

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE (DD-MM-YYYY) 01-04-2013		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) 23-07-2012 to 14-06-2013	
4. TITLE AND SUBTITLE AVOIDING ANOTHER HOLLOW FORCE: OPTIMIZING THE JOINT FORCE DESPITE SEQUESTRATION				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Michael D. Lay Lieutenant Colonel, United States Air Force				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Joint Forces Staff College - NDU Joint Advanced Warfighting School 7800 Hampton Boulevard Norfolk, VA 23511-1702				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release, distribution is unlimited.					
13. SUPPLEMENTARY NOTES Information as of 1 April 2013.					
14. ABSTRACT In today's austere fiscal environment, the Department of Defense (DoD) must implement a long-range strategy, reform its acquisition system, reallocate resources to preserve current force structure and fund modernization programs, while retaining the flexibility to adapt to unpredictable threats. This strategy must be accomplished in the context of the nation's current debt crisis. This paper's thesis: reforming the acquisition system and the planning, programming, budgeting, and execution (PPBE) system will allow the DoD to eliminate wasteful spending, optimize the joint force, and avoid another "hollow force." This paper reviews the impacts of the Budget Control Act, sequestration, and the DoD's acquisition system and PPBE paradigms to determine how the U.S. Armed Forces can be more efficient and effective, in the face of significant defense cuts. The post-Vietnam era and the 1990s were classic "hollow force" periods. After Vietnam, socio-economic factors and funding decisions that favored the development of advanced weapon systems rather than funding other vital requirements such as manpower led to the hollow force. In the 1990s, a hollow force was created by "over-committing" the U.S. military relative to its size and resources. This was exacerbated by recruiting and retention problems and emphasis on readiness-related funding versus modernization. While the United States remains the world's most powerful military, near-peer competitors such as					
15. SUBJECT TERMS Sequestration, Budget Control Act, Hollow Force, Defense Acquisition System, PPBE, Readiness					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UNCLASSIFIED UNLIMITED	18. NUMBER OF PAGES 87	19a. NAME OF RESPONSIBLE PERSON XXXXXXXXXX XXXXXXXXX
a. REPORT UNCLASSIFIED	b. ABSTRACT UNCLASSIFIED	c. THIS PAGE UNCLASSIFIED			19b. TELEPHONE NUMBER (include area code) 757-443-6301

NATIONAL DEFENSE UNIVERSITY

JOINT FORCES STAFF COLLEGE

JOINT ADVANCED WARFIGHTING SCHOOL



**AVOIDING ANOTHER HOLLOW FORCE: OPTIMIZING THE JOINT FORCE
DESPITE SEQUESTRATION**

by

Michael D. Lay

Lieutenant Colonel, United States Air Force

**AVOIDING ANOTHER HOLLOW FORCE: OPTIMIZING THE JOINT FORCE
DESPITE SEQUESTRATION**

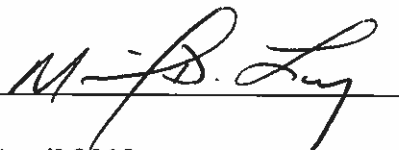
by

Michael D. Lay

Lieutenant Colonel, United States Air Force

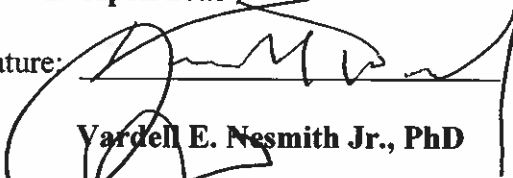
A paper submitted to the Faculty of the Joint Advanced Warfighting School in partial satisfaction of the requirements of a Master of Science Degree in Joint Campaign Planning and Strategy. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Joint Forces Staff College or the Department of Defense.

This paper is entirely my own work except as documented in footnotes.

Signature: 


29 April 2013

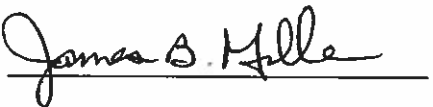
Thesis Adviser:

Signature: 
Yardell E. Nesmith Jr., PhD

Approved by:

Signature: 
Richard E. Wiersema, COL, USA

Signature: 
Steven M. Guiliani, CAPT, USN

Signature: 

**James B. Miller, Colonel, USMC
Director, Joint Advanced Warfighting School**

ABSTRACT

In today's austere fiscal environment, the Department of Defense (DoD) must implement a long-range strategy, reform its acquisition system, reallocate resources to preserve current force structure and fund modernization programs, while retaining the flexibility to adapt to unpredictable threats. This strategy must be accomplished in the context of the nation's current debt crisis. This paper's thesis: reforming the acquisition system and the planning, programming, budgeting, and execution (PPBE) system will allow the DoD to eliminate wasteful spending, optimize the joint force, and avoid another "hollow force." This paper reviews the impacts of the Budget Control Act, sequestration, and the DoD's acquisition system and PPBE paradigms to determine how the U.S. Armed Forces can be more efficient and effective, in the face of significant defense cuts.

The post-Vietnam era and the 1990s were classic "hollow force" periods. After Vietnam, socio-economic factors and funding decisions that favored the development of advanced weapon systems rather than funding other vital requirements such as manpower led to the hollow force. In the 1990s, a hollow force was created by "over-committing" the U.S. military relative to its size and resources. This was exacerbated by recruiting and retention problems and emphasis on readiness-related funding versus modernization.

While the United States remains the world's most powerful military, near-peer competitors such as China are closing the gap. Based on slow economic growth, large federal deficits and debt, and soaring acquisition costs, U.S. leaders face many challenges in balancing the economy with national security risks through its defense budget. The DoD must reform its acquisition and PPBE systems to a cost-effective approach that eliminates waste, preserves critical combat capability, and avoids hollowing out the force.

ACKNOWLEDGEMENT

I would like to express my sincere appreciation to my research and faculty advisor, Dr. Vardell Nesmith, for his leadership and guidance throughout the course of this thesis effort. Also, I would like to thank the professionals from the Joint Forces Staff College's library staff for their outstanding support, which was invaluable in producing this document. Most importantly, I want to thank my wife, Kelly and two sons, Jordan and Noah for all of their patience, love, and support throughout this research endeavor.

