accommodate the issues being raised by Secretary Rumsfeld and his team,¹⁰ but these panels essentially remained on hold until June 2001, when Secretary Rumsfeld's review panels finished their work and OSD released Terms of Reference for the QDR.

In June 2001, OSD established six panels to oversee the conduct of the QDR,¹¹ and the Joint Staff was brought back more substantially into the process, organizing its work around eight panels that were to support the OSD panels:

While OSD is responsible for the integration of the QDR effort, it is the Joint Staff that will gather the data and formulate the inputs from the individual Services, the combatant commands, and Defense Agencies into the end result. The Joint Staff QDR organization is led by a general officer steering committee that will receive input from eight different panels. Those panels are Strategy and Risk Assessment; Force Generation, Capability and Structure; Modernization; Sustainment, Strategic Mobility and Infrastructure; Readiness; Transformation, Innovation and Joint Experimentation; Information Superiority; and Human Resources. Each panel's input will go to a Preparation Group which is assisted by an Integration Group providing budget, analysis, and administrative support. The Joint Requirements Oversight Council, the Service Operational Deputies, and the Joint Chiefs of Staff will provide guidance and help resolve panel issues as needed. Recent information suggests that OSD will form six major issue panels to develop options and make recommendations for the QDR report. Those panels are tentatively: strategy; force structure; capabilities and investment; information warfare, intelligence, and space; personnel and readiness support infrastructure; and joint organizations.¹²

On the civilian side, a Senior-Level Review Group chaired by the Secretary and Deputy Secretary provided oversight of the QDR,¹³ and it was supported by an Execu-

⁹ See Erin Q. Winograd, "Army to Postpone Discussion on Force Structure Changes," *Inside Defense*, January 22, 2001a.

¹⁰ Center for Military History, 2002, p. 10; and Schraeder, Lewis, and Brown, 2003, p. 18.

¹¹ Elaine M. Grossman, "Pentagon to Perform Quadrennial Defense Review at Lightning Pace," *Inside Defense*, May 31, 2001b. The six panels were identified as strategy; force structure; capabilities and investment; information warfare, intelligence, and space; personnel and readiness support infrastructure; and joint organizations.

¹² Grossman, 2001b, p. 1.

¹³ According to one of our interlocutors, Secretary Rumsfeld met up to four times a week with the CJCS and the service Chiefs.

tive Working Group chaired by the Deputy Secretary.¹⁴ Integrated product teams also were formed to provide more-detailed analyses of strategy and force planning; military organizations and arrangements; capabilities and systems; space, information, and intelligence; forces; personnel and readiness; infrastructure; and integration; and the Executive Working Group was charged with overall consolidation of the integrated product team analyses.¹⁵ There is some evidence of a reorganization of the Joint Staff QDR panels by July 2001, after the release of the Terms of Reference.¹⁶

Process

In the spring of 2001, prior to the official kickoff of the QDR in June, Secretary Rumsfeld commissioned a review of defense strategy and a large number of review panels to examine and inform his thinking on various issues:¹⁷

The strategic reviews covered a wide spectrum of subjects, including missile defense, conventional forces, and transformation, and, according to DoD officials, were designed to stimulate the Secretary's thinking about the critical issues that faced the department. However, these reviews were not completed as part of the QDR, according to OSD officials. The strategic reviews culminated in a series of briefings to the Secretary of Defense in the spring of 2001.¹⁸

A range of defense studies were completed or under way by mid-May 2001, and a number of others were under consideration but were deferred pending the confirmation of nominees to senior positions in the department.¹⁹ A draft of the Terms of

¹⁴ According to professionals who participated in our structured conversations, there was an additional three-star mechanism that reported to Deputy Assistant Secretary of Defense for Strategy Andrew Hoehn and director of Program Analysis and Evaluation Stephen Cambone, who supported deliberations between Secretary Rumsfeld, the service Chiefs, the CJCS, and the Vice CJCS.

¹⁵ See DoD, *Guidance and Terms of Reference for the 2001 Quadrennial Defense Review*, Washington, D.C., June 22, 2001e; and DoD, *Executive Summary of the QDR Terms of Reference*, Washington, D.C., August 8, 2001h.

¹⁶ The Joint Staff QDR panels at this time included strategy and risk assessment; force generation, capability, and structure; modernization; sustainment, strategic mobility, and infrastructure; transformation and joint experimentation; human resources; and homeland defense. In addition, readiness and information superiority were considered to be issues embedded in other panels or integrated product teams. See "Joint Staff/OSD Panel Crosswalk," in Schrader, Lewis, and Brown, 2003, pp. 23–24.

¹⁷ As Secretary Rumsfeld noted in late April 2001, "Various preliminary studies, or quick reviews, are in process. They are not, repeat not, comprehensive. They are not top to bottom or bottom up. They are quick reviews, with both DoD civilian and military involved in the studies. The assistance of several FFRDCs is being utilized" (Donald Rumsfeld, "The DoD Study Process," Rumsfeld Papers, April 28, 2001f).

¹⁸ U.S. General Accounting Office, 2002b, pp. 6–7.

¹⁹ Among the completed defense studies reported at the time were those on acquisition reform, financial management, missile defense, morale and quality of life, space, transformation, and conventional force structure. Studies under way at the time included a strategy review by director of the Office of Net Assessment Andrew Marshall, as well as studies of crisis management and nuclear forces. See Donald Rumsfeld, "Thoughts About

Reference for the QDR was circulating at about the same time, and the Joint Staff was making preparations to revive the issue panels that had earlier been stood up for the QDR.²⁰

By mid-May 2001, the efforts of the review panels had advanced sufficiently that Rumsfeld was able to identify a set of topics that might inform the QDR, the Defense Planning Guidance, and the FY02 and FY03 budgets.²¹ By mid-June, Secretary Rumsfeld would report to the President:

The strategy review has been intense in recent weeks. Our earlier, informal advisory studies have been folded into a more formal effort as your senior political appointees have begun to arrive. Over the past three weeks, I have met with the Service Secretaries, our senior appointees, the Joint Chiefs, and the [regional combatant commanders] a dozen or more times, two or three hours at a time, without staff, raising a great many issues, and hammering out the questions we must answer to establish the U.S. defense strategy and the forces we will need to execute it.

Strategic Elements of Fiscal 2002 Proposal. Much of our proposal is a result of the studies we have undertaken on strategy and transformation. We know the kinds of capabilities we will need to emphasize. We need to put some money up to research, test, and develop them.²²

Following the briefings on the results of the various strategic review panels,²³ on June 21, 2001, Secretary Rumsfeld testified before a hearing of the Senate Armed Ser-

Planning for the Future (Threats, Strategy, Policy, Force Sizing and Organization)," in "Rumsfeld Point Paper to Congress on the Quadrennial Defense Review," *Inside Defense*, May 25, 2001h.

²⁰ Elaine M. Grossman, "Joint Staff Revives Issue Panels in Bid for Key Quadrennial Review Role," *Inside Defense*, May 25, 2001a. The Joint Staff review panels included strategy and risk assessment; force generation, capability, and structure; modernization; sustainment; strategic mobility and infrastructure; readiness; transformation, innovation, and joint experimentation; information superiority; and human resources. The services were said to be represented by one- and two-star general officers, and the General Officer Steering Committee that was to oversee the study panels reported to CJCS Hugh Shelton.

²¹ These topics included morale and quality of life; organization, management, and reform; infrastructure and weapon systems; finance; and transformation. On transformation, Rumsfeld documented his desire to "commit to invest 15% of the DoD budget per year for research, development, test and evaluation (RDT&E), of which 3% is for science and technology (S&T) – (Presidential initiative)" (Donald Rumsfeld, "Possible Directions from the DoD Strategy Review and Studies – Standards to Be Planted Down the Road for Defense Guidance, the QDR, and Building the DoD Budgets for 2002 and 2003," Rumsfeld Papers, May 10, 2001g).

²² Donald Rumsfeld, "2002 Budget Amendment," memorandum for the president, Rumsfeld Papers, June 16, 2001m.

²³ Briefings on the strategic reviews included DoD, "Special DoD News Briefing on Defense Transformation," Washington, D.C., June 12, 2001b; DoD, "Special DoD News Briefing on Morale and Quality of Life," Washington, D.C., June 13, 2001c; and DoD, "Special DoD News Briefing – Conventional Forces Study," Washington, D.C., June 23, 2001f. According to our structured conversations with defense professionals involved in the

vices Committee on the defense review to date.²⁴ And on June 22, 2001, DoD issued guidance and terms of reference for the conduct of the 2001 QDR, which documented the assumptions, organization, and analysis plan for the QDR.²⁵ As described by Secretary Rumsfeld in his testimony, the assumptions and preliminary thinking about strategy would be tested more systematically during the QDR process. Even so, as described in the Terms of Reference, some elements of the QDR—including the risk assessment framework—were reasonably well crystallized at this time. As stated in the Terms of Reference, “The QDR will focus on mitigating risks in the near-, mid-, and long-term,” with analyses providing options for managing risks associated with “force management,” “operational,” “future challenges,” and “inefficiencies.” This construct was almost identical to the risk assessment framework presented in the final version of the QDR. In addition, Rumsfeld was sharing ideas on organizing for DoD transformation with other DoD senior leaders.²⁶

Press reports and our structured conversations suggest that in the summer of 2001, there was some consideration of cuts to end strength and force structure to pay for transformation. Most famously, perhaps, according to press and our structured conversations, OSD aides were reported to have been exploring the idea of cutting the Army.²⁷ But the Army reportedly pushed back, and in early August 2001, 82 members of Congress sent Secretary Rumsfeld a letter warning him not to cut the size of the Army, so the idea evidently never gained traction at the senior level.²⁸ According to one report at the time, the end-strength cuts under consideration were significant and not restricted to the Army:

The proposal to reduce manpower—part of a congressionally mandated defense review due next month—calls for the Army to trim as many as 2.8 of its 10 divisions, or about 56,000 troops. The Air Force would lose as many as 16 of its

2001 QDR, the QDR was fraught with tension within the military, in part because of outsiders in the review panel study groups and uncertainty about the relationship between their efforts and the QDR.

²⁴ U.S. Senate, *Defense Strategy Review: Hearing Before the Committee on Armed Services*, Washington, D.C., June 21, 2001b.

²⁵ See DoD, 2001e, 2001h.

²⁶ See Donald Rumsfeld, “Force Transformation,” memo to DepSecDef, Service Secretaries, USD(AT&L), USD(C), and USD(P&R), Rumsfeld Papers, July 23, 2001p.

²⁷ Army sources indicated that the prevailing belief at the time was that the Army was on a path to lose six divisions, including two active component and four National Guard divisions.

²⁸ It was reported in mid-July 2001 that the integrated product team on forces had recommended 34 aircraft carriers and anywhere from two to 11 Army divisions. Secretary Rumsfeld reportedly called the recommendation “a joke”; he also reportedly relaxed assumptions about concurrency in missions that the force would need to support and in the extent of reinforcement for forward-deployed forces, acknowledging “some ambiguities in the terms of reference” for the QDR. See Elaine M. Grossman, “Rumsfeld Rejects Linchpin Force Structure Findings in Major Review,” *Inside Defense*, July 19, 2001c; and Elaine M. Grossman, “Rumsfeld Changes Yardstick for Measuring and Shaping U.S. Forces,” *Inside Defense*, July 27, 2001d.

61 fighter squadrons, according to the plan, and the Navy would drop one or two of its 12 carrier battle groups, defense officials said. Mr. Rumsfeld and top generals of each military service were briefed on the recommendations for the first time yesterday.

Any cuts are sure to provoke strong protests from both the military brass and Congress, which in recent weeks has insisted it won't allow reductions in force structure or weapons programs. Earlier this week 80 lawmakers sent a letter to Mr. Rumsfeld expressing "strong opposition" to possible cuts in the size of the Army.

... Senior defense officials caution that the initial assessment, part of the defense secretary's congressionally mandated Quadrennial Defense Review, could change significantly before the report is submitted Sept. 30. "This is still a fluid situation," one defense official said.²⁹

Opposition to force-structure cuts also was reported among senior military leaders:

A separate review, conducted by Lt. Gen. Bruce Carlson and the staff of Gen. Hugh Shelton, chairman of the Joint Chiefs of Staff, recently reached a very different conclusion about the force structure needed to meet new strategic guidelines that Mr. Rumsfeld recently negotiated with senior military brass: It projected the services would need to stay the same size or even grow. Gen. Carlson's review also was presented to Mr. Rumsfeld yesterday.³⁰

An apparent impetus for these cuts was a reduction of available resources for defense arising from deep tax cuts and a downturn in the fiscal and economic outlook for the nation:

Few expected the Bush administration would consider such deep force cuts six months ago. But defense officials say the president's \$1.35 trillion tax cut, combined with a slowing economy, have left little money for the kind of military transformation the administration hoped for. Senior defense officials also say they were surprised by the state of crumbling military infrastructure, which required far greater infusions of cash than was initially expected. With money tight, force cuts and infrastructure reductions through base closings have become critical elements of the administration's broader strategy to transform the mili-

²⁹ Greg Jaffe, "Rumsfeld Aides Seek Deep Personnel Cuts In Armed Forces to Pay For New Weaponry," *Wall Street Journal*, August 8, 2001.

³⁰ Jaffe, 2001.

tary. The goal is to create a stealthier, more rapidly deployable force better suited to fight future battles.³¹

Accordingly, the military services were asked to develop two Program Objective Memoranda (POMs), pegged at different budget levels:

The Director, OSD Program Analysis and Evaluation (PA&E), oversaw the review and directed the services to develop two [POMs] for fiscal years 2003–2007. The services were to submit both documents and PA&E would use them during program review. The Army Staff briefed both POMs to the secretary of the Army on 10 September 2001. After the attacks of 11 September, the secretary of defense directed the services to use the higher POM as their total obligation authority, leading the Army Staff to rebuild the fiscal years 2003–2007 POM in six weeks.³²

In any event, our structured conversations also suggested that, given the new operational requirements after 9/11, force-structure cuts were no longer under consideration.³³

In the end, despite strained relations between the Army and Secretary Rumsfeld during the period, the Army judged the result of the QDR a “qualified success”:

Although contentiousness had marked the process, by the end of the fiscal year the Army considered its effort in the QDR a qualified success. It had preserved its force structure and budget from suggested reductions, and the Office of the Secretary of Defense accepted approximately two-thirds of the Army’s recommendations when it prepared the initial draft of the final report.³⁴

Risk Assessment Framework

The core of the analytic process for any QDR is the overall assessment of risk in executing the strategy, forces, and resources proposed in the review. The statutory language calling for a risk assessment in the 2001 QDR read as follows:

³¹ Jaffe, 2001.

³² Center for Military History, 2002, p. 10.

³³ For more on this contretemps, see Thomas E. Ricks, “Rumsfeld Warned Not to Cut Size of Army; 82 Lawmakers Sign Letter to Pentagon,” *Washington Post*, August 3, 2001; and Pat Towell, “Specter of Force Reductions Roils Defense Bill Debate,” *CQ Weekly*, August 11, 2001. More recently, Secretary Rumsfeld denied the existence of any plan to cut the Army at that time. For the renewed debate, see Max Boot, “Technology No Substitute for Troops,” *Commentary*, online edition, November 19, 2012a; Donald Rumsfeld, “Technology Is No Substitute for Troops: Donald Rumsfeld Replies,” *Commentary*, online edition, November 27, 2012; and Max Boot, “Rumsfeld and Ground Force Cuts,” *Commentary*, online edition, November 28, 2012b.

³⁴ Center for Military History, 2002, p. 11.

(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.

(e) CJCS Review. — 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. 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.³⁵

The 2001 QDR report introduced a sophisticated risk framework that aimed to more fully capture the dimensions of risk faced by the department and, in particular, provide a better balance between near- and long-term risks.³⁶ As stated in the 2001 QDR report:

DoD has developed a new, broad approach to risk management. The new risk framework ensures that the Defense establishment is sized, shaped, postured, committed, and managed with a view toward accomplishing the defense policy goals outlined in this report.

This risk framework is made up of four related dimensions:

- Force management — the ability to recruit, retain, train, and equip sufficient numbers of quality personnel and sustain the readiness of the force while accomplishing its many operational tasks;
- Operational — the ability to achieve military objectives in a near-term conflict or other contingency;
- Future challenges — the ability to invest in new capabilities and develop new operational concepts needed to dissuade or defeat mid- to long-term military challenges; and

³⁵ 10 U.S.C. 118, as quoted in U.S. General Accounting Office, 2002b, pp. 35, 37. The statutory language for the QDR has changed over time. For the current language, see Appendix B.

³⁶ Our structured conversations revealed that the annual Chairman's risk assessment conducted in the spring of 2001, before the kickoff of the QDR, assessed that risk was "high." Secretary Rumsfeld reportedly asked whether that meant that the U.S. forces would lose under some circumstances, and he was told that that was not the case; rather, it meant that forces would be unable to meet the required deployment timelines associated with scenarios, for example. This lack of clarity on risk reportedly was both a source of frustration and a motivation to develop a risk framework with more clarity.

- Institutional — the ability to develop management practices and controls that use resources efficiently and promote the effective operation of the Defense establishment.³⁷

According to our structured conversations, efforts were made to identify the resources needed to mitigate risk in each of the four parts of the framework.

Nonetheless, time constraints in the 2001 QDR process meant that the Joint Chiefs of Staff were unable to conduct a substantial and detailed independent assessment of the 2001 QDR strategy.³⁸ Because it lacked the analytic capability and resources to conduct an entirely independent assessment of the 2001 QDR, the Joint Staff relied heavily upon service-provided analysis. As a result, the Joint Staff was unable to address cross-cutting issues that might have major implications for the individual services, and, according to our structured conversations, “little or no analysis for the most difficult of the issues took place.”

In any event, in late May 2001, CJCS Shelton described his proposed assessment methodology “for strategic prioritization of peacetime military activities worldwide, based on a criteria of military value.” The proposed methodology revolved around regional combatant commanders’ assessments of their areas of responsibility to identify priority countries in each region and to assess the military value of each country based on three criteria: warfighting effectiveness, operational access, and coalition capability.³⁹

According to our structured conversations, there was a common perception among senior OSD participants that DoD had not been considering a wide enough range of scenarios, and was therefore not creating needed flexibility. Secretary Rumsfeld was said to have a strong belief in the view that the role of planning was to expand, not narrow, the options for the President.

In any event, the 2001 QDR report would be praised for taking a more comprehensive view of risk that more explicitly considered future risks and challenges to help identify and guide transformation requirements, and the risk framework developed in the QDR would continue to influence subsequent QDRs through at least 2010.⁴⁰

³⁷ DoD, 2001i, pp. 57–58.

³⁸ According to our structured conversations, the risk assessment framework was never actually fleshed out, and the result of the assessment ultimately was unsatisfactory, because there was no clear indication of how to plan against different kinds of risks that interacted with one another.

³⁹ Donald Rumsfeld, “Prioritization,” memorandum to Cambone, Rumsfeld Papers, May 29, 2001j. In the memorandum, Secretary Rumsfeld stated, “It certainly is going to end up being part of the QDR, and we are going to have to know what guidance we want to give it — for example, reducing counter drug activities by X percent.”

⁴⁰ See, for example, comments made by members of the Senate Armed Services Committee in U.S. Senate, *Department of Defense’s Quadrennial Defense Review (QDR): Hearing Before the Committee on Armed Services*, Washington, D.C., October 4, 2001c. In addition, Schrader, Lewis, and Brown (2003) wrote: “This QDR made a noteworthy step in responding to the congressional questions related to risk by expanding the definition. Prior

Strategy Development

Importantly, the Bush administration appears to have largely ignored the outgoing Clinton administration's December 2000 National Security Strategy report,⁴¹ as well as the statutory requirement for producing a new such report within 150 days of taking office.⁴² In fact, it would not be until September 2002 that the administration would publish its first National Security Strategy.⁴³

Thus, the 2001 QDR report was the first strategy document published by the new Bush administration and was presented as being a significant break from the strategy pursued by the previous Clinton administration.⁴⁴ As described in a June 19, 2001,

to this, QDR risk was primarily associated with the possibility of failure during military operations. However, many more risks need to be considered in defense planning. The National Defense Panel in QDR 1997 addressed one of these in its criticism of the failure to adequately address future requirements.”

⁴¹ White House, *A National Security Strategy for a Global Age*, Washington, D.C., December 2000.

⁴² See Schraeder, Lewis, and Brown, 2003. 50 U.S.C. 3043, Annual National Security Strategy Report, requires that an incoming administration produce its first National Security Strategy report within 150 days of taking office, with subsequent annual reports submitted simultaneously with each new President's budget. The Bush administration produced National Security Strategy reports in two out of seven years, and the Obama administration had an identical record. By comparison, the Ronald Reagan administration produced two reports in two years, the George H. W. Bush administration produced two reports in four years, and the Clinton administration produced seven reports in eight years. See National Security Strategy Archive, “The National Security Strategy Report,” website, undated; and Catherine Dale, *National Security Strategy: Mandates, Execution to Date, and Issues for Congress*, Washington, D.C.: Congressional Research Service, R43174, August 6, 2013.

⁴³ White House, *The National Security Strategy of the United States of America*, Washington, D.C., September 2002.

⁴⁴ While the 2001 QDR addressed many of the same threats and touched on many of the same themes, most of the evidence suggests that the December 2000 National Security Strategy published by the outgoing Clinton administration did not directly influence the new Bush team's strategic thinking in the 2001 QDR.

In an early September 2001 memorandum, Secretary Rumsfeld reports his expectation that the administration's National Security Strategy would be released later that fall, along with the Defense Planning Guidance. However, the administration's National Security Strategy would not be released for a full year after the release of the QDR, which constituted the first major statement on the administration's defense strategy. Our structured conversations revealed that the fact that the defense strategy was being developed without the benefit of a National Security Strategy from the administration caused some concern among three-star officers, because the hierarchy and preferred sequencing of strategy documents is (1) National Security Strategy, (2) National Defense Strategy, and (3) National Military Strategy. See “Executive Summary: Defense Planning Guidance,” attachment to Donald Rumsfeld, “Defense Planning Guidance,” memorandum to President George W. Bush, Rumsfeld Papers, September 7, 2001r.

According to one of our structured conversations, the National Defense University Quadrennial Defense Review 2001 Working Group that was commissioned by the Joint Staff also had little influence on the direction of the 2001 QDR. See Michele A. Flournoy, ed., *QDR 2001: Strategy-Driven Choices for America's Security*, Washington, D.C.: National Defense University, April 2001. For its part, the U.S. General Accounting Office recommended “(1) using realistic assumptions and integrated analyses to reach force structure and modernization decisions, (2) preparing [Future Years Defense Programs (FYDPs)] that clearly link strategy and resources, and (3) ensuring the Department's review efforts carefully scrutinize opportunities to reduce support infrastructure and improve business practices.” See U.S. General Accounting Office, *Defense Planning: Opportunities to*

strategy memorandum authored by Secretary Rumsfeld, the priorities at the time were as follows:

The U.S. will balance the serious current risks to the men and women in the Armed Forces, the risks to meeting current operational requirements, and the risks of failing to invest for the future by using this period of distinct U.S. advantage to:

- Get well from the investment shortfalls in people, morale, infrastructure, equipment, [operating tempo], etc., so we are able to attract and retain the talents needed for a modern force;
- Invest in the future capabilities that will be critical if the U.S. is to be able to reassure allies and friends, and to deter and defeat potential adversaries armed with advanced technologies, vastly more lethal weapons, and a range of methods of threatening their use.⁴⁵

Judged by Secretary Rumsfeld's papers, it appears that as early as April 2001, significant progress had been made on DoD's defense strategy review that would be presented in its final form in the QDR.⁴⁶ Key themes – the United States' status as sole military and economic superpower, its continued global responsibilities in the 21st century, the need to preserve U.S. advantages and reduce uncertainty, and criteria for identifying needed military capabilities, among others – appear well developed at this point. To meet future threats and challenges, and to better deal with

Improve Strategic Reviews, letter to Secretary of Defense Donald H. Rumsfeld, Washington, D.C., GAO-01-514R, March 20, 2001b.

That said, Secretary Rumsfeld apparently found the draft Phase III conclusions of the Commission on U.S. National Security in the 21st Century (also known as the Hart-Rudman Commission) to be potentially useful for development of the new defense strategy. See Donald Rumsfeld, memorandum to Andrew Marshall, Director of the Office of Net Assessment, Rumsfeld Papers, May 29, 2001i; and U.S. Commission on National Security/21st Century, *Road Map for National Security: Imperative for Change*, Washington, D.C., February 15, 2001.

⁴⁵ Donald Rumsfeld, "A Strategy (and/or a Force Sizing Construct?) – for Consideration," memorandum, Rumsfeld Papers, June 19, 2001o. In a version of the memorandum dated June 18, Rumsfeld commented that "[t]he strategy reduces flexibility in the near term, in favor of providing the necessary margin of safety for the future" (Donald Rumsfeld, "A Strategy – for Consideration," memorandum, Rumsfeld Papers, June 18, 2001n).

According to our structured conversations, Secretary Rumsfeld was very concerned about the decay of defense infrastructure, and, as part of the assessment of institutional risk, refocused attention on the whole defense institution and the infrastructure required to support it.

In an earlier memorandum to Director of Net Assessment Andrew W. Marshall on his draft Defense Strategy Review, Secretary Rumsfeld refers to an "advantage strategy" and the desirability of describing this in a way that would make the idea less subject to criticism. See Donald Rumsfeld, "To Andy Marshall re Some Thoughts on the -03-08-01 Draft," memorandum, Rumsfeld Papers, March 12, 2001b.

⁴⁶ See Donald Rumsfeld, "Comments on the Draft Defense Strategy Review," memorandum to de Leon, Rumsfeld Papers, April 2, 2001c.

uncertainty, it would be necessary to transform the force from a garrison force to an expeditionary force.⁴⁷

The QDR report was released within weeks of the 9/11 attacks on the United States, which appear to have only modestly influenced the analysis and conclusions presented in the document.⁴⁸ While terrorism was not a dominant theme of the QDR report, the 9/11 attacks were used to validate the QDR's focus on homeland defense and to confirm the 2001 QDR's strategic direction and planning principles, especially the need to prepare for surprise and to transform the force.⁴⁹ The attacks also were said to "markedly" increase security requirements and thus justified an increase in defense spending over what had been previously envisioned.⁵⁰

Another guiding principle behind the 2001 QDR was the idea that while the United States could not confidently predict which adversaries would threaten it,⁵¹ the types of future military capabilities that could be used to challenge U.S. interests and U.S. forces could be identified and understood. As a result, the QDR advocated that "capabilities-based," rather than "threat-based," planning be used to address potential future threats and guide transformation, strong support for which remained even after the 9/11 attacks.⁵²

⁴⁷ Structured conversations with defense professionals involved in the QDR.

⁴⁸ The principal effect of the 9/11 attacks appears to have been the addition of references to the attack and the need for more study on their implications. U.S. General Accounting Office, 2002b, p. 8. One of the interlocutors in our structured conversations observed that one could actually see where new sentences were tacked on to the existing draft of the QDR as it stood on September 11, 2001. Indeed, a summary of the Defense Planning Guidance that Secretary Rumsfeld sent to President Bush on September 7, 2001, essentially described the defense strategy, force-planning construct, and concept for transformation that the QDR would report. See Rumsfeld, 2001r.

⁴⁹ DoD, 2001i, p. v.

⁵⁰ DoD, 2001i, p. 48. DoD had initially requested a 6.4-percent increase in the FY02 defense budget; it received a 9.1-percent increase to its base budget.

⁵¹ Our structured conversations revealed that among the most prominent threats considered during the QDR were North Korea, Iraq, the rise of China, terrorism, and the challenges of failing states and poor governance. There was a large debate about uncertainty and the role that it played in planning, but there was some agreement on the need to be prepared for a wide range of circumstances; given the deep uncertainty about future threats, the aim would be to build an array of capabilities that could deal with an array of challenges.

⁵² DoD, 2001i, p. 61. A September 29, 2001, memorandum from Secretary Rumsfeld to Pete Aldridge, and an October 10, 2001, memorandum from Secretary Rumsfeld to Stephen Cambone recorded both Rumsfeld's and President Bush's continued belief in the need to use the current period to pursue DoD's transformation efforts even as the nation moved to war. See Donald Rumsfeld, "To Pete Aldridge et al re Transformation," memorandum from Secretary Rumsfeld to Pete Aldridge, Rumsfeld Papers, September 29, 2001t; and Donald Rumsfeld, "Transformation," memorandum to Stephen Cambone, Rumsfeld Papers, October 10, 2001u.

National Interests and Primary QDR Objectives

The 2001 QDR report posited that U.S. power was the critical linchpin for assuring continued global security and economic prosperity, and that U.S. security and wealth depended on the security and wealth of others. The 2001 QDR report thus identified the following U.S. enduring national interests:

- Ensuring U.S. security and freedom of action, which included U.S. sovereignty, territorial integrity, and freedom; the safety of U.S. citizens at home and abroad; and the protection of critical U.S. infrastructure
- Honoring U.S. international commitments to friends and allies to preclude the hostile domination of critical areas (Europe, Northeast Asia, the East Asian littoral, and the Middle East and Southwest Asia) and promoting peace and stability in the Western Hemisphere
- Ensuring the continuing economic well-being of the United States, derived from a productive global economy, secure global lines of communication, and continued access to key markets and strategic resources.⁵³

In order to secure these interests, the 2001 QDR report was organized around the following four defense policy goals intended to protect the United States and preserve a global order beneficial to the United States:

1. The United States needed to have a military capable of assuring allies and friends by demonstrating its resolve and capability to be a reliable partner and of using force both in its own interests and to advance common goals.
2. The United States required a military that could dissuade future military competition by demonstrating the futility of attempting to challenge it in key areas of military capability.
3. The U.S. military needed to be capable of deterring threats and coercion against U.S. interests through forces and capabilities that discourage all forms of aggression and coercion, that are forward-deployed to critical global areas, and that could defeat aggression with only minimal modest reinforcements.
4. Should deterrence fail, the U.S. military needed to be capable of imposing its will on any adversary through regime change or military occupation until U.S. strategic objectives were met.⁵⁴

⁵³ DoD, 2001i, p. 2.

⁵⁴ DoD, 2001i, pp. 11–13. These four goals are consistent with those stated in a memorandum from Secretary Rumsfeld to the President four days before the 9/11 attacks. See Rumsfeld, 2001r.

Strategic Environment

The 2001 QDR report recognized that the U.S. military was the strongest in the world and that it had important asymmetric military advantages over its potential adversaries.⁵⁵ The United States' traditional rival, Russia, was no longer seen as a military threat. Rather, even though some of its policy objectives were contrary to U.S. interests, Russia was viewed as a potential partner in addressing important shared security concerns, such as defending against missiles from regional powers, preventing accidental nuclear launches, and combating global terrorism.⁵⁶ However, while China was not considered a current threat, it was seen as a potential future regional military competitor that could eventually develop sufficient capabilities to threaten critical U.S. interests in Asia.⁵⁷ Given the perceived current superiority of the U.S. military, the 2001 QDR report was concerned with extending "America's asymmetric advantages well into the future."⁵⁸

The authors of the 2001 QDR report were concerned about uncertainty in "potential sources of military threat, the conduct of wars in the future, and the form that threats and attacks against the nation will take."⁵⁹ In particular, they were worried that history had shown that unexpected developments could rapidly render the "military forces and doctrines" of a dominant power obsolete.⁶⁰

Six Key Geopolitical Trends

The 2001 QDR report identified six emerging geopolitical trends that would shape the future strategic environment, would have particularly important effects on America's ability to maintain its preponderant military position into the future, and would be accounted for by U.S. strategy. Those six trends were described as follows:

1. The geographic isolation of the United States would be increasingly less likely to protect its population, territory, and infrastructure from direct attack. This vulnerability was the result of the increasing proliferation of long-range ballistic missiles and the increasingly global cross-border movement of people and goods, which created new vulnerabilities that could be exploited by hostile actors.

⁵⁵ In a March 2001 memorandum, Secretary Rumsfeld described the United States at the time as "without peer" (Donald Rumsfeld, "Some Thoughts on the 03/08/01 Draft," memorandum to Andy Marshall, Director of the Office of Net Assessment, Rumsfeld Papers, March 12, 2001a).

⁵⁶ DoD, 2001i, pp. 4–5.

⁵⁷ The QDR does not mention China anywhere by name. However, it does speak of the possibility of the emergence of a "military competitor with a formidable resource base" (DoD, 2001i, p. 4). China was the only country for which this description fit.

⁵⁸ DoD, 2001i, p. iv.

⁵⁹ DoD, 2001i, p. 3.

⁶⁰ DoD, 2001i, p. 3.

- 2 Regional security dynamics could lead regional actors to develop military capabilities that threaten regional stability in areas of critical interest to the United States. The rise of China was regarded with particular concern in this respect, as were hostile states in the Middle East with potential weapons of mass destruction (WMD) and ballistic missile programs, especially those that supported international terrorism or sought to deny the United States access to the region. Also worrisome was the existence of weak states with large militaries and existing or developing chemical, biological, radiological, nuclear, and enhanced high-explosive (CBRNE) weapon programs with governments vulnerable to being overthrown by extremist groups.
- 3 The territories of states with weak or failing governments were viewed as potential safe havens for terrorists and as threats to stability that could place demands on U.S. forces.
- 4 Nonstate actors would have increasing access to power and military capabilities that could threaten the United States. In particular, the rapid diffusion of CBRNE technology would increase the possibility of such weapons being used in future terrorist attacks.
- 5 Regional security arrangements were critical to U.S. security and needed to be developed and sustained, because they were a key capability that allowed the United States to shape the international environment in ways beneficial to its security interests.
- 6 The previous five trends resulted in an international environment that would be increasingly complex and unpredictable. As a result, the United States would be unable to develop its military forces and plans to counter specific adversaries. Rather, it required the capability to intervene globally against opponents with a wide range of capabilities and in complex terrains that presented significant operational challenges.⁶¹

Key Military-Technical Trends

The QDR also identified the following four key rapidly developing “military-technical” trends that could significantly affect U.S. defense strategy:

- 1 The rapid advancement in military technologies had the potential to change the conduct of military operations. On the one hand, the “revolution in military affairs” had the potential to allow opponents to use readily available technologies to significantly enhance the capabilities of their militaries. On the other hand, that revolution also held out the possibility of conferring “enormous

⁶¹ DoD, 2001i, pp. 4–6.

advantages” on the United States and of “extend[ing] the current period of U.S. military superiority.”⁶²

2. Globalization would result in the rapid and pervasive proliferation of CBRNE weapons, ballistic missiles, and conventional weapons.
3. Technical advances would lead to military competition in the increasingly important domains of space and cyberspace, the control of which was critical to ensure the continued flow of the information required to conduct civilian and military activities.
4. In combination, the above three technical-military trends would increase the possibility that the United States could be surprised by the speed at which opponents exploited the revolution in military affairs, acquired CBRNE weapons and ballistic missiles, and challenged the United States in space and cyberspace.⁶³

Key Global Regions

The 2001 QDR report identified much of the globe as being critical for U.S. security interests. In particular, it focused on an “arc of instability” that stretched from Northeast Asia to the Middle East, because this was a region of weak states and rising and declining powers with large armies and an interest in acquiring WMD.⁶⁴ The authors of the 2001 QDR report apparently believed that the previous focus on potential conflict in Northeast and Southwest Asia and the concentration of U.S. overseas force posture in Europe and Northeast Asia were inadequate to the emerging strategic environment. They argued instead that planning should focus on the capabilities of potential adversaries, rather than the potential adversaries themselves, and that U.S. posture should be expanded globally – in particular, to the Asian littoral from Northeast Asia to the Indian Ocean.

Key Post-QDR Documents

A number of key documents followed the release of the 2001 QDR report (see Figure 2.1). These included the February 2002 FY03 President’s budget, which was the first budget implementing the decisions made in, and immediately after, the QDR, as well as the March 2002 Nuclear Posture Review, the September 2002 National Security Strategy, the May 2004 National Military Strategy, the March 2005 National Defense Strategy, and the Secretary of Defense Annual Reports to the President and Congress for 2002 through 2005.⁶⁵

Each of these documents helped to elaborate or refine the directions set in the 2001 QDR report and contributed to the foundation of strategic, policy, programmatic,

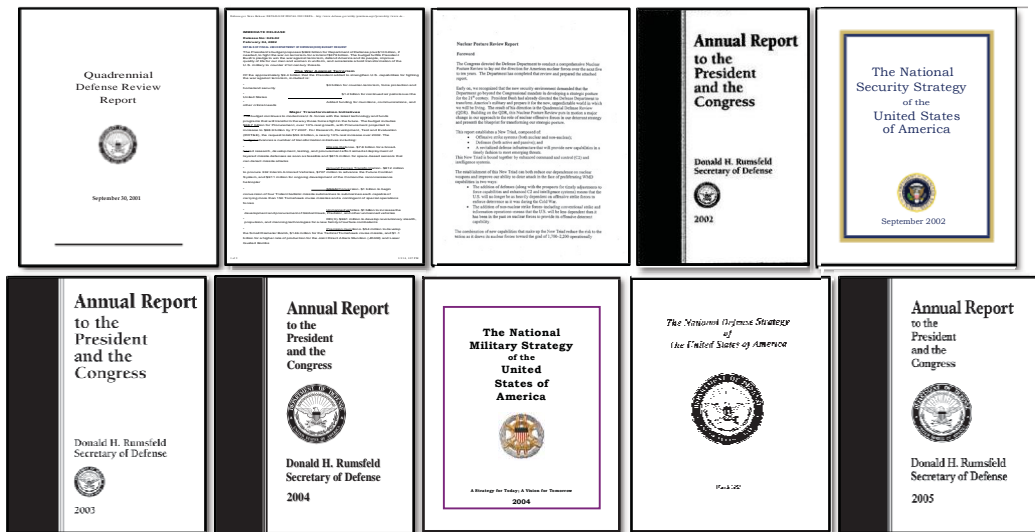
⁶² DoD, 2001i, p. 6.

⁶³ DoD, 2001i, pp. 6–7.

⁶⁴ DoD, 2001i, p. 4.

⁶⁵ There was no legislative requirement for Secretary of Defense Annual Reports after 2005.

Figure 2.1
Key Documents Following the 2001 QDR Report



RAND RR1309-2.1

and budgetary assumptions and decisions that would set the stage for the 2006 QDR. Nonetheless, as noted earlier, the fact that the administration's first National Security Strategy was not available until a full year after the release of the 2001 QDR report presented some difficulties for those working on the QDR.

Force Planning

The QDR reported that the Bush administration was generally satisfied with the U.S. military force structure of 2001. And in his risk assessment, published as part of the QDR, CJCSShelton said, "An initial look at the force structure indicated the current force was capable of executing the new defense strategy with moderate risk."⁶⁶

The reason seems largely to have been that the nation was enjoying a period of strategic advantage: The force-structure drivers of the recent past were largely absent, and new ones were not yet fully in view. The Soviet Union was gone, and the Russian Federation was tentatively exploring areas of cooperation with the United States and the West more generally, although that process was not always smooth. China's military modernization had not yet borne major fruit, and it was not yet a major concern for the administration. The President was personally skeptical of arms control, so that

⁶⁶ DoD, 2001i, pp. 67–68. The Chairman's risk assessment of the QDR's defense strategy will be discussed later in this section.

potential influence on force structure was also absent. The conventional thinking in some defense circles still considered counterterrorism and irregular warfare as relatively small-scale contingencies that could be treated as “lesser-included cases” — that is, cases that could be managed with a force structure designed largely to conduct major combat operations — and well within the scope of capabilities of current U.S. forces. Moreover, DoD envisioned the transformation of the force to require small but strategic investments in selective force elements and capability areas for the foreseeable future.

Required Military Capabilities

The 2001 QDR report argued that securing U.S. interests and responding to a profoundly different security environment required transforming the U.S. military to address emerging operational challenges. Guiding this transformation effort were the following seven interlinked strategic tenets that were the “essence” of U.S. defense strategy and critical to the achievement of overall U.S. defense policy goals:⁶⁷

- 1 The United States needed to manage the risks associated with preparing for future threats while addressing current ones. In addition, because defense resources were finite and the array of potential risks was greater than in the past, policymakers would need to make hard choices about where to expend resources.
- 2 The U.S. military needed to adopt a capabilities-based approach to defense planning rather than use the more traditional threat-based approach. This shift was necessitated by the belief that while the United States could not know with confidence who would threaten its interest in the future, it was possible to understand what sorts of capabilities an adversary might employ, and how they might employ them.
- 3 The U.S. military needed to re-emphasize homeland defense, while ensuring that it had the capability to project decisive military power throughout the globe to deter threats to the United States, as well as disrupt and destroy hostile forces at a distance.
- 4 The ability to strengthen U.S. alliances and partnerships in the face of emerging threats would remain a critical component of U.S. defense strategy.
- 5 The U.S. likewise needed to sustain favorable balances of power in critical regions in order to reassure friends, maintain U.S. freedom of action, dissuade potential adversaries from pursuing “dangerous forms of military competition,” and deter them from threatening U.S. interests.
- 6 The U.S. needed to maintain substantial margins of superiority across the key areas of military competition by maintaining and developing a portfolio of military capabilities both to deter and to prevail over contemporary adversaries and

⁶⁷ DoD, 2001i, pp. 7, 13.

challenges, as well as to dissuade and hedge against future adversaries. Key components of this portfolio were the ability to conduct information operations, to ensure access to distant theaters of operation, to defend the territory of the United States and its allies, and to protect U.S. space assets.

7. The U.S. defense establishment needed to be “transformed” so that it could successfully meet the challenges of the future in a cost-effective and innovative manner.⁶⁸

The transformation of the U.S. military was to result from the “exploitation of new approaches to operational concepts and capabilities, the use of old and new technologies, and new forms of organization that more effectively anticipate new or still-emerging strategic and operational challenges and opportunities and that render previous methods of conducting war obsolete or subordinate.”⁶⁹

Because transformation can be highly path-dependent, and to facilitate the process of transformation, the 2001 QDR report developed the following six critical operational goals that needed to be met to guide transformation efforts and address the emerging operational challenges of the future:

1. Protect critical bases of operation, be they in the U.S. homeland, with U.S. forces abroad, or for U.S. allies. Critical to this goal was defeating CBRNE weapons and their means of delivery.
2. Protect information systems from attack, and ensure that the United States can conduct effective information operations.
3. Project and sustain U.S. forces in distant theaters despite the threat of anti-access and area-denial challenges, and ensure that U.S. forces can defeat those challenges.
4. In all weather and in all environments, deny enemy forces sanctuary through persistent intelligence, surveillance, and reconnaissance (ISR) coupled with high-volume precision strike capabilities.
5. Through transformation, ensure the survivability of U.S. space systems and their supporting infrastructure.
6. Exploit emerging information technology and concepts to develop a truly joint command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) system that could provide a tailored joint operational picture.⁷⁰

⁶⁸ DoD, 2001i, pp. 13–16.

⁶⁹ DoD, 2001i, p. 29.

⁷⁰ DoD, 2001i, p. 30.

In addition to these transformative efforts, the 2001 QDR report supported the selective recapitalization of existing “legacy” forces in order to sustain the capability to address current threats during the transformation process.⁷¹ The primary focus of this effort was the military’s fleet of tactical multirole aircraft. Additional weapon systems identified as requiring selective upgrades were the M1 tank, the B-1 bomber, naval ship self-defense systems, and U.S. Marine Corps amphibious assault vehicles.⁷²

Force-Planning Construct

The force-planning construct in the 2001 QDR reflected a change from the construct presented in the 1997 QDR, which had focused primarily on capabilities for two nearly simultaneous major-theater wars, while also maintaining capabilities for multiple, simultaneous, smaller-scale contingency operations.⁷³ The 2001 QDR report called for a force structure capable of the following four main tasks:

1. Defend the United States.
2. Deter aggression and coercion forward in four critical regions.
3. Swiftly defeat aggression in two overlapping major conflicts while preserving for the President the option to call for a decisive victory in one of those conflicts – including the possibility of regime change or occupation.
4. Conduct a limited number of smaller-scale contingency operations.⁷⁴

In shorthand, this force-planning construct came to be called “1-4-2-1.”⁷⁵

According to our structured conversations, there was agreement on the element of the force-planning construct to defend the homeland, but there was not a lot of clarity about what that meant for force-sizing, much less for overall force needs. There was more clarity on the “deter aggression and coercion forward in four critical regions” task and why forces were stationed in certain parts of the world. There also was broad agree-

⁷¹ The 2001 QDR does not define “legacy” forces. In DoD’s 2002 *Annual Report to the President and Congress*, *legacy forces* are defined as the “heavy, light, and special operations forces” that made up the “Army of today.” The medium-weight forces consisting of Stryker-equipped brigades were considered to be part of the *interim force*. See DoD, *Annual Report to the President and Congress*, Washington, D.C., 2002a, pp. 120–121.

⁷² DoD, 2001i, p. 47.

⁷³ The 1997 QDR force-planning construct was a slight refinement of the one used in the 1993 Bottom-Up Review, which aimed to better address some of the stresses on the force resulting from the accumulation of peace operations. See Larson, Orletsky, and Leuschner, 2001.

⁷⁴ DoD, 2001i, pp. 17–21. The force-planning construct appears to have changed very little between June and September 2001 (see Rumsfeld, 2001o, 2001r). Notably, the 2001 QDR suggested that the United States would conduct fewer smaller-scale contingencies in the future.

⁷⁵ As early as June 2001, it was becoming clear that the force-planning construct for two major-theater wars, which had emerged after the Cold War, would need to be replaced. See, for example, U.S. Commission on National Security / 21st Century, 2001, pp. 75–78; and Erin Q. Winograd, “OSD Memo Fuels Speculation That QDR’s Outcome Is Predetermined,” *Inside Defense*, June 25, 2001b.

ment that the U.S. military needed the capability to fight in two nearly simultaneous conventional campaigns, but the notion of “swiftly defeat” was debated at the time.

Notably, in his end-of-tour memorandum to Secretary Rumsfeld, then-Chief of Staff of the Army Eric Shinseki somewhat prophetically argued that the construct was not a reliable basis for estimating requirements for end strength and force structure:

The 1-4-2-1 force-sizing construct will prove to be ill-suited over the long-term, just like all previous force-sizing constructs. Additionally, we should acknowledge the imprecise nature of our strategic calculations, as 1-4-2-1 does not adequately account for all GWOT requirements or long-term commitments to be associated with [Operation Enduring Freedom] in Afghanistan and [Operation Iraqi Freedom] in Iraq, as well as other small-scale contingencies.⁷⁶

Force Structure

We now describe the key force-structure decisions and changes during the years affected by the 2001 QDR in three categories: general-purpose forces, special operations forces, and strategic forces.⁷⁷

General-Purpose Forces

U.S. general-purpose force structure remained largely stable in the out-years of the 1997 QDR from 1999 to 2001,⁷⁸ as well as following the 2001 QDR report. According to the QDR, “Today’s force structure – both Active and Reserve components – is the baseline from which the Department will develop a transformed force for the future.”⁷⁹

⁷⁶ See Eric Shinseki, “End of Tour Memorandum,” memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, June 10, 2003.

⁷⁷ General-purpose forces included the mainstream, traditional elements of the Army, Navy, Marine Corps, and Air Force: the conventional units with tanks and heavy artillery, the aircraft carriers and major surface combatants, the Marine divisions and wings, and the fighters and conventional bombers of the Air Force. Special operations forces are the services’ highly skilled forces, capable of operations in sensitive and denied areas – that is, operations that include raising, training and equipping indigenous forces, as well as conducting unilateral reconnaissance and direct-action missions. Strategic forces include the United States’ nuclear delivery triad: the submarine-launched ballistic missiles, the land-based intercontinental ballistic missile force, and the long-range bomber force with its air-launched cruise missiles (ALCMs).

⁷⁸ The Army included ten active-component divisions, eight reserve-component divisions, and 36 active-component brigades. Navy structure grew by one aircraft carrier, declined by two attack submarines, and added two surface combatants during the period. The Air Force lost three active-component fighter squadrons and gained 15 active-component bombers.

⁷⁹ DoD, 2001i, p. 22. In a September 6, 2001, memorandum to the President, Secretary Rumsfeld reported, “There was a war game run using the new defense strategy that you have been briefed on, and have approved. The outcome was very encouraging. I could not be more pleased. There is a lot more work to be done, but the Department is beginning to see the wisdom of the new strategy and it is beginning to be proven in the war game process” (Donald Rumsfeld, “Defense Planning Guidance,” memorandum to President George W. Bush, Rumsfeld Papers, September 6, 2001q). Secretary Rumsfeld appears to have been referring to the POSITIVE MATCH war game. See Thom Shanker, “Secret War Game Eases Concerns Over Readiness,” *New York Times*, September 7, 2001.

To better shape the composition of this force, the 2001 QDR report's force-structure guidance directed the services to specify service-unique capabilities for the following seven categories of missions:

- protecting critical bases and defeating CBRNE weapons and their delivery systems
- assuring information operations under attack
- projecting/sustaining U.S. forces in the presence of anti-access and area-denial capabilities
- denying enemies sanctuary with persistent surveillance, tracking, and long-range engagement systems
- enhancing the capacity and survivability of space systems
- leveraging information technology for interoperable, joint C4ISR
- developing standing joint task force headquarters and standing joint task forces, especially for extended-range conventional strike.⁸⁰

Table 2.1 summarizes the primary elements of U.S. military general-purpose forces over the course of the period between the 2001 and 2006 QDRs, and it illustrates the relative stability of those forces between reviews.⁸¹ Nevertheless, the 2001 QDR report also identified threats and opportunities that the U.S. military strategy should address, potentially in part through force transformation and modernization efforts. These issues are addressed later in this chapter.

Special Operations Forces

The 2001 QDR report did not address force structure for special operations forces. When the report was published, Operation Enduring Freedom had not yet begun,⁸² and DoD could not have anticipated the additional demands for special operations forces generated by that operation and the subsequent Operation Iraqi Freedom, or the impact of those demands on the structure of those forces.

The special operations force structure in place at the time of the 2001 QDR report reflected the recent consolidation of such forces under U.S. Special Operations Command: Army special operations organized within a U.S. Army Special Operations Command, Air Force special operations consolidated into Air Force Special Operations Command, and Sea, Air, and Land (SEAL) teams were moved from the fleet and reassigned to Navy Special Warfare Command.

⁸⁰ In an April 2001 memorandum for the record, Secretary Rumsfeld stated, "We need to get the QDR to press toward joint task forces." See Donald Rumsfeld, "Jointness," memorandum for the record, Rumsfeld Papers, April 16, 2001e.

⁸¹ For more information on and explanation of our budget analysis methodology and sources, see Appendix E.

⁸² Operation Enduring Freedom in Afghanistan began on October 7, 2001.

Table 2.1
2001 QDR Report Projections and Actuals for General-Purpose Force Structure, FYs 2001–2006

Service Element	FY01 QDR Planned	FY01 Actual	FY02 Actual	FY03 Actual	FY04 Actual	FY05 Actual	FY06 Actual
Army							
Divisions (AC/RC)	Not stated	10/8	10/8	10/8	10/8	10/8	10/8
Maneuver brigades (AC) ^a	Not stated	36	36	36	36	36	35
Maneuver battalions (AC) ^b	Not stated	106	109.5	111	112	118	137
Navy							
Aircraft carriers	Not stated	12	12	12	11	12	12
Carrier air wings (AC)	Not stated	10	10	Not stated	10	10	10
Attack submarines	Not stated	55	54	54	55	54	54
Surface combatants	Not stated	108	108	98	99	99	101
Marine Corps							
Divisions (AC/RC)	Not stated	3/1	3/1	3/1	3/1	3/1	3/1
Expeditionary forces	Not stated	3	3	3	3	3	3
Air wings (AC/RC)	Not stated	3/1	3/1	3/1	3/1	3/1	3/1
Air Force							
Fighter squadrons (AC/RC) ^c	Not stated	46/38	46/38	46/37	45/40	45/39	45/38
Bombers	Not stated	130	112	118	123	118	118
Special Operations Forces							
Military manpower ^d	Not stated	41,785	Not stated	40,600	44,773	46,757	49,086

SOURCES: DoD, 2001i; Office of the Under Secretary of Defense (OUSD) (Comptroller), "DoD Budget Request," web page, various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service.

NOTE: AC = active component; RC = reserve component.

^a During the period covered in this table, Army budget documents listed the number of battalions by type. Actual maneuver brigade figures for FYs 01–05 are derived from the division force structure of the appropriate year plus nondivisional maneuver brigades or regiments.

^b For the purpose of this study, a *maneuver battalion* is any infantry battalion, armor battalion, cavalry squadron, or combined arms battalion of the various mutations of maneuver brigades that have been part of Army force structure since 2001. Actual maneuver battalion figures for FYs 01–05 account for all active-component infantry and armor battalions and cavalry squadrons.

^c For FYs 01–05, we use the squadron numbers reported in the Operation and Maintenance supporting volumes of the active Air Force, Air National Guard, and Air Force Reserve budget submissions.

^d These figures include Military Department Major Force Program 11 activities only.

Table 2.2 summarizes the United States' special operations force structure in FY01 and FY06. Although the main units of account shown in the table remained constant, significant modifications occurred within Army Special Operations Command. The active-component special forces groups received organic intelligence capabilities, a tactical unmanned aerial vehicle (UAV) capability, an enhanced chemical reconnaissance capability, and additional personnel to provide robust battle staffs. The John F. Kennedy Special Warfare Center and School also received additional personnel

Table 2.2
Special Operations Force Structure, FYs 2001 and 2006

Service Element	FY01	FY06
U.S. Army Special Operations Command		
Special forces groups (AC/RC)	5/2	5/2
Civil affairs units (AC/RC)	1 battalion/4 commands	1 battalion/4 commands
Psychological operations groups (AC/RC)	1/2	1/2
Ranger regiment	1	1
Special operations aviation regiment	1	1
U.S. Air Force Special Operations Command		
Special operations wing (AC/RC)	1/2	1/2
Special tactics group	1	1
Flight test squadron	1	1
Special operations group	2	2
U.S. Navy Special Warfare Command		
SEAL teams	8	8
Special boat units	3	3
SEAL delivery teams	2	2
Special operations forces military manpower	41,785	49,086

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and *Operation and Maintenance* supporting volumes of each service.

NOTE: AC = active component; RC = reserve component.

to increase its training throughput capacity. The 4th Psychological Operations Group received two new regional support companies.⁸³

Strategic Forces

Strategic nuclear force structure had been stable for some years, in large part because Congress prohibited the use of DoD funds to eliminate strategic nuclear delivery vehicles below levels from the Strategic Arms Reduction Treaty (START) I.⁸⁴ When those prohibitions were removed in the FY02 Defense Authorization Act,⁸⁵ Congress mandated, and the Bush administration ordered, the 2002 Nuclear Posture Review. The Nuclear Posture Review began serious reconsideration of the United States' strategic force requirements. Although details remain classified, unclassified descriptions of the review prompted wide criticism.⁸⁶ Table 2.3 summarizes changes in the key elements

⁸³ DoD, *Defense Manpower Requirements Report, Fiscal Year 2007*, Washington, D.C., July 2006d, pp. 83–85.

⁸⁴ Amy F. Woolf, *U.S. Strategic Nuclear Forces: Background, Developments, and Issues*, Washington, D.C.: Congressional Research Service, RL33640, May 15, 2014, p. 6.

⁸⁵ Public Law 107-107, National Defense Authorization Act for Fiscal Year 2002, Sec. 1031, December 28, 2001.

⁸⁶ See DoD, "Special Briefing on the Nuclear Posture Review," Washington, D.C., January 9, 2002c; and DoD, *Nuclear Posture Review Report*, Washington, D.C., January 9, 2002b. For a representative overview of the prin-

Table 2.3
Strategic Force Structure, FYs 2001 and 2006

Weapon System	FY01	FY06
Intercontinental ballistic missiles		
MX/Peacekeeper	50	0
Minuteman III	500	450
Total	550	450
Submarine-launched ballistic missiles		
Trident I (C-4)	168	72
Trident II (D-5)	264	264
Total	432	336
Bombers		
B-52 (ALCM)	97	56 (ALCM/non-ALCM not stated)
B-52 (non-ALCM)	47	Not stated
B-1	90	Not stated
B-2	20	Not stated
Total	254	
Total	1,236	

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service.

of strategic force structure from FY01 to FY06. In FY01, U.S. strategic nuclear forces included 1,236 delivery vehicles and 5,948 warheads (not shown); the 2001 QDR report announced planned reductions in intercontinental and submarine-launched ballistic missiles by 2006.⁸⁷

Manpower and End Strength

As with the other QDR reports we reviewed, the 2001 QDR report primarily examined requirements for force structure rather than end strength, and, as just discussed, it accepted the existing force structure as a foundation for the types of operations the U.S. military expected to conduct in the near term, as well as a platform for transformation of the future force.⁸⁸

The QDR did not, however, anticipate the manpower requirements of operations after “decisively defeating” an adversary (i.e., a regime change), or the potential stresses

cipal criticisms of the Nuclear Posture Review, see Philipp C. Bleek, “Nuclear Posture Review Leaks; Outlines Targets, Contingencies,” *Arms Control Today*, January/February 2002.

⁸⁷ Woolf, 2014.

⁸⁸ DoD, 2001i, p. 22.

of simultaneously meeting operational and transformational demands.⁸⁹ Finally, the 2001 QDR devoted little attention to issues related to the active-component and reserve-component mix.⁹⁰ Thus, the United States went to war in Afghanistan and Iraq with the force structure that existed during the 2001 QDR.

With few exceptions, defense leaders also seemed not to anticipate the rotational manpower demands that protracted campaigns in Afghanistan and Iraq would generate, or that these conflicts would turn out to be the longest in U.S. history.⁹¹ Table 2.4 reports end-strength levels from FYs 01–06.

The existing force structure in FY02 readily supported the initial objectives in Afghanistan to overthrow the Afghan Taliban and eliminate al-Qa’ida’s base of opera-

Table 2.4
End Strength, FYs 2001–2006

Service	FY01	FY02	FY03	FY04	FY05	FY06
Army						
Active	483.9	486.5	499.3	499.5	492.7	505.4
National Guard	351.8	351.1	351.1	342.9	333.2	346.3
Reserve	205.6	206.7	211.9	204.1	189.0	190.0
Navy						
Active	372.9	383.1	382.2	373.2	363.0	350.2
Reserve	87.9	88.0	88.2	82.6	76.5	70.5
Marine Corps						
Active	172.3	173.7	177.8	177.5	180.0	180.4
Reserve	39.8	39.9	41.0	39.7	39.9	39.5
Air Force						
Active	358.2	368.3	375.0	376.6	351.7	349.0
National Guard	108.5	112.1	108.1	106.7	106.4	105.7
Reserve	74.9	76.6	74.8	75.3	75.8	74.1
Total active	1,387.3	1,411.6	1,434.3	1,426.8	1,387.4	1,385.0
Total reserve	868.5	874.4	875.1	851.3	820.8	826.1
Total active + reserve	2,255.8	2,286.0	2,309.4	2,278.1	2,208.2	2,211.1

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and *Operation and Maintenance* supporting volumes of each service.

⁸⁹ As Bruner (2004) observed, “In retrospect, [the QDR] did not predict the stress of trying to meet all developing wartime, peacetime presence, and transformation requirements at the same time” (Edward F. Bruner, *Military Forces: What Is the Appropriate Size for the United States?* Washington, D.C.: Congressional Research Service, RS21754, May 28, 2004).

⁹⁰ According to one of our interlocutors, Guard and Reserve issues were something of an afterthought in the 2001 QDR and were addressed as part of a follow-up study.

⁹¹ Moreover, in each of the FYs from 2001 through 2005, actual Army end strength exceeded authorized end strength. See CBO, *Recruiting, Retention, and Future Levels of Military Personnel*, Washington, D.C., October 2006c, pp. 2–3.

tions in Afghanistan.⁹² The initial commitment of 5,200 soldiers certainly did not stress force structure,⁹³ and troop levels in Afghanistan were stable through 2006.

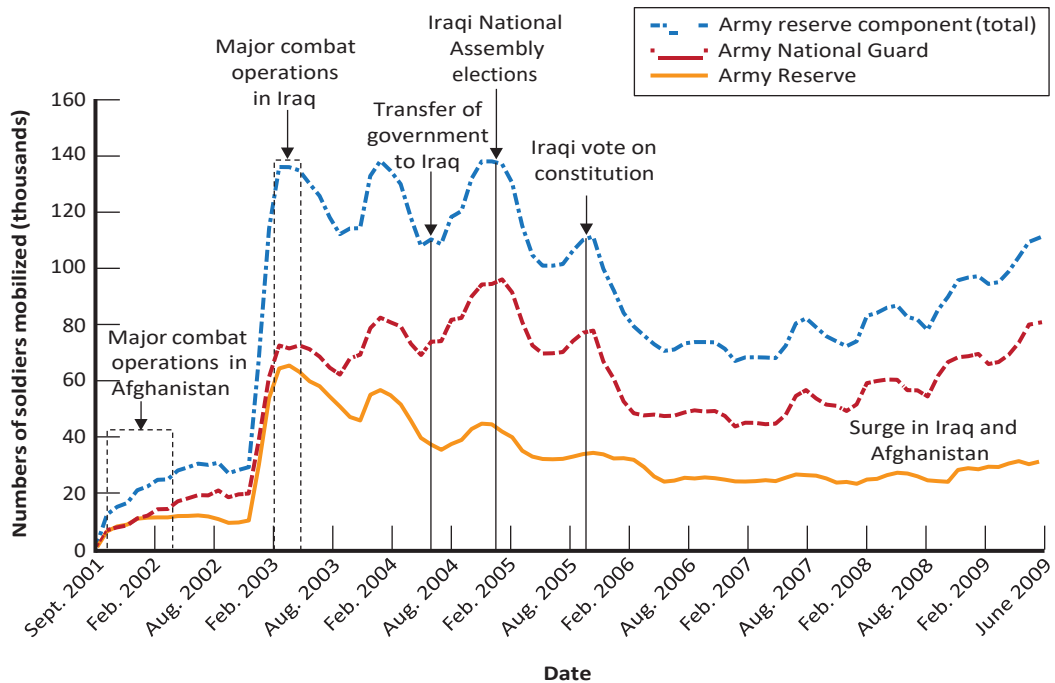
But the operations in Iraq were much more demanding than those in Afghanistan, and they required not just Army active-component forces, but also significant involuntary mobilization of Army reserve-component forces (see Figure 2.2).

The situation in Iraq evolved significantly in response to the growing insurgency and sectarian strife, and was creating strains on the force. As a July 2003 memorandum described the situation,

The balance of capabilities in the Active and Reserve components today is not the best for the future. We need to promote judicious and prudent use of the Reserve components with force rebalancing initiatives that reduce strain through the effi-

Figure 2.2

Army Reserve-Component Members on Active Duty in Support of Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom, September 2001–June 2009



SOURCE: GAO, *Reserve Forces: Army Needs to Finalize an Implementation Plan and Funding Strategy for Sustaining an Operational Reserve Force*, Washington, D.C., GAO-98-898, September 2009c, p. 22.

RAND RR1309-2.2

⁹² Richard L. Armitage, Samuel R. Berger, and Samuel S. Markey, *U.S. Strategy for Pakistan and Afghanistan*, Independent Task Force Report No. 65, New York: Council on Foreign Relations, 2010, p. 30.

⁹³ Amy Belasco, *Troop Levels in the Afghan and Iraq Wars, FY2001–FY2012: Cost and Other Potential Issues*, Washington, D.C.: Library of Congress, Congressional Research Service, R40682, 2009, p. 9.

cient application of manpower and technological solutions based on a disciplined force requirements process.⁹⁴

In January 2004, Chief of Staff of the Army Peter Schoomaker reported that he had been authorized by the Secretary of Defense to increase Army end strength by 30,000 personnel on a temporary, emergency basis, for a duration of four years.⁹⁵ At about the same time, the Army announced that it was initiating “stop-loss” to retain currently serving soldiers.⁹⁶

By mid-2005, some Army brigades had returned to Iraq for their second combat tours, and, with security deteriorating across much of the country, prospects for a timely conclusion to the insurgency vanished. As operations in Afghanistan entered their fourth year and as the United States committed more manpower to the counter-insurgency campaign in Iraq, manpower requirements continued to evolve, setting the stage for continued difficulties in deployment rotations, as well as troop recruitment and retention. A memorandum prepared by Under Secretary David S. C. Chu for a June 2005 meeting with Secretary Rumsfeld on “stress on the force” summarized recent deployment and mobilization trends, and stated that the “Army has borne most of the burden since preparation for action in Iraq, although mobilized numbers are beginning to come down.”⁹⁷

The Army and Marine Corps provided a large majority of combat forces in both campaigns, but their end strength fluctuated only minimally: By 2005, the active Army had grown by fewer than 10,000 soldiers, while the Marine Corps had added approximately 8,000 active-duty Marines. Department-wide active- and reserve-component end strength, however, decreased during this period, with the active Navy and Air Force sustaining manpower cuts of approximately 10,000 and 6,500, respectively. Although the authorized end strength did not change much, as noted above, the Secretary of Defense approved a waiver for the Army to increase end strength by 30,000 personnel above its authorized levels.⁹⁸

During this period, the Army also initiated its transformation from a division-based force structure to a force based on brigade combat teams (BCTs). Although *modularity*, the process by which the Army transformed, gained momentum between 2006

⁹⁴ Donald Rumsfeld, “Rebalancing Forces,” memorandum for the Secretaries of the military departments, Chairman of the Joint Chiefs of Staff, and Under Secretaries of Defense, Rumsfeld Papers, July 9, 2003.

⁹⁵ See Jim Garamone, “Army Chief ‘Adamantly Opposes’ Added End Strength,” *American Forces Press Service*, January 28, 2004.

⁹⁶ TomSquitieri, “Army Expanding ‘Stop Loss’ Order to Keep Soldiers from Leaving,” *USA Today*, January 5, 2004.

⁹⁷ David S. C. Chu, Under Secretary of Defense for Personnel and Readiness, “Advance Charts for ‘Stress on the Force’ Session,” memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, June 17, 2005.

⁹⁸ Bruner, 2004.

and 2008, it had an adverse impact on the ability of the active component to meet the manpower demands of operations in Afghanistan and Iraq.

The reserve component filled much of this resource gap in Iraq, Afghanistan, and other deployments across the globe.⁹⁹ Although Army reserve-component end strength decreased from 2001 through 2005, its share of deployed soldiers peaked at approximately 60 percent in 2004, before declining to approximately 50 percent by the time the 2006 QDR report was released in February 2006.¹⁰⁰

It is important to revisit the debate on troop levels prior to Operation Iraqi Freedom, because many of the key manpower-related challenges facing DoD during this period stemmed directly from departmental decisions made on the eve of the war in Iraq.

In his February 2003 congressional testimony prior to the invasion of Iraq, General Shinseki warned that a long-term campaign in Iraq would require several hundred thousand troops for an indefinite period.¹⁰¹ Secretary Rumsfeld and Deputy Secretary of Defense Paul Wolfowitz rejected these numbers,¹⁰² and the Bush administration launched the invasion of Iraq with a force of 90,000 troops. They expected that the wide technological advantage enjoyed by U.S. forces would yield a rapid victory, and the defeat of the Iraqi army was indeed quite rapid. However, the U.S. force was ill-prepared for fighting the post-war insurgency that arose, much less for imposing stability in a post-Saddam Hussein Iraq. Instead, security conditions worsened rapidly as Sunni insurgent groups rose in opposition to the U.S. occupation and to the rising political challenge from the majority Shi'a. The spread of the insurgency increased demands for U.S. manpower both to conduct active counterinsurgency operations and to train Iraqi Security Forces. But as conditions in Iraq worsened over time, U.S. Army and Marine Corps end strength remained constant. Rather than increasing end strength, the Army and Marine Corps adopted a deployment model that rotated Army BCTs and Marine Corps regiments in and out of Afghanistan and Iraq. Without a clear vision of an end state or end date for operations in Iraq, Army leaders were forced

⁹⁹ Indeed, total Army end strength, including active and reserve, was 1,041,300 in FY01, and 1,041,700 in FY06, an increase of less than half of 1 percent.

¹⁰⁰ See David S. C. Chu, Under Secretary of Defense for Personnel and Readiness, "Reducing Turbulence—SNOWFLAKE," memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, January 13, 2003; Donald Rumsfeld, "To Gen Myers re Force Estimate for Iraq," memorandum to Chairman of the Joint Chiefs of Staff Richard B. Myers, Rumsfeld Papers, May 21, 2004a; Richard B. Myers, "Iraqi Force Estimate," memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, July 13, 2004; and Chu, 2005.

¹⁰¹ Eric Schmitt, "Threats and Responses: The Military; Turkey Seems Set to Let 60,000 G.I.s Use Bases for War," *New York Times*, February 26, 2003a.

¹⁰² See Eric Schmitt, "Pentagon Contradicts General on Iraq Occupation Force's Size," *New York Times*, February 28, 2003b; and Thom Shanker, "New Strategy Vindicates Ex-Army Chief Shinseki," *New York Times*, January 12, 2007.

to adopt a model that placed significant stress on the force without a sense of when those demands might decline.¹⁰³

Modernization and Transformation

Although the 1997 QDR repeatedly stressed the importance of transforming U.S. military forces, resource constraints in the remaining years of the Clinton administration generally limited DoD's ability to pursue its transformation objectives.¹⁰⁴

The 2001 QDR report aimed to give a boost to transformation through a long-term plan to selectively transform the force to make it more expeditionary in nature:¹⁰⁵

Transforming America's defense for the 21st century will require a long-standing commitment from our country and its leaders. Transformation is not a goal for tomorrow, but an endeavor that must be embraced in earnest today.

Of necessity, our efforts will begin relatively small, but will grow significantly in pace and intensity. And over time, the full promise of transformation will be realized as we divest ourselves of legacy forces and they move off the stage and resources move into new concepts, capabilities, and organizations that maximize our warfighting effectiveness and the combat potential of America's men and women in uniform.¹⁰⁶

¹⁰³ In 2006, Army leaders would approve the employment of the Army Force Generation model as a management tool for meeting the increased demands for Army forces.

¹⁰⁴ DoD's failure to properly resource transformation efforts drew the ire of the congressionally mandated National Defense Panel, which was commissioned to review and critique that QDR. See National Defense Panel, 1997. For an analysis, see Larson, Orletsky, and Leuschner, 2001, pp. 83–120. For rather dour assessments of the progress of DoD transformation and the factors impeding transformation, see Donald Rumsfeld, "Re Memorandum," memorandum to President George W. Bush, Rumsfeld Papers, May 29, 2001k; Donald Rumsfeld, "Memorandum," Rumsfeld Papers, May 31, 2001l; and Linton Wells, "Recent Comments on Transformation by Bill Owens and Art Cebrowski; Background for Upcoming SECDEF Meeting," memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, July 31, 2001.

¹⁰⁵ Secretary Rumsfeld observed that prior to World War II, the Germans transformed only a small part of their overall force to develop the combined air and mobile mechanized warfare concept known as *blitzkrieg*. He stated his belief that transformation of U.S. military forces could be accomplished if perhaps 15 percent of the defense budget was devoted to concept development, research and development, joint experimentation, and such organizational changes as the development of standing joint headquarters.

¹⁰⁶ DoD, 2001i, pp. iv–v. A September 2001 memorandum from Chief of Naval Operations Vern Clark on a draft of the QDR stated, "At the heart of the new defense strategy is the idea of 'forward deterrence' which is completely in line with the capabilities-based approach to defense we have all worked so hard to develop in this QDR. . . . In my view, we may be best served by saying in the report that our military transformation will likely change the size and shape of forward deterrence, and not address specific platforms" (Donald Rumsfeld, "QDR Comments from CNO," memorandum to Cambone, Rumsfeld Papers, September 20, 2001s).

In addition, the QDR presented a new framework for assessing risk in executing the strategy, which included explicit consideration of “future challenges risk”:

To support the transformation of the U.S. Armed Forces and to better manage the full range of activities of the Defense Department, the Quadrennial Defense Review identified a new approach to assessing and managing risk. This new approach will help to ensure that the Department of Defense is better able to meet near-term threats even as it invests in capabilities needed to safeguard the nation’s future security.¹⁰⁷

DoD would subsequently define defense transformation, the desired outcomes, and the capabilities of the future force as follows:

A process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people, and organizations that exploit our nation’s advantages and protect against our asymmetric vulnerabilities to sustain our strategic position, which helps underpin peace and stability in the world.¹⁰⁸

[T]he outcome we must achieve: fundamentally joint, network-centric, distributed forces capable of rapid decision superiority, and massed effects across the battlespace.¹⁰⁹

DoD described the overall transformation process as flowing from the identification of new missions, concepts, and capabilities:

Shaping the nature of military competition ultimately means redefining standards for military success by accomplishing military missions that were previously unimaginable or impossible except at prohibitive risk and cost. The U.S. military understands current standards for success because it trains to exacting standards in the most realistic fashion possible. From this baseline, we can compare and assess new operating concepts that employ new organizational constructs, capabilities, and doctrine for achieving military objectives and determine whether they are sufficiently transformational to merit major investments. Eventually such efforts will render previous ways of warfighting obsolete and change the measures of success in military operations in our favor.¹¹⁰

¹⁰⁷ DoD, 2001i, p. v.

¹⁰⁸ DoD, *Transformation Planning Guidance (TPG)*, Washington, D.C., April 2003b, p. 3. For more on the department’s post-QDR thinking about transformation, see DoD, *Military Transformation: A Strategic Approach*, Washington, D.C.: Office of the Secretary of Defense, Office of Force Transformation, Fall 2003c; and DoD, *Elements of Transformation*, Washington, D.C., October 2004b.

¹⁰⁹ DoD, 2003b, p. 1.

¹¹⁰ DoD, 2003b, pp. 3–4.

DoD's transformation vision was built on four pillars: (1) strengthening joint operations, (2) exploiting U.S. intelligence advantages, (3) developing and experimenting with concepts, and (4) developing transformational capabilities. The vision was to be implemented through transformation guidance; joint and service concepts; service and Joint Forces Command transformation roadmaps; rapid research, development, test, and evaluation (RDT&E) programs; and strategic transformation appraisals.¹¹¹

Among the areas of focus for transformation were homeland defense, long-range precision strike through a combination of air and ground, and the countering of anti-access through long-range and sea-based platforms.¹¹² Common elements of the vision for transformation across the services included new concepts of operations, greater reliance on joint operations, network-centric warfare, effects-based operations, speed and agility, and precision application of firepower, although there were differences in service approaches to transformation.¹¹³ The Air Force's transformation effort focused on "reorganizing the service to make it more expeditionary, and exploiting new technologies and operational concepts to dramatically improve its ability to rapidly deploy and sustain forces, to dominate air and space, and to rapidly identify and precisely attack targets on a global basis."¹¹⁴ For the Navy's part, key elements of transformation included "a focus on operating in littoral (i.e., near shore) waters, new-design ships requiring much-smaller crews, directly launching and supporting expeditionary operations ashore from sea bases, more flexible naval formations, and more flexible ship-deployment methods."¹¹⁵

Although there were some programmatic false starts, these service visions generally guided service transformation efforts from 2001 forward.¹¹⁶ For purposes of this

¹¹¹ DoD, 2003b, pp. 13–14.

¹¹² See Donald Rumsfeld, "Important Accomplishments," memorandum to Wolfowitz, Feith, Clarke, and Di Rita, Rumsfeld Papers, October 16, 2002.

¹¹³ For a detailed analysis of defense transformation plans, see Ronald O'Rourke, *Defense Transformation: Background and Oversight Issues for Congress*, Washington, D.C.: Congressional Research Service, RL32238, November 9, 2006b.

¹¹⁴ O'Rourke, 2006b, p. 9. See also U.S. Air Force, *The U.S. Air Force Transformation Flight Plan*, Washington, D.C., November 2003; U.S. Air Force, *The U.S. Air Force Transformation Flight Plan 2004*, Washington, D.C., July 2004; U.S. Air Force, *The U.S. Air Force Transformation Flight Plan 2005*, Washington, D.C., January 2005; Christopher Bolcom, *Air Force Transformation*, Washington, D.C.: Congressional Research Service, RS20858, January 18, 2006.

¹¹⁵ O'Rourke, 2006b, p. 9. See also Ronald O'Rourke, *Naval Transformation: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, RS20851, January 17, 2006a.

¹¹⁶ According to our structured conversations, there was agreement on why transformation was needed, and the notion that the force should be more expeditionary was accepted, but how to accomplish these aims and what the character of the force should be engendered an enormous debate.

report, in the remainder of this section, we focus on the Army's experience with modernization and transformation.¹¹⁷

Background to Army Transformation

In October 1999, and in response to the call in the 1997 QDR to transform the U.S. military, the Secretary of the Army and Chief of Staff of the Army presented a vision for transforming the Army over 30 years from a division-based force to a more modular one that would rely on BCTs:

The Secretary of the Army Louis Caldera and Chief of Staff of the Army Eric K. Shinseki today unveiled a vision of a more strategically responsive U.S. Army. The Army intends to begin immediately to develop a force that is deployable, agile, versatile, lethal, survivable, sustainable and dominant at every point along the spectrum of operations. . . . The vision statement establishes a goal to deploy a combat capable brigade anywhere in the world within 96 hours after liftoff, a warfighting division on the ground in 120 hours, and five divisions within thirty days. . . . In order to become more deployable and maintain lethality the Army will field a prototype brigade-size force. The intent is to establish brigades in the next few months that will use off-the-shelf systems, as resources permit and as quickly as possible, to jumpstart development of concepts and doctrine, organizational design, and training.¹¹⁸

According to this vision, the Army would be radically transformed into a lighter, but lethal and survivable, force that could better respond to the broad range of operations—including peacekeeping, regional conflict, and major-theater wars—in which it had been engaged since the end of the Cold War.

The initial phase of the Army's transformation plan focused on the formation of six interim BCTs, the first of which was in the process of being formed in FY00 and was planned to reach its initial operational capability in May 2003.¹¹⁹ As of May 2002, the second brigade was in its early stages of formation, and the Army had programmed funding for six interim BCTs, with all six to be formed, equipped, trained, and ready

¹¹⁷ For more on Army transformation efforts, see Edward F. Bruner, *Army Transformation and Modernization: Overview and Issues for Congress*, Washington, D.C.: Congressional Research Service, RS20787, April 4, 2001; HQDA, *Transformation Wargame 2001*, Carlisle Barracks, Pa.: U.S. Army War College, April 22–27, 2001b; and U.S. General Accounting Office, *Military Transformation: Army Has a Comprehensive Plan for Managing Its Transformation but Faces Major Challenges*, Washington, D.C., GAO-02-96, November 2001f; HQDA, *Army Transformation: Report to the Congress of the United States*, Washington, D.C., February 2007b. For a history of the Army's transformation effort, see William M. Donnelly, *Transforming an Army at War: Designing the Modular Force, 1991–2005*, Washington, D.C.: Center of Military History, 2007.

¹¹⁸ See HQDA, "Army Announces Vision for the Future," Washington, D.C., Release No. 99-095, October 12, 1999.

¹¹⁹ Interim BCTs, which eventually became known as Stryker BCTs, were different from infantry BCTs that were created during modularity and still exist today.

to deploy by 2008.¹²⁰ At this time, the Army also was considering how it might accelerate the fielding of the last three brigades so that all six could be fielded by 2005. The 2001 QDR report called for an additional interim BCT to be stationed in Europe. Beginning in 2008 and continuing beyond 2030, the Army planned to transition to its *objective force*, the force that would achieve the objectives of the Army's transformation effort, by initially developing an *interim force* consisting of interim BCTs, and selectively modernizing the existing combat force, called the *legacy force*.¹²¹

Army Modernization and Transformation During the Post–2001 QDR Period

The Army's response to the modernization and transformation thrusts in the 2001 QDR report can be characterized as part transformation (development of leap-ahead capabilities), part modernization (evolutionary improvement of existing capabilities), and part recapitalization (replacement of existing capabilities).

Table 2.5 summarizes the principal modernization and transformation themes highlighted in the 2001 QDR report, as well as the Army's response to DoD guidance on modernization and transformation, as reflected in the 2001 Army Modernization Plan,¹²² 2002 Army Modernization Plan,¹²³ and 2002 Army Posture Statement.¹²⁴

As shown in the table, the QDR emphasized a mix of modernization and transformational efforts. DoD sought to modernize critical elements of the legacy force that were important to current operations. It also sought transformational actions that would help the Army manage and cope with the anticipated future.

For their part, the 2001 and 2002 Army Modernization Plans and the 2002 Army Posture Statement reflected consistency with the 2001 Army Posture Statement, including retention of the legacy, interim, and objective force constructs for characterizing major elements of the deployable Army. Actions in Somalia and the Balkans had

¹²⁰ The first two of the six brigades included a heavy brigade of the 2nd Infantry Division and a light brigade of the 25th Infantry Division, both stationed at Fort Lewis, Washington; the remaining four included the 172nd Infantry Brigade (separate), Forts Wainwright and Richardson, Alaska; the 2nd Armored Cavalry Regiment (light), Fort Polk, Louisiana; the 2nd Brigade, 25th Infantry Division (light), Schofield Barracks, Hawaii; and the 56th Brigade, 28th Infantry Division (mechanized), Pennsylvania Army National Guard (U.S. General Accounting Office, *Military Transformation: Army Actions Needed to Enhance Formation of Future Interim Brigade Combat Teams*, Washington, D.C., GAO-02-442, May 2002a, p. 5).

¹²¹ In a memorandum to Secretary Rumsfeld, Director of Program Analysis and Evaluation Robert R. Soule reported that suggested metrics for the U.S. Army should include "Transformation – Transform the Army into an Objective Force, while maintaining our ability to execute the National Military Strategy" and "Field the Objective Force by the end of the decade" (Robert R. Soule, "DoD Performance Metrics," memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, March 22, 2001).

¹²² HQDA, *2001 Army Modernization Plan*, Washington, D.C., 2001a.

¹²³ HQDA, *2002 Army Modernization Plan*, Washington, D.C., February 2002a.

¹²⁴ HQDA, *United States Army Soldiers on Point for the Nation: Posture Statement 2002*, Washington, D.C., February 2002b.

Table 2.5
Army Execution of Modernization and Transformation Themes in the 2001 QDR Report

		Army Execution		
	2001 QDR Report Theme	2001 Army Modernization Plan	2002 Army Modernization Plan	2002 Army Posture Statement
Modernization ^a	<ul style="list-style-type: none"> Recapitalize selective legacy systems critical to success in near-term conflict (e.g., Abrams M1 tank) 	<ul style="list-style-type: none"> Invest in the Future Combat Systems (FCS) program Invest in Stryker medium-weight vehicles Create first interim force unit from the 3rd Brigade, 2nd Infantry Division Make major investments in objective-force equipment Make selected investments in legacy-force equipment (e.g., helicopters) 	<ul style="list-style-type: none"> Focus on: <ul style="list-style-type: none"> Dominant maneuver Full dimensional protection Precision engagement Focused logistics Information superiority 	<ul style="list-style-type: none"> Legacy force <ul style="list-style-type: none"> Assure Army readiness Recapitalize for near-term readiness Interim force <ul style="list-style-type: none"> Fill capability gap between today's heavy and light forces Assure Army readiness
Transformation	<ul style="list-style-type: none"> Focus transformational efforts on six critical operational goals: <ul style="list-style-type: none"> Protect critical bases of operations Assure information systems in the face of attack Project and sustain U.S. forces in anti-access and area-denial areas Deny enemies sanctuary Enhance survivability of space systems Leverage information technology for interoperable C4ISR 		<ul style="list-style-type: none"> Create Unit Set Fielding and Software Blocking models that produce combat-capable units in the shortest time possible 	<ul style="list-style-type: none"> Objective force <ul style="list-style-type: none"> Capable of rapid, decisive offensive, defensive, stability, and support operations Capable of rapid transition between missions without loss of momentum All three forces (legacy, interim, and objective) equally necessary to the nation's continued world leadership

Table 2.5—Continued

	2001 QDR Report Theme	Army Execution		
		2001 Army Modernization Plan	2002 Army Modernization Plan	2002 Army Posture Statement
Focus	<ul style="list-style-type: none"> • Emphasize forward defense • Focus on four priority theaters • Accept risk in a second major conflict 	<ul style="list-style-type: none"> • Manage materiel requirements emerging from Operation Enduring Freedom and ongoing requirements from the Balkans 		<ul style="list-style-type: none"> • Transform the force, with emphasis on modernization and recapitalization
Context	<ul style="list-style-type: none"> • Transform the force • Support the GWOT 	<ul style="list-style-type: none"> • Targeted investments 		<ul style="list-style-type: none"> • Focus on recovering readiness and responding to the GWOT

SOURCE: DoD, 2001i; HQDA, 2001a, 2002a; 2002b.

^a The modernization and transformation framework is not used throughout the QDRs. In some instances, it is modified to reflect modernization and recapitalization. In others, modernization appears alone.

convinced General Shinseki of the continuing value of robust, balanced forces capable of what would become known as *full-spectrum operations*.¹²⁵

Army plans required investments in the legacy force to improve readiness within the heavy and light units of the current force structure, while also investing in the interim (mid-weight) forces that would fill gaps between light and heavy units. The interim force initially took shape as the Stryker BCTs. Finally, plans called for investments in the FCS program, which would feature advanced technology and was intended ultimately to lead to the objective force.

Within a month of taking office in August 2003, Chief of Staff of the Army Schoomaker instructed the Army to begin work on converting to a modular, brigade-based force, and the Army began transforming its units from division-based forces to BCTs and specialized, individual brigades — or *modularity*, as it became known.¹²⁶ This effort was similar to, but distinct from, the development of the interim force on the basis of BCTs, which had been started in the late 1990s and was intended to produce interim BCTs at a rate of one per year.

The Army modularity effort was an important force management and force generation enhancement that allowed the Army to substitute units on a one-for-one basis in the ongoing war in Iraq, resourcing the fight without exhausting the force.¹²⁷

FCS attracted skepticism from the beginning. For example, the Congressional Research Service noted technology advancement and time to complete the program as high risks.¹²⁸ The specific technologies that would form FCS had not been chosen, and integration was an issue. Moreover, the program employed a “lead system integrator” from the contracting team rather than a government expert to oversee systems integration, an approach that was new and untested. There were also concerns about the program’s affordability. The U.S. General Accounting Office also noted the many challenges facing the program.¹²⁹

¹²⁵ The 1999 Army Transformation Plan, cited in Bruner, 2001, p. 2.

¹²⁶ See Donnelly, 2007, pp. 19–25.

¹²⁷ See Stuart E. Johnson, John E. Peters, Karin E. Kitchens, Aaron L. Martin, and Jordan R. Fischbach, *A Review of the Army’s Modular Force Structure*, Santa Monica, Calif.: RAND Corporation, TR-927-2-OSD, 2012.

¹²⁸ Bruner, 2001.

¹²⁹ Writing in May 2001, for example, the office said,

The Army’s foremost challenge in the transformation is to design and equip an objective force with the Future Combat Systems that have the deployability of its current light force and the lethality and survivability of its current heavy force. Developing the revolutionary Future Combat Systems is expected to require a number of significant advances in science and technology. It is uncertain whether the required technologies will mature enough to enable the Army to develop the Future Combat Systems as envisioned or whether they will mature in time to meet the transformation schedule. Army officials agree that maturing the technology required for the Future Combat Systems is high risk and that the Army may not achieve the objective force capabilities as envisioned within the time scheduled. (U.S. General Accounting Office, *Defense Acquisition: Army Transformation Faces Weapon Systems Challenges*, Washington, D.C., GAO-01-311, May 2001c)

See also U.S. General Accounting Office, 2001f, 2002a.

Theater-provided equipment proved another source of demand. This equipment was originally conceived in 2003 to provide a nonrotating pool of major end items in the theaters of operation to reduce the costs associated with units having to ship their own equipment as they rotated in and out of the fight. In the process, however, theater-provided equipment became another source of demand, because units that left some of their equipment behind in theater as they returned home had to be re-equipped. The equipment typically focused on unit pacing items, such as helicopters for aviation units, howitzers for artillery units, and tanks for armored units.¹³⁰ According to CBO, about one-third of major equipment in-theater at any one time was theater-provided equipment.¹³¹

Table 2.6 summarizes the key procurement and RDT&E investments the Army made following the publication of the 2001 QDR report.

FY 2003 Army Budget

In the Army's FY03 budget, transformation remained a budget priority, emphasizing "leap-ahead Science and Technology investments aimed at accelerating development of the lighter, faster, and more lethal platforms central to achieving the objective force."¹³²

Modernization highlights included the interim armored vehicle (soon to become Stryker), the Comanche helicopter, the Crusader self-propelled howitzer, and the Shadow tactical UAV.¹³³

Recapitalization focused on "17 systems essential to maintaining today's war-fighting readiness in selected units while accepting risk in our remaining units."¹³⁴ The Army noted that among these 17 systems were the AH-64 Apache helicopter, the UH-60 Black Hawk helicopter, and the CH-47 Chinook helicopter, as well as the M1 Abrams tank and the M2 Bradley fighting vehicle.

The top ten RDT&E procurement programs included the Apache Longbow, interim armored vehicle, Comanche helicopter, Abrams upgrade, FMTV, Javelin anti-tank guided missile, Bradley Base Sustainment, Longbow Hellfire missile, UH-60 Black Hawk helicopter, and multiple launch rocket system launcher.

New program starts during the fiscal year included the airborne, maritime, and fixed JTRS. Programs completed were Longbow Apache and the M-1A2 Abrams tank.

¹³⁰ By October 2007, theater-provided equipment included 24,328 major weapon systems, including tanks, armored fighting vehicles, field artillery, more than 19,000 up-armored high mobility multipurpose wheeled vehicles (HMMVWs), counter-fire radar sets, tractors, trailers, wreckers, tankers, and route clearance vehicles (Dave Campbell, "Challenges with Maintaining Theater Provided Equipment," briefing, DoD Maintenance Symposium, November 2007).

¹³¹ CBO, *Replacing and Repairing Equipment Used in Iraq and Afghanistan: The Army's Reset Program*, Washington, D.C., September 2007a.

¹³² HQDA, *Army Budget, Fiscal Year 2003: Army Green Top*, #R-02-005, U.S. Army News Release, February 4, 2002c, p. 4.

¹³³ HQDA, 2002c, p. 5.

¹³⁴ HQDA, 2002c, p. 5.

Table 2.6
Army Procurement and RDT&E Planned Investments, Post–2001 QDR Era

	FY03	FY04	FY05	FY06
Modernization				
Aircraft	<ul style="list-style-type: none"> Shadow tactical UAV Comanche helicopter 	<ul style="list-style-type: none"> UH-72A Lakota light utility helicopter Unmanned Combat Armed Rotorcraft technology Comanche helicopter CH-47 Chinook helicopter modifications 	<ul style="list-style-type: none"> MQ-1C Gray Eagle UAV AH-64 Apache Longbow Block III helicopter Comanche helicopter UH-60 Black Hawk helicopter CH-47 Chinook helicopter conversions 	<ul style="list-style-type: none"> Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, or JLENS Armed reconnaissance helicopters UAVs CH-47F Chinook helicopter Target Acquisition Designation Sight Light utility helicopters
Wheeled and tracked combat vehicles	<ul style="list-style-type: none"> Interim armored vehicle Crusader self-propelled howitzer Recapitalized M1 Abrams tank, M2 Bradley vehicle, and multiple launch rocket system launcher 	<ul style="list-style-type: none"> Non–Line of Sight Cannon (NLOS-C) Stryker medium armored vehicle (formerly interim armored vehicle) M1 Abrams modifications 	<ul style="list-style-type: none"> NLOS-C (FCS subsystem) Stryker medium armored vehicle 	<ul style="list-style-type: none"> Army Integrated Air and Missile Defense NLOS-C (FCS subsystem) Non–Line of Sight Launch System (NLOS-LS) (FCS subsystem) Family of medium tactical vehicles (FMTV) Stryker medium armored vehicle
Missiles	<ul style="list-style-type: none"> Javelin anti-tank guided missile Longbow Hellfire missile 	<ul style="list-style-type: none"> Patriot/Medium Extended Air Defense System (MEADS) Combined Aggregate Program missile Patriot Advanced Capability (PAC)-3 missile 		<ul style="list-style-type: none"> PAC-3 missile
Ammunition		<ul style="list-style-type: none"> Excalibur 155-mm precision-guided, extended-range projectile 	<ul style="list-style-type: none"> Excalibur 155-mm precision-guided, extended-range projectile 	
Other procurement	<ul style="list-style-type: none"> Airborne, maritime, and fixed Joint Tactical Radio System (JTRS) FMTV 	<ul style="list-style-type: none"> JTRS handheld, manpack, and small-form fit program Networked Fires System Technology Land Warrior Warfighter Information Network-Tactical (WIN-T) FMTV 	<ul style="list-style-type: none"> Networked Fires System Technology WIN-T JTRS FMTV 	<ul style="list-style-type: none"> WIN-T Restructuring JTRS Unmanned ground systems

Table 2.6—Continued

	FY03	FY04	FY05	FY06
Recapitalization				
Aircraft	<ul style="list-style-type: none"> • AH-64 Apache helicopter • UH-60 Black Hawk helicopter • CH-47 Chinook helicopter 			<ul style="list-style-type: none"> • UH-60 Black Hawk helicopter
Wheeled and tracked combat vehicles	<ul style="list-style-type: none"> • M1 Abrams tank • M2 Bradley fighting vehicle 		<ul style="list-style-type: none"> • HMMWV up-armor • M1 Abrams System Enhancement Program tank 	<ul style="list-style-type: none"> • HMMWV up-armor • M1 Abrams tank modifications

SOURCE: OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

NOTE: Italics indicate new program start.

Two programs were terminated – Comanche helicopter and Army Tactical Missile System-Brilliant Anti-Armor Technology.¹³⁵

FY 2004 Army Budget

The FY04 Army budget clearly reflected an Army at war. The budget stated that the Army's first priority was "winning the Global War on Terrorism and maintaining readiness;" second and third priorities were "taking care of people" and "transforming the Army."¹³⁶

Departing from the pattern in earlier budgets, the Army emphasized strategic mobility and materiel sustainment programs, especially in terms of spares for major combat systems, enhanced support to recapitalization-rebuild programs, and ammunition management.

Transformation efforts placed an emphasis on the objective force and interim force. Ninety-eight percent of the science and technology budget targeted objective-force programs.¹³⁷ Priority science and technology programs included the NLOS-C, Networked Fires System Technology; Unmanned Combat Armed Rotorcraft technology; Land Warrior (an integrated suite of protective and targeting systems worn by an individual soldier); Comanche helicopter; Excalibur 155-mm precision-guided, extended-range projectile; WIN-T; PAC-3 missile accelerated production; and Stryker medium armored vehicle.¹³⁸

Seven of the Army's top ten research, development, and acquisition programs in FY04 were new entries since the prior fiscal year. The priority programs included the FCS program, Comanche helicopter, Stryker medium armored vehicle, Longbow helicopter modifications, PAC-3 missiles, CH-47 Chinook helicopter modifications, information systems, FMTV, M1 Abrams tank modifications, and MEADS.¹³⁹

Three new programs appeared during the year: the Patriot/MEADS Combined Aggregate Program missile; JTRS handheld, manpack, and small-form fit program; and the UH-72A Lakota light utility helicopter. During the year, one program – the Joint Common Missile – was terminated and no programs reached normal completion.¹⁴⁰

Other factors from Operation Iraqi Freedom also begin to appear, such as the "hillbilly armor" scandal from December 2004, when Georgia Army National Guardsmen challenged Secretary Rumsfeld about the imperative of scavenging in landfills to find scrap metal suitable to use as add-on armor as the improvised explosive device

¹³⁵ OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

¹³⁶ HQDA, *Army Budget, Fiscal Year 2004: Army Green Top*, #R-03-006, U.S. Army News Release, Washington, D.C., February 3, 2003, p. 2.

¹³⁷ HQDA, 2003, p. 7.

¹³⁸ HQDA, 2003, p. 9.

¹³⁹ HQDA, 2003, p. 10.