TABLE OF CONTENTS

CHAPTER 1: Introduction1
 Defining the Problem 1
 Background.....7
 Current Fiscal Environment.....12
 Strategic Environment15
CHAPTER 2: Budget Control Act of 201119
CHAPTER 3: The Impact of Sequestration.....25
CHAPTER 4: The Hollow Force.....33
CHAPTER 5: Lessons from Major Defense Drawdowns42
 Post-Korean War Drawdown 42
 Post-Vietnam War Drawdown 43
 Post-Cold War Drawdown 44
 Outlook for the Future..... 45
CHAPTER 6: DoD Acquisition and Management System48
 Quadrennial Defense Review 55
CHAPTER 7: Alternatives for National Defense Savings62
CHAPTER 8: Recommendations69
CONCLUSION.....76
BIBLIOGRAPHY.....78

LIST OF FIGURES

FIGURE 1. Defense Drawdowns Compared.....	13
FIGURE 2. Internal Cost Inflation against the Projected Defense Topline.....	14
FIGURE 3. FY13 and FYDP Defense Budget Proposal	20
FIGURE 4. Budget Reduction from Sequestration.....	22
FIGURE 5. Cost Growth of DoD's Major Defense Acquisition Programs	49
TABLE 1. Technology Maturity and Program Outcomes.....	59
TABLE 2. Cost and Schedule Outcomes.....	60
TABLE 3. Examples of DoD Programs with Reduced Buying Power	60

GLOSSARY

Base budget. Annual U.S. Government discretionary funding for the DoD used to organize, train, and equip the U.S. Armed Forces.

Budget Control Act. Federal statute signed into law by President Barack Obama on August 2, 2011. The act brought conclusion to the U.S. debt-ceiling crisis, which threatened to lead the United States into sovereign default. The law involves several complex mechanisms such as the creation of the Congressional Joint Select Committee on Deficit Reduction, options for a balanced budget amendment, and automatic budget sequestration.

Defense Acquisition System. DoD management process designed to deliver capable, reliable, and sustainable systems to the warfighter; uses periodic reviews and program approvals to progress into subsequent efforts of the acquisition life cycle. The process connects milestone decisions to demonstrated accomplishments.

Joint Capabilities Integration Developmental System. DoD system which validates and prioritizes joint capabilities and requirements. The JCIDS process is dependent on warfighting deficiencies or needs.

Joint Requirements Oversight Council. Chaired by the Vice Chairman of the Joint Chiefs of Staff and designed to conduct joint warfighting capability assessments, consider balance between programs, near-term programs, and programs to recapitalize the force, and evaluate the Services' programs.

Overseas Contingency Operations funding. Wartime funding which supplements the DoD's baseline budget.

Planning, Programming, Budgeting, and Execution System. The DoD's primary resource allocation and management system. A two-year process used for obtaining funding for major weapon systems acquisition and provides a factual basis for affordability assessment and resource allocation decisions.

Quadrennial Defense Review. Legislatively-mandated review of DoD strategy and priorities. QDR sets a long-term course for the DoD as it assesses the threats and challenges the nation faces and rebalances DoD strategies, capabilities, and forces to address current conflicts and future threats.

Weapon Systems Acquisition Reform Act. Congressional effort to improve the way major weapon systems are acquired and to avoid further cost overruns on such programs.

CHAPTER 1: INTRODUCTION

Defining the Problem

Historically, the United States has never been able to successfully predict its next war or military conflict. Shocking events such as the start of the Korean War in 1950, Saddam Hussein's Iraqi military invasion into Kuwait in 1990, and the 9/11 terrorist attacks of 2001 highlight how unpredictable acts of war from both state and non-state actors ultimately led the United States to intervene militarily in retaliation. Due to factors such as the economy, improper defense funding, force structure, training, equipment, and readiness, the U.S. Armed Forces have not always been prepared to fight and decisively win the next war. This raises the question; how can the Department of Defense (DoD), with an annual base budget of over \$500 billion, not be adequately postured for the next war? Many argue it is the impact of two simultaneously conducted ground wars in Afghanistan and Iraq. Other experts argue it is poor strategy or strategic direction. However, the major driver is the U.S. economy with annual deficits over \$1 trillion and a national debt over \$16 trillion, as well as the high cost of the DoD's acquisition system and the inefficient planning, programming, budgeting, and execution (PPBE) system.

In today's austere fiscal environment, the DoD must implement an executable, long-range defense strategy, reform its costly acquisition system, reallocate resources to preserve current force structure and fund modernization programs, while retaining the flexibility to adapt to unpredictable threats. This strategy and acquisition reform must be accomplished in the context of the nation's current debt crisis and the potentially devastating impact of sequestration. This paper's thesis: reforming the current defense acquisition system and PPBE system will allow the DoD to eliminate wasteful spending, optimize the future joint force, and help avoid another hollow force.

The United States has entered an era of strategic change. After fighting over ten years in a global counter-terrorism campaign and two land wars in Iraq and Afghanistan, the United States has shifted its strategic focus based on several security and economic challenges. While the United States has dismantled Al-Qaeda's (AQ) core leadership, AQ operatives in areas such as Africa and Indonesia continue to plot terrorist attacks. Iran's pursuit of a nuclear weapon will continue to destabilize the Middle East region. China's robust military modernization program threatens the stability of the Asia-Pacific region. North Korea continues to advance its nuclear weapons program and remains unpredictable as its leadership seeks to demonstrate control and project power. Finally, the world economy remains fragile, the U.S. economy has stagnated, and U.S. lawmakers have responded to the nation's debt crisis by cutting government spending to include a large portion of defense spending through the 2011 Budget Control Act (BCA). Due to the BCA's sequestration provision, these defense cuts will dramatically increase in 2013, barring government intervention.¹ Faced with potentially devastating cuts, the DoD must reform its acquisition and PPBE systems to a strategy-linked, cost-effective approach that eliminates waste, preserves critical combat capability, and avoids hollowing out the force.

The need to reform the DoD's acquisition system has been well documented. In 2008, a Government Accountability Office (GAO) study of Major Defense Acquisition Programs (MDAP) projected cost overruns totaling \$295 billion. The 2008 estimate was significant compared to the cost overruns of the \$202 billion estimate in 2006 and the \$42 billion estimate in 2000. Additionally, the number of weapons programs exhibiting 25

¹ Stimson Report, "A New Defense Strategy for a New Era: Military Superiority, Agility, and Efficiency," Peter G. Peterson Foundation, November 2012 (Washington DC: Stimson, 2012), 3-6. http://www.stimson.org/images/uploads/researchpdfs/A_New_US_Defense_Strategy_for_a_New_Era.pdf (accessed November 17, 2012).

percent or greater cost growth relative to initial projections grew from 37 percent in 2000 to 44 percent in 2009.² In 2011, the cost of the DoD's 96 MDAPs was \$1.58 trillion. In 2012, the total cost grew by \$74.4 billion or roughly 5 percent, of which \$31.1 billion was attributed to factors such as inefficiencies in production, \$29.6 billion to quantity changes, and \$13.7 billion to research and development (R&D) cost growth.³

Together, the two major acquisition accounts—research, development, testing and evaluation (RDT&E) and procurement—cost the DoD roughly \$200 billion a year in its defense budget. This is more than China spends on its entire military, and at least three times what China spends on military modernization itself. In major weapons systems alone, the DoD has close to a trillion dollars scheduled for upcoming years in completing the development and production of weapons it already has in the acquisition system.⁴

Typically, new weapons systems cost more as they improve. This explains why new ships and aircraft tend to cost more than their predecessors. Cost growth occurs in a given weapons program as it advances through R&D, engineering development, and into production. Developing new weapons requires investing in new technologies and systems. The process of innovation is difficult when defense contractors are set to a strict schedule and budget. However, the DoD cannot allow defense contractors to gold-plate weapons or weapons systems with impunity, which would drive costs up inordinately.⁵

² Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapons Programs*, (Washington, DC: Government Accountability Office, March 2008), 4-7, <http://www.gao.gov/assets/280/274156.pdf> (accessed November 24, 2012).

³ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapons Programs*, (Washington, DC: Government Accountability Office, March 2012), 6, <http://www.gao.gov/assets/590/589695.pdf> (accessed November 24, 2012).

⁴ Michael E. O'Hanlon, "A Moderate Plan for Defense Budget Cuts," Foreign Policy Paper, no. 30 (January 2013): 16, <http://www.brookings.edu/~media/research/files/papers/2013/1/defense%20budget%20cuts%20ohanlon/defense%20budget%20cuts%20ohanlon.pdf> (accessed February 14, 2013).

⁵ Michael E. O'Hanlon, *Budgeting for Hard Power: Defense and Security Spending Under Barack Obama* (Washington, DC: Brookings Institution Press, 2009), 79.

For years, the DoD has attempted to reform its acquisition and weapons systems procurement process with limited success. In 2009, Congress passed the Weapon Systems Acquisition Reform Act (WSARA) in an effort to improve the way major weapon systems are acquired and to avoid further cost overruns on such programs. Even after the cuts in planned weapons buys of recent years, the DoD must continue to rethink a number of weapons efforts. Some weapons are procured partly out of bureaucratic inertia. Other weapons systems are simply unnecessary or not worth the money even if they do provide certain attractive capabilities. With few exceptions like the rapid development and fielding of Mine Resistant Ambush Protection (MRAP) vehicles and Improvised Explosive Device (IED) defeat systems, acquisition reform initiatives have failed to consistently produce a process that delivers products faster, better, or cheaper.⁶

The growing cost of sustaining the U.S. Armed Forces during the two ground wars in Iraq and Afghanistan contributed to the DoD's failure to procure large quantities of new aircraft, ships, and combat vehicles over the past decade.⁷ New weapon systems are expensive, which makes it difficult to procure them in sufficient numbers. Compared to the 1980s, the U.S. Air Force now has roughly 2,500 fewer aircraft, and the Navy has fewer than half the number of ships.⁸ Many of the aircraft, ships, and combat vehicles in service are aging and require upgrades or replacements. The U.S. military also faces considerable costs to refurbish equipment battered in Iraq and Afghanistan.⁹ For

⁶ Colonel Peter K. Eide, USAF and Colonel Charles D. Allen, USA (Ret.), "The More Things Change, Acquisition Reform Remains the Same," *Acquisition Review Journal* 19, no. 1 (January 2012): 99. <http://search.proquest.com/docview/929761542?accountid=12686> (accessed November 17, 2012).

⁷ Lieutenant General David W. Barno, USA (Ret.), Nora Bensahel, and Travis Sharp, "Hard Choices: Responsible Defense in an Age of Austerity," Center for a New American Strategy, October 2011, 10, http://www.cnas.org/files/documents/publications/CNAS_HardChoices_BarnoBensahelSharp_0.pdf (accessed January 20, 2013).

⁸ *Ibid.*, 10.

⁹ *Ibid.*

example, the U.S. Army and U.S. Marine Corps estimate that combined, they will need more than \$30 billion to repair and replace equipment worn out from combat.¹⁰ These required investments continue to grow at the time when the defense budget is shrinking.

The defense budget process is a balancing act, where the DoD and the defense industry determine the allocation of resources to a vast array of requirements. However, the current acquisition and budgeting process is less than optimal. A major problem is that senior defense leaders and military service chiefs expect to be allocated traditional fair shares of the defense budget versus smartly allocating capabilities-based funding to individual services in order to better support national security and U.S. military strategy. For example, the Army's Future Combat Systems program was based on undeveloped, network-based technology. By chasing solutions for this undeveloped technology, the DoD wasted billions on unproven capabilities and finally canceled the program in 2010.

Another budget-to-strategy problem is the allocation of individual military Services' funding, which often leads to wasteful spending. During the DoD's normal planning and programming process, each Service develops their own budget submissions somewhat independently. Only at the end of the process does the Office of the Secretary of Defense (OSD) assess and adjust each Services' proposed programs and budgets.¹¹ Controversy over the Navy's procurement of the Littoral Combat Ship (LCS) is indicative of the problem. The LCS was designed to replace the Navy's frigate fleet. However, the LCS has experienced development and performance problems, as well as high costs. These problems reduced total procurement. The lack of robust offensive and defensive

¹⁰ Ibid.