¹⁴⁰ OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

(IED) threat became more pervasive and effective.¹⁴¹ This episode apparently accelerated delivery of up-armored HMMWVs, which added under-body armor and crew space armor to better protect against IEDs. As of 2004, before the mine-resistant, ambush-protected vehicle (MRAP) emerged as a critical armored wheeled vehicle, the Army had plans to up-armor 35,000 HMMWVs.¹⁴²

FY 2005 Army Budget

The FY05 Army budget accented the following five major themes:

- Provide ready land forces capabilities to combatant commanders for the GWOT (current readiness).
- Providesoldiers with the best available capabilities to conduct operations (current readiness).
- Take care of soldiers and their families and sustain the quality of the force (current readiness/people).
- Develop the FCS program and complementary systems.
- Sustain commitment for six Stryker BCTs (future force).¹⁴³

The top ten research, development, and acquisition programs for FY05 were relatively stable, with only two new entries since the previous year. The priority programs included the FCS program, Comanche helicopter, Stryker medium armored vehicle, Apache Longbow helicopter modifications, CH-47 helicopter modifications, FMTV, HMMWV, Abrams M1A2 System Enhancement Program tank, and information systems.¹⁴⁴

Two new programs reached milestone status during the fiscal year. These were the MQ-1C Gray Eagle UAV and the Apache Longbow Block III helicopter. No programs reached completion and none suffered termination during the year.¹⁴⁵

FY 2006 Army Budget

This Army budget highlighted the following five major themes:

- Transform and improve Army capabilities, restructure to a modular design, rebalance between the active and reserve components, stabilize units, and improve effectiveness and efficiencies.

¹⁴¹ See Martha Raddatz, and Mike Cerre, "Soldiers Must Rely on 'Hillbilly Armor' for Protection," ABC News, December 8, 2004.

¹⁴² DoD, "Special Defense Department Briefing on Up-Armoring HMMWV Action Update," news transcript, Washington, D.C., December 15, 2004c.

¹⁴³ HQDA, *Army Budget – Fiscal Year 2005: Army Green Top*, U.S. Army News Release, Washington, D.C., February 2, 2004, p. 2.

¹⁴⁴ HQDA, 2004, p. 12.

¹⁴⁵ OUSD (Acquisition, Technology, and Logistics), *Selected Acquisition Reports*, various years.

- Recruit and retain the all-volunteer force.
- Generate and sustain a force to prevail in the GWOT.
- Accelerate promising technology to improve force protection and to enhance fighting capability.
- Repair, reset, and recapitalize equipment.¹⁴⁶

Procurement and RDT&E also were priorities. The Army accelerated FCS and spin-off technologies from the program, “including 18 manned and unmanned ground and air platforms linked through the network.”¹⁴⁷ Emphasis was on reducing risk to the front-line soldier. The Army also fielded greater amounts of commercial off-the-shelf technology, expanded bandwidth, and fielded battle command systems to standardize capabilities. In addition to the acceleration of RDT&E and procurement, the Army established multiple new accelerated acquisition initiatives: the Rapid Fielding Initiative and the Rapid Equipping Force.

The Rapid Fielding Initiative was designed to “quickly fill individual Soldier equipment short falls by fielding [commercial off-the-shelf technologies] rather than waiting for the standard acquisition process to address the shortages.”¹⁴⁸ The Rapid Equipping Force focused on “requirements received from the combatant commanders, providing solutions to operational and technical challenges more quickly than through the normal acquisition cycle.”¹⁴⁹ Examples included small robots, UAVs, and methods for countering IEDs.

The Army science and technology program sought to accelerate the move of mature technology into the current force. Such technologies included networked battle command and logistics systems, networked precision missiles, passive protection systems, and low-cost, multi-spectral sensors.

The Army reported significant research, development, and acquisition efforts: NLOS-LS, aviation modernization (e.g., Army helicopters, night vision sensors, target acquisition designation sites), PAC-3 missiles, FMTV, up-armored and heavy-chassis HMMWVs, M1 Abrams tank modifications, WIN-T, procurement of 240 Stryker vehicles, and restructuring for JTRS. The Army’s top ten research, development, and acquisition programs included FCS; Stryker vehicles; Patriot/MEADS; UH-60 Black Hawk helicopter; CH-47 Chinook cargo helicopter modifications; AH-64 helicopter modifications; M1 Abrams tank modifications; FMTV; command, control, communications, and computer engineering development; and Army test ranges and facilities.¹⁵⁰

¹⁴⁶ HQDA, *Army Budget – Fiscal Years 2006 and 2007: Army Green Top*, U.S. Army News Release, Washington, D.C., February 7, 2005, p. 2.

¹⁴⁷ HQDA, 2005, p. 6.

¹⁴⁸ HQDA, 2005, p. 7.

¹⁴⁹ HQDA, 2005, p. 7.

¹⁵⁰ HQDA, 2005, p. 9.

Two new programs emerged during the fiscal year: the Army Integrated Air and Missile Defense program and the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, or JLENS. The WIN-T program reached completion. The aerial common sensor was terminated.¹⁵¹

Finally, it is noteworthy that field reports from Afghanistan and Iraq led the Army to conclude that its pre-hostilities estimates of wartime requirements for all sorts of equipment – based on a doctrine that anticipated essentially linear battlefields – were inadequate for the types of operations in which it was engaged.¹⁵² It became clear that the original basis of issue plans for everything from night vision goggles to radios and weapons had to be revised upward, which necessarily meant further acquisition efforts to secure the additional items needed in the field.

Resources

Economic and Budgetary Outlook

The George W. Bush administration entered office at a time when the country was facing a rosy economic and budgetary environment arising from nearly ten years of economic expansion and deficit reduction, and continued economic growth and budget surpluses were forecast over the next decade.¹⁵³

CBO's January 2001 report on the budgetary and economic outlook predicted increasing real gross domestic product (GDP) growth over the next several years: 1.7 percent growth in FY01, 2.5 percent in FY02, and 4.3 percent in FY03.¹⁵⁴ At the same time, CBO projected a federal budget surplus of \$281 billion in FY01 and surpluses growing over the decade, for a cumulative budget surplus of \$5.0 trillion over 2001–2010. The favorable economic, fiscal, and budgetary picture would prove to be quite fleeting, however, as projected surpluses fell and projected deficits grew over the decade.

¹⁵¹ OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

¹⁵² See Andrew Feickert, *U.S. Army and Marine Corps Equipment Requirements: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, RL33757, June 15, 2007.

¹⁵³ In January 2001, CBO projected that, “in the absence of new legislation, total budget surpluses would grow from about 3 percent to more than 5 percent of GDP from 2002 through 2011,” but that “[o]ver the longer term, however, budgetary pressures linked to the aging and retirement of the baby-boom generation threaten to produce record deficits and unsustainable levels of federal debt” (CBO, *The Budget and Economic Outlook: Fiscal Years 2002–2011*, Washington, D.C., January 2001a, p. xiv).

The administration appears to have been acutely aware of the favorable economic circumstances: “These successes are particularly noteworthy when placed in historical context. The last 17 years have included the two longest peace-time expansions in history, separated by one of the shallowest recessions. Over this period, the United States was in recession less than four percent of the time. This compares to the century and a quarter before 1982, when the U.S. economy languished in recession 35 percent of the time” (Executive Office of the President, *A Blueprint for New Beginnings: A Responsible Budget for America's Priorities*, Washington, D.C., February 28, 2001, p. 21).

¹⁵⁴ CBO, 2001a.

The administration accorded a high priority both to retiring nearly \$1 trillion in debt by the end of its first term and to providing immediate tax relief.¹⁵⁵ Tax relief,¹⁵⁶ and the recession of March–November 2001 that ended ten years of economic expansion, reduced revenues and estimated surpluses in 2001 from \$281 billion in January 2001 to \$275 billion in May 2001, \$153 billion in August 2001,¹⁵⁷ and \$127 billion in January 2002.¹⁵⁸ As described earlier, the deep tax cuts and the nation’s deteriorating economic and fiscal outlook apparently led, in the summer of 2001, to discussion of deep cuts to end strength and force structure to fund transformation. Following the 9/11 attacks, however, the outlook was for defense budget growth and military operations financed by emergency supplemental appropriations that would be paid for by deficit spending.

By January 2002, just before the release of the FY03 President’s budget, which would be the first budget submitted after the 2001 QDR report, CBO was forecasting deficits of \$21 billion in FY02 and \$14 billion in FY03, with the expectation that budget surpluses would return in FY04, leading to a total projected surplus of \$1.6 trillion over FYs 02–11, a decline of \$4 trillion from a year earlier.¹⁵⁹ These deficits would grow in subsequent years, while forecasts of a return to surpluses would give way to an outlook of continued deficit spending.

FY 2001 and FY 2002 Transition Budgets

FY 2001 Defense Budget

Congressional action on the FY01 DoD budget request led to an enacted level of \$295 billion for FY01, about \$4 billion more than the Clinton administration had originally requested in its FY03 President’s budget.¹⁶⁰ The FY01 DoD budget continued to evolve after the Bush administration took office in January 2001, however—most notably as the consequence of two supplemental appropriations that were enacted during FY01:

- On June 1, 2001, the Bush administration requested from Congress a non-emergency supplemental appropriation of \$5.6 billion for FY01 to address urgent

¹⁵⁵ See Executive Office of the President, 2001.

¹⁵⁶ Public Law 107-16, Economic Growth and Tax Relief Reconciliation Act of 2001, June 7, 2001.

¹⁵⁷ CBO, *The Budget and Economic Outlook: An Update*, Washington, D.C., August 2001c. The dates for the recession are from the National Bureau for Economic Research, which is charged with establishing official dates for economic recessions.

¹⁵⁸ CBO, *The Budget and Economic Outlook: Fiscal Years 2003–2012*, Washington, D.C., January 2002a.

¹⁵⁹ CBO, *The Budget and Economic Outlook, Fiscal Years 2004–2013*, Washington, D.C., January 2003a.

¹⁶⁰ Public Law 106-398, Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, October 30, 2000. For a detailed analysis of the FY01 budget, see Stephen Daggett, *Appropriations for FY2001: Defense*, Washington, D.C.: Congressional Research Service, RL30505, January 12, 2001a.

shortfalls, of which Congress added \$5.5 billion to DoD's FY01 budget, for a total of \$300.6 billion in budget authority for FY01.¹⁶¹

- In addition, on September 18, 2001, following the 9/11 attacks, the White House requested and Congress enacted an Emergency Supplemental Appropriation totaling \$40 billion, which provided DoD with a total of \$17.5 billion, including \$14 billion that was immediately available or subject to a 15-day wait period, and an additional \$3.5 billion that would become available if it was included in an FY02 appropriations act.¹⁶²

FY 2002 Defense Budget

The outgoing Clinton administration's January 2001 DoD long-range (five-year FYDP) budget proposal for FY02 envisioned \$310 billion in discretionary budget authority in FY02, a \$14 billion nominal increase over the enacted level of \$296 billion for FY01, with DoD spending rising to \$333 billion in FY06, again in nominal, then-year dollars.¹⁶³

In fact, as shown in Figure 2.3, the FY00 and FY01 Clinton administration defense spending plans had provided for real growth in DoD's long-range base budget com-

¹⁶¹ The White House requested a total of \$6.1 billion with an offset of \$0.5 billion, for a total request of \$5.6 billion. This was enacted as Public Law 107-20, Supplemental Appropriations Act for FY 2001, July 24, 2001. According to the administration's request, "The supplemental request is primarily for defense activities related to pay, support, training and quality of life for military personnel, as well as the coverage of regular operations costs in the current fiscal year. It is imperative to reverse the pattern of underfunding these costs in the annual appropriations measure" (George W. Bush, letter to the Speaker of the House of Representatives, Washington, D.C., June 11, 2001). The Supplemental Appropriations Act of FY 2001 was signed into law by President Bush on July 24, 2001.

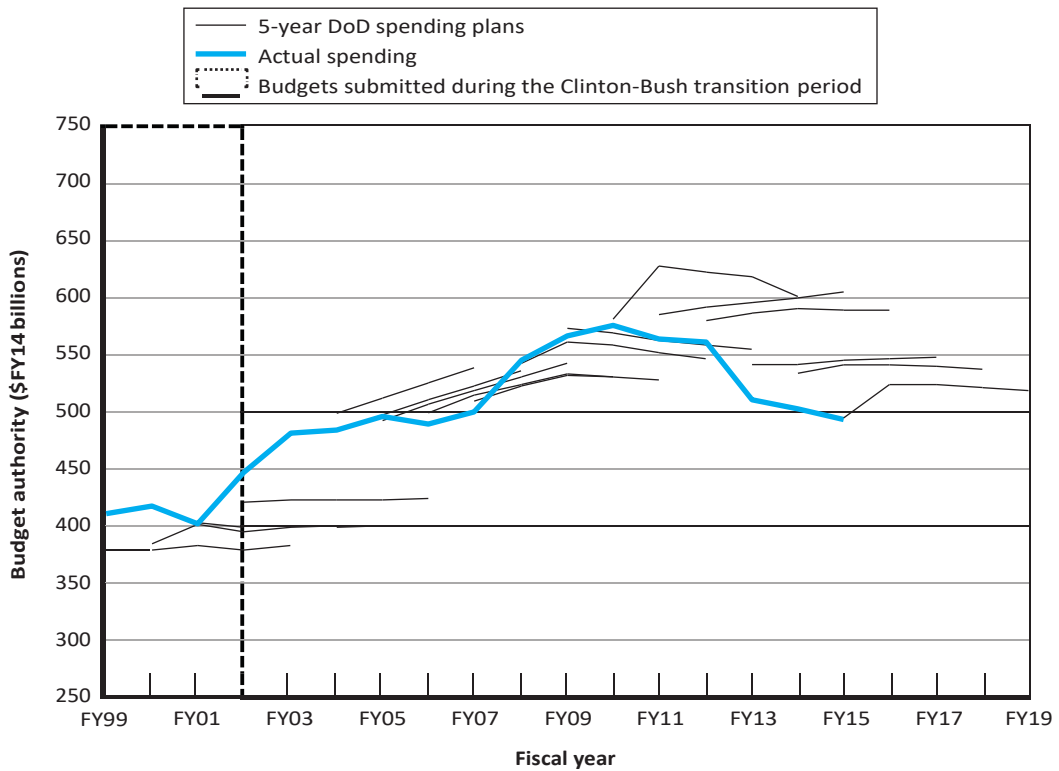
¹⁶² Public Law 107-38, 2001 Emergency Supplemental Appropriations Act for Recovery from and Response to Terrorist Attacks on the United States, September 18, 2001. According to the legislation, the first \$10 billion of the \$40 billion total was available immediately for allocation by the President, the second \$10 billion was available 15 days after the President notified Congress about how he would distribute the funds, and the final \$20 billion could be allocated within an enacted FY02 appropriations bill.

¹⁶³ According to Daggett,

almost all of the apparent increase in the FY2002 "top line" defense budget was already decided upon by the outgoing Clinton Administration. Indeed, outgoing Secretary of Defense William Cohen released information on the Clinton Administration's revised long-term defense budget plans in mid-January, in a section of the Department of Defense Annual Report to Congress. One table in the Annual Report provides an estimate of the amounts the Defense Department calculated the Clinton Administration had agreed to add to the defense budget in the period between the time the FY1999 budget request was initially submitted to Congress and the end of the new Pentagon planning period in FY2007. By Secretary Cohen's calculation, the Clinton Administration had agreed to add \$227 billion in "top-line" changes to ongoing defense budget plans — an increase of almost 9% — over a nine-year period. (Stephen Daggett, *Defense Budget for FY2002: An Overview of Bush Administration Plans and Key Issues for Congress*, Washington, D.C., Congressional Research Service, RL30977, May 22, 2001b, pp. 3–6)

For more detail on defense budgeting in this period, see Amy Belasco and Stephen Daggett, *Appropriations and Authorization for FY2002: Defense*, Washington, D.C.: Congressional Research Service, RL31005, February 2, 2002.

Figure 2.3
DoD Base Budget Five-Year Forecasts and Actuals, Clinton-Bush Transition Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure reports long-term DoD-051 budget authority plans; it does not include Department of Energy, GWOT/OCO, or other national defense budget function (050) accounts.

RAND RR1309-2.3

pared with the proposed FY99 levels.¹⁶⁴ In total, the Clinton team had programmed an increase of \$188 billion (nominal, then-year dollars) in DoD's discretionary topline for FYs 99–07 since the submission of the FY99 budget request, and Congress had added another \$28 billion, for a total of \$227 billion in increases over a nine-year period.¹⁶⁵

¹⁶⁴ Unless otherwise noted, the budget figures produced for this report are based on constant FY14 dollars using data from the FY14 defense budget estimates (OUSD (Comptroller), *National Defense Budget Estimates for FY 2014*, Washington, D.C., May 2013). For more information, see Appendix E.

¹⁶⁵ For a detailed discussion of the changes to the DoD topline between the FY99 and FY02 President's budget requests, see DoD, *Annual Report to the President and Congress*, Washington, D.C., January 2001a, pp. iii–x, 243–245, especially Table 17.1. The Congressional Research Service estimated that real national defense funding grew by 5.1 percent in FY99 and 1.4 percent in FY00. See Linwood B. Carter and Thomas Coipuram, Jr., *Defense Authorization and Appropriations Bills: A Chronology, FY1970–FY2006*, Washington, D.C.: Congressional Research Service, 98-756C, May 23, 2005.

As shown in the three thin lines beginning in FY99, FY00, and FY01 (representing the five-year spending plans in those years), the FY99 DoD long-range spending plan had set annual defense spending at about \$380 billion (base budget authority, converted to constant FY14 dollars),¹⁶⁶ the Clinton administration's FY00 and FY01 spending plans raised spending to about \$400 billion, a real increase of about \$20 billion per year, or more than 5 percent.

Compared with the outgoing Clinton administration's FY02 budget, the Bush administration's initial FY02 long-range budget plan envisioned about \$47 billion more in DoD spending in nominal, then-year dollars over FYs 02–06, or \$44 billion in constant FY02 dollars, a difference that would grow with the administration's June 2001 amended budget request for FY02.

The FY02 DoD budget continued to evolve over 2001 as the Bush administration began to clarify its priorities, but the administration sought to avoid major changes to DoD's budget until the conclusion of the QDR and submission of the FY03 budget in February 2002. Key points in the budget evolution include the following:

- On February 28, 2001, the Bush administration provided the initial outline of its proposed budget for FY02 in its *A Blueprint for New Beginnings*.¹⁶⁷ The administration essentially adopted the increased Clinton defense number for FY02, requesting a total of \$310.5 billion in discretionary budget authority for DoD in FY02, a \$14.2 billion increase over the enacted level of \$296.3 billion for FY01. Of this \$14.2 billion, \$4.4 billion was categorized as "campaign initiatives," presumably fulfilling promises made during the campaign, and another \$9.8 billion was categorized as "pay, inflation, health, and other" expenses.¹⁶⁸ In total, the blueprint envisioned adding \$39.6 billion in DoD discretionary budget authority over FYs 02–06, and \$95.4 billion over FYs 02–11.¹⁶⁹
- On April 9, 2001, the Bush administration submitted its official FY02 budget request for \$310.5 billion in discretionary budget authority for DoD, but providing much more detail than had been provided in the February 2001 *Blueprint*. The April 2001 plan envisioned about \$47 billion more in discretionary budget authority for DoD over FYs 02–06 (nominal, then-year dollars) than the outgo-

¹⁶⁶ Throughout the remainder of this report, we generally report spending in terms of constant FY14 dollars, unless otherwise noted.

¹⁶⁷ Office of Management and Budget (OMB), *A Blueprint for New Beginnings*, Washington, D.C., February 28, 2001.

¹⁶⁸ See OMB, 2001, pp. 99–101. Among the discrete initiatives detailed in the blueprint were expanded health benefits for over-65 military retirees (\$3.9 billion), compensation programs (\$1.4 billion), research and development of new technologies (\$2.6 billion), and improving family housing (\$400 million). According to Daggett (2001b, p. 6), the \$3.9 billion for health benefits and \$400 million for family housing were not new initiatives.

¹⁶⁹ See OMB, 2001, Tables S-4, S-5, and S-6.

ing Clinton FY02 plan.¹⁷⁰ Importantly, however, the April 2001 budget was little more than a placeholder budget that projected no real growth (see the thin line in Figure 2.3 beginning in FY02 at about the \$425 billion level). Planned budgets for FYs 03–06 were designed to simply keep up with inflation, with the expectation that the first post-QDR budget – the FY03 budget that would be submitted in February 2002 – would result in more-substantial, analytically informed changes.¹⁷¹ And, as shown in Figure 2.3, the April 2001 proposed Bush budget envisioned spending more than \$44 billion compared with the proposed Clinton budget for FYs 02–06.

- On June 27, 2001, the Bush administration sent Congress an amended FY02 budget request for \$343.5 billion for the national defense budget function and \$328.9 billion in total DoD discretionary budget authority, \$18.4 billion more than the April 9 budget, and \$32.6 billion more than the FY01 level.¹⁷² On December 28, 2001, Congress passed the National Defense Authorization Act for Fiscal Year 2002, providing \$343.3 billion for the national defense function in FY02, which President Bush signed into law as Public Law 107-107 on December 28, 2001. On December 20, 2001, the House and Senate passed H.R. 3338, the FY2002 DoD Appropriations Act, which also provided for \$343.3 billion for the national defense budget function, and which President Bush signed into law as part of Public Law 107-117 on January 10, 2002.¹⁷³
- As stated, on January 10, 2002, the President signed Public Law 107-117, Department of Defense and Emergency Supplemental Appropriations for Recovery from and Response to Terrorist Attacks on the United States Act, which allocated an additional \$3.5 billion to DoD in FY02 from the emergency supplemental appropriation approved in September 2001.
- On March 21, 2002, President Bush requested a total supplemental appropriation of \$28.4 billion, including \$27.1 billion in emergency supplemental funding to continue the war on terrorism and provide additional assistance for New York

¹⁷⁰ We estimate the difference between the two budgets in constant FY02 dollars to be between \$41–44 billion, depending on whether the April 2001 OMB or August 2001 DoD deflators are used.

¹⁷¹ Parenthetically, our calculations suggest that the outgoing Clinton administration's FY02 budget for DoD would have resulted in a real decline in defense spending over the FY02–06 period, from about \$310 billion to about \$300 billion.

¹⁷² See Belasco and Daggett, 2002, pp. 6, 48–51. On the FY02 amended budget, see DoD, "Background Briefing on the Fiscal Year 2002 Budget Amendment," Washington, D.C., June 22, 2001d; and DoD, "Special DoD News Briefing on Amended Budget for FY 2002," Washington, D.C., June 27, 2001g.

¹⁷³ Public Law 107-117, Department of Defense and Emergency Supplemental Appropriations for Recovery from and Response to Terrorist Attacks on the United States Act, January 10, 2002. In the FY03 Green Book, DoD received defense budget authority for FY02 at \$329.9 billion, including \$321.1 billion attributable to the Defense Appropriations Act and \$10.5 billion from the Military Construction bill, setting total national defense at \$350.7 billion (see OUSD (Comptroller), *National Defense Budget Estimates for FY 2003*, Washington, D.C., March 2002, Table 4-2).

City, aviation security, and other homeland security needs, as well as an additional \$1.3 billion for Pell grants in the President's February budget.¹⁷⁴ On August 2, 2002, Congress passed and the President signed Public Law 107-206, Supplemental Appropriations Act for Further Recovery from and Response to Terrorist Attacks on the United States. As enacted, the bill included \$25 billion in emergency spending and \$5.1 billion in contingent emergency spending, although the Bush administration indicated that it would not utilize the \$5.1 billion.¹⁷⁵

Memorandum: Cost Estimates for the Wars in Afghanistan and Iraq

Before moving on to the FYs 03–06 budgets that were submitted after the 2001 QDR report, it is worth noting CBO's preliminary estimates for the wars in Afghanistan and Iraq.

On April 2, 2002, CBO reported its preliminary estimates of the FY02 costs of prosecuting the war in Afghanistan as follows:

CBO estimates that the incremental cost to DoD of prosecuting the war in Afghanistan will be about \$10 billion for fiscal year 2002. This estimate assumes that our military forces in Afghanistan will continue to conduct operations at a pace similar to that experienced during the first six months of the campaign. In addition, the estimate is consistent with DoD's view of the operational tempo expected in that region for the remainder of this fiscal year. If operational conditions change from those assumed in the estimate, however, then the costs may be higher or lower than CBO estimates.¹⁷⁶

And on September 30, 2002, CBO reported its estimates of a possible war in Iraq as follows:

Estimates of the total cost of a military conflict with Iraq and such a conflict's aftermath are highly uncertain. They depend on many factors that are unknown at this time, including the size of the actual force that is deployed, the strategy to be used, the duration of the conflict, the number of casualties, the equipment lost, and the need for reconstruction of Iraq's infrastructure.

Of the many options being discussed for force structures, CBO examined two representative examples that vary in their emphasis on ground or air forces. Under the assumptions of those examples, CBO estimated that the incremental costs

¹⁷⁴ Amy Belasco and Larry Nowels, *Supplemental Appropriations for FY2002: Combating Terrorism and Other Issues*, Washington, D.C.: Congressional Research Service, RL31406, August 30, 2002.

¹⁷⁵ See Belasco and Nowels, 2002.

¹⁷⁶ CBO, letter to Senator Pete Domenici, Ranking Member, Committee on the Budget, U.S. Senate, Washington, D.C., April 10, 2002b. Total enacted FY02 defense supplemental appropriations for FY02 totaled \$17.1 billion. See CBO, *Supplemental Appropriations: 2000–Present*, Washington, D.C., August 2014c.

of deploying a force to the Persian Gulf (the costs that would be incurred above those budgeted for routine operations) would be between \$9 billion and \$13 billion. Prosecuting a war would cost between \$6 billion and \$9 billion a month — although CBO cannot estimate how long such a war is likely to last. After hostilities end, the costs to return U.S. forces to their home bases would range between \$5 billion and \$7 billion. Further, the incremental cost of an occupation following combat operations could vary from about \$1 billion to \$4 billion a month.¹⁷⁷

Additional detail is given on GWOT and OCO funding in the next sections.

DoD Budgets, FYs 2003–2006

We now turn to the FYs 03–06 DoD budgets that were submitted after the publication of the 2001 QDR report.¹⁷⁸

As described above, the incoming George W. Bush administration signaled that it would seek a sharp break with the investment priorities of its predecessor. At his confirmation hearing, Secretary of Defense nominee Rumsfeld described the tectonic changes ushered in by the end of the Cold War:

Today, with the Cold War Era history, we find ourselves facing a new era. . . . It is an extraordinarily hopeful time, one that is full of promise, but also full of challenges. One of those challenges . . . is the challenge of bringing the American military successfully into the 21st century.¹⁷⁹

And as discussed earlier, the administration called these fundamental changes “transformation” and indicated that they would require new investments in C4ISR and space capabilities. The administration also argued that past resource levels had not been sufficient to meet military requirements, and it called for substantially larger investments in several budget areas. Rumsfeld testified that he estimated the overall shortfall to be at least \$100 billion a year.¹⁸⁰

¹⁷⁷ CBO, letter to Senator Kent Conrad, Chairman, Committee on the Budget, U.S. Senate, and Rep. John M. Spratt, Jr., Ranking Member, Committee on the Budget, U.S. House of Representatives, Washington, D.C., September 30, 2002c. CBO’s accounting of supplemental appropriations between 2000 and 2014 did not break the appropriations out by theater.

¹⁷⁸ According to our structured conversations, the 2001 QDR budget deliberations were not as tightly coupled with force-planning options as they had been in earlier defense reviews, such as the 1989 Base Force Study, the 1993 Bottom-Up Review, and the 1997 QDR.

¹⁷⁹ U.S. Senate, *Nomination of Donald H. Rumsfeld: Hearing Before the Committee on Armed Services*, Washington, D.C., January 11, 2001a.

¹⁸⁰ Rumsfeld explained, “Is it clear that there needs to be an increase in the [defense] budget? There is no doubt in my mind” (U.S. Senate, 2001a). Rumsfeld cited estimates of the shortfall in investment at between \$50 billion and \$100 billion. And in a memo to President Bush, Rumsfeld wrote, “The Congressional Budget Office says there’s a \$50 billion per year shortfall to execute the strategy; estimates by Harold Brown, Jim Schlesinger and CSIS are considerably larger, some up to \$100 billion” (Rumsfeld, 2001m). Secretary Rumsfeld’s thinking may

In order to proceed with President Bush's transformation objectives, the 2001 QDR report argued that DoD must first address existing shortfalls; in particular, it needed to "reverse the readiness decline of many operational units, selectively recapitalize the force, and arrest the decay of aging defense infrastructure."¹⁸¹ After September 11, capabilities to counter terrorist threats also leapt to the top of the administration's strategic priorities.

The first budget submitted after publication of the 2001 QDR report was the FY03 President's budget, released in February 2002. In his budget release, Secretary Rumsfeld continued to place a high priority on both the agenda described on the campaign trail and the sorts of counterterrorism operations that had become such a focus after September 11:

The President's budget proposes \$369 billion for Department of Defense plus \$10 billion, if needed, to fight the war on terrorism – for a total of \$379 billion. The budget fulfills President Bush's pledge to win the war against terrorism, defend America and its people, improve quality of life for our men and women in uniform, and accelerate a bold transformation of the U.S. military to counter 21st century threats.¹⁸²

The President's budget request for DoD in FY03 highlighted the following defense initiatives, many of which, including the war on terrorism and transformation, were major themes of the 2001 QDR report:

- Wages war on terrorism – terrorism both at home and abroad;
- Transforms American armed forces for the future as part of a comprehensive long-term effort to adapt the U.S. military to new security challenges;
- Assures military readiness by keeping our "first to fight" forces trained and equipped to adapt to emerging threats;
- Enhances the quality of life of military personnel and their families by improving pay, living and working conditions, and health care; and

have been influenced by a January 2001 briefing titled "State of the Military" (see Donald Rumsfeld, "Benchmarking," memorandum to Paul Gebhard, Rumsfeld Papers, April 9, 2001d).

A mid-May 2001 memorandum to Secretary Rumsfeld from director of Program Analysis and Evaluation Barry D. Watts reported, "The additional resources needed to achieve department-wide standards by FY 2007 are more than \$500 billion. The implied program, particularly with respect to equipment modernization, could not be executed, due to the very large quantities of equipment . . . that would have to be bought. . . . As an alternative, we estimated the costs to achieve these standards by FY 2015. The additional resources required through FY 2007 are roughly \$375 billion. In this case the program would probably be executable, but still would be very costly" (Barry D. Watts, "Standards-Based Review," information memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, May 18, 2001).

¹⁸¹ DoD, 2001i, p. 10.

¹⁸² DoD, "Details of Fiscal Year 2003 Department of Defense (DoD) Budget Request," Washington, D.C., Release No. 049-02, February 4, 2002d.

- Commits to streamlining the Department, supporting war fighting, modernizing the Department's approach to business and financial information, and applying private sector standards to infrastructure.¹⁸³

In a similar vein, the FY04 budget release stressed,

The FY 2004 DoD budget is the first to reflect fully the Bush Administration's new defense strategy, which calls for a focus on the capabilities needed to counter 21st century threats such as terrorism — rather than on specific regional dangers or requirements. The central theme of the new budget is "Meeting today's threats while preparing for tomorrow's challenges." The budget establishes a balance between near-term and longer-term demands — in FY 2004 as well as over the 6 years covered by the FY 2004-2009 Future Years Defense Program (FYDP).

... To implement Secretary Rumsfeld's guidance stemming from the 2001 Quadrennial Defense Review, the Military Services have shifted billions of dollars from their older multi-year budget plans to new ones — as they have terminated and restructured programs and systems. For FY 2004-2009, the Military Services estimate that they have shifted over \$80 billion to help them transform their war-fighting capabilities and support activities.¹⁸⁴

While QDR priorities and themes have frequently been accented in post-QDR budget presentations and major initiatives frequently can be traced back to QDR guidance, the FYDP was never actually linked to the QDR initiatives, and as of May 2004, DoD reportedly had no plans to link the two.¹⁸⁵ We thus conclude that the chain of causality linking QDR guidance and directives with the detailed elements of defense programs and budgets developed after a QDR is often opaque, or at best indirect.¹⁸⁶

¹⁸³ OMB, *Budget of the United States Government, Fiscal Year 2003*, Washington, D.C., February 2002, p. 87.

¹⁸⁴ DoD, "Fiscal 2004 Department of Defense Budget Release," Washington, D.C., Release No. 044-03, February 3, 2003a. In a similar vein, the FY05 budget presentation stated, "The budget maintains implementation of the Bush Administration defense strategy and continues the transformation of the U.S. military to ensure that it has the capabilities needed to counter 21st century security threats most effectively and efficiently. The budget balances support for this long-term transformation with resources for current global operations and requirements" (DoD, "Fiscal 2005 Department of Defense Budget Release," Washington, D.C., Release No. 061-04, February 2, 2004a). And the FY06 budget release stated, "'This budget represents the latest installment in the President's strong commitment to transforming this department to face the challenges of the 21st century,' said Secretary of Defense Donald Rumsfeld. 'We continue our transition to a more agile, deployable, and lethal force'" (DoD, "Fiscal 2006 Department of Defense Budget Is Released," Washington, D.C., Release No. 129-05, February 7, 2005a).

¹⁸⁵ See U.S. General Accounting Office, *Future Years Defense Program: Actions Needed to Improve Transparency of DoD's Projected Resource Needs*, Washington, D.C., GAO-04-514, May 2004, p. 16, and structured conversations with defense professionals who were involved in the 2001 and 2006 QDRs.

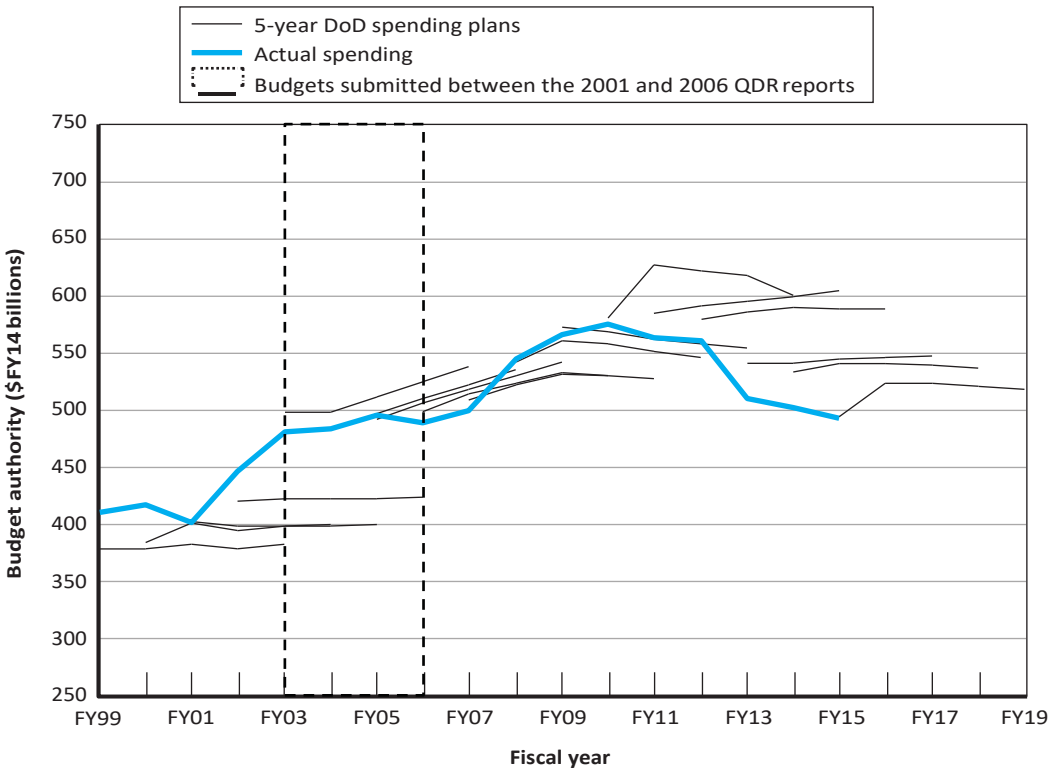
¹⁸⁶ As a practical matter, and as discussed in this section, development of the POM for the FYDP beginning in FY03 was concluded in the final months of 2001, so the 2001 QDR probably represents the best case, because its defense strategy was actually completed before the POM and budget.

Figure 2.4 shows the base budget topline relative to the five-year projection for each year, and the dashed box highlights the years between the 2001 and 2006 QDR reports – in this case, FYs 03–06. The slender lines beginning in FY03, FY04, FY05, and FY06 again represent the budget plans presented for those fiscal years, while the thick solid line is the actual spending level.

As shown in the figure, while the actual DoD spending realized in this period exceeded plans made before September 11, it generally fell short of the spending plans set for the out-years of FY04 through FY06.

However, the base budget was just one component of the resource picture in this period. DoD was increasingly occupied with operations in Afghanistan and Iraq, and

Figure 2.4
DoD Base Budget Five-Year Forecasts and Actuals, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure reports long-term DoD-051 budget authority plans; it does not include Department of Energy, GWOT/OCO, or other national defense budget function (050) accounts.

the vast majority of funds for these conflicts were provided through emergency supplemental appropriations.¹⁸⁷

Historically, supplemental appropriations have been provided to DoD for unanticipated or unpredictable budget requirements as a means of providing resources more flexibly and more quickly than would be possible through the normal DoD budgeting process. In the Korean and Vietnam wars, and in the humanitarian operations in the 1990s, supplemental appropriations were used to cover the early stages of a conflict, beyond which war costs were integrated into ordinary appropriation processes.¹⁸⁸ By contrast, the Bush and Obama administrations have largely funded war-related expenses via large supplemental appropriations every year since 2001.

Figure 2.5 presents data on DoD's base budget and OCO funding over FYs 1999–2015. The green wedge documents the growth of war supplemental appropriations, and the dashed box indicates the period between the 2001 and 2006 QDRs. The war supplemental appropriations increased 40 percent in real terms over this period, accounting for 22 percent of the overall DoD topline by FY06.¹⁸⁹

While war-related spending accounted for substantial increases in this period, it is important to note that the wars did not account for all of the growth. Figure 2.6 shows the base budget, broken out into appropriation titles, with the dashed box indicating the years associated with implementation of the 2001 QDR. Over this period, the base budget grew by about 2 percent, largely due to increases in military personnel (8 percent) and RDT&E spending (16 percent). Operation and maintenance (O&M) actually modestly declined in this period, down 4 percent by FY06 relative to the FY03 level.

Figure 2.7 shows the base budget broken out into service shares. As shown in the figure, a substantial (13 percent) increase in the budget for defense-wide activities accounts for much of the overall increase in the base budget during the post-2001 QDR period.

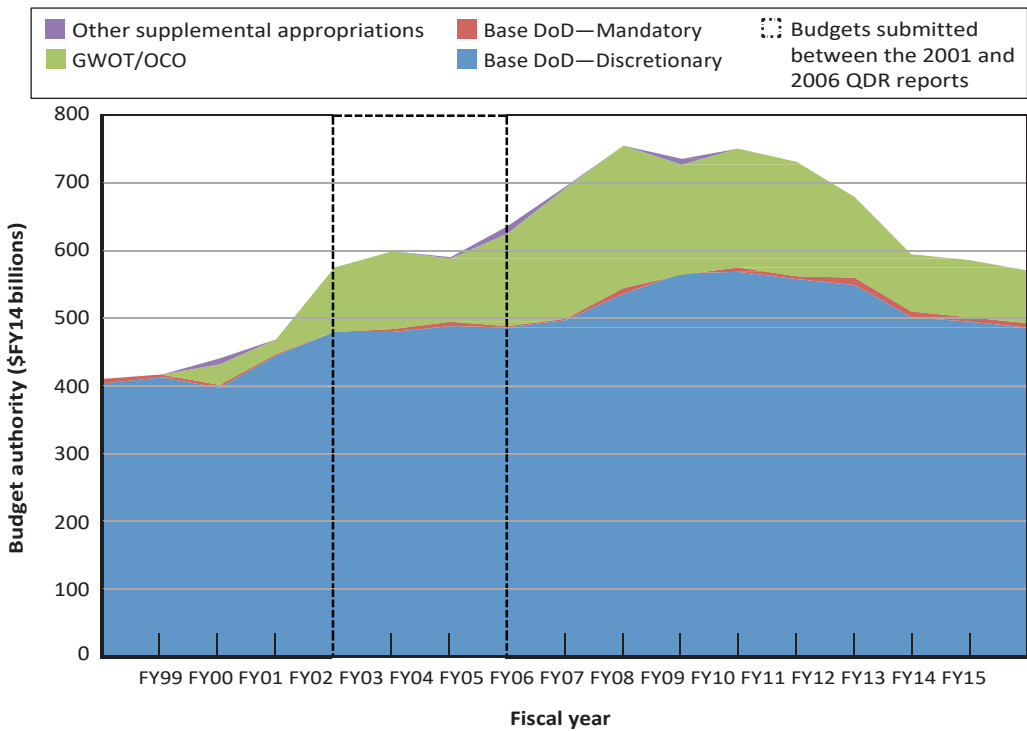
Historically, localized fluctuations notwithstanding, the part of the budget allocated to each service has been relatively stable. One exception to this overall stability was the “defense-wide” budget, which has, over time, experienced significant growth as a percentage of overall defense spending. This part of the defense budget includes cross-DoD functions, such as the combatant commands, OSD, the Joint Staff, and the defense agencies, and has grown as new programs have been introduced or existing programs have been consolidated under that account.

¹⁸⁷ Until FY09, supplemental war appropriations were labeled funds for the *global war on terrorism* (GWOT); President Obama introduced the term *overseas contingency operations* (OCO).

¹⁸⁸ Stephen Daggett, *Military Operations: Precedents for Funding Contingency Operations in Regular or in Supplemental Appropriations Bills*, Washington, D.C.: Congressional Research Service, June 13, 2006, pp. 2–3.

¹⁸⁹ This does not include non-war-related supplemental appropriations in 2005 and 2006 to provide emergency relief to those affected by Hurricane Katrina and other natural disasters.

Figure 2.5
DoD Base Budget Plus War Funding and Supplementals, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure covers GWOT funding through FY09, both GWOT and OCO funding in FY09, and OCO funding thereafter.

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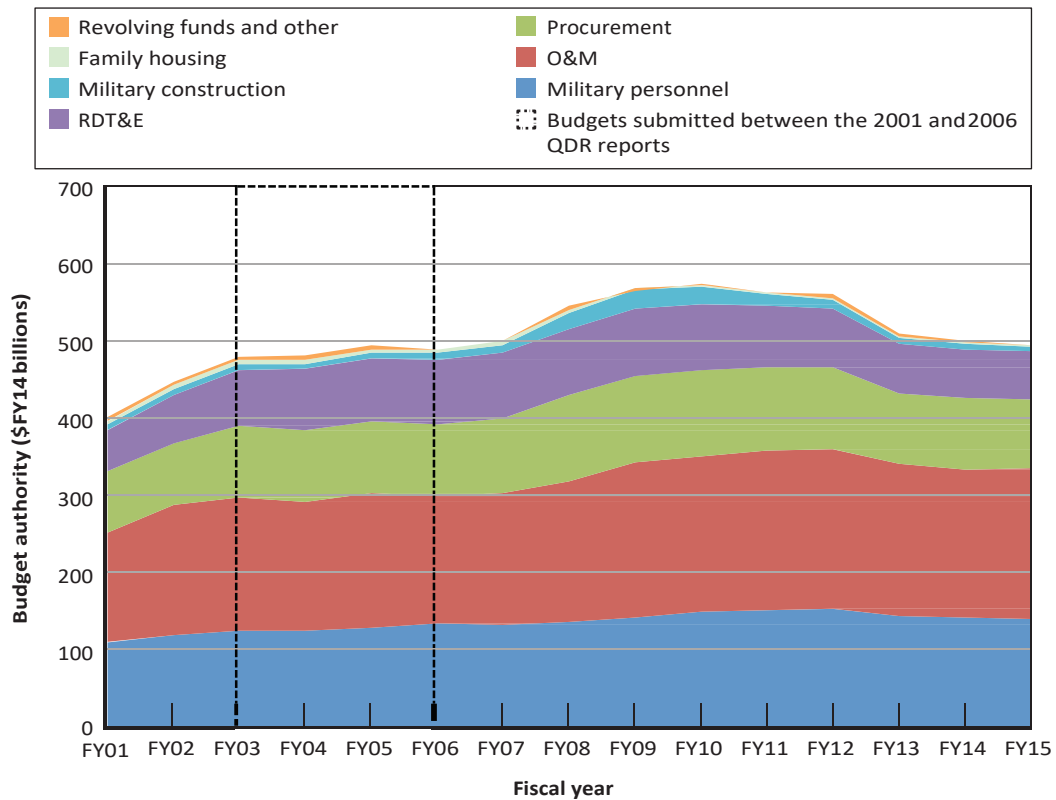
For example, in 1983, President Reagan established what is now called the Missile Defense Agency in the defense-wide budget, and in 1987, he activated the Special Operations Command; both are now among the largest contributors to the defense-wide budget. Today, other consistently large contributors to the defense-wide budget include OSD, the DoD Education Activity (a civilian agency that manages schools for military children at U.S. bases around the world), and the Defense Advanced Research Projects Agency.¹⁹⁰

The largest current contributor to the defense-wide budget, however, is the Defense Health Program, which in FY13 accounted for more spending than the next five largest activities in the budget combined.¹⁹¹ DoD established the Defense Health Program in 1994 to centrally manage health care for its active and retired personnel

¹⁹⁰ OUSD (Comptroller), *National Defense Budget Estimates for FY 2013*, Washington, D.C., February 2012b.

¹⁹¹ Not discussed here are defense agencies in the intelligence community, which do not publish budget materials in the open literature.

Figure 2.6
DoD Base Budget, by Appropriation Title, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.6

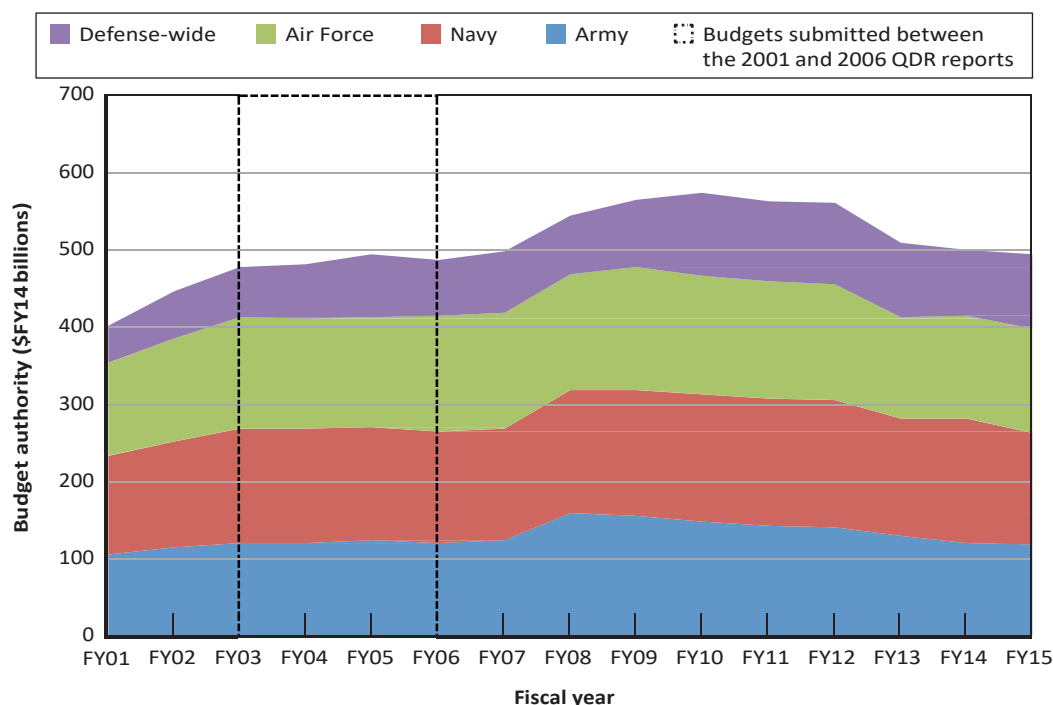
(and their dependents). The Defense Health Program is the largest part of the military health system, which provides medical care to an estimated 9.7 million active-duty military, retirees, and their dependents.¹⁹² And this program has experienced significant growth in recent years: Between 1998 and 2013, the Defense Health Program grew 62 percent in real terms, to a request of \$32.5 billion in FY13.¹⁹³

War-related supplemental appropriations grew (about 40 percent in real terms) in the years between the 2001 and 2006 QDRs, but importantly, they also changed in composition. As Figure 2.8 shows, in 2003, war supplemental appropriations were

¹⁹² Walter Pincus, “Military, Heal Thyself – Health Programs Still a Challenge,” *Washington Post*, March 14, 2012; Don J. Jansen, *Military Medical Care: Questions and Answers*, Washington, D.C.: Congressional Research Service, RL33537, January 2, 2014.

¹⁹³ See the Appropriation Highlights in OUSD (Comptroller), *Defense Health Program Fiscal Year (FY) 2013 Budget Estimates*, Washington, D.C., February 2012a.

Figure 2.7
DoD Base Budget, by Service, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.7

heavily dominated by operations and support appropriation titles (military personnel and O&M); O&M alone made up 75 percent of the overall warfighting budget. By 2006, that internal constitution had begun to shift. O&M still dominated, accounting for 63 percent of the overall warfighting budget, but the second-largest contributor was procurement, not military personnel. By 2006, procurement accounted for almost 20 percent of the warfighting budget.¹⁹⁴

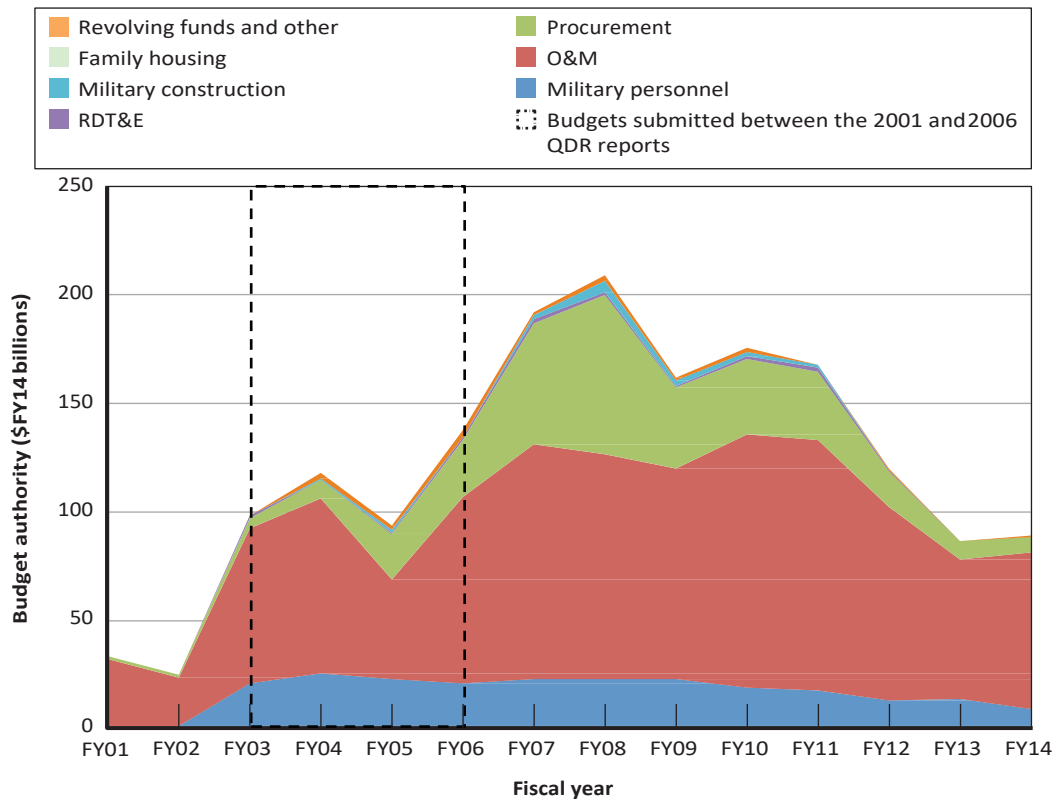
The Congressional Research Service noted that growth in procurement funding in this period reflected a change in the use of war-related funding by the services. From FY04, the services began to make substantial procurement investments to “reset” existing equipment.¹⁹⁵ CBO reported that substantial reset spending went not only to replace wartime equipment losses, but also to upgrade and replace stressed equipment and enhance force protection.¹⁹⁶ It found that more than 40 percent of requested reset

¹⁹⁴ OUSD (Comptroller), 2013.

¹⁹⁵ “Reset” refers to the process of bringing war utilized equipment back up to operating standards” (CBO, 2007a).

¹⁹⁶ Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*, Washington, D.C.: Congressional Research Service, RL33110, March 29, 2011, p. 27.

Figure 2.8
DoD War Supplemental Budget, by Appropriation Title, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.8

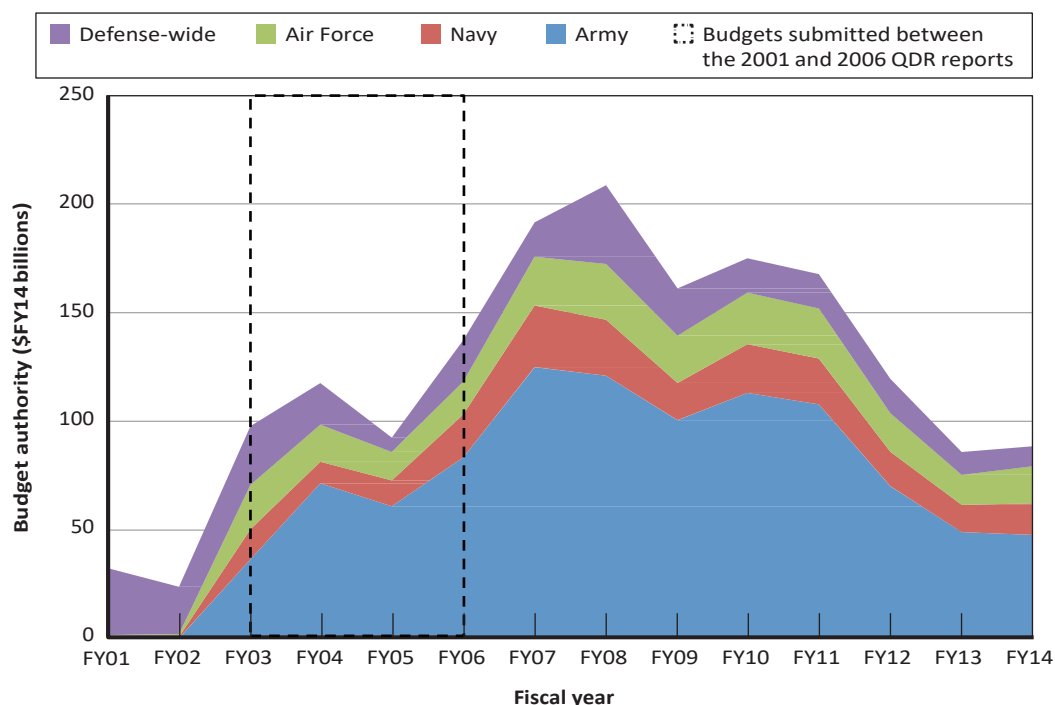
funds were spent on activities other than replacing lost equipment or repairing returned systems. These included upgrading systems to make them more capable, as well as buying new equipment to eliminate long-standing shortfalls in Army inventories.¹⁹⁷

The Congressional Research Service also noted that these investments led some observers to question the extent to which war-related procurement directly reflected the stresses of war. In early 2006, toward the end of the post–2001 QDR era, the Bush administration accordingly issued guidance redefining war costs, resulting in a significant expansion of costs that could be considered war-related.¹⁹⁸ As will be discussed in the next section, this redefinition would lead to sizable increases in war-related procurement spending between the 2006 and 2010 QDRs.

Figure 2.9 shows that defense-wide spending has also been a substantial contributor to war-related supplemental appropriations.

¹⁹⁷ CBO, 2007a.

¹⁹⁸ Belasco, 2011, p. 51.

Figure 2.9**DoD War Supplemental Budget, by Service, Post–2001 QDR Era**

SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.9

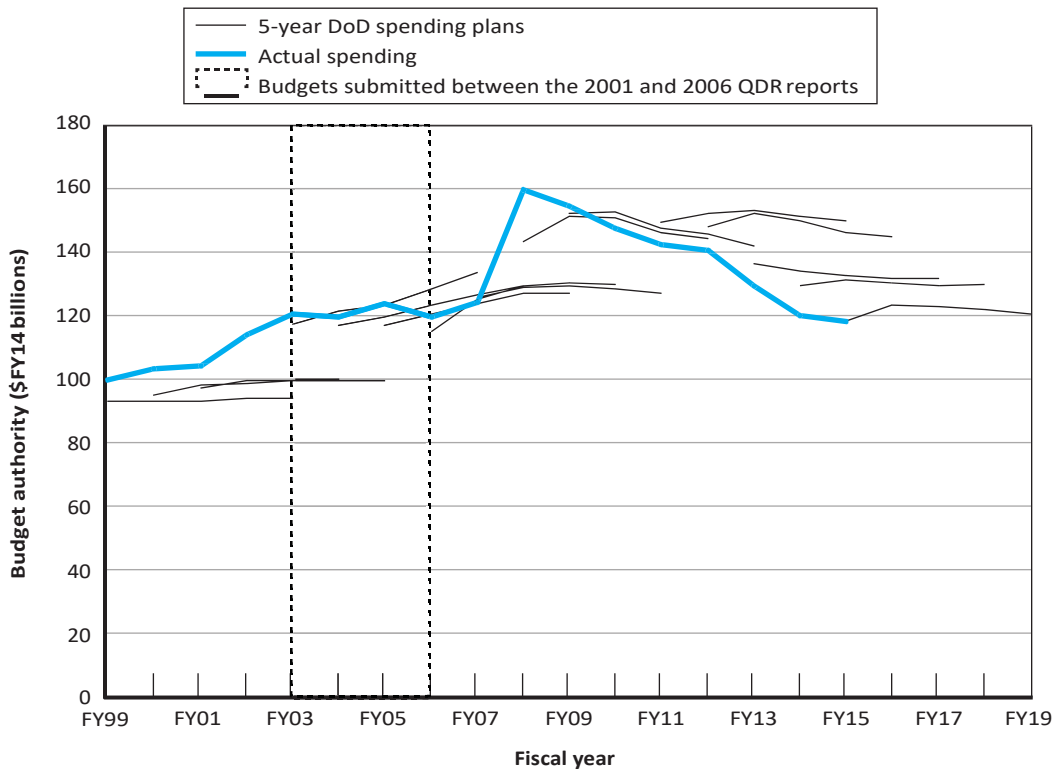
While defense-wide spending dominated the supplemental budget in FYs 01–02 (94 percent of the total warfighting budget in that period), the large role for U.S. special forces in the early stages of Operation Enduring Freedom in Afghanistan led to Army spending dominating the war budget by FY03. In the years between the 2001 and 2006 QDR reports, the Army consumed 56 percent of the budget for war supplemental appropriations.

Army Budgets, FYs 2003–2006

The post-9/11 long-range plans had called for steeper increases in Army spending than were actually realized: The Army's base budget remained relatively flat during the post-2001 QDR era, although its composition changed. Figure 2.10 shows Army five-year plans and actual spending levels for the Army's base budget, and Figure 2.11 breaks that spending out by appropriation title.

Of the major appropriation titles, Army RDT&E spending increased by more than 40 percent in real terms between FY03 and FY06, and military personnel spend-

Figure 2.10
Army Base Budget Five-Year Forecasts and Actuals, Post-2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

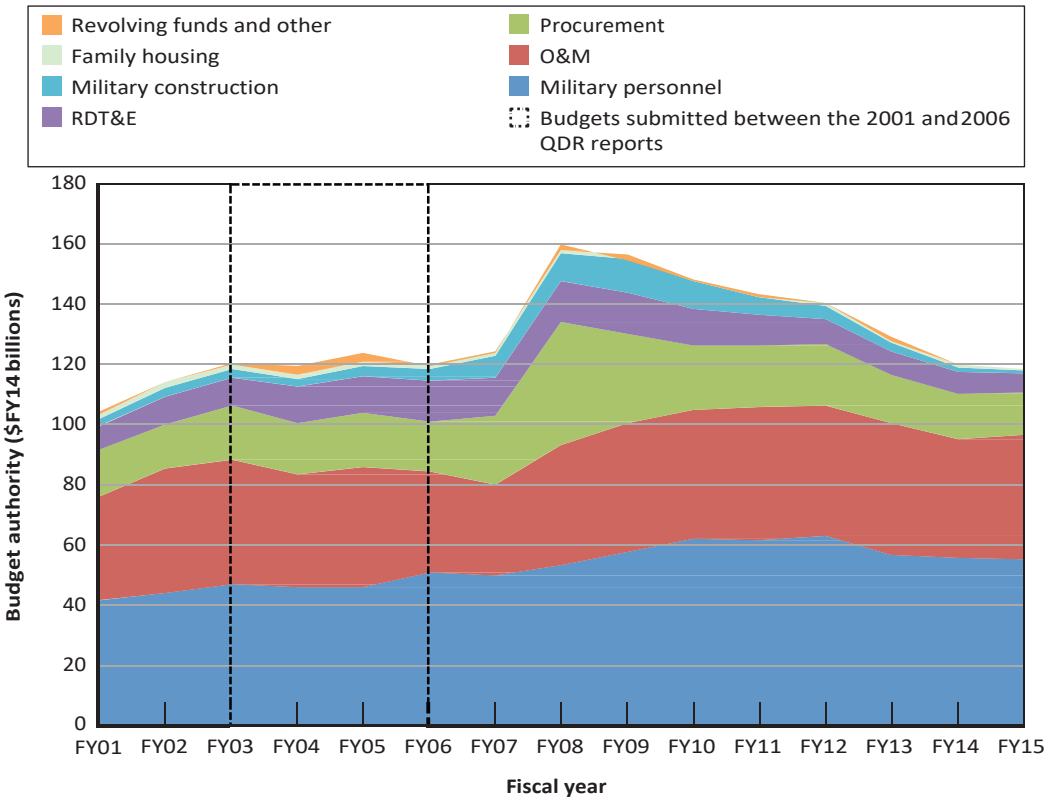
RAND RR1309-2.10

ing increased by 8 percent.¹⁹⁹ A relatively smaller appropriation title, military construction, increased by 15 percent, perhaps reflecting the 2001 QDR report's call for additional investment in military facilities and infrastructure to address years of underfunding.²⁰⁰ Army O&M spending in the base budget actually decreased by almost 20 percent, significantly outpacing the rate of decline in DoD total O&M spending in this period. Increases in Army O&M in the OCO account more than compensated for this reduction.

¹⁹⁹ Transformation demanded greater RDT&E efforts, as well as procurement of advanced systems.

²⁰⁰ DoD, 2001i, p. 9.

Figure 2.11
Army Base Budget, by Appropriation Title, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.11

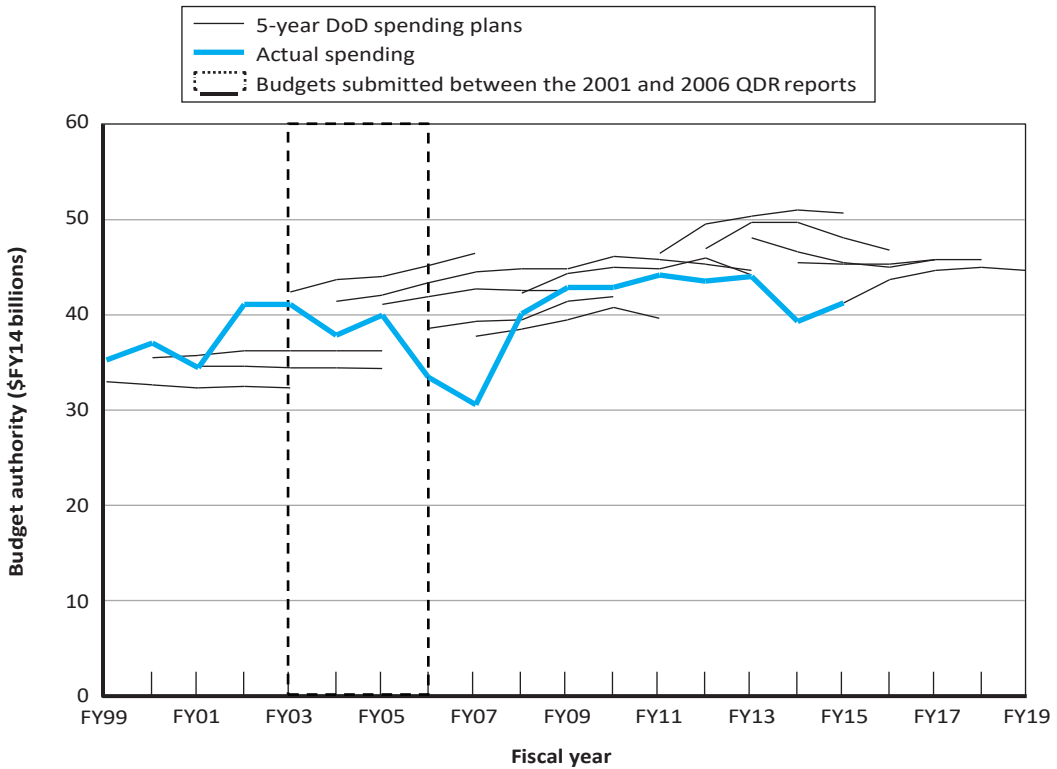
Figures 2.12 through 2.14 display plans and actual spending in two key appropriation areas: O&M and procurement. Figure 2.12 reports planned and actual O&M spending and reflects the extent to which plans in this period significantly exceeded actual budgets.²⁰¹

Figure 2.13 shows planned versus actual Army procurement spending. In this appropriation title, actual spending slightly exceeded planned levels during the post-2001 QDR period.

As shown in the figure, during this period, planned levels of Army procurement spending were somewhat higher than the planned or actual levels in prior years, con-

²⁰¹ The ambitious plans for O&M spending may reflect the 2001 QDR’s emphasis on several areas for increased investment, including readiness and increases to civilian compensation to address the consequences of “a decade of downsizing” (DoD, 2001i, pp. 8–9). The difference between plans and actual levels could reflect shortfalls, or it could indicate that substantial O&M spending in the supplemental budget was making up the difference.

Figure 2.12
Army Base Operation and Maintenance Budget Five-Year Forecasts and Actuals, Post-2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

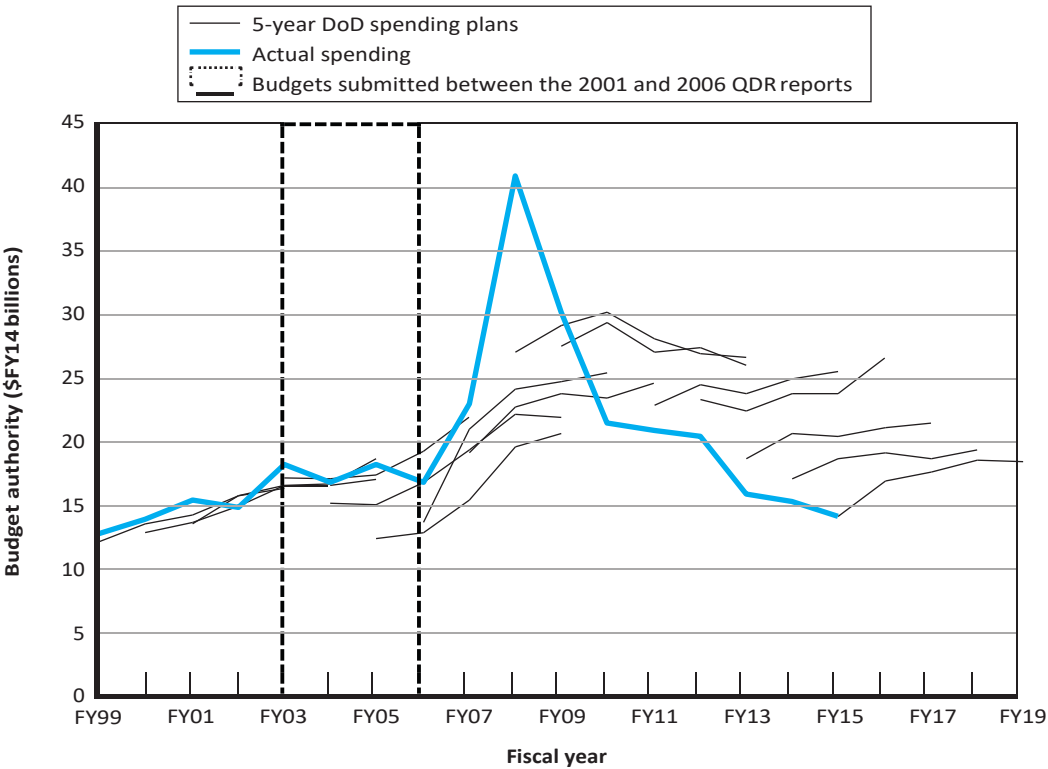
RAND RR1309-2.12

sistent with the 2001 QDR report's emphasis on investments to reverse the so-called "procurement holiday" following the end of the Cold War.²⁰²

Figure 2.14 describes the composition of the growth in total Army procurement spending. As shown, the sizable increase in overall procurement spending (70 percent) between FY03 and FY06 was due to substantial growth in several Army appropriation accounts, the largest being in (1) weapons and tracked combat vehicles and (2) other procurement, Army (OPA). Some of this growth likely reflects increased Army investment in up-armoring vehicles, although the largest push for up-armored HMMWVs and MRAPs occurred in the years between the 2006 and 2010 QDRs, as will be discussed in greater detail in the next section.

²⁰² As will be discussed shortly, however, much of this increase in procurements was associated with up-armoring vehicles to meet the imperative of reducing death and injury from IED attacks.

Figure 2.13
Army Base Procurement Budget Five-Year Forecasts and Actuals, Post–2001 QDR Era



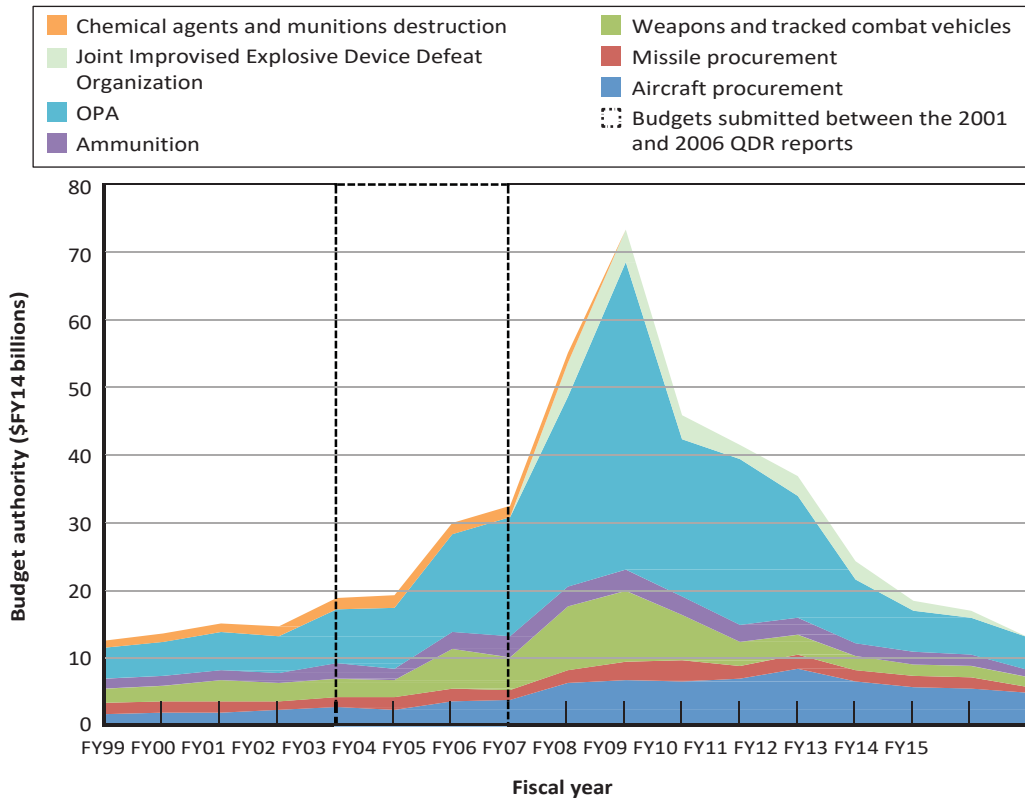
SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.13

While the base versus war-related breakout of the Army procurement budget is not openly available at the appropriation account level of detail, we can make some observations at a high level regarding the Army war budget. See Figure 2.15 for a breakout of Army war-related funding by appropriation title.

Overall, operation and support spending (O&M and military personnel) dominated the Army war budget, but investment spending (procurement and RDT&E) represented the fastest area of growth. War-related Army procurement increased from

Figure 2.14
Total Army Procurement Budget (Base Plus War-Related), by Appropriation Account, Post–2001 QDR Era

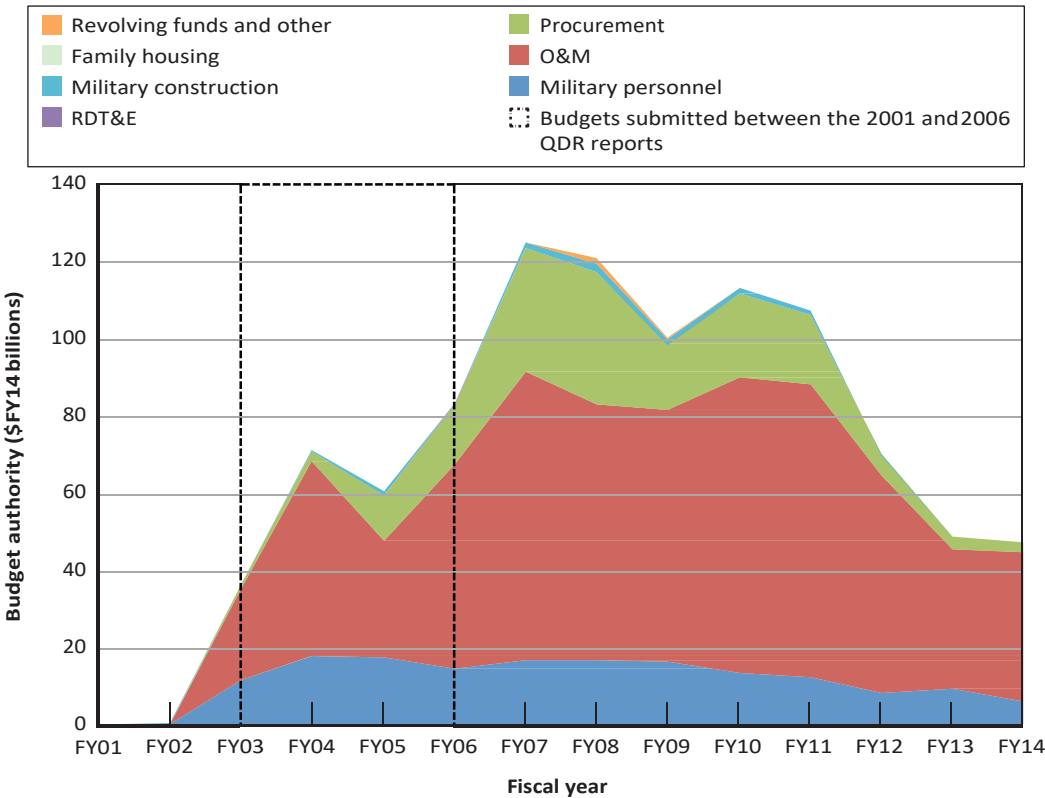


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.14

less than \$1 billion in FY03 to \$15.7 billion by FY06 (constant FY14 dollars), likely reflecting evolving reset priorities. In the same period, war-related RDT&E spending also grew quickly – between FY03 and FY06, Army war-related RDT&E spending increased by more than 400 percent, from \$200 million to \$800 million – but remained well below war-related procurement spending.

Figure 2.15
Army War Supplemental Budget, by Appropriation Title, Post–2001 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-2.15

General Observations on Budgets in the Post–2001 QDR Period

In 2001, DoD planned for an increase in the base budget that would raise spending levels to higher, but generally flat, levels between FY03 and FY06. Actual DoD spending levels, while indeed higher than spending in previous years, generally fell short of plans, especially in the out-years. The Army planned for real growth in this period, while actual spending proved relatively flat, although Army topline spending actually exceeded plans in several years during this period. A closer look at specific appropriation titles suggests that mismatches between planned and actual spending did not hold uniformly: Plans for Army O&M generally exceeded actual spending, while plans for Army procurement generally underestimated actual spending. The delta could reflect the always-challenging project of planning, or it could reflect an interactive relationship between the base and war-related supplemental appropriations: In the period between the 2001 and 2006 QDRs, O&M constituted the largest component of the war supplemental budget.

GAO reported on several occasions during the post-2001 QDR era that DoD's accounting systems were insufficient for drawing a sharp line between base and supplemental spending. "As we have reported in the past," Comptroller General David M. Walker testified in 2006, "we have significant concerns about the overall reliability of DoD's reported cost data. As a result, neither DoD nor Congress can reliably know how much the war is costing."²⁰³ If, as GAO noted, it was impossible to draw a sharp line between base and war-related spending in this period, large supplemental O&M funds could well have been used to close the gaps between planned and actual spending in the base budget described earlier in this section.

DoD faced significant challenges in the period between the 2001 and 2006 QDRs resulting from the dynamic situations in Afghanistan and Iraq, which were proving both operationally demanding and resource-intensive. In this context, the administration needed to balance the "21st-century threats" prioritized in the 2001 QDR report against immediate wartime requirements. Whereas in his confirmation hearing in 2001, Secretary Rumsfeld argued, "I don't think it's necessarily true that the United States has to become a great peacekeeper," by 2006, the military was engaged in ambitious stabilization and reconstruction operations in both Afghanistan and Iraq.²⁰⁴ One example of the reshuffling of priorities as a result of changing operational circumstances was the unexpected requirement to resource end-strength increases, reset equipment, and up-armor systems poorly equipped to address IED threats.

One key challenge anticipated in this period was the inadequacy of DoD's accounting for war costs. The funding for procurement, in particular, increased as a share of war-related supplemental spending, and government auditors expressed concern that costs not directly related to war operations were finding their way into the war budget. This posed risks to fiscal discipline and planning, which would represent a larger challenge in the years between the 2006 and 2010 QDRs.

Defense Reform and Infrastructure

Defense Reform Initiative

Following the release of the 1997 QDR, Secretary of Defense Cohen chartered a study effort to explore opportunities for defense reform, and DoD released a report on the Defense Reform Initiative in November 1997.²⁰⁵ As described by GAO,

²⁰³ GAO, *Global War on Terrorism: Observations on Funding Costs, and Future Commitments*, Washington, D.C., GAO-06-885T, July 18, 2006, p. 11.

²⁰⁴ Tom Bowman, "Leave Peacekeeping to Others, Rumsfeld Says at Senate Hearing," *Baltimore Sun*, January 12, 2001.

²⁰⁵ See William S. Cohen, *Defense Reform Initiative Report*, Washington, D.C., November 1997.

The report emphasized the need to reduce excess Cold War infrastructure to free up resources for modernization. The report identified numerous initiatives to reengineer business practices, consolidate organizations, eliminate unneeded infrastructure through additional base closures, and conduct public/private competitive sourcing studies for commercial activities. Most of the potential savings identified in the report were expected to result from [base realignments and closures (BRACs)] and competitive sourcing studies. . . . DoD expects savings from individual [Defense Reform Initiative projects] but has not incorporated specific savings from these initiatives in the FYDP, except in the areas of potential BRAC and competitive sourcing.²⁰⁶

In December 2002, GAO reported that five of the Defense Reform Initiative's 35 projects had been completed at that time, another eight were ongoing in the original form, 20 were ongoing in revised form, and seven were subsumed into another management initiative.²⁰⁷ Just prior to the release of the FY03 budget, GAO reported that two of the initiatives appeared to be yielding substantial savings:

While it is difficult to quantify the savings precisely, two initiatives that have yielded the greatest savings over time are the public-private competitions under the A-76 program and the congressionally approved defense base realignment and closure actions.

. . . Our work has shown that DOD has achieved significant savings through this [A-76] program, even though it has been difficult to determine precisely the magnitude of those savings.

. . . DOD completed four rounds of base realignment and closures between 1988 and 1995 and has congressional authorization for another round of base realignments and closures scheduled for 2005. DOD officials have testified the 2005 round could achieve a 20 to 25 percent reduction in military infrastructure, with annual savings of about \$6 billion. Our reviews have found that estimated savings from the first four rounds, while imprecise, are nonetheless substantial in the long term.²⁰⁸

²⁰⁶ U.S. General Accounting Office, *Future Years Defense Program: How Savings from Reform Initiatives Affect DoD's 1999–2003 Program*, Washington, D.C., GAO/NSIAD-99-66, February 1999a, pp. 3, 5.

²⁰⁷ U.S. General Accounting Office, *Defense Management: New Management Reform Program Still Evolving*, Washington, D.C., GAO-03-58, December 2002c.

²⁰⁸ U.S. General Accounting Office, *Major Management Challenges and Program Risks: Department of Defense*, Washington, D.C., GAO-03-98, January 2003, pp. 33–34. See also U.S. General Accounting Office, *DoD Competitive Sourcing: A-76 Program Has Been Augmented by Broader Reinvention Options*, Washington, D.C., GAO-01-907T, June 28, 2001e. The A-76 program referred to in the quote relates to OMB Circular A-76, which establishes federal policy for the competition of commercial activities, including privatization and outsourcing of what were formerly governmental activities.

Business Transformation

In addition to transforming the force to meet future threats, the strategy laid out in the 2001 QDR report emphasized the need for DoD to reduce unneeded infrastructure and adopt more-efficient business practices:²⁰⁹

The need to transform America's military capability encompasses more than strategy and force structure. Transformation applies not just to what DoD does, but how DoD does it. During the same period that the security environment shifted from a Cold War structure to one of many and varied threats, the capabilities and productivity of modern businesses changed fundamentally. The Department of Defense has not kept pace with the changing business environment.

A transformed U.S. force must be matched by a support structure that is equally agile, flexible, and innovative. It must be a structure in which each of DoD's dedicated civilian and military members can apply their talents to defend America — where they have the resources, information, tools, training, and freedom to perform.²¹⁰

2005 Base Realignment and Closure Commission

The 2001 QDR report stated that “DoD maintains between 20 and 25 percent more facility infrastructure than needed to support its forces — at an annual excess cost of \$3 to \$4 billion”; shedding this excess infrastructure could have provided about 1-percent savings annually.²¹¹ Thus, there was additional work to be done in reducing DoD infrastructure during the years after the 2001 QDR report, and much of the heavy lifting was done by the congressionally authorized 2005 BRAC Commission.²¹²

In May 2005, DoD announced its recommended closures for the 2005 BRAC cycle:

[We] are recommending the closure of 33 of the 318 major military installations in the United States, and the realigning of 29 more. We are also recommending the closure or realignment of another 775 smaller military locations. As indicated yesterday, the total projected net present value savings of these actions over a 20-year period is just under \$49 billion. If the savings resulting from global re-posturing are included in our process, the total net savings is just under \$65 billion. The annual recurring savings . . . is larger than each of the previous rounds of base realignment.²¹³

²⁰⁹ For a description of defense reform efforts, see “Revitalizing the DoD Establishment” in DoD, 2001i, pp. 49–56.

²¹⁰ DoD, 2001i, p. 49.

²¹¹ DoD, 2001i, p. 49.

²¹² U.S. General Accounting Office, 2003. In January 2003, the General Accounting Office estimated that DoD infrastructure costs constituted 46 percent of DoD's budget in FY01 and 44 percent in FY02.

²¹³ DoD, “DoD Announces BRAC Recommendations,” Washington, D.C., May 13, 2005d. See also DoD, “Briefing on Base Realignment and Closure,” Washington, D.C., May 10, 2005c; and DoD, “Secretary Rumsfeld's Prepared Remarks for the BRAC Commission Hearing,” Washington, D.C., May 16, 2005e.

For its part, the Commission estimated that over a 20-year period ending in 2025, DoD would achieve a positive net present value of about \$36 billion, and that annual recurring savings from the BRAC 2005 recommendations would be around \$4.2 billion.²¹⁴ By June 2012, GAO was estimating that one-time implementation costs for BRAC 2005 grew from the original estimate of \$21 billion to about \$35.1 billion, an increase of about 67 percent, and that the 20-year net present value of the BRAC round had diminished by 72 percent, to about \$9.9 billion. GAO's estimate of net annual recurring savings at the time was about \$3.8 billion annually, still significant, but representing a 9.5-percent decrease from the Commission's estimate of \$4.2 billion.²¹⁵

A-76 Public-Private Competitions and Competitive Sourcing

As noted earlier, competitive sourcing was seen as another significant billpayer, and as early as June 2001, GAO was reporting that A-76 competitive sourcing to date had already yielded more than \$11 billion in savings for DoD.²¹⁶ Such efforts were continued, and even expanded, during the years between the 2001 and 2006 QDRs, with significant projected savings from these efforts:

In 1999, for example, DOD projected that its A-76 program would produce \$6 billion in cumulative savings from fiscal year 1997 to 2003 and \$2.3 billion in net savings each year thereafter. In 2000, DOD projected savings of about \$9.2 billion in 1997–2005, with recurring annual net savings of almost \$2.8 billion thereafter. Additional savings were to come from strategic sourcing, which was expected to produce nearly \$2.5 billion in cumulative savings by 2005 and recurring annual savings of \$0.7 billion thereafter. Together, A-76 and strategic sourcing are expected to produce estimated cumulative savings of almost \$11.7 billion, with about \$3.5 billion in recurring annual net savings.²¹⁷

²¹⁴ GAO, *Military Base Realignments and Closures: Updated Costs and Savings Estimates from BRAC 2005*, Washington, D.C., GAO-12-709R, June 29, 2012, pp. 4–5.

²¹⁵ GAO, 2012, pp. 4–5. In a related vein, the 2001 QDR also announced an Efficient Facilities Initiative that aimed to reduce the average recapitalization rate for 80 percent of DoD facilities from the then-current rate of 192 years to 67 years. See DoD, 2001i, p. 64.

²¹⁶ According to testimony at the time, “DoD has already reprogrammed over \$11 billion in anticipated savings from A-76 and strategic sourcing into its modernization accounts” (U.S. General Accounting Office, 2001e, p. 1). The General Accounting Office described A-76 competitive sourcing as follows: “According to A-76 guidance, an activity currently performed in house is converted to performance by the private sector if the private offer is either 10 percent lower than the direct personnel costs of the in-house cost estimate or \$10 million less (over the performance period) than the in-house cost estimate. OMB established this minimum cost differential to ensure that the government would not convert performance for marginal savings” (U.S. General Accounting Office, 2001e, p. 3).

²¹⁷ U.S. General Accounting Office, 2001e, pp. 6–7. Most of the projected savings are associated with converting government positions to private-sector positions.

Acquisition Reform

The 2001 QDR report also identified acquisition reform as another business area requiring continued attention and effort.²¹⁸ As shown in Table 2.7, the number and value of major defense acquisition programs grew over the period between the 2001 and 2006 QDRs, and most measures of performance – whether changes in cost estimates, changes in cost growth, or program delays – suggested a worsening picture.

Among the major defense programs experiencing cost growth since their first full estimate were the following: Joint Strike Fighter (38.4 percent cost growth), FCS (44.5 percent), Space-Based Infrared System–High (244.7 percent), Expeditionary Fighting Vehicle (167.5 percent), and V-22 Joint Services Advanced Vertical Lift Aircraft (185.7 percent).²¹⁹

Other Defense Reform Initiatives

In addition to the efforts just described, Secretary Rumsfeld set forward a number of other reform initiatives in the wake of the 2001 QDR report, including replacing DoD's personnel system with a simpler system and streamlining senior personnel in the defense hierarchy.²²⁰

Table 2.7

Analysis of DoD Major Defense Acquisition Program Portfolios, Selected Years, FYs 2000–2007

Portfolio Status	FY00	FY03 ^a	FY05	FY07
Number of programs	75	77	91	95
Total planned commitments	\$790 billion	\$1.2 trillion	\$1.5 trillion	\$1.6 trillion
Commitments outstanding	\$380 billion	\$724 billion	\$887 billion	\$858 billion
Change to total research and development costs from first estimate	27 percent	37 percent	33 percent	40 percent
Change in total acquisition cost from first estimate	6 percent	19 percent	18 percent	26 percent
Estimated total acquisition cost growth	\$42 billion	\$183 billion	\$202 billion	\$295 billion
Share of programs with 25 percent or more increase in program acquisition unit cost	37 percent	41 percent	44 percent	44 percent
Average delay in delivering initial capabilities	16 months	18 months	17 months	21 months

SOURCE: GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs*, Washington, D.C., GAO-098-467SP, March 2008; and GAO, *Defense Acquisitions: Assessments of Selected Weapon Programs*, Washington, D.C., GAO-09-326SP, March 2009a.

^a Costs in this column are in FY09 dollars. All other costs are in FY08 dollars.

²¹⁸ See DoD, 2001i, pp. 52–53. Since 1990, GAO has viewed DoD weapon system acquisition as a high-risk area.

²¹⁹ GAO, *Defense Acquisitions: Chart a Course for Lasting Reform*, Washington, D.C., GAO-09-663T, April 30, 2009b.

²²⁰ See Paul C. Light, “Rumsfeld’s Revolution at Defense,” Washington, D.C.: Brookings Institution, Policy Brief No. 142, July 2005.

Risk Assessment

The 2001 QDR report summarized the civilian leadership's risk assessment as follows:

The current force structure . . . was assessed across several combinations of scenarios on the basis of the new defense strategy and force sizing construct, and the capabilities of this force were judged as presenting moderate operational risk, although certain combinations of warfighting and smaller-scale contingency scenarios present high risk.²²¹

In particular, the Joint Staff was unable to assess the resources required to support the 2001 QDR strategy at a low to moderate risk level. The Chairman's assessment was thus limited to noting that more resources were required, that he agreed with the emerging strategy, and that additional analysis was required to address the cross-cutting issues raised by the 2001 QDR report.²²² The Chairman's assessment of the risks associated with the 2001 QDR report's defense strategy noted,

The 2001 Quadrennial Defense Review (QDR) faced two challenging tasks. First, it had to address significant concerns regarding the near-term ability of the force to protect and advance U.S. interests worldwide in a dangerous and evolving security environment. Second, it had to implement the President's goal of transforming the Armed Forces to meet future security challenges. In my view, the defense strategy and program recommendations contained in the QDR report are a major step toward accomplishing these two tasks, while balancing the associated near-, mid-, and long-term risks.

. . . In my view the defense strategy outlined in the QDR 2001 – if matched with resources over time – will adequately address the current and emerging challenges of the strategic environment.

. . . The broad range of military requirements identified in the QDR lays the foundation for determining the size and structure of the force. *The recommendations of the review are the starting point for determining how best to organize, man, train and equip the Total Force. An initial look at the force structure indicates the current force is capable of executing the new defense strategy with moderate risk. Considerably more warfighting analysis on a range of scenarios must be done, however, to confirm this initial assessment.*²²³ [Emphasis added.]

²²¹ DoD, 2001i, p. 22.

²²² Examples of cross-cutting issues (those that involve more than a single DoD component or functional element) are readiness, structure of strategic mobility forces, and potential mismatches between strategy and force structure. See Schrader, Lewis, and Brown, 2003, pp. 21–25, 43.

²²³ DoD, 2001i, pp. 67–68. The Chairman was, however, concerned about the ability to find the resources needed to attain sufficient end strength to support sustainable operational and personnel tempo rates, and he

The Chairman's risk assessment of the 2001 QDR strategy was thus both conditional on the availability of sufficient (but as-yet-unspecified) resources and somewhat tentative, conditional on the results of further, more-detailed analyses that would confirm or elaborate on those undertaken during the QDR's development.

The problem of maintaining adequate force structure was exacerbated by the need to balance resources between (1) the significant transformation and quality of life priorities called for by the 2001 QDR report and (2) the competing needs for O&M, recapitalization, and modernization. The need for increased procurement funding was particularly acute, and the Chairman warned that if "this requirement is met by diverting resources from current operations accounts, then near-term and, eventually mid-term, military risk will increase."²²⁴ These potential risks were not explored in the main body of the 2001 QDR report.

The compressed time frame in which the 2001 QDR was conducted meant that while it accurately reflected the Secretary of Defense's vision and was influenced by input from senior DoD leaders, it had to rely on analytical work done previously to support earlier defense strategies.²²⁵

Important parts of the 2001 Joint Staff's Joint Strategy Review, however, were the Dynamic Commitment and Positive Match war games, which were used to assess risks in the strategy.²²⁶ According to CJCS Shelton in his risk assessment,

Analytical tools such as Dynamic Commitment and Positive Match wargames indicate that the QDR reduces the strategy-to-structure imbalance and results in moderate near-term risk for the current force executing the revised strategy. This assessment includes the most demanding scenario where U.S. forces respond to two overlapping major crises in different regions, decisively defeating one adversary while defeating the efforts of the other.²²⁷

One result of the compressed timeline for analysis was that the 2001 QDR did not analyze the budgetary resources required to execute the 2001 QDR strategy at a low to moderate operational risk level or identify out-year resource requirements to

noted, "I believe that sustaining an end strength and force structure capable of executing the new defense strategy at moderate risk will be a significant challenge" (DoD, 2001i, p. 68).

²²⁴ DoD, 2001i, p. 68.

²²⁵ U.S. General Accounting Office, 2002b, pp. 2–3, 12.

²²⁶ The Dynamic Commitment war game series was discontinued in spring 2001, while the Positive Match war game conducted in August 2001 suggested that current forces would be strained under the national defense strategy under consideration at that time. See Erin Q. Winograd, "War Game Key to Shelton's Evaluation to Kick Off This Week," *Inside Defense*, August 20, 2001c; Elaine M. Grossman, "Military War Game Finds New Strategy Still Strains Current Forces," *Inside Defense*, August 30, 2001e; and Erin Q. Winograd, "'POSITIVE MATCH' Shows Army Still Stretched Under New Strategy," *Inside Defense*, September 3, 2001d.

²²⁷ See DoD, 2001i, p. 70.

complete the strategy. Neither did it analyze or provide details on the future force structure required to execute the strategy.²²⁸ Due to these, and other, limitations in the 2001 QDR's analysis, the General Accounting Office recommended in 2002 that new administrations be given additional time to complete future QDRs so that complex issues could be more thoroughly examined.²²⁹ Indeed, the next QDR in 2006 would be released simultaneously with the FY07 President's budget.

Reception

Congress

Just days after the release of the 2001 QDR report, on October 4, 2001, the Senate Armed Services Committee held a hearing on the QDR and received testimony from Deputy Secretary of Defense Wolfowitz and Lt Gen Carlson, Director for Force Structure, Resources, and Assessments on the Joint Staff. While many senators praised the 2001 QDR report for raising the priority of defense transformation, as well as for the innovation of the "capabilities-based" planning approach for dealing with longer-term threats, some senators expressed dissatisfaction that the QDR had failed to address important topics specified in the statute, deferred many important decisions, and offered precious few details on future force structure, programs, or budgets.²³⁰

Congressional hearings on the QDR thus revealed both praise for the QDR's introduction of capabilities-based planning to deal with more-ambiguous longer-term threats and some dissatisfaction that the QDR deferred many decisions and failed to address many of the issues called for in the QDR legislation.²³¹

General Accounting Office

At the time of their hearing on the 2001 QDR, Senate Armed Services Committee Chairman Carl Levin and Ranking Member John Warner mentioned that they had requested that the General Accounting Office conduct a review of the 2001 QDR. While lauding the involvement of DoD senior leaders in developing the QDR, the agency's February 2002 report had several criticisms of the analyses that had been performed in support of the QDR:

²²⁸ U.S. General Accounting Office, 2002b, pp. 16, 18.