¹¹ Todd Harrison, "Strategic Choices: Navigating Austerity," Center for Strategic and Budgetary Assessments, November 2012, 21, <http://www.csbaonline.org/publications/2012/11/strategic-choices-navigating-austerity.pdf> (accessed November 29, 2012).

capability, cost and complexity of the LCS does not meet its operational concept, which relies on a large number of ships. LCS missions could be executed by refurbished frigates, such as anti-submarine warfare and security cooperation with smaller navies.¹²

The U.S. Marine Corps' V-22 Osprey aircraft and the short-takeoff, vertical landing (STOVL) version of the F-35 Joint Strike Fighter (JSF) are prime examples of duplicated weapon systems or capabilities that exist in other programs, or are not needed. The V-22 is one of the most troubled weapons systems in the U.S. inventory. The V-22 has failed to prove itself cost-effective and has shown limited operational utility. MH-60 or CH-53 helicopters, or a combination of the two, would provide a viable alternative for the remainder of the acquisition purchase.¹³ Among the three F-35 JSF variants, the Marine Corps' STOVL version is the most costly and troubled. Conventional fixed-wing fighters and current helicopters could adequately substitute in the required mission sets.¹⁴

For the U.S. Air Force, F-22 and F-35 tactical fighter programs have experienced huge cost overruns and schedule delays. The B-1 Bomber was considered a Cold War solution to an obsolete problem. However, the B-1 was retained in service and inserted into every conflict since its inception to justify its existence. Finally, the KC-46 tanker procurement program dominated the news for years without resolution. As defense budgets decline, the battle for resources will only intensify causing service parochialism.

Due to the defense cuts associated with the implementation of the 2011 Budget Control Act which included the sequestration provision, many experts believe the U.S.

¹² Angela Canterbury and Ben Freeman, "Spending Less, Spending even Smarter: Recommendations for National Security Savings, FY2013-FY2022--Deficit Reduction: \$688 Billion, Project on Government Oversight, May 8, 2012, <http://www.pogo.org/our-work/reports/2012/ns-wds-20120508-national-security-defense-savings.html> (accessed August 15, 2012).

¹³ Ibid.

¹⁴ Ibid.

military is in a strategic spending crisis that threatens to reduce the readiness of the nation's armed forces. In the 1990s, decisions to cut new military equipment and technology left the DoD with an aging fleet of ships, aircraft, and armored vehicles that were expensive to maintain. In essence, the DoD sacrificed procurement and hardware programs for overseas deployments and boots on the ground (e.g., Somalia, Haiti, and Bosnia). Budget cuts, base closures, and troop reductions lead to "pockets of unreadiness" creating a hollow force.¹⁵ Today, senior military leaders fear an additional half-trillion dollar cut due to sequestration will devastate the DoD with regards to capability and readiness and could easily create another "hollow force" situation similar to the 1990s. To avoid another hollow force, the DoD must not only transform its acquisition system and PPBE process to make more intelligent use of its defense dollars; but it must also apply strategic-level guidance to force structure and investment, ensure the quality of the all-volunteer-force, and fully support today's deployed warfighters.

The focus of this paper is to analyze the immediate impacts of the 2011 Budget Control Act, the devastating effects associated with sequestration, as well as the DoD's implementation of its current acquisition strategy and PPBE process paradigms in order to determine how future U.S. Armed Forces can be more efficient and effective, in the face of future defense budget cuts.

Background

The outlook for the U.S. economy and budget is grim. The national debt exceeds \$16 trillion. In 2012, the annual deficit was \$1.3 trillion, which was the fourth year the U.S. deficit reached over \$1 trillion and is the largest deficit since 1945. The \$16 trillion debt translates to 67 percent of the gross domestic product (GDP) which is the highest

¹⁵ Ibid.

percentage since WWII.¹⁶ In 2011, as part of a deficit reduction measure, President Obama and the U.S. Congress enacted the Budget Control Act (BCA) cutting the defense budget by approximately 8.3 percent over the Future Years Defense Plan (FYDP).

Based on the current debt crisis and defense cuts associated with the BCA, there are looming questions with respect to U.S. national security. How much defense does the United States need and how much can it afford? What types of wars should the U.S. military be prepared to fight? Can America discard large-scale stability operations? Should the United States invest more in technologically advanced weapon systems? Historically, reduced defense budgets cause militaries to downsize, restructure, and military capabilities to decay, often leading to a "hollow force." The key for the DoD is to develop a coherent weapons system acquisition process aligned with National Security and Military Strategy. This provides the necessary joint force capability that promotes U.S. global leadership, power projection, and decisive combat power when necessary.

Advocates for large defense budgets point out that in recent decades, national defense spending, as a share of the U.S. economy, is modest by historical standards. During the 1960s, defense spending was often 8 to 9 percent of GDP; in the 1970s, it began at 8 percent and declined just under 5 percent of GDP. During the Reagan buildup in the 1980s, the defense budget reached 6 percent of GDP before declining somewhat at the end of the Cold War. During President George W. Bush's first term, the defense budget reached 4 percent by 2005 and hovered there through 2007; it grew to 4.5 percent by 2009. In this context, current levels, including wartime supplemental budgets, seem

¹⁶ Mike Beckett, "Defense, Deficits, and Deployments: The Future of U.S. Military Policy," *Henry M. Jackson School of International Studies*, University of Washington, Task Force Report (Winter 2012): 106, <https://digital.lib.washington.edu/researchworks/handle/1773/19671> (accessed August 15, 2012).

relatively moderate, if hardly low.¹⁷ Similarly, U.S. defense spending is also now about 20 percent of federal government outlays, in contrast to nearly half in the 1960s.¹⁸

There are two primary reasons for high U.S. defense spending. First, the United States has numerous overseas interests and allies. While these key allies add strength to the western alliance, they also add potential fiscal burdens for the United States. With dozens of formal security partners and large military deployments in three main regions (Asia, Europe, and the Middle East), as well as smaller commitments in various other places, the United States has many military obligations.¹⁹

The second reason for a large national defense budget is that the United States wants to maintain a major qualitative advantage in military capability. Although high defense spending cannot completely overcome the possibility that a militarily inferior adversary can win in war, it can certainly make any adversary's job more difficult.²⁰ As General Raymond T. Odierno, U.S. Army Chief of Staff, stated "...we know we have to maintain an Army that deters an aggressor, [and] that sends the clear message that if you engage in aggression, you will have to pay a terrible price. We want an Army that, should it be called upon to go to war, has what it needs, is fully ready, and is trained and equipped with the latest, most advanced weaponry to win and to come home quickly. That is our objective for 2020."²¹

¹⁷ Office of Management and Budget, *Historical Tables: Budget of the United States Government, Fiscal Year 2009* (Government Printing Office, February 2008), 137, <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2009/pdf/hist.pdf> (accessed October 1, 2012).

¹⁸ Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2008: Historical Tables* (Government Printing Office, 2007), 133-36, <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2008/pdf/hist.pdf> (accessed October 1, 2012).

¹⁹ O'Hanlon, *Budgeting for Hard Power*, 6.

²⁰ *Ibid.*

²¹ Elizabeth M. Collins, "McHugh Discusses Army of Today, Army of 2020," *Soldiers Magazine*, June 22, 2012, http://www.army.mil/article/82205/McHugh_discusses_Army_of_today_Army_of_2020/ (accessed September 15, 2012).

While the United States remains the most dominant economic and military power, it faces a myriad of future threats including global terrorism, weapons of mass destruction (WMD) proliferation, and rising near-peer competitors such as China. However, none of the aforementioned threats may be as significant as the current U.S. economic crisis with record deficit spending and an enormous national debt. With the successful drawdown of forces in Iraq at the end of 2011 and the pending drawdown of forces in Afghanistan in 2014, the United States is shifting its strategic focus toward the Asia-Pacific region. This strategy is best described as a "pivot but hedge" approach to global engagement.²² In essence, the U.S. military will rebalance forces to the Asia-Pacific region but continue to hedge against potential threats in the Middle East and elsewhere around the world.

Different combatant commanders and areas of responsibility (AOR) require different force structure or compositions. While military operations in any region require substantial participation by each branch of the military, the Asia-Pacific region is a vast maritime region that requires strong naval and air forces to project power and protect U.S. national interests. To execute this strategy under today's fiscal constraints, the DoD has prioritized its naval and air forces and accepted risk by cutting land forces. With the exception of the reductions to ground forces, which are being downsized because the United States is transitioning away from two ground-centric wars, the defense budget has avoided cuts to high-profile forces such as carrier strike groups, fighter wings, and combat vehicles. Politically, Congress does not like to cut these types of forces because they reflect geopolitical strength and create jobs that promote economic prosperity.²³

²² Travis Sharp, "Down Payment: Defense Guidance, 2013 Defense Budget and the Risks of Sequestration," Center for a New American Security, February 2012, 3, <http://www.cnas.org/2013defensebudget> (accessed September 23, 2012).

²³ *Ibid.*, 5.

The DoD plans to downsize the number of U.S. Army soldiers by 72,000 and U.S. Marines by 20,000 over the next 5 years. Many of these troops will be cut through involuntary separations, forcing them into a troubled domestic economy. However, by adopting this approach, the DoD has changed the paradigm of equal service funding; the historic pattern of allocating the defense budget in equal shares to each of the three military departments—Army, Navy, and Air Force.²⁴ Although maintaining highly capable naval, air, and ground forces is essential to protect U.S. global interests, decisions about the services' capabilities must be based on national security requirements, not simply the idea that each service gets an equal share of the defense budget. If the United States is faced with an unexpected contingency in the future, additional ground forces can be built up or regenerated more quickly than the procurement of ships and aircraft, which take decades to design and build. Although difficult, regenerating manpower is far less expensive compared to regenerating force structure. The Army demonstrated this capability from 2007-2009 in the middle of Operation IRAQI FREEDOM, when it added 65,000 active-duty personnel as part of the "Grow the Army" initiative.²⁵

While terrorism, WMD proliferation, and China's military modernization are easily identifiable future threats, the greatest threat to the United States is its national debt and its crippling effects. Former Chairman of the Joint Chiefs of Staff (CJCS), Admiral Mike Mullen, stated "the ability of the United States to keep its country secure over time depends on restoring fiscal restraint today...The government will not be able to protect those in need or invest to achieve the nation's long-term potential growth if Washington

²⁴ Ibid.

²⁵ Ibid., 4.

squanders taxpayer dollars on duplicative programs with no measurable results."²⁶

Admiral Mullen further explained that the debt "is the single biggest threat to U.S. national security."²⁷

Current Fiscal Environment

The economic struggles of the United States and most of its allies include unprecedented requirements for reductions in government spending, including defense spending. The pressure to cut spending was manifested in the sequester provision of the Budget Control Act (BCA). In addition to the initial round of BCA cuts (\$487 billion), sequestration cuts the national defense budget another 10 percent across-the-board. More importantly, interest on the nation's projected long-term debt will likely crowd out investments that are needed to sustain the U.S.' superior military technologies.²⁸

After a decade of decreasing defense budgets, the DoD's base budget rose 40 percent from 2001-2012. To comply with the mandated 2011 BCA, the DoD cut defense spending \$487 billion from fiscal year (FY) 12 to FY21. However, in the absence of a Presidential and Congressional "grand bargain" or an alternative act by the U.S. Congress to address deficit reduction, the BCA's sequester provision will automatically impose an additional \$500 billion in national defense budget cuts from FY13 to FY21.²⁹

While current defense cuts seem draconian or unprecedented, they are similar in comparison to major defense drawdowns of the past. The combination of the current BCA caps and sequester cuts will result in a total defense budget drawdown of about 31

²⁶ Beckett, "Defense, Deficits, and Deployments," 106.

²⁷ Ibid.

²⁸ Stimson Report, "A New Defense Strategy for a New Era," 3.