²²⁹ U.S. General Accounting Office, 2002b, pp. 19–20.

²³⁰ See, for example, the opening remarks of Chairman Levin and Senators Strom Thurmond and Jeff Sessions in U.S. Senate, 2001c. The General Accounting Office's report on the 2001 QDR cited a list of 31 follow-on studies, plans, reviews, and other taskings following the QDR (U.S. General Accounting Office, 2002b, pp. 38–40). On the other hand, the agency assessed that some legislative requirements of the QDR might be eliminated (U.S. General Accounting Office, 2002b, pp. 25–29).

²³¹ See the opening remarks in U.S. Senate, 2001c.

[T]he thoroughness of the department's analysis and reporting on issues mandated by legislation varied considerably, and some significant issues, such as the role of the reserves, were deferred to follow-on studies. Finally, the department's assessment of force structure requirements had some significant limitations – such as its lack of focus on longer-term threats and requirements for critical support capabilities – and the department's report provided little information on some required issues, such as the specific assumptions used in the analysis. As a result of these shortcomings, Congress did not receive comprehensive information on all of the legislatively mandated issues, the department lacks assurance that it has optimized its force structure to balance short- and long-term risks, and the review resulted in few specific decisions on how existing military forces and weapons modernization programs may need to be changed in response to emerging threats.

Our review identified that many of the specific threats and scenarios DOD examined had a near-term focus and that DOD, in estimating the numbers and types of forces required for major combat operations, relied to a significant extent on existing war plans that have been at the center of U.S. military planning for a number of years. As a result, we believe that more extensive use of analytical tools such as modeling and simulation, along with analysis of a broad range of longer-term scenarios and threats, would have enhanced the QDR's usefulness in fundamentally reassessing force structure requirements.²³²

Independent Review

Congress did not authorize an independent National Defense Panel review of the 2001 QDR, as it had for the 1997 QDR.

Congressional Budget Office

In its review of the FY03 FYDP plan, CBO reported that the costs of the defense program were likely to be higher than those estimated by DoD. As stated by CBO,

The defense program outlined by the Bush Administration for fiscal year 2003 and the following four years (the 2003 Future Years Defense Program, or FYDP) anticipates additional growth, with the defense budget averaging \$387 billion over the 2003-2007 period and reaching \$408 billion in 2007. If that program continued as currently envisioned, the demand for defense resources would continue to increase through 2012, CBO projects, and would average \$428 billion a year between 2008 and 2020.

²³² U.S. General Accounting Office, 2002b, pp. 3, 31. DoD took exception to the agency's finding that the QDR force-structure assessment had "significant limitations" and the suggestion that the focus of DoD's force analysis was misplaced, arguing that a combination of analytic tools (including computer simulations) and professional judgments were used in the analyses. As noted in the second paragraph in the quotation, however, the General Accounting Office did not agree on this point.

Those projections are based on the Department of Defense's (DoD's) current cost estimates for a host of defense programs and activities. CBO also projected long-term resource demands if costs for weapons programs and certain other activities grow as they have historically (a case it called cost risk). In that case, the annual cost of current defense plans would average \$398 billion over the 2003–2007 period and could later reach \$488 billion at its peak... In either case, future resource demands would be higher than defense spending has been at any time in the past 22 years — exceeding the peak of \$421 billion in 1985 — and would need to remain at such levels for a decade or more.²³³

CBO also identified the key sources of potential defense cost growth in the FYDP:

Thus, in CBO's projection of current plans, demands for defense resources increase in the long term for three reasons: the transition from development to production or increasing production for a number of existing programs; continued growth (even without cost risk) in the costs to operate and sustain forces, which are assumed to be essentially the same size as today's forces; and continued development and eventual production of those few new programs associated with transformation that are included in the Administration's current plans.²³⁴

Thus, according to CBO's calculations, the "cost risk" — the potential underestimate — amounted to about \$12 billion a year on average over the 2003–2007 FYDP, and an \$80 billion difference at its peak in the 2008–2020 period beyond the FYDP.²³⁵

Summary and Conclusions

We now summarize our major observations on the 2001 QDR and report:

- *Organization and process.* The 2001 QDR demonstrates the unpredictability and turbulence in defense planning that can emerge as a result of the transition to a new administration. Secretary Rumsfeld and the new OSD team initially appear to have found Army and other preparations for the QDR that were undertaken in 2000 to be nearly irrelevant to their efforts. The result was that Army QDR activities were essentially put on hold during the first half of 2001, and the Army was then faced with the requirement to adapt to emerging guidance, while also facing

²³³ CBO, *The Long-Term Implications of Current Defense Plans*, Washington, D.C., January 2003b, p. xi.

²³⁴ CBO, 2003b, p. xiv.

²³⁵ CBO, 2003b, p. xi.

the requirement to defend end strength and force structure. It is unclear whether the Army could have foreseen or hedged against any of these developments.

In any event, in December 2002, OSD promulgated DoD Directive 8260.1, *Data Collection, Development, and Management in Support of Strategic Analysis*, which established policy and assigned responsibilities for the generation, collection, development, maintenance, and dissemination of data on current and future U.S. and non-U.S. forces in support of DoD strategic analyses, such as the QDR. These efforts to standardize analytical baselines, scenarios, and other analysis elements would, however, not come to their full fruition until the establishment of the “Analytic Agenda” after the 2006 QDR.²³⁶

- *Strategy development.* As described in this chapter, the 2001 QDR report was the first strategy document of the George W. Bush administration. As such, it generally appears not to have been much influenced by the outgoing Clinton administration’s December 2000 National Security Strategy and was developed without the benefit of an equivalent statement from the new administration.
- *Force-planning construct.* The force-planning construct developed in the 2001 QDR went well beyond the two-nearly-simultaneous-wars construct that had prevailed since 1993 – for example, by including the homeland defense mission. However, it is worth noting that the authors of the QDR do not appear to have fully reckoned the military personnel requirements associated with the final “1” in the 1-4-2-1 force-planning construct – described in the QDR as “decisively defeating” an adversary, which most took to mean regime change. This points to a weakness in the QDR process in estimating the military personnel requirements of executing the national defense and military strategies at low to moderate risk.
- *Force structure and end strength.* For the Army, the preservation of force structure and end strength in the QDR represented a qualified success, even though the demands of Afghanistan and Iraq ultimately raised questions about the sufficiency of Army capabilities and capacity to conduct stability operations following regime change in Iraq. Force structure and end strength remained relatively stable over the FY03–06 implementation period, although in January 2004, Secretary Rumsfeld approved, on an emergency basis, a waiver to increase active Army end strength above authorized levels by 30,000 personnel to better meet operational demands. The Army, somewhat remarkably, was also able to begin transforming

²³⁶ For the evolution of DoD efforts to establish Support for Strategic Analysis, see DoD, *Data Collection, Development, and Management in Support of Strategic Analysis*, Washington, D.C., DoD Directive 8260.1, December 6, 2002e; DoD, *Support for Strategic Analysis*, DoD Instruction 8260.01, Washington, D.C., January 11, 2007; DoD, *Support for Strategic Analysis (SSA)*, Washington, D.C., DoD Directive 8260.05, July 7, 2011b; and Jason Sherman, “Work Grabs Reins of Analysis Effort Pivotal to Strategy, Budget Decisions,” *Inside Defense*, November 26, 2014.

its operational force from division-based organizations to modular BCT-based organizations, even as it conducted operations in Afghanistan and Iraq.²³⁷

- *Resources.* The 2001 QDR aimed to repair the problems that had emerged as a result of inadequate defense resources during the previous administration. It also aimed to put DoD on a new course that emphasized transformation of the force, capabilities-based planning to better address uncertain future threats and challenges, and further reform of DoD business practices. As discussed in this chapter, the FYDP was never explicitly linked to the QDR initiatives, thus breaking the connection between the two. As a result of 9/11 and the wars in Afghanistan and Iraq, resources during the period were relatively unconstrained, both in terms of base budgets and of GWOT and OCO funding. Preexisting DoD challenges in managing defense resources were compounded by the somewhat ambiguous rules regarding what sorts of expenditures were appropriate for each set of accounts.
- *Risk assessment framework.* The 2001 QDR report proposed a powerful way of thinking about risk that would influence the next two QDRs as well. However, this key contribution of the QDR – the risk assessment framework – was not fully operationalized, either during or after the conduct of the QDR. And although Secretary Rumsfeld’s preoccupation with uncertainty and surprise found expression in the QDR, a key assumption of the QDR – that the United States was in a period in which it could safely engage in development of future capabilities while accepting some risk in current capabilities – was essentially shattered by the 9/11 attacks, at which point any consideration of cuts to end strength and force structure ended, and transformation took a back seat to the more immediate operational challenges associated with the war in Afghanistan, and soon thereafter, the war in Iraq.

In the end, the Army judged its performance in the QDR to have been a qualified success: Many of the Army’s recommendations were incorporated into the QDR and, despite the strained relations with OSD and the general contentiousness of the process, the Army was able to avoid large-scale force-structure and budget cuts.

As will be described in the next chapter, the 2006 QDR took the 2001 QDR report as its starting point, while also seeking to meet the operational demands that followed 9/11.

²³⁷ A 2004 report suggested that modularization would necessitate more than 100,000 structural changes to the Army. Then-Chief of Staff of the Army Schoomaker described the enormity of modularization as follows: “This is the biggest internal restructuring we’ve done in 50 years, but it must be done to make us relevant and to allow us to meet the real threat to the United States” (Garamone, 2004).

2006 Quadrennial Defense Review

In this chapter, we describe the 2006 QDR's organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception.¹

As will be described, the 2006 QDR report was an evolutionary document that updated the thinking expressed in the 2001 QDR and that built on the September 2002 National Security Strategy,² May 2004 National Military Strategy, and March 2005 National Defense Strategy to deal with a wider range of threats, while simultaneously continuing DoD transformation efforts.³ As described by Deputy Secretary of Defense Gordon England, DoD goals for the QDR were twofold:

- To reorient the Department's capabilities and forces to be more agile, to prepare for wider asymmetric challenges, and to hedge against uncertainty over the next 20 years;
- To implement enterprise-wide changes to ensure that organizational structures, processes, and procedures effectively support the Department's strategic direction.

These efforts are two sides of the same coin — you cannot achieve the former without the latter.⁴

¹ DoD, 2006a.

² As the administration would release a new National Security Strategy one month after the QDR report (in March 2006), it is almost certain that drafts of the new strategy in circulation at the time also influenced the QDR.

³ On the intent to press for continued transformation, see Ryan Henry, "Defense Transformation and the 2005 Quadrennial Defense Review," *Parameters*, Winter 2005–2006.

⁴ U.S. Senate, *The Department of Defense Quadrennial Defense Review: Hearing Before the Committee on Armed Services*, Washington, D.C., March 8, 2006.

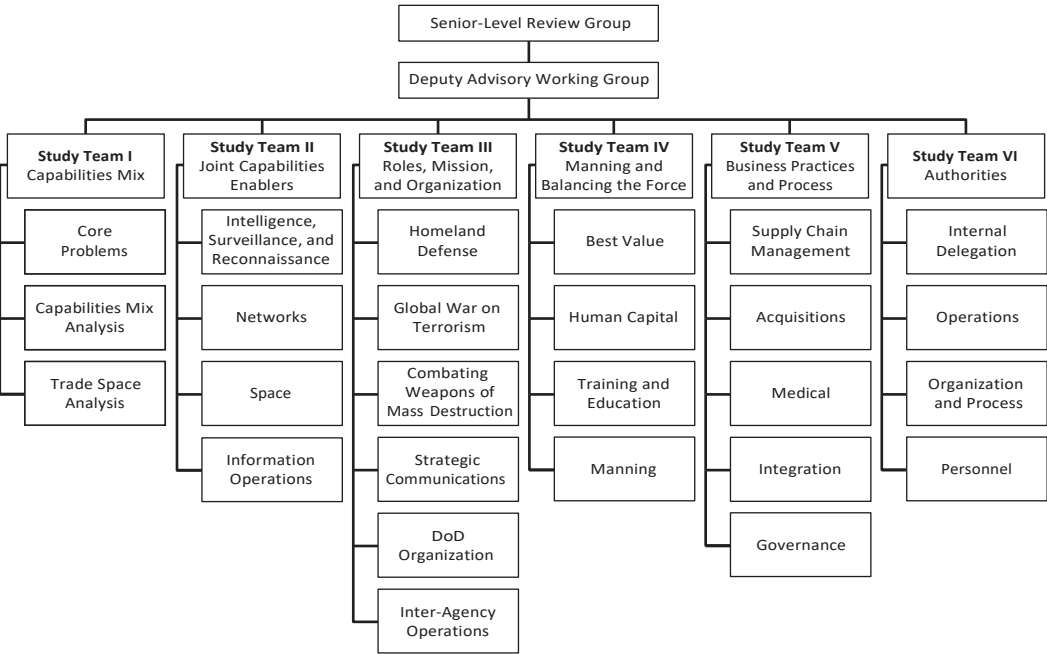
Organization and Process

Organization

Figure 3.1 describes the organizational structure that was used to guide the development of the 2006 QDR.

As shown in the figure, a Senior-Level Review Group was supported by a Deputy Advisory Working Group that oversaw the work of six study teams, which were supported by another 26 subgroups addressing specific topics within each study team’s purview.⁵

Figure 3.1
Organizational Structure Used for Developing the 2006 QDR



SOURCE: GAO, *Quadrennial Defense Review: Future Reviews Could Benefit from Improved Department of Defense Analyses and Changes to Legislative Requirements*, Washington, D.C., GAO-07-709, September 2007b, p. 12.

RAND RR1309-3.1

⁵ This panel structure appears to have been in place as early as March 2005. See Jason Sherman, “Rumsfeld Taps Six Panels to Oversee Quadrennial Defense Review,” *Inside Defense*, March 3, 2005i. Secretary Rumsfeld documented his thoughts on the Senior-Level Review Group and the Strategic Planning Council, which also included the combatant commanders, in a November 2005 note. See Donald Rumsfeld, “Some Thoughts on the Senior Level Review Group (SLRG) and the Strategic Planning Council (SPC),” Rumsfeld Papers, November 18, 2005d.

As described by Deputy Secretary England in testimony before the Senate Armed Services Committee:

The 2006 QDR process was the most inclusive review process ever carried out by the Department. It was leadership-driven, and it also included broad participation from all relevant stakeholders, in order to achieve unity of vision and purpose for the Department's ongoing, comprehensive re-orientation of focus.

The process was chaired by the Deputy Secretary of Defense and the Vice Chairman of the Joint Chiefs of Staff. Throughout 2005, the Department's senior civilian and military leaders met regularly. That QDR deliberative body reported periodically to the Secretary of Defense. The process reached out to the military departments, DoD components, and combatant commands.

... We, the group of 12 [including the Vice Chiefs of all four Services, the Under Secretaries, and other individuals, including the director of Program Analysis and Evaluation (PA&E) and the Comptroller], basically report in to what we call the [Senior-Level Review Group], and that is chaired by the Secretary and consists of the Service Chiefs and at different times all of the combatant commanders. The Secretary actually drove this from what we call the [Senior-Level Review Group], where he runs that group. The Secretary was actively involved in the direction and the decisions. We stood up information and trade-offs at this group of 12, debated all the issues, and then took them up to the Secretary level along with the Service Chiefs and the combatant commanders, where they again were debated and discussed and decisions were reached, with the ultimate decision residing with the Secretary.⁶

In addition, Deputy Secretary England noted the participation of all members of the Joint Requirements Oversight Council and the combat support agencies (e.g., Defense Intelligence Agency and Defense Threat Reduction Agency), as well as a "red team" and other outside teams:

The "red team" recommendations, along with consultation with the major Department Boards, such as the [Defense Science Board] and Defense Policy Board, informed the process. QDR analytical teams examined all of their recommendations and forwarded many of them to the QDR Group of 12 (co-chaired by the Deputy Secretary and Vice Chairman of the Joint Chiefs of Staff) for review. Those consistent with the QDR focus areas, such as increasing unmanned aerial vehicle capability and production, are reflected as leading edge investments in the fiscal year 2007 President's budget request or will be included in the fiscal year 2008 request.⁷

⁶ U.S. Senate, 2006.

⁷ U.S. Senate, 2006.

Vice CJCS Edmund P. Giambastiani further elaborated on the open nature of the QDR deliberations:

This was an unprecedented amount of engagement between the combatant commanders and the chiefs. As part of this group we had the Deputy Commander for Special Operations Command (SOCOM) there with us on all deliberations because we focus so much on the special operations area. In addition, the Secretary and I invited in on numerous occasions combatant commanders to make presentations.⁸

Flag officer representatives served on working groups that engaged with OSD staff in selecting items for review at a higher level, with the Senior-Level Review Group evaluating “big picture” issues.⁹ When augmented by the four-star combatant commanders, the Senior-Level Review Group reportedly met as Secretary Rumsfeld’s Strategic Planning Council.¹⁰

In addition, the Office of Net Assessment created a “red team” to provide alternative analyses to the secretary,¹¹ and two summer studies by the Defense Science Board were completed on an accelerated schedule to inform the QDR.¹² As was the case with the 2001 QDR, Secretary Rumsfeld reportedly was deeply involved in the 2006 QDR process.¹³

The Center for Military History’s *Department of the Army Historical Summary: Fiscal Year 2006* provided the following brief description of the Army’s organization for the 2006 QDR:

As with the 2001 Quadrennial Defense Review, HQDA’s Quadrennial Defense Review Office (QDR Office) coordinated the Army’s effort for the review. Headed

⁸ U.S. Senate, 2006.

⁹ “Defense Briefs,” *Inside Defense*, February 24, 2005.

¹⁰ See Elaine M. Grossman, “Defense Officials Worry Quadrennial Review May Get Bogged Down,” *Inside Defense*, June 2, 2005a.

¹¹ As had been the case in the 2001 QDR, the Office of Net Assessment red team reportedly called for developing capabilities necessary to deter China. The red team reportedly included former senior officers Army GEN Edward “Shy” Myer, Air Force Gen Richard Hawley, Navy ADM Thomas Fargo, Army GEN Wayne Downing, and Marine Corps Gen. Charles Wilhelm. See Jason Sherman, “Rumsfeld Summoning Top Brass to Washington for QDR Discussion,” *Inside Defense*, October 21, 2005t.

According to GAO, “The benefit [of the red team] was derived from open discussions that produced a trusting and free environment for red team members to challenge assumptions and analysis. . . . To create such an environment, non-attribution was critical. Red team members and the Department’s leadership knew their opinions, debates, and recommendations were protected” (GAO, 2007b). GAO determined that the 2006 QDR “benefited greatly” from its interactions with the red team.

¹² See Chairman, Defense Science Board, “Info Memo – Defense Science Board 2005 Summer Study Programs,” memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, April 20, 2005.

¹³ See Deputy Secretary England’s comments on this point in his March 8, 2006, testimony before the Senate Armed Services Committee (U.S. Senate, 2006).

by Brig. Gen. Robert E. Durbin until January 2006, the QDR Office reported to the Army's Deputy Chief of Staff, G-8, who directed the Army's participation in the review and served as the Army point of contact for interaction with the Office of the Secretary of Defense and the Joint Staff. All major staff sections in HQDA, as well as the Army's Training and Doctrine Command, participated in weekly meetings and coordination groups that provided Army input into the development of the Defense Department's supporting studies and recommendations.¹⁴

The Army panel organization for participation in the QDR again paralleled the Joint Staff structure for conducting the QDR, while senior oversight of the Army's QDR process was again provided by a Senior Review Group, a Panel Leaders Meeting, and the Army QDR Council of Colonels.¹⁵

Process

The QDR was described as operating both as a "rolling QDR" – in which decisions would be taken throughout the process, with the bulk of work taking place between February and August 2005 – and as a QDR that would spawn a wide range of follow-on studies and other efforts on specific topics.¹⁶ It also was intended that the QDR would be "resource-neutral," in the sense that modernization would be trimmed to offset the growing costs of operations in Afghanistan and Iraq.¹⁷

Although there were some efforts to scope the 2006 QDR earlier,¹⁸ work on the review reportedly began in early November 2004,¹⁹ with a series of roundtable discussions examining scenarios related to homeland defense, a nuclear-armed failing state, defeat of terrorist networks, and preparations for a near-peer adversary, such

¹⁴ Center for Military History, *Department of the Army Historical Summary: Fiscal Year 2006*, Washington, D.C., 2007, p. 7. Following the July 2002 reorganization of HQDA, the Army staff was reorganized along World War II-era general staff lines, resulting in the creation of the G-8 (Financial Management) office; the Army QDR Office was placed under G-8 and has remained there since. See Center for Military History, *Department of the Army Historical Summary: Fiscal Year 2002*, Washington, D.C., 2003, pp. 3–4 and Appendix B.

¹⁵ HQDA, 2012b; Tison, 2015.

¹⁶ See Jason Sherman, "Draft Memo Outlines 2005 QDR Issues, Process: Pentagon Sources," *Inside Defense*, January 11, 2005a; and Jason Sherman, "New QDR Outreach Effort to Inform Public of Program, Policy Changes," *Inside Defense*, January 13, 2005b.

¹⁷ Principal Deputy Under Secretary for Policy Ryan Henry stated, "We have to be able to look at the trade spaces that we haven't delved into in the past" (Jason Sherman, "'Revenue-Neutral' Quadrennial Defense Review to Squeeze Big-Ticket Programs," *Inside Defense*, January 27, 2005e).

¹⁸ For example, in a September 2004 memo, Secretary Rumsfeld documented some early thoughts on topics that should be covered in the next QDR (Donald Rumsfeld, "QDR," memorandum to various addressees, Rumsfeld Papers, September 13, 2004b). In two separate memoranda in August 2005, Secretary Rumsfeld requested that China and the active-reserve balance be addressed in the QDR (Donald Rumsfeld, "China in QDR," memorandum to Ryan Henry, Rumsfeld Papers, August 1, 2005b; and Donald Rumsfeld, "Issue for the QDR," memorandum to Ryan Henry, Rumsfeld Papers, August 15, 2005c).

¹⁹ Elizabeth Rees, "General: 2005 QDR To Depart From Past Reviews," *Inside Defense*, November 9, 2004.

as China. These set the stage for service efforts to identify desirable changes to their investment portfolios.²⁰

By January 2005, OSD was circulating for comment a draft 40-page Terms of Reference for the QDR that outlined the issues to be examined in the strategy review. The draft was said to discuss future threats and to propose how they must be countered, ways for organizing to address them, suggestions on how to integrate solutions into current plans, and ideas on how to assess risks.²¹ The Terms of Reference reportedly directed the review to focus on four strategic problems: Islamic extremism, a failed nuclear-armed state, the military's role in homeland security, and the conventional military of an emerging power.²² Importantly, the Terms of Reference were said not to focus on the capabilities required to deal with the aftermath of major combat operations following the overthrow of a government (e.g., Iraq).²³ In late January, Secretary Rumsfeld met with the combatant commanders, in part to discuss finalizing the Terms of Reference for the QDR.²⁴ By early February, a revised draft was being circulated that took into account their suggested changes, including the suggestion that the scope of the QDR be broadened, which involved what were described as "significant" changes to the Terms of Reference.²⁵ Coordination of the terms with the National Security Council and White House reportedly began later in February, with a request to provide any feedback by early March.²⁶

²⁰ See Jason Sherman, "QDR Architects Say Review Changes the Way the Pentagon Is Run," *Inside Defense*, February 3, 2006d.

²¹ Sherman, 2005a.

²² Jason Sherman, "Combatant Commanders to Meet with Rumsfeld, Discuss the QDR," *Inside Defense*, January 24, 2005d. For its part, GAO indicated that

The Terms of Reference identified four focus areas and provided guidance to senior officials to develop capabilities and make investment decisions to shape the future force and reduce risks in these areas. The four focus areas were: 1) defeating terrorist networks, 2) defending the homeland in depth, 3) shaping the choices of countries at strategic crossroads, and 4) preventing hostile states and nonstate actors from acquiring or using weapons of mass destruction. . . . Officials from the intelligence community, such as the Defense Intelligence Agency, provide threat assessments for each of the focus areas. (GAO, 2007b, p. 10)

²³ GAO, 2007b.

²⁴ Sherman, 2005d.

²⁵ See Jason Sherman, "Preparation for QDR Nearly Complete; Rumsfeld Could Launch Review Next Week," *Inside Defense*, February 2, 2005f; and Jason Sherman, "Rumsfeld Shifts QDR's Direction, Broadens Focus on Terrorism, WMD," *Inside Defense*, February 16, 2005g. The revised Terms of Reference included greater emphasis on building partnerships to defeat terrorist networks and preventing hostile states or terrorists from acquiring a nuclear weapon. In addition, the terms were reportedly also modified to allow for more service input.

²⁶ Jason Sherman, "Pentagon Asks NSC, State Department for Comments on QDR Guidance," *Inside Defense*, February 24, 2005h.

Also under way at this time were efforts by OSD to develop a wider range of planning scenarios to better address irregular, catastrophic, and disruptive threats, including those faced in what was at the time called the GWOT.²⁷

On March 1, Secretary Rumsfeld approved the QDR Terms of Reference, National Defense Strategy, and National Military Strategy.²⁸ Rumsfeld also established six panels, each led by a senior civilian and military officer, to assess capabilities associated with the QDR's four focus areas.²⁹ The six panels were capabilities mix, enablers, roles and missions, manning and balancing, business practices and process, and authorities.³⁰ These teams collaborated to avoid duplication of work as they developed options to address key challenges.³¹ Likely a result of the completion and publication of the National Defense Strategy, and a National Military Strategy as well, no QDR strategy panel was established.³²

The six panels were initially instructed to draft metrics to frame how they would examine their assigned topic areas. In early April 2005, the first of these — the capabilities mix panel — began meeting; by late April, this panel was deliberating on how to build partnerships and ensure that ground force capabilities were effectively applied against the four core problems.³³ The work of the other five panels was expected to begin once the capabilities mix panel finished its work, and a series of “senior round-table” discussions also were scheduled for the April–July period,³⁴ three of which had taken place by early May.³⁵

²⁷ Jason Sherman, “Analytical Shortcomings May Complicate Defense Review Decisions,” *Inside Defense*, January 19, 2005c. A challenge for analysis at the time was that the computer models, such as the Joint Integrated Contingency Model that had been developed for campaign analyses, were not suitable for analyzing the sorts of irregular, catastrophic, and disruptive threats that were the focus of the QDR.

²⁸ See Donald Rumsfeld, “Strategy Documents,” memorandum to Ryan Henry and LTG Skip Sharp, Rumsfeld Papers, March 2, 2005a. In an April 2005 memorandum to Secretary Rumsfeld, Principal Under Secretary of Defense for Policy Henry stated that the release of the National Defense Strategy fulfilled the requirement of the QDR to provide a national defense strategy (Ryan Henry, “Snowflake Response: ‘QDR,’” memorandum to Secretary of Defense Rumsfeld, Rumsfeld Papers, April 15, 2005).

²⁹ GAO, 2007b, p. 11.

³⁰ Sherman, 2005i.

³¹ GAO, 2007b, p. 5.

³² A number of other studies, including a Mobility Capability Study and a Joint Staff analysis that generated results to inform capability trade-off decisions, also informed QDR deliberations on selected issues. See the comments of Senate Armed Services Committee Chairman Warner in U.S. Senate, 2006.

³³ Glenn Maffei, “QDR Lead: Finding Best Mix of Ground Forces, Capabilities a Core Goal,” *Inside Defense*, April 25, 2005.

³⁴ Jason Sherman, “Seven Upcoming Meetings to Guide QDR Moves on Future Capabilities,” *Inside Defense*, March 30, 2005j.

³⁵ See Jason Sherman, “In QDR Meeting, Top Brass Explore Building Partnerships to Defeat Terrorism,” *Inside Defense*, May 3, 2005k.

By early June, it appeared that the number of issues being considered (more than 140) and the organization and process had become unwieldy:

The Defense Department has built a considerable review apparatus. . . . It begins with six integrated process teams . . . dedicated to: the mix of force capabilities; capability “enablers” that support combat forces; roles and missions required to address the four challenges; balancing force manning; business practices; and DoD legal authorities. To get into the nuts and bolts of the review, the Pentagon has created under the six [integrated process teams] no fewer than three dozen working groups, ranging in title from “Core Problem Development and Integration” to “Human Capital Strategy” to “Coalition Management,” according to defense sources.³⁶

As a result, ambitions for conducting a “rolling” QDR also were trimmed at this point. According to one Pentagon official quoted at the time, “A lot of the high-flying rhetoric is being toned down as we reinvent ourselves.”³⁷

Indeed, according to our structured conversations, there were significant organizational and process challenges encountered in the conduct of the QDR. Teams were created to build consensus on their topics, but the complexity of the organization was said to be cumbersome and unmanageable, and as the deadline for the QDR approached, a top-down, small group approach ultimately was embraced.³⁸

In June, a senior-level roundtable chaired by Vice CJCS Peter Pace and acting Deputy Secretary England met to focus on integration across the six panels, and to make capability trade-offs that would be informed by a Joint Staff analysis that had been dubbed *Operational Availability-06*.³⁹ Decisions with immediate budget impacts were expected by July.

Importantly, the Operational Availability-06 analysis also was being used to shape decisions on the QDR’s force-planning construct. By this time, the relevance of the 2001 QDR’s 1-4-2-1 force-planning construct reportedly had come into ques-

³⁶ Grossman, 2005a. The four roundtable discussions reportedly focused on the four central challenges of defeating terrorist extremism, defending the American homeland, handling emerging strategic challenges, and preventing the proliferation or use of WMD.

³⁷ Elaine M. Grossman, “Pentagon Officials Debate Viability of ‘Rolling’ Quadrennial Review,” *Inside Defense*, June 17, 2005b. According to this report, an official program decision memorandum or a series of comparable budget documents were at the time more likely to be circulated somewhat later, in fall 2005.

³⁸ In some of our structured conversations, the organization and process for the 2006 QDR were described in very unfavorable terms, including “process hell,” “coordinated to death,” and “a mess, monstrous,” with “everyone pencil-whipped in line.”

³⁹ Jason Sherman, “Pentagon Nears Major Quadrennial Defense Review Decisions,” *Inside Defense*, June 6, 2005l.

tion in light of the operational and other challenges being examined in the review.⁴⁰ According to a report at the time,

The new force planning approach that focuses on three areas has led to it being unofficially dubbed by many in the Pentagon as the “1-1-1” construct.

The first area of focus in the new construct is on homeland defense. While the “1-4-2-1” construct also highlighted the importance of defending the United States, the Pentagon continues to wrestle with its contribution to this mission. The new construct would account for capabilities required to support civil authorities dealing with the aftermath of a massive terrorist attack against American cities; assist in controlling the air, land and sea approaches to U.S. borders; defend against ballistic and cruise missiles; and guard against covert insertion of terrorists into the United States. The new construct will also explore options for deterring attacks against the homeland far from U.S. shores.

The second area of focus in the new construct is the global war on terrorism, particularly the need to improve proficiency against irregular forms of warfare. This would require improving U.S. military capabilities to conduct counterinsurgencies, counterterrorism, foreign internal defense as well as training and equipping foreign forces. “The kinds of missions we find ourselves more and more involved in are, quite frankly, more along the lines of what we need to do to help defeat the threat,” said the senior military official.

The third category of the construct is conventional campaigns, the U.S. military’s traditional responsibility to fight and win the nation’s wars. “We want to bring ‘campaign’ into the lexicon to convey the notion that there is more than just the kinetic phase of an operation. We’re also talking about active partnering and deterrence tailored to the kind of threats we face,” said the senior military official. This third category would include all potential adversaries with conventional armed forces, including those with “disruptive” capabilities.

The new three-part construct is being analyzed through a bundle of computer analysis and modeling tools being utilized in the QDR that collectively are referred to as Operational Availability-06. Early results are expected by mid-summer; a series of follow-on analyses are then expected.⁴¹

⁴⁰ Jason Sherman, “Pentagon’s First Post-9/11 Construct Could Revamp Shape, Size of U.S. Forces,” *Inside Defense*, June 22, 2005m. Operational Availability-06 reportedly relied on a suite of computer analysis and modeling tools to conduct “a series of analyses on these proposed constructs to see what the consequences are if we were to go to this kind of model, what it would mean in terms of capability, in terms of capacity for various parts of the force,” according to a senior military official (Sherman, 2005m). See also Elaine M. Grossman and Jason Sherman, “In Key Review, Pentagon Considers Altering Force-Planning Construct,” *Inside Defense*, June 23, 2005.

⁴¹ Sherman, 2005m.

The new construct was said to retain the ability to wage two simultaneous major combat operations, while both providing additional options for employing the military abroad and being capable of dealing with a “truly catastrophic” WMD attack on the United States.⁴² According to our structured conversations, there was broad consensus around the force-planning construct, which better addressed the sorts of rotational demands that were being confronted at the time.

In early July 2005, and in preparation for a July 9 “senior summit,” it was reported that Deputy Secretary England had greatly reduced the number of issues being examined in the QDR from more than 160 to a smaller set of about three dozen.⁴³

By late August, the QDR reportedly entered its endgame, and the list of 36 issues under consideration was culled to a mere dozen, with a final round of analysis planned to create options for decisions on the size and shape of the armed forces, as well as the fate of major weapon systems programs. The aim at the time was to produce input to the FY07 budget request by September and input for other major decisions by early October.⁴⁴

By early September, the QDR’s force-planning construct reflected the heightened importance of the homeland defense mission; moreover, the visualization conceived of the respective girth of the three ellipses (“tires”) representing each of the three missions expanding or contracting based on steady-state and surge demands. Meanwhile, efforts were being made to “vacuum-clean” material that had already been created by the integrated process teams and that was relevant to each of the four integration studies (air, land, sea, and special operations).⁴⁵

By mid-September, Deputy Secretary England had received the first of a dozen briefings on the QDR – including the four capability integration assessment briefings and the eight cross-service capability area briefings – providing options on the proposed shape of the future force to recommend to Secretary Rumsfeld the next month.⁴⁶

⁴² Jason Sherman, “England Pares QDR Agenda Down to Size, Sets Stage for July ‘Senior Summit,’” *Inside Defense*, July 6, 2005n.

⁴³ Sherman, 2005n. The requirements of Hurricane Katrina took DoD by surprise and added more weight to arguments to improve defense capabilities to deal with large-scale disasters in the United States. See Jason Sherman, “Katrina Refocuses High-Level QDR Debate Over Homeland Defense,” *Inside Defense*, September 22, 2005r.

⁴⁴ Jason Sherman, “Deputy Defense Secretary Sets Quadrennial Defense Review Endgame,” *Inside Defense*, August 22, 2005o. Four assessments reportedly were conducted: integrated joint air capabilities, integrated joint ground capabilities, integrated joint maritime capabilities, and integrated joint special operations capabilities. In addition, OSD was said to be working on cross-cutting options for eight additional areas, including global deterrence, situational awareness, mobility, combating WMD, homeland defense, global commons, building partnership capacity, and a human capital strategy.

⁴⁵ Elaine M. Grossman, “Quadrennial Review Focus Turns to Homeland Defense as Top Concern,” *Inside Defense*, September 5, 2005c.

⁴⁶ Jason Sherman, “September QDR Briefings to Shape Blueprint for Military’s Future,” *Inside Defense*, September 15, 2005q.

In early October, Secretary Rumsfeld met again with the combatant commanders to preview preliminary decisions of the QDR, and he scheduled another meeting to discuss the QDR the next month for a final review of programmatic issues.⁴⁷ Facing budget pressures and a shortfall, in late October, Deputy Secretary England directed the services to collectively nominate cuts of \$8 billion in anticipation of final decisions on the FY07 program and budget,⁴⁸ as well as \$32 billion in cuts over FYs 07–12 as part of an effort to rebalance the defense program.⁴⁹ By mid-November, OSD officials reportedly had identified at least three major modernization programs for cuts, including the Army's FCS, the Navy's DD(X) destroyer, and the Air Force's variant of the Joint Strike Fighter.⁵⁰

In late November, Secretary Rumsfeld reportedly convened his Strategic Planning Council to discuss the QDR and the emerging FY07 budget, with the expectation that program decision memoranda would shortly be issued.⁵¹ Although decisions on weapon system procurement accounts had not yet been made at the time, DoD reportedly had begun compiling findings from its various assessments and preparing a draft of the QDR that, it was hoped, could be circulated for comment by mid-December.⁵²

By mid-December, it was reported that the QDR would advance a refined version of the 2001 QDR's 1-4-2-1 force-planning construct that would better address the post-9/11 strategic landscape by focusing on the three core areas (homeland defense, the GWOT, and conventional campaigns), while considering steady-state and surge capabilities in each area. The construct was said to retain the capability to swiftly defeat two major conventional adversaries simultaneously, while retaining the ability to conduct a regime change against one of them. The QDR also was said to include an

⁴⁷ It seems likely that this was a meeting of Secretary Rumsfeld's Strategic Planning Council, which consisted of Senior-Level Review Group members and the combatant commanders. See Jason Sherman, "Rumsfeld to Gather Combatant Commanders, Discuss QDR in Washington," *Inside Defense*, October 3, 2005s; and Sherman, 2005t.

⁴⁸ Jason Sherman, "Pentagon Tells Services to Cut \$8 Billion in 2007, Prepare for More," *Inside Defense*, October 24, 2005u.

⁴⁹ Jen DiMascio and Jason Sherman, "Pentagon to Slash \$32 Billion from Service Budgets; More Cuts May Come," *Inside Defense*, November 7, 2005. In anticipation of guidance from OMB, the Army reportedly was directed to cut \$11.7 billion, the Air Force \$8.6 billion, and the Navy \$8.5 billion; defense-wide cuts were set at \$3.3 billion.

⁵⁰ Jason Sherman, "Following White House Meeting, Pentagon Eyes Major Weapons Cuts and Kills," *Inside Defense*, November 21, 2005v.

⁵¹ Jason Sherman and Jen DiMascio, "Key QDR Decisions to Be Issued Next Week in Classified Budget Documents," *Inside Defense*, December 2, 2005.

⁵² Jason Sherman, "Draft Quadrennial Defense Review Report Expected in Mid-December," *Inside Defense*, November 28, 2005w.

approach to “tailored deterrence of near-peer military challengers such as future China, regional challengers like North Korea, and terrorist networks and violent extremists.”⁵³

In January 2006, Secretary Rumsfeld reportedly met with his Strategic Planning Council again to discuss their inputs to the QDR, even as the 2007 spending request was being finalized,⁵⁴ and by mid-January, OSD reportedly was putting the finishing touches on the QDR.⁵⁵ The following eight follow-on assessments also were reportedly launched to develop execution roadmaps:

- DoD institutional reform and governance
- building partnership capacity
- sensor-based management of the ISR enterprise
- irregular warfare
- authorities
- “locate, tag, track”
- joint command and control
- strategic communications.⁵⁶

By the end of January, it was confirmed that the FY07 DoD program and budget would lay the groundwork for future changes by providing a small number of “cutting-edge” investments, but that it would be left to the FY08 and subsequent budgets to make more-substantial programmatic adjustments to implement the QDR.⁵⁷

On February 6, 2006, DoD released the 2006 QDR report. A Deputies Advisory Working Group continued to meet after publication of the report to review and approve QDR initiatives presented by the six study team leaders and leaders of the specialized issue areas.⁵⁸ In addition, Congress established a requirement for quarterly reports on the implementation of the QDR.

⁵³ Jason Sherman, “QDR to Refine ‘1-4-2-1’ Construct, Address Homeland and Terror War Requirements,” *Inside Defense*, December 19, 2005x; and Jason Sherman, “Rumsfeld Summoning Commanders for Final QDR Discussions Next Week,” *Inside Defense*, January 5, 2006a.

⁵⁴ Sherman, 2006a.

⁵⁵ Jason Sherman, “Pentagon Ponders Final QDR Revisions; Set for Printing Next Week,” January 13, 2006c.

⁵⁶ Jason Sherman, “Deputy Defense Secretary Commissions Eight QDR Spin-Off Reviews,” January 12, 2006b. On January 17, 2006, Secretary Rumsfeld provided his markup of the draft QDR (Donald Rumsfeld, “QDR,” memorandum to Ryan Henry, Rumsfeld Papers, January 17, 2006a). Also see Donald Rumsfeld, “Shifting Our Weight,” attachment to memorandum to Ryan Henry, Rumsfeld Papers, January 17, 2006b.

⁵⁷ John T. Bennett, “Pentagon Will Seek Funds for Most QDR Directions in FY-08 Budget Plan,” *Inside Defense*, January 27, 2006.

⁵⁸ The Deputies Advisory Working Group reportedly is the renamed version of the Senior-Level Review Group that was created for the QDR (GAO, 2007b, p. 13).

Congress commissioned GAO to review the 2006 QDR, and that review provides some additional insights into the analytics behind the QDR. GAO noted the following, for example:

- Rather than assessing different levels of forces and their capabilities, and evaluating trade-offs among capabilities, DoD's primary assessment approach was to assess currently planned forces in potential scenarios to determine whether and to what extent the planned force structure would experience shortages.
- Rather than conducting a comprehensive assessment of personnel requirements, DoD's approach to active and reserve military personnel levels was to limit growth and initiate efforts to use current personnel levels more efficiently, taking current personnel levels as a given.⁵⁹
- Although the 2001 QDR and 2006 QDR study guidance had emphasized that DoD planned to use capabilities-based planning to perform its analyses, DoD did not actually conduct a comprehensive, integrated assessment of alternative force structures and capabilities that would enable such an analysis.⁶⁰
- By January 2007, DoD had reported to Congress that it had completed implementation of about 90 of the 130 initiatives (or 70 percent) that flowed from the QDR.⁶¹

GAO also provided a lengthy description and assessment of the analytic work conducted in the Joint Staff-led study called Operational Availability-06:

DOD's primary basis for assessing the overall force structure best suited to implement the national defense strategy, according to several DOD officials, was a Joint Staff-led study known as Operational Availability 06. The study compared the number and types of units in DOD's planned force structure to the operational requirements for potential scenarios to determine whether and to what extent the planned force structure would experience shortages. However, the Joint Staff's Operational Availability 06 Study did not assess alternatives to planned force structures and evaluate trade-offs among capabilities.

In conducting the Operational Availability 06 Study, the Joint Staff completed two different analyses. The first analysis, referred to as the base case, relied on a set of operational scenarios that created requirements for air, ground, maritime, and

⁵⁹ GAO, 2007b. As evidence of DoD's failure to conduct a thorough review of personnel in the QDR, GAO submitted the fact that in the FY08 budget proposal of January 2007, the Secretary of Defense announced plans to permanently increase the size of the active-component Army by 65,000 (to 547,000) and the Marine Corps by 27,000 (to 202,000), a total increase of 92,000 troops over the next five years. The Army National Guard also would be increased by 8,200 (to 358,200), and the U.S. Army Reserve was to be increased by 6,000 (to 206,000).

⁶⁰ GAO, 2007b.

⁶¹ GAO, 2007b.

special operations forces. During this study, the Joint Staff examined requirements for a broad range of military operations over a 7-year time frame. Two overlapping conventional campaigns served as the primary demand for forces with additional operational demands created by 23 lesser contingency operations, some of which represented the types of operations that military forces would encounter while defending the homeland and executing the war on terrorism. The Joint Staff then compared the number of military units in DOD's planned air, ground, maritime, and special operations forces to the operational demands of the scenarios. The Joint Staff made two key assumptions during the analysis. First, the Joint Staff assumed that reserve component units could not deploy more than once in 6 years. Second, the Joint Staff assumed that while forces within each service could be reassigned or retrained to meet shortfalls within the force structure, forces could not be substituted across the services. Results of the Joint Staff's first analysis showed that maritime forces were capable of meeting operational demands and air, ground, and special operations forces experienced some shortages.

In response to a tasking from top-level officials the Joint Staff performed a second analysis that developed a different set of operational demands reflecting the high pace of operations in Iraq. In this analysis, the Joint Staff used the same 2012 planned force structure that was examined in the first analysis. When it compared the operational demands that were similar to those experienced in Iraq with DOD's planned force structure, the Joint Staff found that the air, ground, maritime, and special operations forces experienced shortages and they could only meet operational demands for a security environment similar to Iraq, one conventional campaign, and 11 of the 23 lesser contingency scenarios.⁶²

Risk Assessment Framework

According to Deputy Secretary England, the 2006 QDR continued to use the risk assessment framework developed in the 2001 QDR.⁶³

In November 2005, as the QDR was being completed, GAO reported the results of its October 2004–September 2005 assessment of DoD's risk-based approach to decisionmaking, stating that although DoD had taken positive steps toward implementing the framework, much additional work remained:

DoD's current strategic plan and goals . . . are not clearly linked to the framework's performance goals and measures, and linkages between the framework and budget also are unclear.

⁶² GAO, 2007b, pp. 17–18.

⁶³ In testimony before the Senate Armed Services Committee, Deputy Secretary England stated, "The Department constantly referenced the QDR 2001 risk areas: Operational Risk, Force Management Risk, Future Challenges Risk, and Institutional Risk during this QDR" (U.S. Senate, 2006).

... Without better measures, clear linkages, and greater transparency, DoD will be unable to fully measure progress in achieving strategic goals or demonstrate to Congress and others how it considered risks, and made trade-off decisions, balancing needs and costs for weapon programs and other investment priorities.

... Unless DoD successfully addresses these challenges and effectively implements the framework, or a similar approach, it will likely continue to experience (1) a mismatch between programs and budgets, and (2) a proportional, rather than strategic, allocation of resources to the services.⁶⁴

According to GAO, to conduct their risk assessments, several of the QDR study teams relied primarily on professional judgment to assess risks and examine the consequences of not investing in various capabilities, and risk assessments were conducted in an inconsistent fashion. Moreover, the CJCS was not tasked to use the OSD risk assessment framework in assessing risks, and he did not choose to use it in his assessment.⁶⁵

Strategy Development

Among the key strategy documents published in the period prior to the 2006 QDR report were the November 2001 Nuclear Posture Review report, the September 2002 National Security Strategy, and the March 2005 National Defense Strategy and National Military Strategy.⁶⁶ It also is likely that the QDR was informed by drafts of a new National Security Strategy that were in circulation as the QDR was being finalized, but that document would not be released until March 2006, one month after the release of the QDR report.⁶⁷

When the 2006 QDR report was published in February 2006, the United States was in its fifth year of the “long war” against terrorism. Despite the previous five years of war, including three in Iraq, the 2006 QDR report did not suggest a break with the concepts presented in the 2001 QDR. Rather, it was presented as an evolution of those earlier principles, and 9/11 and subsequent events were seen as validating the need for military transformation.⁶⁸ The QDR did, however, note that DoD needed to adopt

⁶⁴ GAO, *Defense Management: Additional Actions Needed to Enhance DoD’s Risk-Based Approach for Making Resource Decisions*, Washington, D.C., GAO-06-13, November 2005.

⁶⁵ GAO, 2007b.

⁶⁶ The National Defense Strategy and the National Military Strategy were formally released in March 2005. The National Defense Strategy, however, has a cover date of 2004. DoD, “Department of Defense Releases the National Defense and National Military Strategies,” Washington, D.C., Release No. 268-05, March 18, 2005b.

⁶⁷ White House, *The National Security Strategy of the United States of America*, Washington, D.C., March 2006.

⁶⁸ DoD, 2006a, p. v.

a model of continuous change and assessment in order to defeat a highly adaptive enemy.⁶⁹ As noted earlier, the QDR had two fundamental imperatives: (1) to continue in a time of war the transformation that would help the current fight, prepare the U.S. military for wider asymmetric challenges, and hedge against uncertainty over the next 20 years; and (2) to implement institutional changes necessary to support the process of transformation.⁷⁰

The 2006 QDR report also emphasized that the global challenges facing the United States could not be met by DoD alone. The complex nature of the emerging challenges required both a “whole of government” approach that would bring to bear the coordinated application of all elements of national power and close cooperation with international partners. This was viewed as particularly true for many of the challenges emanating from weak or broken states, which required complex stability operations to strengthen and stabilize them.

National Interests and Primary QDR Objectives

The 2006 QDR report does not explicitly articulate any higher-level national interests; however, the 2002 National Security Strategy did identify “political and economic freedom, peaceful relations with other states, and respect for human dignity” as being America’s goals.⁷¹ The 2006 QDR report took as its foundation the 2004 Strategic Planning Guidance and the March 2005 National Defense Strategy and National Military Strategy. The report also noted that the U.S. military needed to maintain both its preponderance in traditional forms of warfare, as well as improve its ability to counter nontraditional, asymmetric challenges, including irregular warfare, catastrophic terrorism with WMD, and disruptive threats to the United States’ ability to maintain its military superiority and to project power.⁷² To implement the 2005 National Defense Strategy, the QDR identified four priority focus areas: defeat terrorist networks, defend the homeland in depth, shape the choices of countries at strategic crossroads, and prevent hostile states and nonstate actors from acquiring or using WMD.⁷³ All of these focus areas had both near- and long-term implications, as well as aspects that could be addressed both immediately to mitigate near-term risks and in the longer term to develop a range of future options.⁷⁴

⁶⁹ DoD, 2006a, p. 1.

⁷⁰ DoD, 2006a, p. 1.

⁷¹ White House, 2002, p. 1.

⁷² DoD, 2006a, pp. 3, 19.

⁷³ DoD, 2006a, p. 19.

⁷⁴ DoD, 2006a, p. 3.

Defeating terrorist networks required the ability to create a global environment inhospitable to terrorism, in which legitimate governments with effective security forces could control their own territory, and effective and representative civil societies could counter and provide alternatives to extremist ideologies. Victory would be the result of the coordinated application of all elements of national power, in conjunction with the efforts of foreign government and nongovernmental forces. These efforts would be complex and of long duration and would require the application of both direct and indirect power.⁷⁵

Defending the homeland in depth was required because the geographic position of the United States no longer sheltered it from direct threats, particularly from WMD, missile and other air threats, and cyber attacks. Such a defense required the capability to deter such attacks by persuading potential opponents that such attacks would be ineffective and would result in an overwhelming U.S. response. Protecting the U.S. homeland required a layered defense that emphasized DoD partnerships both with foreign allies and partners and with domestic agencies.⁷⁶

Shaping the choices of countries at strategic crossroads focused on ensuring that major and emerging powers such as China, Russia, and India did not adopt policies that threatened the United States' interests or limited its global freedom of action. The primary goal of the United States was to encourage such states to make strategic choices that fostered cooperation and mutual security interests. However, the United States also would need to hedge against the possibility that major or emerging powers would pursue policies hostile to the country, or that they would develop high-end military capabilities capable of threatening U.S. interests.⁷⁷

Preventing the acquisition or use of WMD was a principal objective of the United States, as a result of the grave threat that such weapons posed to U.S. interests. The United States thus needed to be able to address such threats through both preventive and responsive measures. In order to address this threat, the U.S. military needed to be able to "deter attacks; locate, tag and track WMD materials; act in cases where a state that possesses WMD loses control of its weapons, especially nuclear devices; detect WMD across all domains; sustain operations even while under WMD attack; help mitigate the consequences of WMD attacks at home or overseas; and eliminate WMD materials in peacetime, during combat, and after conflicts."⁷⁸

These four focus areas were used to guide DoD's force-planning construct, as well as to refine the construct initially put forth in the 2001 QDR. These refinements

⁷⁵ DoD, 2006a, pp. 22, 23.

⁷⁶ DoD, 2006a, pp. 25–26.

⁷⁷ DoD, 2006a, pp. 27–28.

⁷⁸ DoD, 2006a, pp. 33–34.

included the recognition that steady-state rotational and sustainment requirements for the war on terrorism would be the main determinant of the size of the U.S. military, that greater emphasis needed to be put on the forces and capabilities required for deterrence and peacetime-shaping operations in order to support the QDR's focus on prevention, and that increased capabilities to conduct irregular warfare against enemies using asymmetric strategies were needed.⁷⁹

Strategic Environment

On the one hand, the 2006 QDR report painted a very stark picture of the U.S. security environment, because it portrayed the United States as being in conflict with a dispersed global Islamic terrorist network that sought "to destroy our free way of life" and that sought WMD that it would likely use against "free people everywhere." On the other hand, the 2006 QDR report noted that the centers of this struggle were U.S. operations in Afghanistan and Iraq, and that successful U.S. operations in both countries had dealt significant setbacks to al-Qa'ida.⁸⁰

The 2006 QDR report adopted the general threat categories first presented in the March 2005 National Defense Strategy. This framework stated that the United States faced four kinds of threats or challenges: traditional, irregular, disruptive, and catastrophic.⁸¹ The QDR recognized that the United States had a significant advantage in the traditional forms of warfare, but assumed that this was the least likely threat to which the country would need to respond. U.S. opponents, be they state or nonstate actors, were likely to adopt asymmetric strategies, and these pose irregular, disruptive, and/or catastrophic threats to U.S. interests.⁸²

The greatest threat to the United States was seen as the increasing number of hostile regimes and terrorist groups seeking to acquire and use WMD, who were unlikely to be influenced by traditional deterrence concepts. Helping to fuel this trend was the perceived growing ease with which nuclear, biological, and chemical weapons could be produced by both state and nonstate actors, as well as new societal vulnerabilities to electromagnetic pulse weapons arising from an increased reliance on sophisticated electronics. Exacerbating this threat was the difficulty of collecting reliable intelligence on WMD programs, which left the United States vulnerable to surprise. It was feared that hostile states (Iran and North Korea were specifically mentioned) would use WMD to seek regional hegemony, ensure regime survival, deny U.S. access to critical regions, and deter others from attacking them. Additionally, it was feared that such states would transfer WMD and expertise to terrorist groups. The final WMD-related

⁷⁹ DoD, 2006a, pp. 35–37.

⁸⁰ DoD, 2006a, pp. v, 9–11.

⁸¹ According to press, the spring 2004 Strategic Planning Guidance called for U.S. forces to prepare for a wider range of challenges, including "irregular, catastrophic and disruptive" threats (Sherman, 2005a).

⁸² DoD, 2006a, p. 19.

threat was that several of the WMD-armed states were internally unstable and thus could lose control of their WMD assets, which could then fall into the hands of terrorist groups.⁸³

While the primary opponent since 2001 had been a “dispersed nonstate network” located primarily in Afghanistan and Iraq, the most dangerous long-term threat was the possible emergence of a hostile major power with high-end military capabilities. The 2006 QDR report identified China as having “the greatest potential to compete militarily with the United States and field disruptive military technologies that could over time offset traditional U.S. military advantages absent U.S. counter strategies.”⁸⁴ While the 2006 QDR report recognized that China was not yet a rival or an adversary, it advocated an extensive hedging strategy that appeared to be predicated on the likelihood that U.S.-Sino relations would deteriorate and that China would need to be deterred and contained.⁸⁵

The 2006 QDR report retained the capabilities-based approach of the 2001 QDR report and thus did not prioritize the importance of any particular region. This approach led it to focus on the general need to act preventively to shore up weak states wherever they may be, the importance of pursuing and defeating terrorist networks, and the goal of shaping the choices of countries at strategic crossroads.

Key Post-QDR Documents

The strategy, policy, programmatic, and budgetary directions set in the 2006 QDR report would continue to be elaborated on or refined with the simultaneous February 2006 release of the FY07 President’s budget, which was the first budget to implement decisions taken in the QDR, as well as the March 2006 National Security Strategy, the June 2008 National Defense Strategy, the January 2009 Quadrennial Roles and Missions Review Report, and a January 2009 article in *Foreign Affairs* by Secretary of State Robert M. Gates titled “A Balanced Strategy: Reprogramming the Pentagon for a New Age,” which Secretary Gates used to signal the new path he was setting for DoD (see Figure 3.2).⁸⁶

Each of these documents would continue to elaborate or refine the directions set in the 2006 QDR report, as well as contribute to the strategic, policy, programmatic, and budgetary foundations for the next QDR (in 2010).

⁸³ DoD, 2006a, p. 32.

⁸⁴ DoD, 2006a, p. 29.

⁸⁵ DoD, 2006a, pp. 30–31.

⁸⁶ Robert M. Gates, “A Balanced Strategy: Reprogramming the Pentagon for a New Age,” *Foreign Affairs*, January/February 2009.

Figure 3.2
Key Documents Following the 2006 QDR Report



RAND RR1309-3.2

Force Planning

The 2006 QDR report cast the military as an agent for shaping four key domains: defeating terrorist networks, defending the homeland in depth, shaping choices of countries at strategic crossroads, and preventing hostile states and nonstate actors from acquiring or using WMD.⁸⁷ In terms of force structure, these four tasks had the greatest effects on general-purpose forces and special operations forces.

Required Capabilities

The 2006 QDR report argued that the primary military capabilities required to defeat terrorist networks were those focused on providing persistent surveillance and “vastly” improved intelligence that could be used to locate enemy capabilities and personnel. In addition, it expressed the belief that the U.S. military would require global mobility, rapid strike, sustained unconventional warfare, foreign internal defense, counterterrorism, and counterinsurgency capabilities.⁸⁸

⁸⁷ DoD, 2006a, p. 3.

⁸⁸ DoD, 2006a, p. 23.

According to the 2006 QDR, the primary capabilities required to defend the homeland in depth were those that helped the U.S. military to detect, characterize, and neutralize threats as early as possible. It also required the ability to support domestic and international consequence management operations.⁸⁹

Shaping the choices of major emerging powers was said to require a balanced portfolio of military capabilities that supported a hedging strategy, should political cooperative approaches fail to preclude future conflict. A successful hedging strategy required the capability to improve the capacity of regional partners and reduce their vulnerability to coercion. It also required that the United States develop a basing posture that promoted bilateral partnerships, mitigated against direct anti-access threats, and limited the ability of an opponent to use political coercion to restrict regional U.S. access. Ultimately, a successful hedging strategy required that the United States possess the capability to convince any potential adversary that it could not prevail in a conflict, and that engaging in such a conflict would have a high probability of ending in U.S.-sponsored regime change.⁹⁰

Preventing the acquisition and use of WMD required the capabilities to deter attacks, prevent the proliferation of WMD materials, intervene in cases where a WMD state loses control of such weapons, detect WMD under all conditions, sustain operations under WMD attack, mitigate the consequences of WMD use both at home and abroad, and conduct WMD elimination operations. Countering the WMD threat further required that these capabilities have both preventive and responsive dimensions.⁹¹

More broadly, the 2006 QDR report identified a series of “capability portfolios” that provided desired future force characteristics to guide the process of transformation. These ten portfolios were as follows:

- Joint ground forces that would be modular, largely self-sustaining, capable of deployment in small autonomous units, and proficient in irregular warfare. In general, they needed to be able to conduct many tasks traditionally performed by special operations forces.
- Special operations forces that would be rapidly deployable, agile, flexible, and customizable to conduct difficult and sensitive missions globally. This included an increased capacity to perform long-duration indirect and clandestine missions in politically sensitive or denied areas.
- Joint air capabilities focused on conducting operations at longer ranges with greater persistence and with flexible ISR or strike payloads. These forces had to be able to locate and promptly conduct simultaneous strikes at global ranges against “thousands” of fixed and mobile targets.

⁸⁹ DoD, 2006a, p. 26.

⁹⁰ DoD, 2006a, pp. 30–31.

⁹¹ DoD, 2006a, pp. 33–34.

- Joint maritime forces with a greater capability to conduct green and brown water operations, project force and extend air and missile defenses at far greater ranges, execute global time-sensitive strikes, and provide flexible and sustainable afloat bases to counter political anti-access and irregular warfare challenges.
- Tailored deterrence and a new triad that would provide deterrence against state and nonstate actors, include integrated ballistic and cruise missile defense, and have a conventional prompt global strike capability useful against fixed, deeply buried and hardened, mobile, and relocatable targets. It would also be able to defend against and conduct cyber warfare and other kinetic and nonkinetic attacks against information systems.
- Capabilities for combating WMD, provided by a future force trained, equipped, and organized to conduct all forms of counter-WMD missions.
- Joint mobility capabilities focused on both speed of deployment and the delivery of the desired effects with response times measured in hours. These were to rely increasingly on host-nation facilities with a small U.S. footprint, rather than on large overseas main operating bases. It was expected that the combination of sea-basing, overseas presence, enhanced long-range strike, and reach-back support, as well as surge and prepositioned forces, would reduce the overall need for a U.S. overseas footprint.
- ISR capabilities focused on placing a survivable and persistent “unblinking eye” over areas where joint forces would be conducting operations. This capability would support operations against any target under all conditions anywhere in the world, would be integrated with intelligence functions down to the tactical level, and would include significant reach-back capabilities. In addition, it would collect information that would help decisionmakers mitigate against surprise and anticipate a potential adversary’s actions, as well as provide a robust missile warning capability.
- Net-centricity, achieved by linking the entire future force with robust and survivable “net-centric” information systems.
- Joint command and control that would enable the future joint force to have rapidly deployable, standing joint task force headquarters that the combatant commanders could deploy to meet a range of contingencies. These headquarters would enable the real-time merging of operations and intelligence in order to increase joint force adaptability and speed of action.⁹²

⁹² DoD, 2006a, pp. 41–60.

Force-Planning Construct

The 2006 QDR report endorsed the main elements of the 1-4-2-1 force-planning construct developed during the 2001 QDR, but also sought to refine the construct in light of lessons learned from recent operations in Afghanistan, Iraq, and elsewhere.⁹³ The QDR reported that DoD had refined its force-planning construct to consider steady-state and surge requirements in three objective areas: homeland defense, the war on terror and irregular (asymmetric) warfare, and conventional campaigns.⁹⁴

The principal thought driving the force-planning construct was to change the capabilities mix to meet the challenges of the ongoing long war, and to better address the four focus areas that were highlighted earlier, while also preparing for a range of potential future threats and challenges.

As described earlier, the 2006 QDR also sought to address a wider range of challenges. Figure 3.3 presents a graphic used in the QDR report to portray the range of challenges that needed to be faced, as well as notional capability development paths to develop the force to better address these potential challenges.

Meanwhile, Figure 3.4 presents what came to be called the “Michelin Man,” the graphical representation of the force-planning construct that was used in the QDR to portray the three objective areas and the sorts of missions and activities conducted during steady-state through surge phases that were to be used to size and shape the force.⁹⁵

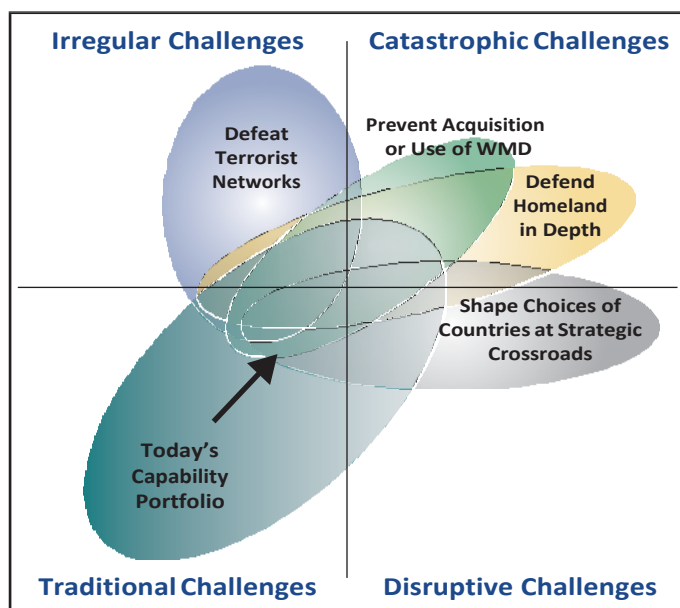
As described in the figure, the homeland defense objective at the top of the chart captured the increasing importance given to this mission in the QDR, as well as the increasing recognition of the potential defense role in a catastrophic attack on the homeland. Meanwhile, policymakers expected the war on terror/irregular warfare objective

⁹³ For example, in testimony before the Senate Armed Services Committee, Principal Deputy Under Secretary for Policy Henry stated that QDR participants had “put a lot of effort this year into understanding how we support the force planning construct,” and Vice CJCS Giambastiani indicated that additional thought was given in the 2006 QDR to specific combinations involving two major contingency scenarios, including one that reflected long-term and long-duration operations of the kind taking place in Afghanistan and Iraq. Deputy Secretary Henry’s comments suggested that this long-duration operation was “something the size of Iraq and Afghanistan combined.” See their comments in U.S. Senate, 2006. Press reporting suggested that the two simultaneous major operations were (1) the large-scale stability and reconstruction campaign just described and (2) a major conventional war. “While we are saying we can handle two major campaigns, we now realize one of them may be of a prolonged, irregular nature,” stated an unnamed defense official (Sherman, 2006d).

⁹⁴ DoD, 2006a, pp. 35–39. The refined force-planning construct envisioned homeland defense plus two conventional contingencies, or one conventional contingency and one irregular warfare contingency. See Mark Gunzinger, *Shaping America’s Future Military: Toward a New Force Planning Construct*, Washington, D.C.: Center for Strategic and Budgetary Assessments, 2013.

⁹⁵ The “Michelin Man” was a reference to the logo of the Michelin tire company — a man who is made out of a set of stacked tires. As shown, the Michelin Man force-planning construct consisted of a stack of three ellipses (tires), where each ellipse represented one of the three major mission areas addressed in the QDR: homeland defense, war on terror/irregular warfare, and conventional campaigns. The idea was that the girth of the ellipse could expand or contract to reflect changes in the level of effort, and that the visualization could thereby be used to portray both steady-state and surge levels of effort.

Figure 3.3
Range of Challenges Identified in the 2006 QDR



SOURCE: DoD, 2006a, p. 19.

RAND RR1309-3.3

in the center to shrink as the United States concluded its operations in Afghanistan and Iraq. The bottom objective, conventional campaigns, provided for a continued capability to manage multiple, nearly simultaneous major conventional campaigns.

Force Structure

Ultimately, the 2006 QDR report concluded that the size of the force was about right, although the report also directed some increases and decreases, as discussed below.

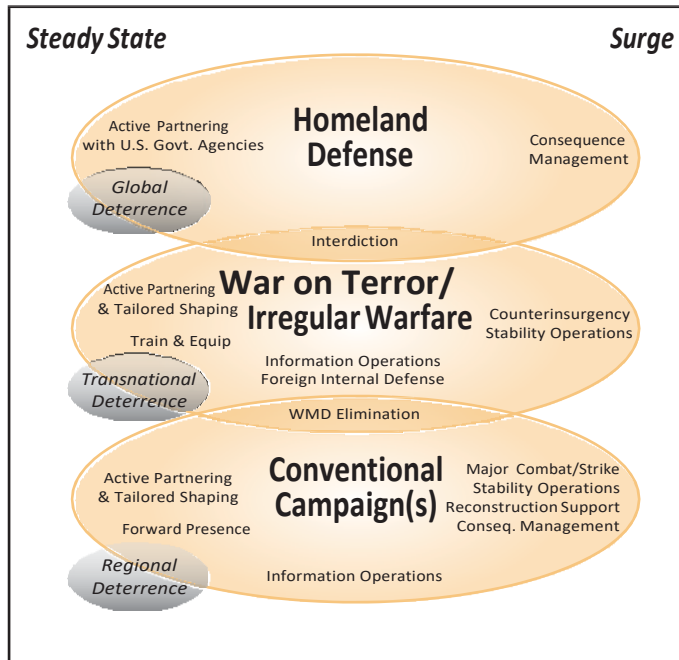
General-Purpose Forces

The 2006 QDR report directed that ground forces “rebalance capabilities by creating modular brigades in all three Army components.”⁹⁶ This directive meant 117 brigades in the active component, including 42 BCTs and 75 support brigades; 106 brigades in the Army National Guard, including 28 BCTs and 78 support brigades; and 58 support brigades in the Army Reserve.

With respect to WMD-related tasks, the 2006 QDR report directed expansion of the Army’s 20th Support Command (CBRNE) “to enable it to serve as a Joint Task Force capable of rapid deployment to command and control WMD elimination and

⁹⁶ DoD, 2006a, p. 43.

Figure 3.4
2006 QDR Force-Planning Construct (the “Michelin Man”)



SOURCE: DoD, 2006a, p. 38.

RAND RR1309-3.4

site exploitation missions by 2007.”⁹⁷ The QDR also sought to expand the number of U.S. forces with advanced technical render-safe skills, and to improve and expand “U.S. forces’ capabilities to locate, track, and tag shipments of WMD, missiles, and related materials, including the transportation means used to move such items.”⁹⁸

The guidance for the Air Force called for it to develop a new, land-based penetrating long-range strike capability by 2018. The service was instructed to restructure its B-52 fleet to 56 aircraft and to use the resulting savings to modernize the remaining bomber force of B-52s, B-2s, and B-1s. UAVs were recognized for their utility, and the Air Force was directed to restructure the Joint Unmanned Combat Air Systems program for carrier-based operations, as well as to adapt the aircraft to be capable of aerial refueling. In addition, the Air Force was ordered to “nearly double” UAV coverage with Predator and Global Hawk UAVs. The service was also instructed to restructure the F-22 program to avoid a gap in fifth-generation stealth capability. In addition, the 2006 QDR report addressed organizational aspects of the Air Force’s force structure,

⁹⁷ DoD, 2006a, p. 52.

⁹⁸ DoD, 2006a, p. 52.

directing the service to organize its assets around 86 combat wings and leverage reach-back, while minimizing the Air Force forward footprint. Finally, the QDR instructed the Air Force to reduce its end strength by 40,000 full-time equivalent workers.

The guidance to the Navy directed the service to build a larger fleet, including 11 carrier strike groups, and accelerate procurement of littoral combat ships, procurement of the first eight maritime prepositioning force (future) ships, and provision of a Navy riverine capability. The QDR report also directed the Navy to return to steady-state production of two nuclear-powered attack submarines per year no later than 2012. In addition, the report instructed the Navy to build partner capacity by reinvigorating its foreign area officer program. Finally, the Navy was directed to procure a disaster relief command-and-control flyaway capability.

Table 3.1 summarizes general-purpose force structure during FYs 06–10.

Special Operations Forces

Special operations forces underwent the most-extensive force structure alterations. The QDR directed a 15-percent increase in overall special operations force end strength, an increase in the number of special force battalions by one-third, and the establishment of Marine Corps Special Operations Command; it also directed the Air Force to establish a UAV squadron under the U.S. Special Operations Command.

Furthermore, the QDR directed a 33-percent personnel increase for psychological operations and civil affairs units, and it instructed the Navy to increase SEAL Team manning and to develop a riverine warfare capability.⁹⁹

Strategic Forces

The 2006 QDR report directed the modernization of command and control of U.S. strategic nuclear forces. It also continued the trend of reduced numbers of launchers and warheads. Warheads were reduced from 5,948 in 2001 to 2,152 in the force estimated for 2010.¹⁰⁰ Table 3.2 summarizes the changes in force structure.

The 2006 QDR report called for an initial capability to “deliver precision-guided conventional warheads using long-range Trident Submarine Launched Ballistic Missiles” within the next two years. In addition, the 2006 QDR report directed the retirement of four E-4B National Airborne Operations Center aircraft and procurement of two C-32 aircraft with state-of-the-art mission suites as replacements. The QDR also directed upgrades to the E-6B TACAMO command and control aircraft and retirement of U.S. Strategic Command’s Mobile Consolidated Command Center in FY07.¹⁰¹

⁹⁹ DoD, 2006a, p. 5.

¹⁰⁰ Woolf, 2014, pp. 6, 8.

¹⁰¹ DoD, 2006a, p. 50.

Table 3.1
2006 QDR Report Projections and Actuals for General-Purpose Force Structure,
FYs 2006–2010

Service Element	FY06 QDR Planned	FY06 Actual	FY07 Actual	FY08 Actual	FY09 Actual	FY10 Actual
Army						
Divisions (AC/RC)	Not stated	10/8	10/8	10/8	10/8	10/8
Maneuver brigades (AC) ^a	42	35	39	42	44	45
Maneuver battalions (AC) ^b	Not stated	137	132	132	138	141
Navy						
Aircraft carriers	11	12	11	11	11	11
Carrier air wings (AC)	Not stated	10	10	10	10	10
Attack submarines	Not stated	54	53	53	53	53
Surface combatants	Not stated	101	104	107	110	112
Marine Corps						
Divisions (AC/RC)	Not stated	3/1	3/1	3/1	3/1	3/1
Expeditionary forces	Not stated	3	3	3	3	3
Air wings (AC/RC)	Not stated	3/1	3/1	3/1	3/1	3/1
Air Force						
Fighter squadrons (AC/RC) ^c	Not stated	45/38	42/38	42/38	41/38	36/35
Bombers	Not stated	118	123	107	107	123
Special Operations Forces						
Military manpower ^d	Not stated	49,086	43,596	49,200	47,878	47,878

SOURCE: DoD, 2006a; OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service.

NOTE: AC = active component; RC = reserve component.

^a Starting with the FY08/09 budget, the Army used BCTs as its base force-structure accounting measurement. In prior years' budgets, the Army listed the number of battalions by type. We derived the actual maneuver brigade for 2006 from division force structure of the appropriate year plus nondivisional maneuver brigades or regiments.

^b For the purpose of this study, a *maneuver battalion* is any infantry battalion, armor battalion, cavalry squadron, or combined arms battalion of the various mutations of maneuver brigades that have been part of Army force structure since 2001. The actual maneuver battalion figure for 2006 accounts for all active-component infantry and armor battalions and cavalry squadrons. For FYs 07–10, with modularity complete for all active-component BCTs with the exception of two remaining legacy brigades, we derived the actual maneuver battalion figures from modular BCT force structure, which includes two infantry battalions and one light cavalry squadron in interim BCTs, two combined arms battalions and one armored reconnaissance squadron in armored BCTs, and three infantry battalions and one cavalry squadron in Stryker BCTs.

^c For FY06 forward, we estimate the number of squadrons in the active and reserve components based on the number of reported primary aircraft authorized and the observed ratio of aircraft to squadrons from FYs 99–05. The ratios are as follows: 22 aircraft per F-15 and, later, F-22 squadron; 12 aircraft per A-10 squadron; 20 aircraft per F-16 squadron; and 18 aircraft per F-117 squadron. Budget data from FYs 01–07 also yielded the ratio of aircraft per squadron for the reserve component: 12 aircraft per Air National Guard A-10 squadron, 15 aircraft per Air Force Reserve A-10 squadron, and 15 aircraft per fighter (F-15 and F-16) squadron in both the Air National Guard and Air Force Reserve.

^d These figures include Military Department Major Force Program 11 activities only.

Table 3.2
U.S. Strategic Force Structure, FYs 2006 and 2010

Weapon System	FY06	FY10 (estimated)
Intercontinental ballistic missiles		
MX/Peacekeeper	0	Not stated
Minuteman III	450	450
Total	450	450
Submarine-launched ballistic missiles		
Trident I (C-4)	72	336 (no model given)
Trident II (D-5)	264	Not stated
Total		336
Bombers		
B-52 (ALCM)	56	76
B-52 (Non-ALCM)	Not stated	Not stated
B-1	Not stated	Not stated
B-2	Not stated	18
Total		94
Total		880

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service.

Manpower and End Strength

The 2006 QDR report did not anticipate major changes in active end strength. Nevertheless, in anticipation of an end to the conflicts in Afghanistan and Iraq in the out-years, it called for a stabilization of Army end strength at 482,400 active-duty soldiers and 533,000 reserve-component soldiers by FY11, and projected stabilization of Marine Corps end strength at 175,000 active and 39,000 reserve Marines;¹⁰² the President’s budget request for FY07 was for an authorized end strength of 482,400 in the active Army. These figures reflected a decrease in end strength for both services from FY05 levels. The QDR simultaneously called for a 15-percent increase in special operations forces, and for efforts to make the reserve component an operational rather than strategic reserve.¹⁰³

Table 3.3 presents an overview of actual military personnel end-strength levels from FYs 06–10.

As GAO would later observe, “[OSD] concluded in its 2006 Quadrennial Defense Review (QDR) that the number of active personnel in the Army and Marine

¹⁰² DoD, 2006a, p. 43.

¹⁰³ As stated in the 2006 QDR, “In particular, the Reserve Component must be operationalized, so that select Reservists and units are more accessible and more readily deployable than today” (DoD, 2006a, p. 76).

Table 3.3
End Strength, FYs 2006–2010

Service	FY06	FY07	FY08	FY09	FY10
Army					
Active	505.4	522.0	543.6	553.0	566.0
National Guard	346.3	352.7	360.4	358.4	362.0
Reserve	190.0	189.9	197.0	205.3	205.3
Navy					
Active	350.2	337.5	332.2	329.3	328.3
Reserve	70.5	69.9	68.1	66.5	65.0
Marine Corps					
Active	180.4	186.5	198.5	202.8	202.4
Reserve	39.5	38.6	37.5	38.5	39.2
Air Force					
Active	349.0	333.5	327.4	333.4	334.2
National Guard	105.7	106.3	107.7	109.2	107.7
Reserve	74.1	71.1	67.6	68.0	70.1
Total active	1,385.0	1,379.5	1,401.7	1,418.5	1,430.9
Total reserve	826.1	828.5	838.3	845.9	849.3
Total active + reserve	2,211.1	2,208.0	2,240.0	2,264.4	2,280.2

SOURCES: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service.

Corps should not change. However, the Secretary of Defense recently announced plans to increase these services' active end strength by 92,000 troops";¹⁰⁴ furthermore, "These plans call into question the analytical basis of the QDR conclusion that the number of personnel and the size of the services' force structure were appropriate to meet current and future requirements."¹⁰⁵ As was the case with the 2001 QDR then, the 2006 QDR did not anticipate the near-term end-strength requirements associated with warfighting.

In the months before and after release of the QDR, official DoD and service press releases continued to stress progress in Afghanistan and Iraq.¹⁰⁶ The collective tenor of these official releases suggested optimism in projecting "victory," or an acceptable

¹⁰⁴ GAO, *DoD Needs to Provide a Better Link between Its Defense Strategy and Military Personnel Requirements*, Washington, D.C., GAO-07-397T, January 30, 2007a, p. ii.

¹⁰⁵ GAO, 2007b, p. 6.

¹⁰⁶ DoD, *Measuring Stability and Security in Iraq*, Washington, D.C., November 30, 2006e. The 2007 and 2008 editions of this congressionally mandated annual report echo optimism regarding progress in Iraq along the security, economic, and political lines of effort. DoD released a similar annual report on Afghanistan starting in 2008. These official reports are also optimistic regarding progress in Afghanistan.

conclusion, to each of the campaigns and provided a circumstantial explanation of the QDR's decrease in projected end strength for the department's ground components. Likewise, Defense Manpower Requirements Reports in 2006 and 2007 reflected the department's optimistic views at the time. These reports projected steady Army end strength through 2010, despite the worsening security situation in Iraq.¹⁰⁷

By mid-2006, deteriorating security conditions across Iraq and the Army's commitment to increase troop-to-population ratios in accordance with a "population-centric" approach to the counterinsurgency campaign led to presidential consideration of a "train and surge" phase for U.S. operations in Iraq.¹⁰⁸ By December 2006, President Bush had decided to conduct an Iraq "surge,"¹⁰⁹ a decision that was announced the next month.¹¹⁰ The subsequent surge of troops was in place by June 2007 and lasted for more than a year, with the last of the surge forces returning to home stations by July 2008. The National Defense Authorization Act for FY08 authorized the Army to grow by 65,000 and the Marine Corps by 27,000, to respective end strengths of 547,400 and 202,000 by FY12.¹¹¹ In addition, growing concern about "dwell time" led, in July 2009, to Secretary Rumsfeld's decision to allow the Army to exceed authorized end-strength levels by 30,000 troops.¹¹² Secretary Gates also initiated several policy changes that established new planning objectives for managing the force.¹¹³

Required to serve as the largest troop provider to the surge, the Army found ways to maintain its pool of deployable units and soldiers. To maintain end strength, between late 2001 and 2005, the Army had initiated a series of stop-loss orders and adjusted recruitment and retention standards. To meet the increased demand in Iraq, the Army adjusted the "BOG:Dwell" ratio (boots on the ground versus dwell time)

¹⁰⁷ DoD, *Defense Manpower Requirements Report: Fiscal Year 2006*, Washington, D.C., July 2005f, p. 10; and DoD, 2006d, p. 3.

¹⁰⁸ Donald Rumsfeld, "Describing Next Phase," memorandum, the Rumsfeld Papers, June 26, 2006c.

¹⁰⁹ Secretary Rumsfeld's DoD proposal for the surge is contained in Donald Rumsfeld, "Iraq Policy: Proposal for the New Phase," memorandum to President George W. Bush, Vice President Richard B. Cheney, and Stephen J. Hadley, the Rumsfeld Papers, December 8, 2006d.

¹¹⁰ The Bush administration carried out the surge in Iraq mainly by extending the length of deployments of units that were already operating there. See Jim Miklaszewski, "Bush Set to Announce U.S. Troop Surge in Iraq," NBC News, January 4, 2007; and White House, *Fact Sheet: The New Way Forward*, Washington, D.C., January 10, 2007.

¹¹¹ Public Law 110-181, National Defense Authorization Act for Fiscal Year 2008, January 28, 2008; and Don J. Jansen, Lawrence Kapp, David F. Burrelli, and Charles A. Henning, *FY2010 National Defense Authorization Act: Selected Military Personnel Policy Issues*, Washington, D.C.: Congressional Research Service, R40711, August 27, 2009.

¹¹² U.S. Army, "Temporary End-Strength Increase," *STAND-TO!*, July 24, 2009.

¹¹³ Robert M. Gates, "Utilization of the Total Force," memorandum for the Secretaries of the military departments, Chairman of the Joint Chiefs of Staff, and Under Secretaries of Defense, January 19, 2007.

of the Army Force Generation model.¹¹⁴ This ratio described the amount of time units spent deployed relative to the period they spent at their home bases recovering from previous deployment and preparing for the next. Army Force Generation had outlined a target ratio in which each deploying unit spent two years at its home station for every year deployed. Ideally, the ratio would apply to individual soldiers, as well. The surge and the corresponding increased pace of rotational timelines, however, decreased that ratio in many cases to 1:1. To keep up with demand, Congress in 2006 authorized an increase in end strength. Army end strength increased steadily from 2006 through 2010 and 2011, while Marine Corps end strength increased from 2005 through 2010.

The story of Army end strength during this period reflects the continuous interplay of optimistic forecasts and the operational realities that ultimately drove demand for manpower in Iraq and, later, Afghanistan. Modularity also was a central factor in the increase in end strength. Modularity was both a solution to increasing demand for manpower in Iraq and a driver of prolonged increases to Army end strength. The Army launched modularity in 2004 to create more self-contained, cohesive combat units to fill a rotational pool for operations in Afghanistan and Iraq.¹¹⁵ Seeking to field 48 such active-component BCTs by 2008, the Army requested a temporary increase of 30,000 active-duty soldiers to fill the additional brigades. The plan called for the Army to return to an end strength of 490,000 once it concluded operations in Iraq, a near-term goal according to leading voices in 2004 and 2005.¹¹⁶ As noted above, rather than improving, security in Iraq deteriorated between 2005 and 2008, increasing the demand for deployed manpower. The surge put approximately 20,000 more troops into Iraq to meet a portion of the theater's demand, but the strain on the Army was increasingly evident. Existing Army force structure in 2006–2008 was insufficient to meet a 1:2 BOG:Dwell ratio; for some low-density specialties, the reality was closer to a 1:1 ratio.

Army leaders recognized the strain on the force and initiated the “Grow the Army” campaign to relieve some of the stress on its soldiers. The FY08 initiative sought to extend the temporary increases to end strength to help the force meet acceptable BOG:Dwell ratios.¹¹⁷ The original Grow the Army plan called for an annual end-strength increase of 7,000 soldiers from FY08 through FY12, when it would reach a

¹¹⁴ HQDA, *Army Force Generation*, Washington, D.C., March 14, 2011b. This Army regulation institutionalized the process referred to within DoD as Army Force Generation. The Army had been planning deployment rotations in accordance with this model since the second cycle of Operation Iraqi Freedom in 2004.

¹¹⁵ GAO, *Army Modular Force Structure*, Washington, D.C., GAO 14-294, April 2014a, p. 3.

¹¹⁶ See “Iraq Insurgency in Its ‘Last Throes,’ Cheney Says,” CNN, June 20, 2005.

¹¹⁷ HQDA, *2008 Army Posture Statement: A Campaign Quality Army with Joint and Expeditionary Capabilities*, February 26, 2008b.

target end strength of 547,400.¹¹⁸ Army leadership noted that the FY07 end strength of 518,400 was 36,000 over that year's Presidential Budget request. This was a notable departure from earlier optimistic projections of end strength and reflected the Army's official recognition of the long-term danger to the Army posed by continuing, indefinite operations in Afghanistan and Iraq. The Army requested authorization for this increase through the FY 2007 Emergency Supplemental request.¹¹⁹ Ultimately, base budgets in FY07 and FY08 paid for increases to Army end strength. By 2010, however, the Army had to rely on OCO funding to pay for such increases.

The Army's reserve component did not escape the strains of continued war in Afghanistan and Iraq; by the time of the QDR's release in February 2006, approximately 80,000 involuntarily mobilized reserve-component personnel were serving in these theaters (see Figure 2.2). Department-wide reserve-component end strength increased during this period, although the increases to Army National Guard and Army Reserve end strength constituted nearly all of the total DoD-wide increase. Conversely, the reserve component's share of total deployed forces declined steadily from 2005 through 2009. These incongruent trends in end strength and percentage of personnel deployed globally reflect the progress of active-component modularity, as well as initiation of the process for extending modularity to Army National Guard BCTs.

Modernization and Transformation

Although the focus of the 2006 QDR report was on warfighting requirements for the conflicts in Afghanistan and Iraq, DoD and Army efforts continued to promote modernization and transformation and to bring new capabilities into the current force for application to ongoing operations.

Army Planning Response to the QDR

Table 3.4 presents the major QDR report transformation themes and the Army's responses.

Army leadership understood that the United States was in a long fight, and that each of the military services faced the challenge of generating relevant, ready forces for as long as it might take to achieve victory. In this regard, the Army had taken important steps during 2005. It had accelerated fielding of the future force (i.e., the modular force), and it had restructured the FCS program and sought to leverage technologies emerging from it. The Army also had established its business transformation initiatives

¹¹⁸ HQDA, *Fiscal Year (FY) 2008/2009 Budget Estimates: Military Personnel, Army, Justification Book*, Vol. 1, *Active Forces*, Washington, D.C., February 2007d, p. 4.

¹¹⁹ Public Law 110-28, U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007, May 25, 2007.

Table 3.4
Army Execution of Modernization and Transformation Themes in the 2006 QDR Report

		Army Execution	
	2006 QDR Report Themes	2006 Army Posture Statement	2006 Army Modernization Strategy
Force-planning construct major elements	<ul style="list-style-type: none"> Refine wartime construct (the “Michelin Man”): Homeland defense plus either two conventional contingencies OR one conventional and one irregular warfare contingency 	<ul style="list-style-type: none"> Provide relevant, ready land power Train and equip soldiers to become adaptive leaders Sustain all-volunteer force of highly competent soldiers Provide infrastructure and support to enable the force to fulfill its missions 	<ul style="list-style-type: none"> Accelerate the fielding of the future force Restructure the FCS program Establish business transformation initiatives Adopt the Army Force Generation model
Focus	<ul style="list-style-type: none"> Shift capabilities to address four focus areas: <ul style="list-style-type: none"> Defeat terrorist networks Defend the homeland in depth Shape choices of countries at strategic crossroads Prevent acquisition and use of WMD Focus on long-duration irregular warfare Address steady-state and surge demand 	<ul style="list-style-type: none"> Continue to transform, modernize, and realign the Army’s global force posture Evolve to a force of modular brigades designed for the full range of nontraditional adversaries and challenges the force will face 	<ul style="list-style-type: none"> Build a campaign-quality modular force with joint and expeditionary capabilities Enhance current force with FCS technologies
Context	<ul style="list-style-type: none"> Long war, change capabilities mix, force is sized about right 	<ul style="list-style-type: none"> Long-term struggle against global terrorism 	

SOURCE: DoD, 2006a; HQDA, *2006 Posture Statement: A Campaign Quality Army with Joint and Expeditionary Capabilities*, Washington, D.C., February 10, 2006b; and HQDA, *2006 Army Modernization Strategy*, Washington, D.C., March 2006c.

to make contracting and acquisition, among other business areas, more efficient and faster than they had been previously. Perhaps most important, the Army had adopted the Army Force Generation process to generate modernized, highly trained units to meet the ongoing demand for forces in Afghanistan, Iraq, and elsewhere.¹²⁰

Execution of the Army's Plans

Table 3.5 summarizes the major Army procurement and RDT&E investments following the 2006 QDR report.

One important development not captured in the table is the procurement of the MRAP. The Army and Marine Corps had been grappling with many solutions to the growing IED threat, including fragmentation kits, bar armor, up-armored HMMWVs, and jammers. In May 2006, the Marine Corps forwarded an urgent universal need request for 185 MRAPs. The Joint Requirements Oversight Council validated a requirement for 1,185 vehicles by December 2006. Ultimately, the Army and Marine Corps received 15,374 MRAPs of various types by September 2007.¹²¹

FY 2007 Army Budget

The Army presented four major themes in its budget submission for the fiscal year: win the “long war,” sustain the all-volunteer force, accelerate the Future Combat Force Strategy, and accelerate business transformation and process improvements.¹²²

The force development section of the budget reconfirmed the Army's commitment to FCS, the modular force, and efforts to import relevant technologies into the force as quickly as possible.¹²³ The reported research, development, and acquisition efforts echoed previous years' priorities, calling out the NLOS-C, NLOS-LS, aviation modernization, PAC-3 missile procurement, FMTV, up-armoring of HMMWVs, M1 Abrams system enhancement program, procurement of an additional 100 Stryker vehicles, tactical UAVs, restructuring of the JTRS radio program, and reappearance of Single Channel Ground and Airborne Radio System radios for tactical unit command and control.¹²⁴

By 2007, yet another demand on Army modernization and transformation appeared: the need to “recapitalize” losses — that is, repair or replace equipment destroyed or damaged in overseas operations. By 2007, the Army estimated that these “reset” costs amounted to \$12.1 billion.¹²⁵

¹²⁰ HQDA, 2006b.

¹²¹ Seth T. Blakeman, Anthony R. Gibbs and Jeyanthan Jeyasingam, *Study of the Mine Resistant Ambush Protected (MRAP) Vehicle Program as a Model for Rapid Defense Acquisitions*, thesis, Monterey, Calif.: Naval Postgraduate School, December 2008, pp. 24–25.

¹²² HQDA, *Army Budget – Fiscal Year 2007: Army Green Top*, U.S. Army News Release, Washington, D.C., February 6, 2006a.

¹²³ HQDA, 2006a, p. 7.

¹²⁴ HQDA, 2006a, p. 9.

¹²⁵ CBO, 2007a, Summary Table 2.

Table 3.5
Army Procurement and RDT&E Planned Investments, Post–2006 QDR Era

	FY07	FY08	FY09	FY10
Modernization				
Aircraft	<ul style="list-style-type: none"> • Armed reconnaissance helicopter • Light utility helicopter • CH-47F helicopter • AH-64 Longbow helicopter conversions (Block II) • UH-60 Black Hawk helicopter modifications • Shadow tactical UAV 	<ul style="list-style-type: none"> • Armed reconnaissance helicopter • Light utility helicopter • CH-47F helicopter • AH-64 Longbow helicopter conversions (Block II) • UH-60 Black Hawk helicopter modifications • C-27J helicopter 	<ul style="list-style-type: none"> • Armed reconnaissance helicopter • Kiowa Warrior helicopter • UH-60 Black Hawk helicopter • C-27J helicopters to replace C-12, C-23, and C-26 helicopters • Modernized AH-64 Apache helicopter • UH-72A Lakota light utility helicopters to replace UH-1 and OH-58 helicopters • Transitioned CH-47D helicopter to F model 	<ul style="list-style-type: none"> • MQ-1 Sky Warrior UAV • New UH-60 Black Hawk helicopters • Modernized AH-64 Apache helicopter fleet • UH-72A Lakota helicopter to replace OH-58 Kiowa • Continued transition of CH-47D helicopter to F model
Wheeled and tracked combat vehicles	<ul style="list-style-type: none"> • NLOS-C • NLOS-LS • FMTV • Stryker vehicle 	<ul style="list-style-type: none"> • <i>Increment 1 early-infantry BCT</i> • NLOS-C • NLOS-LS • FMTV • Family of heavy tactical vehicles (FHTV) • Stryker nuclear, biological, and chemical vehicle and mobile gun variants • Joint lightweight 155-mm howitzer 	<ul style="list-style-type: none"> • System enhancements for Stryker and Abrams vehicles • Nuclear, biological, and chemical reconnaissance system for Stryker vehicles • Mobile gun system for Stryker vehicles • “Long lead items” for FCS to support NLOS-C, and spin out A-kits and B-kits • Joint lightweight 155-mm howitzer • NLOS-C • NLOS-LS 	<ul style="list-style-type: none"> • System enhancements for Stryker and Abrams vehicles • Paladin upgrades • More lightweight 155-mm howitzers

Table 3.5—Continued

	FY07	FY08	FY09	FY10
Missiles	<ul style="list-style-type: none"> PAC-3 missile 	<ul style="list-style-type: none"> PAC-3 missile 	<ul style="list-style-type: none"> PAC-3 missile Missile Segment Enhancement transition 	<ul style="list-style-type: none"> PAC-3 missile Javelin anti-tank guided missile Guided Multiple Launch Rocket System TOW (tube-launched, optically tracked, wire-guided) missile Surface-Launched Advanced Medium-Range Air-to-Air Missile program
Ammunition			<ul style="list-style-type: none"> Full funding for small arms training ammunition 	<ul style="list-style-type: none"> Full funding for small arms training ammunition
Other procurement	<ul style="list-style-type: none"> Single Channel Ground and Airborne Radio System radios Restructured JTRS <i>WIN-T Increment 2</i> 	<ul style="list-style-type: none"> M4 carbine/combat optics machine guns Bridge to Future Networks Tactical Operations Center 	<ul style="list-style-type: none"> M4 carbine Equipment to support networks, combat enablers, intelligence programs WIN-T FHTV FMTV 	<ul style="list-style-type: none"> Tactical and urban unattended ground sensors Procure M2 .50-caliber machine gun WIN-T Continue tactical wheeled vehicle modifications Communications infrastructure
Recapitalization				
Wheeled and tracked combat vehicles	<ul style="list-style-type: none"> HMMWV up-armor M1 Abrams System Enhancement Program tank 	<ul style="list-style-type: none"> HMMWV with integrated armor M1 Abrams System Enhancement Program tank 	<ul style="list-style-type: none"> M2 Bradley vehicle M1 Abrams tank HMMWV with integrated armor 	<ul style="list-style-type: none"> M2 Bradley vehicle M1 Abrams tank

SOURCE: OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

NOTE: Italics indicate a new program start.

FY07 included a new program start, WIN-T Increment 2, and the Javelin anti-tank guided missile program reached completion. No programs were canceled.¹²⁶

FY 2008 Army Budget

The Army presented five themes in its FY08 budget submission: sustain our soldiers, families, and civilians; prepare soldiers for success in current operations; reset to restore readiness and depth for future operations; transform to meet the demands of the 21st century; and grow the Army and restore balance.¹²⁷

Procurement programs continued to pursue the same systems as in the previous budget, with minor changes. Aircraft procurement included the armed reconnaissance helicopter as a replacement for the OH-58D Kiowa Warrior, and helicopter modernization continued.¹²⁸

Missile procurement included PAC-3 missile procurement, while Stryker vehicle and Abrams tank system enhancement programs continued. Procurement of the FHTVs, FMTVs, HMMWVs, the Bridge to Future Networks, and Tactical Operations Center also was undertaken. The Army began buying the nuclear, biological, and chemical reconnaissance and mobile gun system variants of Stryker, and continued with systems related to FCS. Production of the new M4 carbine also began this year.¹²⁹

Other procurement included HMMWV purchases featuring advanced force protection, continued procurement to support the tactical wheeled vehicle modernization strategy, and equipment to support networks, enablers, and intelligence programs. Emphasis from earlier budgets on science and technology also was retained.