²⁹ Clark Murdock, Kelley Saylor, and Ryan Crotty, "The Defense Budget's Double Whammy: Drawing Down while Hollowing Out from Within," Center for Strategic and International Studies, October 18, 2012, 1, http://csis.org/files/publication/121018_Murdock_DefenseBudget_Commentary.pdf (accessed November 10, 2012).

percent from the FY10 peak (see Figure 1). This results in a drawdown that is below the historical range (43 percent after the Korean War to 33 percent post-Vietnam War).³⁰

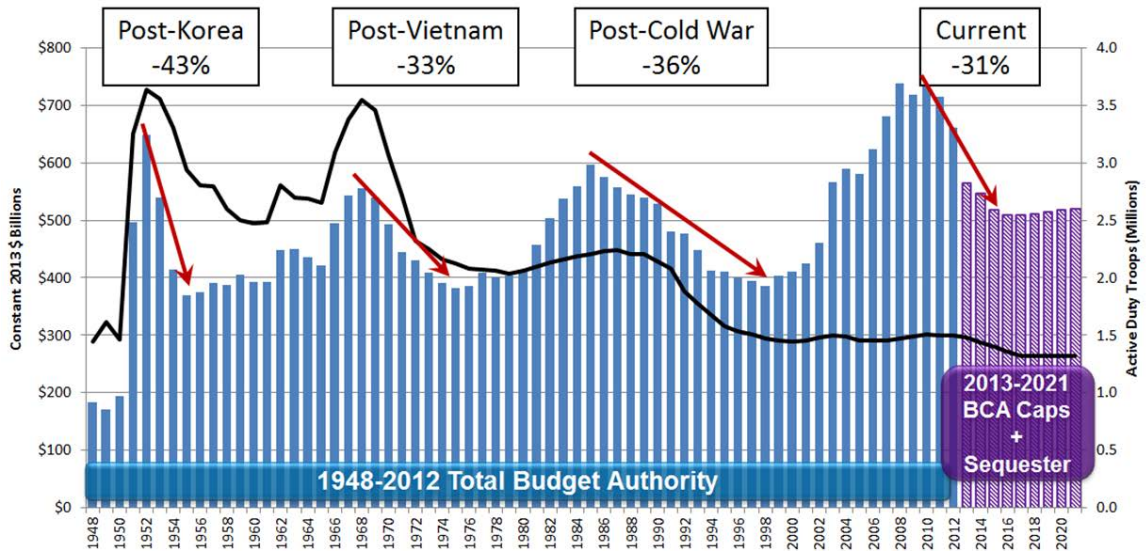


Figure 1. Defense Drawdowns Compared³¹

The \$487 billion defense cut imposed by the BCA is significant; however, it does not reach the level of previous postwar drawdowns. The difference between the current defense drawdown and previous drawdowns is the topline dollar figure of the DoD's annual baseline budget. Today, the reduction in the topline starts with a \$500 billion baseline figure as opposed to the \$400 billion baseline of past drawdowns (Figure 1). However, the number of active-duty service members has declined consistently from approximately 2.5 million in the early 1960s to a forecasted 1.36 million in 2016. By 2016, the DoD will spend an estimated \$100 billion more for an active-duty force that is 34 percent smaller than it was in 1978 and 6 percent smaller than in 2000, which means fewer dollars available for combat capability, R&D, acquisition, and training.³²

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

The current drawdown is more serious than previous drawdowns because of the aggregate impact of inflation in the cost of personnel, health care, operations and maintenance (O&M), and acquisitions. The result is reduced purchasing power and less capability. Inflation costs are driving the DoD toward a zero-sum trade-off between personnel strength and force modernization. In other words, as defense budgets decline and inflation costs rise, the DoD will likely be forced to cut manpower or force modernization. Among the largest contributors to internal cost inflation are military personnel and their health care (see Figure 2). Rising health care costs alone skew budget figures. Over the past 10 years, health care costs have grown by 85 percent.³³ "The cost of military personnel has grown at an unsustainable rate over the last decade...within the base budget alone...[health care] costs increased by nearly 90 percent or 30 percent above inflation [since 2001], while the number of personnel has increased by only 3 percent."³⁴

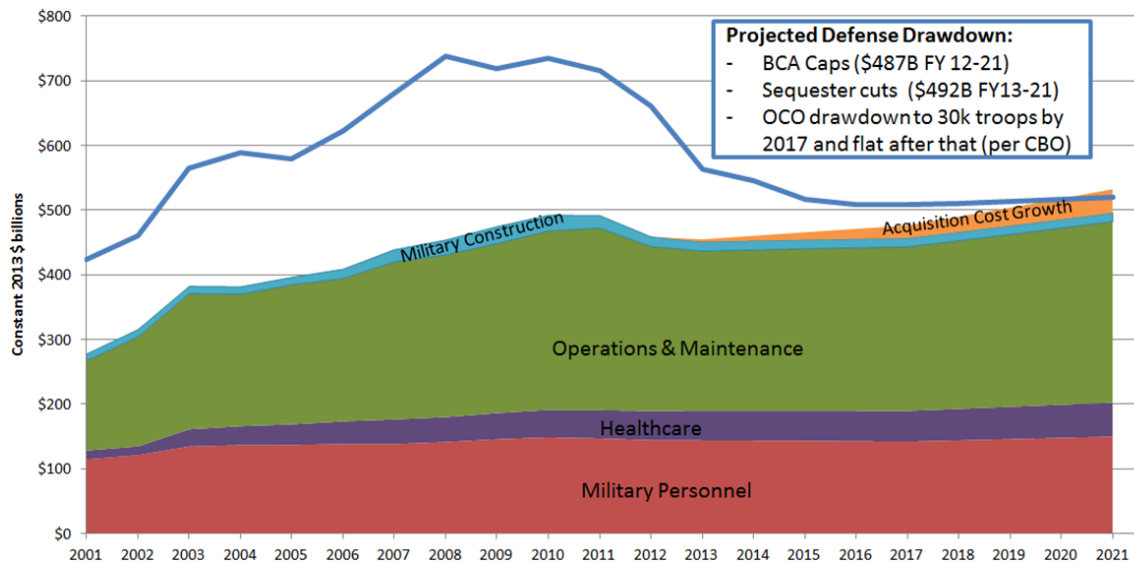


Figure 2. Internal Cost Inflation against the Projected Defense Topline³⁵

³³ Barno, Bensahel, and Sharp, "Hard Choices: Responsible Defense in an Age of Austerity," 8.

³⁴ U.S. Department of Defense, *Defense Budget Priorities and Choices*, January 2012, 13, http://www.defense.gov/news/Defense_Budget_Priorities.pdf (accessed August 19, 2012).

³⁵ Murdock, Saylor, and Crotty, "The Defense Budget's Double Whammy," 2.

O&M costs have increased over the past few decades. The Congressional Budget Office (CBO) recently reported that O&M costs per active-duty service member doubled from \$55,000 to \$105,000 between 1980 and 2011, after accounting for inflation. These O&M costs increased \$147,000 in the DoD's 2012 base budget request and are projected to "grow at more than one and one-half times the (pre-2001) rate through the FYDP period, reaching \$161,000 in 2016."³⁶ While the rate of growth is expected to slow after 2016, the CBO expects per capita O&M costs to reach \$209,000 by 2030.³⁷ Inflation increases within personnel accounts (e.g., military pay and benefits) will impact all funding for modernization (procurement and RDT&E) if current trends continue. In the absence of substantial reform, this will force the DoD to make tough choices between sustaining personnel end-strength and sustaining modernization.

Strategic Environment

Clausewitz described war as an extension of politics by other means.³⁸ However, the U.S. government lacks both incentives and the capacity to support long-range planning in the national security arena. With presidential elections every four years and subsequent political agendas, it is difficult for senior leaders to focus on long-range future challenges based on fighting the crisis of the day. This crisis management creates friction between military leaders and politicians in strategic decision making. Potential political fallout with those decisions is exacerbated by politicians who constantly seek reelection.

While the National Security Staff (NSS) develops planning documents for strategic issues, they often fail to conduct integrated, long-range planning for the

³⁶ Ibid.

³⁷ Ibid.

³⁸ Carl Von Clausewitz, *On War*, eds. Michael Howard and Peter Paret (New York, NY: Alfred A. Knopf, 1993), 24.

President. The State Department develops a macro-level approach in specific policy areas, such as North Atlantic Treaty Organization (NATO) enlargement or relations with China. However, it does not address the types of capabilities the United States should develop to deal with future threats. Additionally, there is no established interagency process for regularly bringing together senior national security officials to identify long-range threats and opportunities to consider their implications for U.S. strategy, policy, and capabilities. While the DoD maintains some capacity for strategic planning, no other government department devotes substantial resources to long-term planning.³⁹ Therefore, the challenge for the DoD is the intelligent use of military capabilities and limited resources. The DoD must adjust its paradigm and develop an integrated and flexible approach to strategic acquisition, planning, and budgeting to produce the best outcomes.

Prior to the 21st century, U.S. military strategy was based on executing two major regional conflicts near simultaneously. After the Cold War, the United States found itself without a peer military competitor. Today's U.S. strategy is based on the ability to decisively defeat an adversary in one theater of operations while deterring an adversary in another theater. After the Soviet Union collapsed, the United States transitioned from a threat-based approach to a capabilities-based approach. The transition was based on recommendations from the 2001 Quadrennial Defense Review. "A capabilities-based approach seeks to prepare for a full spectrum of plausible threats rather than designing

³⁹ Michele A. Flournoy and Shawn W. Brimley, "Strategic Planning for National Security: A New Project Solarium." *Joint Forces Quarterly*, Issue 41 (2nd Quarter 2006): 81, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA521724> (accessed August 21, 2012).

force structure to handle a few specific adversaries and scenarios."⁴⁰ It leverages the economy for funding in defense R&D, advanced technology, and acquisition to counter a wide array of potential adversaries. Most analysts think that due to fiscal constraints, a capabilities-based approach provides the military more bang for the buck in producing combat capability and projecting power as part of an effects-based operations concept. "Effects-based thinking seeks to understand the linkages between actions, resulting effects, and the contribution of those effects toward achievement of military or political objectives."⁴¹ This approach is logical today given the state of the economy and the current defense drawdown. Based on the Defense Strategic Guidance, with a "rebalance" towards the Asia-Pacific, the United States is hedging its bet on deterrence and how to best posture for its potential next war. Former Secretary of Defense (SECDEF), Donald Rumsfeld explained that you go to war with the force you currently have. Therefore, the defense spending decisions made today will greatly impact and shape how the U.S. Armed Forces will strategically posture and prepare to fight future military campaigns.

Tough economic times and tough spending decisions require strong leadership and necessary changes. While recent acquisition reform initiatives highlight the current problems, identify solutions, and execute some change, more reform is needed. The U.S. national debt and the impact of sequestration threaten not only the defense budget, but the entire spectrum of U.S. national security. The key is how the DoD will prioritize and maximize every defense dollar spent, ensuring it is linked to national security strategy and avoid hollowing out the joint force. The most important steps toward optimizing the

⁴⁰ Lieutenant Colonel James A. Planeaux, USAF, "Beyond the Task Force CONOPS: The Path to a Capabilities-Based Modernization Framework for the Air Force" (master's thesis, United States Air War College, 2003), 3.

⁴¹ Ibid.

U.S. Armed Forces are reforming the way the DoD procures new equipment and making sure that each of its individual military services are structured to respond to realistic threats the United States faces in the 21st century.

CHAPTER 2: BUDGET CONTROL ACT OF 2011

In the 2010 National Security Strategy, President Barack Obama explained that the United States cannot grow its economy in the long term unless it puts the nation back on a sustainable fiscal path. In an attempt to put America's fiscal house in order, the President implemented several initiatives which included reforming the DoD's acquisition and contracting processes. According to President Obama, "wasteful spending, duplicate programs, and contracts with poor oversight have no place in the [U.S.] government."¹

Cost-effective and efficient processes are important for the DoD, which accounts for about 70 percent of all federal procurement spending. The President's goal was to evaluate all DoD programs and eliminate those that were outdated, redundant, ineffective, or wasteful. The result would hopefully produce more relevant, more capable, and effective programs and systems that the U.S. military wants and needs.²

The 2011 Budget Control Act (BCA) was enacted as part of the negotiations to raise the U.S. debt ceiling. It set discretionary spending caps from FY12 to FY21 forcing the DoD to cut approximately 8.3 percent (\$487 billion) out of its base budget during the same timeframe. The BCA also established a Congressional Joint Select Committee or "super committee" on deficit reduction to identify over \$1 trillion in additional savings. Since Congress failed to come up with \$1.2 trillion in cuts, a spending reduction process (e.g., sequestration) automatically cut \$1.2 trillion in both discretionary and mandatory spending from FY13 to FY21. These cuts are divided equally between defense and non-defense accounts. Based on the sequester implementation, future cuts, estimated at \$500

¹ U.S. President, *National Security Strategy* (Washington DC: Government Printing Office, May 2010), 34.