The Army also noted support to “Army growth and modular brigade standup” and repositioning of forces worldwide as part of the global defense posture realignment process. In this regard, Increment 1, early-infantry BCT achieved program status in FY08. The armed reconnaissance helicopter was canceled later in the calendar year.¹³⁰

Transformation efforts also included “spin outs” from FCS – namely, a multiyear initiative to harvest new capabilities from the FCS program and integrate them into current forces. The first spin out, scheduled for 2008, was to deliver unattended ground sensors, NLOS-LS, initial FCS-Battle Command, and the JTRS. It also provided body armor improvements and up-armored vehicles. The second spin out, planned for 2010, was expected to deliver the Active Protection System, lightweight multifunctional armor, the Mast-Mounted Sight sensor, WIN-T, the Distributed Common Ground

¹²⁶ OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

¹²⁷ HQDA, *Army FY 2008 Budget Overview*, Washington, D.C., February 2007a.

¹²⁸ HQDA, 2007a.

¹²⁹ HQDA, 2007a.

¹³⁰ OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years. The armed reconnaissance helicopter was canceled in October 2008 (FY09).

System–Army, and the Excalibur precision munition. The third spin out, planned for 2012, was to deliver FCS-Battle Command, small unmanned ground vehicles, and unmanned aerial systems.¹³¹

FY 2009 Army Budget

The Army's budget presentation for FY09 emphasized five themes: win the long war, sustain the all-volunteer force, build readiness, accelerate the Future Force Modernization Strategy, and re-station Army forces.¹³² Building readiness emphasized growing capabilities over time, particularly in modular forces, special operations forces, and civil affairs units. FCS development continued as an element of building readiness. Accelerating the modernization strategy emphasized sustaining a strong focus on the future. Re-stationing responded to the ongoing global defense posture realignment process.

Procurement and RDT&E remained focused on FCS and its subsystems, especially UAVs and the network. Highlighted research, development, and acquisition efforts included the NLOS-C and NLOS-LS; procurement of M1 Abrams System Enhancement Program tanks and their subsystems, 127 additional Stryker vehicles, and 126 lightweight 155-mm howitzers; and continued production of the new M4 carbine. Aviation modernization and PAC-3 missile procurement continued.

FY09 witnessed no new program starts. The Bradley M-2A3 Upgrade program reached completion. Two programs, including FCS and Net-Enabled Command Capability, faced cancellation. In the FCS case, the vehicle portion of the program was canceled and a subsequent acquisition management decision issued instructions for program elements that showed potential.¹³³

FY 2010 Army Budget

The Army's published priorities featured seven main points: grow and sustain the all-volunteer force; station the force to meet strategic demands by providing infrastructure and services; train and equip soldiers and units to maintain a high level of readiness for current operations; provide effective and efficient support to combatant commanders; reset soldiers, units, and equipment for future deployment and other contingencies; transform the Army to meet the demands of the changing security environment; and modernize the force.¹³⁴

Procurement and RDT&E highlights included procurement of the Surface-Launched Advanced Medium-Range Air-to-Air Missile program, continuing procurement of 155-mm lightweight howitzers for the Stryker BCTs, and enhancements and

¹³¹ HQDA, *2007 Army Posture Statement: A Campaign Quality Army with Joint and Expeditionary Capabilities*, Washington, D.C., February 14, 2007e, p. A-5.

¹³² HQDA, "The Army Budget – Fiscal Year 2009," U.S. Army News Release, Washington, D.C., February 5, 2008a.

¹³³ OUSD (Acquisition, Technology, and Logistics), *Selected Acquisition Reports*, various years.

¹³⁴ HQDA, *Army FY 2010 Budget Overview*, Washington, D.C., February 2009, p.2.

upgrades for tactical and urban unattended ground sensors, Stryker vehicles, Abrams tanks, and Bradley vehicles. WIN-T and support to satellite communication programs were also priorities. RDT&E efforts emphasized modernizing BCTs, funding science and technology programs, and continuing Patriot/MEADS program development.

FY10 witnessed no new program starts. Three acquisition programs reached completion. These included the Advanced Threat Infrared Countermeasures/Common Missile Warning System, Force XXI Battle Command Brigade and Below communication platform, and Longbow Apache airframe. The Patriot/MEADS Fire Unit program was canceled.¹³⁵

The FY07–10 period thus demonstrates continuing efforts to transform and modernize the force, although one of the centerpieces of Army transformation – the FCS program – faced increasing challenges, and the vehicle portion of the program ultimately was canceled, with many other technologies the focus of spin outs.

Resources

Economic and Budgetary Outlook

By the time the 2006 QDR was being conducted, although relatively robust economic growth was forecast, the fiscal and budgetary situation had deteriorated. Nonetheless, a return to surpluses was still envisioned in the out-years.

In early 2006, CBO was forecasting 3.6-percent real GDP growth for 2006 and 3.4-percent growth for 2007.¹³⁶ Rather than realizing the anticipated budget surpluses, the U.S. government had been in deficit since 2002, and CBO was forecasting continued deficits of \$337 billion for FY06, with further large deficits through FY11 and the government returning to budget surpluses by FY12. CBO's forecast at the time was for total deficits of \$1.1 trillion between FY07 and FY11, declining to \$832 billion for the FY 07–16 period. According to our structured conversations, there also were concerns about when the war supplemental funding might end.

Planning and Implementation

As the second QDR of the Bush administration, the 2006 QDR report represented more continuity with previously articulated priorities than a sharp break with the past. It continued to emphasize transformation objectives, noting, “The 2006 QDR report was designed to serve as a catalyst to spur the Department’s continuing adaptation and reorientation to produce a truly integrated joint force that is more agile, more rapidly deployable, and more capable against the wider range of threats.”¹³⁷

¹³⁵ OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

¹³⁶ CBO, *The Budget and Economic Outlook: Fiscal Years 2007 to 2016*, Washington, D.C., January 2006a.

¹³⁷ DoD, 2006a, p. 7.

The 2006 QDR report was the first to be released alongside a first budget implementing its strategic guidance — that is, the FY07 budget.¹³⁸ “Informed by the 2006 Quadrennial Defense Review,” the administration noted in its budget release, the “FY 2007 Budget reflects the Department’s continued shift in emphasis, away from the static posture and forces of the last century toward the highly mobile and expeditionary forces, and accompanying warfighting capabilities, needed in the century ahead.”¹³⁹ While this QDR did not call for substantial change relative to its predecessor, it highlighted investment areas for procurement of systems to support the current fight, and continuing efforts to bolster business processes in order to improve the efficiency of resource allocation and streamline decisionmaking processes in DoD. It was anticipated that the FY07 budget would be a “down payment” on the QDR changes, with more consequential actions being taken in the FY08 and subsequent budgets. Although resources for defense were still plentiful, there was some concern at the time about the future availability of OCO funding.

DoD Budgets, FYs 2007–2010

Senior DoD officials envisioned that some “leading-edge” QDR measures would be included in the FY07 President’s budget request, but that the full effects of the QDR would not be felt until the FY08, FY09, and subsequent defense programs and budgets.¹⁴⁰

The FY07 President’s budget request for DoD highlighted the following actions:

- Provides \$439.3 billion for the Department of Defense’s base budget — a 7-percent increase over 2006 and a 48-percent increase over 2001 — to maintain a high level of military readiness, develop and procure new weapon systems to ensure U.S. battlefield superiority, and support our service members and their families;
- Requests \$50 billion in 2007 bridge funding to support the military’s Global War on Terror efforts in Afghanistan and Iraq into 2007;
- Expands the Predator Unmanned Aerial Vehicle force from 12 to 21 orbits, each supporting 3–4 aircraft, to increase sustained 24-hour surveillance capabilities;

¹³⁸ Nonetheless, earlier planned cuts had reduced defense resources. According to press, the December 23, 2004, Program Budget Decision No. 753 reportedly slashed \$30 billion from DoD’s FY06–11 spending plans, even before the official kickoff of the 2006 QDR, and in mid-October 2005, the services were directed to nominate \$32 billion in collective cuts to their budgets over FYs 07–11. See Sherman, 2005a; Winslow T. Wheeler, “Bogus Budgeting,” *Barron’s*, January 24, 2005, p. 31; Jason Sherman, “As FY-07 Budget Wraps Up, Will DoD Again Face Last-Minute Cuts?” *Inside Defense*, December 22, 2005y; and Sherman, 2006d.

¹³⁹ DoD, *Fiscal 2007 Department of Defense Budget Press Release*, Washington, D.C., February 6, 2006c, p. 1.

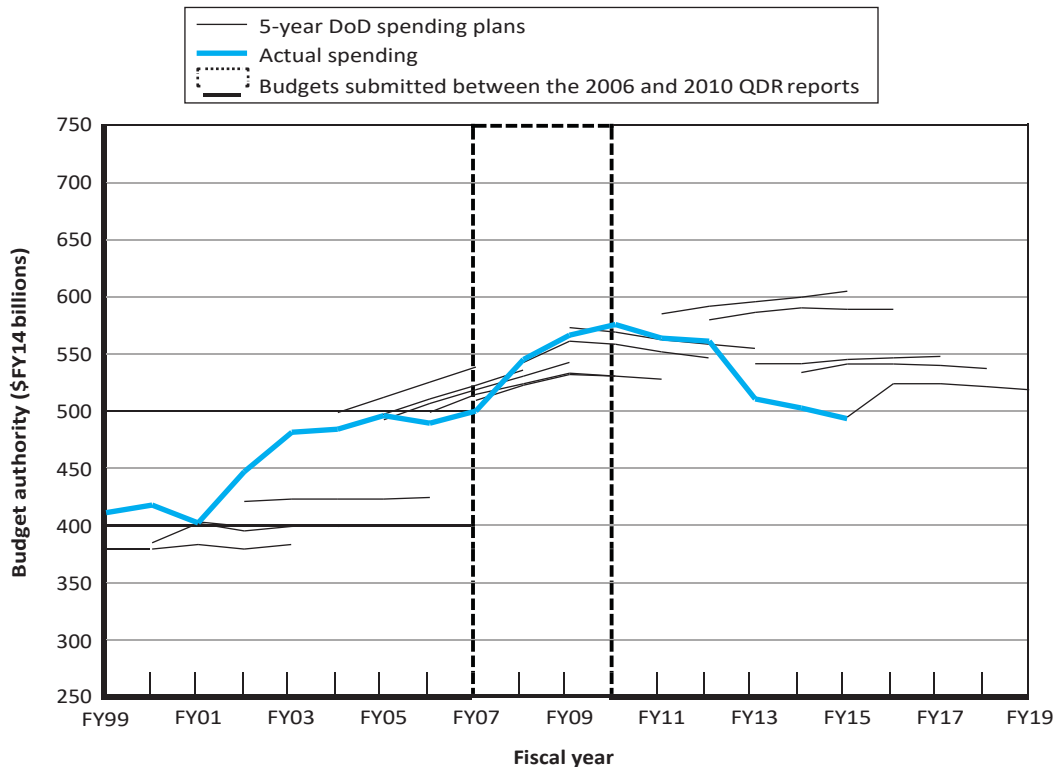
¹⁴⁰ Gordon England, Deputy Secretary of Defense, “2006 QDR,” statement before the Senate Armed Services Committee, Washington, D.C., March 8, 2006a.

- Increases substantially the size and capabilities of the Special Operations Command;
- Adds \$173.3 million to continue developing and refining a New Triad of smaller nuclear forces, enhanced missile defenses, and improved command and control; and
- Provides an additional 2.2-percent increase in basic pay.¹⁴¹

Figure 3.5 shows the base budget topline relative to the five-year projections in each fiscal year, and the dashed box highlights the years implementing the FY06 QDR.

In this period, spending levels in the base budget generally exceeded planned levels. DoD planned for budgets to build toward a peak around FY09 (the actual peak occurred in FY10), a level that was 15 percent higher than base budget spending in

Figure 3.5
DoD Base Budget Five-Year Forecasts and Actuals, Post–2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure reports long-term DoD-051 budget authority plans; it does not include Department of Energy, GWOT/OCO, or other national defense budget function (050) accounts.

RAND RR1309-3.5

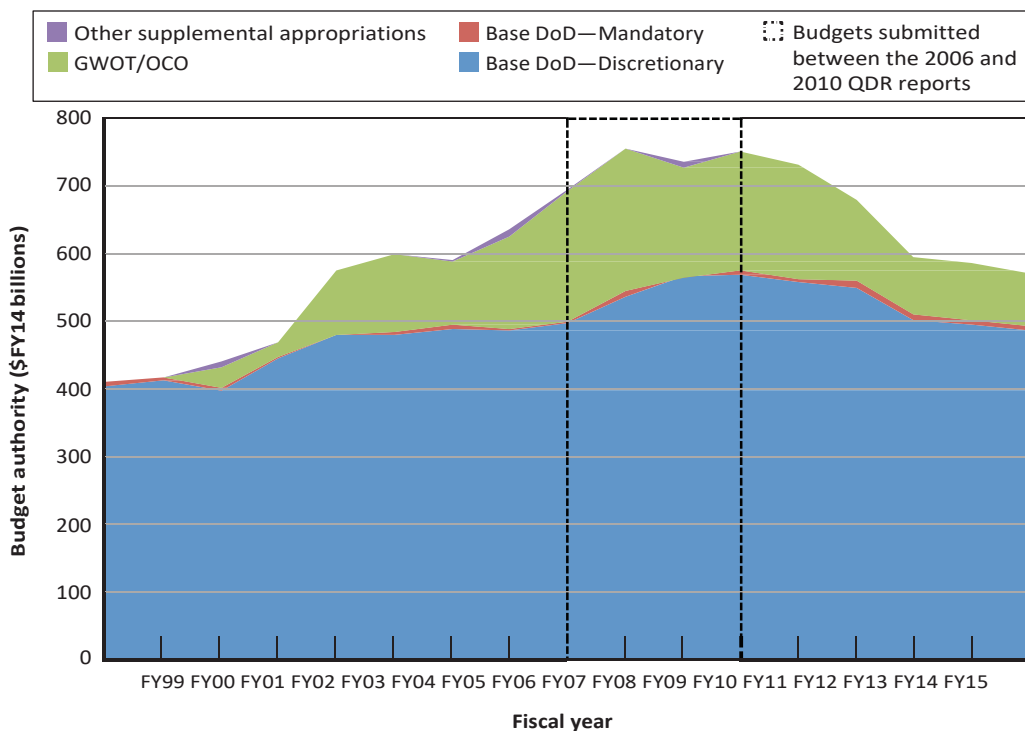
¹⁴¹ OMB, *Budget of the United States Government, Fiscal Year 2007*, Washington, D.C., February 2006, p. 63.

FY07. Notably, this peak for the base budget in FY10 matched, in real terms, the earlier peak budget level achieved in 1985, following President Reagan’s substantial defense investments.

When war supplemental appropriations are included (see Figure 3.6), it becomes clear how unprecedented the scale of the budget build-up was in the first decade of the 21st century. As shown, between FYs 07–10, war-related supplemental appropriations accounted for about a quarter of DoD spending.¹⁴²

By the end of the post-2006 QDR report era, in real terms, the budget was 90 percent above the budget trough at the end of the Cold War (hit in 1998), 27 percent above the peak spending of the Reagan administration, and 18 percent above the previous all-time high spending level hit during the Korean War. Importantly, as noted above, substantial growth in the base budget also means that overall growth was

Figure 3.6
DoD Base Budget Plus War Funding and Supplementals, Post-2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure covers GWOT funding through FY09, both GWOT and OCO funding in FY09, and OCO funding thereafter.

RAND RR1309-3.6

¹⁴² This does not include non-war-related supplemental appropriations in 2005 and 2006 to provide emergency relief to those affected by Hurricane Katrina and other natural disasters.

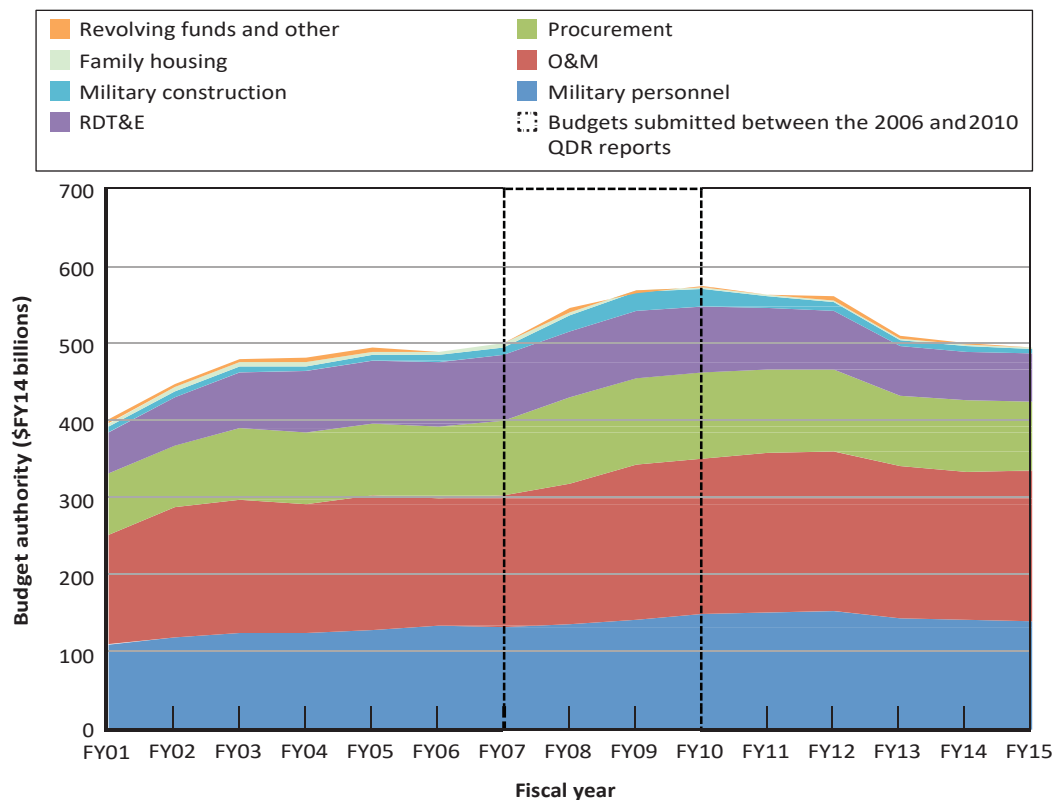
not solely a result of war-related spending. The dashed box in Figure 3.6 highlights the growth of GWOT and OCO funding in the post-2006 QDR era. War spending peaked during this period (FY08), at which point 28 percent of overall defense spending was war-related.

Figure 3.7 shows the base budget, broken out by appropriation title, with the dashed box indicating the budget years between the 2006 and 2010 QDRs.

As indicated above, over this period, the base budget grew about 15 percent. Most of this is attributed to growth in the military personnel, O&M, and procurement titles, which experienced substantial growth (14–17 percent); RDT&E funds remained relatively flat.

Figure 3.8 shows the topline broken out into service shares. Of total base budget spending between FYs 07–10, the military departments consumed roughly equal shares of base budget authority (between 27–29 percent), and defense-wide accounts received relatively less – about 16 percent. Each service hit peak spending in this era: the Army

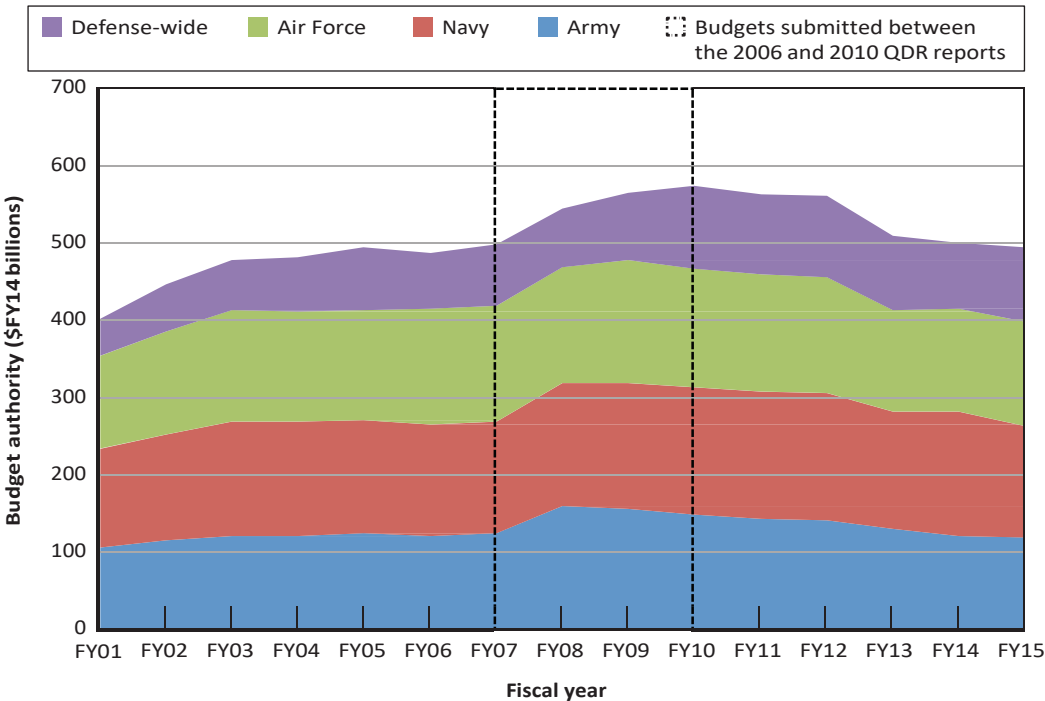
Figure 3.7
DoD Base Budget, by Appropriation Title, Post–2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-3.7

Figure 3.8
DoD Base Budget, by Service, Post–2006 QDR Era



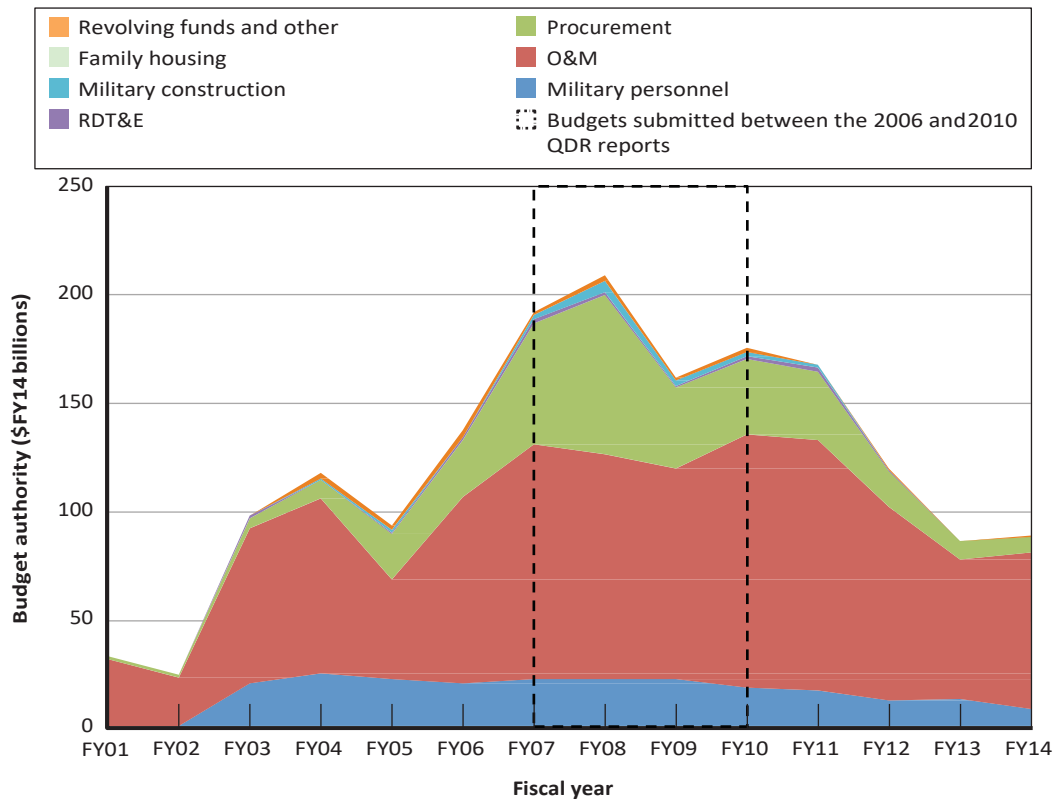
SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-3.8

in FY08, the Air Force in FY09, and the Navy and defense-wide in FY10, but the growth rates to achieve these levels differ in notable ways. The base Army budget increased almost 30 percent between FY07 and FY08, and the defense-wide budget increased more than 20 percent between FY09 and FY10. The Navy and the Air Force experienced less dramatic growth.

As noted above, war-related supplemental appropriations grew to all-time peaks in the post–2006 QDR era. Figure 3.9 shows that spending in this area continued to be heavily dominated by O&M funds. At the end of the post–2001 QDR era, procurement spending was a large and growing component of war-related spending, but it roughly matched spending on military personnel. In the post–2006 QDR era, procurement spending exceeded military personnel spending to become the clear second to O&M: Between FY07 and FY10, war-related procurement was consistently larger than military personnel by a factor of two, and in FY08, procurement consumed 35 percent of the war-related budget.

As noted in the previous chapter, the Congressional Research Service partly attributed this growth in procurement to a redefinition of war costs, codified in a memorandum to the services from Deputy Secretary of Defense England in October

Figure 3.9**DoD War Supplemental Budget, by Appropriation Title, Post-2006 QDR Era**

SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-3.9

2006.¹⁴³ This guidance on supplemental budget requests indicated that the services could request resources required for the “longer war on terror” rather than strictly for ongoing operations in Afghanistan and Iraq.¹⁴⁴ The Congressional Research Service found that higher procurement funding beginning in 2006 reflected “primarily an expansive definition adopted by the Bush Administration of the amounts needed to reset or reconstitute units returning from deployments, that included not only repairing and replacing war damaged equipment but also upgrading equipment to meet future needs for the ‘long war on terror.’”¹⁴⁵ The result of this change in guidance was

¹⁴³ Gordon England, Deputy Secretary of Defense, “Ground Rules and Process for FY’07 Spring Supplemental,” memorandum for Secretaries of the military departments, October 25, 2006b.

¹⁴⁴ Belasco, 2011, p. 51.

¹⁴⁵ Belasco, 2011, p. 15.

to render a much larger range of procurement activities eligible for resourcing out of war-related supplemental appropriations.

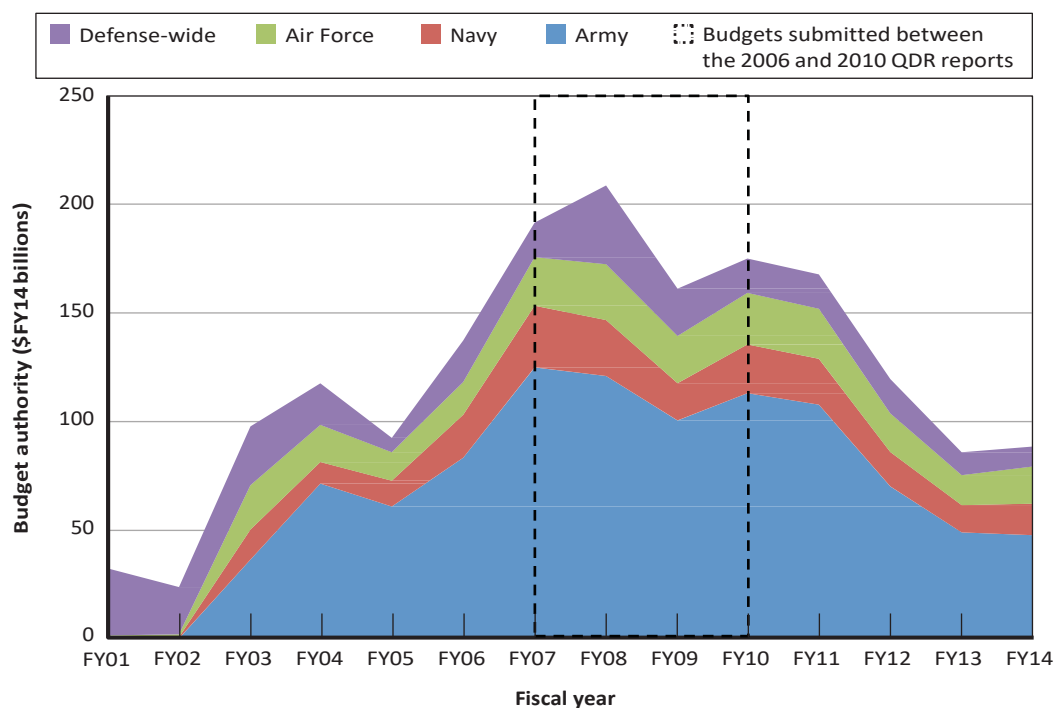
In addition to a broadened conception of war-related spending, this period also saw an aggressive push to acquire and field high-priority new systems, as will be discussed in the next section. Figure 3.10 shows that the Army continued to consume the largest share of the war-related supplemental budget, by far – about 58 to 65 percent between FY07 and FY10.

The Air Force and the Navy consumed relatively constant shares across this era (about 12–15 percent each). The defense-wide budget was comparable, but it notably leapt 130 percent between FY07 and FY08. Special Operations Command in the defense-wide budget, just like in the Army, received significant funding for procurement of MRAPs in FY08.

Army Budgets, FYs 2007–2010

While the base Army budget grew significantly between FY07 and FY08, it modestly declined in FY09. Even with this decline, the base budget by FY10 was still 20 percent above its FY07 level. Figure 3.11 shows base Army budget authority relative to annual long-range plans.

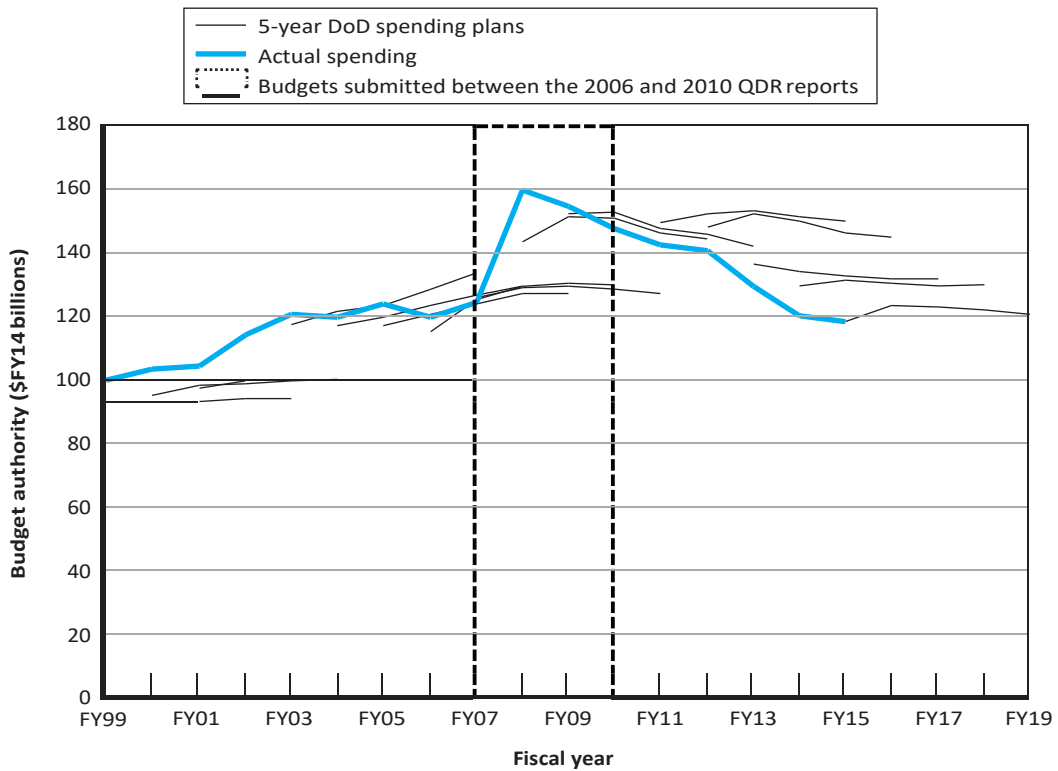
Figure 3.10
DoD War Supplemental Budget, by Service, Post–2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-3.10

Figure 3.11
Army Base Budget Five-Year Forecasts and Actuals, Post-2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

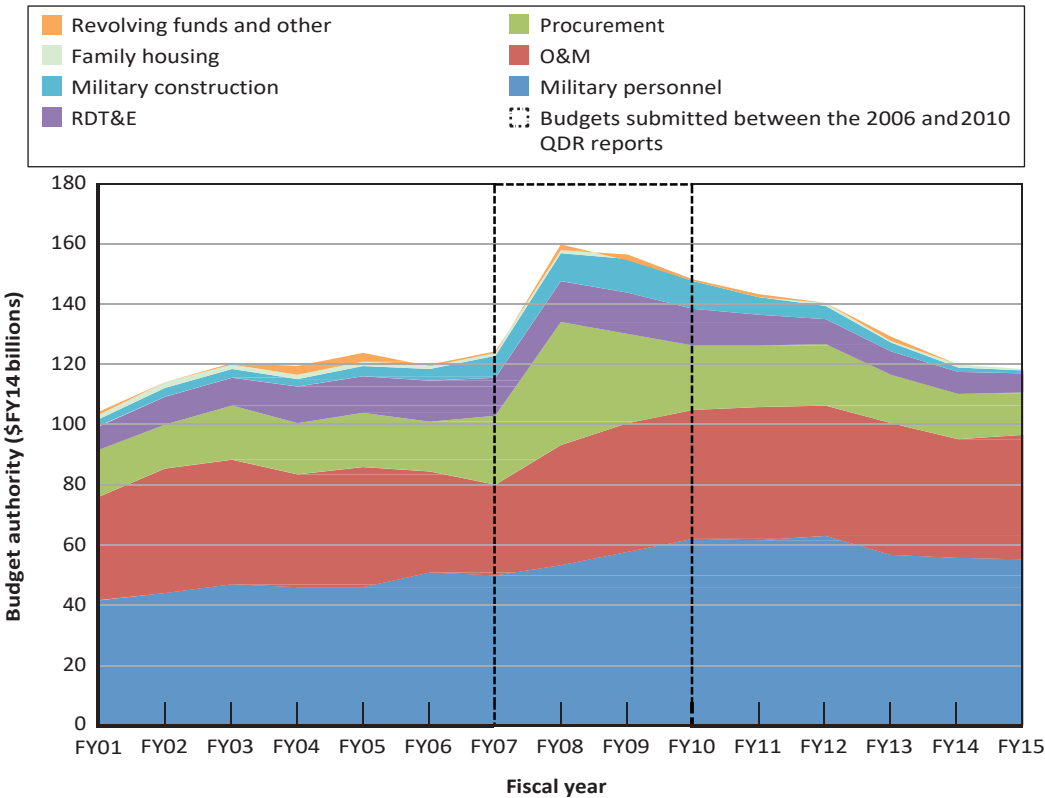
RAND RR1309-3.11

The actual levels in this era significantly exceeded planned spending levels. Actual Army spending during FYs 07–10 was about 20–30 percent above plans just prior to the 2006 QDR report. In FY08, the year of peak Army base spending, actual budget authority was 15 percent higher than the plan for that same year.

As noted above, the base Army budget during this period can be described as a year of rapid growth followed by a modest decline that left the topline about 20 percent above its FY07 level. Overall Army base budget growth across the post-2006 QDR era (20 percent) outpaced overall DoD spending (15 percent) (see Figure 3.12).

This overall increase can be linked to consistent growth in military personnel (up 25 percent between FYs 07–10) and O&M (up 40 percent in the same period) spending. For procurement and RDT&E spending, the trends are more meaningfully disaggregated into two periods: growth between FYs 07–08 and decline from FYs 08–10 to roughly the FY07 level. Army procurement grew almost 80 percent between FYs 07–08 and fell almost 50 percent off this peak by FY10. RDT&E grew more modestly (8 per-

Figure 3.12
Army Base Budget, by Appropriation Title, Post–2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

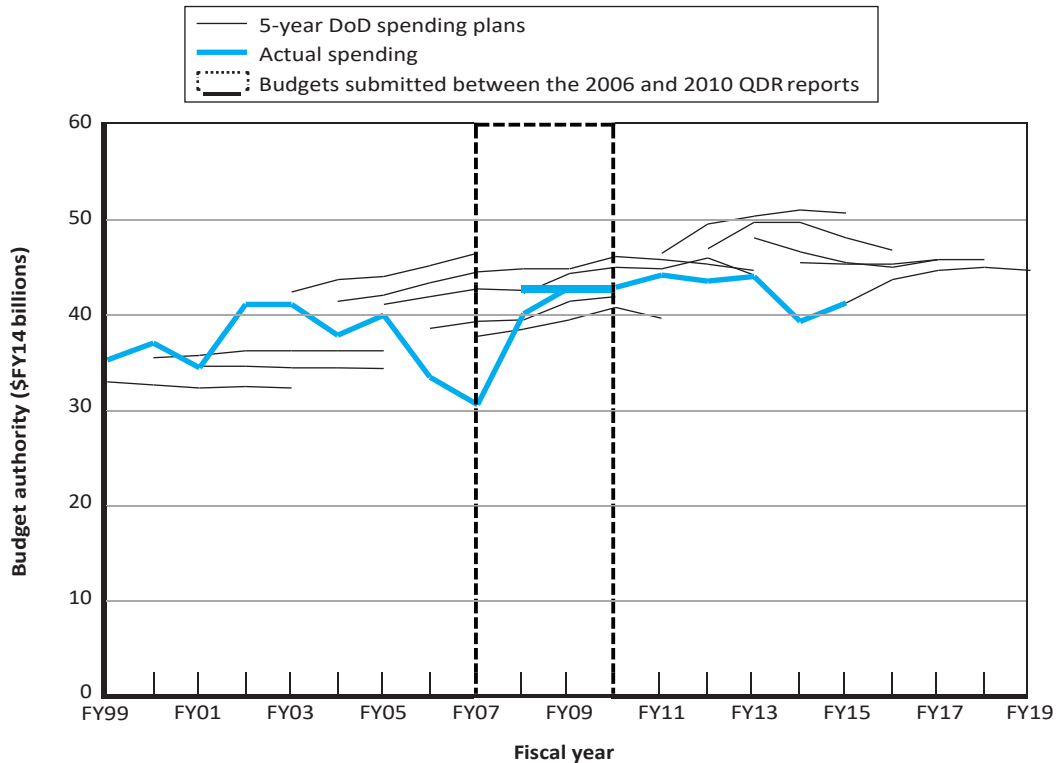
RAND RR1309-3.12

cent) to its peak in FY08, before falling 10 percent by FY10. The extreme volatility in base Army procurement is not paralleled in the DoD budget overall.

Figures 3.13 through 3.15 display plans and actual spending in two key appropriation areas: O&M and procurement. Figure 3.13 shows O&M spending after the 2006 QDR, when plans generally exceeded actual budgets. Notably, while five-year plans called for relatively steady O&M spending, actual spending was significantly more volatile. The jump between FY07 and FY08, for example, was a 30-percent increase in a single year. This growth appears not to have been anticipated in Army plans.

Figure 3.14, reporting planned versus actual procurement spending, shows that the remarkable volatility in Army procurement similarly was not anticipated in Army plans. In the peak budget year of FY08, actual spending was about 35 percent higher than planned in the FY08 budget forecast – which already was higher than any other plan’s level for that year. By FY10, spending also dropped to a level well below what was

Figure 3.13
Army Base Operation and Maintenance Budget Five-Year Forecasts and Actuals, Post-2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

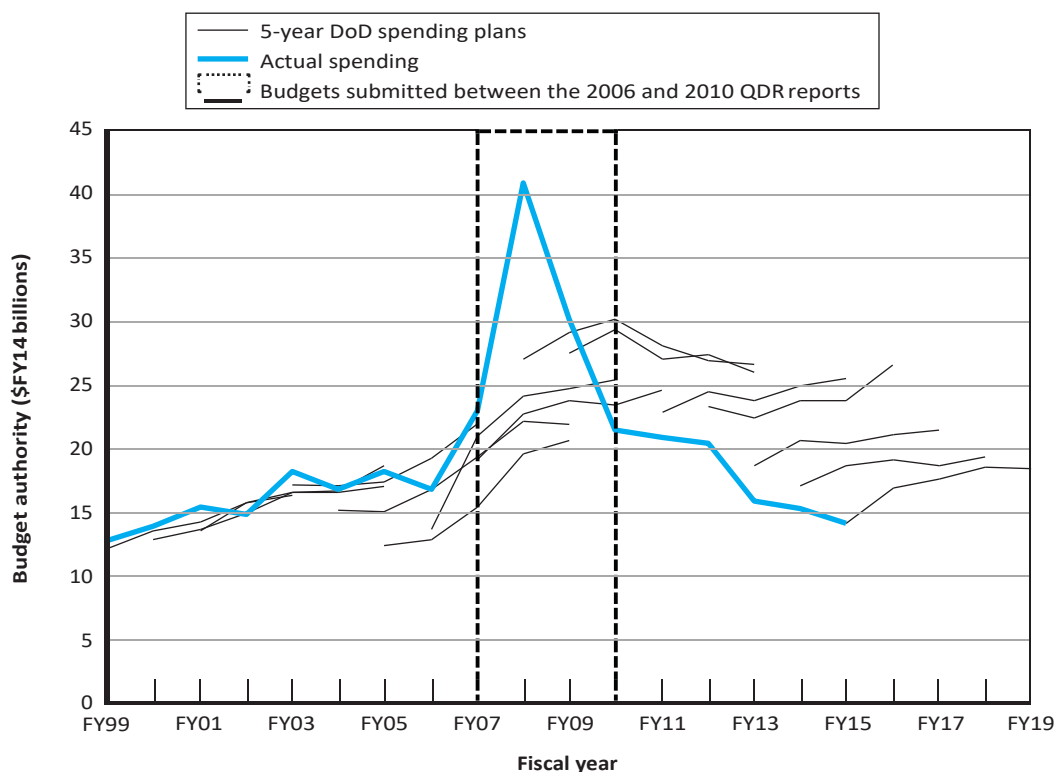
RAND RR1309-3.13

planned in FY08 or FY09. Five-year plans called for volatile changes for Army procurement, but they still proved less volatile than the actual budgets.

We now take a closer look at the constitution of the growth in total Army procurement spending in Figure 3.15.

While the base budget versus war-related breakout of the Army procurement budget is not openly available at the appropriation account level of detail, we can make some observations at a high level regarding the Army war budget. This analysis reveals that the sizable increase in overall procurement spending (70 percent) between FY07 and FY10 was due to sizable growth in several Army appropriation accounts, the largest being in (1) OPA and (2) weapons and tracked combat vehicles. The procurement budget grew 33 percent between FY07 and FY08, and almost all of that (95 percent) was the result of a very large increase in the OPA account, which grew 62 percent in this single year, before falling 46 percent by FY10. Overall OPA spending fell 13 per-

Figure 3.14
Army Base Procurement Budget Five-Year Forecasts and Actuals, Post–2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

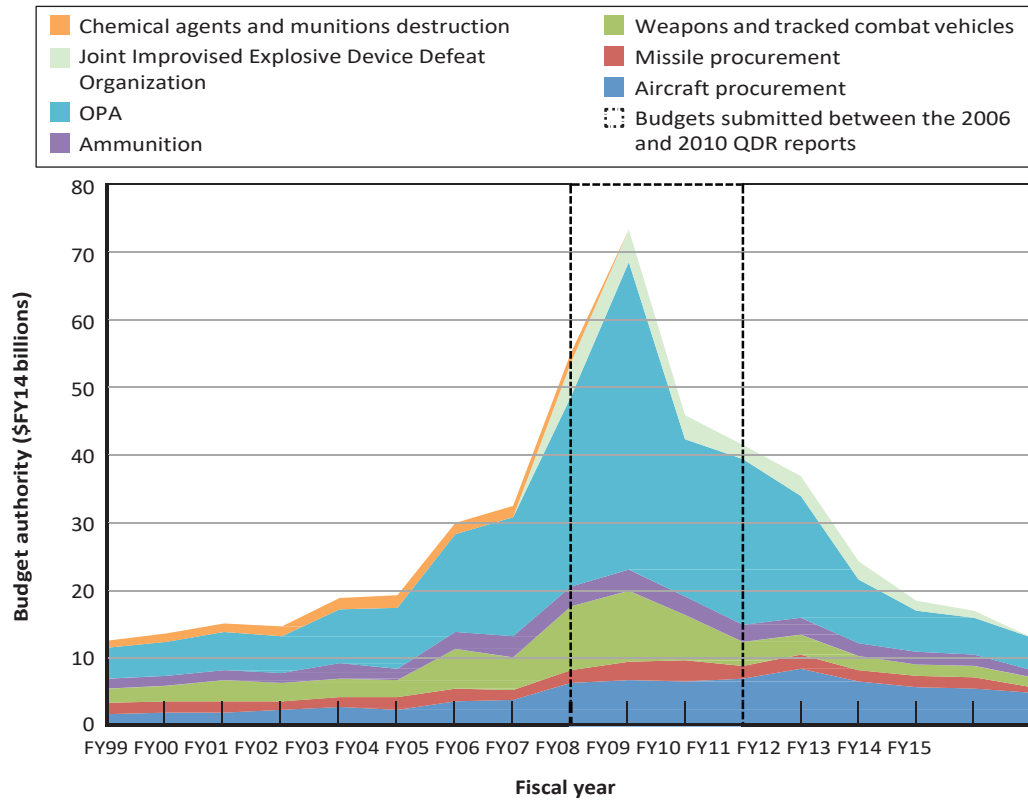
RAND RR1309-3.14

cent between FY07 and FY10. Army procurement overall experienced a deeper reduction (25 percent) over this period.

We can take a closer look at the drivers of substantial growth in OPA spending. In 2007, DoD launched a major procurement initiative to develop, procure, and field MRAPs to replace existing up-armored HMMWVs.¹⁴⁶ The HMMWV began production in 1983 and has served as DoD's primary wheeled vehicle for carrying troops and light cargo, among other functions. By 2005, these vehicles were proving vulnerable on the battlefield to attacks from IEDs, rocket-propelled grenades, and small arms fire. The Marine Corps identified an urgent operational need for armored tactical vehicles in order to better protect the warfighter and improve mobility. Over the next 18 months, the services made significant investments in up-armoring the existing fleet of HMMWVs. The blue bars in Figure 3.16 show the increasing Army

¹⁴⁶ Andrew Feickert, *Mine-Resistant, Ambush-Protected (MRAP) Vehicles: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, January 18, 2011.

Figure 3.15
Total Army Procurement Budget (Base Plus War-Related), by Appropriation Account, Post-2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

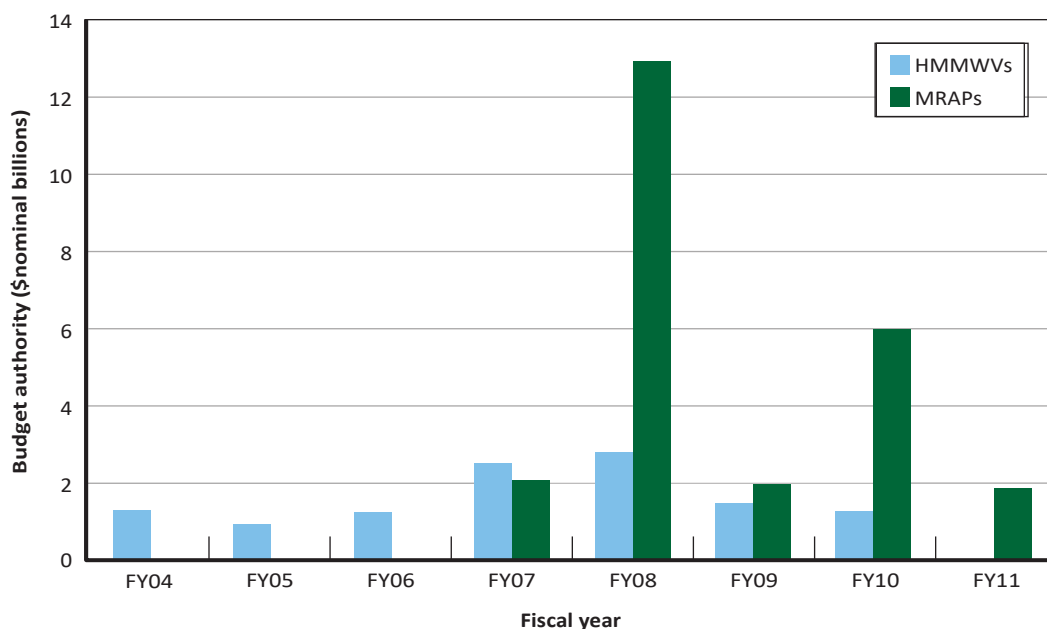
RAND RR1309-3.15

investment in HMMWVs. The budget justification for the FY08 budget noted that the new up-armored variant of the HMMWV “provides its crew complete ballistic protection against anti-tank and anti-personnel mines, and 360-degree protection against 7.62 NATO armor piercing munitions.”¹⁴⁷

Soon, however, it was clear that up-armored vehicles still did not provide sufficient protection for service members, and DoD placed top acquisition priority on acquiring MRAPs. As of 2011, DoD was procuring four variants of MRAPs, representing a range of sizes and mission types. Between 2006 and 2011, DoD received more than \$43 billion – in the form of appropriations and reprogramming actions – to procure MRAPs. The Army made substantial investments to procure MRAPs. As

¹⁴⁷ HQDA, “Exhibit P-40: Hi Mob Multi-Whld Veh (HMMWV),” in *Procurement Programs*, Washington, D.C., February 2007c, p. 37.

Figure 3.16
Army Funding for HMMWVs and MRAPs, FYs 2004–2011



SOURCE: OUSD (Comptroller), various years, *Procurement Programs (P-1)*; see the section on OPA.

RAND RR1309-3.16

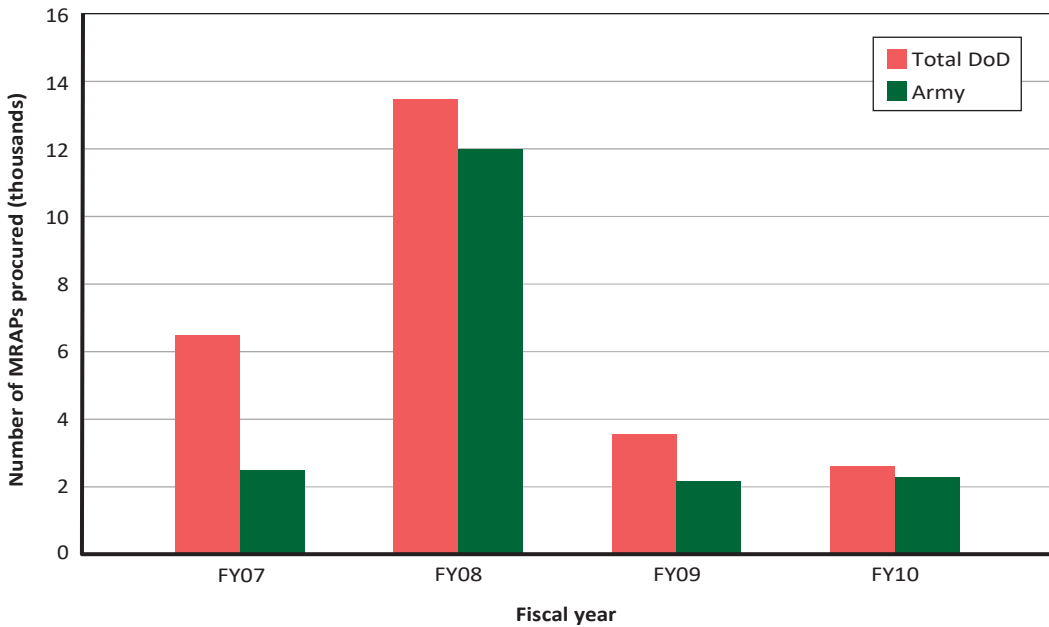
can be seen in the figure, the Army budget for MRAPs dwarfs its sizable investments in HMMWVs over the same period.

The rapid acquisition of MRAPs was facilitated by an unusual joint transfer account called the MRAP Vehicle Fund, which allowed DoD to transfer funds to specific appropriation accounts; the major recipient of transfer funds was OPA, apparently in the base Army budget.¹⁴⁸ Figure 3.17 shows the Army investment relative to the overall DoD support for MRAPs. The 2010 Selected Acquisition Report for the MRAP suggests that other relatively large recipients of transfer accounts from the MRAP Vehicle Fund include procurement, Marine Corps; procurement, defense-wide; and other procurement, Air Force. The large Army investment in MRAP procurement is reflected in the large inventory of vehicles the Army fielded. The quantity of vehicles for both the Army and overall DoD are indicated in the figure.

Figure 3.18 shows a decline in Army war-related spending during the period between the 2006 and 2010 QDRs. O&M spending still dominated the Army war-

¹⁴⁸ The MRAP Vehicle Fund was authorized by the FY08 Defense Appropriation Act, granting authority to the Secretary of Defense to transfer funds for procurement, RDT&E, and O&M for the MRAP program (Blakeman, Gibbs, and Jeyasingam, 2008).

Figure 3.17
Estimated Quantities of MRAPs Procured, FYs 2007–2010

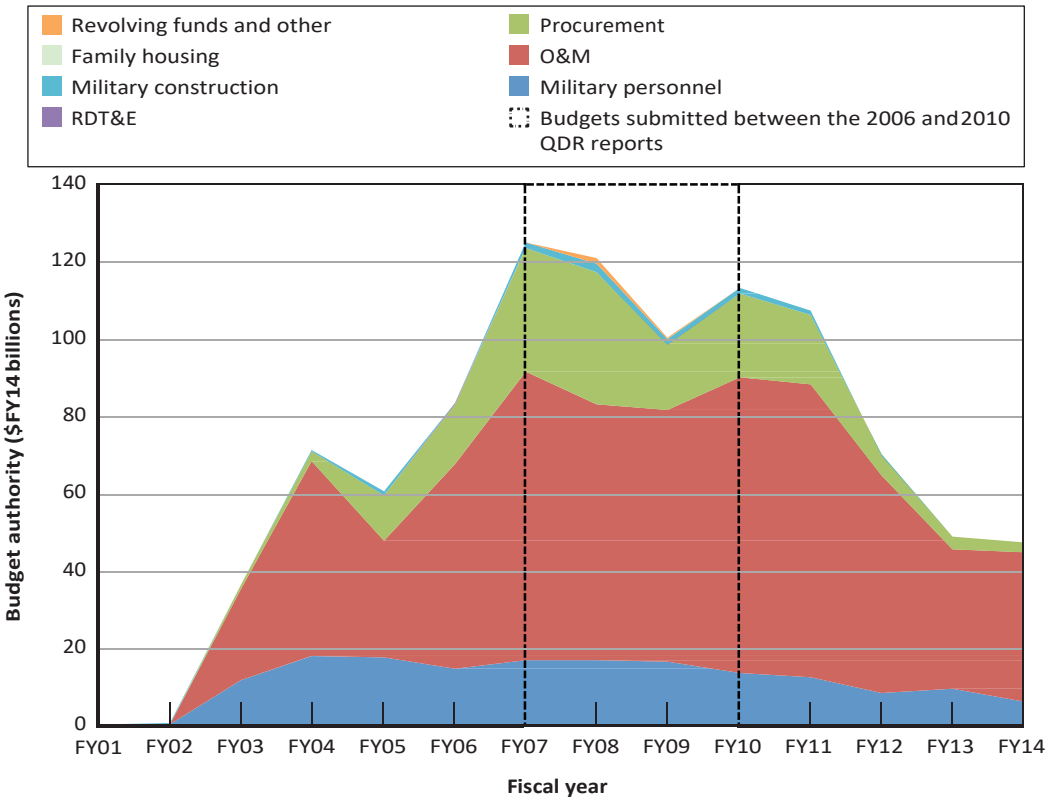


SOURCE: Authors' estimates based on OUSD (Comptroller), various years, *Procurement Programs (P-1)*; Aaron L. Martin, *Paying for War: Funding U.S. Military Operations Since 2001*, Santa Monica, Calif.: RAND Corporation, RGSD-283, 2011; and Joint Mine Resistant Ambush Protected (MRAP) Vehicle, in OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, December 31, 2010. Table 6.3 in Martin (2011) estimates total MRAP quantities through 2011 that are largely consistent with this figure but slightly different—Army: 17,200; Marine Corps: 4,490; Navy: 650; Air Force: 850; and Special Operations Command: 1,400.

RAND RR1309-3.17

related budget, and it experienced modest growth of 2 percent over this period. Procurement fell the farthest (32 percent), although military personnel also fell precipitously, declining 20 percent between FY07 and FY10.

Figure 3.18
Army War Supplemental Budget, by Appropriation Title, Post–2006 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-3.18

General Observations on Budgets in the Post–2006 QDR Period

The period following the 2006 QDR was marked by significant real growth to the base DoD budget that generally outpaced planned spending. As a result, the DoD topline reached its peak spending level in FY10. The Army planned for modest real growth in this period, but actual spending grew much faster than planned (and faster than actual budgets for DoD overall). A closer look at specific appropriation titles suggests areas where unplanned growth was most significant: Plans for Army O&M generally exceeded actual spending, while plans for Army procurement underestimated actual spending. The huge investment in procurement in FY08 reflected an urgent wartime requirement for MRAPs, an acquisition effort with few precedents in terms of the scale and speed of resources committed to development and fielding.

DoD faced significant challenges in the post–2006 QDR period resulting from the dynamic situations in Afghanistan and Iraq. In January 2007, President Bush

announced “we need to change our strategy in Iraq,” and he committed an additional 20,000 surge troops to support security in Baghdad.¹⁴⁹ This period marked some of the darkest days of the U.S. war in Iraq: In 2007, 904 U.S. service members lost their lives, an absolute peak since the war began in 2003.¹⁵⁰ The need to resource operational requirements identified by warfighters on the battlefield for systems such as MRAPs or unmanned systems presented a significant challenge to DoD in general and the Army in particular during this era.

Key challenges anticipated in this period were tied to the transition from a decade of war into a postwar footing. While President Obama announced a troop surge for Afghanistan in December 2009, he made clear that the time commitment was limited.¹⁵¹ The moves toward ending U.S. military operations in Iraq were proceeding more rapidly, as the administration planned and executed a complete withdrawal of U.S. military personnel by the end of 2011.

Defense Reform and Infrastructure

Like the 2001 QDR, the 2006 QDR promoted further reform of DoD to “transform itself into an enterprise whose organization and processes can support an agile fighting force.”¹⁵² Elements of the QDR’s three-part vision for defense reform included making the Department more responsive to its stakeholders, providing information and analysis necessary to make timely and well-reasoned decisions, and undertaking reforms to reduce redundancies and ensure the efficient flow of business processes.¹⁵³ To accomplish these tasks, the QDR advocated a portfolio-based approach to planning and building the capabilities the Department needed, while reforming at three levels—governance, management, and execution—and ensuring that organizations, processes, and authorities were well-aligned.¹⁵⁴

¹⁴⁹ Rick Brennan, Jr., Charles P. Ries, Larry Hanauer, Ben Connable, Terrence K. Kelly, Michael J. McNerney, Stephanie Young, Jason H. Campbell, and K. Scott McMahon, *Ending the U.S. War in Iraq: The Final Transition, Operational Maneuver, and Disestablishment of United States Forces-Iraq*, Santa Monica, Calif.: RAND Corporation, RR-232-USFI, 2013, pp. 52–53.

¹⁵⁰ Brookings Institution, *Iraq Index: Tracking Variables of Reconstruction and Security in Post-Saddam Iraq*, Washington, D.C., October 28, 2011, p. 7; Brennan et al., 2013.

¹⁵¹ Catherine Dale, *In Brief: Next Steps in the War in Afghanistan: Issues for Congress*, Washington, D.C.: Congressional Research Service, December 6, 2012, p. 2.

¹⁵² DoD, “Quadrennial Defense Review Results Briefing,” Washington, D.C., February 3, 2006b.

¹⁵³ DoD, 2006a, p. 65.

¹⁵⁴ For a description of the various efforts, see DoD, 2006a, pp. 63–73.

In addition, the President’s budget described three major thrusts for defense reform:

1. *acquisition restructuring*, including review and execution of recommendations from the Defense Acquisition Performance Assessment Project, an independent panel that had examined acquisition issues during the QDR
2. *business transformation*, including the establishment of a Defense Business Transformation Agency to consolidate and transform management of core business activities such as financial, property, and support services
3. *e-government programs*, including continuation of efforts by the Defense Finance and Accounting Service to consolidate payroll and other functions.¹⁵⁵

On infrastructure, the final report of the 2005 BRAC round was completed in September 2005, and the QDR reported DoD’s intention to implement its recommendations; this round ultimately would not yield anything like the magnitude of savings that were initially predicted.¹⁵⁶ Given that DoD’s post-QDR focus was already on implementing the 2005 BRAC, the QDR did not propose another BRAC round.

Risk Assessment

Risk Associated with the Strategy

The 2006 QDR report noted the risk assessment framework articulated in the 2001 QDR and stated that the new report was incorporating the lessons learned from implementing that framework into the development of a more robust framework that could assist in decisionmaking.¹⁵⁷ The 2006 QDR report, however, did not discuss these risks, nor did it explore the potential trade-offs required to execute the revised QDR strategy. It did, however, note that the portfolio of capabilities currently held by the U.S. military was still largely focused on addressing traditional challenges, and that those capabilities needed to be reoriented to also address irregular, catastrophic, and disruptive challenges.¹⁵⁸

The Chairman’s assessment of the 2006 QDR largely echoed the assessment of the QDR itself. The CJCS stated that the QDR articulated “a vision for the transformed force fully consistent with the demands of the anticipated security environment

¹⁵⁵ OMB, 2006, pp. 74–75.

¹⁵⁶ In a June 2012 report, GAO estimated 20-year net present value of the 2005 BRAC round to be about \$9.9 billion, rather than the \$35.6 billion originally estimated by the BRAC commission (GAO, 2012).

¹⁵⁷ DoD, 2006a, p. 70.

¹⁵⁸ DoD, 2006a, pp. 3, 19.

in 2025” and that it promised to “more effectively and efficiently align strategy and resources.”¹⁵⁹ The Chairman further noted,

We cannot accurately characterize the security environment of 2025; therefore, we must hedge against this uncertainty by identifying and developing a broad range of capabilities. Further, we must organize and arrange our forces to create the agility and flexibility to deal with unknowns and surprises in the coming decades. This review has carefully balanced those areas where risk might best be taken in order to provide the needed resources for areas requiring new or additional investment.¹⁶⁰

The Chairman did not identify any risks to the execution of the strategy laid out in the 2006 QDR report and concluded that the U.S. military was currently fully capable of executing all of the objectives articulated in the National Defense Strategy. He also concluded that the recommendations in the 2006 QDR report “provide future capability, capacity, and flexibility to execute these assigned missions, while hedging against the unknown threats of 2025.”¹⁶¹

Reception

We now turn to the reception given to the 2006 QDR report, including observations on its perceived strengths and weaknesses.

Congress

The congressional response to the 2006 QDR report was somewhat mixed, with the principal criticism being that, in House Armed Services Committee Chairman Duncan Hunter’s words, the QDR was a “budget-driven exercise”; he stated, “We need to better understand the current and future threats to our national security and then design and fund our military accordingly.”¹⁶² Ranking Member Ike Skelton also criticized the QDR:

Although it is too early to say for sure, it appears that this QDR places obligations on the military services that may not be supported by our current projected budgets. In particular, I question whether the full range of potential missions detailed in this QDR is possible with an Army that includes only 70 Brigade Combat Teams. . . . Today’s Army is severely stretched by deployments in Iraq and Afghanistan. It is not clear to me that an Army of 70 BCTs can sustain the “Long War”

¹⁵⁹ DoD, 2006a, p. A-4.

¹⁶⁰ DoD, 2006a, p. A-6.

¹⁶¹ DoD, 2006a, pp. A-6–A-7.

¹⁶² Pamela Hess, “QDR Leaves Repubs, Dems Skeptical,” *United Press International*, February 3, 2006.

envisioned by this QDR while simultaneously executing the missions that are necessary to support major conflicts in the future. The Army's land force partner, the Marine Corps, will likewise be severely challenged by the framework laid out in this report.¹⁶³

The March 2006 House Armed Services Committee hearings on the QDR identified specific concerns about the review, including (1) worry that the QDR was unduly resource-constrained, rather than being a true strategy analysis, and (2) contradictory conclusions in the report about force structure, including proposed cuts to ground forces while increasing the demands on the force; proposed cuts to the operational bomber force, despite statements about the increased demands and value of long-range strikes; and the confusing oxymoron of a "surge" for "long-duration [irregular warfare] campaigns."¹⁶⁴

Rather than establishing an independent, bipartisan National Defense Panel to review the 2006 QDR, the House Armed Services Committee took the unusual step of conducting its own Committee Defense Review of strategy.¹⁶⁵ As described by the committee, the purpose of the review was to "create an alternative framework to consider the defense budget request for fiscal year 2007 and the Future Years Defense Program," and to "complement – not to compete with or contradict – the DoD's QDR."¹⁶⁶ The report made nearly a dozen recommendations, including increasing force structure and budgets.¹⁶⁷

On the Senate side, Chairman of the Senate Armed Services Committee Levin called for "honest budgeting" of wars that would finance wartime expenses through additional taxes, rather than deficit spending, the burden of which would be passed on to future generations. The Chairman also asked that several subjects be addressed in more detail, including the contradictions between increasing demands on forces and the lowering of force levels, uncertainties about the sufficiency of strategic lift,

¹⁶³ Hess, 2006.

¹⁶⁴ See the remarks of House Armed Services Committee Chairman Hunter and Ranking Member Skelton in U.S. House of Representatives, *Department of Defense Quadrennial Defense Review: Hearing Before the Committee on Armed Services*, Washington, D.C., March 14, 2006.

¹⁶⁵ See House Armed Services Committee, "Chairman Hunter, Members of the House Armed Services Committee Release Comprehensive Committee Defense Review," press release, December 6, 2006b. Interestingly, Chairman Hunter signaled his plans to conduct such a review in June 2005, more than six months before the 2006 QDR was released. See John T. Bennett, "House Committee Readying Plans to Conduct Its Own 'Threat-Based QDR,'" *Inside Defense*, June 16, 2005; and Jason Sherman, "House Panel to Launch Defense Review, Produce QDR Alternative," *Inside Defense*, September 15, 2005p.

¹⁶⁶ House Armed Services Committee, *Committee Defense Review Report*, Washington, D.C., December 2006a, pp. 1, 8.

¹⁶⁷ House Armed Services Committee, 2006a, pp. 3–5.

and inadequate attention given to the counterproliferation of WMD.¹⁶⁸ Senator John McCain asked why the QDR was focused on “budget disciplines” when the statutory language called for it to provide a strategy and estimate the budgets needed, and when the intent of Congress was that a “successful review . . . should be driven first by the demands of strategy, not by any presupposition about the size of the defense budget.”¹⁶⁹

Government Accountability Office

For its part, and as it had with respect to the 2001 QDR, GAO praised the sustained involvement of DoD senior leaders in the review, as well as the extensive collaboration with interagency partners and allied countries and the development of a database to track QDR initiatives. On the other hand, GAO criticized DoD’s failure to conduct a comprehensive, integrated assessment of different options for organizing and sizing forces to provide needed capabilities; DoD’s failure to provide a clear analytical basis for the conclusion that it had the appropriate number of active- and reserve-component personnel to meet current and projected demands; and OSD and CJCS risk assessments that did not fully apply DoD’s risk management framework, because assessment tools for measuring risk had not been developed. GAO also raised questions about changes to the timing and required topical coverage for future QDRs to make them more effective vehicles for regular strategy reviews.¹⁷⁰

Independent Review

As noted above, as was the case with the 2001 QDR, Congress did not commission an independent panel to review the 2006 QDR.

Congressional Budget Office

As with the 2001 QDR, CBO did not assess the QDR directly, but it did assess the long-term defense spending plans for FY07, FY08, and FY09 beyond the current FYDP.

In its review of the FY07 defense spending plan, CBO assessed cost growth in the defense program and projected that increasing costs for modernization and transformation, O&M, and pay and benefits would lead to an approximately 12-percent shortfall in defense resources over the 2012–2024 period, but factoring the potential risk of higher-than-expected costs could lead to a gap of 27 percent.¹⁷¹

¹⁶⁸ In particular, see the opening remarks of Senate Armed Services Committee Ranking Member Levin in U.S. Senate, 2006.

¹⁶⁹ U.S. Senate, 2006, p. 156.

¹⁷⁰ GAO, 2007b, pp. 2–3, 31.

¹⁷¹ CBO, *Long-Term Implications of Current Defense Plans: Summary Update for Fiscal Year 2007*, Washington, D.C., October 2006b, p. 2. CBO did not provide an estimate of the shortfall over the duration of the FYDP, instead estimating the shortfall only for the period beyond the current FYDP. In some respects, this is a more useful measure of resources for implementing the QDR, which is supposed to have a 20-year horizon.

CBO's review of the FY08 plan suggested that defense costs would exceed funding by 8 percent in the 2013–2025 period, and that the shortfall could be as high as 29 percent.¹⁷²

The review of the FY09 plan suggested a budget shortfall of 6 percent over the 2014–2026 period, and that it could be as high as 26 percent.¹⁷³

Summary and Conclusions

The 2006 QDR report was an “evolutionary, not revolutionary” report that generally continued on the path set in the 2001 QDR. Our major observations are as follows:

- *Organization and process.* Army and other participants and observers of the 2006 QDR that we consulted found the review's organization and process to be confusing. Thus, after the QDR's conclusion, OSD, the Joint Staff, and the services began collaborative work on developing what came to be called the “Analytic Agenda”: an agreed-upon set of principles, scenarios, models, and data that would facilitate analytic cooperation and transparency in results.
- *Strategy development.* Rather than introducing a new strategy, the QDR essentially embraced the recently released March 2005 National Defense Strategy.
- *Force-planning construct.* With the “Michelin Man,” the QDR refined the “1-4-2-1” force-planning construct to adapt it to the post-9/11 security environment and make it more suitable for consideration of homeland defense, irregular warfare (especially the GWOT), and conventional campaigns. This new construct also prescribed a capability for two nearly simultaneous conventional campaigns — or one conventional campaign and one large-scale, long-duration irregular campaign. Thus, the 2006 QDR report demonstrated a greater recognition of Army and other ground force requirements for irregular warfare than had the 2001 QDR.
- *Force structure and end strength.* Ultimately, the QDR reported that the size of the force was about right, although it also directed an increase in special operations forces. Although the QDR did not conduct a detailed analysis of end-strength requirements, it endorsed the existing and planned permanent active Army end strength of 482,400, while proposing an increase in special operations forces, as well as long-term reductions to conventional U.S. ground forces following completion of action in Afghanistan and Iraq. By fall 2006, however, it had become clear that active Army and Marine Corps end-strength levels were too low and

¹⁷² CBO, *Long-Term Implications of Current Defense Plans: Summary Update for Fiscal Year 2008*, Washington, D.C., December 2007b, p. 2.

¹⁷³ CBO, *Long-Term Implications of the Fiscal Year 2009 Future Years Defense Program*, Washington, D.C., January 2009, p. 2.

that an increase was needed. Thus, the QDR failed to anticipate ground force personnel requirements, leading to Secretary Gates's January 2007 decision to increase permanent Army and Marine Corps active-duty end strength by 92,000 personnel.

- *Resources.* The FY07 President's budget that was submitted along with the QDR focused new investments on "leading-edge" elements proposed in the QDR, with the expectation that the QDR would continue to be implemented in FY08, FY09, and thereafter. Importantly, the FY07 budget also would support increases in Army combat power and further ground force modernization via the FCS.
- *Risk assessment framework.* The QDR relied on a refined version of the 2001 QDR's risk assessment framework and, with Operational Availability-06 analyses, appears to have strengthened somewhat its analytic basis.

Thus, much remained to be done after the 2006 QDR report and the FY07 budget request to flesh out the directions set in the QDR, including the completion of more than 140 follow-on actions, the development of nine major roadmaps, and the development of the FY08 and subsequent budgets that were to do the heavy lifting in implementing the thinking in the QDR through programmatic and budgetary actions. Notwithstanding the 2006 QDR report's failure to anticipate the force-structure requirements of the wars in Afghanistan and Iraq, its endorsement of a permanent post-war active Army end strength of 482,400 soldiers represented another qualified success for the Army.

2010 Quadrennial Defense Review

In this chapter, we describe the 2010 QDR's organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception.¹ As was the case with the 2001 QDR for the Bush administration, this QDR was the first strategy report of the Obama administration, which built upon drafts of the administration's National Security Strategy,² Secretary Gates's 2009 article in *Foreign Affairs*,³ and the POM submission for FYs 10–15.

As will be described, the 2010 QDR was the first truly “wartime QDR.” It gave primacy to securing favorable outcomes in Afghanistan and Iraq, as well as rebalancing the current force, rather than preparing for longer-term threats. This was summarized well in the tenets of the QDR's defense strategy – prevailing in today's wars, preventing and deterring conflict, preparing to defeat adversaries and succeeding in a wide range of contingencies, and preserving and enhancing the all-volunteer force – and by CJCS Michael Mullen's top three priorities: winning today's fight, balancing global strategic risk, and enhancing the health of the force.⁴

Organization and Process

Organization

According to our structured conversations, following the release of the 2006 QDR report, OSD and the Joint Staff sought to develop what came to be called the “Analytic

¹ A noteworthy characteristic of the 2010 QDR was that after serving as defense secretary in the Bush administration for two years, Secretary Gates continued as defense secretary for 2.5 years of President Obama's first term.

² The Obama administration issued its first National Security Strategy in May 2010. According to our structured conversations, the teams drafting that document and the QDR worked to harmonize their efforts.

³ Gates, 2009.

⁴ See the statement of Vice Adm. P. Stephen Stanley, U.S. Navy, Director for Force Structure, Resources, and Assessment, J-8, Joint Staff, in U.S. House of Representatives, *The 2010 Quadrennial Defense Review: Hearing Before the Committee on Armed Services*, Washington, D.C., February 4, 2010a, p. 7.

Agenda,” aiming to establish the foundations for more-transparent collaboration between OSD, the Joint Staff, and the services going forward. According to our conversations, the development of the Analytic Agenda began with OUSD (Policy), J-8; the Office of Cost Assessment and Program Evaluation (CAPE);⁵ and the four services, and ultimately engendered a highly interactive DoD-wide approach that took input from broad, inclusive working groups up to the three-star level, with senior-level input pushed back down to the working groups.⁶ By 2009, this reportedly constituted a mature analytic infrastructure that included agreed-upon and rigorously modeled scenarios and scenario combinations called integrated security constructs, and provided a firmer analytic foundation for the 2010 QDR than had existed during the conduct of the 2006 QDR. Moreover, as described in one of our structured conversations,

The effort was not to achieve consensus, but transparent collaboration: what we were doing and how. Consensus was fine when you could get it, but we wanted firm understanding of how the decisions were made. This would be effective for future socialization. People need to know how you came to an answer all the way from the working group to the three-star stakeholders to the large and small groups.

By April 2009, the formal governance structure for the conduct of the QDR appears to have been set. A Defense Senior Leaders Conference, including Secretary Gates, the combatant commanders, the service chiefs, and senior civilian Pentagon leaders, provided the highest level of oversight of the QDR:⁷

The review’s governance structure has the Defense Senior Leaders Conference (DSLCC) — a group that includes the nine combatant commanders, the service chiefs and civilian Pentagon leaders — at the top. Below the [Conference] is the Deputy’s Advisory Working Group, which is made up of the service secretaries, the vice chiefs and various under secretaries of defense; combatant commanders and others are also invited. Reporting to the [Deputies Advisory Working Group] are the QDR stakeholders, according to the documents. They include service, OSD and combatant commander three-star representatives.⁸

As was the case with the two preceding QDRs, the Secretary and Deputy Secretary were said to be “very engaged” in guiding the QDR.⁹

⁵ The Weapon Systems Acquisition Reform Act of 2009 created the CAPE organization and transferred the staff of OUSD (Program Analysis and Evaluation) to CAPE.

⁶ See DoD, 2007.

⁷ See Jason Sherman, “Two at Once,” *Inside Defense*, March 18, 2009e.

⁸ Kate Brannen, “Defense Department Selects QDR Scenarios, Leaders for Issue Teams,” *Inside Defense*, April 20, 2009a.

⁹ Jason Sherman, “Flournoy: Gates, Lynn ‘Very Engaged’ in Quadrennial Defense Review,” *Inside Defense*, May 25, 2009h.

Another April 2009 report provides additional organizational detail and identifies some of the most significant figures involved in the QDR:

The QDR effort will be overseen by Gates, Chairman of the Joint Chiefs of Staff Adm. Michael Mullen, the [combatant commanders], Deputy Defense Secretary Bill Lynn and [Vice CJCS James] Cartwright. The documents suggest it might also be shaped by a review led by the National Security Council.

The core group in charge of the QDR will include the Pentagon policy chief Michèle Flournoy; Bradley Berkson, the director of the Pentagon's program analysis and evaluation shop; and the heads of the Joint Staff's J-8 and J-5 directorates, Vice Adm. Paul Stanley and Vice Adm. James Winnefeld, respectively.

Under that panel will be an integration group that includes Kathleen Hicks, the deputy undersecretary of defense for strategy, plans and forces; Lt. Gen. Emerson Gardner, the deputy in the [Program Analysis and Evaluation] shop; and deputies from the Joint Staff's J-8 and J-5 directorates.

The integration group will have a QDR analysis and integration cell with at least four teams each examining a different issue, while also taking into account work on the [Nuclear Posture Review], space and missile defense reviews, according to the documents. Four teams would mull irregular warfare, defeating high-end asymmetric threats, civil support at home and abroad and DOD's global posture, the documents say, noting there has also been some discussion of possibly creating a fifth issue team to examine business process and cost drivers.

The issue-team leaders would identify concerns about gaps in policies, capabilities and concepts of operations, including low-density, high-demand assets, other key enablers and problems related to countering weapons of mass destruction. The issue teams would then nominate investment and divestment options while also drafting new force mix and modernization options.

The analysis and integration cell is supposed to develop force-sizing criterion [sic]; select and develop scenarios; assess capabilities and capacities of the programmed force and selected alternatives; and develop analytically-based insights regarding the shape and size of the force and candidates for investments and divestment. The issue leaders and the analysis cell are expected to work "interactively and iteratively," the documents say.

Also involved in the QDR process is an advisory group that includes international representation, another team of officials conducting an interagency strategy review and a bunch of QDR stakeholders from the armed services, OSD and the offices of the [combatant commanders].¹⁰

¹⁰ Christopher J. Castelli and Rebekah Gordon, "Gates Plans Frequent Meetings with COCOMs to Shape 2010 QDR," *Inside Defense*, April 8, 2009.

While reporting to Under Secretary of Defense for Policy Flournoy, Deputy Under Secretary Hicks and Deputy Assistant Secretary of Defense David Ochmanek reportedly had principal responsibility for directing the QDR.¹¹ Ochmanek reportedly led the QDR analysis and integration cell, which oversaw the work of five issue teams, including irregular warfare, defeating high-end asymmetric threats, civil support at home and abroad, global posture, and business processes and cost drivers behind defense programs. The issue teams included an executive secretary and one representative each from OUSD (Policy), OUSD (Program Analysis and Evaluation), and the Joint Staff.¹²

For GAO's part, an April 2010 report appears to provide the most detailed available description of the 2010 QDR's organizational and process issues:

The Under Secretary of Defense for Policy had the lead role in conducting the 2010 QDR. To conduct the QDR analyses, DOD established four issue teams, each co-chaired by representatives from the Office of the Under Secretary of Defense for Policy, the Cost Assessment and Program Evaluation division of the Office of the Secretary of Defense, and the Joint Staff. Issue teams included: (1) irregular warfare, (2) high-end asymmetric threats, (3) global posture, and (4) homeland defense and support to civil authorities. A fifth team integrated the work of the four issue teams. According to DOD officials, each team was comprised of relevant stakeholders and subject matter experts from across the department.

The results of the teams' analyses, including proposed solutions to identified gaps and shortfalls, were reviewed and vetted within the department by representatives from across DOD, including representatives from the military services, combatant commands, Joint Staff, and key offices within the Office of the Secretary of Defense, such as the Office of the Comptroller and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics. The Secretary of Defense chaired a committee of senior leaders to provide guidance and make final decisions.

As part of the process, DOD officials said that they coordinated the analyses and communicated the results with other ongoing reviews, such as the Nuclear Posture Review and the Mobility Capabilities and Requirements 2016 study. DOD officials also engaged in discussions with other federal agencies, including the Department of State and the Department of Homeland Security, as well as the intelligence community. In addition, DOD held outreach discussions with allied and

¹¹ See Fawzia Sheikh, "Hicks to Lead New Pentagon Office for Planning, Force Development," *Inside Defense*, February 19, 2009; and Jason Sherman, "Ochmanek Tapped to Fill New Pentagon Post with Key QDR Role," *Inside Defense*, March 12, 2009d.

¹² Brannen, 2009a. According to one of our structured conversations, QDR organization had an hourglass shape in which input from broad, inclusive working groups went to the three-star level and large or small groups; senior-level feedback was then pushed back down to the working groups.

other countries and had representatives of some allied countries participate in issue team discussions.¹³

Finally, it is noteworthy that, in May 2009, a month after signing the terms of reference, Secretary Gates had formed a red team for the 2010 QDR.¹⁴ Secretary Gates described the role of the red team as follows:

“I’ve got them red-teaming both the scenarios and the QDR itself so that we’re not prisoners of bureaucratic group-think of people who have done this work forever,” Gates said.

[Red Team leaders Director of Net Assessment Andrew Marshall and Joint Forces Command’s Gen. James Mattis] have already completed a key assignment from Gates: On May 1, they delivered a classified set of alternative defense planning scenarios for the QDR to consider alongside the established inventory of defense planning scenarios developed with input from the services, which can be portrayed in DoD-validated computer models, according to military sources. . . . The services prefer relying on scenarios that are part of the Pentagon’s “Analytic Agenda” process, which each has participated in designing to ensure their force structure and capabilities are accurately represented. In addition, these scenarios showcase what they own and plan to buy.¹⁵

The Army QDR Office in G-8 continued to serve as the coordinating office for Army participation in the QDR, with other elements of the Army staff providing additional personnel, as required. During the 2010 QDR, the Army QDR Office was initially led by BG Fran Mahon, but was headed by MG Robert Lennox later in the process. The Army QDR Office again established an organizational structure that paralleled the Joint Staff’s structure for conducting the QDR, while senior oversight of the

¹³ GAO, *Quadrennial Defense Review: 2010 Report Addressed Many but Not All Required Items*, Washington, D.C., GAO-10-575R, April 30, 2010.

¹⁴ According to Hicks, former Deputy Under Secretary of Defense for Strategy, Plans, and Forces, Secretary Gates “looked to the red team to first and foremost assess the security environment and look at a broad range of inputs that are coming either out of the intelligence community or elsewhere, to see if we had really, inside the department, captured correctly the range of challenges on the security environment. . . . They also provided the secretary some insights in terms of the capabilities they believed, given that security environment, were necessary for the department to invest in. And those very much were influential in terms of how we ultimately put together the enhancements for the force that are represented in the QDR” (Christopher J. Castelli, “DoD Begins QDR Without Red Team, Increasing Attention on NDP,” *Inside Defense*, September 25, 2013d). According to the principal author of the 2010 QDR, former DoD official Jim Thomas, “The red team was . . . where we got the big changes. . . . That’s where we got the expansion of [special operations forces]; that’s where we got new programs to be able to operate from range. That’s where we got, particularly on the black side, some really important changes, especially in the electronic warfare and the information environments” (Castelli, 2013d).

¹⁵ Jason Sherman, “Gates Taps ‘Red Team’ to Critique QDR Process, Scenarios,” *Inside Defense*, May 13, 2009g.

Army's QDR process was again provided by a Senior Review Group, a Panel Leaders Meeting, and the Army QDR Council of Colonels.¹⁶

Process

As noted, preparatory efforts for the QDR appear to have begun well before the Obama administration took office. In particular, OSD, the Joint Staff, and the services developed the Analytic Agenda, the result of frustration with the unwieldy organization and process that underpinned the 2006 QDR, as well as inconsistent use by the services of different operation plans, scenarios, and data, which made it difficult for senior leaders to understand the key assumptions behind the analyses. As described in one of our structured conversations,

There was also seamless coordination between us, the Joint Staff, and CAPE for collaboration of force sizing analysis. We had a process called the “analytic agenda” where OSD Policy/Strategy was responsible for Defense Planning Scenario development, the Joint Staff J-8 was responsible for developing the [concepts of operations] and detailed force lists for those scenarios, and CAPE – through a division called the Studies and Analysis Group – did the analysis to determine baseline costs, applied likely force demand levels, and fed analysis into the QDR and POM processes. Because of the Analytic Agenda, we had collaborative and transparent adaptation and analysis to apply to the 2010 QDR construct.¹⁷

According to another of our interlocutors, the credibility of Army analyses was greatly enhanced by the availability of the Analytic Agenda:

In the 2009–2010 time frame, because of the process and community that was built around the Analytic Agenda, [the Army] did very well [in making analytically persuasive arguments]. The Army was key in developing the Analytic Agenda. They had helped develop and build it, so there was a lot of trust. A lot of trust . . . even when there was not always agreement.

On January 27, 2009, Secretary Gates testified that “it is my intent to launch [the QDR] next month, and to do so in an accelerated way, so that it can, if not shape the

¹⁶ HQDA, 2012b; Tison, 2015.

¹⁷ In fact, a number of interlocutors in our structured conversations noted that senior leaders had problems understanding the assumptions that underpinned the analyses in the 2006 QDR.

[FY10] budget, have a dramatic impact on the FY11 budget.”¹⁸ The kickoff appears to have been delayed by OSD’s focus on reshaping the FY10 budget request.¹⁹

In early February, Secretary Gates reportedly had created a small team to identify “hard choices” on a short list of weapon system programs to inform the QDR and the FY10 and FY11 budgets.²⁰ At the same time, the Joint Staff was refining a short list of about ten key military problem areas for QDR attention, called the Comprehensive Joint Assessment, distilled from a classified analysis of combatant commanders’ needs.²¹

In mid-March, it was reported that Secretary Gates planned to convene the Defense Senior Leaders Conference at the end of the month to unveil changes to the FY10 budget request, kick off the QDR with the promulgation of the Terms of Reference, and roll out a new force-planning construct.²²

As of early April 2009, the timetable for the QDR was reported to be as follows:

- April–June 2009: policy review to assess capabilities and capacities for irregular warfare, defeating high-end asymmetric threats, civil support at home and abroad, and DoD’s global posture
- May–June 2009: Secretary Gates to meet with the combatant commanders to set direction on QDR issues and required interim analyses (May), and force size and mix (June)
- July 2009: front-end program assessment to develop recommendations “for balance and divestment across the defense program,”²³ and to integrate findings from the Nuclear Posture Review and other reviews
- August 2009: additional meetings with combatant commanders to address the integration of issues
- September–December 2009: program budget and execution review phase of QDR.

¹⁸ Sebastian Sprenger, “Joint Staff Assessment of COCOM Needs Slated to Help Frame QDR,” *Inside Defense*, February 5, 2009a. According to this report, it was envisioned that the QDR would be wrapped up sometime in the summer of 2009. See also Marcus Weisgerber, “Deputy DoD Comptroller: Wait Until FY-11 Budget for Major Changes,” *Inside Defense*, March 16, 2009.

¹⁹ Jason Sherman, “Revision of FY-10 Defense Budget Could Delay February QDR Launch,” *Inside Defense*, February 25, 2009c.

²⁰ Jason Sherman, “Gates Taps Team to Draw Up ‘Hard Choices’ in De Facto Launch of QDR,” *Inside Defense*, February 9, 2009b.

²¹ Sprenger, 2009a. The Comprehensive Joint Assessment is conducted during the “assess” phase of the Joint Strategic Planning System process.

²² Sherman, 2009e. Reports in April noted an alternative force-planning construct that had been proposed in a 2007 RAND report co-authored by David Ochmanek (see Andrew R. Hoehn, Adam Grissom, David Ochmanek, David A. Shlapak, and Alan J. Vick, *A New Division of Labor: Meeting America’s Security Challenges Beyond Iraq*, Santa Monica, Calif.: RAND Corporation, MG-499-AF, 2007).

²³ Jason Sherman, “First Round of QDR Insights, FY-11 Budget Decisions Being Drafted,” *Inside Defense*, July 3, 2009i.

On April 23, DoD announced the formal commencement of the QDR, describing it as follows:

“The purpose of the QDR is to assess the threats and challenges the Nation faces, and then integrate strategies, resources, forces, and capabilities necessary to prevent conflict or conclude it on terms that are favorable to the Nation now and in the future,” said General James E. Cartwright, Vice Chairman of the Joint Chiefs of Staff.

“The QDR takes a long-term, strategic view of the Department of Defense and will explore ways to balance achieving success in current conflicts with preparing for long-term challenges,” said William J. Lynn, Deputy Secretary of Defense. “The review will also look at ways to institutionalize irregular warfare capabilities while maintaining the United States’ existing strategic and technological edge in conventional warfare.”²⁴

Shortly thereafter, DoD released the completed QDR Terms of Reference.²⁵ By this time, DoD reportedly had identified 11 scenarios that would be used to support the QDR analyses, including stability operations in Afghanistan and Iraq, regime collapse in North Korea, a major conflict with China over Taiwan, Russian coercion of the Baltic states, a nuclear-armed Iran, loss of control of nuclear weapons in Pakistan, and homeland defense and cyber attacks on the United States.²⁶ For purposes of analysis, scenarios would be combined into three integrated security constructs. At about the same time, a two-day war game reportedly was conducted that examined scenarios involving wars with China and Russia, and what at the time was described as “high-end asymmetric threats.”²⁷

In mid-May, it was reported that Secretary Gates had asked Director of the Office of Net Assessment Marshall and Joint Forces Commander Gen. Mattis to critique not just the defense planning scenarios that were being used for the QDR, but the review as a whole. Earlier that month, Marshall and Mattis reportedly delivered a classified set of alternative defense planning scenarios for the QDR to consider alongside those

²⁴ Gerry J. Gilmore, “Pentagon Begins New Quadrennial Defense Review, Nuclear Posture Review,” *Armed Forces Press Service*, April 23, 2009.

²⁵ See DoD, “DoD Background Briefing on the QDR, NPR,” Washington, D.C., April 23, 2009c; and DoD, “DoD Statement on Commencement of QDR, NPR,” Washington, D.C., Release No. 269-09, April 23, 2009d. DoD also released an unclassified fact sheet on the QDR Terms of Reference (DoD, *2010 QDR Terms of Reference Fact Sheet*, Washington, D.C., April 27, 2009e).

²⁶ Brannen, 2009a; and Kate Brannen, “Upcoming Quadrennial Defense Review to Assess 11 Scenarios,” *Inside Defense*, April 22, 2009b.

²⁷ Jason Sherman, “QDR War Game to Examine Wars with China, Russia, ‘High-End Asymmetric Threats,’” *Inside Defense*, April 17, 2009f.

that had already been developed.²⁸ Also in May, it was reported that a June 2009 Joint Forces Command war game related to development of the Capstone Concept for Joint Operations had been directed to integrate several QDR focus areas.²⁹ In June, the Defense Senior Leadership Conference reportedly met, in part to discuss the QDR, including the red team's work to date.³⁰

In early July, it was reported that insights from the QDR were being assessed and incorporated into OSD guidance for adjustments to the military services' weapon system programs in FY11 and beyond in the Guidance for Development of the Force.³¹ These recommendations from OUSD (Policy) reportedly ran into stiff resistance from OUSD (Program Analysis and Evaluation), OUSD (Comptroller), and the Joint Staff.³² By early August, it was reported that Secretary Gates was about to direct the services to cut as much as \$50–60 billion from their five-year investment plans to finance new capabilities that he judged to be higher priorities, such as irregular warfare.³³ By mid-August, the QDR was reported to be shifting into its second phase, which included the establishment of 18 new issue teams to scrub the work conducted during the first phase; the issue teams reportedly included manpower, homeland defense, communications, cyber operations, the Defense Health Program, global posture, ground forces, mobility, ISR/battlespace awareness, irregular warfare, missile defense, the Nuclear Posture Review, shipbuilding, tactical aircraft, joint command and control, business information technology, major defense acquisition programs, and reset.³⁴ Also at this time, the 2010 QDR red team reportedly was preparing its final recommendations for Secretary Gates, and "analytic benchmarks" for force assessment were being developed.³⁵ The timetables for Phase II (from July to November) and Phase III (November

²⁸ See Sherman, 2009g.

²⁹ Carlo Muñoz, "Upcoming JFCOM War Game to Explore Capstone Concept, Inform QDR," *Inside Defense*, May 14, 2009. In October, it was reported that the war game identified important potential vulnerabilities that needed to be addressed in the QDR (Sebastian Sprenger, "Secret War Game Report Alerted QDR Leaders to Vulnerabilities," *Inside Defense*, October 21, 2009d). See DoD, *Capstone Concept for Joint Operations*, Version 3.0, Washington, D.C., January 2009a.

³⁰ Christopher J. Castelli, "Top Brass Huddle for Defense Senior Leadership Conference," *Inside Defense*, June 18, 2009a.

³¹ Sherman, 2009i.

³² Christopher J. Castelli, "DoD Policy Shop's Budget Influence Cut in Major QDR Debate," *Inside Defense*, July 9, 2009b.

³³ Jason Sherman, "DoD to Direct \$60 Billion for New Capabilities to Reshape U.S. Forces," *Inside Defense*, August 3, 2009j.

³⁴ Christopher J. Castelli, "Policy Teams Shift into New Mode as Second QDR Phase Begins," *Inside Defense*, August 10, 2009c; and Jason Sherman, "Pentagon Forms 18 New Teams to Review All Investments, More," *Inside Defense*, August 12, 2009k.

³⁵ Christopher J. Castelli, "Pentagon's QDR Red Team Nears Final Recommendations for Gates," *Inside Defense*, August 13, 2009d.

to February) also were updated; most notably, perhaps, the five QDR issue teams were directed to finalize their policy papers by October 15, and their summary briefs by November 6.³⁶ By late August, a new four-pronged force-planning construct reportedly was under consideration; the construct was said to address four objectives: prevail in ongoing conflicts, prevent and deter, prepare for contingencies, and preserve and enhance the force.³⁷

Similarly, in early September, it was reported that the Bush-era risk assessment framework was being fine-tuned,³⁸ and that DoD had sent to Congress a three-page charter for the statutorily required independent QDR review panel.³⁹ In late October, DoD was nearing completion of its force-planning construct.⁴⁰ By late November, a draft of the QDR was being circulated for comment, and in mid-December, Secretary Gates requested DoD senior leaders to provide their personal assessments of the revised draft of the QDR.⁴¹ An additional meeting of the Defense Senior Leadership Conference reportedly was scheduled for January 11–12 to review the QDR and 2011 budget decisions, among other issues.⁴² In late January, in a speech to British lawmakers, Deputy Secretary Lynn provided a preview of the QDR.⁴³

On February 1, 2010, DoD held briefings on the QDR and Ballistic Missile Defense Review report, as well as the FY11 budget request; the next day, Secretary Gates and Chairman Mullen testified before the Senate Armed Services Committee on the proposed FY11 defense bill, the QDR, and the Ballistic Missile Defense Review report.⁴⁴

³⁶ Jason Sherman, "Pentagon Sets Dates to Accomplish Key Objectives in Support of QDR," *Inside Defense*, August 13, 2009l.

³⁷ Sebastian Sprenger, "Calls for Specificity Spurred Review of Force-Planning Construct," *Inside Defense*, August 24, 2009b.

³⁸ Sebastian Sprenger, "Officials Fine-Tune Bush-Era Risk Management Model for Obama's QDR," *Inside Defense*, September 3, 2009c.

³⁹ Christopher J. Castelli, "Pentagon Sends Congress Charter for QDR Independent Panel," *Inside Defense*, October 7, 2009e. 10 U.S.C. 118(f) called for the establishment of an independent National Defense Panel to review the QDR and provide recommendations. The results of the panel will be described later in this chapter.

⁴⁰ Christopher J. Castelli, "Officials: Work on New Force-Sizing Construct Nearing Completion," *Inside Defense*, October 29, 2009f.

⁴¹ Secretary Gates' "large group" of top civilian and military officials reportedly was to discuss the draft (Jason Sherman, "Gates Critiques Draft QDR Report, Seeks 'Personal' Assessment from Top DoD Officials," *Inside Defense*, December 15, 2009m). Revised drafts were distributed on December 3 and December 23, 2009 (Sebastian Sprenger, "As Quadrennial Defense Review Release Nears, Newest Draft Goes 'Secret,'" *Inside Defense*, January 13, 2010a; and Sebastian Sprenger, "Draft QDR: 'Enduring Interests,'" *Inside Defense*, January 27, 2010b).

⁴² Jason Sherman, "Gates Gathers Top Brass to Review QDR, Budget and Way Forward," *Inside Defense*, January 8, 2009a.

⁴³ Jason Sherman, "Deputy Defense Secretary Previews Key QDR Findings in London Address," *Inside Defense*, January 28, 2010b.

⁴⁴ "Senate Hearing on FY-11 Defense Bill, QDR, BMDR," *Inside Defense*, February 2, 2010.

Risk Assessment Framework

As had been the case with previous QDRs, the 2010 QDR's overall analysis aimed to assess the level of risk associated with executing the strategy using the planned force and to identify paths for ensuring an overall moderate level of risk. Moreover, the 2010 review used a variety of approaches to assess the risk in executing its strategy. According to the QDR,

In assessing risk for this QDR, the Department used a multidisciplinary approach. The assessment reflects updated thinking on best practices, which increasingly not only draws on quantitative analysis, but also relies on informed judgments, expert opinions, and the use of scenarios. The Department ensured that its risk assessment was strategy driven. Our efforts were informed by recent risk identification efforts conducted by various components of the Department, including the DoD Inspector General and by the Government Accountability Office.⁴⁵

According to our structured conversations, OUSD (Policy) took the OSD lead on assessing operational risk, focusing on combatant commanders' plans; OUSD (Personnel and Readiness) had the lead on assessing force management risk, focusing on Title X responsibilities; OUSD (Acquisition, Technology and Logistics) had the lead on assessing future challenges risk, focusing on new capabilities and capacity; and OSD's Chief Management Officer had the lead on assessing institutional risk, which was said to be the least well understood and least systematic of the assessments.

The Joint Staff's perspective reportedly was that the OSD risk assessments covered the risk in executing the plans but did not adequately cover "strategic risk" – that is, what might happen and whether the force was prepared to deal with it; in his risk assessment of the QDR, the CJCS added this category of risk. The OSD risk assessment process reportedly was not systematic or data driven, and relied on subjective input from senior leaders.

Accordingly, the risk framework developed in the 2001 QDR was slightly updated in the 2010 QDR with the addition of another category of risk – strategic, military, and political risk. As described in the QDR report,

As a framework to organize its assessment, the 2010 QDR used risk categories, described below, that have been employed since 2001:

- Operational risk: the ability of the current force to execute strategy successfully within acceptable human, materiel, financial, and strategic costs. Consideration of operational risk requires assessing the Department's ability to execute current, planned, and contingency operations in the near term.
- Force management risk: our ability to recruit, retain, train, educate, and equip the All-Volunteer Force, and to sustain its readiness and morale. This

⁴⁵ DoD, 2010a, p. 89.

requires the Department to examine its ability to provide trained and ready personnel in the near term, midterm, and long term.

- Institutional risk: the capacity of management and business practices to plan for, enable, and support the execution of DoD missions. It encompasses the ability to develop effective and efficient organizations and processes over the near term, midterm, and long term.
- Future challenges risk: the Department's capacity to execute future missions successfully, and to hedge against shocks. Here most consideration is given to the Department's ability to field superior capabilities and sufficient capacity to deter/defeat emerging threats in the midterm and long term.

... In the 2010 QDR risk assessment, strategic risk constitutes the Department's ability to execute the defense priority objectives in the near term, midterm, and long term in support of national security. Military risk encompasses the ability of U.S. forces to adequately resource, execute, and sustain military operations in the near- to midterm, and the mid- to longer term. In the international context, political risk derives from the perceived legitimacy of our actions and the resulting impact on the ability and will of allies and partners to support shared goals. In the domestic context, political risk relates to public support of national strategic priorities and the associated resource requirements in the near term, midterm, and long term.⁴⁶

As part of this assessment, the QDR highlighted three areas of operational risk (enabling capabilities, building partnership capacity, and securing DoD systems in cyberspace) and addressed the force management, institutional, and future challenges risks.⁴⁷

Testimony suggests that risk also was assessed using another framework. The QDR sought to balance resources and risk across four major objectives: prevailing in current operations, preventing or deterring conflict, preparing for a wide range of contingencies, and preserving and enhancing the all-volunteer force.⁴⁸

The QDR tested the force against three "cases," called integrated security constructs, that were essentially different combinations of scenarios.⁴⁹ The QDR report stated that the combinations of scenarios assessed in the QDR included the following:

⁴⁶ DoD, 2010a, pp. 90–95.

⁴⁷ DoD, 2010a, p. 13.

⁴⁸ See the testimony of Christine Fox, Director, CAPE, in U.S. House of Representatives, 2010a, pp. 8–9. Beyond descriptions of the scenario combinations that the force was tested against to assess operational risk, few details were provided in testimony on how these risk assessments were actually done.

⁴⁹ Although we found no definitive information on the number of force-structure alternatives that were tested in the QDR, testimony and the modest changes to then-current force structure called for by the 2010 QDR suggest that the then-planned force structure was tested using the various scenario cases to identify gaps and shortfalls, and a notional enhanced future force was tested to ensure that it addressed the most important gaps and shortfalls.

A major stabilization operation, deterring and defeating a highly capable regional aggressor, and extending support to civil authorities in response to a catastrophic event in the United States. This scenario combination particularly stressed the force's ability to defeat a sophisticated adversary and support domestic response.

Deterring and defeating two regional aggressors while maintaining a heightened alert posture for U.S. forces in and around the United States. This scenario combination particularly stressed the force's combined arms capacity.

A major stabilization operation, a long-duration deterrence operation in a separate theater, a medium-sized counterinsurgency mission, and extended support to civil authorities in the United States. This scenario combination particularly stressed elements of the force most heavily tasked for counterinsurgency, stability, and counterterrorism operations.

QDR force analysis also tested the force's ability to sustain robust levels of engagement overseas through forward stationing and routine rotational deployments. Successfully achieving any of the core missions of the U.S. Armed Forces requires strong security relationships with a host of allies and partners — relationships best enabled and maintained through both a long-term presence abroad and sustained, focused interactions between U.S. and partner forces.

In all of the scenario sets it tested, the Department assumed ongoing U.S. military engagement in presence and deterrence missions.⁵⁰

GAO provided some additional detail on the QDR's employment of scenarios covering the five- to seven-year time frame against which the force was tested:

DOD examined forces needed for three different sets of scenarios, each consisting of multiple concurrent operations, chosen to reflect the complexity and range of events that may occur in multiple theaters in overlapping timeframes in the mid-term (5 to 7 years in the future). . . . According to the QDR report, DOD used the results of its analyses to make decisions on how to size and shape the force and to inform its choices on resourcing priorities.⁵¹

As described in testimony by the Under Secretary of Defense for Policy,

[W]e certainly looked at and tested the force against the classic two major theater wars because we think that is still an important standard, but we didn't think it was sufficient.

⁵⁰ DoD, 2010a, pp. 42–43.

⁵¹ GAO, 2010, p. 2. GAO did not evaluate DoD's process and methodology or validate the results of the QDR analyses, but did provide some interesting insights into these issues.

... [W]hile I don't want to get into classified details in this setting, what I can say to you is that in many of those cases we found that a lot of the U.S. contribution would be heavy air and naval intensive, and there was certainly adequate flex in our forces to provide that assistance to allies on the ground who were engaged.

... In terms of the longer-term perspective, our scenarios did look out into the future. 2016 was one snapshot. 2028 was another. And we pulled those insights forward to really focus on refining the plans for the FYDP.⁵²

And as described in testimony by Director for Force Structure, Resources, and Assessment,

The scenario cases that we picked — and again there are three scenario cases that we tested the force against; so instead of just building for a capability level, we tested the force against three different visions of the future. That emphasizes the flexibility of the force that we require. The size of the ground forces was part of that, and the size of the force tested satisfactorily against those three different scenario cases.

... Again, we did three cases. Each case had different combinations of scenarios in it. So it is not three scenarios. It is three separate scenario cases that include multiple scenarios. Was Korea a part of it? Yes. OK, do we put boots on the ground in Korea? Yes.⁵³

That said, the CJCS's assessment of the 2010 QDR did not include a clear statement that the QDR's strategy could be executed at low to moderate risk. Rather, the Chairman's assessment concluded that, while "U.S. Armed Forces can perform the missions called for in the QDR," additional risk assessment work was needed.⁵⁴ His assessment also implied that the risk level would depend on the adequacy of defense resources:

Managing risk under the new QDR force planning construct requires further analysis, including new scenarios to test joint concepts of operation and force mixes and the development of associated operational and strategic assumptions. Our planning and assessment efforts will vary the size, duration, and simultaneity of operations and account for associated policies and goals for force rotation, disengagement, and access to the Reserve Component.

⁵² Testimony of Michèle A. Flournoy, Under Secretary of Defense for Policy, in U.S. House of Representatives, 2010a, p. 10.

⁵³ Testimony of Vice Adm. P. Stephen Stanley, U.S. Navy, Director for Force Structure, Resources, and Assessment, J-8, Joint Staff, in U.S. House of Representatives, 2010a, p. 10.

⁵⁴ DoD, 2010a, p. 105.

Overall, the QDR provides an accurate depiction of our future national security requirements. Our challenge as a nation will be to properly resource these priorities.⁵⁵

Strategy Development

Key national security documents published under the previous administration prior to the 2010 QDR included the March 2006 National Security Strategy,⁵⁶ the June 2008 National Defense Strategy,⁵⁷ and the January 2009 Quadrennial Roles and Missions Review report,⁵⁸ serving as the starting points for the 2010 QDR.

As had been the case with the Bush administration at the beginning of its term, the Obama administration sought to set a different strategic direction from its predecessor,⁵⁹ and similarly failed to release a National Security Strategy within 150 days of entry into office. The first National Security Strategy report of the Obama administration was released in May 2010,⁶⁰ three months after the release of the 2010 QDR report. That said, our structured conversations suggest that the QDR and National Security Strategy drafting teams made efforts to harmonize and ensure the complementarity of the two efforts.

Nonetheless, while the 2010 QDR was the first such review of the new Obama administration, it did not represent an entirely clean break from the previous administration's strategic thinking in at least one important respect:⁶¹ The continued service of Robert Gates as Secretary of Defense served as an intellectual bridge between the two periods.⁶² Secretary Gates's 2009 article "A Balanced Strategy: Reprogramming the Pentagon for a New Age" in *Foreign Affairs* magazine signaled areas of both continuity and change.⁶³

⁵⁵ DoD, 2010a, p. 105.

⁵⁶ White House, 2006.

⁵⁷ DoD, *National Defense Strategy*, Washington, D.C., 2008.

⁵⁸ DoD, *Quadrennial Roles and Missions Review Report*, Washington, D.C., January 2009b.

⁵⁹ The White House's first National Security Strategy would describe this new strategic direction as "a strategy of national renewal and global leadership" (White House, *National Security Strategy*, Washington, D.C., May 2010).

⁶⁰ White House, 2010.

⁶¹ Daggett notes that the 2010 QDR reflects "a considerable degree of continuity with the 2005 National Defense Strategy, the 2006 QDR report, and the 2008 National Defense Strategy" (Stephen Daggett, *Quadrennial Defense Review 2010: Overview and Implications for National Security Planning*, Washington, D.C.: Congressional Research Service, May 17, 2010, p. 21).

⁶² Secretary Gates issued policy guidance for the 2010 QDR in April 2009, early in the Obama administration (Daggett, 2010, p. 1).

⁶³ Gates, 2009.

The June 2008 National Defense Strategy had described an operating environment shaped by globalization, violent extremist movements, rogue and unstable states, and proliferation of WMD.⁶⁴ And at the behest of Congress, DoD undertook an effort to clarify military roles and missions based on the recently developed strategic guidance. The formal product of that review, the Quadrennial Roles and Missions Review report, was published in January 2009.⁶⁵ The report codified the concept that DoD's mission was broader than its traditional focus on defeating a state adversary's conventional forces. It identified the following six core missions for which DoD was the lead U.S. government agency or for which it provided the preponderance of capabilities:

- homeland defense and civil support
- deterrence operations
- major combat operations
- irregular warfare
- military support to stabilization, security, transition, and reconstruction operations
- military contributions to cooperative security.

Each of these core missions was to have a corresponding Joint Operations Concept intended to guide capability development and to provide a common lexicon for use across DoD.⁶⁶ The Quadrennial Roles and Missions Review report also emphasized the importance of “soft power” and whole-of-government approaches in addressing the nation's complex security challenges.⁶⁷ In addition, the review focused on DoD role and mission issues in four new and rapidly evolving capability areas. Three of these areas (irregular warfare, unmanned aircraft systems, and intratheater airlift) were closely related to the counterinsurgency operations that the United States had been conducting since 2004. The fourth, cyberspace operations, was the result of the rapidly increasing importance of cyberspace.⁶⁸

The 2010 QDR report was clearly a wartime QDR, and it placed winning the current wars at the top of DoD's budgeting, policy, and program priorities. It noted that “first and foremost, the United States is a nation at war” and sought to ensure that the current warfighter was adequately supported.⁶⁹ The QDR also continued to

⁶⁴ GAO, 2010.

⁶⁵ DoD, 2009b.

⁶⁶ DoD, 2009b, pp. 3, 5–7. Supporting the core missions were nine core competencies, or Joint Capability Areas, that linked the core mission areas to DoD's capability development process. These core competencies were force application, command and control, battlespace awareness, net centric, building partnerships, protection, logistics, force support, and corporate management and support (DoD, 2009b, pp. 6–7).

⁶⁷ DoD, 2009b, pp. v, 31–37.

⁶⁸ DoD, 2009b, pp. v, 9–29.

⁶⁹ DoD, 2010a, p. iii.

emphasize America's unique role in the world and the importance of integrating all elements of national power to meet present and future security challenges.⁷⁰

National Interests and Primary QDR Objectives

The 2010 QDR report addressed U.S. national interest in very broad strokes. It noted that U.S. national interests were closely tied to strengthening and maintaining the current international system, as that system promoted security, prosperity, a broad respect for universal values, and cooperative action.⁷¹ In regard to global stability, because the U.S. military was the most powerful in the world, the United States was perceived as being obligated to sustain that system. This obligation in turn required that the United States maintain a military with unmatched capabilities that could be used "in defense of our national interests and the common good."⁷²

Given these positions, the 2010 QDR report sought to achieve two primary objectives: first, to rebalance U.S. military capabilities to prevail in the then-current wars, and, second, to reform DoD's institutions to better support the warfighter, to buy affordable and needed weapons, and to ensure that taxpayer money was spent wisely.⁷³

In order to advance the U.S. national interests, DoD needed to balance resources and risks among four priority objectives:

- prevailing in the current wars
- preventing and deterring conflict
- preparing to defeat adversaries and prevailing in a wide range of contingencies
- preserving and enhancing the all-volunteer force.

The objective of prevailing in today's wars focused primarily on ensuring the success of U.S. operations against "Al Qaeda and the Taliban in Afghanistan and the border regions of Pakistan."⁷⁴ The QDR advocated preventing and deterring conflict so as to prevent the rise of threats to U.S. interests. This was to be accomplished through whole-of-government approaches and by close cooperation with U.S. allies and partners. The QDR also focused on defending the United States from direct attack, deterring potential adversaries, fostering regional security, and assuring U.S. access to the global commons.⁷⁵ Preparing to defeat adversaries and succeeding in a wide range of contingencies focused efforts on being able to address a wide range of plausible future challenges to U.S. interests. These challenges included defeating al-Qa'ida and its allies,

⁷⁰ DoD, 2010a, p. iv.

⁷¹ DoD, 2010a, p. 9.

⁷² DoD, 2010a, p. 9.

⁷³ DoD, 2010a, p. iii.

⁷⁴ DoD, 2010a, p. 11. According to one of our interlocutors, there was some disagreement regarding a statement about the speed of the drawdown in Iraq, with some pushing for faster withdrawal.

⁷⁵ DoD, 2010a, pp. 13-14.

supporting domestic authorities in response to domestic attacks or disasters, conducting counter-WMD operations, conducting overseas stability operations, protecting U.S. citizens abroad, conducting operations in cyberspace, and preventing human suffering due to mass atrocities or large-scale disasters.⁷⁶ Finally, preserving and enhancing the all-volunteer force focused policy attention on ensuring the long-term viability of that force by sustaining the rotation base, providing care for DoD personnel in both peace and war, and adapting the force to meet the changing security environment.⁷⁷

Strategic Environment

As with the earlier QDRs, the 2010 QDR report emphasized the complexity of the international environment and the accelerating pace of change.⁷⁸ For the foreseeable future, prevailing in the war against al-Qa'ida and its allies, particularly in Afghanistan and Pakistan, would be DoD's top priority.⁷⁹

Three Key Global Trends

The 2010 QDR report identified the following three key global trends that would significantly shape the future challenges confronting the United States:

- The distribution of global power (political, economic, and military) was becoming more diffuse. In the future, both China and India would be important global actors, and how these powers integrated into the global system would greatly influence U.S. interests. In addition, while the United States would remain the world's strongest power, it would need to increasingly rely on key allies and partners to sustain peace and security.⁸⁰
- Nonstate actors were expected to become an increasingly important feature of the global system, as well as have the influence and access to capabilities that were previously monopolized by states.
- The proliferation of WMD would continue to undermine global stability. In this regard, the greatest danger to the United States was the possibility that the collapse of a WMD-armed state could lead to the uncontrolled proliferation of WMD, which could then pose a direct physical threat to the United States.

Overlying these three trends and complicating U.S. efforts at maintaining stability were the global rising demand for resources, rapid urbanization of the littoral regions, the effects of climate change, the emergence of new diseases, and deep cultural

⁷⁶ DoD, 2010a, pp. 14–15.

⁷⁷ DoD, 2010a, pp. iii, 5.

⁷⁸ DoD, 2010a, pp. 15–16.

⁷⁹ DoD, 2010a, pp. 5–6.

⁸⁰ DoD, 2010a, p. 6.

and ethnic division in parts of the globe. All of these factors had the potential to spark or exacerbate a future conflict.⁸¹

Three Key Operational Trends

The 2010 QDR report also identified three operational trends that were particularly dangerous to U.S. interests, as follows:

- U.S. opponents would increasingly turn to unconventional or “hybrid” approaches to mitigate against the continued dominance of the United States in traditional forms of military conflict.
- Rising alternative centers of power and strong nonstate actors would increase the importance of U.S. access to the global commons. In particular, rising powers might increasingly seek anti-access capabilities to blunt or prevent U.S. power projection in all domains (air, sea, land, space, and cyberspace).
- Changes to the global environment would increasingly undermine chronically fragile states and make them a potential source of conflict. Such states are often the source of radicalism and extremism, some are nuclear armed, and others are critically important to U.S. interests.⁸²

Key Global Regions

As with the 2001 and 2006 QDR reports, the 2010 QDR report identified regions critical to U.S. interests throughout most of the globe. First and foremost, however, was the successful prosecution of the wars in both Afghanistan and Iraq. Beyond these two theaters of war, the QDR also identified the following priorities for the development of U.S. global force posture: Europe and the North Atlantic Treaty Organization, the Asia-Pacific region, the broader Middle East, Africa, and Central and South Asia.⁸³ By comparison, U.S. objectives in Central and South America were to be pursued with only a limited U.S. military presence.

Key Post-QDR Documents

The 2010 QDR report was accompanied by the simultaneous February 2010 release of the FY11 President’s budget and a Ballistic Missile Defense Review report. It was followed by the April 2010 Nuclear Posture Review report, May 2010 National Security Strategy, 2011 National Military Strategy, January 2012 Defense Strategic Guidance, July 2012 Quadrennial Roles and Missions Review report, April 2013 Defense Budget Priorities and Choices, and August 2013 Strategic Choices and Management Review (see Figure 4.1).

⁸¹ DoD, 2010a, p. 7.

⁸² DoD, 2010a, pp. 8–9.

⁸³ DoD, 2010a, p. 64.

Figure 4.1
Key Documents Following the 2010 QDR Report



Each of these reports would continue to document the evolution of defense strategy, policy, programmatics, and budgets leading up to the 2014 QDR. Of particular importance was the January 2012 Defense Strategic Guidance, which established a new defense strategy, identified which missions would be used to size military capabilities and capacity, and determined that U.S. forces would no longer be sized to conduct large-scale, prolonged stability operations such as the ones that had been conducted in Afghanistan and Iraq. The Defense Strategic Guidance arguably would constitute a far more consequential statement of defense strategy than that contained in the 2010 QDR report.⁸⁴

Force Planning

The 2010 QDR was a wartime review. The QDR report presented no named force-planning construct, although one might be inferred from the four stated priorities: (1) prevail in the ongoing U.S. military operations; (2) “ensur[e] a defense in depth of the United States, preventing the emergence or reemergence of transnational terrorist threats, . . . and deterring other potential major adversaries;” (3) “prepare for significant new challenges;” and (4) “preserve and enhance . . . the all-volunteer force.”⁸⁵ These

⁸⁴ See DoD, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, Washington, D.C., January 2012. This document is typically referred to as the Defense Strategic Guidance.

⁸⁵ DoD, 2010a, pp. 43–46.

priorities served as the springboard to the 2010 QDR report's statement of required military capabilities, force-planning construct, and force structure, as described next.

Required Capabilities

The 2010 QDR report identified six key mission areas where significant enhancements were required to rebalance the U.S. military to meet the QDR's four primary objectives. According to the 2010 QDR report, these capability areas were identified by evaluating alternative future forces across a range of scenarios and from lessons learned from the ongoing operations in Afghanistan and Iraq.⁸⁶ The analysis focused on identifying capability gaps and capacity shortfalls when the U.S. military executed missions in the near, mid-, and long terms.⁸⁷ This analysis also led to two fundamental conclusions: (1) additional and better enabling capabilities were required for the U.S. military to successfully execute its missions, and (2) U.S. forces needed to be flexible and adaptable so that they could successfully engage the full range of challenges that can emerge from a complex and dynamic security environment.⁸⁸ The six key mission areas identified in the 2010 QDR report were as follows:

- *Defend the United States and support civil authorities at home.* These capabilities focused on protecting the United States from direct attack and supporting civil authorities in the case of a manmade or natural catastrophic event.
- *Succeed in counterinsurgency, stability, and counterterrorism operations.* These capabilities focused on enhancing the whole-of-government capability to conduct these operations on a large scale.
- *Build the security capacity of partner states.* These capabilities focused on an improved ability to conduct security cooperation activities and, in particular, security force assistance operations.
- *Deter and defeat aggression in anti-access environments.* These capabilities focused on countering an adversary's anti-access capabilities and on ensuring the U.S. ability to project power.
- *Prevent proliferation and counter WMD.* These capabilities focused on successfully conducting counter-WMD operations.
- *Operate effectively in cyberspace.* These capabilities focused on improving the security of U.S. information systems.⁸⁹

⁸⁶ According to the 2010 QDR report, the QDR "developed insights regarding the ways in which the capabilities of U.S. forces should evolve by evaluating alternative future forces in a diverse set of scenarios, which depicted a wide range of plausible challenges that might call for a response by U.S. military forces. The Department also assessed lessons learned from ongoing operations in Iraq, Afghanistan, and elsewhere. Collectively, these assessments helped inform decisions affecting capabilities in six key mission areas" (DoD, 2010a, p. 17).

⁸⁷ DoD, 2010a, pp. vii, 17.

⁸⁸ DoD, 2010a, p. 18.

⁸⁹ DoD, 2010a, pp. 17–49.

Force-Planning Construct

In a March 2009 interview, Secretary Gates signaled that the force-planning construct might undergo further refinement:

ROBERT SIEGEL: There have been debates in Washington for forever over whether we are capable of waging two wars at one time, whether we have a military large enough for that, having inherited this situation when we were at war both in Iraq and Afghanistan. What's the lesson, is two wars at once perhaps biting off more than we can effectively chew even if we're willing to spend a trillion dollars on it?

SECRETARY GATES: Our military planning for a number of years has — and I would say going back at least 20 years — has been to have the ability to fight two major combat operations simultaneously. One where it would be an aggressive effort and another where you might have to hold for a while and then finish the job. I think one of the central questions that this department will face in the Quadrennial Defense Review, which will begin shortly, is whether that model makes any sense in the 21st century and whether what may have fit in a Cold War environment or an immediately post-Cold War environment really has application to today's world.

ROBERT SIEGEL: And the experience of the past few years suggests some rethinking is needed there in terms of what our doctrines are?

SECRETARY GATES: I think so.⁹⁰

The 2010 QDR report stated that its force-planning and force-shaping construct was defined to meet the priority objectives of the strategy — prevail, prevent and deter, prepare, and preserve and enhance — while both meeting the needs of the current operational environment (e.g., Afghanistan and Iraq) and including sizing criteria for the midterm (5–7 years) and long term (7–20 years).⁹¹

The QDR establishes force-planning guidance to ensure that U.S. forces are sized to conduct the following types of operations in overlapping time frames:

- Prevail in ongoing conflicts in Afghanistan, Iraq, and in the war against Al Qaeda and its allies
- Conduct “foundational activities” to prevent and deter: attacks on the United States, emergence of new trans-national terrorist threats, and aggression by state adversaries

⁹⁰ Sherman, 2009e.

⁹¹ DoD, 2010a, pp. 41–45. The QDR report stated, “The QDR force-sizing and force-shaping construct differentiates between current commitments and plausible future requirements, and forms the basis for determining the appropriate type and range of the main elements of U.S. force structure necessary to meet the needs of the defense strategy” (DoD, 2010a, p. 3).

- Be prepared to prevail in other challenges, including conducting multiple, simultaneous operations ranging from: defeating adversaries with advanced anti-access capabilities to supporting large scale support to civil authorities at home
- Preserve and enhance the force by ensuring sufficient aggregate capacity to accomplish these objectives at sustainable rotation rates.⁹²

As a practical matter, according to our structured conversations, development of the 2010 QDR construct flowed from the earlier force-planning construct to multiple integrated security constructs (that is, different combinations of scenarios that the force needed to be capable of managing). From an Army perspective, it appeared that rather than being required to prepare for ground operations in two major wars, the Army was being asked to prepare for one war and to support another that was dominated by air and sea operations.⁹³

Force Structure

General-Purpose Forces

The 2010 QDR report directed the military departments to provide the following forces.

The Army was instructed to provide four corps headquarters, 18 division headquarters, and 73 BCTs (45 active component and 28 reserve component). The composition of these BCTs was further specified to include 40 infantry BCTs, eight Stryker BCTs, and 25 heavy BCTs. Army aviation force structure included 21 combat aviation brigades — 13 active and eight reserve — as well as 15 Patriot battalions and seven Terminal High Altitude Area Defense batteries.

The Navy was directed to provide a fleet of ten or 11 aircraft carriers and ten carrier air wings; 84–88 large surface combatants, including 21–32 ballistic missile defense-capable combatants and Aegis Ashore units; 14–28 small surface combatants (plus 14 mine countermeasure ships); 29–31 amphibious warfare ships; 53–55 attack submarines; and four guided-missile submarines. The Navy was also instructed to pro-

⁹² DoD, “2010 Quadrennial Defense Review (QDR) Fact Sheet,” Washington, D.C.: Office of Public Affairs, February 1, 2010b.

⁹³ In light of the complexity of the demands on U.S. forces, Secretary Gates reportedly was averse to development of an oversimplified, “bumper sticker” force-planning construct (Jason Sherman, “QDR Overhauls Two-War Planning Construct, Embraces New Operational Requirements Mix (Updated),” *Inside Defense*, January 26, 2010a; and Jason Sherman, “Quadrennial Defense Review Overhauls Two-War Planning Construct,” *Inside Defense*, January 29, 2010c).

Our interlocutors reported that there was substantial confusion regarding whether the integrated security constructs should be “illustrative” or “real plans.” In addition, there was a feeling at the O-6 level in the Army that “the goal posts had been moved,” in the sense that the Army was to provide forces for one war rather than two, with a requirement to provide some support in the second. Finally, according to our interviewees, there was said to be a disconnect between the military and civilian leadership regarding the likelihood of the scenarios; civilians assumed “we’ll never execute that second campaign,” while the military assumed “that is the strategy we’ve been told to prepare to execute.”

vide 126–171 land-based ISR and electronic warfare aircraft (manned and unmanned), three maritime prepositioning squadrons, 30–33 combat logistics force ships (plus one mobile landing platform), 17–25 command and support vessels (including joint high speed vessels, three T-AKE-class dry cargo and ammunition ships, and one mobile landing platform). Finally, the Navy was directed to provide 51 roll-on/roll-off strategic sealift vessels.

For the Marine Corps, the Navy was instructed to provide three Marine Expeditionary Forces, four Marine divisions (three active and one reserve), 11 infantry regiments, four artillery regiments, four Marine aircraft wings (six fixed-wing groups, seven rotary-wing groups, four control groups, and four support groups), and four Marine logistics groups (nine combat logistics regiments), and seven Marine expeditionary unit command elements.

The QDR called on the Air Force to provide eight ISR wing-equivalents (with up to 380 primary mission aircraft), 30–32 airlift and aerial refueling wing-equivalents (with 33 primary mission aircraft per wing-equivalent), 10–11 theater strike wing-equivalents (with 72 primary mission aircraft per wing-equivalent), five long-range strike (bomber) wings (with up to 96 primary mission aircraft), six air superiority wing-equivalents (with 72 primary mission aircraft per wing-equivalent), three command and control wings, and five fully operational air and space operations centers (with a total of 27 primary mission aircraft). The service was also directed to provide ten space and cyberspace wings.

Table 4.1 describes the planned QDR force and summarizes changes in force structure over the period between the 2010 and 2014 QDRs.

Special Operations Forces

The 2010 QDR report specified a special operations force structure goal of “approximately 660 special operations teams (includes Army Special Forces Operational Detachment Alpha teams, Navy [SEAL] platoons, Marine special operations teams, Air Force special tactics teams, and operational aviation detachments), three Army Ranger battalions, and 165 tilt-rotor/fixed-wing mobility and fire support primary mission aircraft.”⁹⁴

Strategic Forces

In April 2010, the Obama administration published a Nuclear Posture Review. Appearing 30 days after the release of the 2010 QDR report, this review announced structure changes to the United States’ nuclear forces, motivated in part by an awareness that the Cold War circumstances that had shaped the U.S. nuclear force posture had changed significantly, as well as by a desire for a “New START” agreement to replace the expired 1991 START I.⁹⁵ The resulting force structure preserved the nuclear triad

⁹⁴ DoD, 2010a, p. 47.

⁹⁵ DoD, *Nuclear Posture Review Report*, Washington, D.C., April 2010c, p. ix.

Table 4.1
2010 QDR Report Projections and Actuals for General-Purpose Force Structure,
FYs 2010–2014

Service Element	FY10 QDR Planned	FY10 Actual	FY11 Actual	FY12 Actual	FY13 Actual	FY14 Actual ^a
Army						
Divisions (AC/RC)	10/8	10/8	10/8	10/8	10/8	10/8
Maneuver brigades (AC)	45	45	45	45	45	38
Maneuver battalions (AC) ^b	Not stated	141	142	143	143	152
Navy						
Aircraft carriers	10–11	11	11	11	10	10
Carrier air wings (AC)	10	10	10	10	10	10
Attack submarines	53–55	53	53	54	54	54
Surface combatants	84–88	112	111	110	105	99
Marine Corps						
Divisions (AC/RC)	3/1	3/1	3/1	3/1	3/1	3/1
Expeditionary forces	3	3	3	3	3	3
Air wings (AC/RC)	3/1	3/1	3/1	3/1	3/1	3/1
Air Force						
Fighter squadrons (AC/RC) ^c	Not stated	36/35	36/37	36/34	35/27	33/27
Bombers	<96	123	115	109	109	111
Special Operations Forces						
Military manpower ^d	Not stated	47,878	54,441	56,956	60,715	63,263

SOURCE: DoD, 2010a; OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service; OUSD (Comptroller), *National Defense Budget Estimates for FY 2015*, Washington, D.C., April 2014a.

NOTE: AC = active component; RC = reserve component.

^a These figures depict FY14 enacted budget data from OUSD (Comptroller), 2014a.

^b For the purpose of this study, a *maneuver battalion* is any infantry battalion, armor battalion, cavalry squadron, or combined arms battalion of the various mutations of maneuver brigades that have been part of Army force structure since 2001. We derived the actual maneuver battalion figures from modular BCT force structure, which includes two infantry battalions and one light cavalry squadron in interim BCTs, two combined arms battalions and one armored reconnaissance squadron in armored BCTs, and three infantry battalions and one cavalry squadron in Stryker BCTs. By 2014, most BCTs had assumed the Army 2020 Table of Organization and Equipment framework, which included a third maneuver battalion in the interim BCT and armored BCT structure.

^c We estimate the number of squadrons in the active and reserve components based on the number of reported primary aircraft authorized and the observed ratio of aircraft to squadrons from FYs 99–05. The ratios are as follows: 22 aircraft per F-15 and, later, F-22 squadron; 12 aircraft per A-10 squadron; 20 aircraft per F-16 squadron; and 18 aircraft per F-117 squadron. Budget data from FYs 01–07 also yielded the ratio of aircraft per squadron for the reserve component: 12 aircraft per Air National Guard A-10 squadron; 15 aircraft per Air Force Reserve A-10 squadron, and 15 aircraft per fighter (F-15 and F-16) squadron in both the Air National Guard and Air Force Reserve.

^d These figures include Military Department Major Force Program 11 activities only.

under the New START limits of “1,550 accountable strategic warheads, 700 deployed strategic delivery vehicles, and a combined limit of 800 deployed and non-deployed strategic launchers,” with each of the limits to be achieved not later than February 2018.⁹⁶ The United States’ intercontinental ballistic missile force was also returned to single warhead capability as part of the agreement, removing its multiple independently targetable reentry vehicle ballistic missile capability.

Manpower and End Strength

DoD released the 2010 QDR report in February 2010 with guidance that signaled the continuity of demands on military manpower.⁹⁷ According to our structured conversations, Army end strength was not an issue in 2010; it was understood that the service could afford the structure that was funded in the previous FYDPs. In fact, the work to develop force-structure and end-strength cuts was really done in the services. Moreover, the Army had been on a path to grow, as it was clear that it was under significant stress. In 2009, Secretary Gates had authorized a temporary end-strength increase of 22,000 active-component soldiers to further mitigate growing manpower shortages in deploying units.⁹⁸

Subsequent to the release of the 2010 QDR, Army and DoD leaders appear to have agreed that end strength would come down as the commitments in Afghanistan and Iraq were concluded. By May 2010, press reporting suggested that the post-war level of active Army end strength then under consideration was about 482,000;⁹⁹ the January 2012 Defense Strategic Guidance would lead to a planned post-war level of 490,000.¹⁰⁰ Discussion of what the end-strength targets might be for the Army appears to have been much more intensive in the 2012 Defense Strategic Guidance, 2013 Strategic Choices and Management Review, and 2014 QDR than it was in the 2010 QDR. The Reserve Forces Policy Board also complained that the 2010 QDR report failed to meet the statutory requirement to address active-reserve component issues in detail.¹⁰¹

⁹⁶ DoD, April 2010c, p. ix.

⁹⁷ The QDR noted that “U.S. ground forces will remain capable of full-spectrum operations, with continued focus on capabilities to conduct effective and sustained counterinsurgency, stability, and counterterrorist operations alone and in concert with partners” (DoD, 2010a, p. 45).

⁹⁸ John Kruzel, “Gates Calls for Increase of 22,000 Soldiers,” *American Forces Press Service*, July 21, 2009. See also U.S. Army, 2009.

⁹⁹ Greg Grant and Colin Clark, “Force Structure Cuts Coming,” *DoD Buzz*, May 20, 2010.

¹⁰⁰ See Raymond T. Odierno, Chief of Staff of the Army, “Budget Impact to the Army,” briefing transcript, Washington, D.C., January 27, 2012.

¹⁰¹ Although the 2006 QDR was the first to call for an operational reserve, and DoD shortly thereafter established policy for managing the reserve components as an operational force, in January 2013, the Reserve Forces Policy Board complained that the 2010 QDR had failed to address reserve-component issues, and inconsistent use of the term *operational reserve* subsequently continued within the Department. See Arnold L. Punaro, Chairman of the Reserve Forces Policy Board, “Report of the Reserve Forces Policy Board on the ‘Operational Reserve’

In accordance with the Defense Strategic Guidance, the nation's two major wars continued, although on different trajectories. In Iraq, the administration had set a date for full withdrawal of American forces by the end of December 2011. Meanwhile, in Afghanistan, the United States was in its third year of increased troop levels: A surge in Afghanistan was under way that tripled the number of deployed troops from 2006 levels. The surge began in December 2009, lasted until September 2012, and included the deployment of an additional 33,000 troops.¹⁰²

Even as the war in Iraq entered its seventh year and the Afghanistan war entered a new phase, the Army and Marine Corps relied on OCO funding to reach and maintain end-strength figures that met the demands of those ongoing campaigns. Army end strength reached a peak in 2010 of approximately 566,000 soldiers.¹⁰³ Marine Corps end strength had peaked at 202,800 in 2009. Thereafter, both services entered a period of steady annual declines in end strength that continued into FY15. In the four years following the release of the 2010 QDR report, the rationale for these "temporary" increases to end strength changed as the Department began to look beyond these two manpower-intensive wars. Strategic and fiscal considerations influenced DoD to start the transition. Illustrative of this gradual refocus to a broader range of missions for the ground components of the armed forces was the inclusion of "traditional" maneuver training for many BCTs during home station predeployment training.¹⁰⁴ Reductions to reserve-component end strength during this period continued as demand decreased in Afghanistan and Iraq and as the services fully implemented guidance from the Secretary of Defense to increase the time between mobilizations.

and Inclusion of the Reserve Components in Key Department of Defense (DoD) Processes," information memorandum, Falls Church, Va., January 14, 2013.

¹⁰² Rajiv Chandrasekaran, "The Afghan Surge Is Over: So Did It Work?," *Foreign Policy*, September 25, 2012. See also White House, "Remarks by the President in Address to the Nation on the Way Forward in Afghanistan and Pakistan," Washington, D.C., December 1, 2009.

¹⁰³ With the withdrawal from Iraq complete and the drawdown in Afghanistan under way, the Army and Marine Corps reoriented collective training on major combat operations. The Army was in the process of a 13-percent reduction in active-duty end strength, while filling an additional 11 maneuver battalions as part of the initiative to add combat power to existing BCTs. In FY14, the Army added a third combined arms or infantry battalion to each BCT. The total number of BCTs decreased between 2010 and 2014, from 45 to 38, but the overall number of maneuver battalions increased in that same period, from 141 to 152. With this initiative, the Army completed modularization of all active-component BCTs. Likewise, Army National Guard BCTs completed modularization in FY14, but they had not yet received their third maneuver battalions. For information on the change to Army BCT structure, see Arthur Bartell, "Army 2020 Update," slide presentation, Army Concepts Integration Center, U.S. Army Training and Doctrine Command, undated. The authors of this report gathered the number of maneuver battalions from annual DoD budget data. Discussion of training orientation is based on the personal experiences of the authors.

¹⁰⁴ For example, in 2010–2011, the Train/Ready phase of Army Force Generation for the 2nd Heavy BCT, 4th Infantry Division included collective training from the squad to battalion levels on major combat operations-oriented maneuvers, even after that BCT had received deployment orders for Operation Enduring Freedom. Upon completion of collective major combat operations training, this BCT underwent several months of collective counterinsurgency-focused training in preparation for deployment to Afghanistan.

With the conclusion of Operation Iraqi Freedom and the start of the gradual withdrawal of American troops from Iraq, the Army shifted combat power to Afghanistan. Modularization continued, but improving stability in Iraq reduced demand for deployable BCTs. The Army stopped BCT growth at 45 instead of 48 teams and, with the additional 10,200 soldiers programmed for the final three BCTs, found an opportunity to address another growing problem – nondeployable manpower. A consequence of protracted combat in Afghanistan and Iraq was, by 2010, an increase in the quantity of nondeployable soldiers in both the active and reserve components of the Army.¹⁰⁵ Additionally, as casualties mounted during the surges in Afghanistan and Iraq, the ranks of the Army's Warrior Transition Units swelled. Demand for manpower in Afghanistan, nonetheless, continued. The Army sought to retain approximately 10,000 soldiers from the temporary end-strength increase to help fill deploying units at 105–107 percent of authorized strength. Such increases would help units deploy at a minimum of 95-percent combat power once these units left their nondeployable soldiers at their home stations. Of the 22,000 additional authorizations, more than 18,000 each in FY10 and FY11 would be paid for by OCO funding. The Army leveraged increases to base defense budgets and OCO authorizations to accelerate its Grow the Army initiative, reaching its target end strength by the end of FY09, three years sooner than it had projected when it launched the initiative in 2007.

OCO continued to pay for increased end strength through FY14 as the Army sought to field an active force that could meet the demands of the drawdown in Afghanistan. As announced in the FY13 President's budget, the Army would be required to draw down to an end strength of 490,000 by FY17, a reduction of 72,000.¹⁰⁶ The FY13 base budget authorized active Army end strength of 502,400, or 45,000 soldiers fewer than authorized in the previous year's base budget. To avoid such a precipitous decline in end strength, the Army requested and received authorization in the FY13 and FY14 Emergency Supplemental budgets for 39,000 and 20,400 authorizations, respectively. These additional authorizations allowed the Army to decrease active-component end strength more gradually, decreasing the strain on the force as it turned the lead of combat operations in Afghanistan to the Afghan National Security Forces.

In late June 2013, the Army announced force-structure and stationing decisions associated with a reduction of 80,000 active Army personnel, which would lead to an active Army end strength of 490,000 in FY17.¹⁰⁷

¹⁰⁵ HQDA, *Army Unit Status Reporting and Force Registration – Consolidated Policies*, Washington, D.C., Army Regulation 220-1, April 15, 2010d, pp. 41–45. This regulation outlines standards by which commanders designate their soldiers as “available” or “nondeployable.”

¹⁰⁶ Andrew Feickert, *Army Drawdown and Restructuring: Background and Issues for Congress*, Washington, D.C.: Congressional Research Service, R42493, February 28, 2014, p. 17.

¹⁰⁷ DoD, “Army Announces Force Structure and Stationing Decisions,” Washington, D.C., Release No. 461-13, June 25, 2013a.

The protracted nature of combat operations in Afghanistan and Iraq placed heavy demand on Army manpower through this QDR period and stood in contrast to the end-strength forecasts of the 2006 QDR. End strength in both the active and reserve components of the Army and Marine Corps declined only after U.S. operations in Iraq concluded in December 2011 and DoD initiated a drawdown of troop levels in Afghanistan. Perhaps more relevant to the story of end strength, however, was the fiscal environment within which DoD would attempt to implement its QDR vision. Furthermore, geostrategic changes – notably, the continued rise of Chinese military power – stimulated a “rebalance” to the Pacific and the corresponding emergence of operational concepts oriented on maritime and air power (e.g., Air-Sea Battle), rather than manpower-intensive land campaigns. In that context, the Navy recovered from its post-World War II end-strength low of 318,000 and stabilized at approximately 323,000 sailors.

Table 4.2 summarizes the changes in end strength over FYs 10–14.

Table 4.2
End Strength, FYs 2010–2014

Service	FY10	FY11	FY12	FY13	FY14
Army					
Active	566.0	565.5	550.0	532.0	510.4
National Guard	362.0	361.6	358.1	357.7	354.2
Reserve	205.3	204.8	201.2	198.2	202.0
Navy					
Active	328.3	325.1	318.4	324.0	323.9
Reserve	65.0	64.8	64.7	62.4	59.1
Marine Corps					
Active	202.4	201.2	198.2	195.7	188.8
Reserve	39.2	39.8	39.5	39.6	39.6
Air Force					
Active	334.2	333.3	333.0	330.7	322.1
National Guard	107.7	105.7	105.4	105.7	105.4
Reserve	70.1	71.3	71.4	70.9	70.4
Total active	1,430.9	1,425.1	1,399.6	1,382.4	1,345.2
Total reserve	849.3	848.0	840.3	834.5	830.7
Total active + reserve	2,280.2	2,273.1	2,239.9	2,216.9	2,175.9

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service.

Modernization and Transformation

Table 4.3 summarizes the 2010 QDR report's guidance on modernization and transformation, as well as the Army's responses to that guidance.

Army Planning Response to the QDR

The Army Posture Statement and Army Modernization Strategy remained indicators of how the Army was responding to the guidance in the 2010 QDR report. The Army Posture Statement was released nearly simultaneously with the QDR report, and it reflected a significant degree of coordination with OSD. The main thrusts of these documents were consistent with earlier versions, stressing rotary wing aircraft modernization and continued commitment to new capabilities in terms of Army fighting vehicles, CBRNE equipment, and the other items noted in Table 4.3.

Execution of the Army's Plans

Table 4.4 summarizes the Army's procurement and RDT&E investments in the post-2010 QDR period.

Army budgets in subsequent years were thematically consistent with their predecessors. Procurement continued investments in rotary wing aircraft, UAVs, M1 Abrams upgrades, Stryker vehicle procurements and survivability enhancements, WIN-T, and the FMTVs.

FY 2011 Army Budget

The FY11 budget reflected investments consistent with published Army priorities: procurement actions emphasizing UAVs, the rotary wing aircraft fleet, the FMTVs, WIN-T, and continuing modifications to the M1 Abrams tank. Missile and ammunition procurement contributed both to current operations and to resetting the force. RDT&E programs included modernization of BCTs, Patriot/MEADS development, WIN-T development, and additional programs in intelligence, air defense, and combat vehicles.¹⁰⁸

The fiscal year witnessed no new program starts. The Stryker program reached completion during the year. Three programs were canceled: the Army funding for the JTRS Ground Mobile Radio program, the NLOS-LS system, and the Surface-Launched Advanced Medium-Range Air-to-Air Missile program.¹⁰⁹

¹⁰⁸ HQDA, *Army FY 2011 Budget Overview*, Washington, D.C., February 2010c, p. 12.

¹⁰⁹ OUSD (Acquisition, Technology, and Logistics), *Selected Acquisition Reports*, various years.

Table 4.3
Army Execution of Modernization and Transformation Themes in the 2010 QDR Report

2010 QDR Report Themes		Army Execution	
		2010 Army Posture Statement	2010 Army Modernization Strategy
Modernization and transformation	<ul style="list-style-type: none"> • “Guide the evolution of the force” • Produce U.S. ground forces capable of full-spectrum operations • Develop capabilities for sustained counterinsurgency, stability and counterterrorism operations • Continue to increase special operations force capacity through growth of enablers and support from general-purpose forces • Field more and better enabling systems, including ISR, electronic attack, communications, networks, base infrastructure, and improved cyber defenses 	<ul style="list-style-type: none"> • Set a total Army end strength of 1.1 million • End 15-month tours • Complete fielding nearly 12,000 MRAPs and 800 MRAP all-terrain vehicles • Establish Army Training Network • Procure or upgrade UH-60, CH-47, and AH-64 fleets 	<ul style="list-style-type: none"> • Develop and field new capabilities, including Army fighting vehicles, CBRNE equipment, beyond line-of-sight networks, tactical radios, mounted battle command applications, M1 and M2 tanks, tactical wheeled vehicles, soldier equipment, and fires, air and missile defense, and field artillery • Modernize ISR through Distributed Common Ground System-Army, aerial ISR, aviation, sustainment, and watercraft • Implement the capability package development process
Focus	<ul style="list-style-type: none"> • Determine force size and shape • Build multiple scenario cases for the near and long terms • Address surge and steady-state demand, including long-term irregular warfare 	<ul style="list-style-type: none"> • Restore balance • Shift weight from Iraq to Afghanistan • Refine the Army for the future • Execute BRAC • Continue modernization • Reposition units to meet diverse threats 	<ul style="list-style-type: none"> • Rebalance capabilities to prevail in today’s wars while building capabilities needed for future threats
Context	<ul style="list-style-type: none"> • Support for OCO, defense budget cuts 	<ul style="list-style-type: none"> • Support for OCO, defense budget cuts 	<ul style="list-style-type: none"> • Reform institutions and processes to support urgent needs of the warfighter • Buy weapons that are useable, affordable, and truly needed

SOURCE: DoD, 2010a; HQDA, *2010 Army Posture Statement: America’s Army: The Strength of the Nation*, Washington, D.C., February 2010b; HQDA, *2010 Army Modernization Strategy*, Washington, D.C., 2010a.

Table 4.4
Army Procurement and RDT&E Planned Investments, Post–2010 QDR Era

Modernization	FY11	FY12	FY13	FY14
Aircraft	<ul style="list-style-type: none"> Fleet modernization for UH-60 Black Hawk, CH-47 Chinook, and AH-64 Apache helicopters MQ-1 Sky Warrior UAV RQ-7 Shadow UAV modifications 	<ul style="list-style-type: none"> Longbow Apache Block IIIB helicopters Additional UH-60 Black Hawk helicopters, MQ-1 Gray Eagle UAVs, and UH-72 Lakota helicopters Additional Enhanced Medium Altitude Reconnaissance and Surveillance Systems Modified CH-47 Chinook helicopters from D to F AH-64 Apache and OH-58 Kiowa Warrior helicopters 	<ul style="list-style-type: none"> Additional UH-60 Black Hawk helicopters, MQ-1 Gray Eagle UAVs, and UH-72 Lakota helicopters Additional Enhanced Medium Altitude Reconnaissance and Surveillance Systems Modified CH-47 Chinook from D to F AH-64 Apache and OH-58 Kiowa Warrior helicopters 	<ul style="list-style-type: none"> OH-58 Kiowa Warrior transition from D to F model Additional CH-47 Chinook, UH-60 Black Hawk, AH-64 Apache, and UH-72 Lakota helicopters Additional MQ-1 Gray Eagle UAVs
Wheeled and tracked combat vehicles	<ul style="list-style-type: none"> BCT modernization, including integrating ground combat vehicles and MRAPs into units and standardizing the M1 Abrams and M2 Bradley tank variants 	<ul style="list-style-type: none"> Stryker nuclear, biological, chemical reconnaissance vehicle Abrams vehicle upgrades and modifications Assault Breacher vehicles Bradley tank Situational Awareness kits 	<ul style="list-style-type: none"> Stryker nuclear, biological, chemical reconnaissance vehicle Paladin Integrated Management vehicle M1 Abrams and M2 Bradley tank modifications M88A2 Hercules recovery vehicle Common Remotely Operated Weapon Station Assault Breacher vehicle 	<ul style="list-style-type: none"> Stryker nuclear, biological, chemical reconnaissance vehicle Paladin Integrated Management vehicle M1 Abrams and M2 Bradley tank modifications M88A2 Hercules recovery vehicle Common Remotely Operated Weapon Station Assault Breacher vehicle XM-25 Counter Defilade Target Engagement System
Missiles	<ul style="list-style-type: none"> PAC-3 missiles/MEADS Guided Multiple Launch Rocket System Javelin anti-tank guided missile High Mobility Artillery Rocket System Surface-Launched Advanced Medium-Range Air-to-Air Missile program NLOS-LS 	<ul style="list-style-type: none"> PAC-3 missiles Guided Multiple Launch Rocket System Javelin anti-tank guided missile TOW2 missile system Patriot modifications 	<ul style="list-style-type: none"> PAC-3 missiles Guided Multiple Launch Rocket System Javelin anti-tank guided missile TOW2 missile system Patriot modifications 	<ul style="list-style-type: none"> PAC-3 missiles Guided Multiple Launch Rocket System Javelin anti-tank guided missile TOW2 missile system Patriot modifications Patriot Missile Segment Enhancement Stinger Block 1 upgrade

Table 4.4—Continued

Modernization	FY11	FY12	FY13	FY14
Ammunition	<ul style="list-style-type: none"> • Full funding for training ammunition 	<ul style="list-style-type: none"> • Full funding for training ammunition 	<ul style="list-style-type: none"> • War reserve and training ammunition 	<ul style="list-style-type: none"> • War reserve and training ammunition
Other procurement	<ul style="list-style-type: none"> • WIN-T • JTRS • Network Centric Warfare Modems • FMTV/FHTV 	<ul style="list-style-type: none"> • M2 .50-caliber machine gun • M119 howitzer digital fire control modifications • FMTV/FHTV • HMMWV recapitalization • WIN-T • JTRS • Tactical surveillance equipment • Support equipment 	<ul style="list-style-type: none"> • XM806 lightweight .50-caliber machine gun • WIN-T • JTRS • Distributed Common Ground System-Army • Nett Warrior System • Joint Battle Command Platform • FMTV/FHTV modifications • MRAP modifications • Support equipment 	<ul style="list-style-type: none"> • WIN-T • JTRS • Distributed Common Ground System-Army • Nett Warrior System • Joint Battle Command Platform • FMTV/FHTV modifications • MRAP modifications • Support equipment

SOURCE: OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

FY 2012 Army Budget

The Army budget for FY12 identified the following five priorities:

- Care for soldiers, families and civilians.
- Sustain the quality of the all-volunteer force.
- Train and equip soldiers and units to maintain a high level of readiness for current and future operations.
- Reset our soldiers, units, equipment, and families to a readiness level for future deployment and other contingencies.
- Modernize the force to provide combatant commanders with tailored, strategically responsive forces.¹¹⁰

Aircraft procurement included 71 new UH-60M Black Hawk helicopters, 32 new and 15 remanufactured CH-47 Chinook helicopters, modernization of 19 AH-64 Apache helicopters to Block III standards, 36 MQ-1 Gray Eagle UAVs, 18 aircraft for the Enhanced Medium Altitude Reconnaissance and Surveillance System, and 39 UH-72 Lakota light utility helicopters.¹¹¹

Procurement of weapons and tracked combat vehicles included 100 Stryker nuclear, biological, chemical reconnaissance vehicles and some survivability enhancements. Twenty-one Abrams M1 tanks were upgraded, and 108 sets of the Operation Desert Storm Bradley Situational Awareness kit were purchased. The Army also bought 19 Assault Breacher vehicles and 4,700 .50-caliber M2 machine guns. In addition, the Army modified the M119 howitzer digital fire control system.¹¹²

Missile procurement included 88 PAC-3 missiles, 710 Javelin anti-tank guided missiles, 2,784 Guided Multiple Launch Rocket System missiles, 802 TOW2 missiles, and some modifications to Patriot.

Other procurement included FMTV, FHTV, and HMMWV recapitalization programs. The Army continued acquiring support equipment, including tactical bridging, training devices, ground soldier systems, and support to the Combat Training Centers. WIN-T and JTRS investments continued. The Army also bought night vision thermal weapon sights and the Long-Range Advanced Scout Surveillance System.¹¹³

The fiscal year included a new program start, the Longbow Apache Block IIIB. The UH-72A Lakota light utility helicopter program reached completion. There were no program cancellations during the fiscal year.¹¹⁴

¹¹⁰ HQDA, *Army FY 2012 Budget Overview*, Washington, D.C., February 2011a.

¹¹¹ HQDA, 2011a, p. 8.

¹¹² HQDA, 2011a, p. 10.

¹¹³ HQDA, 2011a, p. 11.

¹¹⁴ OUSD (Acquisition, Technology, and Logistics), *Selected Acquisition Reports*, various years.

Procurement continued to be consistent with previous budgets. The Army continued its investments in the MQ-1 Gray Eagle UAV and the following helicopters: CH-47 Chinook, UH-60M Black Hawk, AH-64 Apache, UH-72 Lakota, and OH-58 Kiowa Warrior. Weapon and tracked combat vehicle procurement focused on Stryker vehicle variants, Abrams M1 tank modifications, and Bradley tank modifications. Other equipment included ten Assault Breacher vehicles and 610 .50-caliber M2 machine guns. Other procurement emphasized the network, including WIN-T and JTRS. FMTV, FHTV, and MRAP modification kits composed the central effort in tactical wheeled vehicle modernization. Ammunition and missile purchases continued to concentrate on PAC-3 missiles, Guided Multiple Launch Rocket System rockets, the TOW2 system, and Javelin anti-tank guided missiles.¹¹⁵

FY 2013 Army Budget

The Army's budget presentation emphasized the following six priorities, all supporting the Army's role in the defense strategy:

- Train and equip soldiers and units to win the current fight and maintain a high level of readiness.
- Recruit and sustain the high-quality all-volunteer Army.
- Support modernization priorities—the network, combat and tactical vehicles, aviation, and soldier systems.
- Fund ongoing military operations, sustainment, and force protection in support of Operation Enduring Freedom.
- Reset soldiers, units, equipment, and families.
- Invest in enterprise initiatives, including energy efficiency, audit readiness, and reduced cost of doing business.¹¹⁶

The Army modernization priorities for the year were the network, combat and tactical vehicles, aviation, and soldier systems. Specific programs highlighted in the budget included the CH-47 Chinook helicopter upgrade to F Model and modifications; UH-60 Black Hawk helicopter upgrade to M Model; AH-64 Apache Block III helicopter upgrade and modifications; MRAP modifications; seven BCTs equipped with WIN-T); two companies equipped with the MQ-1 Gray Eagle UAV; procurement of Patriot PAC-3 launchers, missiles, and modifications; and procurement of additional Stryker vehicles. Meanwhile, Army RDT&E efforts emphasized air and missile defense, vehicle development, the network, aviation, intelligence, and combat vehicle modernization.¹¹⁷

¹¹⁵ HQDA, *Army FY 2013 Budget Overview*, Washington, D.C., February 2012a, pp. 10–13.

¹¹⁶ HQDA, 2012a, p. 2.

¹¹⁷ HQDA, 2012a, pp. 9, 14.

FY 2014 Army Budget

The Army organized its FY14 budget presentation around four broad themes: taking care of people, maintaining readiness, resetting and modernizing, and transforming the “institutional Army.”¹¹⁸ The first theme, taking care of people, echoed earlier budget commitments to sustain the all-volunteer force. The resetting and modernizing theme emphasized modernization priorities to “enhance the Soldier for broad Joint mission support; enable mission command; and remain prepared for decisive action.”¹¹⁹ The Army’s “modernization overview”¹²⁰ emphasized maintenance of technological advantage in any operational environment. Specifically, it described the network as a “critical enabler” and highlighted other efforts – specifically, combat vehicle modernization, JLTV, and fire support modernization – as contributing to modernization, survivability, lethality, mobility, and soldier equipping.

Aircraft procurement included upgrades and conversion of OH-58 Kiowa Warrior from the D to F model, six new and 22 remanufactured CH-47F Chinook helicopters, 65 new UH-60M (utility) and 24 HH-60M (medical) Black Hawk helicopters, 42 remanufactured AH-64 Block III Apache helicopters, 15 MQ-1 Gray Eagle UAVs, and 10 UH-72A Lakota helicopters.¹²¹

New missile programs included 56 Patriot Missile Segment Enhancement missiles and a Block I upgrade for Stinger. Ongoing missile procurements included 1,788 Guided Multiple Launch Rocket System rockets, 449 Javelin anti-tank guided missiles, 988 TOW2 missiles, and continuing support to the Patriot modernization effort.¹²²

Wheeled and tracked combat vehicle programs included the double V-hull Stryker vehicle exchange and retrofit, low-rate initial production of the Paladin Integrated Management modification (18 howitzers and support vehicles), continuing Abrams M1 upgrades, Bradley tank modifications, and procurement of 32 M88A2 Hercules recovery vehicles. The Army also procured 41,897 M4A1 and individual carbines, 1,424 XM25 Integrated Air Burst Weapon System weapons (low-rate initial production), 14 Assault Breacher vehicles, and 242 Common Remotely Operated Weapon Stations.¹²³

Other procurement included WIN-T assets sufficient to equip four BCTs and two divisions, 10,523 JTRS radios, continuing procurement of Nett Warrior Systems, 498 Joint Battle Command Platforms, and 2,717 Distributed Common Ground

¹¹⁸ HQDA, *Army FY 2014 Budget Overview*, Washington, D.C., April 2013, p. 5.

¹¹⁹ HQDA, 2013, p. 5.

¹²⁰ HQDA, 2013, p. 11.

¹²¹ HQDA, 2013, p. 13.

¹²² HQDA, 2013, p. 14.

¹²³ HQDA, 2013, p. 15.

Systems-Army. The Army also procured 837 FMTVs, 746 tactical wheeled vehicle protection kits, and MRAP modifications.¹²⁴

RDT&E investments included the network, combat vehicle development, vehicle development, science and technology, aviation, and air and missile defense.¹²⁵

Resources

Economic and Budgetary Outlook

At the time of the 2010 QDR, the financial crisis of 2008–2009 had pushed the United States into a “Great Recession,” cutting GDP growth and revenues and increasing unemployment.¹²⁶ CBO’s projection at the time was for a weak recovery: GDP was forecast to increase by only 2.1 percent in 2010 and 2.4 percent in 2011. GDP was projected to be 6.5 percent below capacity, and unemployment was expected to approach 10 percent.

Federal spending on economic recovery after the financial crisis and wars in Afghanistan and Iraq, among other claimants, contributed further to total cumulative federal deficits from 2002 through 2011 that amounted to \$6.1 trillion, in stark contrast to the \$5.6 trillion surplus that CBO had forecast in early 2001.¹²⁷ Projected deficits also continued to soar: The FY10 budget deficit was forecast at \$1.3 trillion, and the cumulative deficit over FYs 11–20 was expected to be \$6.0 trillion.¹²⁸

A series of measures – notably including the Budget Control Act of 2011 (BCA),¹²⁹ the American Taxpayer Relief Act of 2012 (Pub. L. 112-240), and the Bipartisan Budget Act of 2013 (Pub. L. 113-67) – aimed to impose discipline on federal spending by establishing (or amending) caps on discretionary budget authority governing 2012–2021 federal spending, as well as rules for imposing sequestration. In FY13, with the failure of a bipartisan commission to hammer out a long-term plan to deal with soaring deficits, sequestration was automatically imposed, with a \$32 billion reduction in DoD’s base budget for the fiscal year.¹³⁰ According to our structured conversations,

¹²⁴ HQDA, 2013, p. 16.

¹²⁵ HQDA, 2013, p. 17.

¹²⁶ One 2011 estimate of the impact of the Great Recession was that it would result in a cumulative economic loss of about \$5.9 trillion, with \$2.2 trillion of this loss to come in the next five years (Gavyn Davies, “Great Recession May Cost US Economy \$5,900 Billions,” *Financial Times*, October 23, 2011).

¹²⁷ CBO, *Changes in CBO’s Baseline Projections Since January 2001*, Washington, D.C., June 7, 2012.

¹²⁸ CBO, *The Budget and Economic Outlook: Fiscal Years 2010 to 2020*, Washington, D.C., January 2010.

¹²⁹ Public Law 112-25, Budget Control Act of 2011, August 2, 2011.

¹³⁰ CBO, *Sequestration Update Report: August 2013*, Washington, D.C., August 2013a; and CBO, *Final Sequestration Report for Fiscal Year 2014*, Washington, D.C., January 2014a.

there was not much discussion in the 2010 QDR report about what the longer-term fiscal environment might look like.¹³¹

Planning and Implementation

As the first QDR of the Obama administration, the 2010 review called for prevailing in the current conflicts while introducing significant changes, described as a “rebalancing” of defense priorities. The administration released the 2010 QDR report with the FY11 budget request, which began the implementation phase of the QDR.¹³² The 2010 QDR report placed a high priority on prevailing in Afghanistan and Iraq: “This is truly a wartime QDR,” it began, “For the first time, it places the current conflicts at the top of our budgeting, policy, and program priorities.”¹³³ Priority investments for near-term requirements reflected tactical and operational requirements, including the need for rotary-wing aircraft, ISR, unmanned systems, counter-IED capabilities, and special operations forces. The FY11 budget request noted, however, that the Department could not limit itself to prioritization of the current fight at the expense of a longer-term vision: The 2010 QDR report and FY11 budget request “reflect the need to do all we can to enable success in today’s wars while preparing for a complex and uncertain future. For too long we have asked our men and women in uniform to rapidly adapt to complexity without requiring that the broader Department do the same.”¹³⁴

Not incidentally, in 2010, the Department also curtailed or canceled nearly 20 troubled or excess programs that would have cost more than \$300 billion to complete, and instead reinvested these resources.¹³⁵

Although it was not yet clear at the time, the year the QDR was released also marked the apex of defense spending. The administration’s second QDR, in 2014, would make the implications of fiscal constraint much more central to the challenges of defense planning. One notable reason for the sharp decline was a new national focus on deficit reduction, which shaped much of the national conversation about spending priorities in the summer of 2010. In August 2010, CJCS Mullen asserted, “the most significant threat we have to our national security is our debt.”¹³⁶ Through the spring, ongoing fights over deficits culminated in a bitter battle over raising the national debt ceiling. In July 2011, Congress passed the BCA, which included provisions for deficit

¹³¹ One of our interlocutors described the view that DoD was in a “resource-happy world,” and as a practical matter, DoD was at or near the peak in total defense funding in that decade. According to our structured conversations, not everything got funded in 2010, but budget constraints did not cause structural changes.

¹³² OUSD (Comptroller), *U.S. Department of Defense Fiscal Year 2011 Budget Request: Overview*, Washington, D.C., February 2010, Chapter 2.

¹³³ DoD, 2010a, p. i.

¹³⁴ OUSD (Comptroller), 2010.

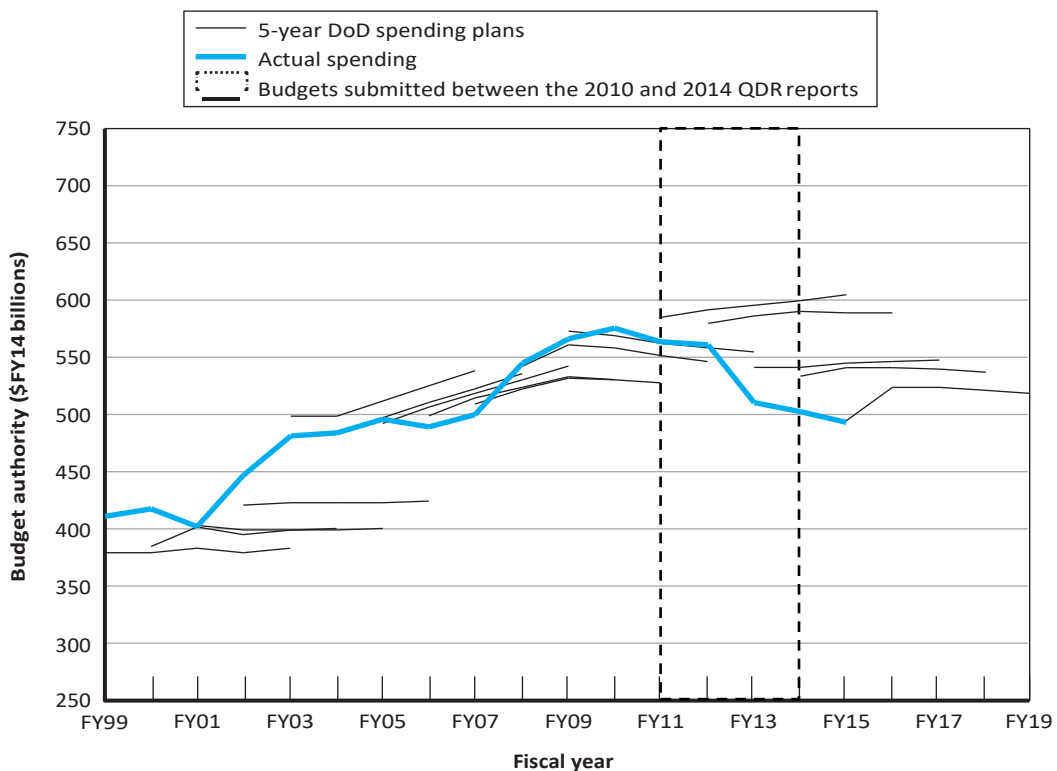
¹³⁵ DoD, *Summary of Performance and Financial Information*, Washington, D.C., February 15, 2011a, p. 2.

¹³⁶ CNN Wire Staff, “Mullen: Debt Is Top National Security Threat,” CNN, August 27, 2010.

reduction as part of an overall agreement to raise the ceiling. For defense, the BCA imposed caps on non-war-related spending for FYs 12–21 that, upon the failure of a “super committee” to arrive at an alternative outcome, triggered budget “sequestration” (automatic, across-the-board cuts), although war-related supplemental appropriations would be exempt.

Figure 4.2 shows the base budget topline relative to the five-year projection for each year, and the dashed box highlights the years implementing the 2010 QDR; the sharp decline in FY13 actual spending reflects the imposition of sequestration.

Figure 4.2
DoD Base Budget Five-Year Forecasts and Actuals, Post–2010 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure reports long-term DoD-051 budget authority plans; it does not include Department of Energy, GWOT/OCO, or other national defense budget function (050) accounts.

RAND RR1309-4.2

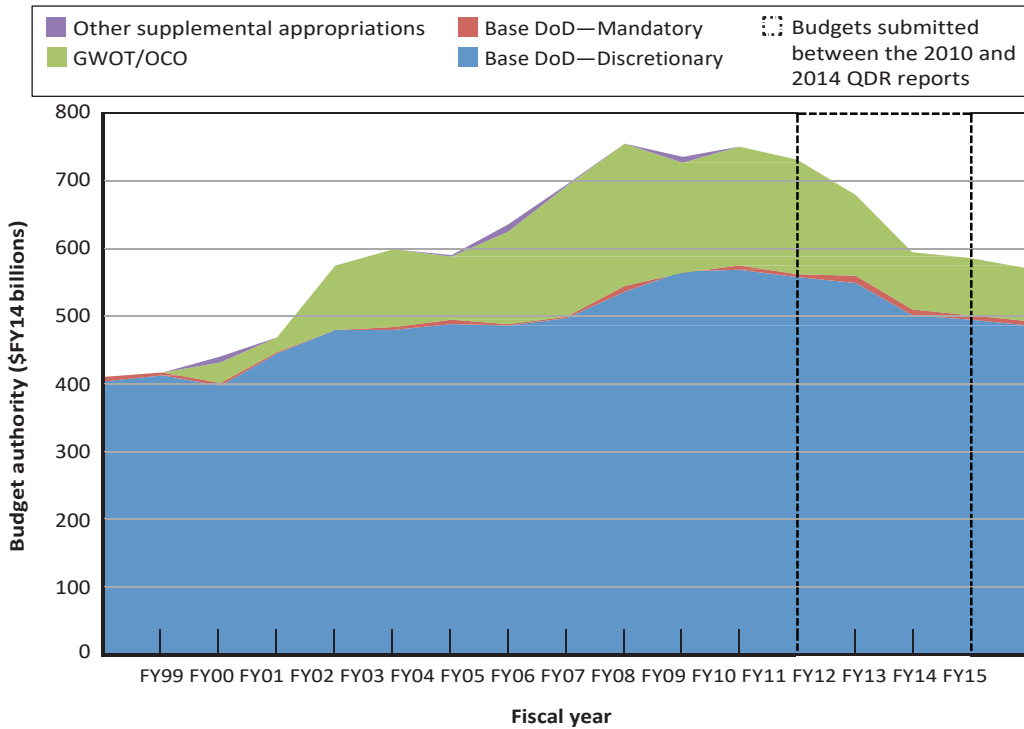
DoD Budgets, FYs 2011–2014

The President's budget request for DoD in FY11 highlighted the following initiatives:

- Provides \$548.9 billion for the Department of Defense base budget in 2011, a 3.4 percent increase over the 2010 enacted level.
- Includes \$33.0 billion for a 2010 supplemental request and \$159.3 billion for 2011 to support ongoing overseas contingency operations, including funds to execute the President's new strategy in Afghanistan and Pakistan.
- Maintains ready forces and continues efforts to rebalance military forces to focus more on today's wars, and provides capabilities to deter or if necessary engage in future conflicts.
- Continues strong support for our men and women in uniform through a robust benefits package including pay increases that keep pace with the private sector.
- Supports access to medical care to the more than 9.5 million beneficiaries: active military members and their families, military retirees and their families, dependent survivors, and eligible Reserve Component members and families.
- Supports wounded warrior transition units and centers of excellence in vision, hearing, traumatic brain injury, and other areas to continuously improve the care provided to wounded, ill, and injured service members.
- Continues to reform defense acquisition, reducing its use of high-risk contracts related to time-and-materials and labor-hours by 17 percent through the end of 2011, while modernizing key weapons systems to provide our troops with the best technology to meet battlefield needs, and eliminating or reconfiguring lower-priority acquisitions.
- Prioritizes resources by ending or reducing several programs, including the C-17 aircraft, the Joint Strike Fighter Alternate Engine program, the Third Generation Infrared Surveillance program, and the Net-Enabled Command Capability program.
- Supports a reconfigured ballistic missile defense strategy, in line with the President's policy, to better address current threats.¹³⁷

In this period, actual spending levels in the base budget declined steadily (down 11 percent between FY11 and FY14), despite planned levels that called for flat or even slight growth in long-term resourcing. Even though the war-related budget was exempt from sequestration, these budget levels declined as well in the years between the 2010 and 2014 QDRs, because of the drawdown in Afghanistan and Iraq and administration policies to narrow activities that could be resourced out of supplemental appropriations (see Figure 4.3).

¹³⁷ OMB, *Budget of the United States Government, Fiscal Year 2011*, Washington, D.C., February 2010, p. 55.

Figure 4.3**DoD Base Budget Plus War Funding and Supplementals, Post-2010 QDR Era**

SOURCE: RAND analysis of OUSD (Comptroller), 2013.

NOTE: This figure covers GWOT funding through FY09, both GWOT and OCO funding in FY09, and OCO funding thereafter.

RAND RR1309-4.3

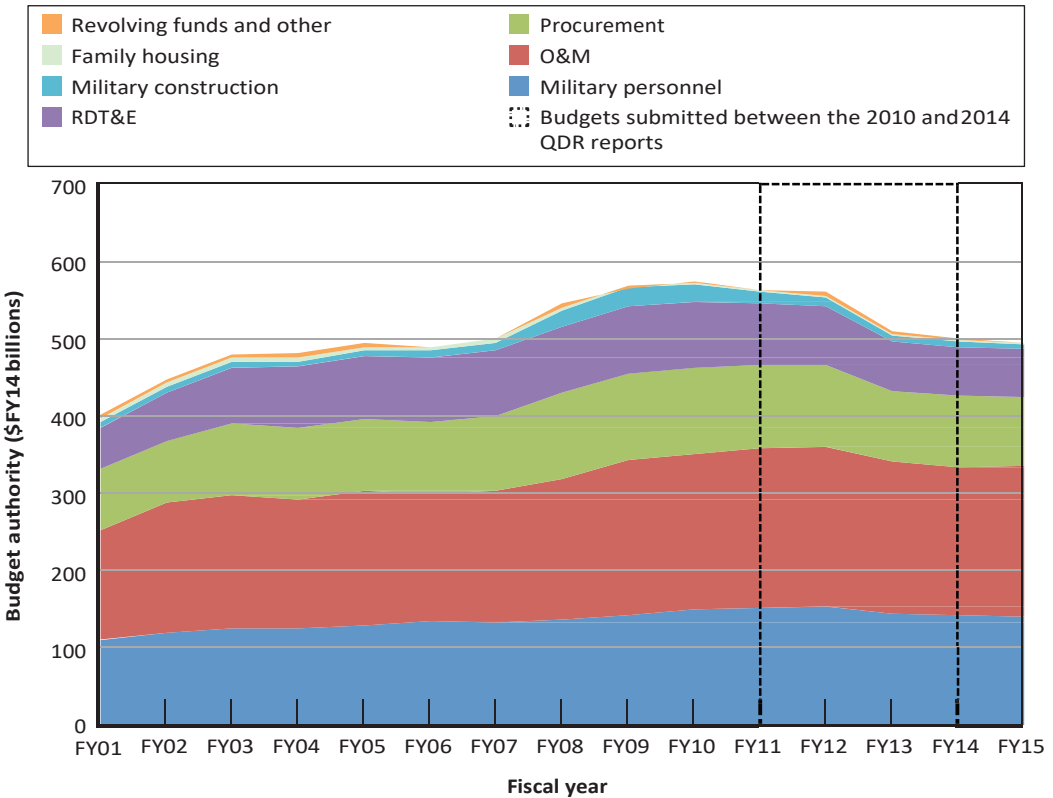
The overall war-related budget declined almost 50 percent between FY11 and FY14, with these reductions due in part to the end of the U.S. war in Iraq at the end of 2011, but also to a decline in the scale of the military engagement in Afghanistan in preparation for a withdrawal of combat troops by the end of 2014. However, the reduction also reflected explicit policy decisions to constrain the use of supplemental funding mechanisms by the Obama administration. The administration developed, and OMB issued, criteria indicating what kinds of activities could be resourced out of war supplemental appropriations and what could not for FY10. For example, the new guidance indicated that supplemental requests needed to be related to “geographic areas in which combat or direct combat support operations occur,” and while it allowed procurement to replace combat losses or “specialized, theatre specific equipment,” it did not allow accelerating replacements for equipment in the base budget.¹³⁸

¹³⁸ Martin, 2011, p. 7.

Figure 4.4 shows the base budget, broken down into appropriation titles, with the dashed box indicating the years associated with implementing the directions documented in the 2010 QDR report. As indicated above, this period marked a decline in the overall base budget; across major appropriation titles, the steepest reductions were in investment accounts (procurement down 15 percent) and RDT&E (down 21 percent).¹³⁹ The operations and support titles also declined, but not as steeply: Military personnel spending fell 6 percent over the period, and O&M fell 7 percent.

Figure 4.5 shows the topline broken out into service shares. The Army and defense-wide budgets fell the most steeply (16 percent and 17 percent, respectively), while the Navy budget remained relatively flat, with a decline of only 2 percent.

Figure 4.4
DoD Base Budget, by Appropriation Title, Post–2010 QDR Era

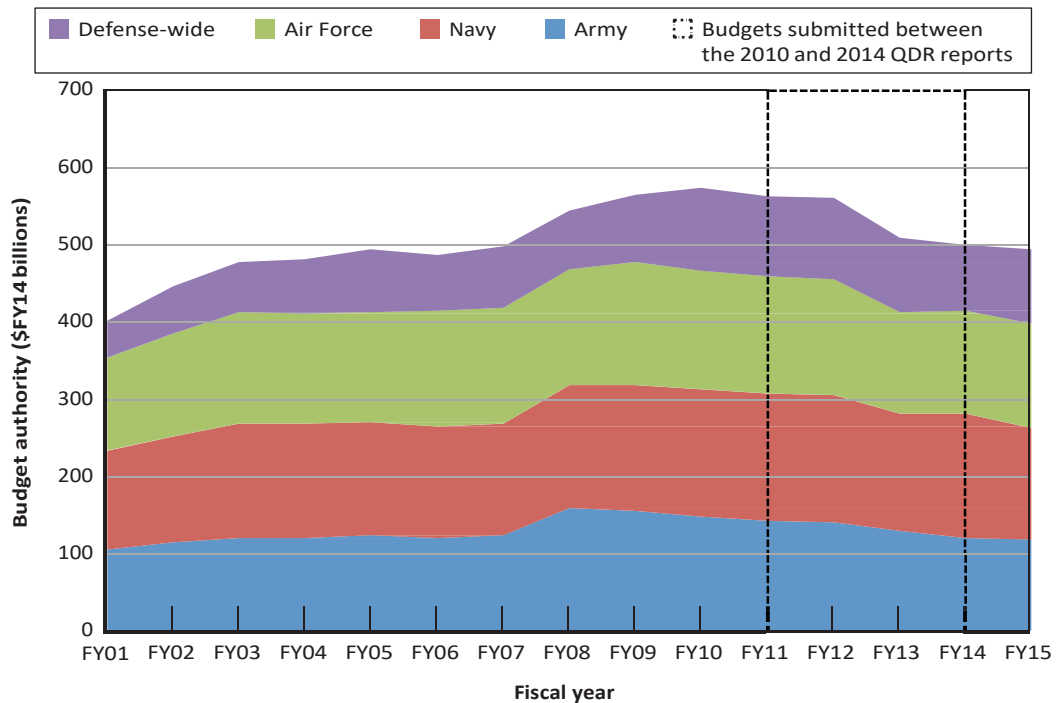


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.4

¹³⁹ Historically, procurement is the most volatile of appropriation titles. In unpublished research from 2008, RAND analyst Kevin Lewis described procurement title history as “one of true booms and busts”: Procurement is the first part of the budget to rise during periods of budget growth and the first part of the budget to fall during periods of budget decline.

Figure 4.5
DoD Base Budget, by Service, Post-2010 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.5

Sequestration in 2013

The BCA was signed into law in August 2011, and later that fall, the Joint Select Committee on Deficit Reduction appointed by Congress (the so-called super committee that was supposed to hammer out a bipartisan agreement on spending and revenues) failed to come to an agreement. Accordingly, in March 2013, the sequestration provisions of the BCA were triggered,¹⁴⁰ resulting in a \$32 billion reduction in DoD's base budget funding for FY13 and throwing the defense program into disarray, as the services cut categories of spending that were the easiest to cut.¹⁴¹ A two-year budget deal by House Budget Committee Chairman Paul Ryan and Senate Budget Committee Chairman Patty Murray – the Bipartisan Budget Act of 2013 – provided temporary relief from sequestration.

¹⁴⁰ The American Taxpayer Relief Act of 2012 postponed sequestration from January to March 2013 (Public Law 112-240, American Taxpayer Relief Act of 2012, January 2, 2013).

¹⁴¹ See U.S. Senate, *The Impacts of Sequestration and/or a Full-Year Continuing Resolution on the Department of Defense: Hearing Before the Committee on Armed Services*, Washington, D.C., February 12, 2013.

For the Army, sequestration in 2013 resulted in restricting training to those units that were to be deployed, deferring maintenance on weapons and equipment, and accelerating reductions of personnel in maintenance-related jobs, from which the Army is still recovering.¹⁴² General Odierno, Chief of Staff of the Army, testified that further sequestration would require the Army to make cuts to force structure and end strength: “Such reductions will not allow us to execute the 2012 Defense Strategic Guidance, and will make it very difficult to conduct even one sustained major combat operation,” he testified.¹⁴³

War-Related Supplemental Appropriations

As noted above, war-related supplemental appropriations began to decline during the period following the publication of the 2010 QDR report. Figure 4.6 shows the supplemental budget, broken out by appropriation title.

O&M spending continued to consume the largest share of the war supplemental budget by far, but unlike recent eras, the investment portion of the budget was relatively small. As was true for the base budget, the steepest decline was in investment accounts, as procurement fell 77 percent and RDT&E fell 91 percent. By FY14, procurement consumed only 8 percent of the supplemental budget—a percentage not observed since 2004, when one analysis found that supplemental appropriations were being used for activities with “narrow operational scope.”¹⁴⁴ As had been true in this earlier period, spending on military personnel, rather than procurement, was the second-largest contributor to war-related spending. The changes to the internal constitution of the supplemental budget were likely due in part to the more explicit constraints on how war-related supplemental appropriations were to be used.

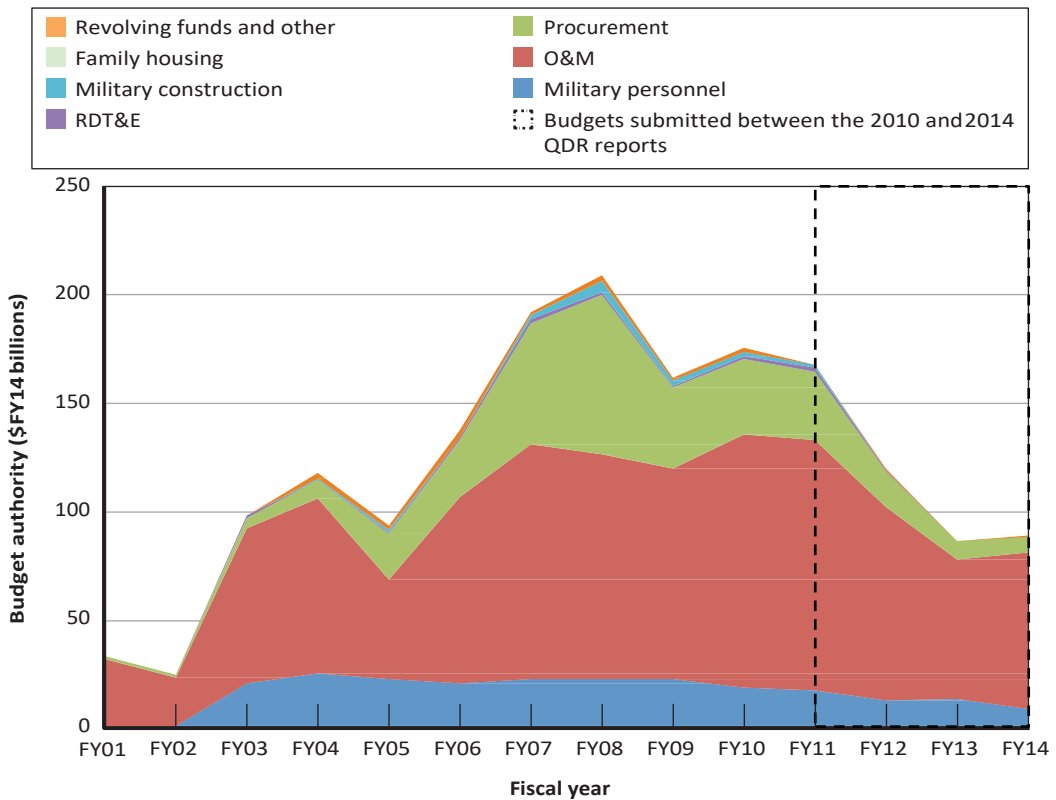
¹⁴² See GAO, *Sequestration: Observations on the Department of Defense’s Approach in Fiscal Year 2013*, Washington, D.C., GAO-14-177R, November 2013. According to Army Vice Chief of Staff GEN John F. Campbell, the Army canceled seven combat training rotations and significantly reduced home-station training, negatively affecting readiness and leader development. “These lost opportunities only added to the gap created between 2004 and 2011 as the Army focused exclusively on counterinsurgency,” he stated in testimony before the Readiness Subcommittee of the House Armed Services Committee. About \$716 million worth of equipment reset was deferred in FY14 and FY15, and a backlog of \$73.5 million in deferred maintenance for nondeployed units also built up over the period. See Claudette Roulo, “Army: Funds Fall Short to Restore Lost Readiness,” *American Forces Press Service*, April 10, 2014.

According to the Army, the FY13 sequestration led to budget reductions of \$7.6 billion from enacted levels, which led to cancellation of Combat Training Center rotations, cancellation of the plan to prioritize training resources, a civilian furlough and hiring freeze, and deferred maintenance and facility sustainment, and it affected every investment program. See Karen E. Dyson and Davis S. Welch, “Army FY 2015 Budget Overview,” slide presentation, Washington, D.C., March 2014.

¹⁴³ See C. Todd Lopez, “Odierno: Sequestration Would Make Even One Major Operation Difficult,” *Army News*, November 12, 2013.

¹⁴⁴ Martin, 2011, p. 2.

Figure 4.6
DoD War Supplemental Budget, by Appropriation Title, Post-2010 QDR Era

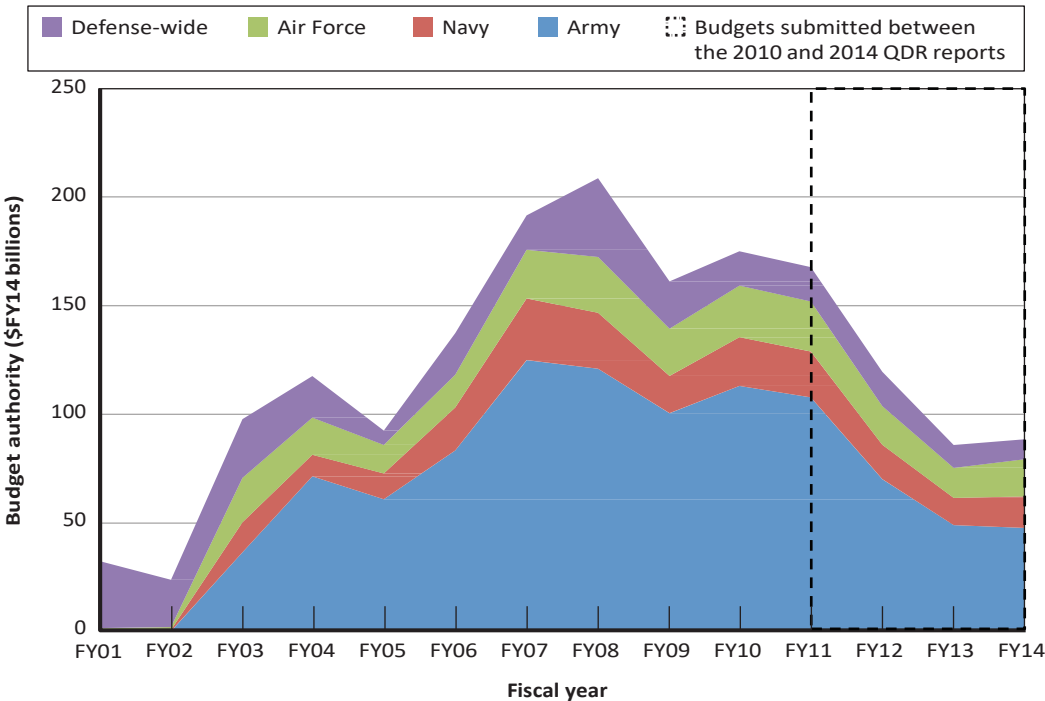


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.6

Figure 4.7 shows that the Army continued to consume the largest share of the war-related supplemental budget. However, the Army's share declined over this period, from 64 percent in FY11 to 54 percent in FY14, while the Navy's and Air Force's relative shares increased over this period. Yet the supplemental budget for all services declined sharply following the 2010 QDR, with the Army facing the greatest decline (56 percent) and the Air Force the smallest (24 percent).

Figure 4.7
DoD War Supplemental Budget, by Service, Post–2010 QDR Era



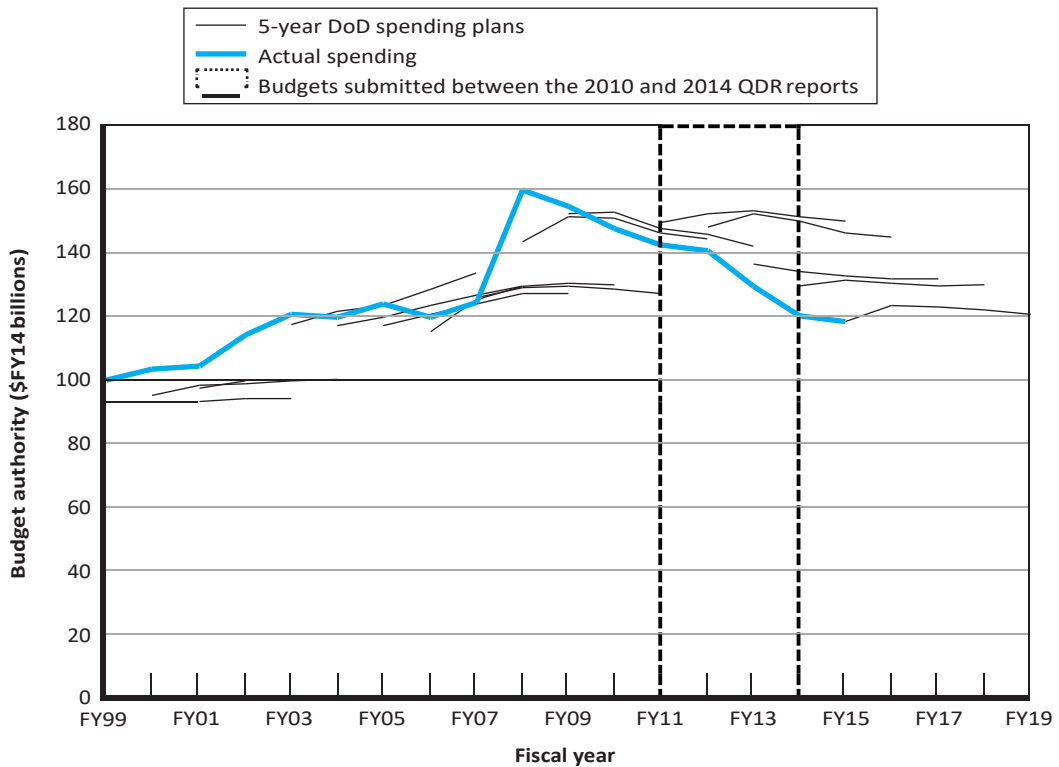
SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.7

Army Budgets, FYs 2010–2014

The Army base budget fell steadily in this period, ending in FY14 16 percent below its FY11 level. As indicated in Figure 4.8, this steady decline was not anticipated in long-term Army plans, which consistently and substantially overestimated actual spending levels through the post-2010 QDR period. As was true for the defense topline, five-year Army plans called for flat budgets in real terms, while actual spending fell far short of that trajectory.

Figure 4.8
Army Base Budget Five-Year Forecasts and Actuals, Post-2010 QDR Era

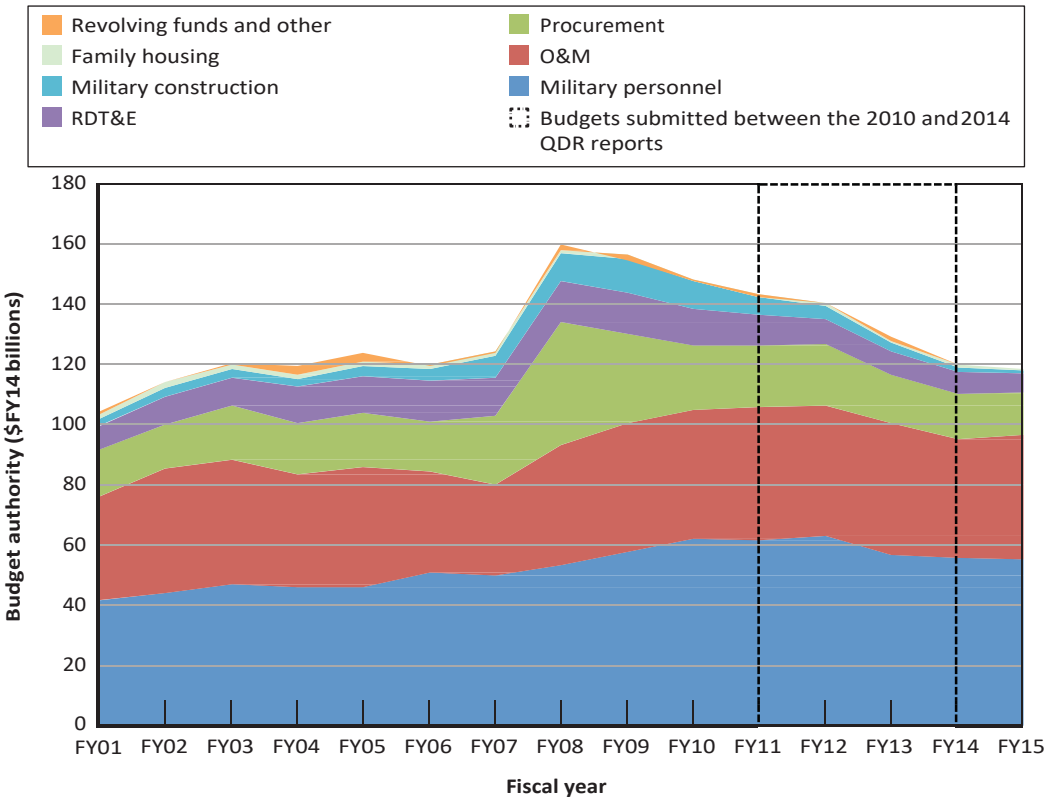


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.8

The Army base budget in this period can be described as a year of relatively slow decline between FY11 and FY12, followed by a steeper reduction after 2012 that left the topline about 16 percent below its FY11 level (Figure 4.9). As was true at the DoD level, the steepest reductions occurred in procurement (27 percent) and RDT&E (30 percent) spending, with more-modest reductions in the operations and support categories. However, the Army reductions to investment titles (RDT&E, procurement, and military construction) outpaced reductions in the same categories at the DoD level, which fell 21 percent and 15 percent, respectively.

Figure 4.9
Army Base Budget, by Appropriation Title, Post–2010 QDR Era

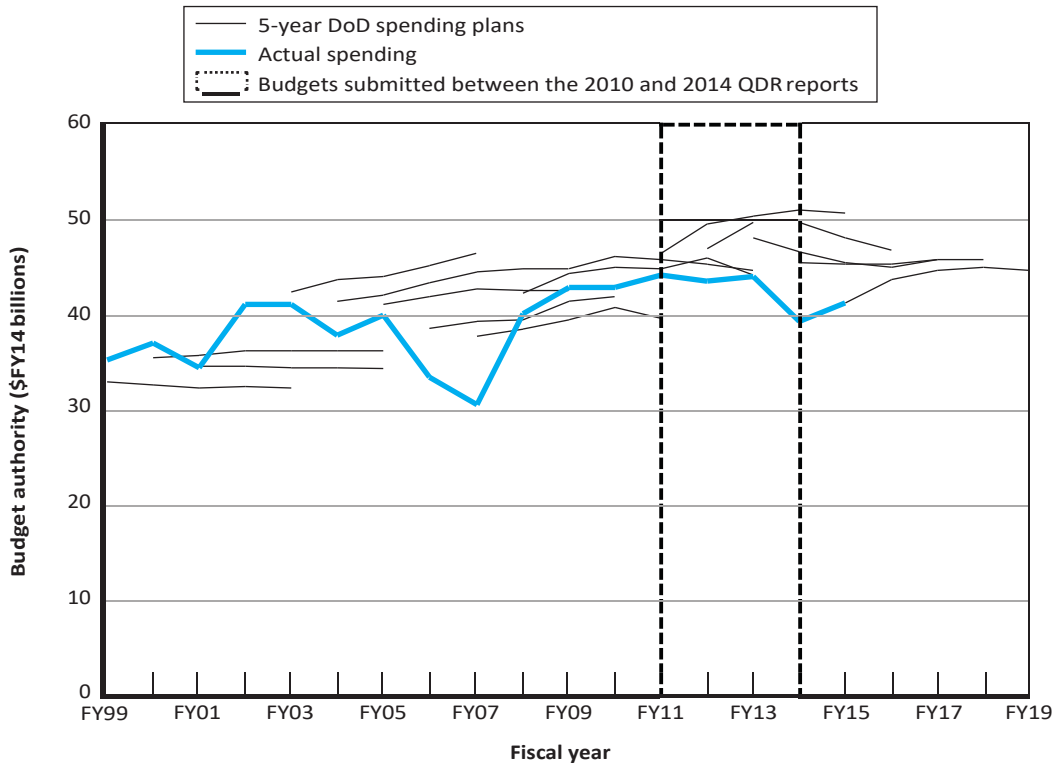


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.9

Figures 4.10 and 4.11 display Army plans and actual spending in two key appropriation areas: O&M and procurement. Figure 4.10 shows Army O&M spending and how plans in this period significantly exceeded actual budgets in all years of the post-2010 QDR era. Notably, while five-year plans in FY11 and FY12 called for much higher budget levels and modest growth, by FY13 the Army was planning for a modest decline.

Figure 4.10
Army Base Operation and Maintenance Budget Five-Year Forecasts and Actuals, Post-2010 QDR Era

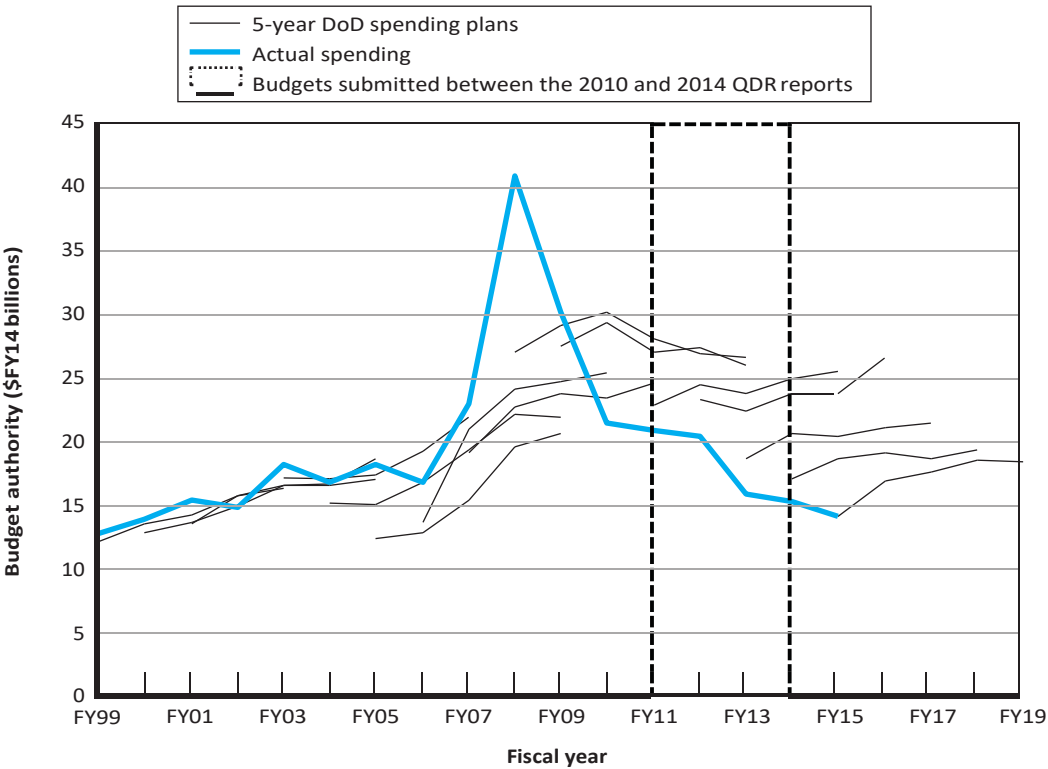


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.10

Figure 4.11 reports Army procurement spending over the same period. The figure shows that, similarly, planned Army procurement levels significantly exceeded actual spending levels: While plans called for roughly flat spending in real terms, the actual Army procurement budget fell almost 30 percent in this period.

Figure 4.11
Army Base Procurement Budget Five-Year Forecasts and Actuals, Post–2010 QDR Era



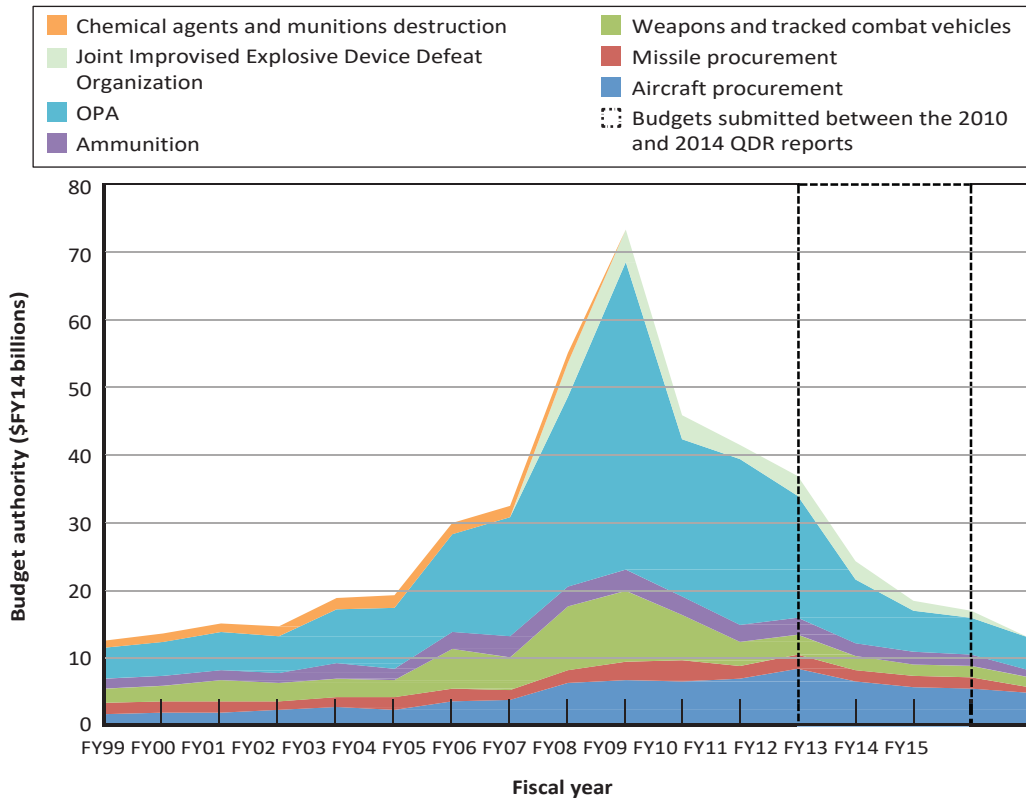
SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.11

We can take a closer look at the composition of the growth in total Army procurement spending in Figure 4.12. This shows that when war-related supplemental appropriations are included, overall Army procurement fell 54 percent in this period, and OPA, which had grown to such remarkable spending levels in the post–2006 QDR era, continued to decline. This account fell almost 70 percent between FY11 and FY14.

While the breakout of base versus war-related spending in the Army procurement budget is not openly available at the appropriation account level of detail, we can again make some observations at a high level regarding the Army war budget (see Figure 4.13). The 56-percent reduction in Army war-related spending was due

Figure 4.12
Total Army Procurement Budget (Base Plus War-Related), by Appropriation Account, Post-2010 QDR Era

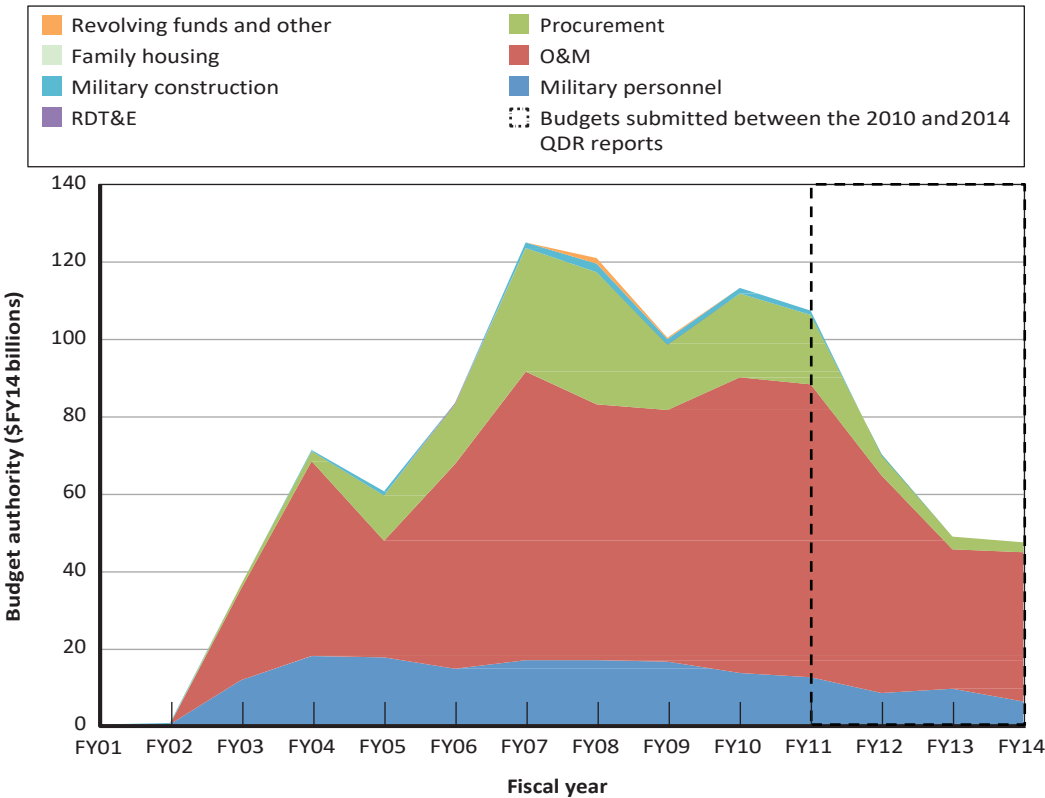


SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.12

to roughly 50-percent reductions in the operations and support categories, and much higher reductions in investment titles. Procurement and RDT&E fell roughly 90 percent in this period. As discussed above, as the scale of military operations in Afghanistan and Iraq contracted, and as the administration sought to constrain the use of supplemental appropriations, the range of procurement activities that could be resourced out of the supplemental budget shrunk.

Figure 4.13
Army War Supplemental Budget, by Appropriation Title, Post–2010 QDR Era



SOURCE: RAND analysis of OUSD (Comptroller), 2013.

RAND RR1309-4.13

General Observations on Budgets in the Post–2010 QDR Period

While the President’s budget request for FY11 (the budget submitted simultaneously with the release of the 2010 QDR report) called for another year of real growth, actual spending levels instead reflected the fact that DoD was facing a period of budget decline in real terms. The FY13 request was the first to actually call for a lower level of spending than that received in the previous year.¹⁴⁵ DoD plans began to reflect the budgetary decline in FY13, but plans exceeded actual spending levels by tens of billions of dollars in the post–2010 QDR period. Trends were similar for the Army topline, which planned for real growth in most years (except FY13), while actual spending fell in real terms; in addition, in every year of this period, planned spending

¹⁴⁵Russell Rumbaugh, “The Reality of the Defense Builddown,” Washington, D.C.: Stimson Center, February 13, 2012.

exceeded actual spending. Furthermore, taking a look below the Army topline shows that actual Army O&M and procurement spending fell billions of dollars below plans in this period.

DoD faced significant challenges in the period between the 2010 and 2014 QDRs as a result of a dynamic fiscal environment, the winding down of the wars in Afghanistan and Iraq, and significant changes in strategic direction, illustrated most emphatically by the 2012 Defense Strategic Guidance. The post-2010 QDR period also coincided with efforts to reduce the national deficit. As has been discussed, the BCA introduced both caps on DoD spending and mandated sequestration as a mechanism to achieve additional savings. DoD also faced protracted periods operating under continuing resolutions, which introduced additional challenges to effective planning. With respect to strategy, this dynamic period also coincided with the planning and execution of a complete withdrawal of military forces from Iraq, simultaneous with a ramped-up effort in Afghanistan. The Department also began to work toward implementing the new Defense Strategic Guidance, which announced a “rebalance toward the Asia-Pacific region” and disavowed future force-sizing to “conduct large-scale, prolonged stability operations.”¹⁴⁶

One key challenge anticipated in this period was continued fiscal turbulence due to the challenge of implementing the BCA. While the Bipartisan Budget Act reached in January 2014 brought an element of budgetary certainty for FY14 and FY15, in the absence of further legislative intervention, DoD would face the threat of BCA-mandated budget levels beginning in FY16. Meanwhile, the scale of the U.S. military commitment in Afghanistan after 2014 also remained a question mark.¹⁴⁷

Defense Reform and Infrastructure

The 2010 QDR report identified thrust areas for the further reform of defense business practices, including reforming security assistance, reforming acquisition, institutionalizing a rapid acquisition capability, strengthening the industrial base, reforming the U.S. export control system, and crafting a strategic approach to climate and energy.¹⁴⁸

¹⁴⁶ DoD, 2012, pp. 2, 6.

¹⁴⁷ In May 2014, President Obama unveiled a plan for 9,800 U.S. troops to remain in Afghanistan for one year following the end of combat operations in December 2014. Pending agreement between the United States and Afghanistan on a Status of Forces Agreement, that number would decline by half at the end of 2015 and be reduced further in 2016. (Karen DeYoung, “Obama to Leave 9,800 U.S. Troops in Afghanistan,” *Washington Post*, May 27, 2014.)

¹⁴⁸ DoD, 2010a, pp. 73–88.

Risk Assessment

Risk Associated with the Strategy

The authors of the 2010 QDR report believed that the program they laid out successfully balanced resources and risks, despite the then-current fiscal challenges, and they believed that the FY11 budget provided sufficient resources to execute the strategy presented in the 2010 QDR report.¹⁴⁹ This assessment was tempered by the realization that future events could change these calculations, and thus the authors cautioned,

Ongoing efforts to rebalance the joint force, including those taken during the course of this QDR, help better position DoD not only to prevail across a range of missions but to do so in the challenging current and likely future security environment. However, existing and emerging issues could complicate the Department's ability to execute the defense strategy. Therefore, on the basis of an enterprise-wide review, this QDR risk assessment identifies those key shortfalls or complex problems that threaten the Department's ability to successfully execute its priority objectives, and that consequently require the sustained attention of DoD's senior leadership.¹⁵⁰

At the operational level, these key potential shortfalls included the failure to provide sufficient enabling capabilities, build partner capacity, and secure DoD systems in cyberspace. Force management risks included supporting operations in Afghanistan and Iraq, providing health care to DoD personnel, and ensuring the proper mix and roles of active- and reserve-component personnel. Institutional risks included reforming the acquisition process, optimizing the information technology acquisition process, and maintaining the defense industrial base. Future challenges risks included the challenges and opportunities in the security environment, as well as managing uncertainty of the environment and science and technological trends.¹⁵¹

In conclusion, the 2010 QDR report observed,

[The] QDR identified areas of weakness in our defense program, presented options to mitigate them, and made recommendations on where and how to rebalance the Department toward our most pressing challenges. The risks identified in this section will require sustained leadership attention in order to ensure that they are successfully managed and mitigated. The QDR risk assessment concludes that the Department is positioned to successfully balance overarching strategic, military, and political risk between the near to midterm and the mid- to long term, as well as across the full range of military missions required to protect and advance national interests.¹⁵²

¹⁴⁹ DoD, 2010a, p. 2.

¹⁵⁰ DoD, 2010a, p. 90.

¹⁵¹ DoD, 2010a, pp. 90–95.

¹⁵² DoD, 2010a, p. 95.

Overall, the CJCS believed that the QDR laid out an appropriate path to dealing with current and future security challenges. However, he was concerned that the money necessary to execute the QDR's blueprint might not be made available. The Chairman's assessment of the risk associated with the 2010 QDR states,

My assessment of risk in the QDR is based on a realistic understanding of the security environment which remains complex, dynamic, and uncertain. While defense analysis identifies trends, it is problematic to predict the time, place, and nature of future challenges. The QDR force planning construct is properly focused on balancing capabilities to fight today's wars with those needed to counter future potential adversaries. It enables us to build a ready and agile force with sufficient capacity and capability to defeat adversaries across the range of military operations. And finally, it places priority on our ability to defend the homeland and support civil authorities.¹⁵³

The Chairman does, however, note that while the U.S. military can execute the mission laid out in the QDR, success in doing so is dependent upon "obtaining sufficient, timely funding to reset the force and restore readiness and a responsible withdrawal from Iraq."¹⁵⁴ He goes on to note,

Managing risk under the new QDR force planning construct requires further analysis, including new scenarios to test joint concepts of operation and force mixes and the development of associated operational and strategic assumptions. Our planning and assessment efforts will vary the size, duration, and simultaneity of operations and account for associated policies and goals for force rotation, disengagement, and access to the Reserve Component.¹⁵⁵

Finally, he concluded that "the QDR provides an accurate depiction of our future national security requirements. Our challenge as a nation will be to properly resource these priorities."¹⁵⁶

Reception

Congress

On February 4, 2010, the House Armed Services Committee held a hearing on the 2010 QDR.¹⁵⁷ While recognizing the continued economic strains in the wake of the

¹⁵³ DoD, 2010a, p. 103.

¹⁵⁴ DoD, 2010a, p. 105.

¹⁵⁵ DoD, 2010a, p. 105.

¹⁵⁶ DoD, 2010a, p. 105.

¹⁵⁷ U.S. House of Representatives, 2010a.

2008 financial crisis, members of the committee generally applauded DoD's proposal to modestly increase defense resources over the coming years. In the words of Chairman Skelton,

At a time of tremendous economic difficulty, unprecedented deficits, spending freezes in the other parts of the budget the QDR demonstrates a clear need for, and the Department's budget reflects, real growth in defense spending this year and into the foreseeable future. Now, while we will have our disagreements about some of the details I strongly support the Administration's decision to request these increases.¹⁵⁸

There also appeared to be broad appreciation within the committee regarding efforts to develop a balanced program for prevailing in the conflicts in Afghanistan and Iraq, and the high strategic priority given to improving the health of the force.

Nonetheless, Chairman Skelton and other committee members expressed concerns about the QDR, including the following:

- a short-term (5–7 year) focus on the conflicts at hand, which was shorting preparations for future conflict
- understatement of the military requirements for deterring and defeating challenges from state actors, while simultaneously overestimating the capabilities of the force
- difficulties in ascertaining the QDR's priorities for different contingencies or mission types
- lack of clarity in the force-planning construct
- absence of significant changes to planned force structure
- lack of clarity regarding future capability gaps
- fighter and ship funding and acquisition shortfalls, even as the strategy increasingly emphasized these capabilities
- impact of cuts in RDT&E spending on longer-term capabilities and transformation.¹⁵⁹

In turn, DoD officials publicly defended the 2010 QDR.¹⁶⁰

¹⁵⁸ U.S. House of Representatives, 2010a, p. 1.

¹⁵⁹ In fact, as late as February 2014, there were remaining criticisms of the 2010 QDR's force-planning construct. In a letter to Secretary of Defense Chuck Hagel, Rep. Randy Forbes wrote, "The net effect of our decisions has led to a slow abandonment of a two-conflict, force-planning construct that has been a cornerstone of our defense planning for the last twenty years. Indeed, in 2010 the Department failed to even include a force-planning construct in the final document. The Independent Panel that assessed the 2010 QDR concluded that it was a 'missed opportunity' to not include a 'clearly articulated force-planning construct that the military services and Congress can use to measure the adequacy of U.S. forces'" (J. Randy Forbes, letter to Secretary of Defense Chuck Hagel, February 12, 2014).

¹⁶⁰ See Christopher J. Castelli, "Pentagon Leaders Defend Quadrennial Defense Review Against Criticism," *Inside Defense*, February 8, 2010.

Government Accountability Office

In its review of the 2010 QDR, GAO focused on a rather narrow task — whether the QDR had addressed all of the 17 reporting items required by statute. Its judgment was that the QDR addressed six, partially addressed another seven, and did not directly address four reporting items.¹⁶¹

Congressional Budget Office

CBO's assessment of the FY11 FYDP, which began the implementation process for QDR programmatic and budgetary decisions, revealed that the DoD plan for the FY11–15 FYDP anticipated growth over the DoD's FY10 estimate by about 7 percent, and that over the FY12–21 period, growth would amount to about 13 percent, again compared with the FY10 budget plan.¹⁶² CBO also projected that the actual costs of the FYDP through FY15 were likely to be about 1 percent higher than projected by DoD in FY10, that the costs at the end of the program were likely to be 3 percent higher than DoD's estimate, and that after ten years (by 2021), the costs of the program were likely to be about 6 percent higher than the extension of the FYDP.¹⁶³

Independent Review

Congress commissioned a 2010 QDR Independent Panel to review and critique the 2010 QDR.¹⁶⁴ Among the main points made in the independent panel's report were the following:

- Global trends were likely to place increased demand on American “hard power.”
- America could not abandon its international leadership role.
- The 2010 QDR report was not the sort of long-term planning document that the statute envisioned.
- The absence of a clear force-planning construct in the 2010 QDR report represented a missed opportunity.
- Force structure in the Asia-Pacific region needed to increase.
- Increased force structure was needed for anti-access challenges, homeland defense, and post-conflict stabilization missions.
- There was a significant and growing gap between force structure and mission demands.
- An alternative force structure with a larger Navy was indicated.

¹⁶¹ GAO, 2010, p. 4.

¹⁶² CBO, *Long-Term Implications of the 2011 Future Years Defense Program*, Washington, D.C., February 2011.

¹⁶³ CBO, 2011, pp. x–xi.

¹⁶⁴ See Quadrennial Defense Review Independent Panel, *The QDR in Perspective: Meeting America's National Security Needs in the 21st Century; The Final Report of the Quadrennial Defense Review Independent Panel*, Washington, D.C., 2010; and U.S. Senate, *The Report of the Quadrennial Defense Review Independent Panel: Hearing Before the Committee on Armed Services*, Washington, D.C., August 3, 2010.

- Finally, the report made an explicit warning about a coming “train wreck” in personnel, acquisition, and force structure as a result of the imbalance between strategy, forces, and resources.¹⁶⁵

On July 29, 2010, the House Armed Services Committee held its hearings on the independent panel’s report.¹⁶⁶ In the hearing, both Chairman Skelton and Ranking Member Howard P. “Buck” McKeon strongly praised the panel’s report, while restating earlier concerns about the QDR’s failure to take a long-term perspective, or to conduct a strategy-driven review rather than a budget-driven review. For example, as stated by Chairman Skelton,

I would like to tell you right at the outset how impressed I am with this report. It will take several close readings to fully digest it, but I have to tell you, it has clearly met Congress’ intent. . . . [Secretary Gates], rightly in my opinion, focused his effort on winning the wars we are in today. But we cannot do that at the expense of preparing for the future.¹⁶⁷

And according to Ranking Member McKeon,

Most importantly this report provides to Congress what the 2010 QDR failed to do. It took a look at the challenges our military will face beyond the next five years and made recommendations free of budgetary constraints about the type of force and capabilities our military will need for tomorrow.¹⁶⁸

On August 3, 2010, the Senate Armed Services Committee held hearings on the report of the independent panel.¹⁶⁹ Notably, Chairman Levin questioned the affordability of the panel’s recommendations at a time of fiscal scarcity, and when members on both sides of the aisle were increasingly willing to consider cuts to defense. For his part, Ranking Member McCain agreed with the panel’s criticism that the QDR had lost its long-term focus, did not provide a “strategic guide to the future that drives the budget process,” and generally supported the panel’s recommendation for more defense resources.

¹⁶⁵ Quadrennial Defense Review Independent Panel, 2010.

¹⁶⁶ See U.S. House of Representatives, *The Final Report of the Independent Panel’s Assessment of the Quadrennial Defense Review: Hearing Before the Committee on Armed Services*, Washington, D.C., July 29, 2010b.

¹⁶⁷ U.S. House of Representatives, 2010b.

¹⁶⁸ U.S. House of Representatives, 2010b.

¹⁶⁹ See U.S. Senate, 2010.

Summary and Conclusions

We now summarize our main observations regarding the 2010 QDR:

- *Organization and process.* Our research suggests that the Analytic Agenda that was collaboratively developed by OSD, the Joint Staff, and the services in the wake of the 2006 QDR contributed to a much smoother process in the 2010 QDR. The development of the Analytic Agenda appears to have facilitated broader understanding, reduced miscommunication, and increased transparency and trust among participants, and could serve as a model for laying the foundation for future QDRs.
- *Strategy development.* The 2010 QDR report's strategy shifted the focus of defense planners' attention from the sorts of longer-term threats and challenges that had preoccupied the authors of the 2001 and 2006 QDRs to the requirements associated with the sorts of irregular wars then being conducted in Afghanistan and Iraq, while also considering a broader range and combination of threat scenarios. Our Army interlocutors viewed this shift to ground force requirements as highly favorable to the Army.
- *Force-planning construct.* In light of the increased complexities of defense planning, Secretary Gates reportedly eschewed the development of a simple, "bumper sticker" force-planning construct. The construct used in the 2010 QDR reportedly flowed from the 2006 QDR's "Michelin Man" to multiple integrated security constructs – that is, different combinations of scenarios that the force needed to be capable of managing. From an Army perspective, the greater focus on the irregular warfare and counterinsurgency requirements of Afghanistan and Iraq in the 2010 QDR were quite welcome.
- *Force structure and end strength.* As described above, the 2010 QDR enshrined earlier decisions to increase permanent Army and Marine Corps end strength to meet the demands of the wars in Afghanistan and Iraq.
- *Resources.* Earlier increases in end strength and planned increases in base spending levels over the FY11–15 FYDP gave the Department additional resources in support of President Obama's decision to conduct a surge in Afghanistan, even as combat troops were withdrawing from Iraq.
- *Risk assessment framework.* The risk assessment framework developed in the 2001 QDR continued to be the touchstone for the risk assessment in the 2010 QDR.

The 2010 QDR arguably represented a major success for the Army: The QDR's focus on meeting near-term warfighting requirements, and its endorsement of the earlier decisions to increase permanent active Army end strength, were highly favorable to the Army.

In the next chapter, we describe the 2014 QDR, which was conducted under the threat of sequestration-level funding. As will be described, the August 2011 BCA and the consequent budget sequestration of 2013 would soon throw routine defense planning into disarray, and the next QDR in 2014 would face significantly greater financial constraints and lead to a higher level of assessed risk than its predecessor.

2014 Quadrennial Defense Review

In this chapter, we describe the 2014 QDR's organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception.¹

The 2014 QDR was a transitional QDR that aimed to guide DoD from a period dominated by wartime operations to one in which the Department would be better able to address emerging threats.² The QDR built on the May 2010 National Security Strategy, February 2011 National Military Strategy, January 2012 Defense Strategic Guidance, and July 2013 Strategic Choices and Management Review report.³

In his cover letter to the QDR, Secretary of Defense Hagel noted that the QDR built on the 2012 Defense Strategic Guidance and gave priority to “three strategic pillars”: defending the homeland, building security globally, and remaining prepared to win decisively against any adversary. The Secretary also noted the imperative to “rebalance the military over the next decade and put it on a sustainable path to protect and

¹ DoD, *QDR 101: What You Should Know*, Washington, D.C.: Office of Public Affairs, 2014a; and DoD, 2014b.

² Secretary Hagel described the QDR as follows: “This QDR defines the historic transition unfolding throughout our defense enterprise. As we move off the longest continuous war footing in our nation’s history, this QDR explains how we will adapt, reshape, and rebalance our military for the challenges and opportunities of the future” (DoD, “Statement by Secretary of Defense Chuck Hagel on the Release of the Fiscal Year 2015 Budget and 2014 Quadrennial Defense Review,” Washington, D.C., Release No. NR-112-14, March 4, 2014d). As described by Vice CJCS Winnefeld, “We think that a lot of the glue has come undone in the last few years. You know, this is a transition QDR. The last QDR was our war fight. And you know, we were in the middle of two tough war fights in Iraq and Afghanistan. This is a transition QDR. The geopolitical environment has changed significantly. The ways wars are fought is changing every day, and it’s accelerating and the fiscal environment is changing. So everything is different in the ends, ways and means equation for us” (see Admiral Winnefeld’s testimony in U.S. House of Representatives, *The 2014 Quadrennial Defense Review: Hearing Before the Committee on Armed Services*, Washington, D.C., April 3, 2014).

³ The administration released an updated version of its National Security Strategy 11 months after the release of the QDR, in January 2015, and the CJCS released an updated version of the National Military Strategy in June 2015.

advance U.S. interests and sustain U.S. global leadership.”⁴ The steps that Secretary Hagel proposed to reach a sustainable path included “making much-needed reforms across the defense enterprise. We will prioritize combat power by reducing unnecessary overhead and streamlining activities. . . . [We] must reform military compensation.”⁵

The QDR also was an evolutionary document that built on the 2010 QDR and several documents that immediately preceded the 2014 report, especially including the May 2010 National Security Strategy, January 2012 Defense Strategic Guidance, and July 2013 Strategic Choices and Management Review report. The Defense Strategic Guidance established the defense strategy, identified which missions would be used to size military capabilities and capacity, and determined that U.S. forces would no longer be sized to conduct such large-scale, prolonged stability operations as the ones in Afghanistan and Iraq.⁶ For its part, the Strategic Choices and Management Review report identified options for reshaping the force and DoD institutions under three budget cut scenarios, and identified the resources that would be needed to support the defense strategy and its force requirements.⁷

Finally, while the 2014 QDR was conducted in the shadow of the BCA and the sequestration-driven cuts that resulted from that legislation, the QDR was described by its authors as being “strategy-driven, but resource-informed.”⁸ The review was also informed by the knowledge that the United States had concluded combat operations in Iraq, and that operations in Afghanistan might also conclude in the near term, especially given the difficulties the United States faced in arriving at the status of forces agreement with the Hamid Karzai government that was required to make continued operations possible.

⁴ DoD, 2014b, p. i. In addition, in 2011, Secretary Gates reportedly launched a DoD “comprehensive review” that was continued by Secretary of Defense Leon Panetta (Catherine Dale, *The 2014 Quadrennial Defense Review (QDR) and Defense Strategy: Issues for Congress*, Washington, D.C.: Congressional Research Service, R43403, February 24, 2014, p. ii).

⁵ DoD, 2014b, p. i.

⁶ See DoD, 2012.

⁷ DoD described the three levels that were examined in the Strategic Choices and Management Review as full sequestration (\$500 billion in reductions), implementation of the President’s proposed 2014 budget (\$150 billion in reductions), and a middle option (\$250 billion in reductions). See DoD, “Statement on Strategic Choices and Management Review,” Washington, D.C., July 31, 2013d; DoD, “Defense Department Background Briefing on the Strategic Choices and Management Review in the Pentagon Briefing Room,” Washington, D.C., July 31, 2013b; and DoD, “Department of Defense Press Briefing by Secretary Hagel and Adm. Winnefeld from the Pentagon,” Washington, D.C., July 31, 2013c. DoD also released a Quadrennial Roles and Missions Review Report in 2012. For a critique, see GAO, *Defense Management: DoD Needs to Improve Future Assessments of Roles and Missions*, Washington, D.C., GAO-14-668, July 2014b.

⁸ See the testimony of Deputy Under Secretary of Defense Christine Wormuth in U.S. House of Representatives, 2014.

Organization and Process

Organization

Upon his confirmation as defense secretary in February 2013, one of Secretary Hagel's first actions was to assess the consequences of the sequestration that was imposed in March 2013. The vehicle for his assessment was the Strategic Choices and Management Review,⁹ and DoD's formal work on the 2014 QDR would not begin until the conclusion of that review in July 2013.¹⁰

However, with the outline of likely future defense resources resulting from the BCA, the establishment of a new strategy in the January 2012 Defense Strategic Guidance, and consideration of "budget-informed" alternatives in the July 2013 Strategic Choices and Management Review, there was little appetite (much less need) for a far-ranging strategic review of the kind seen in previous QDRs. Moreover, the short amount of time remaining to meet the QDR's statutorily mandated reporting deadline after the completion of the Strategic Choices and Management Review meant that the QDR had to be completed in about five months, which limited the range of additional issues that could be considered, and the amount of DoD-wide coordination that could take place. In any event, according to our structured conversations, OSD and the Joint Staff co-led the 2014 QDR process, with service participation generally limited to the four-star general officers from each service.

As the strategy had been under continuous review and refinement since 2011, the QDR thus represented only a small evolution from the earlier Defense Strategic Guidance and Strategic Choices and Management Review, in which the services had been collaborative partners. In the end, the 2014 QDR report essentially became a vehicle for formally codifying, cementing, and explaining the decisions that had been made in those earlier documents to internal and external audiences in a statutorily required QDR report.

On August 8, 2013, Secretary Hagel issued classified guidance for the 2014 QDR in the form of Terms of Reference, directing that the review begin in earnest in September and that it "assess our defense strategy in light of new fiscal realities and the many threats and complexities and uncertainties of this century."¹¹

The QDR was led by Deputy Defense Secretary Ashton Carter and Vice CJCS Winnefeld, and was supported by OSD, the Joint Staff, the secretaries of the military departments and service chiefs, and the combatant commanders.

⁹ Christopher J. Castelli, "Hagel Directs New Strategic Choices and Management Review," *Inside Defense*, March 21, 2013b. Sequestration reduced DoD's funding by an estimated \$37 billion in discretionary appropriations and about \$37.4 million in direct spending (GAO, 2013).

¹⁰ In February 2013, then-Secretary Panetta stated that he would leave it to his successor to determine what the guidance for the QDR should be (Christopher J. Castelli, "Senior Official: Panetta Plans to Leave QDR Guidance to Hagel," *Inside Defense*, February 22, 2013a).

¹¹ Christopher J. Castelli, "Hagel Approves Classified QDR Guidance," *Inside Defense*, August 13, 2013c.

A senior-level integration group—led by Deputy Under Secretary of Defense for Strategy, Plans, and Force Development Wormuth and Vice Director of the Joint Staff's Force Structure, Resources, and Assessment directorate (J-8) Lisa Disbrow—was established to provide day-to-day oversight of the QDR.

Several working groups were established under the senior-level integration group, including working groups to examine efficiencies and compensation, defense priorities, plans and posture, DoD's force-planning construct, and threats to the homeland. OUSD (Policy) had lead responsibility for strategy issues, while CAPE had the lead on efficiencies and compensation.¹²

No red team was established at the outset of the QDR, leading many to expect that the National Defense Panel, which was commissioned by Congress to provide an assessment and critique of the QDR, might end up playing this role.¹³ As will be seen, the National Defense Panel in fact was quite critical of the QDR, and recommended more forces and larger budgets than those that were described in the QDR.

The Army QDR Office in G-8, initially headed by Jim Warner and later headed by MG John Rossi, again served as the Army hub for participation in the QDR, with Army personnel from other parts of the Army Staff participating as well. The role of the Army QDR Office at the time of the 2014 QDR included coordinating Army participation in strategic reviews, working closely across relevant defense agencies and other service QDR offices, hosting weekly and monthly staff meetings to share information and coordinate actions, and managing professional development and seminars, among other activities.¹⁴

The Army panel organization for participation in the QDR again paralleled the Joint Staff structure for conducting the QDR, while senior oversight of the Army's QDR process was again provided by a Senior Review Group, a Panel Leaders Meeting, and the Army QDR Council of Colonels.¹⁵

Process

Descriptions of the analytic process used in the 2014 QDR are somewhat vague, but it is possible to provide a rough idea of the program of work that was undertaken.

The QDR development process was very short, only about five months long. This was, no doubt, in part because the basic defense strategy had already been set in the February 2010 QDR and refined in the January 2012 Defense Strategic Guidance, and

¹² According to our structured conversations, there was very little coordination in the 2014 QDR, in the sense that only core stakeholders attended meetings. Ideas from the working groups reportedly went quickly to senior leaders, who did the bulk of the analysis.

¹³ Christopher J. Castelli, 2013d. Unlike the independent panel for the 2010 QDR, the National Defense Panel began its work at about the time the QDR effort kicked off.

¹⁴ HQDA, 2012b.

¹⁵ HQDA, 2012b; Tison, 2015.

resource requirements and funding options had been vetted by the Strategic Choices and Management Review. Thus, much of the work of the QDR lay in refining concepts that were developed earlier.¹⁶ According to one of our structured conversations,

Throughout the QDR, the marching orders were to assess the force at the end of the FYDP at BCA levels. When they received additional funds above BCA levels, there was an add-back process, and the force was assessed as being better than the BCA-constrained force.

In June 2013, CJCS Martin Dempsey stated that the QDR would need to examine multiple fiscal scenarios, or the QDR would “be built on . . . an unreasonable foundation. . . . And that’s clearly where the secretary has been helping us move, toward looking at a number of different fiscal futures.”¹⁷ The Strategic Choices and Management Review reportedly assessed multiple fiscal futures, while the QDR described two: the administration’s proposed FY15 funding levels, which were said to provide sufficient resources for defense, and sequestration-level funding, which would lead to force-structure and end-strength reductions, as well as problems in readiness, modernization, and other areas.

According to our structured conversations, the Analytic Agenda, which had been so important in setting a common framework for analysis in the 2010 QDR, had frayed by the time of the 2014 QDR.¹⁸ Differences between OUSD (Policy), CAPE, the Joint Staff, and the services reportedly led to disagreements over the planning scenarios and data that would be used by the various stakeholders, and the shared understanding and transparency of analyses done by various players declined as a result.¹⁹ The absence of the Analytic Agenda during the period also may help to explain the observation from our structured conversations that key OSD officials viewed the Army’s analytic arguments in the 2013 Strategic Choices and Management Review and 2014 QDR reports as not nearly as complete or compelling as they had been in the 2010 QDR report.

¹⁶ For example, according to our structured conversations, there was significant attention to the question of how to refine the definitions and interpretations of “defeat” and “deny” that had been embraced in the strategy.

¹⁷ Christopher J. Castelli, 2013c.

¹⁸ DoD Directive 8260.05 (DoD, 2011b) updated the earlier policy and responsibilities for Support for Strategic Analysis activities that were defined in DoD Instruction 8260.01 (DoD, 2007).

¹⁹ According to our structured conversations, by 2014, the newest assessment tools were three years old, and J-8 had shifted from campaign analysis to capacity analysis. All of these factors affected how force demands were assessed and led to confusion among senior leaders, because of inconsistencies across analyses. In addition, our structured conversations revealed that CAPE Director Fox did not have much confidence in the campaign analyses that have traditionally been used as a common framework for assessing the capabilities of current and planned forces to prevail in various warfighting scenarios. By 2014, the Analytic Agenda and the Studies and Analysis Group reportedly had been disestablished.

According to testimony by Deputy Under Secretary Wormuth, a variety of scenarios were developed to portray possible missions in scenario combinations that were assessed to test the force:

[W]e use scenarios, we use modeling, to try to get at all of those different types of things [the risks associated with concepts of operations]. We look at a real breadth of scenarios to try to understand where we have risks, where we may have gaps, to try to help guide our force development efforts in the future. So, that's certainly not a perfect process, but we do have a fairly robust set of analyses that we conduct in support of reviews like the QDR to try to get at that.

To execute the strategy effectively, the joint force must be capable of conducting a broad range of activities at any given time. It's not enough to be capable of defeating an adversary and denying the objectives of another aggressor if deterrence fails. Our forces must also be able to protect the homeland, to assure and deter around the world in multiple regions, and conduct persistent counterterrorism operations. Our updated force-planning construct in the QDR reflects the full breadth of these demands. To ensure that we can execute our QDR strategy and the force-planning construct, we are rebalancing the force, making tradeoffs among capability, capacity, and readiness.²⁰

To assist in planning the FY19 force structure, the QDR assessed the capacity of the force to manage different combinations of scenarios, which constituted the QDR's force-planning construct:

FY2014–2019 Future Years Defense Program (FYDP) forces, in aggregate, will be capable of simultaneously defending the homeland; conducting sustained, distributed counterterrorist operations; and in multiple regions, deterring aggression and assuring allies through forward presence and engagement. If deterrence fails at any given time, U.S. forces could defeat a regional adversary in a larger-scale multi-phased campaign, and deny the objectives of — or impose unacceptable costs on — another aggressor in another region.²¹

In early November 2013, Secretary Hagel gave a preview of the strategic thinking in the QDR, including views on long-term national security challenges, the U.S. military's role in addressing these challenges, and their implications for DoD going forward.²²

²⁰ See the testimony of Deputy Under Secretary Wormuth in U.S. House of Representatives, 2014.

²¹ DoD, 2014b, p. 22.

²² See Chuck Hagel, speech to the CSIS Global Security Forum, November 5, 2013b.

Risk Assessment Framework

The 2014 QDR was the first since the 2001 QDR that didn't embrace the risk assessment framework comprised of operational, force management, institutional, and future challenges risks. Moreover, OSD did not conduct its own risk assessment, but essentially contracted this out to the Chairman and Joint Staff, according to our structured conversations. As there was no separate OSD-led analytic process for assessing risk or integrating service assessments, OSD reportedly ended up using pieces from various other risk assessments, integration of which was made difficult by the absence of a common framework and process for doing risk assessments.²³

In early August 2013, it was reported that the Joint Staff had adopted a new framework for assessing whether to use military force. This new framework would replace the previous approach used in the statutorily mandated Chairman's risk assessment that is produced annually, and Chairman Dempsey stated that the framework also would be used in the 2014 QDR.²⁴

The new framework was described as consisting of a matrix composed of six "national security interests" that focused explicitly on the military contributions to the "four enduring interests" that were identified in the 2010 National Security Strategy. Those four enduring interests were the security of the nation, its citizens, U.S. allies and partners; prosperity, including a "strong, innovating, and growing" economy; respect for universal values; and international order "advanced by U.S. leadership."²⁵ The six national security interests were survival of the nation; prevention of catastrophic attacks on the United States; protection of American citizens abroad; security of the U.S. economy and the global economic system; secure, confident, and reliable allies and partners; and the "preservation and, where possible, extension of universal values."²⁶

This framework also was described in the Chairman's risk assessment in the 2014 QDR report, which offered a list of prioritized missions, as follows:

Based on these six interests, the Joint Chiefs and I use the following prioritization of missions (or "ways") to advise the Secretary of Defense and the President and to determine how to distribute the force among our Combatant Commanders:

1. Maintain a secure and effective nuclear deterrent;
2. Provide for military defense of the homeland;

²³ As one of our interlocutors put it, "everyone was doing their own thing."

²⁴ See Jason Sherman, "New Joint Staff Framework Set to Influence 2014 QDR," *Inside Defense*, August 7, 2013. As Chairman Dempsey stated in his written responses to questions during his confirmation hearings before the Senate Armed Services Committee, "Existing guidance is sufficient to inform my statutory requirement to contribute to the QDR. . . . The enduring interests articulated in the 2010 National Security Strategy as well as the six national security interests outlined in the Chairman's risk assessment provide a consistent framework within which to conduct the next QDR. If national priorities shift in any future [National Security Strategy], we will adapt our strategic documents and processes such as the QDR" (Sherman, 2013).

²⁵ White House, 2010.

²⁶ Sherman, 2013.

3. Defeat an adversary;
4. Provide a global, stabilizing presence;
5. Combat terrorism;
6. Counter weapons of mass destruction;
7. Deny an adversary's objectives;
8. Respond to crisis and conduct limited contingency operations;
9. Conduct military engagement and security cooperation;
10. Conduct stability and counterinsurgency operations;
11. Provide support to civil authorities; and
12. Conduct humanitarian assistance and disaster response.²⁷

Strategy Development

The 2014 QDR was the first of the Obama administration that was not overwhelmingly influenced by the demands of U.S. operations in Afghanistan and Iraq. The review focused on the period following the end of major U.S. involvement in contingency operations in Afghanistan and Iraq, and the resetting of the force. In addition, unlike the previous three QDRs, the 2014 QDR explicitly recognized that national resources for DoD would be limited in the future. It thus had the overarching goal of describing the “tough choices” necessary “in a period of fiscal austerity to maintain the world’s finest fighting forces.”²⁸ Given the uncertain fiscal environment within which the 2014 QDR report was written, its authors defined it as being “resource-informed” but “strategy-driven.”²⁹ This approach is not unique to the 2014 QDR report, and while not explicitly stated, was also used in the discussion of priorities in the 2006 and 2010 QDR reports.³⁰

The principal grand strategic foundations for the 2014 QDR appear to have been the May 2010 National Security Strategy and refinements in the administration’s strategic thinking since then; the Obama administration did not release its second National Security Strategy until February 2015.³¹

²⁷ DoD, 2014b, pp. 60–61.

²⁸ DoD, 2014b, p. I.

²⁹ In response to criticism from the Chairman of the House Armed Services Committee that the QDR was “clearly budget driven,” Deputy Assistant Secretary of Defense Ochmanek noted that “[w]e were resource informed, but we were strategy driven. A budget-driven approach simply says to everybody [that] everyone gets a 10 percent cut, go take your cut. This wasn’t that, I could tell you” (Marcus Weisgerber, “DoD Official Fires Back at McKeon’s Rejection of the QDR,” *Defense News*, March 18, 2014).

³⁰ Daggett, 2010, pp. 36–37.

³¹ White House, *National Security Strategy*, Washington, D.C., February 2015. The National Security Strategy report was released three days after the presentation of the President’s Budget for Fiscal Year 2016.

Additional strategy documents published in the period preceding the 2014 QDR included the final report of the 2010 QDR Independent Panel, *The QDR In Perspective: Meeting America's National Security Needs in the 21st Century*;³² February 2010 Ballistic Missile Defense Review report; April 2010 Nuclear Posture Review report; February 2011 National Military Strategy; January 2012 Defense Strategic Guidance; and July 2013 Strategic Choices and Management Review report. Of these, the primary strategic document shaping the 2014 QDR was the Defense Strategic Guidance.³³

The 2012 Defense Strategic Guidance described the expected future security environment and the key military missions for which DoD needed to prepare. It was predicated on the need to reassess U.S. strategy as a result of the ending of two major wars. Of particular note, it directed that the U.S. military would “no longer be sized to conduct large-scale, prolonged stability operations.”³⁴ It also noted that reduced resources required that the United States needed to choose more carefully where and how often it executed overseas presence operations.³⁵

According to two of our interlocutors,

The 2014 QDR was just a small evolution from [the Defense Strategic Guidance, which] occurred behind closed doors and was not as collaborative. Really only the four-stars were involved; the rest of the world was left out. I think people would say that they had not signed up to it.

There was no time for the kind of broad working groups we had had in 2010. But we didn't feel as much need for them. . . . Working groups were generally chaired at the 1-to-2-star level. We still had all of the key stakeholders and used an iterative process. Of course, a lot of this happened in the midst of some key leadership changes. . . . For the 2012 [Defense Strategic Guidance], things had begun to change. There was this erosion of the analytic agenda and there was not a strong sense of community on these issues. You started to have divergent data sources. . . . There was a lot more debate and a lot less transparency.

The 2014 QDR was also heavily influenced by the 2013 Strategic Choices and Management Review, which was undertaken to examine how sequestration and continued budgetary uncertainty could affect the strategy laid out in the 2012 Defense Strategic Guidance and U.S. military force structure.³⁶ The review concluded that the 2012 Defense Strategic Guidance could not be executed under the BCA and seques-

³² Quadrennial Defense Review Independent Panel, 2010.

³³ DoD, 2012.

³⁴ DoD, 2012, p. 6.

³⁵ DoD, 2012, pp. 1, 5–6.

³⁶ Chuck Hagel, “Statement on the Strategic Choices and Management Review,” Washington, D.C., July 31, 2013a.

tration. As that guidance had not been written to accommodate the cuts mandated by sequestration, the 2014 QDR would need to address additional issues of strategy in light of the new fiscal constraints.³⁷

National Interests and Primary QDR Objectives

The 2014 QDR report argued that the United States needed to exercise global leadership in support of four core national interests: the security of the U.S., its citizens, and its allies and partners; a U.S. economy in an open international economy that promotes opportunity and prosperity; respect for universal values at home and abroad; and an international order supported and led by the United States, which promotes peace, security, and opportunity through global cooperation to meet global challenges.³⁸ The U.S. military was only one part of a broader U.S. government effort to secure these interests, and the military's primary role was to reduce the potential for conflict, both by deterring aggression and coercive behavior and by positively influencing global events through proactive engagement. Should these efforts fail, the military would use force to protect U.S. interests and the common good.³⁹

The 2014 QDR report built on the defense priorities outlined in the 2012 Defense Strategic Guidance. These QDR priorities included

- rebalancing to the Asia-Pacific region to preserve peace and stability
- maintaining a strong commitment to security and stability in Europe and the Middle East
- sustaining a global approach to countering violent extremists and terrorist threats, with an emphasis on the Middle East and Africa
- continuing to protect and prioritize key investments in technology, while U.S. forces overall grew smaller and leaner
- invigorating efforts to build innovative partnerships and strengthening key alliances and partnerships.⁴⁰

To support the achievement of these objectives, the 2014 QDR report identified the following three strategic pillars:

- Protect the homeland, focusing on protecting the security of U.S. citizens from both conventional and unconventional threats. This protection was to be provided by an active layered approach that included missile defense, nuclear deterrence, protection against cyber attacks, consequence management, and counterproliferation.

³⁷ Dale, 2014, p. 5.

³⁸ DoD, 2014b, p. 11.

³⁹ DoD, 2014b, p. 11.

⁴⁰ DoD, 2014b, p. 12.

- Build security globally, focusing on the forward-deployment of rotational forces to support regional stability. Key to this pillar were engagement activities that enhanced the capabilities of U.S. partners and allies.
- Project power and win decisively, focusing on maintaining a full-spectrum force capable of being globally deployed in support of U.S. national interests.⁴¹

Strategic Environment

The 2014 QDR report envisioned a future international security environment that was uncertain and complicated, and that presented a broad array of threats to U.S. interests. It was an environment characterized by shifting centers of gravity that empower smaller countries and nonstate actors, in which capabilities formerly limited to major powers were available to all. In addition, rapidly changing information technology was limiting the ability of some governments to maintain order, changing the ways wars were fought, and empowering nonstate actors. In addition, domestic fiscal austerity required a more adaptive and innovative U.S. military if the United States was to sustain its position as a global leader.⁴²

Potentially harmful regional trends noted in the 2014 QDR included China's military modernization, North Korea's pursuit of long-range missiles and WMD, the Sunni-Shi'a divide, Iranian activities in the Middle East, domestic upheaval that could be exploited by terrorist groups, and fragile states.⁴³ Dangerous global trends included the proliferation of anti-access and area-denial, cyber control, and space control concepts and technologies, particularly to China, that might be used to counter U.S. strengths and limit its global freedom of action. New technologies were also making new and more-dangerous forms of WMD more easily, rapidly, and widely available. Terrorist networks would also continue to evolve and directly threaten U.S. global and domestic security. Finally, the pressures of climate change might exacerbate existing societal tensions, overload weak institutions, and increase the competition for scarce resources.⁴⁴

The 2014 QDR report also recognized that domestically generated pressures for fiscal austerity would constrain DoD budgets in the near- to midterm. The immediate effect of these fiscal constraints was a reduction in force structure and the introduction into the defense-planning process of a great deal of uncertainty about the availability of future resources. In addition, the constrained fiscal environment meant that DoD could no longer continue to sustain the rate of growth in military pay and benefits of the past ten years.

⁴¹ DoD, 2014b, pp. 13–22.

⁴² DoD, 2014b, p. 3.

⁴³ DoD, 2014b, pp. 4–6. According to our structured conversations, the main threats considered in the QDR were proliferation, Iran, North Korea, and China, and more attention was paid to the requirements of homeland security missions.

⁴⁴ DoD, 2014b, pp. 6–8.

With the ending of the conflicts in Afghanistan and Iraq, the 2014 QDR report emphasized the need to “rebalance to the Asia-Pacific region.” It also noted the need to maintain strong commitments to Europe and the Middle East and continue efforts to counter extremist threats in Africa.⁴⁵

Key Post-QDR Documents

The 2014 QDR report was released in March 2014 simultaneously with the FY15 President’s budget, and it was followed shortly thereafter by the April 2014 *Estimated Impacts of Sequestration-Level Funding*, which sought to detail the crippling effect that sequestration would have on the defense program. Each of these reports (see Figure 5.1) would continue to document the evolution of defense strategy, policy, programmatics, and budgets in the wake of the 2014 QDR report.

Force Planning

The 2014 QDR report summarized its military force-structure goals as ensuring that

forces, in aggregate, will be capable of simultaneously defending the homeland; conducting sustained, distributed counterterrorist operations; and in multiple regions, deterring aggression and assuring allies through forward presence and engagement. If deterrence fails at any given time, U.S. forces could defeat a regional adversary in a large-scale multi-phased campaign, and deny the objectives of – or impose unacceptable costs on – another aggressor in another region.⁴⁶

Figure 5.1
Key Documents Following the 2014 QDR Report



RAND RR1309-5.1

⁴⁵ DoD, 2014b, pp. v, 4–6, 12.

⁴⁶ DoD, 2014b, p. 22.

The 2014 QDR report was also influenced by the reality of budgetary constraints, including those found in the BCA, the Balanced Budget Act of 2012, and the 2013 Strategic Choices and Management Review report.

Required Capabilities

The 2014 QDR report posited that in order to effectively address the future security environment, including geopolitical changes, changes in the way modern wars are fought, and the reality of fiscal austerity, U.S. forces must be rebalanced in the following four key areas:

1. The joint force needed to be rebalanced to be able to operate in a broad spectrum of conflicts. These conflicts could “range from hybrid contingencies against proxy groups using asymmetric approaches, to a high-end conflict against a state power armed with WMD or technologically advanced anti-access and area-denial . . . capabilities.”⁴⁷ As part of this rebalancing, the U.S. military would no longer be sized for large-scale prolonged counterinsurgency operations, would increase its preparation to fight sophisticated and advanced opponents with the ability to deny the U.S. access to space and cyberspace, would shift its counterterrorism emphasis to building partner capacity supported by U.S. direct action, and would continue to focus on countering WMD.
2. The joint force would be rebalanced to sustain a U.S. presence abroad that could better protect U.S. security interests. This rebalancing included a shift to Asia, continued counterterrorism and security force assistance operations in Afghanistan, and a commitment to crisis response and deterrence in the Middle East.
3. With the coming drawdown in Afghanistan, the joint force needed to rebalance its capabilities, capacities, and readiness to meet future challenges while resetting from the past decade of war during a period of fiscal austerity and end-strength reductions. During this process, several key capability areas needed to be protected. These capability areas were offensive and defensive cyberwarfare capabilities, expanded domestic and overseas missile defense systems, modernized nuclear delivery and command and control, simplified and resilient space systems, counter anti-access and area-denial air and undersea systems, precision strike air-to-surface missiles and long-range anti-ship cruise missiles, survivable ISR, and counterterrorism and special operations forces.
4. DoD needed to rebalance its “tooth-to-tail” ratio in order to control cost growth, generate greater efficiencies, and prioritize spending on combat power.⁴⁸

⁴⁷ DoD, 2014b, p. vii.

⁴⁸ DoD, 2014b, pp. vii–xi, 31–51.

Force-Planning Construct

As described earlier, to assist in planning the FY19 force structure, the QDR assessed the capacity of the force to manage different combinations of scenarios, which constituted the QDR's force-planning construct; it included the following missions:

- defending the homeland
- conducting sustained, distributed counterterrorist operations
- in multiple regions, deterring aggression and assuring allies through forward presence and engagement
- if deterrence fails, being capable of defeating a regional adversary in a larger-scale, multi-phased campaign, and denying the objectives of – or imposing unacceptable costs on – another aggressor in another region.⁴⁹

Force Structure

General-Purpose Forces

The 2014 QDR report described force structure at the end of the FY15–19 FYDP, and directed the military departments to provide the following forces.⁵⁰

The Army was directed to provide 18 divisions (ten active Army, eight Army National Guard), 22 aviation brigades (ten active Army, two U.S. Army Reserve, and ten Army National Guard), and air defense forces consisting of 15 Patriot air and missile defense battalions and seven Terminal High-Altitude Area Defense batteries (all active Army). The Army was also directed to provide 440,000–450,000 active Army personnel, 195,000 U.S. Army Reserve personnel, and 335,000 Army National Guard personnel. The QDR report also noted, “specific numbers and composition of Army forces are not yet finalized as the Army balances forces, modernization, and readiness, and considers innovative force designs.”⁵¹

The QDR report instructed the Navy to provide 11 aircraft carriers and ten carrier air wings, 92 large surface combatants (68 DDG-51s, three DDG-1000s, and 21 CG-47s, with ten or 11 cruisers in temporary lay-up for modernization), 43 small surface combatants (25 littoral combat ships, eight mine countermeasure ships, and ten patrol coastal ships), and 33 amphibious warfare ships (ten landing helicopter assault or dock ships, 11 landing platform/dock ships, and 12 landing ship docks, with one of those in temporary lay-up for modernization). In addition, the Navy was directed

⁴⁹ DoD, 2014b, p. 22.

⁵⁰ The 2014 QDR report describes main elements of U.S. force structure in 2019 (DoD, 2014b, pp. 39–41). However, in testimony, Vice CJCS Winnefeld stated, “But my sense is that in the force structure that we would have at the end of a 10-year period is essentially – would essentially remain constant across the following 10-year period.... But knowing what we know right now, this year, the following 10 years would look a lot like what we see out at the end of that first 10-year period” (see the testimony of Admiral Winnefeld in U.S. House of Representatives, 2014).

⁵¹ DoD, 2014b, p. 40.

to provide 51 attack submarines and four guided-missile submarines. Personnel end strength was specified as 323,200 active component and 58,800 Naval Reserve.

Marine Corps force structure included two Marine expeditionary forces organized in three active-component and one reserve-component division, wing, or logistics group. In addition, the QDR report specified three Marine expeditionary brigade command elements, seven Marine expeditionary unit command elements, and an end strength of 182,000 active and 39,000 reserve personnel.

The Air Force was directed to provide 48 fighter squadrons (26 active, 22 reserve) (971 aircraft), nine heavy bomber squadrons (96 aircraft: 44 B-52s, 36 B-1Bs, 16 B-2s), 443 aerial refueling aircraft (335 KC-135s, 54 KC-46s, 54 KC-10s), 211 strategic airlift aircraft (39 C-5s, 172 C-17s), 300 tactical airlift aircraft (C-130s), 280 ISR aircraft (231 MQ-9s, 17 RC-135s, 32 RQ-4s), and 27 command and control aircraft (18 E-3s, three E-4s, six E-8s).⁵² The QDR report also instructed the Air Force to provide six operational satellite constellations (missile warning, navigation and timing, wideband and protected SATCOM, environmental monitoring, and multi-mission). Personnel end strength was specified as 308,800 active, 66,500 Air Force Reserve, and 103,600 Air National Guard personnel.

Special Operations Forces

The 2014 QDR report stated the decision to increase special operations forces to 69,700 personnel, including 660 special operations teams (not including civil affairs or military information support operations teams),⁵³ three Ranger battalions, and an increase of special operations force mobility and fire support aircraft to 259. It also addressed ISR aircraft for the first time, planning for “approximately 83 ISR aircraft (40 remotely-piloted and 43 manned).”⁵⁴

Strategic Forces

Changes in force structure for strategic forces reflected the effects of the New START. The nuclear triad endured, but the total number of strategic launchers (intercontinental and submarine-launched ballistic missiles) and heavy bombers was planned to shrink from 886 to 700 by 2018.⁵⁵

⁵² Numbers shown for U.S. Air Force aircraft reflect “combat-coded” inventory – that is, aircraft assigned to units for performance of their wartime missions.

⁵³ The QDR excluded civil affairs and military information support operations (formerly psychological operations) units from these counts. As a result, readers of the QDR have no visibility into changes in those units’ force structure.

⁵⁴ DoD, 2014b, p. 41.

⁵⁵ DoD, *Fact Sheet on U.S. Nuclear Force Structure Under the New START Treaty*, Washington, D.C., April 2014f.

Force Structure, FYs 2014–2015

Table 5.1 describes general-purpose force structure in FY14, as well as the force structure proposed in the FY15 defense budget proposal.

Table 5.1
2014 QDR Report Projections and Actuals for General-Purpose Force Structure,
FYs 2014–2015

Service Element	FY14 QDR Planned	FY14 Actual ^a	FY15 Budget Proposal Planned
Army			
Divisions (AC/RC)	10/8	10/8	10/8
Maneuver brigades (AC)	Not stated	38	32
Maneuver battalions (AC) ^b	Not stated	152	128
Navy			
Aircraft carriers	11	10	10
Carrier air wings (AC)	10	10	10
Attack submarines	51	54	54
Surface combatants	92	99	93
Marine Corps			
Divisions (AC/RC)	3/1	3/1	3/1
Expeditionary forces	2	3	3
Air wings (AC/RC)	3/1	3/1	3/1
Air Force			
Fighter squadrons (AC/RC) ^c	26/22	33/27	29/29
Bombers	96	111	112
Special Operations Forces			
Military manpower ^d	69,700	63,263	Not stated

SOURCES: DoD, 2014b; OUSD (Comptroller), 2014a.

NOTE: AC = active component; RC = reserve component.

^a These figures depict FY14 enacted budget data from OUSD (Comptroller), 2014a.

^b For the purpose of this study, a *maneuver battalion* is any infantry battalion, armor battalion, cavalry squadron, or combined arms battalion of the various mutations of maneuver brigades that have been part of Army force structure since 2001. We derived the actual maneuver battalion figure from modular BCT force structure, which includes two infantry battalions and one light cavalry squadron in interim BCTs, two combined arms battalions and one armored reconnaissance squadron in armored BCTs, and three infantry battalions and one cavalry squadron in Stryker BCTs. By 2014, most BCTs had assumed the Army 2020 Table of Organization and Equipment framework, which included a third maneuver battalion in interim BCT and armored BCT structure.

^c We estimate the number of squadrons in the active and reserve components based on the number of reported primary aircraft authorized and the observed ratio of aircraft to squadrons from FYs 99–05. The ratios are as follows: 22 aircraft per F-15 and, later, F-22 squadron; 12 aircraft per A-10 squadron; 20 aircraft per F-16 squadron; and 18 aircraft per F-117 squadron. Budget data from FYs 01–07 also yielded the ratio of aircraft per squadron for the reserve component: 12 aircraft per Air National Guard A-10 squadron, 15 aircraft per Air Force Reserve A-10 squadron, and 15 aircraft per fighter (F-15 and F-16) squadron in both the Air National Guard and Air Force Reserve.

^d These figures include Military Department Major Force Program 11 activities only.

Manpower and End Strength

Fiscal constraints, the rebalance to the Asia-Pacific, increasing tensions in Europe and the Middle East, and uncertainty about post-2014 force levels in Afghanistan set the strategic context for the 2014 QDR.

The QDR report projected an overall 6.8-percent reduction to DoD-wide active-duty end strength from FY14 levels. The Army faced the largest such cut, standing to lose nearly 14 percent of its active-component force between FY14 and FY19. The QDR projected reductions of 4.1 percent and 3.6 percent for the Air Force and Marine Corps, respectively, over that same period. The Navy looked to lose fewer than 1,000 authorized slots. Projected reductions to the reserve components of each service were less severe. The FY15 defense budget pushed the end strength of each of these services and components onto its corresponding (declining) trajectory. The possibility of continued sequestration-level reductions to end strength, however, was a constant undercurrent of the debates that followed the release of the 2014 QDR report and the FY15 defense budget. Continued sequestration-level cuts would result in active Army and Marine Corps end-strength reductions of 17.7 percent and 7.3 percent, respectively, from 2014 levels. As was the case with the other QDRs we examined, there was little or no discussion of active- and reserve-component end strength beyond the announced numbers of personnel.⁵⁶

The 2014 QDR report echoed the priorities outlined in the 2012 Defense Strategic Guidance.⁵⁷ Both of these documents emphasized maritime and air capabilities consistent with the rebalance to the Asia-Pacific, but end-strength projections released with the FY15 budget reflected across-the-board cuts. While the Navy maintained end strength from FY13, the Air Force sustained a 6-percent cut to an all-time service low of 310,900 airmen. Even though the Air Force had a marquee role in the shift to Asia, the increasing proliferation of remotely piloted systems and the continued reduction in the number of active and reserve squadrons reduced Air Force support and administrative requirements. The QDR projected fewer major systems in the Navy, which suggests the potential for a similar reduction to Navy end strength during the post-2014 QDR period.

With its FY15 budget request, the Army accelerated its post-Afghanistan draw-down by two years, targeting an active-duty end strength of 490,000 by FY15, rather than FY17.⁵⁸ The accelerated pace of the drawdown was necessary to meet the end strength mandated in the 2014 QDR report by 2019. Even as the likelihood of continued sequestration increased, Chief of Staff of the Army Odierno warned that an

⁵⁶ DoD, 2014b.

⁵⁷ DoD, 2014b, p. v.

⁵⁸ Raymond T. Odierno, Chief of Staff of the Army, "Planning for Sequestration in Fiscal Year 2014 and Perspectives of the Military Services on the Strategic Choices and Management Review," statement before the House Armed Services Committee, Washington, D.C., September 18, 2013. See also CBO, *Long-Term Implications of the 2014 Future Years Defense Program*, Washington, D.C., November 2013b, p. 19.

active-duty Army end strength of 450,000 was the “absolute minimum . . . to fully execute the 2012 Defense Strategic Guidance.”⁵⁹ In congressional testimony, General Odierno equated a smaller Army to one with both reduced capacity and capability. Ultimately, manpower projections in the 2014 QDR report and DoD’s 2013 Strategic Choices and Management Review report reflected the reality of continued decreases to Army budgets, forcing Army leaders to choose readiness for select capabilities over the fielding of a larger force.

Table 5.2 describes the outlook for end strength through FY19, assuming no sequestration.

The 2014 QDR report outlined significant manpower reductions across all services and components of the armed forces, projecting active-duty end strength at 1.25 million by FY19.⁶⁰ These projections represented a reduction of more than 12 percent from peak active-duty end strength in FY10 and nearly 7 percent from FY14 levels. The Army faced a reduction in active-duty end strength of more than 22 percent

Table 5.2
End-Strength Projections and Actuals, FYs 2014, 2015, and 2019

Service	FY14 Actual	FY15 Budget Proposal Planned	FY19 QDR Planned
Army			
Active	510.4	490.0	440.0–450.0
National Guard	354.2	350.2	335.0
Reserve	202.0	202.0	195.0
Navy			
Active	323.9	323.6	323.2
Reserve	59.1	57.3	58.8
Marine Corps			
Active	188.8	184.1	182.0
Reserve	39.6	39.2	39.0
Air Force			
Active	322.1	310.9	308.8
National Guard	105.4	105.0	103.6
Reserve	70.4	67.1	66.5
Total active	1,345.2	1,308.6	1,254–1,264
Total reserve	830.7	820.8	797.9
Total active + reserve	2,175.9	2,129.4	2,051.9–2,061.9

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service; DoD, 2014b.

⁵⁹ Odierno, 2013.

⁶⁰ DoD, 2014b, pp. 39–40.

from its peak in FY10, and the Marine Corps faced a 10-percent reduction from its peak in FY09.⁶¹ These were significant cuts to end strength, given the perceived uncertainties of the strategic environment. Unlike past periods following major wars since 1945, the end of the conflicts in Afghanistan and Iraq left the United States without a clear threat against which it could recalibrate its military forces. Such an environment only heightened interservice competition to garner what each service perceived to be its fair share of total end strength to fulfill the broad guidelines of the 2014 QDR report.

Post-war drawdowns were not unique in the post-World War II era. A wider look at active-duty end strength figures from 1945 through 2015 indicated a remarkably stable distribution of manpower across the services. The ground components increased their shares of total end strength during times of war generally at the expense of the Air Force. But the Air Force had been able to meet its operational requirements since 1945 by exploiting improved technology with precision-guided munitions and greater aircraft payloads. Generally, ground forces were not able to integrate technologies with similar effect on force structure: Boots on the ground still mattered.

Indeed, looking ahead, according to the FY15 President's budget, operations in support of Operation Enduring Freedom in the Afghan theater in FY15 are envisioned to involve substantial numbers of personnel. An average of 11,661 personnel are expected to remain in Afghanistan, and another 63,309 personnel will be providing in-theater support, for a total of 74,970 personnel; meanwhile, 2,904 personnel, including 1,500 to support a train-and-equip mission, are planned for Iraq in FY15.⁶²

Modernization and Transformation

Army Planning Response to the QDR

Table 5.3 summarizes the details of the QDR's modernization thrusts and the Army's planned responses.

The Army had been experiencing the effects of the BCA before the appearance of the latest QDR, and it had warned Congress and OSD of their near-term impact on Army capabilities. Chief of Staff of the Army Odierno testified that the Army would be unable to execute fully the requirements of the 2012 Defense Strategic Guidance if the BCA persisted. Subsequently, in his testimony on March 25, 2014, General Odierno noted that the Army was trading end strength for readiness, as well as accepting risk in modernization to cope with current budget constraints.⁶³

⁶¹ DoD, 2014b.

⁶² OUSD (Comptroller), *Overview: Overseas Contingency Operations Budget Amendment*, Washington, D.C., November 2014b, p. 2.

⁶³ John M. McHugh, Secretary of the Army, and Raymond T. Odierno, Chief of Staff of the Army, "On the Posture of the United States Army," statement before the House Armed Services Committee, Washington, D.C., March 25, 2014.

Table 5.3
Army Execution of Modernization and Transformation Themes in the 2014 QDR Report

2014 QDR Report Themes		Army Execution	
		2014 Army Posture Statement	Army Modernization Testimony
Modernization and transformation	<ul style="list-style-type: none"> • Army will experience readiness and modernization shortfalls (“to realize savings” under BCA) • Army aviation restructured • Ground combat vehicle “concluded” at end of the current technology phase • “Selective upgrades to combat and support vehicles and aircraft, and investments in new technologies” 	<ul style="list-style-type: none"> • Trade end strength for readiness • Accept risk in modernization • Avoid a hollow force and preserve the full range of strategic options for the Commander in Chief or Secretary of Defense^a • Take the position that: <ul style="list-style-type: none"> ◦ If Congress does not mitigate the BCA’s effects, the Army will not be able to fully execute the requirements of the 2012 Defense Strategic Guidance ◦ Over FYs 14–17, the Army will contend with degraded readiness and extensive modernization shortfalls, ending, restructuring, or delaying more than 100 acquisition programs 	<ul style="list-style-type: none"> • Use incremental improvements to modernize critical systems • Build new systems only by exception • Divest older systems to reduce sustainment costs and free funds for modernization and readiness • Reset much of the equipment procured for Afghanistan and Iraq
Focus	<ul style="list-style-type: none"> • Protect the homeland • Build security globally • Project power and win decisively 	<ul style="list-style-type: none"> • Preserve Army capabilities • Limit damage from sequestration 	<ul style="list-style-type: none"> • Enhance the soldier for broad joint mission support • Enable mission command • Remain prepared for decisive action
Context	<ul style="list-style-type: none"> • Prepare for the future while rebalancing the joint force under budgetary constraints 	<ul style="list-style-type: none"> • Preserve the force within constraints of the BCA 	<ul style="list-style-type: none"> • Preserve the force within constraints of the BCA

SOURCE: DoD, 2014b; HQDA, *2014 Army Posture Statement*, Washington, D.C., April 2014d; U.S. Senate, *Department of Defense Authorization of Appropriations for Fiscal Year 2015 and the Future Years Defense Program (Army Modernization): Hearing Before the Committee on Armed Services, Subcommittee on Airland*, Washington, D.C., April 9, 2014.

^a Odierno, 2013.

Table 5.4 summarizes Army procurement and RDT&E investments planned for the post-2014 QDR period.

The FY15 Army budget had five guiding themes: build adaptive leaders; provision a ready and modern Army; strengthen commitment to the Army profession; enable globally responsive, regionally engaged strategic land forces; and maintain the premier all-volunteer Army.⁶⁴

Planned procurement included 79 UH-60M helicopters in various configurations, 32 CH-47 Chinook helicopters, 25 remanufactured AH-64E Apache helicopters, and 55 UH-72 Lakota helicopters. Air and missile defense investments included buying 70 Patriot missile segment enhancement missiles, upgrading Patriot software, continuing development of the Army Integrated Air and Missile Defense System, and continuing to test the Joint Aerostat Project Demonstration. The Army will also invest in developing an advanced technology to defeat artillery, mortars, UAVs, and cruise missiles.⁶⁵

Ground mobility continued investments in Abrams, Bradley, Stryker, and Paladin. The budget summary also highlighted two RDT&E efforts – the armored

Table 5.4
Army Procurement and RDT&E Planned Investments, Post-2014 QDR Era

Modernization	FY15
Aircraft	<ul style="list-style-type: none"> • UH-60 mission equipment packages • Additional CH-47 Chinook, AH-64 Apache, and UH-72 Lakota helicopters • MQ-1 Gray Eagle UAV procurement • Aerial Common Sensor testing • RQ-7 retrofit kits • Enhanced Medium Altitude Reconnaissance and Surveillance System • Distributed Common Ground System-Army • RQ-7 Shadow UAV kits and launchers
Wheeled and tracked combat vehicles	<ul style="list-style-type: none"> • Armored multi-purpose vehicle enters the engineering and manufacturing development phase • Abrams/Bradley fleet modernization • Stryker Double V hull brigade set • Paladin Integrated Management low-rate initial production • Joint light tactical vehicle low-rate initial production
Missiles	<ul style="list-style-type: none"> • Patriot missile segment enhancement missiles and software upgrades • Army Integrated Air and Missile Defense System continued development • Joint Aerostat Project Demonstration continues • Guided Multiple Launch Rocket System development • Army Tactical Missile System selective life extension program
Ammunition	None
Other procurement	<ul style="list-style-type: none"> • WIN-T • Networked tactical radios • Command Post Common Operating Environment • Joint Battle Command Platform procurement • M119 Digital Fire Control modifications • AN/TPQ-53 radar procurement • Network Integration Evaluation

SOURCE: HQDA, *Army FY 2015 Budget Overview*, Washington, D.C., March 2014b.

⁶⁴ HQDA, 2014b, p. 3.

⁶⁵ HQDA, 2014b, p. 12.

multi-purpose vehicle entering engineering and manufacturing development and the joint light tactical vehicle family, of which the Army planned to buy 176 variants through initial low-rate production.⁶⁶

Indirect fire-related activity includes procurement of 13 AN/TPQ-53 radar systems, additional Guided Multiple Launch Rocket System rockets, M119A2 howitzer fire control upgrades, Army Tactical Missile System selective life extension program, and RDT&E investments in long-range precision rocket and gun technologies for employment in environments that deny use of the Global Positioning System.⁶⁷

Intelligence investments continued for the MQ-1 Gray Eagle UAV, the Enhanced Medium Altitude Reconnaissance and Surveillance System, Distributed Common Ground System-Army, and RQ-7 Shadow UAV (seven retrofit kits and launchers). Mission command continued investments in WIN-T, networked tactical radios, Command Post Common Operating Environment, Network Integration Evaluation, and the Joint Battle Command Platform.⁶⁸

There was one major program cancellation – the ground combat vehicle.

Resources

Economic and Budgetary Outlook

In response to rising deficits, between August 2011 and January 2014, Congress passed multiple laws that would restrict federal government spending in the coming years:

The Budget Control Act of 2011 (BCA; P.L. 112-25) reintroduced statutory limits on spending by imposing a series of caps on discretionary [budget authority] from FY2012 through FY2021. The American Taxpayer Relief Act of 2012 (ATRA; P.L. 112-240) modified limits for FY2013 and FY2014. The FY2013 full-year funding bill (H.R. 933; P.L. 113-6) enacted March 26, 2013, conformed to those limits. The Bipartisan Budget Act (H.J.Res. 59; P.L. 113-67) also modified BCA limits for FY2014 and FY2015. On January 17, 2014, the Consolidated Appropriations Act, 2014 (H.R. 3547; P.L. 113-76) was enacted to provide funding within those limits for the rest of FY2014.⁶⁹

These measures instituted annual caps on discretionary spending by budget function, and included sequestration provisions that would limit spending by federal departments and agencies by sequestering any funding above the caps. They also pre-

⁶⁶ HQDA, 2014b, p. 13.

⁶⁷ HQDA, 2014b, p. 14.

⁶⁸ HQDA, 2014b, p. 16.

⁶⁹ D. Andrew Austin, *The Budget Control Act and Trends in Discretionary Spending*, Washington, D.C.: Congressional Research Service, RL34424, April 2, 2014.

precipitated efforts within DoD to develop a “resource-informed” strategy (the January 2012 Defense Strategic Guidance) and a set of programmatic options tied to alternative potential resource levels (the September 2013 Strategic Choices and Management Review). The architects of the 2014 QDR were thus operating in a highly constrained budgetary environment.

By the time of the 2014 QDR, the economic recovery appeared to be picking up steam, while the long-term fiscal situation continued to worsen, and defense planners had to reckon with tightening resource constraints. In February 2014, CBO forecast GDP growth of 3.1 percent for 2014, increasing economic growth to 3.4 percent in 2015 and 2016, but growth tapering back to 2.7 percent in 2017, with 2.2 percent per year GDP growth thereafter.⁷⁰

CBO expected the economy to be operating at capacity by 2017, at which time unemployment was expected to drop below 6 percent.⁷¹ The forecast federal budget deficit was \$514 billion for FY14 and \$478 billion for FY15, with a forecast for rising deficits thereafter. CBO forecast a total cumulative deficit over FYs 15–19 of \$3 trillion, and \$7.9 trillion over FYs 15–24.

To address the growing deficit, Congress passed the BCA and then the Balanced Budget Act of 2013, which established caps on discretionary defense and nondefense spending, plus an enforcement mechanism in the form of sequestration. Despite spending cuts in the years preceding the 2014 QDR, DoD planners and budgeters faced the continued threat of sequestration. As described in DoD’s April 2014 report *Estimated Impacts of Sequestration-Level Funding*, these cuts would cripple the defense program:

To comply with the original discretionary spending caps in the BCA, FY 2012 enacted appropriations and the FY 2013 President’s Budget reduced DoD funding by \$487 billion compared with the 10-year plan in the FY 2012 President’s Budget.

The March 2013 sequestration reduced base budget FY 2013 DoD funding by an additional \$32 billion.

Consistent with the revised caps in the [Balanced Budget Act of 2013], FY 2014 enacted appropriations reduced DoD funding by \$31 billion compared with the President’s Budget request, and the FY 2015 President’s Budget requested \$45 billion less than was planned in the FY 2014 budget.

Together, these cuts total almost \$600 billion. Accordingly, the Department’s planned budgets across the FYDP have been substantially reduced. The Services have already reduced force structure and planned modernizations prior to any additional cuts discussed here. Additionally, compensation savings have been

⁷⁰ CBO, *The Budget and Economic Outlook: 2014 to 2024*, Washington, D.C., February 2014b.

⁷¹ CBO, 2014b.

assumed at both funding levels. If these proposed compensation reforms are not enacted, the Department will have no choice but to make further cuts elsewhere in the budget that will deprive our troops of the training and equipment they need to succeed in battle.

With the addition of projected sequestration-level cuts for FY 2016 through 2021, reductions to planned defense spending for the ten-year period from FY 2012 to 2021 will exceed \$1 trillion. If sequestration-level cuts persist, our forces will assume substantial additional risks in certain missions and will continue to face significant readiness and modernization challenges. These impacts would leave our military unbalanced and eventually too small to meet the needs of our strategy fully.⁷²

DoD estimated that sequestration-level funding would reduce spending over the FY15–19 FYDP by \$115.2 billion. For the Army, the reductions would total \$26.4 billion in spending, and 20,000–30,000 active-duty soldiers over five years (from an active Army end strength of 440,000–450,000 to 420,000 personnel).⁷³

FY 2015 Budget

Work on the 2014 QDR followed immediately on the heels of the 2013 Strategic Choices and Management Review report, which assessed planning options at different budget levels. According to our structured conversations, as a practical matter, the guidance over the course of the QDR was to assess the force at the end of the FYDP at BCA levels and, when DoD received additional funds above BCA levels in 2013, there was an add-back process. At that point, the force was reassessed, and the judgment of at least one of our interlocutors was that the capabilities of the better-resourced force were better than those of the BCA-constrained force.

The administration released its 2014 QDR report and its budget request for FY15 in March 2014. The FY15 President's budget request for DoD highlighted the following initiatives:

- Ending the war in Afghanistan and, pending the signing of a Bilateral Security Agreement, maintaining a small force of Americans and international partners to train and assist Afghan forces and carry out limited counterterrorism operations in pursuit of any remnants of al Qaeda;
- Supporting Government-wide efforts to rebalance diplomatic, economic, and military resources to the Asia-Pacific region while also upholding responsibilities elsewhere;
- Protecting the homeland and ensuring a safe, secure, and effective nuclear deterrent;

⁷² DoD, *Estimated Impacts of Sequestration-Level Funding*, Washington, D.C., April 2014e, pp. 1-1-1-2.

⁷³ DoD, 2014e, p. 2-1.

- Sustaining our ability to project power and win decisively against both state adversaries and terrorist threats;
- Making progress toward restoring balance to the Joint Force by gradually raising readiness levels negatively impacted by sequestration while supporting the transition to a smaller military that is more agile and technologically superior;
- Providing funds to recruit and retain the best-trained All-Volunteer Force; support military families; care for wounded, ill, and injured service members; make further, measurable progress toward eliminating sexual assault in the military; and help service members effectively transition to civilian life; and
- Sustaining investments in science and technology programs, which drive innovation in military capabilities, as well as in the civilian economy.⁷⁴

The 2014 QDR report opens with an acknowledgment of the dual strategic and fiscal challenges: “Given this dynamic environment, the 2014 [QDR] is principally focused on preparing for the future by rebalancing our defense efforts in a period of increasing fiscal constraint.”⁷⁵ The QDR called on DoD to build on the Defense Strategic Guidance released in January 2012, including a rebalancing to the Asia-Pacific and a smaller, leaner force enabled by key technological investments and strengthened alliances and partnerships.

At his rollout of the FY15 budget, Secretary Hagel noted that the 2014 QDR report “defines the historic transition unfolding throughout our defense enterprise. As we move off the longest continuous war footing in our nation’s history, this QDR explains how we will adapt, reshape, and rebalance our military for the challenges and opportunities of the future.”⁷⁶

Secretary Hagel described the 2014 QDR as “neither budget driven nor budget blind,”⁷⁷ and indeed, this QDR was more resource-conscious than previous defense reviews. Unlike previous QDR reports, the 2014 QDR report discussed strategic requirements alongside resourcing requirements and risks, and it included an entire chapter on implications of further budget reductions. While the QDR report asserted that the FY15 budget accomplished missions at acceptable levels of risk, it found,

The return of sequestration-level cuts in FY2016 would significantly reduce the Department’s ability to fully implement our strategy. . . . Our military would be unbalanced and eventually too small and insufficiently modern to meet the needs of our strategy, leading to greater risk of longer wars with higher casualties for the United States and our allies and partners. Ultimately, continued sequestration-

⁷⁴ OMB, *Fiscal Year 2015 Budget of the U.S. Government*, Washington, D.C., March 2014a, p. 57.

⁷⁵ DoD, 2014b, p. iv.

⁷⁶ DoD, “News Release: DoD Releases Fiscal 2015 Budget Proposal and 2014 QDR,” Washington, D.C., March 4, 2014c.

⁷⁷ DoD, 2014c.

level cuts would likely embolden our adversaries and undermine the confidence of our allies and partners, which in turn could lead to an even more challenging security environment than we already face.⁷⁸

On December 19, 2014, President Obama signed the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015, which authorized defense spending levels that complied with BCA caps for FY15—\$513.4 billion for the national defense budget function, with \$495.9 billion for DoD base budget discretionary funding. The bill provided another \$63.7 billion for OCO in FY15.⁷⁹

Meanwhile, Congress took no action on the President’s FY15 Opportunity, Growth, and Security Initiative, which would have provided an additional \$26 billion to DoD in FY15, but also would have exceeded the BCA caps and, absent legislation to remove the caps, would have triggered sequestration.⁸⁰

The National Defense Authorization Act did, however, support some modest efforts at cost-cutting. It accepted the President’s authority to raise military basic pay by 1 percent in FY15 (rather than the statutorily prescribed level of 1.8 percent), allowed a 1 percent reduction in the housing allowance, and authorized a \$3 increase in TRICARE copayments. Nonetheless, the act also prohibited several more-consequential cost-saving measures and bill-payers that were central to the administration’s strategy for a balanced program and budget, including, for example, another BRAC round, the mothballing of Aegis cruisers and retiring of A-10s, and reductions to the military commissary system, while deferring action on reforming military compensation and benefits.⁸¹

Long-Term Projections

In the absence of a legislative adjustment, the BCA and Bipartisan Budget Agreement will continue to shape the long-term resource picture for DoD. Figure 5.2 reports CBO’s projections for the DoD topline for FYs 14–21 under a variety of budget scenarios.

The top two lines show two projections of the costs of DoD’s planned spending. The red line, “CBO projection of current DoD plans,” uses CBO’s estimates for the costs of military activities and projected changes over time. The green line, “FYDP

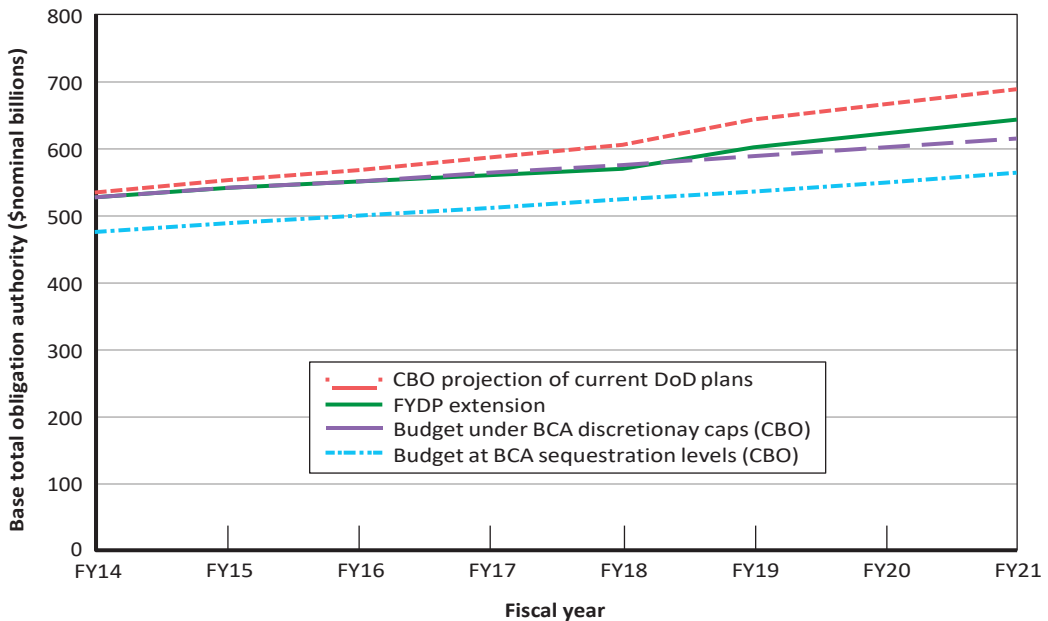
⁷⁸ DoD, 2014b, p. 53.

⁷⁹ Pub. L. 113-291, 2014.

⁸⁰ See “‘Wish List’ Is Dead on Arrival,” *CQ Weekly*, March 10, 2014.

⁸¹ For a good summary of actions taken in the FY15 National Defense Authorization Act, see Pat Towell, *Fact Sheet: Selected Highlights of H.R. 3979, the Carl Levin and Howard “Buck” McKeon National Defense Authorization Act for FY2015*, Washington, D.C.: Congressional Research Service, R43806, December 3, 2014; Barbara Salazar Torreon, Lawrence Kapp, and Don J. Jansen, *FY2015 National Defense Authorization Act: Selected Military Personnel Issues*, Washington, D.C.: Congressional Research Service, R43647, December 11, 2014; and CBO, letter to Howard P. “Buck” McKeon providing an estimate of the direct spending and revenue effects of H.R. 3979, the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015, Washington, D.C., December 4, 2014g. Before taking action on military pay and benefits, Congress is awaiting the report of the Military Compensation and Retirement Modernization Commission.

Figure 5.2
Projected DoD Base Budget Under the Limits of the Budget Control Act of 2011,
FYs 2014–2021



SOURCE: CBO, 2013b, Table 1-4.

RAND RR1309-5.2

extension,” uses DoD estimates (rather than CBO’s independent projection) for military activities in the Department’s current plans.

The projections shown in Figure 5.2 are for the base budget only, and they do not include estimated war-related spending. While projections for war-related contingencies are inherently difficult to estimate, supplemental spending will, by most accounts, decline in coming years. While the administration included an OCO “placeholder” of nearly \$80 billion in its FY15 budget submission in March, it amended this request downward by summer 2014 to a final request of \$58.6 billion, a reduction of \$19.5 billion for FY15.⁸² Given the uncertainty of projected war-related spending, there have been few formal indications of projected spending levels. However, the House Budget Committee’s proposed FY14 budget of March 2013 did include estimated spending for the “war on terrorism.”⁸³ The House budget resolution projected a steady decline for war-related spending, from a high of \$47 billion in FY14 to a low of \$37 billion by FY21, averaging \$39.5 billion over that span. Actual war-related spending in FY14 and that requested for FY15 have exceeded the House’s estimate.

⁸² OMB, Overseas contingency operations amendments, Washington, D.C., June 26, 2014b.

⁸³ U.S. House of Representatives, *The Path to Prosperity: A Responsible, Balanced Budget: Fiscal Year 2014 Budget Resolution*, Committee on the Budget, Washington, D.C., March 2013, Table S-4.

Defense Reform and Infrastructure

The 2014 QDR report called for congressional approval of the following actions to reduce overhead costs and spur efficiencies:

- Another round of BRAC in FY17.⁸⁴
- Compensation reform, including “restrained annual military pay raises over the next five years; slowing the rate of growth in tax-free housing allowances; simplifying and modernizing the TRICARE programs, including modestly increasing co-pays and deductibles in ways that encourage members to use the most affordable means of care, adjusting pharmacy co-pay structure, and establishing a modest fee for the TRICARE-for-Life coverage for Medicare-eligible retirees; and decreasing commissary subsidies.” According to the QDR, if implemented fully, these proposals would save approximately \$12 billion over the next five years and considerably more by the end of ten years.⁸⁵
- Acquisition reform, including a “Better Buying Power initiative that seeks to achieve affordable programs by controlling costs, incentivizing productivity and innovation in industry and government, eliminating unproductive processes and bureaucracy, promoting effective competition, improving tradecraft in contracted acquisition of services, and improving the professionalism of the total acquisition workforce.”⁸⁶

In the FY15 National Defense Authorization Act, Congress balked at another BRAC round and reform of military pay and benefits. It is thus far too early to assess the prospects for these efforts.

Risk Assessment

The authors of the 2014 QDR report were primarily concerned about the level of funding that would be needed and made available to execute their proposed defense strategy, a topic that was the focus of the Strategic Choices and Management Review that preceded the kickoff of the QDR. While they argued that the proposed FY15 funding level – including an additional \$26.4 billion from the proposed Opportunity, Growth, and Security Initiative – posed acceptable risk to the strategy, they expressed concern that these risks would increase significantly if sequestration-level cuts were reinstated,

⁸⁴ DoD, 2014b, p. 48.

⁸⁵ DoD, 2014b, pp. xii–xiii.

⁸⁶ DoD, 2014b, p. xi.

or if there was continued uncertainty over DoD's budget.⁸⁷ Overall, they concluded that the proposed force-planning construct was adequately resourced, with caveats:

The President's FY2015 Budget provides the resources to build and sustain the capabilities to conduct these operations, although at increased levels of risk for some missions. With the President's Budget, our military will be able to defeat or deny any aggressor. Budget reductions inevitably reduce the military's margin of error in dealing with risks, and a smaller force strains our ability to simultaneously respond to more than one major contingency at a time. The Department can manage these risks under the President's FY2015 budget plan, but the risks would grow significantly if sequester-level cuts return in FY2016, if proposed reforms are not accepted, or if uncertainty over budget levels continues.⁸⁸

Overall, the QDR puts forth an updated national defense strategy that we believe is right for the country. At the President's budget level, which does ask for more resources than if sequestration were to continue, we believe we can execute the strategy, although with increased risk in certain areas.⁸⁹

The CJCS identified three main areas of higher risk. The first was the capacity of the QDR force to defend the homeland while conducting simultaneous high- to mid-intensity defeat-and-deny campaigns:

The most stressing interpretation of the strategy calls for defending the homeland while conducting simultaneous defeat and deny campaigns. When measured against high- to mid-intensity operational plans, executing this combination of contingencies simultaneously would be higher risk with the QDR force.⁹⁰

The second area of high risk was associated with the low probability that reductions in U.S. capacity could be completely offset by an increased reliance on U.S. partners. Finally, the Chairman believed that the rapidly changing international environment would diminish U.S. military capabilities relative to our potential adversaries, and "complicate our ability to meet ambitious strategic objectives." He thus felt that it was important that U.S. military objectives be more closely aligned with the programmed capabilities and capacities of the U.S. military.⁹¹

The Chairman also noted that the 2014 QDR assumed risk in the capacity of each service, particularly with the ground forces. As a result, they would need to be

⁸⁷ DoD, 2014b, p. 13.

⁸⁸ DoD, 2014b, p. 22.

⁸⁹ See the testimony of Deputy Under Secretary of Defense Wormuth, in U.S. House of Representatives, 2014, p. 5.

⁹⁰ DoD, 2014b, p. 62.

⁹¹ DoD, 2014b, p. 63.

“even better organized, trained, and equipped for the full spectrum of 21st Century challenges.”⁹² In addition, he said that this assumption of risk required a comprehensive review of the reserve component’s ability to mobilize and of the nation’s preparedness for a potential national mobilization. He also identified the risk that expensive systems procured by the United States could be cheaply neutralized by adversaries.⁹³

The Chairman saw sequestration as an even greater risk to the 2014 QDR’s military strategy, describing the effects of such cuts in stark terms:

The QDR force takes risk in the capacity of each Service but most notably in land forces. While a U.S. military response to aggression most often begins in the air or maritime domains – and in the future could begin with confrontations in the cyber and space domains – [responses] typically include and end with some commitment of forces in the land domain. Therefore, our QDR land forces will need to be even better organized, trained, and equipped for the full spectrum of 21st Century challenges. Moreover, since time is a defining factor in the commitment of land forces, I strongly recommend a comprehensive review of the Nation’s ability to mobilize its existing reserves as well as its preparedness for the potential of national mobilization.⁹⁴

The Chairman supported the program laid out in the 2014 QDR report but was worried about the willingness of the nation to pay for the military forces that both the QDR’s authors and he believed to be necessary to achieve U.S. security goals, stating,

I support the strategic direction articulated in the 2014 Quadrennial Defense Review (QDR). As we rebuild our readiness following more than a decade of conflict, the U.S. military will be capable of executing the 2014 QDR strategy but with higher risk in some areas. In fact, our military risk will grow quickly over time if we don’t make the types and scope of changes identified in the report.⁹⁵

Particularly worried about the longer-term risks associated with the rise of China, he noted,

[I]n the next 10 years, I expect the risk of interstate conflict in East Asia to rise, the vulnerability of our platforms and basing to increase, our technology edge to erode, instability to persist in the Middle East, and threats posed by violent extremist organizations to endure. Nearly any future conflict will occur on a much faster pace and on a more technically challenging battlefield. And, in the case of

⁹² DoD, 2014b, pp. 61–62.

⁹³ DoD, 2014b, p. 62.

⁹⁴ DoD, 2014b, pp. 61–62.

⁹⁵ DoD, 2014b, p. 59.

U.S. involvement in conflicts overseas, the homeland will no longer be a sanctuary either for our forces or for our citizens.⁹⁶

Given the available resources, the Chairman concurred with the QDR's force structure and investment recommendations:

I consider the QDR's force structure recommendations appropriate to the resources available. The QDR prioritizes investments that support our interests and missions, with particular attention to space, cyber, situational awareness and intelligence capabilities, stand-off strike platforms and weapons, technology to counter cruise and ballistic missiles, and preservation of our superiority undersea.⁹⁷

Prompting many of the Chairman's concerns were previous and planned budget cuts that resulted from the broader national debate over "fiscal responsibility" and the appropriate size of the federal government. He summarized his view of the QDR risks thusly:

The smaller and less capable military outlined in the QDR makes meeting these obligations more difficult. Most of our platforms and equipment will be older, and our advantages in some domains will have eroded. Our loss of depth across the force could reduce our ability to intimidate opponents from escalating conflict. Nations and non-state actors who have become accustomed to our presence could begin to act differently, often in harmful ways. Moreover, many of our most capable allies will lose key capabilities. The situation will be exacerbated given our current readiness concerns, which will worsen over the next 3 to 4 years.

The essentials of the 2014 QDR are correct. Given the increasing uncertainty of our future, and the inherent uncertainty in judging risk, I support its short-term conclusions and direction. As suggested by the QDR, we will be challenged as an institution to make even relatively simple and well-understood reforms. We will be preoccupied in the near term with restoring readiness given the devastating impacts of previous budget cuts. Nevertheless, if our elected leaders reverse the Budget Control Act caps soon – and if we can execute the promises of the QDR – then I believe we can deliver security to the Nation at moderate risk.

My greatest concern is that we will not innovate quickly enough or deeply enough to be prepared for the future, for the world we will face 2 decades from now. I urge Congress – again – to move quickly to implement difficult decisions and to remove limitations on our ability to make hard choices within the Department of Defense. The changes required for institutional reform are unpleasant and unpopular, but we need our elected leaders to work with us to reduce excess infrastruc-

⁹⁶ DoD, 2014b, p. 61.

⁹⁷ DoD, 2014b, p. 61.

ture, slow the growth in military pay and compensation, and retire equipment that we do not need. Savings from these and other reforms will help us modernize, will add to research and development investments, and will provide needed funds to recover readiness. The lack of will to do what is necessary may drain us of the will to pursue the more far-reaching ideas promised in the QDR.

The true risk is that we will fail to achieve the far-reaching changes to our force, our plans, our posture, our objectives, and our concepts of warfare. I believe that dramatic changes will be needed in all of these by 2025. Some of these changes are well-known and outlined in the QDR. Some of these changes are only dimly perceived today and need encouragement and direction. Innovation is the military imperative and the leadership opportunity of this generation. It's a fleeting opportunity.⁹⁸

Army View on Post–2014 QDR Risks

On March 25, 2014, three weeks after publication of the 2014 QDR report, Secretary of the Army John McHugh and Chief of Staff of the Army Odierno provided two distinct risk assessments in their joint testimony before the House Armed Services Committee. Addressing the FY15 President's budget request level for force structure and funding, they said, "The Army will be able to execute the 2012 Defense Strategic Guidance at this size and component mix, but it will be at significant risk."⁹⁹ The second assessment addressed risk at sequestration force levels and funding caps for FY16 and beyond, and McHugh and Odierno stated, "Most significantly, these projected end strength levels would not enable the Army to execute the 2012 Defense Strategic Guidance."¹⁰⁰

Two weeks later, General Odierno expounded on these risks in a statement to the Senate Armed Services Committee. He discussed major themes in the 2012 Defense Strategic Guidance and the recently released 2014 QDR report, and reported that his view of the Army's mission was that it must have "the ability to rapidly respond to conduct the entire range of military operations, from humanitarian assistance and stability operations to general war."¹⁰¹ He noted the Secretary of Defense's guidance to "not size for large prolonged stability operations" and to "not retain force structure at the expense of readiness to avoid a hollow force." He further stated that he believed that this guidance equated to telling the Army to take "risk in our depth and endurance" and that he and Secretary McHugh also wanted the Army to focus on "fulfilling the

⁹⁸ DoD, 2014b, p. 64.

⁹⁹ McHugh and Odierno, 2014.

¹⁰⁰ McHugh and Odierno, 2014.

¹⁰¹ Raymond T. Odierno, Chief of Staff of the Army, "Total Force Policy for the U.S. Army," statement before the Senate Armed Services Committee, Washington, D.C., April 8, 2014.

needs of the combatant commanders to the greatest extent possible.” General Odierno described the challenge of finding ways to “balance end strength, readiness, and modernization,” and he noted that the decision to take risk in near-term modernization was one way to prevent hollowness.¹⁰²

In discussing sequestration levels of funding, the Chairman sounded a warning that sequestration end-strength levels would “call into question our ability to execute even one prolonged, multi-phased major contingency operation. Our Army will not have sufficient capacity to meet ongoing operational commitments and simultaneously train to sustain appropriate readiness levels.” Again, presenting the President’s FY15 budget as a floor — at which there was “some risk to equipment modernization programs and readiness” — he added that “as we continue to lose end strength our flexibility deteriorates as does our ability to react to a strategic surprise. Our assumptions about the duration and size of future conflicts, allied contributions and the need to conduct post-conflict stability operations are optimistic. If these assumptions are wrong, our risk grows significantly.” Later, using BCTs as an example, General Odierno stated, “Most of our contingency plans call for our forces being ready and deployed within ninety days to meet requirements. If we are forced to reduce to the lowest BCT levels under the current law caps, the available inventory of ready units will not meet the requirements. This would cause our national leaders to have to make the decision of either not providing needed forces to our combatant commanders or deploying unready, not fully manned BCTs with limited logistical support. Both increase the risk to mission success and our American Soldiers.”¹⁰³

In other venues, General Odierno painted a similar picture. For example, at the October 2013 Association of the United States Army Convention prior to the QDR report’s release, he said, “History says the Army will fight again . . . much sooner than we think,” and that the Army is “on a path that will inadequately size a ready force.”¹⁰⁴ And at the Center for Strategic and International Studies, just prior to his 2014 congressional testimony, he warned, “If we got into a large contingency, it’s my assessment that we would have to go to a national mobilization,”¹⁰⁵

Taken together, these statements reflect three distinct themes that emerged from the Army’s internal analysis of the force proposals in the Defense Strategic Guidance and Strategic Choices and Management Review report.¹⁰⁶

¹⁰² Odierno, 2014.

¹⁰³ Odierno, 2014.

¹⁰⁴ Tom Vanden Brook, “Danger: Don’t Cut Too Deep, Odierno Warns,” *USA Today*, October 21, 2013.

¹⁰⁵ Dan Verton, “Army Chief Warns Sequestration Could Force ‘National Mobilization,’” *Fedscoop*, March 14, 2014.

¹⁰⁶ The discussion of Army analysis that follows is drawn from personal recollections of one of the authors, who was responsible for preparing and conducting much of the analysis that supported Army force-structure discussions for development of the 2012 Defense Strategic Guidance and the Strategic Choices and Management

The first theme was the challenge of hedging against “failed assumptions” and ambiguities in the definitions of key terms. The Army’s assessment consistently maintained that there is a distinct difference between choosing not to size for “prolonged stability operations” and believing that a major combat operation could be accomplished in a single rotation of troops. Army analysis, based on its reading of current combatant commander planning for major combat operations, suggested that at a minimum, the Army would need a presence for longer than a year. This meant that a second rotation had to be available within the force structure to meet the (admittedly reduced) demands of professionally and safely transitioning out of the crisis following the major combat operation portion of the campaign. The Army may have been willing to take risk in having some number of soldiers rotate on a 1:1 rotation cycle for a short time, but was adamantly opposed to accepting the risk of requiring soldiers to again be deployed for combat tours of a year or more. Therefore, it had to have the depth to both provide the smaller second rotation and continue to meet other worldwide commitments and contingencies while soldiers from the first rotation were resetting and refitting. Based on the projected force levels and assuming the requirement to meet some of the most demanding force-planning constructs, the analysis was clear that providing both the second rotation and a residual capability, ready to respond to new contingencies and to support combatant command Phase 0 demands,¹⁰⁷ could severely challenge the Army.

The second major theme was balancing between the demands of current operations and the need to have a ready force for contingency operations; as Chief of Staff of the Army Odierno’s discussion of BCTs highlights, at some point, the Army will reach a lack of depth that forces hard choices. One Army general used to refer to this as the “break glass in case of emergency” Army — that is, the choice to use it for current support to the combatant commanders severely compromised the ability of the force to rapidly generate ready-force packages to respond to contingencies, and the larger the contingency or combination of contingencies, the harder it got. If the time constraint was removed, it got easier. There was, however, no evidence that OSD or the combatant commanders would find slower response times for contingencies to be acceptable. Alternatively, preserving readiness and responsiveness meant that the Army would be kept “under glass”; it would be necessary to reduce the level of Phase 0 engagement below the levels envisioned in the Defense Strategic Guidance and QDR, by the Army’s own estimates of what it took to “shape” or “deter.”

Review report, and who briefed and discussed the implications of the analysis with Chief of Staff of the Army Odierno.

¹⁰⁷ In this case, Phase 0 (peacetime) demands were modeled using a combination of both the steady-state security posture, provided by OSD in the integrated security constructs as a planning baseline, and the Army’s interpretation of the real-life demands of the combatant commanders and the Army’s methodology for supporting them through “regionally aligned forces.” Modeling also included some assumptions about ongoing requirements in the U.S. Central Command area of responsibility.

The third major theme had to do with the need to balance end strength, readiness, and modernization. Even given the early decision to take risk in modernization, the challenges of how quickly the force could realistically be drawn down, how quickly manpower savings could be accrued, and the magnitude of the budget cuts led the Army's Vice Chief of Staff to tell a Senate committee in March 2014,

In order to achieve the most efficient readiness levels within our funding limits, the Army is implementing tiered readiness as a bridging strategy until more resources are made available. Under this strategy, only 20% of the total operational forces will conduct collective training to a level required to meet our strategic mission, with 80% remaining at lower readiness levels.¹⁰⁸

However, this strategy increased near-term risk by reducing the ability to respond with ready-force packages. It also was strongly perceived to create longer-term risk, through the loss of experiential opportunities for junior officers and noncommissioned officers, who would eventually be called on to lead units in the conduct of tasks and missions for which they had not been given the opportunity to develop expertise. Finally, at some point, the Army would no longer feel comfortable continuing to take risk in modernization accounts. The budget would eventually have to be rebalanced to allow for recapitalization of aging fleets and introduction of key new technologies. However, at projected funding levels – and given projections for even further reductions – the Army would eventually have to rebalance by accepting continued risk in current readiness or by accepting additional force-structure reductions.

The true message of Secretary McHugh and General Odierno was that there was not really any one thing in the Defense Strategic Guidance, Strategic Choices and Management Review report, or QDR report that the Army could not do; rather, they argued that there was not a low- to moderate-risk way to do all of them – or even be prepared to do all of them – in combination. No service chief or secretary wants to be put in the position of limiting options available to the President in response to a crisis. But Army leaders acknowledged that the projected arc of Army readiness, modernization, and force structure would create a situation in which every decision on how to use the Army would result in a discussion about which contingent options would be closed down by that decision. In Secretary McHugh and General Odierno's view, the scope of contingent options that would be closed down created a high risk to the Army's ability to meet the demands of the strategy.

¹⁰⁸ John F. Campbell, Vice Chief of Staff of the Army, "Current Readiness," statement before the Subcommittee on Readiness and Management Support, Senate Armed Services Committee, Washington, D.C., March 26, 2014.

Reception

Congress

House Armed Services Committee Chairman McKeon immediately rejected the 2014 QDR report. In fact, he called for the QDR to be rewritten:

I appreciate the work that has gone into this QDR. A rigorous analysis and debate that takes place every four years as the review is put together should be immensely valuable to planners and senior commanders. Unfortunately, the product the process produced this time has more to do with politics than policy and is of little value to decision makers. For that reason, I will require the Department to re-write and re-submit a compliant report. In defiance of the law, this QDR provides no insight into what a moderate-to-low risk strategy would be, is clearly budget driven, and is shortsighted. It allows the President to duck the consequences of the deep defense cuts he has advocated and leaves us all wondering what the true future costs of those cuts will be.

What's wrong with the QDR for 2014:

- **Budget Driven:** The FY14 QDR is heavily constrained by low budget levels. The law requires the QDR to identify resources not included in the Pentagon's 5 year spending plan. The whole point of the review is to identify the budget needed to address the evolving threat
- **Shortsighted:** The FY14 QDR only looks out 5 years, instead of the 20 years required by law.
- **Assumes Too Much Risk:** The law requires the QDR to offer a low-to-moderate risk plan for our forces and mission. By Secretary Hagel's own admission, this QDR accepts additional risks.

In the coming days, I will introduce legislation intended to reverse this trend. The legislation will require DoD to re-write and re-submit a compliant QDR for FY14, and could be considered on its own or incorporated into the National Defense Authorization Act. In the coming days, I will consider what measures could be added to such legislation to ensure a prompt and compliant re-write.¹⁰⁹

In December 2014, the *Legislative Digest* reported,

Chairman McKeon remains dissatisfied with the inadequate Quadrennial Defense Review delivered to Congress earlier this year. Contrary to statutory requirements, [the] 2014 QDR focused largely on the near-term, and it contained a strategy that

¹⁰⁹ See House Armed Services Committee, "Chairman McKeon Rejects QDR," press release, Washington, D.C., March 4, 2014a. Chairman McKeon also threatened to restrict 25 percent of OSD's funding until a revised QDR was submitted (House Armed Services Committee, "Fact Sheet: Highlights of the NDAA," Washington, D.C., May 15, 2014b).

assumes increased risk to the force, without specifying the resources required to execute the strategy at a low-to-moderate level of risk. Armed Services Members believe that the time has come to reform the QDR process to make it a more useful oversight tool. The [National Defense Authorization Act] includes a provision introduced by Chairman McKeon and Ranking Member [Adam] Smith (D-WA) designed to overhaul the QDR. A new Defense Strategy Review will require tradeoff analyses between missions, risks, and resources to better inform decisions on the longer-term direction of America's national security infrastructure. The [National Defense Authorization Act] also reshapes the role of the independent National Defense Panel.¹¹⁰

The Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 was passed by both houses and was signed into law by President Obama on December 19, 2014, including a new set of provisions to reform the QDR process.¹¹¹ The legislation replaced the existing statutory language and established the standing requirement for a quadrennial Defense Strategy Review and a National Defense Panel to assess each such review, while eliminating the requirement for a Quadrennial Roles and Missions Review. Thus, the 2014 QDR report would be the last nominal QDR produced by DoD; in the future, the report will be called a Defense Strategy Review.

Independent Review

As it had for the 1997 and 2010 QDRs, Congress commissioned an independent blue-ribbon panel to review and assess the 2014 QDR.¹¹² The report of the National Defense Panel was released in July 2014 and observed that while the United States' international leadership has historically rested on a strategic foundation of military capability and commitment, the capabilities called for by the 2014 QDR report clearly exceeded the budget resources made available to DoD.

The report included a comparison of force structures that would have resulted from the president's FY15 budget, the FY19 (i.e., end of FYDP) force proposed in the QDR, and the funding provided under sequestration in FY19. Table 5.5 summarizes the results of that comparison.

¹¹⁰ House Republicans, "H.R. 3979 – Senate Amendment: National Defense Authorization Act for FY 2015," *Legislative Digest*, December 4, 2014.

¹¹¹ DoD, "President Signs National Defense Authorization Act," press release, Washington, D.C., December 19, 2014g. See Appendix B for the full text of Section 1072 of the National Defense Authorization Act.

¹¹² National Defense Panel, *Ensuring a Strong U.S. Defense for the Future: The National Defense Panel Review of the 2014 Quadrennial Defense Review*, Washington, D.C., July 2014. An April 2014 DoD report titled *Estimated Impacts of Sequestration-Level Funding* used different counting rules, focused exclusively on general-purpose forces, and produced more-pessimistic estimates. For example, for FY19, that report estimated 186 Navy ships, 48 Air Force Tactical Air Command squadrons (active plus reserve), 46 Army BCTs (active plus reserve), and 29 Marine Corps infantry battalions (active plus reserve) (DoD, 2014e).

Table 5.5
Proposed Force Structures, FYs 2015 and 2019

	FY15 (President's Budget)	FY19 (QDR Report Targets)	FY19 (Sequestration Funding)
Navy total ships	284	301	292
Air Force aircraft authorized (AC+RC)	4,299	2,328	2,259
Intercontinental ballistic missile inventory	450	420	Not stated
Army BCTs and equivalents (AC+RC)	60	56	37
Marine expeditionary forces	3	2	2

SOURCE: National Defense Panel, 2014.

NOTE: AC = active component; RC = reserve component.

The independent panel reported that the “defense budget cuts mandated by the Budget Control Act (BCA) of 2011, coupled with the additional cuts and constraints on defense management under the law’s sequestration provision, constitute a serious strategic misstep on the part of the United States.”¹¹³ In addition to their direct effects on military force structure, these funding levels also created “bow waves” for the services—that is, deferred or delayed procurement and depot maintenance to years outside the FYDP that will create a backlog greater than the funding typically appropriated for those accounts. The Air Force bow wave resulted largely from procurement plans for the F-35 fighter, a new bomber, and the KC-46 tanker. The Navy bow wave reflected the service’s 30-year ship-building program, as well as CBO’s conclusion that the service had underestimated the cost of the program by 15 percent.¹¹⁴ The Army’s bow wave was the product of equipment reset, particularly the depot maintenance carryover (backlog) of \$10.8 billion over FYs 13–15.¹¹⁵

In place of this force structure, the panel recommended a force structure derived from a more expansive force-planning construct:

We find the logic of the two-war construct to be as powerful as ever, and note that the force sizing construct in the 2014 QDR strives to stay within the two-war tradition while using different language. But given the worsening threat environment, we believe a more expansive force sizing construct—one that is different from the two-war construct, but no less strong—is appropriate: “The United States armed forces should be sized and shaped to deter and defeat large-scale aggression in one theater, preferably in concert with regional allies and partners, while simultaneously and decisively deterring or thwarting opportunistic aggression in

¹¹³ National Defense Panel, 2014, p. 2.

¹¹⁴ Austin Wright, “DoD Once Again Riding a Budget Bow Wave,” 21st Century Partnership News and Press, 2015.

¹¹⁵ HQDA, *Army Working Capital Fund Fiscal Year 2015 Budget Estimates*, March 2014c, Chart IO 6: New Orders and Carryover.

multiple other theaters by denying adversaries' objectives or punishing them with unacceptable costs, all the while defending the U.S. homeland and maintaining missions such as active global counterterrorism operations."¹¹⁶

The panel argued that the 2014 QDR report was "not the long-term planning document envisioned by Congress because it was dominated by the shifting constraints of various possible budget levels," and that "the United States must prepare for what will almost certainly be a much more challenging future."¹¹⁷

The panel argued for a larger Navy and Air Force, expressed the belief that the QDR's contemplated reductions in Army end strength went too far, and argued that the Army and Marine Corps should return to their pre-9/11 end strengths. On force structure and mix issues, the panel observed,

Regarding force size and mix, we note the Panel had neither the time nor the analytic capacity to determine the force structure necessary to meet the requirements of a force sizing construct or to carry out the national military strategy within an acceptable margin of risk. We believe, however, the force structure contemplated in the 2014 QDR — much less the projected force structure if the current budget baseline does not change — is inadequate given the future strategic and operational environment. This judgment is bolstered by comparing projected end strengths with the much larger force recommended in the Department's Bottom-Up Review (BUR) of twenty years ago.

Although our conventional capabilities have significantly improved since that time, so have the capabilities of our potential adversaries, and the security environment facing the Department twenty years ago was far less challenging than today and what is projected for tomorrow. That a substantially larger force was deemed necessary then is powerful evidence that the smaller force envisioned by the Department is insufficient now.¹¹⁸

The panel argued that the nation would "have a high-risk force in the near future unless the Department receives substantial additional funding,"¹¹⁹ and viewed Secretary Gates's FY12 proposal as the minimum baseline for appropriate defense spending in the future. The report concluded,

Finally, although risk is difficult to quantify because the world is unpredictable and capabilities are hard to measure on the margin, we conclude that American military forces will be at high risk to accomplish the Nation's defense strategy in

¹¹⁶ National Defense Panel, 2014, pp. 2–3.

¹¹⁷ National Defense Panel, 2014, p. 3.

¹¹⁸ National Defense Panel, 2014, p. 3.

¹¹⁹ National Defense Panel, 2014, p. 4.

the near future unless recommendations of the kind we make in this report are speedily adopted.¹²⁰

Congressional Budget Office

CBO's assessment of the FY15 FYDP concluded that the base budget request for FY15 would comply with the BCA spending caps, but that funding would exceed the caps in subsequent years:¹²¹

The amount requested for the base budget in 2015 would comply with the limits on budget authority established by the Budget Control Act of 2011 as subsequently modified, hereafter referred to simply as the Budget Control Act (BCA). After 2015, however, the costs of DoD's plans under both projections would significantly exceed CBO's estimate of the funding the department would receive under the BCA, which limits appropriations for national defense through 2021. To remain in compliance with the BCA after 2015, DoD would have to make sharp additional cuts to the size of its forces, curtail the development and purchase of weapons, reduce the extent of its operations and training, or implement some combination of those three actions.¹²²

CBO did not assess the implications of sequester-level funding for the nation's defense.

Summary and Conclusions

The outlook for defense strategy after the release of the 2014 QDR report was somewhat bleak, whether viewed from the standpoint of ends (objectives), ways (forces), or means (resources).

With a more aggressive Russia, a more assertive China, the rise of the Islamic State of Iraq and Syria, a still-active al-Qa'ida network, the requirement to leave a residual force of perhaps 10,000 personnel in Afghanistan to train Afghan security forces and keep the Taliban at bay, capability shortfalls for combating WMD, and such emerging challenges as cyber threats, achievement of U.S. national objectives in the current strategic environment almost certainly appears more demanding than the environment the nation faced prior to the attacks of September 11, 2001.¹²³

¹²⁰ National Defense Panel, 2014, p. 7.

¹²¹ The White House requested an additional \$28 billion for defense as part of its Opportunity, Growth, and Security Initiative; because this amount was not included in CBO's analysis, defense spending in FY15 likely would exceed spending caps as well.

¹²² CBO, *Long-Term Implications of the 2015 Future Years Defense Program*, Washington, D.C., November 2014e, p. 1.

¹²³ For an analysis of the ground-force requirements associated with WMD elimination operations, see Timothy M. Bonds, Eric V. Larson, Derek Eaton, and Richard E. Darilek, *Strategy-Policy Mismatch: How the*

Given that the United States and its potential adversaries have both increased their capabilities over the years, it is somewhat difficult to find fault with the National Defense Panel's position that the current environment requires a force that is at least as large as the 1993 Bottom-Up Review's planned force that was essentially in place before 9/11. For the Army, this is perhaps 480,000–490,000 active-duty personnel, substantially higher than the currently envisioned range of 420,000–450,000.

While there seemed to be agreement among the administration, the independent National Defense Panel, and many members of Congress that sequestration-level funding would have a crippling effect on the nation's defenses, and that more resources were needed, the budget plan for FY15 provided only sequestration-level funding, while failing to authorize defense reform measures that would yield the most savings. Accordingly, it appeared highly likely that some sort of congressional action would be taken in 2015 to provide DoD with additional resources. It was unclear what form this action might take — reliance on OCO accounts to fund base budget activities, a reprise of the Balanced Budget Act of 2013 plan of providing a year of relief, a revision to the caps to preserve defense and cut domestic spending, or less likely, outright repeal of sequestration — but additional action to boost defense appeared all but inevitable.

Although the analytics were never fully developed, the 2001, 2006, and 2010 QDRs benefited from a strong risk assessment framework that focused attention on operational, force management, institutional, and, perhaps most importantly, future challenges risks. While the CJCS's risk assessment in the 2014 QDR report used a risk assessment framework that was arguably more explicitly tied to the National Security Strategy, it lacked the explicit emphasis on addressing longer-term threats and challenges through the development of transformational military capabilities, or the ability to make trade-offs between operational, force management, institutional, and future challenges risks. Nor did it address a new category of risk that had emerged since the 2010 QDR: resources risk. In any event, while it may prove useful in the near term for the Chairman's annual risk assessment, it remains to be seen whether the new framework will prove equally valuable for longer-term planning against future threats and challenges.

Perhaps in response to the difficulties encountered in the 2014 QDR, in a July 2014 memorandum, the service vice chiefs of staff reportedly recommended strengthening the Support for Strategic Analysis (i.e., Analytic Agenda) process, which generates baselines, scenarios, and concepts of operations that support high-level deliberations on defense strategy, weapon system programming and budgets, force-sizing, and capability development. In November 2014, it was reported that, acting upon the vice chiefs' recommendation, Deputy Secretary Robert Work had announced plans to rein-

vigorate the Support for Strategic Analysis process.¹²⁴ There is some hope, therefore, that the 2018 Defense Strategy Review might benefit from the sort of transparent and collaborative process associated with the Analytic Agenda in the 2010 QDR.

In the next chapter, we summarize what we consider to be the main trends observed in the 2001, 2006, 2010, and 2014 QDRs.

¹²⁴ See Sherman, 2014.

Main Trends

In this penultimate chapter, we summarize the main trends we observed in the QDRs in the following categories: organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception. In the final chapter, we identify the key implications for the Army and DoD.

Organization and Process

Although there are some important points of continuity across the organizations and processes for the QDRs addressed in this report, each QDR differs in its organizational and procedural details.

Each QDR appears to have enjoyed the involvement of senior civilian and military leaders, including the Secretary of Defense, Deputy Secretary of Defense, Chairman and Vice Chairman of the Joint Chiefs of Staff, service secretaries and chiefs, and Under Secretary of Defense for Policy; in addition, the combatant commanders were brought in at key points throughout the process.¹ Decisionmaking groups at the secretary and deputy secretary levels were supported by between five and eight working-level groups (depending on the QDR) and, in the case of the 2006 QDR, more than two dozen subgroups. There also appears little doubt that the 2010 QDR benefited from the continued service of Secretary Gates, who had been in office since 2006 and offered additional continuity during the first QDR of the Obama administration. Because the OSD and Joint Staff organization and process for QDRs are somewhat in a class by themselves, the Army has generally had to wait until these structures were in place to effectively organize itself to support them.

In terms of process, in all cases, informal work on the QDRs by OSD, the Joint Staff, and the services began well before the formal kickoff of the QDR. For the 2010 QDR, which benefited from agreement on an Analytic Agenda after the 2006 QDR,

¹ That said, we found very little information on the role that Secretary Hagel played in the development of the 2014 QDR.

this preparatory work paid off handsomely. But for the 2001 QDR, when the Joint Staff was sidelined during much of the preliminary effort, their early work made a less consequential contribution to QDR deliberations. Somewhat uniquely, the 2014 QDR was conducted based on an already specified strategy (the January 2012 Defense Strategic Guidance), as well as an assessment of resources (the August 2013 Strategic Choices and Management Review). The Analytic Agenda in the 2010 QDR, which was a reaction to the somewhat confusing 2006 process, also may have contributed to a somewhat smoother process at the working level – although, during the endgame of that review, there were harried efforts to pare it down. More impressionistically, the somewhat grand aims that are used to describe the ambitions for the QDRs at the beginning of the process have tended to give way to more-realistic and more-limited aims at the end.

Our structured conversations with Army stakeholders suggest recurring discussions in past QDRs about whether the Army QDR Office should be positioned under the G-3 or the G-8 office, but as described in our report, it has remained under the G-8. Since 2001, the Army has routinely upgraded the leadership from a one-star general officer or senior executive service staff member to a two-star general officer at the time of the QDRs, and has expanded the office with perhaps a dozen directed military overstrength personnel.

Our structured conversations suggest that the Army's QDR Office has served the Army well in supporting QDR participation, in at least three respects: the office has direct access to senior Army leaders; has adapted well to meet the needs of different DoD QDR organizations, processes, and leadership styles; and has had the authority to task across the Army to build the right teams to address issues up to the three-star level. The key roles played by Panel Leader Meetings and three-star sessions also were cited as important to the success of the Army's QDR processes.

According to some, the Army has been most persuasive in promoting its positions when it has been represented by officers who are comfortable with operating in a joint environment, are willing and able to explain and socialize Army positions, and start socializing others early on in the QDR development process. Similarly, the Army has realized greater success when it has presented strong, understandable analytics to justify its positions. According to some of our interlocutors, the Army has been less successful at persuading external audiences when its representatives were perceived as defending Army equities rather than marketing Army positions and promoting a vision of how the Army fits into the future joint force and can contribute to meeting potential security challenges. The Army also has been less successful when it has presented positions without socializing others on the thinking behind these positions, when it has been unwilling to share the analytics behind its positions, and when its analytics have lacked coherence, transparency, and fidelity.

As one of our interlocutors indicated, personalities are also a key factor:

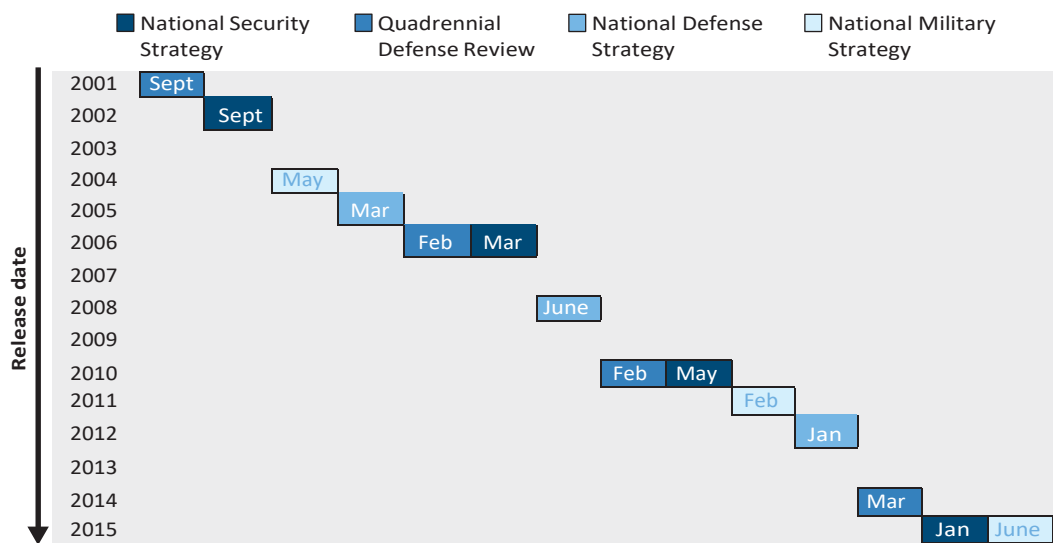
Personalities are the biggest driver in the success of any service in the process. . . . When you pick the two-star that represents your service, it ought to be someone who has been in the building a lot and is able to understand it. If you don't have that, you're starting from a disadvantage.

A final key finding from an organizational and process perspective is the nearly unanimous view that the Analytic Agenda that was developed after the 2006 QDR paid tremendous dividends in the 2010 QDR in terms of the clarity and transparency of various stakeholders' positions and analyses. We believe that many of our interlocutors would endorse Deputy Secretary Work's November 2014 decision to reinvigorate the Support for Strategic Analysis process, so that the next Defense Strategy Review might benefit from the sort of analytic infrastructure that the Analytic Agenda represented, as well as the collaborative analytic community that formed around it.

Strategy Development

Although most planners would envision a top-down strategy development process that begins with a National Security Strategy and subsequently derives a National Defense Strategy and National Military Strategy, the historical record shows a different pattern (see Figure 6.1).

Figure 6.1
Release of Defense Strategy Documents, 2001–2015



As shown in the figure, neither the Bush nor Obama administration submitted its first National Security Strategy before the release of its first QDR, and neither preceded its second QDR with an updated National Security Strategy.² The order of release of National Defense Strategy and National Military Strategy reports shows a similar lack of orderly, top-down strategy development.

Thus, the Bush and Obama periods demonstrate the essentially chaotic nature of strategy development, and there is, moreover, little reason at present to believe that this is likely to change with the 2018 Defense Strategy Review.

That said, although they have accented different themes and used different frameworks to portray their strategic logic, there has been significant continuity in the basic national security, defense, and military strategies described in the past four QDR reports (see Table 6.1).

As the table shows, each QDR has characterized the nation's crucial role in the world; the nation's interests, values, and objectives; and the importance of defense and military capabilities to securing those interests in similar ways. Notable among these recurring elements are preventing attacks on the homeland, maintaining the security and well-being of allies and friends, and ensuring the security of the global commons.

There also has been continuity in QDR assessments of current, emerging, and future threats and areas of competition. Regionally, the QDRs have stressed the Middle East, Southwest Asia, and Northeast Asia, while expressing increasingly explicit concern about the military intentions and capabilities of China. Recent QDRs also have focused on responses to terrorism, WMD, adversary anti-access and area-denial capabilities, cyber threats, and space.

Whereas the 2001 QDR placed a strong emphasis on longer-term threats and capabilities-based planning to better address and guide transformation efforts, the focus on addressing what the 2001 QDR dubbed sources of "future challenges risk" arguably has fallen off since the 2006 QDR. While near-term defense planning will need to focus on resetting the force and putting it on a sustainable course, it will be important in the 2018 Defense Strategy Review to return to consideration of these longer-term challenges (e.g., the emergence of regional powers with full-spectrum capabilities) to guide the identification of needed capabilities and the continued transformation of the force.

Force Planning

Force-Planning Constructs

The history of the QDRs shows that the force-planning constructs continued to evolve and adapt over time to better address challenges in the emerging security environment.

² That said, there is little doubt that drafts of National Security Strategy reports were in circulation at the time that some of the QDRs listed in the figure were being finalized.

Table 6.1
QDR Strategy Elements, 2001–2014

Strategy Element	2001 QDR	2006 QDR	2010 QDR	2014 QDR
National interests and objectives	<ul style="list-style-type: none"> • Ensure U.S. security and freedom of action • Honor international commitments • Contribute to economic well-being 	<ul style="list-style-type: none"> • No explicit discussion of U.S. national interests 	<ul style="list-style-type: none"> • Strengthen and maintain the integrity and resiliency of an international system that promotes security, prosperity, a broad respect for universal values, and an environment conducive to cooperative action 	<ul style="list-style-type: none"> • Prioritize U.S. security and that of U.S. allies and partners • Promote a strong economy in an open economic system • Respect universal values • Support an international order that promotes peace, security, and opportunity through cooperation
Defense policy goals	<ul style="list-style-type: none"> • Assure allies and friends • Dissuade future military competition • Deter threats and coercion against U.S. interests • If deterrence fails, decisively defeat any adversary 	<ul style="list-style-type: none"> • Defeat terrorist networks • Defend the homeland • Shape the choices of countries at strategic crossroads • Prevent hostile actors from acquiring and using WMD 	<ul style="list-style-type: none"> • Rebalance capabilities to prevail in current wars while building the capability to deal with future threats • Prevent and deter conflict • Prepare to defeat adversaries and succeed in a wide range of contingencies • Preserve and enhance the all-volunteer force • Reform DoD to better support the urgent needs of the warfighter, buy weapons that are affordable and truly needed, and ensure that taxpayers' money is not wasted 	<ul style="list-style-type: none"> • Rebalance to the Asia-Pacific region • Maintain a strong commitment to Europe and the Middle East • Sustain a global approach to countering violent extremists and terrorist threats • Continue to protect and prioritize key investments in technology while our forces overall grow smaller and leaner • Invigorate efforts to build innovative partnerships and strengthen key alliances and partnerships

Table 6.1—Continued

Strategy Element	2001 QDR	2006 QDR	2010 QDR	2014 QDR
Strategic environment	<ul style="list-style-type: none"> • United States in asymmetrically advantageous position • Pervasive uncertainty regarding future threats 	<ul style="list-style-type: none"> • Nation involved in a long war against terror (U.S. operations successful in key areas of Afghanistan and Iraq) • Geographic isolation no longer provides security to the United States • Continuous change and reassessment required to defeat “highly” adaptive enemies • Possible emergence of a hostile major power with high-end military capabilities 	<ul style="list-style-type: none"> • Current fight is the top priority • United States will remain the most powerful actor, but will increasingly rely on key allies and partners to sustain stability and peace • U.S. interests and role in the world require armed forces with unmatched capabilities, as well as a willingness on the part of the nation to employ them in defense of U.S. interests and the common good 	<ul style="list-style-type: none"> • Changes (geopolitical, nature of modern war, fiscal) in the security environment require a rebalancing of the force • A period of fiscal austerity and an uncertain future fiscal environment • Rapidly changing security environment • No more large-scale counter-insurgency or stability operations
Key trends	<ul style="list-style-type: none"> • Rapid advancement of military technologies • Increasing proliferation of CBRNE weapons and ballistic missiles • Emergence of new areas of military competition (space and cyber) • Increasing potential for miscalculation and surprise 	<ul style="list-style-type: none"> • Broadly similar to the 2001 QDR 	<ul style="list-style-type: none"> • Rise of China and India will shape the international system in ways not easily defined • Diffusion of global economic, military, and political power • Increasing influence and capability of nonstate actors • Proliferation of WMD 	<ul style="list-style-type: none"> • Possibility that China’s growth and rapid military modernization may increase risk of regional conflict • Increasingly contested air, sea, space, and cyberspace domains • Increasing ease with which sophisticated WMD can proliferate • Climate change

SOURCE: RAND analysis of DoD 2001i, 2006a, 2010a, and 2014b.

To underwrite their declaratory strategy, all of the QDRs from 2001 through 2014 embraced force-planning constructs that were said to be capable of supporting multiple, simultaneous military operations of various types and sizes. According to one of our interlocutors,

In theory, your strategy points you toward your primary missions, which point you to representative scenarios, which are assessed using your end-of-FYDP force. Which helps [identify] your shortfalls, and gives you gap insights, which then feed program decisions.

Thus, perhaps the most important decision in each cycle is which scenarios and scenario combinations are considered, and which concepts of operations are used in the scenarios. Once those initial conditions and assumptions have been set, they tend to drive the results. Notably, each QDR aimed to provide military support to homeland defense activities, while attempting to preserve, in one fashion or another, a capacity to conduct two overlapping, large-scale military campaigns (as shown in Table 6.2, a staple of post-Cold War defense planning), as well as supporting some number of additional operations, including smaller-scale contingencies.

As described in this report, however, and an earlier report on post-Cold War defense planning,³ while there have been nagging concerns about the actual capacity of the force to conduct two major regional contingency operations, these doubts appear to have increased significantly in recent years. In part, this has been due to actual and planned force-structure and end-strength cuts that are reducing military capacity and capability, even as U.S. strategy declares the continued aim of the United States fulfilling its traditional role as global leader.

Moreover, none of the force-planning constructs developed in the QDRs of 2001 through 2014 appears to have seriously addressed ongoing, steady-state requirements associated with smaller-scale operations. While it appears that these were mostly considered to be “lesser-included cases,” it became clear in the 1990s that the accumulation of such cases over time could create significant force, operational tempo, and personnel tempo demands. In addition, although the WMD elimination mission is critical and the ground-force requirements in North Korea, for example, would be substantial, this mission was not included among those that were to be used for force-sizing in the January 2012 Defense Strategic Guidance. Despite the rhetorical importance given to countering WMD over the past four QDRs, this mission has remained a neglected area for investment in the development of needed Army ground forces and other capabilities.⁴

³ See Larson, Orletsky, and Leuschner, 2001.

⁴ See Bonds et al., 2014.

Table 6.2
DoD Force-Planning Constructs, 1993–2014

	1993 Bottom-Up Review	1997 QDR	2001 QDR	2006 QDR	2010 QDR	2014 QDR
Force-planning construct	2 major regional conflicts	2 major theater wars	1-4-2-1	Refined wartime construct: the “Michelin Man”	Not stated	Not stated
Major elements	Defeat 2 regional threats nearly simultaneously	Defeat large-scale, cross-border aggression in 2 theaters in overlapping timeframes + Smaller-scale contingencies	Homeland defense + Deter aggression in 4 critical theaters + 2 swift defeats (win 1 decisively)	Homeland defense + 2 conventional contingencies or 1 conventional + 1 irregular warfare contingency	Homeland consequence management events + 2 large-scale land campaigns or 1 large air/naval campaign + 1 campaign in 2nd theater or 1 large land campaign + 1 long-term irregular warfare campaign	Homeland defense, provide support to civil authorities + 1 full combined-arms campaign across all domains + Deny objectives or impose unacceptable costs on 2nd opportunistic aggressor
Focus	Size for 2 major regional contingencies, other contingencies are lesser-included cases	Size for 2 major-theater wars plus steady-state smaller-scale contingencies; swing some forces to 2nd major conflict	Emphasize forward defense; focus on four priority theaters; accept risk in a 2nd major conflict	Shift capabilities to address 4 focus areas and long-duration irregular warfare; address steady-state and surge demand	Address size, as well as shape; address multiple-scenario cases for the near and long terms; address surge and steady-state demand, including long-term irregular warfare	Do not size the force for large and protracted stability operations; rebalance to the Asia-Pacific region; maintain reversibility as an option

Table 6.2—Continued

	1993 Bottom-Up Review	1997 QDR	2001 QDR	2006 QDR	2010 QDR	2014 QDR
Context	Gulf War; demand for a peace dividend; deficit reduction	Bosnia; peace dividend; transformation	Transform the force; support the GWOT	Long war; change capabilities mix; force is sized about right	Support for OCO funding and defense budget cuts	Post-war and sequestration-era budgets and force-structure cuts; preparation for future challenges

SOURCE: RAND analysis and Gunzinger, 2013, pp. 19–20.

Force Structure

As suggested by Table 6.3, there were changes both to the size and shape of the force over the years reviewed.

Table 6.3
General-Purpose Force Structure, FYs 2001–2015

Service Element	FY01	FY06	FY10	FY14 ^a	FY15 ^b
Army					
Divisions (AC/RC)	10/8	10/8	10/8	10/8	10/8
Maneuver brigades (AC) ^c	36	35	45	38	32
Maneuver battalions (AC) ^d	106	137	141	152	128
Navy					
Aircraft carriers	12	12	11	10	10
Carrier air wings (AC)	10	10	10	10	10
Attack submarines	55	54	53	54	54
Surface combatants	108	101	112	99	93
Marine Corps					
Divisions (AC/RC)	3/1	3/1	3/1	3/1	3/1
Expeditionary forces	3	3	3	3	3
Air wings (AC/RC)	3/1	3/1	3/1	3/1	3/1
Air Force					
Fighter squadrons (AC/RC) ^e	46/38	45/38	36/35	33/27	29/29
Bombers (AC)	130	118	123	111	112
Special Operations Forces					
Military manpower ^f	41,785	49,086	47,878	63,263	63,141

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and *Operation and Maintenance* supporting volumes of each service; OUSD (Comptroller), 2014a.

NOTE: AC = active component; RC = reserve component.

^a These figures depict FY14 enacted budget data from OUSD (Comptroller), 2014a.

^b These figures depict FY15 proposed force structure in OUSD (Comptroller), 2014a.

^c Starting with the FY08/09 budget, the Army used BCTs as its base force-structure accounting measurement. In prior years' budgets, the Army listed the number of battalions by type. Actual maneuver brigade figures for FY99 through FY06 are derived from division force structure of the appropriate year plus nondivisional maneuver brigades and regiments, such as the 173rd Airborne Brigade (now an airborne interim BCT), 170th Infantry Brigade (deactivated in FY12), 172nd Infantry Brigade (deactivated in FY13), 194th Armor Brigade (deactivated as a maneuver brigade in FY05), 3rd Armored Cavalry Regiment (Stryker BCT since FY12), and 2nd Armored Cavalry Regiment (Stryker BCT since FY05).

^d For the purpose of this study, a *maneuver battalion* is any infantry battalion, armor battalion, cavalry squadron, or combined arms battalion of the various mutations of maneuver brigades that have been

Table 6.3—Continued

part of Army force structure since 2001. Actual maneuver battalion figures for FYs 99–06 account for all active-component infantry and armor battalions and cavalry squadrons. For FYs 07–14, with modularity complete for all active-component BCTs (with the exception of two remaining legacy brigades), we derived the actual maneuver battalion from modular BCT force structure, which includes two infantry battalions and one light cavalry squadron in interim BCTs, two combined arms battalions and one armored reconnaissance squadron in armored BCTs, and three infantry battalions and one cavalry squadron in Stryker BCTs. By FY14, most BCTs had assumed the Army 2020 Table of Organization and Equipment framework, which included a third maneuver battalion in interim BCT and armored BCT structure.

^e For FYs 99–05, we use the squadron numbers reported in the Operation and Maintenance supporting volumes of the active Air Force, Air National Guard, and Air Force Reserve budget submissions. For FY06 forward, we estimate the number of squadrons in the active and reserve components based on the number of reported primary aircraft authorized and the observed ratio of aircraft to squadrons from FYs 99–05. The ratios are as follows: 22 aircraft per F-15 and, later, F-22 squadron; 12 aircraft per A-10 squadron; 20 aircraft per F-16 squadron; and 18 aircraft per F-117 squadron. Budget data from FYs 01–07 also yielded the ratio of aircraft per squadron for the reserve component: 12 aircraft per Air National Guard A-10 squadron; 15 aircraft per Air Force Reserve A-10 squadron, and 15 aircraft per fighter (F-15 and F-16) squadron in both the Air National Guard and Air Force Reserve.

^f These figures include Military Department Major Force Program 11 activities only.

While retaining ten active-component and eight reserve-component division flags, the Army transformed its force structure into modular BCTs that were more highly deployable; these peaked in number during the 2010–2013 period.⁵ Meanwhile, as other major naval force elements remained relatively stable, the number of naval surface combatants also peaked and then dropped well below the initial 2001 levels. Air Force fighter squadrons fell significantly over the period, while special operations forces grew in a dramatic fashion.

Looking ahead — and as was the case in 2001 — DoD is again facing a classic “bow wave” in deferred procurement just beyond the FY15–19 FYDP period.⁶ According to CBO, Army modernization plans reflected in the FY15–19 FYDP are likely to face rising costs and potential affordability concerns;⁷ Navy modernization plans suggest increased costs, affordability concerns, and potential shortfalls in achieving force-

⁵ Some reorganization also took place during FY14 and FY15 that moved battalions from eliminated BCTs to construct other three-battalion BCTs. See Appendix C for a year-by-year accounting of these major force elements.

⁶ See CBO, 2014e, pp. 29–40. For a discussion of the bow wave in deferred procurement following the 1997 QDR, see Larson, Orletsky, and Leuschner, 2001.

⁷ CBO estimates that the total costs of the Army’s modernization plans would be 13 percent higher than the plans detailed in the FY15–19 FYDP (CBO, 2014e, pp. 30–33). For Army modernization plans, see Tables 5.3 and 5.4. CBO did not report cost estimates for different categories of Army systems.

structure goals;⁸ and Air Force modernization plans face rising costs and affordability concerns.⁹

As described above, even if the latest force-structure changes have resulted in more-capable forces, of continuing concern is the question of whether current and planned military forces will provide the military capabilities necessary to support the nation's traditional role of providing global leadership, especially in the face of growing capabilities that might be used by adversaries.

Manpower and End Strength

The wars in Afghanistan and Iraq created significant demands for U.S. military forces, especially ground forces. Figure 6.2 portrays the number of in-country troops in Afghanistan and Iraq in October of every year from 2002 to 2014. As shown in the figure, the total number of personnel peaked in 2007 at nearly 190,000.

As noted in Chapter Five, at the time of the 2014 QDR report, an average of 11,661 mission personnel were expected to be in Afghanistan in FY15, with another 63,309 personnel providing in-theater support, for a total of 74,970 personnel; another 2,904 personnel were planned for Iraq in FY15. This represented a high level of peacetime activity.¹⁰

Overall active-component DoD end strength grew from 1.45 million in FY01 to a peak of 1.51 million in 2010, an increase of 3.8 percent, with an emphasis on increasing personnel for ground operations in Afghanistan and Iraq; for example, active Army end strength over the same period rose from 481,000 to 566,000, an increase of 17.7 percent (see Figure 6.3). As shown in the figure, the Army began the period with about 480,000 personnel in active-duty end strength in FY01 and saw only modest growth until the permanent end-strength increase announced by Secretary Gates in January 2007. Thereafter, end strength peaked in FY10 and FY11 at 566,000 personnel, and was estimated to be 490,000 in FY15.¹¹

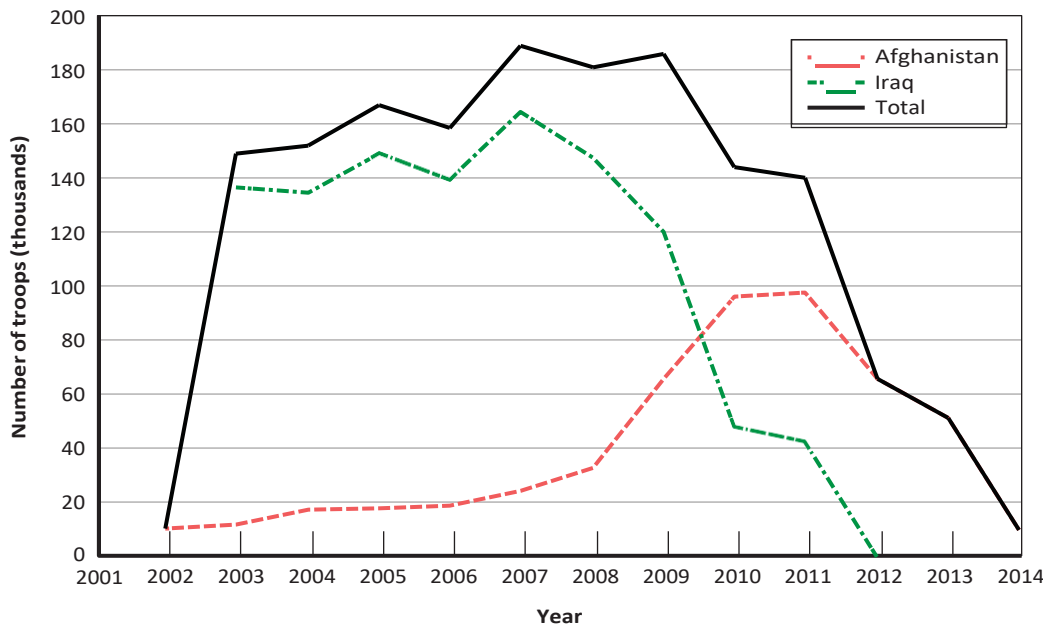
⁸ CBO, 2014e, pp. 33–36. The Navy's most recent (2012) Force Structure Assessment established a post-2020 objective for 306 battle force ships, an increase from the 289 ships in the force in 2014 (see Deputy Chief of Naval Operations (Integration of Capabilities and Resources) (N-8), *Report to Congress on the Annual Long-Range Plan for Construction of Naval Vessels for FY2015*, Office of the Chief of Naval Operations, Washington, D.C., June 2014). CBO assessed that the total costs of carrying out the Navy's FY15 plan to buy 264 ships over 2015–2044 would be one-third higher than the funding amounts that the Navy had received in recent decades; that the total cost over 30 years would be 13 percent higher than the Navy's estimate; and that the construction plan would not achieve the goal of 306 ships until 2019–2022, depending on the rules used for counting battle force ships (see CBO, *An Analysis of the Navy's Fiscal Year 2015 Shipbuilding Plan*, Washington, D.C., December 2014; and Ronald O'Rourke, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, Congressional Research Service, Washington, D.C., RL32665, June 20, 2014).

⁹ CBO, 2014e, pp. 36–39.

¹⁰ See Appendix D for a more detailed portrayal of Army global posture from FYs 01–14.

¹¹ The FY16 President's budget requested an active Army end strength of 475,000.

Figure 6.2
In-Country U.S. Troop Levels in Afghanistan and Iraq, 2002–2014



SOURCE: Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*, Washington, D.C.: Congressional Research Service, December 8, 2014, Appendix A.

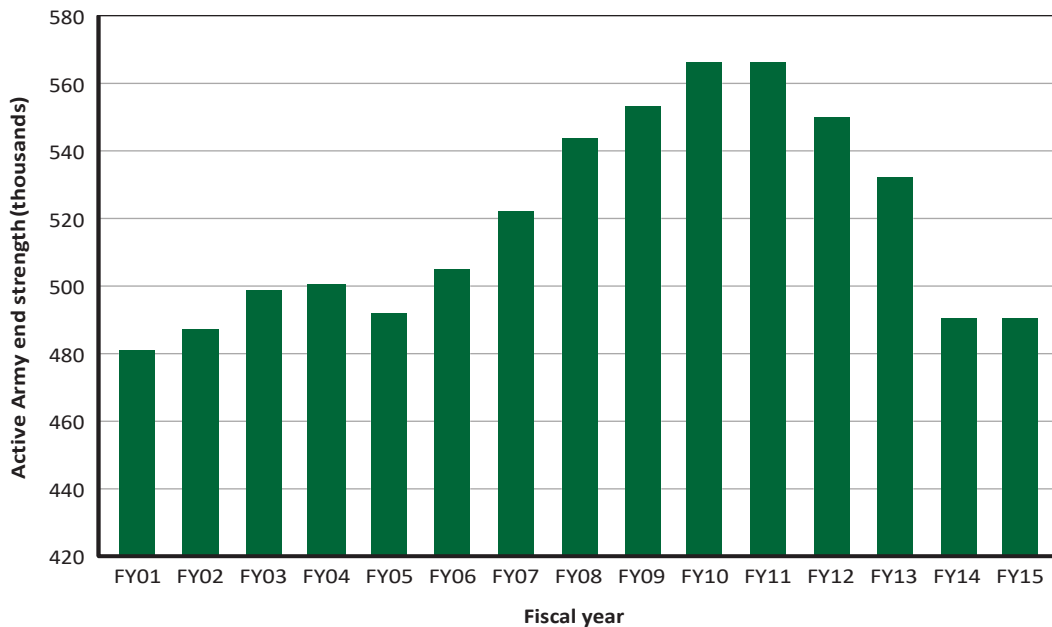
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As described in this report, the QDRs over the period generally looked at force structure rather than end strength, and did not anticipate or address the near-term increases in manpower requirements associated with the conduct of operations in Afghanistan and Iraq.

Rather, key manpower-related decisions were taken off-cycle; that is, they occurred between QDRs. End-strength increases occurred in early 2004, early 2007, and mid-2009, for example, while decisions to undertake surges in Afghanistan and Iraq were announced in January 2007 (Iraq) and December 2009 (Afghanistan).

Thus, the January 2004 and January 2007 DoD decisions to increase Army end strength suggest that the 2001 and 2006 QDRs did not benefit from comprehensive and detailed analysis of the ground-force military personnel requirements associated with executing the QDR’s national defense strategy, and likely underestimated operational and force management risks. In the case of the 2001 QDR, there is little evidence that the personnel requirements of stability operations in the wake of a “decisive victory” – that is, regime change – were fully considered; and the 2006 QDR’s assessment that an active Army end strength of 482,400 was sufficient was essentially obsolete by the fall of 2006. By the time of the 2010 QDR, the Grow the Army initiative and a temporary end-strength increase had already increased active-duty Army end

Figure 6.3
Active Army End Strength, FYs 2001–2015



SOURCE: OUSD (Comptroller), 2014a, Table 7-5.

RAND RR1309-6.3

strength to meet operational demands, and the focus of the QDR was first and foremost on prevailing in the Afghanistan and Iraq conflicts. Judging by Chief of Staff of the Army Odierno's statements, the 2013 Strategic Choices and Management Review and 2014 QDR appear to have benefited from significant Army efforts to estimate the risks associated with alternative active Army end-strength levels of 490,000, 450,000, and 420,000. Given the importance to the Army of end strength, such assessments arguably should be undertaken in connection with all future Defense Strategy Reviews.

The National Defense Authorization Act for FY15 authorized a total FY15 active-duty end strength of 1,310,680, including 490,000 personnel for the active Army, 323,600 for the Navy, 184,100 for the Marine Corps, and 312,980 for the Air Force.¹² Thus, the Army will return to end-strength levels that were slightly larger than they had been in FY01, the last budget year before the terrorist attacks of 9/11. According to current plans, however, even if the BCA spending caps are removed, by FY19, the Army will be further reduced, stabilizing at between 440,000 and 450,000 active-duty per-

¹² For the Army National Guard and Army Reserve, authorized end strengths were 350,200 and 202,000, respectively; 57,300 were authorized for the Navy Reserve, 39,200 for the Marine Corps Reserve, and 105,000 and 67,100 for the Air National Guard and Air Force Reserve, respectively. Authorized Coast Guard Reserve stood at 7,000. See Torreón, Kapp, and Jansen, 2014, pp. 2, 4.

sonnel. If the BCA caps remain in force, the forecast is for an Army of 420,000 active-duty personnel. Army Reserve and Army National Guard also are slated to fall by FY19: Army Reserve end strength would fall from 202,000 in FY15 to 195,000 (without sequester) or 185,000 (with sequester); Army National Guard end strength would fall from 350,000 to 335,000 or 315,000.¹³

Table 6.4 presents the outlook on military and civilian manpower levels over the FY15–19 FYDP. As shown in the table, compared with FY14 end-strength levels, the Army will lose 60,000 active and 37,000 reserve personnel by FY17, and could lose a total of 90,000 active and 56,000 reserve personnel by FY19, if active and reserve end strength drop to 420,000 and 500,000, respectively. If all of these force reductions are enacted through FY19, in total, Army end strength will drop by 146,000 personnel, or about 13.7 percent. Also shown, the other services are expected to see smaller reductions over the FYDP.¹⁴ An additional notable development in this area over the period reviewed was a shift over time in the way reserve-component personnel were used. Where reserve personnel had previously been treated as a strategic reserve-in-waiting, in recent years, their role has shifted to an operational reserve and rotational base that could be used to support ongoing military operations. Although the 2006 QDR was the first to call for an operational reserve, and DoD shortly thereafter established policy to manage the reserve components as an operational force, a common complaint about QDRs throughout this period was their failure to meet the statutory requirement to address issues of the active-reserve mix in detail.¹⁵

Modernization and Transformation

Table 6.5 illustrates the major Army modernization and transformation actions following each QDR – actions that helped the Army adapt to war-driven requirements, that supported modernization, and that supported transformation. One aspect of the Army’s responses to guidance in the QDRs that may not be obvious in the table is that of the bill-payers – the procurement programs that the Army canceled because of their schedule delays, performance shortfalls, or cost overruns, or that the Army decided to terminate in order to devote the resulting savings to higher priorities.

Procurement and RDT&E programs reacted to the requirements emerging from Operation Enduring Freedom, Operation Iraqi Freedom, and other military operations around the world. The Defense Science Board found that DoD and the mili-

¹³ Torreon, Kapp, and Jansen, 2014.

¹⁴ In part, this is due to the substantial manpower reductions in the Navy and Air Force in earlier years.

¹⁵ For example, as late as January 2013, the Reserve Forces Policy Board complained that the 2010 QDR had failed to address reserve-component issues and that there was inconsistent use of the term *operational reserve* within the department (Punaro, 2013).

Table 6.4
FY15–19 Future Years Defense Program Manpower Plans (thousands of personnel)

Service Element	FY14	FY15	FY16	FY17	FY18	FY19	Change from FY14 to FY19	Percentage Change from FY14 to FY19
Army								
Active	510	490	470	450	420–450	420–450	–60 to –90	–12 to –18
Reserve and Guard	556	552	531	519	507	500	–56	–10
Navy								
Active	324	324	321	323	323	323	*	**
Reserve	57	55	55	56	57	57	*	**
Marine Corps								
Active	190	184	179	175	175	175	–15	–8
Reserve	42	41	41	40	40	40	–1	–3
Air Force								
Active	328	311	310	309	309	309	–19	–6
Reserve and Guard	176	172	173	170	170	170	–6	–3
All services								
Active	1,352	1,309	1,281	1,257	1,237	1,227	–125	–9
Reserve and Guard	831	821	800	786	774	767	–63	–8
Total	2,183	2,129	2,081	2,042	2,011	1,994	–188	–9
Civilian Personnel	778	771	764	758	748	741	–37	–5

SOURCE: CBO, 2014e, p. 19, and RAND analysis.

NOTES: * = between –500 and zero personnel; ** = between –0.5 percent and zero. Totals may not add exactly due to rounding. In 2015, the Army and the Marine Corps intended to continue their practice from previous years and fund a small number of active-duty military personnel through the budgets for OCO. The data in this table include those personnel, but the costs of those personnel are not included in the base budget for each fiscal year.

Table 6.5
Major Army Modernization and Transformation Efforts After Each QDR

Categories	2001 QDR	2006 QDR	2010 QDR	2014 QDR
Adapting to war-driven requirements	<ul style="list-style-type: none"> • Mobilization of Army National Guard • Rapid Equipping Force • Army Force Generation Modularity • Counter-IED Task Force • Theater-provided equipment 	<ul style="list-style-type: none"> • MRAP procurement • Counterinsurgency requirements 	<ul style="list-style-type: none"> • U.S. combat forces leave Iraq • Afghan National Security Forces assume combat role in Afghanistan 	<ul style="list-style-type: none"> • Recovering, recapitalizing
Modernization	<ul style="list-style-type: none"> • FCS, Stryker • BCT-based Army concept 	<ul style="list-style-type: none"> • Priority research, development, and acquisition efforts • Battle Command and Control Network • Unattended ground sensors • NLOS-LS 	<ul style="list-style-type: none"> • Army fighting vehicles • CBRNE equipment • Beyond Line of Sight networks • Tactical radios • Mounted battle command applications • M1 and M2 tactical wheeled vehicles • Soldier equipment • Fires, air, and missile defense • Field artillery • ISR modernization 	<ul style="list-style-type: none"> • Incremental improvements used to modernize critical systems • New systems built only by exception • Older systems divested to reduce sustainment costs and free funds for modernization and readiness • Much of the equipment procured for Afghanistan and Iraq reset
Transformation	<ul style="list-style-type: none"> • Reorganization of HQDA • Installation Management Agency • Accessions Command • Strategic Readiness System 		<ul style="list-style-type: none"> • Force reductions and restructuring, but “reversible” • “Readiness at best value” • Reassignment of forces to traditional missions (e.g., ground reaction force) • Development of regionally aligned forces concept 	<ul style="list-style-type: none"> • Continued force reductions • Continued implementation of regionally aligned forces concept

tary services had responded to some 7,000 joint urgent operational needs statements and established approximately 20 ad hoc organizations and task forces to respond to requirements from the field.¹⁶ These rapid reaction efforts further obscure the already opaque chain of causality between the QDRs and Army procurement and RDT&E decisions. Still, it is clear that the Army launched 15 new programs between 1999 and 2012. Table 6.6 lists those programs.

The Army also completed 15 major defense acquisition programs over the same number of years, summarized in Table 6.7.

Not all Army programs ran through their entire life cycle. Some were canceled. The Crusader self-propelled howitzer, for example, was “officially terminated by the Department of Defense because it was not considered sufficiently mobile or precise for the evolving security needs of the 21st century.”¹⁷ Other programs faced cancellation

Table 6.6
New Major Army Procurement and RDT&E Programs, FYs 1999–2012

Fiscal Year	Program Name	Milestone B/C Quantity ^a	Cost at Milestone B/C (\$FY14 millions)
1999	High Mobility Artillery Rocket System	888	4,618.4
2000	Stryker interim armored vehicle	2,128	8,357.7
	UH-60M Black Hawk helicopter	1,217	9,471.2
2002	WIN-T	1	12,275.0
2003	Airborne, maritime, and fixed JTRS	26,878	8,491.8
2004	Patriot/MEADS Combined Aggregate Program missile	1,528	7,589.0
	JTRS handheld, manpack, and small-form fit program	328,514	10,453.4
	UH-72A Lakota light utility helicopter	322	1,885.7
2005	MQ-1C Gray Eagle UAV	36	5,267.0
	Longbow Apache Block III helicopter	597	7,542.5
2006	Army Integrated Air and Missile Defense	285	5,236.9
	Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, or JLENS	14	6,942.1
2007	WIN-T Increment 2	1,837	3,861.9
2008	Increment 1 early-infantry BCT	9	3,380.3
2012	Longbow Apache Block III B helicopter	56	2,467.9

SOURCE: RAND analysis of OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

^a The Defense Acquisition System uses milestones to manage acquisition programs. Milestone B initiates engineering and manufacturing development, and Milestone C initiates production and deployment.

¹⁶ Defense Science Board Task Force, *Fulfillment of Urgent Operational Needs*, Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics), Washington, D.C., July 2009.

¹⁷ Army Technology, “Crusader 155mm,” web page, undated.

Table 6.7
Completed Major Army Procurement and RDT&E Programs, FYs 1999–2012

Fiscal Year Completed	Program Name	Quantity	Total Costs (\$FY14 millions)
1999	Army Tactical Missile System Block I: anti-personnel/anti-materiel (MGM-140A)	1,656	1,482.1
	Single Channel Ground and Airborne Radio System-V	223,436	3,617.6
	UH-60L Black Hawk helicopter	463	3,895.6
2000	Joint Surveillance Target Attack Radar System – Ground Station Mobile	12	203.4
2001	Joint Surveillance Target Attack Radar System – Common Ground Station	96	1,179.3
2003	Longbow Apache fire control radar	227	1,518.3
	M-1A2 Abrams tank	1,155	66,179.6
2006	WIN-T	1	14,613.1
2007	Javelin (Advanced Anti-Tank Weapon System-Medium)	25,406	6,231.1
2009	Bradley upgrade (M-2A3)	1,602	10,221.9
2010	Advanced Threat Infrared Countermeasures/Common Missile Warning System	2,085	5,054.6
	Force XXI Battle Command Brigade and Below communication platform	90,068	4,319.1
	Longbow Apache airframe	733	15,370.6
2011	Stryker interim armored vehicle	4,507	17,987.2
2012	UH-72A Lakota light utility helicopter	315	1,872.6

SOURCE: RAND analysis of OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

because of schedule slippage and cost growth. The FCS program raised issues for Secretary Gates; a DoD press release announcing the FCS decision noted,

Gates expressed a specific concern that the portion of the FCS program to field new manned combat vehicles did not adequately reflect the lessons of counterinsurgency and close quarters combat in Iraq and Afghanistan. He was further troubled by the terms of the current single contract covering the whole FCS effort.¹⁸

Still other programs, including the ground combat vehicle, were sacrificed to free funding for higher-priority endeavors. See Table 6.8 for programs canceled between FY01 and FY15.

¹⁸ DoD, “Future Combat System (FCS) Program Transitions to Army Brigade Combat Team Modernization,” Washington, D.C., Release No. 451-09, June 23, 2009f.

Table 6.8
Major Procurement Program Cancellations, FYs 2001–2015

Fiscal Year Terminated	Program	Cost (\$nominal billions)
2001	Crusader self-propelled howitzer	2.2
2003	Comanche helicopter	7.9
	Army Tactical Missile System Block II: Brilliant Anti-Armor Technology	4.0
2004	Joint Common Missile	2.4
2006	Aerial Common Sensor	0.4
2008	Armed Recce helicopter	0.5
2009	FCS	18.1
	Net-Enabled Command Capability	0.4
2010	Patriot/MEADS Fire Unit	3.2
2011	JTRS Ground Mobile Radio (Army funding)	1.8
	NLOS-LS	1.2
	Surface-Launched Advanced Medium-Range Air-to-Air Missile program	3.0
2015	Ground combat vehicle	1.2
	Total	46.3

SOURCE: RAND analysis of OUSD (Acquisition, Technology, and Logistics), Selected Acquisition Reports, various years.

Resources

As described in Chapters Two through Five, each QDR was influenced by the nation's economic and budgetary outlook at the time. The 2001 QDR was conducted when the outlook was quite positive, and the 2006 QDR was conducted during a period of relatively strong economic growth. The 2010 QDR was conducted in the wake of the financial crisis of 2008–2009, and the 2014 QDR was conducted under the shadow of sequestration. Because the government never raised taxes to pay for the wars, they were financed through deficit spending.

Defense budgets grew dramatically over 2001–2014, in terms of both DoD base budgets and war-related GWOT and OCO funding. DoD's base budget grew 43 percent in real (constant FY14 dollar) terms, from \$400.9 billion in FY01 to its peak of \$574 billion in FY10; the FY15 National Defense Authorization Act authorized a DoD base budget of \$495.9 billion in FY15. Army base budgets grew 53 percent in real terms, from \$104.3 billion in FY01 to a peak of \$159.9 billion in FY08; the requested base budget amount for the Army in FY15 was \$120.3 billion. War-related GWOT and OCO funding grew in constant FY14 dollars from \$22.9 billion in FY02 to a peak of \$209.4 billion in FY08. This funding was set at \$63.7 billion for FY15.¹⁹

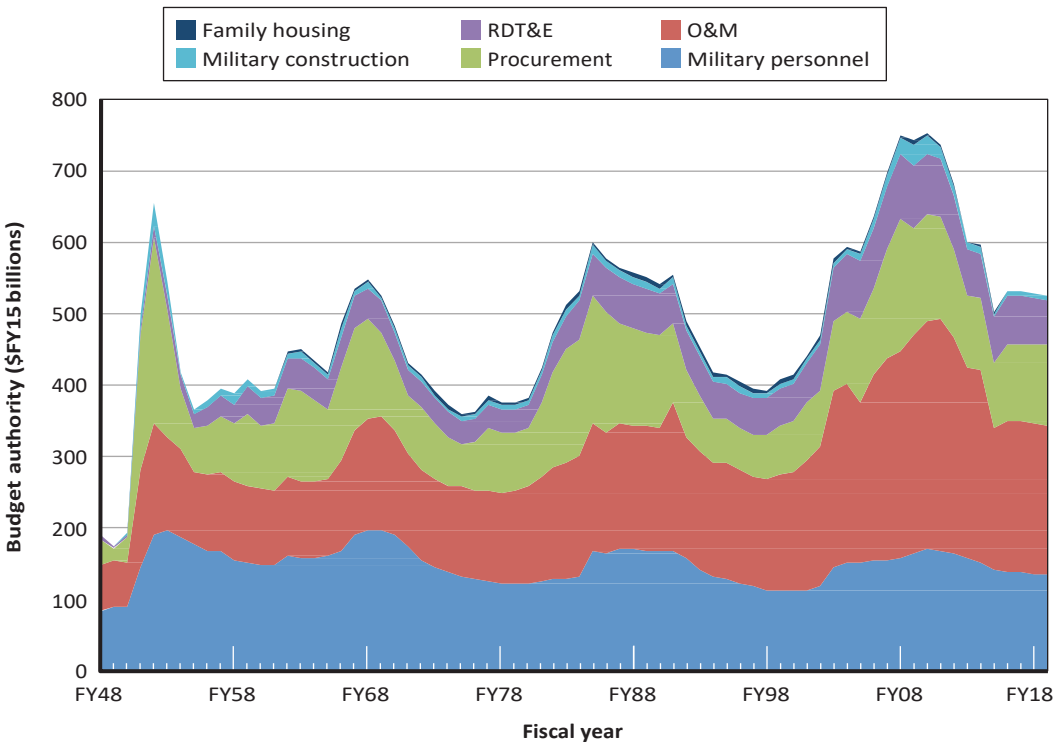
¹⁹ OUSD (Comptroller), various years.

As shown in Figure 6.4, DoD budget authority, including both the base budget and GWOT or OCO spending, peaked over FYs 08–10 at the highest levels seen since 1948 – a period that included wars in Korea and Vietnam, as well as the Reagan buildup of the 1980s.

Even beyond the post-9/11 spending that boosted both base budgets and war-related GWOT and OCO spending, over the period reviewed, there was significant growth in several areas of the defense program. As described by CBO in a November 2014 report,

The Department of Defense’s (DoD’s) base budget grew from \$384 billion to \$502 billion between fiscal years 2000 and 2014 in inflation-adjusted (real) terms – an increase of 31 percent and an annual average growth rate of 1.9 percent. Several factors contributed to that growth. The largest rate of growth was in the costs for military personnel, which increased by 46 percent over the period.

Figure 6.4
DoD Budget Authority, FYs 1948–2019



SOURCE: RAND analysis of OUSD (Comptroller), 2014a, Table 6-8.
NOTE: Because OCO funding is financed on an annual basis, totals after FY14 reflect only planned base budget discretionary spending and do not include OCO funding. In contrast with other figures, we used FY15 dollars here because the FY15 budget data provided the latest picture of out-year defense spending.

The costs for operation and maintenance (O&M) increased by 34 percent, and the costs for acquisition increased by 25 percent. About two-thirds of the \$117 billion real increase in the budget went for the following activities: procurement; O&M costs for the Defense Health Program; research, development, test, and evaluation; the basic allowance for housing; fuel; and basic pay for active-duty military personnel.²⁰

Table 6.9 presents CBO's estimates of changes in various categories of spending in DoD's FY00 and FY14 base budgets over the FY00–14 period. As shown in the table, the total defense base budget is nearly a third larger in FY14, with military personnel accounts increasing by 46 percent (\$44.6 billion), O&M accounts increasing by 34 percent (\$49.6 billion), and acquisition accounts increasing by 25 percent (\$31.3 billion).

Because the base budget increased even as active-duty military personnel were reduced, it is clear that the cost per active-duty member rose over the period.²¹ Thus, it can fairly be said that defense reform efforts in the areas of military personnel, O&M, and acquisition have had only limited success in containing costs, and that, looking ahead, there remain significant opportunities for cost containment and cost-cutting through additional defense reform efforts. Indeed, in an era of tightening budgets, such efforts — another BRAC round, reform of military pay and benefits, efforts at cost containment in the Defense Health Program, and acquisition reform — may be of growing importance, as these costs squeeze resources for other purposes.

Figure 6.5 breaks out DoD spending over FYs 01–15 by base budget, GWOT, and OCO spending.

As shown, over the period, the base budget rose from about \$300 billion a year to \$500 billion a year in nominal dollars, and war-related spending also rose, peaking in FY10 at \$162.4 billion. The chart also shows the transition from GWOT spending, which was funded through emergency supplemental appropriations, to OCO spending, which was funded as part of the regular annual defense appropriation and authorization process, with 2009 serving as a transition year in which warfighting was funded from both the GWOT and OCO accounts.

²⁰ CBO, *Growth in DoD's Budget from 2000 to 2014*, Washington, D.C., November 2014d.

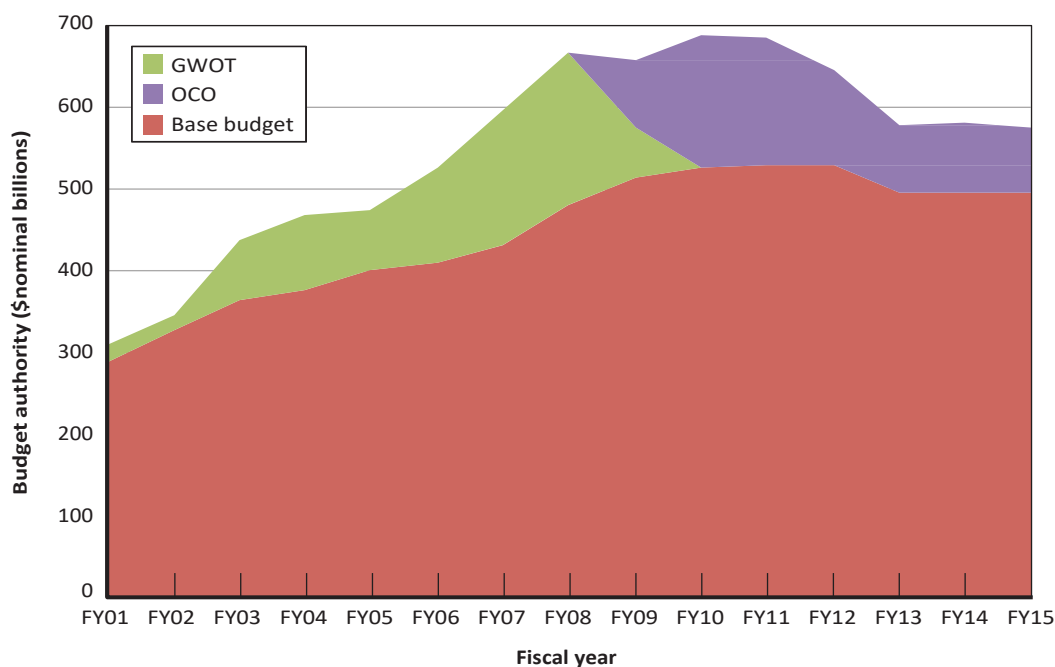
²¹ Total active military end strength in FY00 was 1.449 million, while end strength in FY14 was somewhat lower, 1.402 million. Meanwhile, as shown in Table 6.9, a wide range of defense costs have escalated, with base budget authority growing from \$384.5 billion in FY00 to \$501.7 billion in FY14. We estimate the costs per active-duty member to have been about \$265,400 in FY00 and \$357,800 in FY14.

Table 6.9
Changes in Budget Authority in DoD's Base Budget, FYs 2000–2014 (\$FY14 billions)

Spending Category	FY00 Budget Authority	FY14 Budget Authority	Change	Percentage Change
Military personnel				
Basic allowance for housing	8.2	19.1	10.9	133
Basic pay for active-duty personnel	43.4	51.6	8.2	19
TRICARE for Life accrual charge	0	7.3	7.3	NA
Concurrent receipt (mandatory)	0	6.3	6.3	NA
Reserve and Guard personnel	12.5	17.6	5.1	41
Retirement pay accrual charge	15.0	19.5	4.5	30
Basic allowance for subsistence	3.5	4.1	0.6	17
Other military personnel costs	15.1	16.7	1.7	11
Military personnel subtotal	97.7	142.3	44.6	46
O&M				
Defense Health Program O&M costs	16.3	32.7	16.4	101
Fuel (based on DLA energy sales)	4.0	14.2	10.1	252
Base operating support	19.5	21.3	1.8	9
Facilities sustainment, restoration, and modernization	6.4	6.2	-0.2	-3
Other O&M costs	97.7	119.1	21.4	22
O&M subtotal	143.9	193.5	49.6	34
Acquisition				
Procurement	72.7	92.4	19.7	27
RDT&E	51.2	62.8	11.6	23
Acquisition subtotal	124.0	155.2	31.3	25
Smaller appropriations				
Military construction	6.8	8.4	1.6	24
Family housing	4.7	1.4	-3.3	-70
Revolving funds	9.7	2.2	-7.5	-77
Trust funds, receipts, and other accounts	-2.3	-1.3	1.0	42
Smaller appropriations subtotal	18.8	10.7	-8.1	-43
Total budget authority	384.5	501.7	117.3	31
Memorandum				
Total civilian compensation	55.5	75.2	19.7	35
Estimated civilian compensation in O&M accounts	48.8	66.2	17.3	35
Basic allowance for housing and family housing	12.9	20.5	7.6	59
O&M and revolving funds	153.6	195.7	42.1	27

SOURCE: CBO, 2014d, p. 4.

NOTES: NA = not applicable. DLA = Defense Logistics Agency. Totals may not add exactly due to rounding. Values for FY00 are actuals. Values for FY14 are budget authority for enacted appropriations and for estimated mandatory spending. Reserve and Guard personnel costs exclude TRICARE for Life and retirement accrual charges, which are included in the totals for those accrual charges.

Figure 6.5**DoD Base Budget, GWOT, and OCO Spending, FYs 2001–2015**

SOURCE: OUSD (Comptroller), 2014a, Table 2-1; and OUSD (Comptroller), *National Defense Budget Estimates for FY 2016*, Washington, D.C., March 2015, Table 2-1.

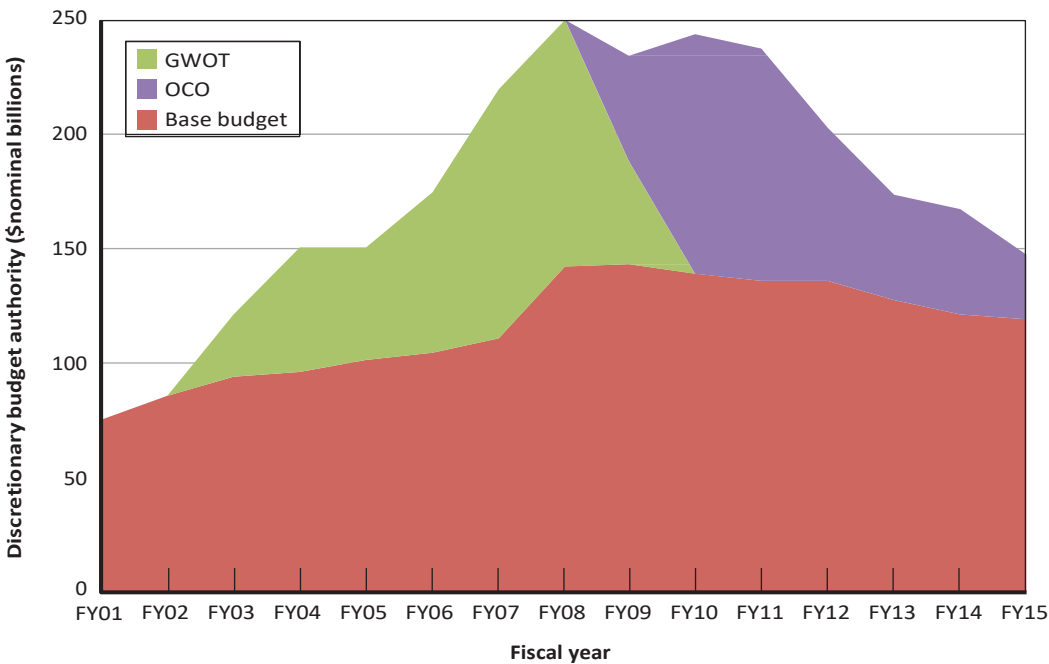
RAND RR1309-6.5

Figure 6.6 breaks out base budget, GWOT, and OCO spending for the Army over the same period. As shown in Figure 6.6, proportionally speaking, GWOT and OCO funding accounted for a much larger share of the Army's overall resources than of DoD's, because of the Army's preponderant role in the wars in Afghanistan and Iraq. In fact, in FY07, Army GWOT funding was about equal to Army base budget funding.²²

Earlier chapters detailed base budget and OCO funding but only briefly described another resources-related trend—the heavy reliance on emergency supplemental appropriations to fund warfighting and other activities during much of the period. Figure 6.7 reports the annual total budget authority from supplemental appropriations from FYs 90–14 for DoD and for nondefense agencies.

²² In FY07, Army base budget funding was \$111.1 billion, and GWOT funding was \$108.5 billion.

Figure 6.6
Army Base Budget, GWOT, and OCO Spending, FYs 2001–2015

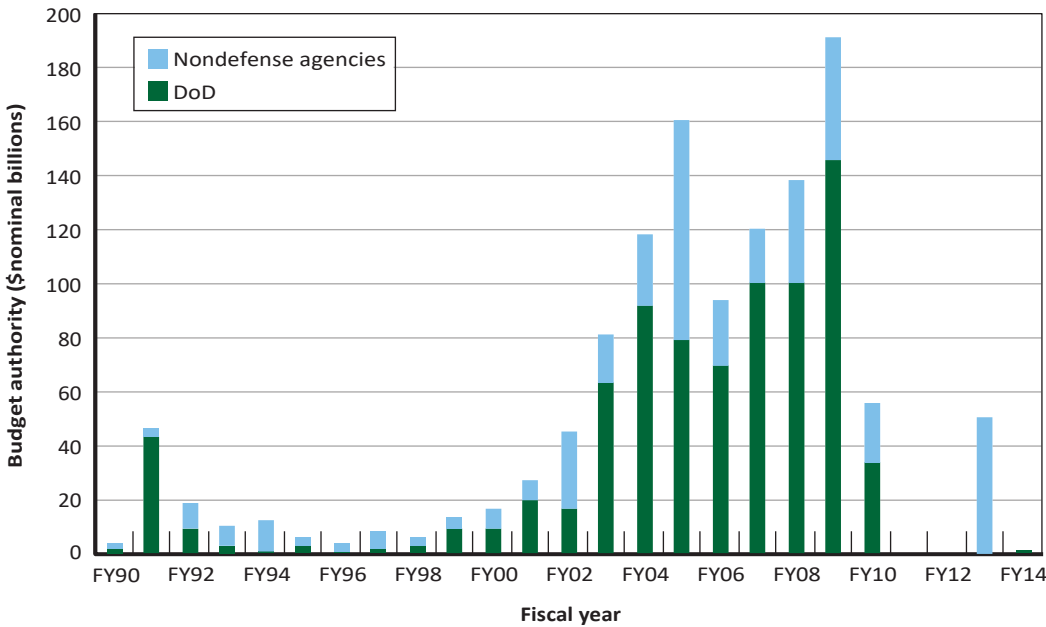


SOURCE: OUSD (Comptroller), 2014a, Table 2-1; and OUSD (Comptroller), 2015, Table 2-1.

RAND RR1309-6.6

As shown in the figure, with the exception of the emergency supplemental appropriation for Operations Desert Shield and Desert Storm in 1991, supplemental appropriations for DoD activities—largely related to peace operations, warfighting, and other military activities, but also including some disaster relief activities, such as those conducted in the wake of Hurricane Katrina in 2005—remained below \$20 billion until the ramp-up in FY03 to \$60 billion, largely for the war in Iraq. These supplemental funds exceeded \$60 billion every year thereafter until FY10, after which OCO funding was financed out of the base budget.

Figure 6.7
DoD and Nondefense Agency Supplemental Appropriations, FYs 1990–2014



SOURCE: CBO, *Supplemental Appropriations in the 1990s*, Washington, D.C., March 2001b, Table 4; and CBO, 2014c.

RAND RR1309-6.7

Table 6.10 presents the long-term outlook for DoD base budget spending, as of April 2014. As shown in the table, the long-term outlook was for DoD base budget authority to receive nominal increases through FY24, from \$495.6 billion in FY15 to \$616.9 billion in FY24. In real terms, the base budget would grow from \$501.8 billion in FY15 to \$526.7 billion in FY19 (deflators are not available for the out-years beyond FY19). As shown, the President requested \$79.4 billion in OCO spending for FY15, and a placeholder for future OCO spending was set at \$29.9 billion annually over FYs 16–21.

If we sum the projected base budget and OCO spending levels, this suggests a real decline in total DoD spending, from \$581.2 billion in FY15 to \$554.6 billion in FY19, largely accountable to the sizable reduction in OCO spending associated with the withdrawal of combat troops from Afghanistan, leaving about 10,000 personnel for training of Afghan forces and other limited purposes.

A key question for defense planners and the next QDR (or Defense Strategy Review) is, of course, what level of resources will be required for defense to ensure low to moderate risk in executing the defense strategy. Or, to put it another way, how much is enough?

Table 6.10
Long-Term Outlook for DoD Budget Authority, FYs 2015–2024 (\$billions)

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Current dollars										
DoD (discretionary)	495.6	535.1	543.7	551.4	559.0	567.6	576.3	585.9	600.6	616.9
DoD (mandatory)	6.2	6.3	6.2	6.4	6.6	NA	NA	NA	NA	NA
DoD base budget	501.8	541.4	549.9	557.8	565.6	NA	NA	NA	NA	NA
OCO	79.4	(29.9)	(29.9)	(29.9)	(29.9)	(29.9)	(29.9)	NA	NA	NA
Total DoD	581.2	571.3	579.8	587.7	595.5	NA	NA	NA	NA	NA
FY15 constant dollars										
DoD (discretionary)	495.6	526.7	526.1	523.7	520.6	NA	NA	NA	NA	NA
DoD (mandatory)	6.2	6.2	6.0	6.1	6.1	NA	NA	NA	NA	NA
DoD base budget	501.8	532.9	532.1	529.8	526.7	NA	NA	NA	NA	NA
OCO	79.4	(29.5)	(29.0)	(28.4)	(27.9)	NA	NA	NA	NA	NA
Total DoD	581.2	562.4	561.1	558.2	554.6	NA	NA	NA	NA	NA

SOURCE: OUSD (Comptroller), 2014a, Table 1-2 and Table 1-11.

NOTE: () = nonspecified out-year OCO placeholder; NA = not available.

As described in Chapter Five, the National Defense Panel argued that the minimal baseline for defense spending should be about the levels established in Secretary Gates's proposed budget for FY12: \$558.2 billion in FY12, rising to \$615.6 billion in FY16 in nominal, then-year dollars, or \$558 billion to \$567 billion in constant FY12 dollars.²³ In fact, the following very crude analysis points to a similar figure.

Consider the period immediately before the 9/11 attacks as an initial floor (about \$400 billion in FY15 dollars; see Figure 6.4). If we accept Secretary Rumsfeld's high-end estimate that the defense program for 2002 was under-funded by as much as \$100 billion a year (about \$142 billion in FY15 dollars) and acknowledge that various categories of costs (e.g., military pay and benefits, health care, weapon systems) have increased dramatically since that time, that would suggest a base budget level of about \$550 billion, close to the National Defense Panel's estimate. These are, of course, only very crude calculations, but the fact that they generally converge suggests that they are close to the true resource requirements.

Defense Reform and Infrastructure

We now summarize the results of efforts on defense reform and infrastructure over the period, and note that a number of key areas, including weapon acquisition, support infrastructure management, business transformation, business system modernization, financial management, and supply chain management, remain on GAO's list of "high-risk" defense management areas.²⁴ In this section, we focus on three areas: acquisition, infrastructure, and competitive outsourcing, while also noting that financial management appears to be a particularly important area of performance shortfall for DoD.²⁵

Acquisition

DoD's annual performance report for FY15 reported a one-year decline in the average rate of acquisition cost growth for major defense acquisition programs begun after FY01 (reporting growth of -0.41 percent). The document also reported that, in FY15, there were no programs that experienced a deviation in the median percentage cycle time from the previous year, or that experienced a breach of greater than 15 percent of

²³ See National Defense Panel, 2014, p. 4. Numbers are from OUSD (Comptroller), *National Defense Budget Estimates for Fiscal Year 2012*, Washington, D.C., March 2011, Table 1-2.

²⁴ See GAO, *High-Risk Series: An Update*, Washington, D.C., GAO-15-290, February 2015.

²⁵ In its annual performance report for FY15, DoD reported that 76 percent of DoD mission-critical assets had been validated as audit-ready, just shy of the target of 83 percent; 64 percent of DoD general funds Statement of Budgetary Activity for material components were validated as audit-ready, against a target of 99 percent; 7 percent of DoD general fund balances with the Department of Treasury were validated as audit-ready, against a target of 47 percent; and 4 percent of mission-critical assets had undergone valuation, against a target of 18 percent (DoD, *Annual Performance Report FY 2015*, Washington, D.C., January 13, 2016, p. 60).

current acquisition program baseline unit cost or greater than 30 percent of original acquisition program baseline unit cost.²⁶

An October 2015 document from GAO suggests that, notwithstanding some areas of improvement, many of the major problems that historically have plagued defense acquisition remain:

DOD's acquisition of major weapon systems has been on GAO's high risk list since 1990. Over the years, Congress and DOD have continually explored ways to improve acquisition outcomes, including reforms that have championed sound management practices, such as realistic cost estimating, prototyping, and systems engineering. Too often, GAO reports on the same kinds of problems today that it did over 20 years ago.²⁷

Weapon system acquisition remains a high-risk area of defense management, according to GAO,²⁸ and cost comparisons suggest that DoD has experienced cost growth over the course of major acquisition programs during FYs 11–13 (see Figure 6.8).

Infrastructure

As described in the present report, 2012 estimates of the savings from the 2005 BRAC round suggested that the net present value from the round was about \$9.9 billion, less than one-third of the \$35.6 billion originally estimated by the BRAC commission. DoD support infrastructure management also remains a high-risk area, according to GAO.²⁹ We were unable to uncover more-recent estimates of total net savings from the 2005 BRAC round, and no further rounds were authorized during the period covered in this report.

Defense Outsourcing

DoD's annual performance report for FY15 reports that 55.1 percent of contract obligations in FY15 were competitively awarded, just short of the target of 59 percent; no estimates of savings were reported.³⁰ Competitive outsourcing via A-76 and other efforts during the period reportedly yielded savings, although questions arose about

²⁶ DoD, 2016, p. 49.

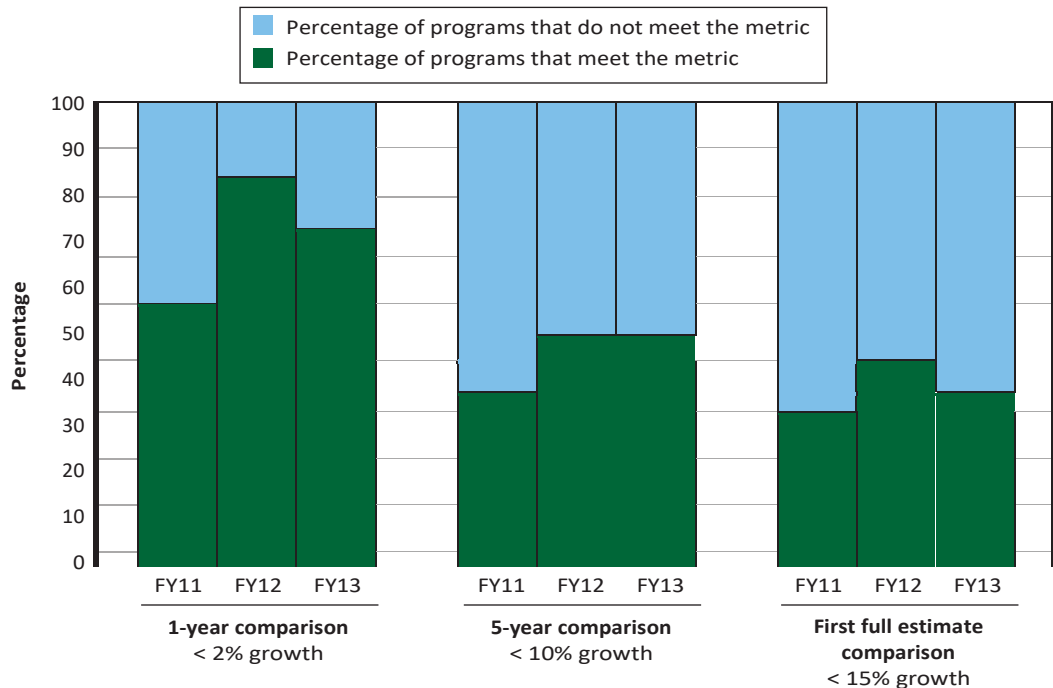
²⁷ Paul L. Francis, *Defense Acquisitions: Joint Action Needed by DOD and Congress to Improve Outcomes*, testimony before the House Armed Services Committee, Washington, D.C., GAO-16-187T, October 27, 2015. For an equally pessimistic view of DoD's recent acquisition experience, see also Laura H. Baldwin and Cynthia R. Cook, "Lessons from a Long History of Acquisition Reform," Santa Monica, Calif.: RAND Corporation, July 17, 2015.

²⁸ GAO, 2015, pp. 197–202.

²⁹ GAO, 2015, pp. 159–171.

³⁰ DoD, 2016, p. 49.

Figure 6.8
Cost Performance of DoD’s FY11, FY12, and FY13 Acquisition Portfolios



SOURCE: GAO, 2015, p. 199.
NOTE: GAO, DoD, and OMB designed metrics to capture total cost-growth performance over one- and five-year periods, as well as from the original program estimate, on a percentage basis as opposed to dollar amount to control for the differences in the amount of funding among programs. Those are the metrics measured against in this figure. See GAO, 2015, p. 198.
RAND RR1309-6.8

the quality of the data behind these estimates and the actual magnitude of savings.³¹ By June 2005, the Congressional Research Service reported that “DOD has completed 501 OMB Circular A-76 initiatives, conducted public-private competitions for defense activities that affected 37,986 positions, and generated \$5.2 billion, or 36%, in savings. By the end of FY2005, DOD expects to generate an additional \$1.7 billion of savings.”³²We were unable to find more-recent estimates of savings from defense competitive outsourcing, but we assume that they continue to be accrued.

³¹ On the reliability of the data used, see GAO, *DOD Met Statutory Reporting Requirements on Public-Private Competitions*, Washington, D.C., GAO-11-923R, September 26, 2011, p.5.
³² Valerie Bailey Grasso, *Defense Outsourcing: The OMB Circular A-76 Policy*, Washington, D.C.: Congressional Research Service, RL30392, June 30, 2005, p. 15.

Risk Assessment

Although the analytics were never fully implemented by OSD, and the Chairman and Joint Staff never fully embraced it, the risk assessment framework developed in the 2001 QDR – which focused attention on operational, force management, institutional, and, perhaps most importantly, future challenges risks – had a surprisingly lasting influence on subsequent QDRs. It was not until the 2014 QDR that the framework appears to have fallen out of favor.

According to one of our interlocutors, the Chairman's risk assessment has had reasonably high credibility with the services:

Services participate because it goes through the tank and there are multiple sessions in the tank and the [combatant commanders] have huge input. But ultimately, the Service Chiefs seal the deal and the Chairman takes all the input, but across multiple groups the report is seen as belonging to the Joint Chiefs of Staff, but congressionally, it's really his responsibility, though it draws on the advice of other chiefs.

By comparison, while the Chairman's risk assessment in the 2014 QDR report used a risk assessment framework that was arguably more explicitly tied to the National Security Strategy, it lacked the explicit emphasis on addressing longer-term threats and challenges, or the ability to make trade-offs between operational, force management, institutional, and future challenges risks. Nor did it consider a new category of risk that has become apparent in recent years: resources risk, arising from uncertainty about budgets and the prospect that budgets will be inadequate to ensure a low to moderate level of risk in executing the defense strategy.

Another common theme across all of the QDRs examined was that the Chairman's risk assessment of the strategy presented in the QDR was always stated as being contingent on the availability of resources, which were never actually specified in the QDR.

Reception

A consistent response from members of Congress and the independent panels that reviewed the QDRs was concern that proposed forces might be inadequate to meet the demands of the strategy and that proposed resources might be insufficient to support the force structure. Another criticism was that the QDRs failed to take a long-term (20-year) view of national security challenges and defense needs, looking no further out than the current FYDP. In addition, the QDRs were criticized for not addressing all of the subjects specified in enabling legislation, although it is not clear that the expansive list of mandated topics could ever be covered in a QDR. Most notably, per-

haps, this list included identification of the resources required to support the strategy. Many observers viewed the QDRs as highly resource-constrained rather than documents that illuminated the true resource requirements of the proposed defense strategy and programs. One of our interlocutors, however, took a very different view of how resources should be considered:

The legislative guidance for the QDR is based on a false premise — that you develop your strategy, and implement that strategy at moderate risk as if there is a straight line between those two, and resources should only be considered at the end of the process. It's a theory that's never operated in practice, and a much more reasonable approach, for all of its challenges and judgment involved, is to look at the current programmed and planned force to assess it in various different ways, and ask what are implications of adding and/or subtracting resources.

Summary

With this chapter, we have sought both to draw together the various threads that run through the four QDRs reviewed in this report to identify larger trends and patterns between 2001 and 2014, and to describe the outlook for Defense Strategy Reviews going forward. In the next (and final) chapter, we summarize implications for the Army and DoD and offer some modest recommendations for the improvement of future Defense Strategy Reviews.

Recommendations and Conclusions

The QDRs of 2001 through 2014 each, in their own way, sought to wrestle with the emerging national security and military threats and challenges, and to provide strategic and other guidance on the future development of U.S. military capacity and capabilities. As described in this report, assessing the implications of these reviews for defense programs, force structure, end strength, and budgets is greatly complicated by the wars that were conducted over this period, the combination of annual defense budget requests and supplemental appropriations, and the somewhat elastic boundaries between base budget and OCO spending. In this chapter, we offer observations and recommendations on the following four topics:

- value, timing, organization, and process
- scenarios and force-planning constructs
- analytics
- risk assessments.

Value, Timing, Organization, and Process

Some of our structured conversations suggested that the principal value of QDRs is the opportunity that they present to codify DoD senior leadership's thinking about defense strategy and priorities within the Department and communicate this thinking to Congress, the American public, friends, and adversaries. The first QDR of an administration also appears to have some additional value in signaling departures from the defense strategy of the previous administration. As seen with the 2001 QDR, however, these strategic departures from the previous administration can make moot Joint Staff and service assumptions about the shape and content of the next QDR, as well as much of their advance preparatory work for the QDR.

As described in this report, neither the Bush nor Obama administration produced a National Security Strategy report within the statutorily mandated deadline of 150 days after taking office, making the 2001 and 2010 QDRs the first formal strategic statement of each administration. The value of the first QDR (or, rather, given the

new statutory language, Defense Strategy Review) of future administrations might be enhanced somewhat if a new National Security Strategy report was in fact published within 150 days of entering office, or released simultaneously with each Defense Strategy Review, if only because these new strategies would provide a better foundation for the services to consider their contributions, and for the CJCS to develop a new National Military Strategy.

- *Recommendation:* DoD and the White House should consult with Congress on the current statutorily mandated deadlines for producing the National Security Strategy and Defense Strategy Review reports, and consider whether a different schedule would better ensure that a new National Security Strategy either precedes or accompanies each future Defense Strategy Review.

That said, the QDR represents only one of many opportunities to influence defense strategy, which also include the National Defense Strategy, National Military Strategy, program budget reviews, POM guidance, and DoD requirements process, in addition to routine and ongoing interactions with key national security stakeholders.

Although QDR themes and priorities have frequently been accented in post-QDR budget presentations and have led to some major initiatives, we conclude that the chain of causality linking QDR guidance and directives to the detailed elements of defense programs and budgets that are developed after a QDR is often opaque, or at best indirect. And while additional efforts to establish more-direct and more-explicit links could improve the transparency of defense strategy, programs, and budgets, real-world events can still render QDR priorities obsolete. For example, the 9/11 attacks and the post-invasion counterinsurgency demands of Iraq reduced DoD's latitude to promote the 2001 QDR's transformation agenda, and the Defense Strategic Guidance released five months after the BCA significantly revised defense strategy less than two years after the release of the 2010 QDR report.

From an organization and process perspective, many of our interlocutors appear to have viewed the unwieldy and confusing organization and process of the 2006 QDR as something of a nadir, while seeing the Analytic Agenda-based development of the 2010 QDR as a high point over the period, because it facilitated development of communication, understanding, and trust. For its part, the Army's QDR governance structure and approach in organizing its panels and working groups to parallel those in the Joint Staff appears to have worked very well, although our structured conversations suggest that personalities, leadership styles, and the cultivation of good professional working relationships at all levels may have mattered far more.

- *Recommendation:* Develop a cadre of senior Army staff who have experience and contacts in OSD and the Joint Staff, intimate knowledge of how the system works, and credibility outside of the Army, and involve these individuals in future Defense Strategy Reviews.

Scenarios and Force-Planning Constructs

Force-planning constructs were adapted over the various QDRs to better address an increasingly rich portfolio of threats and challenges that required force and capability development. Nonetheless, only the 2010 QDR appears to have addressed the potential steady-state rotational requirements of smaller-scale contingency operations, the challenges of disengaging from these operations to meet emergent threats,¹ or the potentially large ground force requirements for WMD elimination operations.

- *Recommendation:* Efforts should continue to consider a greater range and combination of mission types in the development of scenarios for assessing the next force-planning construct. In particular, much greater attention to the requirements of WMD elimination and other counter-WMD missions appear especially warranted, and these missions arguably should be promoted to the first rank of missions that drive force requirements. In addition, the ongoing steady-state requirements of smaller-scale contingency operations, and the challenges of disengaging from these operations to meet emerging threats, should be considered more explicitly in future defense reviews.
- *Recommendation:* Although the complexity of force planning in today's environment may militate against simplistic, "bumper sticker" force-planning constructs, one that might help to better address the growing portfolio of demands on the force would be to adapt the 2001 QDR's force-planning construct into a "1-4-2-1-n." This construct would be capable of ensuring homeland defense, deterring aggression and coercion in four key regions, conducting two major campaigns of various types (including a conventional campaign that includes WMD elimination operations of the kind that might be encountered in North Korea), achieving decisive victory (regime change) in one of these campaigns, and sustaining current ongoing smaller-scale contingency operations.²

Analytics

As just described, our reviews of the organizations and processes associated with each review revealed just how complex such efforts are, and how they can be made even

¹ The force-planning construct for the 2001 and 2006 QDRs envisioned conduct of a "limited number" of smaller-scale contingencies; the 2010 QDR did not address such contingencies but argued that the force would be capable of addressing "a wide range" of contingencies. The 2014 QDR does not appear to have specifically addressed smaller-scale contingencies at all. Nonetheless, the steady accumulation of these contingencies in the 1990s led to readiness issues and other undesirable effects. See Larson, Orletsky, and Leuschner, 2001.

² We note that the January 2012 Defense Strategic Guidance reported that neither irregular warfare, nor countering WMD (which we took to include WMD elimination operations), would be used for force-sizing. Thus, including these missions as force-sizing missions would require new policy direction.

more complex when participants operate within an unduly complicated organizational structure or lack a common analytic picture. Our structured conversations brought to our attention the contributions of the Analytic Agenda that was developed between the 2006 and 2010 QDRs. That agenda resulted in an agreed-upon set of defense-planning scenarios, models, and data that helped to ensure that OSD, the Joint Staff, and the services had a common analytical picture during the conduct of the 2010 QDR. We believe that the revival of the Analytic Agenda in the form of the Support for Strategic Analysis process could greatly facilitate collaborative planning, improve transparency, and reduce misunderstanding in future Defense Strategy Reviews.

- *Recommendation:* Promote and shape the DoD-wide effort to reinvigorate the Support for Strategic Analysis process (including the organizational arrangements and processes) and common analytic resources that can support the next Defense Strategy Review, and press to institutionalize these elements within DoD so that they are available during the conduct of future reviews.
- *Recommendation:* Serve as a thought leader regarding how the Army fits into future joint campaigns, while improving the Army's ability to conduct analyses of ground-force requirements in these future campaigns.
- *Recommendation:* As part of the effort on where the Army fits into future joint campaigns, develop new scenarios that could stress ground and joint force capacity and capabilities in key emerging mission areas. A scenario detailing a WMD elimination operation as part of a larger joint campaign in North Korea would be ideal for inclusion in the next Defense Strategy Review. Additional consideration of the steady-state rotational requirements of various numbers and combinations of smaller-scale contingencies also would be worthwhile.

Our structured conversations suggest that the Army analytic community is widely viewed within DoD as possessing the greatest expertise for assessing the ground-force requirements associated with conventional ground campaigns, and that, while the Total Army Analysis process has improved over the period to consider nonconventional mission areas and the generating force, critiques of that process suggest that the techniques and tools for assessing the requirements for other-than-conventional ground-force missions and the generating force are underdeveloped. The credibility of Army analyses of other missions is accordingly not yet as high as it is for conventional missions.

- *Recommendation:* The Army should review its analytic capabilities and capacity to assess the full range of missions that are of contemporary concern; identify shortfalls and gaps that impede its ability to conduct equally credible assessments of nonconventional missions and the generating force; and identify doctrinal, organizational, training, materiel, leadership and education, personnel, and facility changes that will improve its analytic ability to address this fuller set of missions.

Further developing the Army's analytic capabilities for assessing force structure and manpower requirements and risk assessments in nonconventional mission areas (and the generating force) will help to improve the analytic transparency of Army arguments, so that they are better understood by the OSD and Joint Staff analytic communities, while demonstrating that Army positions rest on clean analytic arguments. Doing so facilitates socialization of Army positions and improves the overall persuasiveness of Army arguments.

Indeed, our structured conversations suggested that the Army needs to be heavily engaged with OSD and the Joint Staff to socialize these external audiences to Army issues and analyses well before the kickoff of any future Defense Strategy Reviews. The conversations also revealed a number of opportunities for doing so, including POM guidance, annual program budget reviews, and the requirements process, not to mention less-formal vehicles, such as briefings, workshops, and conferences.

- *Recommendation:* In anticipation of the next Defense Strategy Review, consider creating additional informal mechanisms for discussing issues related to the Army and ground forces with OSD and the Joint Staff, to better socialize them to emerging issues and analytic results.

Risk Assessments

As noted in Chapter Two, in many ways, the risk assessments conducted by OSD and the CJCS lie at the heart of the QDR process; this is where assessments of ends, ways, and means take place, and where judgments about the ability of the force to execute the defense strategy are made. As described in Chapters Two through Five, the estimated risk in executing the defense strategy also is one of the bottom-line topics of greatest interest to Congress.

The 2001 QDR introduced a sophisticated risk assessment framework that focused on operational risk, force management risk, institutional risk, and future challenges risk. This framework also was employed in the 2006 QDR and, with the addition of strategic, military, and political risks, in the 2010 QDR. Nonetheless, the analytic underpinnings of that framework were never fully developed, and it was not used in the 2014 QDR.

- *Recommendation:* The Army, OSD, and the Joint Staff should review, refine, and build out the analytics of the 2001 QDR risk framework and, in connection with reinvigorating the Support for Strategic Analysis process, develop the necessary analytic underpinnings to assess with greater fidelity the level of risk associated with different force, end-strength, and resource levels.

In addition to the failure of the QDRs' force-planning constructs to capture the full range of operational demands on the force, issues related to end strength and the active-reserve mix were largely unexamined in the QDRs from 2001 to 2014.³ Our historical review suggests a recurring tendency toward a peacetime requirement for 480,000 or more active Army personnel:

- In 2001, prior to 9/11, the active Army had 480,000 active personnel.
- The 2006 QDR called for a post-war Army of 482,400, which was the permanent end-strength level at the time.
- The post-QDR plan in 2010 was to return active Army end strength to 482,400.
- The FY13 budget following the release of the Defense Strategic Guidance called for 490,000 active Army personnel.
- In 2014, the National Defense Panel endorsed a comparable number.

Yet the Army is currently on a path to 440,000–450,000 — an end strength that Chief of Staff of the Army Odierno has described as “an absolute floor” that already accepts higher risk in some areas — or possibly even an active end strength of 420,000:

The President's FY 15 Budget request provides a balanced and responsible way forward in the midst of ongoing fiscal uncertainty. It allows the Army to reduce and reorganize forces, but incurs some risk to equipment modernization programs and readiness. Under the FY 15 Budget request, the Army will decrease end strength through FY 17 to a Total Army of 440–450,000 in the Active Army, 335,000 in the Army National Guard and 195,000 in the Army Reserve. This should be the absolute floor for end strength reductions. In order to execute the defense strategy, it is important to note that as we continue to lose end strength our flexibility deteriorates, as does our ability to react to a strategic surprise. Our assumptions about the duration and size of future conflicts, allied contributions and the need to conduct post-conflict stability operations are optimistic. If these assumptions are wrong, our risk grows significantly.

These cuts will be particularly felt by our generating force that mans, trains, and equips our Army. We do not scale the generating force with the operating force in order to have capability to grow the Army in a time of war. It currently comprises about 18% of the Army, far below the ratio of the other Services. At a 440–450,000 end strength in the Active force, the Army will be at risk to meet our generating force requirements by having to reduce to historically low manning levels of 83,000.

³ According to our structured conversations, consideration of end-strength requirements generally occurred in the development of the next defense budget request after the QDR; it is not clear the extent to which these end-strength decisions were actually derived from the analysis of personnel requirements associated with different combinations of defense planning scenarios, however.

But with sequestration-level caps in FY 16 and beyond, the Army will be required to further reduce Total Army end strength to 420,000 in the Active Army, 315,000 in the Army National Guard and 185,000 in the Army Reserve by the end of FY 19. At these end strength levels, we will not be able to execute the defense strategy. It will call into question our ability to execute even one prolonged, multi-phased major contingency operation. Our Army will not have sufficient capacity to meet ongoing operational commitments and simultaneously train to sustain appropriate readiness levels.⁴

The argument that the Army may not have the end strength to be able to execute the defense strategy at low to moderate risk is a powerful and compelling one. The key challenge for the Army will lie in its ability to generate credible, transparent, and persuasive estimates of the types and levels of risk associated with the 490,000, 440,000–450,000, and 420,000 active end-strength forces and their associated budgets.

- *Recommendation:* As the service that is most reliant on manpower, the Army should continue to refine its capabilities for assessing the risk associated with different end strengths and mixes of active-component and reserve-component forces and press for fuller consideration of these issues in the 2018 Defense Strategy Review.
- *Recommendation:* It will be important in the next Defense Strategy Review for the Army to provide additional assessments of the active end strength that is required to support the defense strategy, as well as the risks that are being accepted at different end strengths, and to share the details of these assessments with other stakeholders.

In a similar vein, the QDRs were consistently criticized for not focusing sufficient attention on the long-run implications of the active-reserve mix—for example, the decision to shift from relying on the reserves as a strategic reserve to treating them as an operational reserve.

- *Recommendation:* Before or during the next Defense Strategy Review, it will be important for the Army to address the active-reserve mix that will best support the strategy in the emerging post-war environment, including the rotational depth and readiness requirements that can meet the demands of steady-state and contingency response operations.

⁴ Odierno, 2014. In his later remarks to the Association of the United States Army in October 2014, General Odierno indicated that his earlier estimate that 490,000 active-duty soldiers would ensure low to moderate risk in the strategy might be insufficient in light of the rise of the Islamic State of Iraq and Syria, an increasing aggressive Russia, and other developments. See U.S. Army, “Oct. 13, 2014 – SecArmy, CSA Statement/ Answers at AUSA Annual Meeting Opening Press Conference,” October 14, 2014.

The costs associated with Army major acquisition programs continued to grow over the period examined, as a result of both procurement of increasingly sophisticated (and therefore expensive) systems and difficulties in implementing acquisition reforms that might have helped to reduce the cost growth in major acquisition programs.

- *Recommendation:* Now facing increasingly scarce resources and a future “bow wave” in procurement, the Army should focus attention on the sort of high-low mix in platforms and capabilities that will best meet operational requirements at an affordable cost over the longer term.

Finally, our review suggests that over time, and quite properly in light of the wars being fought in Afghanistan, Iraq, and elsewhere, the QDRs became increasingly focused on shorter-term planning considerations at the expense of considering longer-term threats and transformation. Nonetheless, longer-term challenges continued to grow.

- *Recommendation:* As the Army achieves a reset of the force, in the next defense review, more consideration should be given to future challenges risk and longer-term capability development and transformation requirements.

Conclusions

The period of study thus ends much as it began, with an increasingly apparent strategy-forces-resources gap that will need to be closed.

In some important respects, the post-war environment of 2015 resembles the pre-9/11 period in 2001 – (1) a force that was stressed and suffering readiness problems from the accumulation of contingency operations over the previous decade and, in short, requiring a reset, and (2) budgets insufficient to ensure a healthy force, reduce the bow wave in procurement costs, and meet the resource demands associated with further transformation. There also are differences, however, including the ongoing threat from the al-Qa’ida network, an increasingly aggressive Russia, threats from the Islamic State of Iraq and Syria, the continued rise of an increasingly assertive China, and steady-state peacetime requirements in Afghanistan and elsewhere that may well exceed those during the 1990s.

Put another way, as in 2001, the defense strategy, program, and budget in 2015 appear to be out of balance; a low- to moderate-risk strategy to ensure continued U.S. leadership in the presence of expansive commitments and growing threats requires greater defense capabilities and resources than are currently being afforded. Also as in 2001, near-term considerations have eclipsed planning for future threats and capabilities.

The challenge for the Army will be determining what its role is likely to be in future conflicts, developing scenarios to reflect these roles, and convincing OSD and the Joint Staff that these roles and scenarios are plausible and valid. The recent revitalization of the Support for Strategic Analysis may facilitate these efforts.

Since the completion of our study, the outlook for closing the gap between defense requirements and budget caps has clarified, if only a little. The Bipartisan Budget Act of 2015 provided guidance to appropriators to raise the caps on defense by \$25 billion in FY16 and \$15 billion in FY17.⁵ In addition, the act set a target on OCO funding of \$74 billion in FY16 and FY17, with \$59 billion allocated to defense programs in each year and \$15 billion allocated to non-defense programs. After vetoing an earlier version of the defense authorization bill because it funded \$38 billion of base budget requirements using the OCO account, in late November 2015, President Obama signed the FY16 National Defense Authorization Act. The bill included \$514 billion in base budget spending for DoD, \$59 billion in OCO funding, and an additional \$9 billion in OCO funding for items requested in the base budget, for a total of about \$582 billion in FY16. In February 2016, the White House requested \$583 billion for DoD in FY17; the chairmen of the House and Senate Armed Services Committees rejected the request as inadequate and vowed to increase defense resources for FY17.⁶

As defense needs and strategies continue to evolve, it will be left to civilian and military senior leaders in DoD to estimate the funding levels that are needed to ensure low to moderate risk in the execution of the strategy. And it will be left to the White House and Congress to agree on a stable level of defense funding and to determine how best to pay that bill while also addressing pressing domestic requirements and achieving deficit reduction targets.

While it cannot be entirely ruled out, it remains doubtful to us that policymakers would choose to trim the United States' aims and role in the world and accept the resulting risks to U.S. leadership and global security. Rather, questions going forward will most likely revolve around the adequacy of the forces to support the strategy and the budgets that are needed to support the force in the near, mid-, and long terms.

The current environment does differ, however, in at least one significant respect: Policymakers developing the 2001 QDR did not face the statutorily based threat of budget caps that most observers acknowledge would effectively cripple the nation's defenses. And unless and until this situation is remedied, the gaps are likely to continue to grow.

⁵ Public Law 114-67, Bipartisan Budget Act of 2015, November 2, 2015.

⁶ Peter G. Peterson Foundation, "Understanding the Bipartisan Budget Act of 2015," Washington, D.C., November 16, 2015; Pat Towell, *Fact Sheet: Selected Highlights of the FY2016 Defense Budget Debate and the National Defense Authorization Acts (H.R. 1735 and S. 1356)*, Washington, D.C.: Congressional Research Service, R44019, December 4, 2015; and Bob Work, Deputy Secretary of Defense, and Paul Selva, Vice Chairman of the Joint Chiefs of Staff, "Fiscal Year 2017 Defense Budget Request," briefing, Washington, D.C., February 9, 2016.

Needless to say, that will be much easier if the executive and legislative branches can also agree on a defense strategy and program that balances ends, ways, and means, including taking potentially painful but essential actions (e.g., another round of BRAC, military pay and benefits reform) that offer the prospect of yielding savings that can make more substantial contributions to the national defense than they are currently making.

As a result of changes to the statute, the 2014 QDR was the last such review of that title; it remains to be seen how much progress DoD, Congress, and other relevant parties can make on these multiple fronts by the time of the first Defense Strategy Review, in 2018.

Text of 10 U.S.C. 118: Quadrennial Defense Review, as of June 2014

This appendix presents the text of the statutory basis for conducting QDRs, current as of June 2014 (the law was originally enacted in 2011).¹

¹ 10 U.S.C. 118. Text contains those laws in effect on June 12, 2014.

§ 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 and are fully independent of 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;

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

(F) the roles and responsibilities that would be discharged by contractors.

(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, sustainment, and contractor support 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 forces (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, and the scope of contractor support, 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’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) NATIONAL DEFENSE PANEL.—

(1) ESTABLISHMENT.—Not later than February 1 of a year in which a quadrennial defense review is conducted under this section, there shall be established an independent panel to be known as the National Defense Panel (in this subsection referred to as the “Panel”). The Panel shall have the duties set forth in this subsection.

(2) MEMBERSHIP.—The Panel shall be composed of ten members from private civilian life who are recognized experts in matters relating to the national security of the United States. Eight of the members shall be appointed as follows:

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

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

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

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

(3) CO-CHAIRS OF THE PANEL.—In addition to the members appointed under paragraph (2), the Secretary of Defense shall appoint two members from private civilian life to serve as co-chairs of the panel.

(4) PERIOD OF APPOINTMENT; VACANCIES.—Members shall be appointed for the life of the Panel. Any vacancy in the Panel shall be filled in the same manner as the original appointment.

(5) DUTIES.—The Panel shall have the following duties with respect to a quadrennial defense review:

(A) While the review is being conducted, the Panel shall review the updates from the Secretary of Defense required under paragraph (8) on the conduct of the review.

(B) The Panel shall—

(i) 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 quadrennial defense review;

(ii) conduct an assessment of the assumptions, strategy, findings, and risks of the report on the quadrennial defense review required in subsection (d), with particular attention paid to the risks described in that report;

(iii) conduct an independent assessment of a variety of possible force structures of the armed forces, including the force structure identified in the report on the quadrennial defense review required in subsection (d);

(iv) review the resource requirements identified pursuant to subsection (b)(3) and, to the extent practicable, make a general comparison to the resource requirements to support the forces contemplated under the force structures assessed under this subparagraph; and

(v) provide to Congress and the Secretary of Defense, through the report under paragraph (7), any recommendations it considers appropriate for their consideration.

(6) **FIRST MEETING.**—If the Secretary of Defense has not made the Secretary's appointments to the Panel under paragraph (3) by February 1 of a year in which a quadrennial defense review is conducted under this section, the Panel shall convene for its first meeting with the remaining members.

(7) **REPORT.**—Not later than 3 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 established under paragraph (1) shall submit to those committees an assessment of the quadrennial defense review, including a description of the items addressed under paragraph (5) with respect to that quadrennial defense review.

(8) **UPDATES FROM SECRETARY OF DEFENSE.**—The Secretary of Defense shall ensure that periodically, but not less often than every 60 days, or at the request of the co-chairs, the Department of Defense briefs the Panel on the progress of the conduct of a quadrennial defense review under subsection (a).

(9) **ADMINISTRATIVE PROVISIONS.**—

(A) The Panel may request directly from the Department of Defense and any of its components such information as the Panel considers necessary to carry out its duties under this subsection. The head of the department or agency concerned shall cooperate with the Panel to ensure that information requested by the Panel under this paragraph is promptly provided to the maximum extent practical.

(B) Upon the request of the co-chairs, the Secretary of Defense shall make available to the Panel the services of any federally funded research and development center that is covered by a sponsoring agreement of the Department of Defense.

(C) The Panel shall have the authorities provided in section 3161 of title 5 and shall be subject to the conditions set forth in such section.

(D) Funds for activities of the Panel shall be provided from amounts available to the Department of Defense.

(10) **TERMINATION.**—The Panel for a quadrennial defense review shall terminate 45 days after the date on which the Panel submits its final report on the quadrennial defense review under paragraph (7).

(g) **CONSIDERATION OF EFFECT OF CLIMATE CHANGE ON DEPARTMENT FACILITIES, CAPABILITIES, AND MISSIONS.**—(1) The first national security strategy and national defense strategy prepared after January 28, 2008, shall include guidance for military planners—

(A) to assess the risks of projected climate change to current and future missions of the armed forces;

(B) to update defense plans based on these assessments, including working with allies and partners to incorporate climate mitigation strategies, capacity building, and relevant research and development; and

(C) to develop the capabilities needed to reduce future impacts.

(2) The first quadrennial defense review prepared after January 28, 2008, shall also examine the capabilities of the armed forces to respond to the consequences of climate change, in particular, preparedness for natural disasters from extreme weather events and other missions the armed forces may be asked to support inside the United States and overseas.

(3) For planning purposes to comply with the requirements of this subsection, the Secretary of Defense shall use—

(A) the mid-range projections of the fourth assessment report of the Intergovernmental Panel on Climate Change;

(B) subsequent mid-range consensus climate projections if more recent information is available when the next national security strategy, national defense strategy, or quadrennial defense review, as the case may be, is conducted; and

(C) findings of appropriate and available estimations or studies of the anticipated strategic, social, political, and economic effects of global climate change and the implications of such effects on the national security of the United States.

(4) In this subsection, the term “national security strategy” means the annual national security strategy report of the President under section 108 of the National Security Act of 1947 (50 U.S.C. 404a).

(h) **RELATIONSHIP TO BUDGET.**—Nothing in this section shall be construed to affect section 1105(a) of title 31.

(i) **INTERAGENCY OVERSEAS BASING REPORT.**—

(1) Not later than 90 days after submitting a report on a quadrennial defense review under subsection (d), the Secretary of Defense shall submit to the congressional defense committees a report detailing how the results of the assessment conducted as part of such review will impact—

(A) the status of overseas base closure and realignment actions undertaken as part of a global defense posture realignment strategy; and

(B) the status of development and execution of comprehensive master plans for overseas military main operating bases, forward operating sites, and cooperative security locations of the global defense posture of the United States.

(2) A report under paragraph (1) shall include any recommendations for additional closures or realignments of military installations outside of the United States and any comments resulting from an interagency review of these plans that includes the Department of State and other relevant Federal departments and agencies.

(Added Pub. L. 106–65, div. A, title IX, § 901(a)(1), Oct. 5, 1999, 113 Stat. 715; amended Pub. L. 107–107, div. A, title IX, § 921(a), Dec. 28, 2001, 115 Stat. 1198; Pub. L. 107–314, div. A, title IX, §§ 922, 923, Dec. 2, 2002, 116 Stat. 2623; Pub. L. 109–364, div. A, title X, § 1031(c)–(f), Oct. 17, 2006, 120 Stat. 2385, 2386; Pub. L. 110–181, div. A, title IX, §§ 941(b), 951(a), Jan. 28, 2008, 122 Stat. 287, 290; Pub. L. 111–84, div. A, title X, §§ 1002, 1073(a)(2), div. B, title XXVIII, § 2822(b), Oct. 28, 2009, 123 Stat. 2439, 2472, 2666; Pub. L. 111–383, div. A, title X, § 1071, Jan. 7, 2011, 124 Stat. 4364; Pub. L. 112–81, div. A, title VIII, § 820(a), title IX, § 942, Dec. 31, 2011, 125 Stat. 1501, 1548.)

PRIOR PROVISIONS

A prior section 118, added Pub. L. 97–295, § 1(2)(A), Oct. 12, 1982, 96 Stat. 1288, § 133b; renumbered § 118, Pub. L. 99–433, title I, § 101(a)(2), Oct. 1, 1986, 100 Stat. 994, required reports to Congress on sales or transfers of defense articles, prior to repeal by Pub. L. 101–510, div. A, title XIII, § 1301(2), Nov. 5, 1990, 104 Stat. 1668.

AMENDMENTS

2011—Subsec. (b)(4). Pub. L. 112–81, § 942, amended par. (4) generally. Prior to amendment, par. (4) read as follows: “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.”

Subsec. (d)(4)(F). Pub. L. 112–81, § 820(a)(1), added subpar. (F).

Subsec. (d)(6). Pub. L. 112–81, § 820(a)(2), substituted “manpower, sustainment, and contractor support” for “manpower and sustainment”.

Subsec. (d)(8). Pub. L. 112–81, § 820(a)(3), inserted “, and the scope of contractor support,” after “Defense Agencies”.

Subsec. (f). Pub. L. 111–383 amended subsec. (f) generally. Prior to amendment, text read as follows:

“(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.”

2009—Subsec. (g)(1), (2). Pub. L. 111–84, § 1073(a)(2), substituted “January 28, 2008,” for “the date of the enactment of the National Defense Authorization Act for Fiscal Year 2008”.

Subsec. (h). Pub. L. 111–84, § 1002, added subsec. (h).

Subsec. (i). Pub. L. 111–84, § 2822(b), added subsec. (i).

2008—Subsec. (e)(2), (3). Pub. L. 110–181, § 941(b), redesignated par. (3) as (2) and struck out former par. (2) which read as follows: “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.”

Subsec. (g). Pub. L. 110–181, § 951(a), added subsec. (g).

2006—Subsec. (b)(4). Pub. L. 109–364, § 1031(c), added par. (4).

Subsec. (d)(1). Pub. L. 109–364, § 1031(d)(1), inserted “, the strategic planning guidance,” after “United States”.

Subsec. (d)(9) to (15). Pub. L. 109–364, § 1031(d)(2), (3), added par. (9) and redesignated former pars. (9) to (14) as (10) to (15), respectively. Former par. (15) redesignated (17).

Subsec. (d)(16). Pub. L. 109–364, § 1031(d)(4), added par. (16).

Subsec. (d)(17). Pub. L. 109–364, § 1031(d)(2), redesignated par. (15) as (17).

Subsec. (e)(1). Pub. L. 109–364, § 1031(e), inserted “and a description of the capabilities needed to address such risk” before period at end.

Subsec. (f). Pub. L. 109–364, § 1031(f), added subsec. (f). 2002—Subsec. (d). Pub. L. 107–314, § 922, substituted “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” for “not later than September 30 of the year in which the review is conducted” in second sentence of introductory provisions.

Subsec. (d)(14), (15). Pub. L. 107–314, § 923, added par. (14) and redesignated former par. (14) as (15). 2001—

Subsec. (e). Pub. L. 107–107 designated the first sentence of existing provisions as par. (1), the second and third sentences of existing provisions as par. (3), and added par. (2).

TRANSFER OF FUNCTIONS

For transfer of authorities, functions, personnel, and assets of the Coast Guard, including the authorities and functions of the Secretary of Transportation relating thereto, to the Department of Homeland Security, and for treatment of related references, see sections 468(b), 551(d), 552(d), and 557 of Title 6, Domestic Security, and the Department of Homeland Security Reorganization Plan of November 25, 2002, as modified, set out as a note under section 542 of Title 6.

IMPLEMENTATION

Pub. L. 110–181, div. A, title IX, § 951(b), Jan. 28, 2008, 122 Stat. 291, provided that: “The Secretary of Defense shall ensure that subsection (g) of section 118 of title 10, United States Code, as added by subsection (a), is implemented in a manner that does not have a negative impact on the national security of the United States.”

FINDINGS AND SENSE OF CONGRESS

Pub. L. 109–364, div. A, title X, § 1031(a), (b), Oct. 17, 2006, 120 Stat. 2385, provided that:

“(a) FINDINGS.—Congress finds that the comprehensive examination of the defense program and policies of

the United States that is undertaken by the Security [Secretary of] Defense every four years pursuant to section 118 of title 10, United States Code, known as the Quadrennial Defense Review, is—

“(1) vital in laying out the strategic military planning and threat objectives of the Department of Defense; and

“(2) critical to identifying the correct mix of military planning assumptions, defense capabilities, and strategic focuses for the Armed Forces.

“(b) SENSE OF CONGRESS.—It is the sense of Congress that the Quadrennial Defense Review is intended to provide more than an overview of global threats and the general strategic orientation of the Department of Defense.”

ASSESSMENT WITH RESPECT TO 2001 QDR

Pub. L. 107–107, div. A, title IX, § 921(c), Dec. 28, 2001, 115 Stat. 1198, directed the Chairman of the Joint Chiefs of Staff to submit to Congress, not later than one year after Dec. 28, 2001, an assessment of functions (or roles and missions) of the Armed Forces in accordance with par. (2) of subsec. (e) of this section based on the findings in the 2001 Quadrennial Defense Review issued by the Secretary of Defense on Sept. 30, 2001.

REVISED NUCLEAR POSTURE REVIEW

Pub. L. 106–398, § 1 [[div. A], title X, § 1041], Oct. 30, 2000, 114 Stat. 1654, 1654A–262, as amended by Pub. L. 107–107, div. A, title X, § 1033, Dec. 28, 2001, 115 Stat. 1216, directed the Secretary of Defense to conduct a comprehensive review of the nuclear posture of the United States for the next 5 to 10 years, and to submit to Congress a report on the results of such review concurrently with the Quadrennial Defense Review report due in Dec. 2001.

SPECIFIED MATTER FOR FIRST QDR

Pub. L. 106–65, div. A, title IX, § 901(c), Oct. 5, 1999, 113 Stat. 717, directed the Secretary of Defense to include, in the first quadrennial defense review conducted under this section, precision guided munitions, stealth, night vision, digitization, and communications within the technologies considered for the purposes of subsec. (d)(13) of this section.

Text of 10 U.S.C. 118: Defense Strategy Review, as of December 2014

This appendix presents the text of the statutory basis for conducting Defense Strategy Reviews, introduced in December 2014.¹

“§ 118. Defense Strategy Review

“(a) DEFENSE STRATEGY REVIEW.—

“(1) REVIEW REQUIRED.—Every four years, during a year following a year evenly divisible by four, the Secretary of Defense shall conduct a comprehensive examination (to be known as a ‘Defense Strategy Review’) of the national defense strategy, force structure, modernization plans, posture, 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. Each such Defense Strategy Review shall be conducted in consultation with the Chairman of the Joint Chiefs of Staff.

“(2) CONDUCT OF REVIEW.—Each Defense Strategy Review shall be conducted so as to—

¹ Pub. L. 113-291, 2014.

“(A) delineate a national defense strategy in support of 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. 3043);

“(B) provide a mechanism for—

“(i) setting priorities for sizing and shaping the force, guiding the development and sustainment of capabilities, allocating resources, and adjusting the organization of the Department of Defense to respond to changes in the strategic environment;

“(ii) monitoring, assessing, and holding accountable agencies within the Department of Defense for the development of policies and programs that support the national defense strategy;

“(iii) integrating and supporting other national and related interagency security policies and strategies with other Department of Defense guidance, plans, and activities; and

“(iv) communicating such national defense strategy to Congress, relevant United States Government agencies, allies and international partners, and the private sector;

“(C) consider three general timeframes of the near-term (associated with the future-years defense program), mid-term (10 to 15 years), and far-term (20 years);

“(D) address the security environment, threats, trends, opportunities, and challenges, and define the nature and magnitude of the strategic and military risks associated with executing the national defense strategy by using the most recent net assessment submitted by the Secretary of Defense under section 113 of this title, the risk assessment submitted by Chairman of the Joint Chiefs of Staff under section 153 of this title, and, as determined necessary or useful by the Secretary, any other Department of Defense, Government, or non-government strategic or intelligence estimate, assessment, study, or review;

“(E) define the force size and structure, capabilities, modernization plans, posture, infrastructure, readiness, organization, and other elements of the defense program of the Department of Defense that would be required to execute missions called for in such national defense strategy;

“(F) to the extent practical, estimate the budget plan sufficient to execute the missions called for in such national defense strategy;

“(G) define the nature and magnitude of the strategic and military risks associated with executing such national defense strategy; and

“(H) understand the relationships and tradeoffs between missions, risks, and resources.

“(3) SUBMISSION OF REPORT ON DEFENSE STRATEGY REVIEW TO CONGRESSIONAL COMMITTEES.—The Secretary shall submit a report on each Defense Strategy Review to the Committees on Armed Services of the Senate and the House of Representatives. Each such report shall be submitted by not later than March 1 of the year following the year in which the review is conducted. If the year in which the review is conducted

is in the second term of a President, the Secretary may submit an update to the Defense Strategy Review report submitted during the first term of that President.

“(4) ELEMENTS.—The report required by paragraph (3) shall provide a comprehensive discussion of the Review, including each of the following:

“(A) The national defense strategy of the United States.

“(B) The assumed or defined prioritized national security interests of the United States that inform the national defense strategy defined in the Review.

“(C) The assumed strategic environment, including the threats, developments, trends, opportunities, and challenges that affect the assumed or defined national security interests of the United States.

“(D) The assumed steady state activities, crisis and conflict scenarios, military end states, and force planning construct examined in the review.

“(E) The prioritized missions of the armed forces under the strategy and a discussion of the roles and missions of the components of the armed forces to carry out those missions.

“(F) The assumed roles and capabilities provided by other United States Government agencies and by allies and international partners.

“(G) The force size and structure, capabilities, posture, infrastructure, readiness, organization, and other elements of the defense program that would be required to execute the missions called for in the strategy.

“(H) An assessment of the significant gaps and shortfalls between the force size and structure, capabilities, and additional elements as required by subparagraph (G) and the current elements in the Department's existing program of record, a prioritization of those gaps and shortfalls, and an understanding of the relationships and trade-offs between missions, risks, and resources.

“(I) An assessment of the risks assumed by the strategy, including—

“(i) how the Department defines, categorizes, and measures risk, including strategic and military risk; and

“(ii) the plan for mitigating major identified risks, including the expected timelines for, and extent of, any such mitigation, and the rationale for where greater risk is accepted.

“(J) Any other key assumptions and elements addressed in the review or that the Secretary considers necessary to include.

“(5) CJCS REVIEW.—(A) Upon the completion of each Review under this subsection, the Chairman of the Joint Chiefs of Staff shall prepare and submit to the Secretary of Defense the Chairman's assessment of risks under the defense strategy developed by the Review and a description of the capabilities needed to address such risks.

“(B) The Chairman's assessment shall be submitted to the Secretary in time for the inclusion of the assessment in the report on the Review required by paragraph (3). The Secretary

shall include the Chairman's assessment, together with the Secretary's comments, in the report in its entirety.

"(6) FORM.—The report required under paragraph (3) shall be submitted in unclassified form, but may include a classified annex if the Secretary determines it is necessary to protect national security.

"(b) NATIONAL DEFENSE PANEL.—

"(1) ESTABLISHMENT.—Not later than February 1 of a year following a year evenly divisible by four, there shall be established an independent panel to be known as the National Defense Panel (in this subsection referred to as the 'Panel'). The Panel shall have the duties set forth in this subsection. "(2)

MEMBERSHIP.—The Panel shall be composed of ten members from private civilian life who are recognized experts in matters relating to the national security of the United States. Eight of the members shall be appointed as follows:

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

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

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

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

"(3) CO-CHAIRS OF THE PANEL.—In addition to the members appointed under paragraph (2), the Secretary of Defense shall appoint two members from private civilian life to serve as co-chairs of the panel.

"(4) PERIOD OF APPOINTMENT; VACANCIES.—Members shall be appointed for the life of the Panel. Any vacancy in the Panel shall be filled in the same manner as the original appointment.

"(5) DUTIES.—The Panel shall have the following duties with respect to a Defense Strategy Review conducted under subsection (a):

"(A) Assessing the current and future security environment, including threats, trends, developments, opportunities, challenges, and risks, by using the most recent net assessment submitted by the Secretary of Defense under section 113 of this title, the risk assessment submitted by Chairman of the Joint Chiefs of Staffs under section 153 of this title, and, as determined necessary or useful by the Panel, any other Department of Defense, Government, or non-government strategic or intelligence estimate, assessment, study, review, or expert.

"(B) Suggesting key issues that should be addressed in the Defense Strategy Review.

"(C) Based upon the assessment under subparagraph (A), identifying and discussing the national security interests of the United States and the role of the armed forces and the Department of Defense related to the protection or promotion of those interests.

"(D) Assessing the report on the Defense Strategy Review submitted by the Secretary of Defense under subsection (a)(3).

“(E) Assessing the assumptions, strategy, findings, and risks of the report on the Defense Strategy Review submitted under subsection (a)(3).

“(F) Considering alternative defense strategies.

“(G) Assessing the force structure and capabilities, posture, infrastructure, readiness, organization, budget plans, and other elements of the defense program of the United States to execute the missions called for in the Defense Strategy Review and in the alternative strategies considered under subparagraph (F).

“(H) Providing to Congress and the Secretary of Defense, in the report required by paragraph (7), any recommendations it considers appropriate for their consideration.

“(6) FIRST MEETING.—If the Secretary of Defense has not made the Secretary’s appointments to the Panel under paragraph (3) by March 1 of a year in which the Panel is established, the Panel shall convene for its first meeting with the remaining members.

“(7) REPORTS.—Not later than three months after the date on which the report on a Defense Strategy Review is submitted under paragraph (3) of subsection (a) to the committees of Congress referred to in such paragraph, the Panel shall submit to such committees a report on the Panel’s assessment of such Defense Strategy Review, as required by paragraph (5).

“(8) ADMINISTRATIVE PROVISIONS.—The following administrative provisions apply to a Panel established under paragraph (1):

“(A) The Panel may request directly from the Department of Defense and any of its components such information as the Panel considers necessary to carry out its duties under this subsection. The head of the department or agency concerned shall cooperate with the Panel to ensure that information requested by the Panel under this paragraph is promptly provided to the maximum extent practical.

“(B) Upon the request of the co-chairs, the Secretary of Defense shall make available to the Panel the services of any federally funded research and development center that is covered by a sponsoring agreement of the Department of Defense.

“(C) The Panel shall have the authorities provided in section 3161 of title 5 and shall be subject to the conditions set forth in such section.

“(D) Funds for activities of the Panel shall be provided from amounts available to the Department of Defense.

“(9) TERMINATION.—A Panel established under paragraph (1) shall terminate 45 days after the date on which the Panel submits its report on a Defense Strategy Review under paragraph (7).”.

(2) CLERICAL AMENDMENT.—The item relating to section 118 at the beginning of chapter 2 of such title is amended to read as follows:

“118. Defense Strategy Review.”.

(b) REPEAL OF QUADRENNIAL ROLES AND MISSIONS REVIEW.—

(1) REPEAL.—Chapter 2 of such title is amended by striking section 118b.

(2) CONFORMING AMENDMENT.—The table of sections at the beginning of such chapter is amended by striking the item relating to section 118b.

(c) EFFECTIVE DATE.—Section 118 of such title, as amended by subsection (a), and the amendments made by this section, shall take effect on October 1, 2015.

(d) ADDITIONAL REQUIREMENT FOR NEXT DEFENSE STRATEGY REVIEW.—The first Defense Strategy Review required by subsection (a)(1) of section 118 of title 10, United States Code, as amended by subsection (a) of this section, shall include an analysis of enduring mission requirements for equipping, training, sustainment, and other operation and maintenance activities of the Department of Defense, including the Defense Agencies and military departments, that are financed by amounts authorized to be appropriated for overseas contingency operations.

Major Elements of DoD Force Structure, FYs 1999–2015

This appendix presents data on the major elements of DoD force structure over FYs 99–15.

Table C.1
Major Elements of DoD Force Structure, FYs 1999–2015

Service Element	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14 ^a	FY15 ^b
Army																	
Divisions (AC/RC)	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8	10/8
Maneuver brigades (AC) ^c	36	36	36	36	36	36	36	35	39	42	44	45	45	45	45	38	32
Maneuver battalions (AC) ^d	109	108	106	109.5	111	112	118	137	132	132	138	141	142	143	143	152	128
Navy																	
Aircraft carriers	11	11	12	12	12	11	12	12	11	11	11	11	11	11	10	10	10
Carrier air wings (AC)	10	10	10	10	Not stated	10	10	10	10	10	10	10	10	10	10	10	10
Attack submarines	57	56	55	54	54	55	54	54	53	53	53	53	53	54	54	54	54
Surface combatants	106	108	108	108	98	99	99	101	104	107	110	112	111	110	105	99	93
Marine Corps																	
Divisions (AC/RC)	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1
Expeditionary forces	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Air wings (AC/RC)	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1	3/1
Air Force																	
Fighter squadrons (AC/RC) ^e	49/38	48/38	46/38	46/38	46/37	45/40	45/39	45/38	42/38	42/38	41/38	36/35	36/37	36/34	35/27	33/27	29/29
Bombers	115	130	130	112	118	123	118	118	123	107	107	123	115	109	109	111	112
Special Operations Forces																	
Military manpower ^f	29,596	Not stated	41,785	Not stated	40,600	44,773	46,757	49,086	43,596	49,200	47,878	47,878	54,441	56,956	60,715	63,263	63,141

Table C.1—Continued

SOURCE: OUSD (Comptroller), various years, *Operation and Maintenance Programs (O-1)* and Operation and Maintenance supporting volumes of each service; OUSD (Comptroller), 2014a.

NOTE: AC = active component; RC = reserve component.

^a These figures depict FY14 enacted budget data from OUSD (Comptroller), 2014a.

^b These figures depict FY15 proposed force structure in OUSD (Comptroller), 2014a.

^c Starting with the FY2008/2009 budget, the Army used BCTs as its base force-structure accounting measurement. In prior years' budgets, the Army listed the number of battalions by type. Actual maneuver brigade figures for FY99 through FY06 are derived from division force structure of the appropriate year plus nondivisional maneuver brigades and regiments, such as the 173rd Airborne Brigade (now an airborne interim BCT), 170th Infantry Brigade (deactivated in FY12), 172nd Infantry Brigade (deactivated in FY13), 194th Armor Brigade (deactivated as a maneuver brigade in FY05), 3rd Armored Cavalry Regiment (Stryker BCT since FY12), and 2nd Armored Cavalry Regiment (Stryker BCT since FY05).

^d For the purpose of this study, a *maneuver battalion* is any infantry battalion, armor battalion, cavalry squadron, or combined arms battalion of the various mutations of maneuver brigades that have been part of Army force structure since 2001. Actual maneuver battalion figures for FYs 99–06 account for all active-component infantry and armor battalions and cavalry squadrons. For FYs 07–14, with modularity complete for all active-component BCTs (with the exception of two remaining legacy brigades), we derived the actual maneuver battalion from modular BCT force structure, which includes two infantry battalions and one light cavalry squadron in interim BCTs, two combined arms battalions and one armored reconnaissance squadron in armored BCTs, and three infantry battalions and one cavalry squadron in Stryker BCTs. By FY14, most BCTs had assumed the Army 2020 Table of Organization and Equipment framework, which included a third maneuver battalion in interim BCT and armored BCT structure.

^e For FYs 99–05, we use the squadron numbers reported in the Operation and Maintenance supporting volumes of the active Air Force, Air National Guard, and Air Force Reserve budget submissions. For FY06 forward, we estimate the number of squadrons in the active and reserve components based on the number of reported primary aircraft authorized and the observed ratio of aircraft to squadrons from FYs 99–05. The ratios are as follows: 22 aircraft per F-15 and, later, F-22 squadron; 12 aircraft per A-10 squadron; 20 aircraft per F-16 squadron; and 18 aircraft per F-117 squadron. Budget data from FYs 01–07 also yielded the ratio of aircraft per squadron for the reserve component: 12 aircraft per Air National Guard A-10 squadron; 15 aircraft per Air Force Reserve A-10 squadron, and 15 aircraft per fighter (F-15 and F-16) squadron in both the Air National Guard and Air Force Reserve.

^f These figures include Military Department Major Force Program 11 activities only.

Army Global Posture, FYs 2001–2014

This appendix provides data on active-duty U.S. military personnel by country and grouped by region or category, from FYs 01–14.

Table D.1
Army Global Posture, FYs 2001–2014

Region or Category	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Homeland security	NA	NA	NA	23,880	16,000	13,000	8,000	5,000	6,000	3,530	2,280	2,830	2,550	6,350
Guantanamo	6	7	9	1,505	1,500	800	600	NA	650	740	320	1,090	1,140	1,560
Haiti	4	7	6	NA	NA	NA	NA	NA	NA	4,980	NA	NA	NA	NA
Central America, of which:	NA	NA	NA	NA	NA	NA	NA	NA	NA	270	260	300	360	320
Honduras	176	194	183	740	700	700	500	500	NA	NA	NA	NA	NA	NA
South America	NA	NA	NA	NA	NA	2,000	NA	NA	450	NA	NA	NA	NA	NA
Europe, of which:	68,640	65,146	66,916	NA	NA	NA	54,000	47,000	45,500	37,300	38,720	38,430	33,830	28,190
Germany	55,149	54,154	58,064	NA	58,000	49,800 ^a	NA	NA	NA	NA	NA	NA	NA	NA
Balkans, of which:	NA	NA	NA	3,320	NA	NA	2,000	1,000	1,520	1,450	795	800	800	940
Bosnia	3,100	3,047	3,007	NA	150	100	NA	NA	NA	NA	NA	NA	NA	NA
Kosovo	5,675	2,793	306	NA	1,700	1,500	NA	NA	NA	NA	NA	NA	NA	NA
South Korea	28,654	28,527	31,046	31,460	28,000	21,000	19,000	18,000	16,600	17,840	19,760	19,160	19,880	20,320
Japan	1,827	1,856	1,823	NA	NA	1,600	NA	2,500	NA	NA	2,675	2,520	2,420	2,620
Philippines	9	10	9	35	100	200	200	400	250	230	460	440	400	310
Iraq	0	NA	152,815	123,366	113,000	98,000	102,000	111,000	100,600	85,250	41,660	130	120	90
Afghanistan	NA	0	NA	10,700	14,000	16,000	18,000	21,000	30,200	48,150	66,345	65,930	54,370	32,720
Kuwait	2,150	402	NA	NA	42,000	14,000	8,000	7,000	14,100	8,320	8,550	15,510	10,640	8,280
Qatar	97	44	104	NA	NA	NA	NA	NA	1,250	1,145	980	1,590	1,920	1,520
Sinai	NA	NA	NA	700	700	700	700	NA	700	675	600	660	630	690
Jordan	4	13	9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	730
Horn of Africa	NA	NA	NA	NA	NA	200	NA	NA	900	1,125	950	1,210	1,000	820
Other operations and exercises	NA	NA	NA	1,760	NA	NA	2,000	4,800	2,230	3,140	4,845	5,260	2,850	10,790

Table D.1—Continued

Region or Category	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Army global commitments														
Soldiers	NA	NA	NA	326,570	315,000	245,000	243,000	251,000	255,000	255,000	229,940	192,420	168,520	150,090
Countries	120 ^a	111 ^a	NA	120	NA	120	73	Nearly 80	Nearly 80	Nearly 80	Nearly 80	Nearly 150	Nearly 150	150

SOURCE: For FYs 01–03, Defense Manpower Data Center, “DoD Personnel, Workforce Reports, and Publications,” web page, undated, Active Duty Military Personnel by Service, by Region/Country, September of each year. For FYs 04–14, annual Army Posture Statements (see HQDA, “The Army Posture Statement,” web page, undated).

NOTE: NA = not addressed.

^a This figure was estimated by summing countries with listed Army active-duty personnel.

Budget Analysis Methodology

The object of our budget analysis was to examine annual five-year defense budget plans in comparison with the actual budgets that were enacted for each year. The sources we used for the data were the annual National Defense Budget Estimates (commonly called the Green Book).¹ The unclassified document is published usually around February or March of each year by OUSD (Comptroller) as part of the annual defense budget documentation (but on occasion, it has been as late as August before this publication appeared).

Since 2001, the defense budget has been characterized by a “base” budget portion and a “supplemental” budget portion. The supplemental budget requests are intended to cover the costs of emergency support and ongoing war operations that usually cannot be very well described in advance. Although the published budget request in February may include some vague information about the expected supplemental requirement, it is by its nature something that arises in real time over the course of the year.

The five- or six-year budget plan that is provided in DoD’s budget documentation is almost always confined to the base budget — that is, the funding required to support the mission of organizing, training, and equipping defense forces to support the National Defense strategy, independent of emergency requirements or ongoing, war-fighting requirements that are relatively unpredictable and funded through supplemental budget requests. So, our intent was to capture the base budget plans at various levels of detail and compare them with the budget authority that was eventually enacted for that purpose. This information can be ferreted out of the Green Book tables, but sometimes it required combining data from different tables. And, occasionally, the construction of the tables in a particular year may differ from what is published in other years, and one must be aware of these differences and correct for them to produce budget timelines that are consistent across the years covered.

¹ See, for example, OUSD (Comptroller), 2002. For all Green Books we used, see OUSD (Comptroller), various years.

We gathered data at the following levels of detail:

- total DoD
- total DoD, by appropriation title
- total DoD, by service (Army, Navy, Air Force, and defense-wide)
- Army, Navy, and Air Force, by appropriation title
- Army, Navy, and Air Force procurement, by appropriation account.

The currency we used for this analysis is budget authority. Most of the DoD budget is discretionary budget authority, but a small portion is mandatory. The Green Book tables vary somewhat in what is included in the budget year and future years' budget estimates, but generally, data for the current year and all prior years include enacted base and supplemental funding, and most budget authority tables included both discretionary and mandatory budget authority. The key to unraveling the blended data for base and supplemental funding in the tables is Table 2-1 of each Green Book, which, as of the publication of the FY12 version,² shows the breakdown of discretionary budget authority back to FY01 and extending through the budget year among base, warfighting, and other supplemental funding. Prior to 2001, all DoD funding was considered base budget authority.

Table 2-1 does not include mandatory budget authority, but most of the tables in Chapter Six of the Green Book do. Table 1-9 provides a breakdown of discretionary and mandatory budget authority at the level of total DoD by title, and in recent years (Green Books for FY09 and later) also shows warfighting and other supplemental funding requests. All mandatory budget authority is considered base funding.

Tables in Chapter Six of the Green Book provided the bulk of our data, including all of the data at the levels of Army, Navy, Air Force, and total DoD budget authority by appropriation title, as well as the data for procurement budget authority by appropriation account. Most of the tables in that chapter include enacted (or sometimes, continuing resolution) base and supplemental funding in the amounts shown for the current year back through all historical years, but budget year and future year amounts exclude supplemental funding requests. The sole exception over the time period we examined was in the FY13 Green Book;³ for that year, the figures for FY13 in the tables in Chapter Six included both the OCO funding request and the base funding request. Table 2-1 in the same publication provided the data on the OCO funding request by service and by title, which permitted us to determine the base funding request for that budget year. Hence, we were able to have a consistent set of base funding requests at the level of service and appropriation title from the Green Books for FYs 99–15.

² OUSD (Comptroller), 2011.

³ OUSD (Comptroller), 2012b.

We also used the tables in Chapter Six of the most recent (FY15) Green Book at the time to track the actual, historical base funding through FY13, enacted funding for FY14, and requested funding for FY15.⁴ Those tables gave us total budget authority by appropriation title for Army (Table 6-19), Navy (Table 6-20), Air Force (Table 6-21) and total DoD (Table 6-8). Table 2-1 of that Green Book provided the information on the amounts of funding for warfighting and other supplemental funding, which, when subtracted from the amounts in the appropriate tables in Chapter Six, gave us base funding actuals for FYs 99–13.

There were certain anomalies or oddities in the tables for some years. We discussed above the unusual inclusion of OCO funding in the budget year column in the FY13 Green Book's Chapter Six tables. The FY02 and FY10 Green Books had no out-year (beyond the budget year) estimates, although we were able to develop those from other data sources at the total DoD level (we could not find out-year estimates at more-detailed levels).

The FY04 Green Book was unique in establishing a new appropriation title called "other DoD programs." From Table 6-7 of that publication, we could see which five appropriation accounts composed this new title. Two of these accounts – DoD chemical demilitarization-Army and DoD chemical demilitarization-defense-wide – were included under the procurement title in the prior years' and future years' Green Books. The other accounts – including Defense Health Program, which accounted for almost 90 percent of budget authority for the "other DoD programs" title – are included under defense-wide O&M in other years' Green Books. We were using the FY04 Green Book data only for the FY04 "planned" figures. We used the data in Table 6-7 to identify the amounts to move to the "correct" service and title (Army procurement, defense-wide procurement, and defense-wide O&M). This affected the by-service totals for Army and defense-wide and the by-title totals for O&M, procurement, and revolving funds and other.

The FY04 Green Book would have been the first edition in which FY02 appeared as an "actual." Apparently in consequence of this, the historical data for FY02 in Table 2-1 show the same anomaly (which is prominent for having far larger funding for the revolving funds and other title in FY02 than any other year in both the defense-wide and the total DoD parts of the table). So, we adjusted the base budget authority actuals in FY02 in a process similar to that described above for correcting the FY04 planned amounts.

Many of the Green Book tables show historical funding as well as the current and future years' requests. We do not usually expect to see changes in the data (expressed in current dollars) for historical years. But the FY14 Green Book did introduce a change in FY01 data as compared with the figures shown in the Green Books for FY13 and earlier. The amount involved was almost \$10 billion, and was shown in Table 2-1 to be

⁴ OUSD (Comptroller), 2014a.

in defense-wide O&M supplemental funding. This \$10 billion difference showed up in the historical figures in the Chapter Six tables as well. We examined OMB historical budget data and saw that a corresponding jump in defense-wide O&M showed up in FY01 funding a few years after the FY01 Green Book but not so late as FY13 or FY14. We believe this was budget authority from the Emergency Response Fund appropriated by Congress very late in FY01. That funding was no-year money (available for obligation until used or requested to be canceled by the President) and was intended to be transferred to whatever agencies of the government needed reimbursement for spending they incurred in response to the September 11 attacks. That money would have been very much out of cycle with other defense budget accounting, and we can see how it might have failed to show up in the historical account until someone looked at other data and discovered that this late-appearing budget authority had not been included. We accepted the FY14 version of the FY01 budget in the data we used for our tables and displays.

Unless otherwise noted, the tables and graphs produced for this analysis are based on constant FY14 dollars using data from the FY14 Green Book already expressed in those dollars or converting other years' dollars using the by-title and total DoD budget authority deflators in Chapter Five of the FY14 Green Book. We derived deflators for the FY15 figures in the FY15 Green Book by using the ratios of FY14 to FY15 deflators in that publication. To get by-service deflators (or indices) for use in converting the prior years' planned budgets by service into constant FY14 dollars, we used the ratio of the FY14 dollar figures to the current dollar figures in Table 6-10 (which shows DoD budget authority by military department from FY48 to the present).

Structured Conversation Details and Protocol

In order to attain the perspectives of key personnel who were involved in the 2001, 2006, 2010, and 2014 QDRs, we conducted 17 structured conversations with personnel from across the Army, CAPE, the Joint Staff, and OSD. Each conversation lasted about an hour and occurred between June and October 2014. Table F.1 lists the breakdown of the structured conversation participants by organization.

We analyzed transcripts using QSR NVivo 9[®], a software package that enables users to review, categorize, and analyze qualitative data, such as text, visual images, and audio recordings. NVivo 9 allows analysts to assign codes to passages of text and later retrieve passages of similarly coded text within and across documents. The project team developed a coding tree – a set of codes used to organize qualitative data by topic and other characteristics – to facilitate the tagging of relevant excerpts from our structured conversations. For this study, codes were largely based on our protocol (see next page). After all the structured conversations were coded, the resultant data were analyzed. We generated coding reports to organize responses by topic (e.g., QDR year, protocol question). These results were then incorporated into the various chapters of the study report.

Table F.1
Structured Conversation Participants, by Organization

Organization	Total Personnel
Army	4
CAPE	2
Joint Staff	1
OSD	9
Other services	1
Total	17

Structured Conversation Protocol

1. Structured Conversation Scheduling Questions (ALL):

- a. As part of a RAND study, sponsored by the U.S. Army, we would like to conduct in-person interviews and to learn more about the context in which [Quadrennial Defense Review (QDR) XXXX] was developed.
 - Over the next few months, what timing works especially well – or especially poorly – for you?
 - Aside from you, who else would you recommend I speak with to get a complete sense of [service/department/office]’s role in development of [QDR XXXX]?
- b. What data or records have been maintained regarding development of [QDR XXXX]?
 - [Prompt if needed]: For example, do you have records of decision briefs? Information papers? Staffing packets? Something else?
 - [If affirmative:] Are there reports or other records that you can share with us before we interview you?
- c. May I answer any questions for you at this point?

2. Structured Conversation Questions (ALL):

- a. To start, please tell us your job title and main responsibilities at the time [QDR XXXX] was being developed.
- b. What was your organization’s primary role in development of [QDR XXXX]?
- c. Which key offices did your organization interact with across DoD, the Joint Chiefs of Staff (JCS), and the Services?
- d. [Optional] What were your organization’s priorities going into the QDR?
- e. [Optional] How were these priorities reflected in the way your organization approached the QDR?

3. Our first set of questions is intended to help us understand the key ongoing issues and challenges to be addressed in [QDR XXXX] (ALL).

- a. What were the key issues and challenges that the QDR aimed to address?
- b. How much consensus was there about these issues and challenges among and within OSD, JCS, the Army, and other services?
 - What were the principal issues and challenges that were debated most?
- c. What were the key assumptions made while developing the QDR?
 - How much consensus was there about these assumptions among and within OSD, JCS, the Army, and other services?
- d. What role did ongoing wars play in the development of the QDR?
 - What priority was given to ongoing wars versus other issues?

- e. What external resources were drawn on while developing the QDR (e.g. think tanks, seminars, independent panels or commissions)?
4. **We are also interested in learning about the influence of previous national security strategy documents on the development of [QDR XXXX] (Strategy/Policy/Executives).**
 - a. How relevant did you find existing national security strategy documents (e.g., previous QDRs, National Security Strategy, National Defense Strategy, National Military Strategy), and which were most influential or least useful in establishing a foundation for, or shaping, the QDR?
 - How were these strategic documents used and what role did they play in [OSD, JCS, the Army, and the other services]'s development of positions and recommendations?
 - b. What role did [XX] document play in shaping the strategic discussion for the [XXXX QDR]?
 5. **Our next set of questions is intended to help us understand the assumptions made about threats in [QDR XXXX] (Strategy/Policy/Executives).**
 - a. What assumptions did OSD, JCS, the Army, and the other services make about threats (including emerging threats)?
 - What were the key threats that OSD, JCS, the Army, and the other services wanted highlighted in the QDR?
 - b. What current and emerging threats were most influential in shaping the QDR?
 - How much consensus was there about the challenges, probability, and likely consequences of these threats among and within OSD, JCS, the Army, and the other services?
 - c. What were the principal issues that were debated and what were the points of disagreement?
 6. **Our next set of questions is intended to help us understand the key national security and defense objectives that were debated during the development of [QDR XXXX] (Strategy/Policy/Executives).**
 - a. What national security, defense, or military objectives were retained, modified, or newly introduced in the QDR?
 - How did they differ from the objectives that existed prior to the QDR?
 - How much consensus was there about these objectives among and within OSD, JCS, the Army, and the other services?

- b. What were the principal issues that were debated and what were the points of disagreement?
 - c. Did OSD, JCS, the Army, and the other services agree with the QDR's description of the security environment?

- 7. **We would also like to learn more about the role of national security, defense, and military strategy in the development of [QDR XXXX] (Strategy/Policy/Executives).**
 - a. What were the main strategy options that were considered in the QDR?
 - b. What new strategies were introduced in the QDR?
 - How did they differ from existing strategies?
 - How much consensus was there about the proposed defense strategy among and within OSD, JCS, the Army, and the other services?
 - c. What were the principal issues that were debated and what were the points of disagreement?

- 8. **Our next set of questions is intended to help us understand the assumptions that were made about the fiscal environment during the development of [QDR XXXX] (Program Analysis and Evaluation/Budget).**
 - a. What assumptions were made about the importance of defense-related budget priorities relative to other nondefense budget priorities?
 - b. What assumptions were made about current and likely future defense budgets?
 - c. How much consensus was there about these matters among and within OSD, JCS, the Army, and other services?
 - d. What were the principal defense spending options that were debated?

- 9. **Our next set of questions is intended to help us understand the role of budget decisions and plans in the development of [QDR XXXX] (Program Analysis and Evaluation/Budget).**
 - a. How did budget guidance impact the development of the QDR?
 - b. What budgetary/resourcing options were considered in the QDR?
 - c. How much consensus was there about budget levels among and within OSD, JCS, the Army, and the other services?
 - d. What were the principal issues that were debated and what were the points of disagreement?

10. **Our next set of questions is intended to help us understand the role of Army and other services' modernization/transformation decisions and plans in the development of [QDR XXXX] (Program Analysis and Evaluation/Budget).**
 - a. What was the influence of the Joint Vision on the QDR's decisions regarding transformation?
 - b. What, if any, major modernization/transformation options were considered in the QDR?
 - c. How much consensus was there about the QDR's modernization/transformation approach among and within OSD, JCS, the Army, and the other services?
 - d. What were the principal issues that were debated and what were the points of disagreement?
 - e. How did the QDR view the importance of warfighting experimentation?
11. **Our next set of questions is intended to help us better understand the force-planning constructs used during the development of [QDR XXXX] (Policy, Strategy, CAPE, Financial Management).**
 - a. What, if any, main force-planning construct options were considered in the QDR?
 - b. How much consensus was there about the QDR's proposed force-planning construct among and within OSD, JCS, the Army, and the other services?
 - c. What were the principal issues that were debated and what were the points of disagreement?
 - d. What tools or processes were used to support the QDR's force-planning discussions?
 - e. What force-sizing construct did OSD, JCS, the Army, and the other services want to adopt for the QDR?
 - How did it differ from the one used in the final QDR?
12. **Our next set of questions is intended to help us understand end-strength decisions and plans in the development of [QDR XXXX] (CAPE/Financial Management).**
 - a. What end-strength options were considered in the QDR?
 - b. How much consensus was there about end strength among and within OSD, JCS, the Army, and the other services?
 - c. What were the principal issues that were debated and what were the points of disagreement?

- d. What were seen to be the key trades involved in adding or reducing end strength?
 - [Prompt, if needed]: What was gained and what was risked?
 - [Prompt, if needed]: What discussions occurred about the achievable “rate of change” in end strength and the costs associated with accelerating or decelerating achievement of the new end strength?
 - e. What role, if any, did discussions about active-component/reserve-component mix and the capabilities of the reserve component play in shaping the QDR discussions regarding end strength?
13. **Our next set of questions is intended to help us better understand the force-structure decisions and plans development of [QDR XXXX] (CAPE/Financial Management).**
- a. What, if any, major force-structure options were considered in the QDR?
 - b. How much consensus was there about the QDR’s proposed force structure among and within OSD, JCS, the Army, and the other services?
 - c. What were the principal issues that were debated and what were the points of disagreement?
 - d. What tools or processes were used to support the QDR’s force-structure discussions?
14. **Our next set of questions is intended to help us understand the role of risk assessment in the development of [QDR XXXX] (ALL).**
- a. What were the principal risks that were considered in the QDR?
 - b. What were the principal issues that were debated and what were the points of disagreement?
 - c. What was the relative level of attention to operational, force management, future challenges, and institutional risks in the QDR?
 - If this risk framework wasn’t used, what framework was used?
 - d. How much consensus was there about budget levels among and within OSD, JCS, the Army, and the other services?
15. **We are also interested in learning about how the [QDR XXXX] was received after it was completed (ALL).**
- a. What were the main critiques of the QDR within OSD, JCS, the Army, and the other services?
 - For example, what issues/arguments/concepts were not addressed in the QDR but should have been?
 - What did the QDR “get wrong”?

- b. How transparent/collaborative did [OSD, JCS, the Army, and the other services] think the QDR process was?
 - How did this affect [OSD, JCS, the Army, and the other services]'s participation?
- c. What surprised OSD, JCS, the Army, and the other services in the QDR process? In the final QDR report?

16. **Conclusion (ALL)**

- a. With regard to [QDRXXXX], is there anyone else you feel it is important for us to interview?
 - Do you have current contact information for them?
 - Are they still in the government/military?
- b. Understanding the kinds of issues we are trying to research, and with regard to [QDR XXY, XXWW, and XXZZ], are there key people from those QDR efforts whom you believe it is important for us to interview?
 - Do you have current contact information for them?
 - Are they still in the government/military?

Risk Assessment Processes

Strategies represent attempts to balance ends (objectives), ways (forces), and means (resources), and as will be described, a key measure of merit for QDRs and other strategic statements is the residual risk in the strategy that arises from inherent imbalances among these strategy elements.

While the basic outlines of the responsibilities and processes for assessing risk in the execution of the defense and military strategies are provided in statutory language, as well as in various DoD, CJCS, Joint Staff, and Army publications, we can also glean some insights into the practical details from strategy documents, congressional hearings, and press reporting. Nonetheless, most of these details remain classified, and therefore well outside the scope of the present report. Accordingly, we here summarize the basic outlines of the DoD, Joint, and Army risk assessment processes; we provide additional detail for each QDR where it is available from open sources in the chapters devoted to each QDR.

Chairman's Risk Assessment and Joint Combat Capability Assessment Process

By statute, the CJCS is responsible for most of the assessments of risk associated with the national defense and military strategies, including the Chairman's risk assessment and other outputs of the Joint Combat Capability Assessment process.

For example, the CJCS is responsible for advising the Secretary of Defense on his risk assessment of the national defense strategy in the QDR, as well as for providing Congress with an independent assessment of each QDR, including a risk assessment:

(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.

(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'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.¹

Under two separate provisions of 10 U.S.C. 153, "Chairman: Functions," the CJCS is responsible for providing Congress with annual assessments of the nature and magnitude of the risks associated with executing the missions called for under the current National Military Strategy. Under Section 153(b):

(b) RISKS UNDER NATIONAL MILITARY STRATEGY. — (1) Not later than January 1 of each odd-numbered year, the Chairman shall submit to the Secretary of Defense a report providing the Chairman's assessment of the nature and magnitude of the strategic and military risks associated with executing the missions called for under the current National Military Strategy.

(2) The Secretary shall forward the report received under paragraph (1) in any year, with the Secretary's comments thereon (if any), to Congress with the Secretary's next transmission to Congress of the annual Department of Defense budget justification materials in support of the Department of Defense component of the budget of the President submitted under section 1105 of title 31 for the next fiscal year. If the Chairman's assessment in such report in any year is that risk associated with executing the missions called for under the National Military Strategy is significant, the Secretary shall include with the report as submitted to Congress the Secretary's plan for mitigating that risk.²

And under Section 153(d):

(d) BIENNIAL REVIEW OF NATIONAL MILITARY STRATEGY. — (1) Not later than February 15 of each even-numbered year, the Chairman shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives a report containing the results of a comprehensive examination of the national military strategy. Each such examination shall be conducted by the Chairman in conjunction with the other members of the Joint Chiefs of Staff and the commanders of the unified and specified commands.

¹ 10 U.S.C. 118.

² 10 U.S.C. 153(b).

(2) Each report on the examination of the national military strategy under paragraph (1) shall include the following:

(A) Delineation of a national military strategy consistent with —

(i) 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);

(ii) the most recent annual report of the Secretary of Defense submitted to the President and Congress pursuant to section 113 of this title; and

(iii) the most recent Quadrennial Defense Review conducted by the Secretary of Defense pursuant to section 118 of this title.

(B) A description of the strategic environment and the opportunities and challenges that affect United States national interests and United States national security.

(C) A description of the regional threats to United States national interests and United States national security.

(D) A description of the international threats posed by terrorism, weapons of mass destruction, and asymmetric challenges to United States national security.

(E) Identification of United States national military objectives and the relationship of those objectives to the strategic environment, regional, and international threats.

(F) Identification of the strategy, underlying concepts, and component elements that contribute to the achievement of United States national military objectives.

(G) Assessment of the capabilities and adequacy of United States forces (including both active and reserve components) to successfully execute the national military strategy.

(H) Assessment of the capabilities, adequacy, and interoperability of regional allies of the United States and or other friendly nations to support United States forces in combat operations and other operations for extended periods of time.

(3)(A) As part of the assessment under this subsection, the Chairman, in conjunction with the other members of the Joint Chiefs of Staff and the commanders of the unified and specified commands, shall undertake an assessment of the nature and magnitude of the strategic and military risks associated with successfully executing the missions called for under the current National Military Strategy.

(B) In preparing the assessment of risk, the Chairman should make assumptions pertaining to the readiness of United States forces (in both the active and reserve components), the length of conflict and the level of intensity of combat operations, and the levels of support from allies and other friendly nations.

(4) Before submitting a report under this subsection to the Committees on Armed Services of the Senate and House of Representatives, the Chairman shall provide the report to the Secretary of Defense. The Secretary's assessment and comments thereon (if any) shall be included with the report. If the Chairman's assessment in such report in any year is that the risk associated with executing the missions called for under the National Military Strategy is significant, the Secretary shall include with the report as submitted to those committees the Secretary's plan for mitigating the risk.³

The CJCS describes the Chairman's risk assessment as follows:

[The assessment] is produced by the Joint Staff J-5, is informed by the full scope of the [Joint Strategy Review] process, and provides to Congress the Chairman's assessment of the nature and magnitude of strategic and military risk in executing the missions called for in the [National Military Strategy]. By considering the range of operational, future challenges, force management, and institutional factors, the [Chairman's risk assessment] provides a holistic assessment of the ability of the Armed Forces to meet strategic requirements in the near-term.⁴

The Joint Chiefs of Staff define strategic risk as the "potential impact upon the United States—to include our population, territory, and interests—of current and contingency events given their estimated consequences and probabilities," and defines military risk as the "ability of U.S. Armed Forces to adequately resource, execute, and sustain military operations in support of the strategic objectives of the National Military Strategy."⁵ The CJCS conceives of both types of risk as a combination of the probability and severity of losses linked to hazards or threats.

In addition to the Chairman's assessments of the risk in executing the National Military Strategy, CJCS Instruction 3401.01E requires assessment of key contingency plans to gauge the combatant command's ability to successfully execute each plan.⁶

³ 10 U.S.C. 153(d).

⁴ Joint Chiefs of Staff, 2010b.

⁵ Joint Chiefs of Staff, "CJCS Joint Risk Assessment System," unclassified briefing, August 2, 2004.

⁶ Joint Chiefs of Staff, *Joint Combat Capability Assessment*, Washington, D.C., CJCS Instruction 3401.01E, April 13, 2010a, p. D-A-9.

The current Joint Staff definitions for high, significant, moderate, and low military risk levels in plan assessments are as follows:

- High: Achieving objectives is unlikely; no sourcing solutions for combatant commander critical requirements; deployed forces are not ready; extreme stress on the force (BOG:Dwell less than 1:1).
- Significant: Achieving objectives is questionable; shortfalls in combatant commander critical requirements; next to deploy forces ready “just in time;” prolonged stress (BOG:Dwell of 1:1).
- Moderate: Achieving objectives is likely; worldwide sourcing solutions for most combatant commander requirements; strategic depth ready for current operations; increased stress (BOG:Dwell of 1:2).
- Low: Achieving objectives is very likely; full capacity to source combatant commander requirements; strategic depth ready for full-spectrum conflict; limited stress (BOG:Dwell greater than 1:2).⁷

In addition, the CJCS uses a Joint Combat Capability Assessment to assess the force’s readiness to execute the National Military Strategy. According to the CJCS,

The [Joint Combat Capability Assessment] is the process used to provide the CJCS a strategic readiness assessment of DOD’s ability to meet the demands of the [National Military Strategy]. It also provides the Chairman a readiness snapshot and informs other Joint Staff processes requiring readiness input. It is a near-term analysis of readiness and ability to execute required priority plans, and provides a common framework for conducting commander’s readiness assessments providing visibility on readiness issues across the [combatant commands, services, and combat support agencies].⁸

The following assessments are conducted as a part of the Joint Combat Capability Assessment:

- The principal Joint Combat Capability Assessment is the Joint Force Readiness Review, which combines and analyzes unit and joint readiness assessments for the combatant commands, services, and combat support agencies to inform the Chairman’s risk assessment and other efforts.
- A Readiness Deficiency Assessment evaluates the cumulative effect of reported combatant command, service, and combat support agency deficiencies on the DoD’s readiness to execute the National Military Strategy.

⁷ HQDA, *Army Strategic Readiness Assessment Procedures*, Washington, D.C., Department of the Army Pamphlet 525-30, June 9, 2015, pp. 9–10. As noted in Chapter Three, a “BOG:Dwell” ratio represents boots on the ground versus dwell time.

⁸ Joint Chiefs of Staff, 2010a.

- A text summary of the Joint Force Readiness Review, including an overall readiness assessment of the DoD's ability to execute the National Military Strategy, also is prepared for inclusion in OSD's Quarterly Readiness Report to Congress.⁹

The CJCS also is responsible for advising the Secretary of Defense on critical deficiencies and strengths in force capabilities identified during the preparation and review of contingency plans, and for assessing the effect of such deficiencies and strengths on meeting national security objectives and policy.¹⁰ Accordingly, the Joint Combat Capability Assessment includes a plan assessment process to examine DoD's ability to execute strategically important contingency plans.¹¹

Role of the Army and Other Services

As a joint force provider, the role of the Army and the other services in these CJCS-led risk assessments is primarily as a provider of data, analysis, and other inputs that can be integrated and synthesized by the Joint Staff and OSD in preparation of key reports and other outputs.¹²

Army Pamphlet 525-30, *Army Strategic Readiness Assessment Procedures*, describes the Joint Force Readiness Review, and the Army's role in it, as follows:

The [Joint Force Readiness Review] is the principal assessment of the Chairman's Readiness System . . . and assesses the ability of the Department of Defense (DOD) to execute the [National Military Strategy] per Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3401-01E. The Director of the Joint Staff (DJS) has oversight of the [Joint Force Readiness Review] and is briefed quarterly by the Services, combatant commands (CCMDs), combat support agencies, and Joint directors during the Joint Combat Capabilities Assessment Group (JCCAG). The [Joint Force Readiness Review] is based on three assessments. First, analysis of the nine Joint Capability Areas (JCAs). Second, it includes an assessment of the readiness of

⁹ Joint Chiefs of Staff, 2010a. The statutory requirement for the Quarterly Readiness Report to Congress is found in 10 U.S.C. 482.

¹⁰ 10 U.S.C. 153(a)(3)(c).

¹¹ Joint Chiefs of Staff, 2010a, pp. D-A-1-D-A-16.

¹² Unclassified descriptions of service responsibilities in supporting DoD and CJCS risk and readiness assessments can be found in Joint Chiefs of Staff, 2010a, 2010b; DoD, *Department of Defense Readiness Reporting System (DRRS)*, Washington, D.C., DoD Directive 7730.65, May 11, 2015; DoD, *Guidance for the Defense Readiness Reporting System (DRRS)*, Washington, D.C., DoD Instruction 7730.66, July 8, 2011c; and Joint Chiefs of Staff, *Force Readiness Reporting*, Washington, D.C., CJCS Instruction 3401.02B, May 31, 2011. Detailed guidance for Army assessments of Army Strategic Readiness is found in HQDA, *Army Strategic Readiness*, Washington, D.C., Army Regulation 525-30, June 3, 2014e; and HQDA, 2015. Procedures for Army participation in the Defense Readiness Reporting System are found in HQDA, *Defense Readiness Reporting System – Army Procedures*, Washington, D.C., Department of the Army Pamphlet 220-1, November 16, 2011d.

Army units to conduct contingency operations. Third, the [Joint Force Readiness Review] incorporates readiness deficiencies provided by [Army Service Component Commands, Army commands, and Direct Reporting Units]. The result is an aggregate readiness assessment (RA) level with two accompanying top concerns. Taken together, this assessment fulfills the statutory and policy requirements for a Service readiness assessment.¹³

As part of the Army Strategic Readiness Assessment process, the recommended Army input to the Joint Force Readiness Review is briefed to the Chief and/or Vice Chief of Staff of the Army for approval on a quarterly basis, and Army input to the Quarterly Readiness Report to Congress includes such indicators as personnel strength, personnel turbulence, other personnel matters, training (to include unit readiness and proficiency), logistics (equipment fill, equipment maintenance, and supply), and readiness of National Guard to perform civil support missions.¹⁴ The Army also uses the Army Strategic Readiness Assessment to provide input to the Chairman's risk assessment.¹⁵

Total Army Analysis

In addition to the contributions the Army makes to the DoD and CJCS readiness and risk assessment processes, the Army also conducts its own, somewhat more limited, risk assessments of the Army's ability to execute the national defense and military strategies as part of the Total Army Analysis (TAA) process.

Army Regulation 71-11 prescribes the basic objectives, procedures, and responsibilities for TAA,¹⁶ while a number of publicly available reports and other documents detail changes in the scope and content of the TAA, and report or critique findings, risk assessments, and other details of past TAAs.¹⁷ Taken together, these sources col-

¹³ HQDA, 2015, p. 2.

¹⁴ HQDA, 2014e, pp. 13-14; HQDA, 2015, p. 3, provides an overview of the relationship between various elements of the Army's Strategic Readiness Assessment and the Quarterly Readiness Reports to Congress.

¹⁵ HQDA, 2015, p. 3.

¹⁶ HQDA, *Total Army Analysis (TAA)*, Washington, D.C., Army Regulation 71-11, December 29, 1995.

¹⁷ For example, TAA03-08 is described in U.S. General Accounting Office, *Force Structure: Army Support Forces Can Meet Two-Conflict Strategy with Some Risks*, Washington, D.C., GAO/NSIAD-97-66, February 1997; TAA03-08 and TAA05-10 are described in U.S. General Accounting Office, *Force Structure: Opportunities for the Army to Reduce Risk in Executing the Military Strategy*, Washington, D.C., GAO/NSIAD-99-47, March 1999b; TAA07-12 is described in U.S. General Accounting Office, *Force Structure: Army Lacks Units Needed for Extended Contingency Operations*, Washington, D.C., GAO-01-198, February 2001a, and in U.S. General Accounting Office, *Force Structure: Projected Requirements for Some Army Forces Not Well Established*, Washington, D.C., GAO-01-485, May 2001d; TAA08-13 is described in U.S. Army, *Total Army Analysis (TAA): Primer 2005*, Washington, D.C., 2005; TAA10-15 is described in U.S. Army, *Total Army Analysis (TAA): Primer 2008*, Washington, D.C., 2008 and TAA09-14 is described in John C. F. Tillson, John R. Brinkerhoff, and Robert Magruder, *Total*

lectively capture the evolution of and improvements to the TAA process over time. The TAA is essentially an independent analysis of the Army's ability to execute the missions called for in the national defense strategy with currently planned force structure, based on doctrinal factors, modeling, and expert judgment.

Currently led by G-3/5/7 and the Deputy Assistant Secretary of the Army for Manpower and Reserve Affairs, the Army describes the TAA process as follows:

The TAA is a biennial process initiated during even-numbered years. The purpose of the TAA is to define the required Army force structure (modified [table of organization and equipment] and table of distribution and allowances) necessary to comply with the [Guidance for Development of the Force]. It is the resource process that supports OSD, as well as the DoD and Army [Planning, Programming, Budgeting, and Execution] process.¹⁸

In addition,

The TAA is the basis for the Army's POM development and establishment of the POM Force. The Army develops the POM force to achieve an affordable and competent force capable of best supporting national objectives and Combatant Commanders' warfighting needs. This force supports the joint strategic planning conducted by the Joint Staff, Combatant Commanders and the Services at the transition between planning and programming. TAA determines the total requirements to meet the [National Military Strategy, Guidance for Development of the Force, Joint Programming Guidance, the Army Plan] and other guidance. TAA resources the requirements based on Army leadership directives, written guidance, risk analysis, and input from the combatant commanders day-to-day requirements. The resulting force structure is the POM force, forwarded to OSD with recommendations for approval. . . . The determination of the size and content of the Army force structure is an iterative, risk-benefit, trade-off analysis process. . . . HQDA bases force structuring options on an understanding of the objectives to be achieved, the threat and the constraints. The primary differences among various options are the extent to which risk, constraints and time are forecast.¹⁹

Organizationally speaking,

The process is led by the HQDA G3/7-FM and the Deputy Assistant Secretary of the Army for Manpower and Reserve Affairs with participation from representatives across the Army Staff, Army Commands, Army Service Component

Army Analysis 2009 (TAA09) – A Critical Review, Alexandria, Va.: Institute for Defense Analyses, D-2809, May 2003.

¹⁸ U.S. Army Training and Doctrine Command, "Concept Development, Capabilities Determination, and Capabilities Integration," TRADOC Regulation 71-20, February 23, 2011.

¹⁹ U.S. Army, 2008, p. 9.

Commands, Direct Reporting Units, [Army National Guard, Army Reserve, and Training and Doctrine Command] Centers of Excellence [and non-Training and Doctrine Command] Force Management Proponents.²⁰

The TAA currently consists of two phases: a Phase I Capability Demand Analysis (previously called the requirements phase), described by the Army Capabilities Integration Center as follows:

[Phase I is] strategy-based using a variety of sources for guidance/inputs to conduct a quantitative analysis of demand for Army forces units. Quantitative analysis is based on doctrine, operational engagement, modeling, lessons learned, and field inputs. Additionally, it uses the most current OSD Force Shaping Construct as the demand framework and updates earlier TAA shaping constructs to provide a variety of futures to assess force structure decisions.²¹

Phase II is the resourcing and approval phase:

[Phase II] starts with a match of “demands” developed during modeling against the current programmed force, across all Components, and in accordance with [Senior Leadership, Department of the Army, or Senior Leader Department of the Army] guidance. The guidance is refined by several factors, such as the emerging Quadrennial Defense Review, refinements to the [Senior Leader Department of the Army] and OSD’s intent, End Strength and Total Obligation Authority, and other factors. Resourcing starts by placing the “human in the loop” through a series of panels: Council of Colonels and General Officer Steering Committees. Utilizing the modeling input and resourcing guidance from the Chief of Staff of the Army, they refine the force to provide the most capable force within resource constraints.²²

A Force Feasibility Review is the last step in the TAA process:

Once the initial recommended force is developed, HQDA G3/7-FM leads a Force Feasibility Review to assess the affordability in terms of manning, equipping, sustaining, training, and stationing the force. This results in recommendations on refinements prior to taking the recommended force structure to the [Senior Leader Department of the Army] for decisions. At the end of the TAA cycle, the HQDA G3/7-FM publishes the [Army Structure Message] creating the POM Force to be resourced in the POM. The goal in previous TAAs was to produce the [Army Structure Message] by August to support the POM build. The goal starting in

²⁰ Brian P. Wilkins, “Total Army Analysis,” Army Capabilities Integration Center, May 2, 2014.

²¹ Wilkins, 2014.

²² Wilkins, 2014.

TAA 18-22 will be to complete the process and produce the [message] earlier (~April) to allow additional time for the POM process.²³

As noted above, the process, scope, and analytics of the TAA have evolved over time to better support POM development and the assessment of risks. Major changes include the following:

- TAA-03 calculated only the modified table of organization and equipment “warfighting” requirements.
- TAA-05 incorporated the base-generating force requirements.
- TAA-07 calculated all Army requirements (modified and intermediate tables of organization and equipment and tables of distribution and allowances, all components) and Stryker BCTs as a doctrinal, organizational, and materiel solution to eliminate existing capability gaps.
- TAA-09 incorporated homeland security as the first priority of the “simultaneity stack.”
- TAA-11 initiated modularity as the basic Army structure (Unit of Action/Unit of Employment).
- MSFA 07-11 captured Force Design Update and leadership decisions not incorporated in TAA-11.
- TAA 08-13 incorporated modularity and used the Strategic Planning Guidance and Joint Programming Guidance as OSD guidance. TAA 08-13 also was informed by the 2006 QDR for force-structure guidance and the force-planning construct.
- FMR 09-13 captured Force Design Update and leadership decisions on modular design after TAA 08-13, while addressing some of the 2006 QDR decisions, operational surge-expedite-accelerate conversions of BCTs, total strength growth in all components, an increase of five active-component BCTs, active-reserve rebalancing, and BRAC effects.
- TAA 10-15 was designed to inform the 2010 QDR, model for the total force requirements over the next seven years, and fix the imbalance in force structure.²⁴

To conclude, the TAA process generates analytic results and insights that the Army can use to assess risk in executing the national defense and military strategies, and inform force structure, manpower, and other decisions taken in the QDRs. The results of these internal classified assessments typically are not shared outside of the Army, and little information on them is available from open sources, so we will devote no more attention to describing their results.

²³ Wilkins, 2014.

²⁴ U.S. Army, 2008, p. 6. The Army also appears to have refined the TAA in response to critical feedback from external evaluations of the conduct of previous TAAs (U.S. General Accounting Office, 2001d, pp. 1, 7–8).

Recent Army Assessments of Risk

As was described in Chapter Five, following the conclusion of the 2014 QDR, Chief of Staff of the Army Odierno made a forceful argument that a permanent active end strength of 490,000 would result in a low to moderate level of risk in executing the national military strategy, whereas the plan to draw down to 450,000 accepted additional risk, and represented a floor below which the risks were unacceptable; the estimated sequestration level of 420,000 active-duty soldiers is well below that floor.

Recent releases of the Army Strategic Planning Guidance providesomeadditional insights into the Army's estimates of risk and its risk mitigation strategies. For example, the 2011 Army Strategic Planning Guidance stated that the Army assessed risk using the four dimensions of the risk framework developed in the 2001 QDR (operational, force management, future challenges, and institutional) and described actions that were being taken to mitigate risk.²⁵ It reported, for example, that the Army was accepting near-term risk in its ability to conduct full spectrum operations. In addition, the 2014 Army Strategic Planning Guidance details Army resourcing and risk-reduction priorities in three time frames: the short term (FYs 16–19), midterm (FYs 20–22), and long term (FY23 and beyond), and reports, for example, that in the short term, the Army will be taking on risk in modernization.²⁶

It seems inevitable that OSD, CJCS, and Army assessments of the risks associated with executing the national defense and military strategies will continue to be prominent in future defense planning efforts.

²⁵ HQDA, *2011 Army Strategic Planning Guidance*, Washington, D.C., March 25, 2011c, pp. 15–17.

²⁶ HQDA, *2014 Army Strategic Planning Guidance*, Washington, D.C., 2014a, pp. 25–26.

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This report presents a comparative historical analysis of the four Quadrennial Defense Reviews (QDRs) conducted after 1997 (in 2001, 2006, 2010, and 2014) and identifies trends, implications, and recommendations for the Army and U.S. Department of Defense, in order to shape the conduct of and improve future reviews.

The study systematically compares these four QDRs—developed during a period of nearly a decade and a half of conflict in Afghanistan, Iraq, and elsewhere—by examining them in the following areas: organization and process, strategy development, force planning, modernization and transformation, resources, defense reform and infrastructure, risk assessment, and reception. The analysis is based on reviews of QDR documentation and defense budget, force structure, and manpower data, as well as structured conversations with individuals involved in each QDR.

The authors find that the situation for U.S. defense strategy in the period under review ended much as it began, with an increasingly apparent gap among U.S. military strategy, forces, and resources, reflected in the changing defense strategies of each QDR. Most QDRs did not adequately address either the growing portfolio of demands on the force or risks associated with different end strengths and mixes of active- and reserve-component forces. To avoid a similar outcome, future defense reviews should focus on assessing the adequacy of U.S. forces to support the chosen strategy at an acceptable level of risk and on characterizing the budgets needed to support those forces in the near, mid-, and long terms. It will be left to leaders in the Department of Defense to estimate the funding levels needed to execute the stated defense strategy, and it will be left to the White House and Congress both to agree on the level of defense funding that keeps risk at an acceptable level and to determine how best to pay that bill.



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\$75.00

ISBN-10 0-8330-9248-0
ISBN-13 978-0-8330-9248-9



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