² *Ibid.*, 35.

billion, would be taken primarily from the DoD's base budget.³ The base budget is the funding which allows DoD to organize, train, and equip forces. Overseas Contingency Operations (OCO) funding is the wartime funding supplement to the DoD's base budget.

Historically, after every major conflict, the U.S. military has experienced significant defense drawdowns. While the base budget is projected to increase through FY17 (see Figure 3), total defense spending, including both base funding and OCO costs, will drop by approximately 22 percent from its peak in 2010, after accounting for inflation. This is due to the pending drawdown in Afghanistan and the BCA provisions. By comparison, the seven years following the Vietnam War and the Cold War peak, defense budgets experienced a similar decline on the order of 20 to 25 percent.⁴

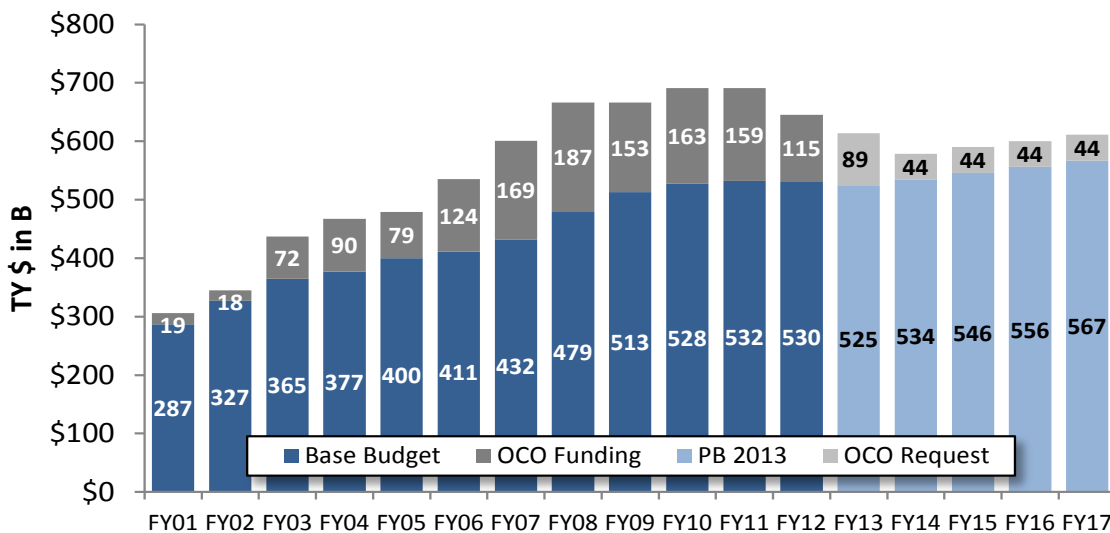


Figure 3. FY13 and FYDP Defense Budget Proposal⁵

In 2010, President Obama signed the largest DoD budget in history which cut the U.S. Air Force's F-22 Stealth Fighter program significantly and canceled the U.S. Army's

³ Barno, Bensahel, and Sharp, "Hard Choices: Responsible Defense in an Age of Austerity," 8.

⁴ U.S. Department of Defense, *Defense Budget Priorities and Choices*, 2.

⁵ Captain Michael A. Strano, USN, "Planning, Programming, Budgeting, and Execution" (Lecture, Joint Advanced Warfighting School, Norfolk, VA, December 11, 2012).

Future Combat Systems. President Obama stated "we cannot build the 21st century we need unless we fundamentally reform the way our defense establishment does business."⁶ Philosophically, transforming the DoD into a cost-effective, business-like model is difficult and hazardous since the DoD's goal is to resource forces properly in order to fight and win wars versus simply turning a profit. National defense requires some level of redundancy, versatility, and mass. However, lack of a profit bottom line metric should not prevent the DoD from achieving some cost effectiveness and economies of scale.⁷

The United States has a significant deficit problem, especially when measured as a percent of GDP. Increasing deficits have added to the cumulative federal debt, which is approximately 67 percent of GDP. Major concerns about debt ceiling and underlying growth in deficit financing helped formulate the 2011 BCA. The goal of the BCA was to reduce the size of the federal deficit. Specifically, the BCA established spending caps for FY12-FY21 and was designed to reduce discretionary spending by \$1.2 trillion over the next ten years.⁸ However, deeper defense cuts are now being imposed through the BCA's sequester provision. Sequestration will increase the amount of defense cuts mandated by the BCA from \$487 billion, the level reflected in guidance and the FY13 defense budget, to at least \$950 billion, according to Pentagon estimates.⁹

Sequestration requires the DoD to equally cut every program, project, and activity in its budget from FY13-21. All major weapon systems, R&D initiatives, and training programs are to be cut by the same percentage regardless of their importance to national

⁶ Colonel Drew Miller, USAF, "Improving Cost-Effectiveness in the Department of Defense," *Air and Space Power Journal* (Spring 2010): 35.

⁷ Ibid.

⁸ Anthony H. Cordesman and Robert M. Shelala II, "The 2013 Defense Budget, the Threat of Defense Cuts and Sequestration, and the Strategy-Reality Gap," Center for Strategic and International Studies, June 12, 2012, http://csis.org/files/publication/120612US_New_Strategy_FY13_Budget.pdf (accessed November 24, 2012).

⁹ Sharp, "Down Payment," 1.

security.¹⁰ For example, the O&M training budget for special operations forces, like those responsible for taking down Osama bin Laden, will likely be cut by the same percentage as the training budget for military bands. These indiscriminate cuts across all DoD programs is not an adequate option to preserve vital national security programs.

The DoD's FY13 base budget is \$525.4 billion. However, there are long-term budgetary issues such as military personnel-related costs estimated at \$168 billion along with readiness and training costs estimated at \$125 billion. Based on sequestration, the DoD's budget will cut an additional 10.3 percent which impacts all six major categories of the defense budget (see Figure 4): (1) Operations and Maintenance (O&M), (2) Military Personnel, (3) Procurement, (4) Research, Development, Testing, and Evaluation (RDT&E), (5) Military Construction (MILCON), and (6) Military Housing.

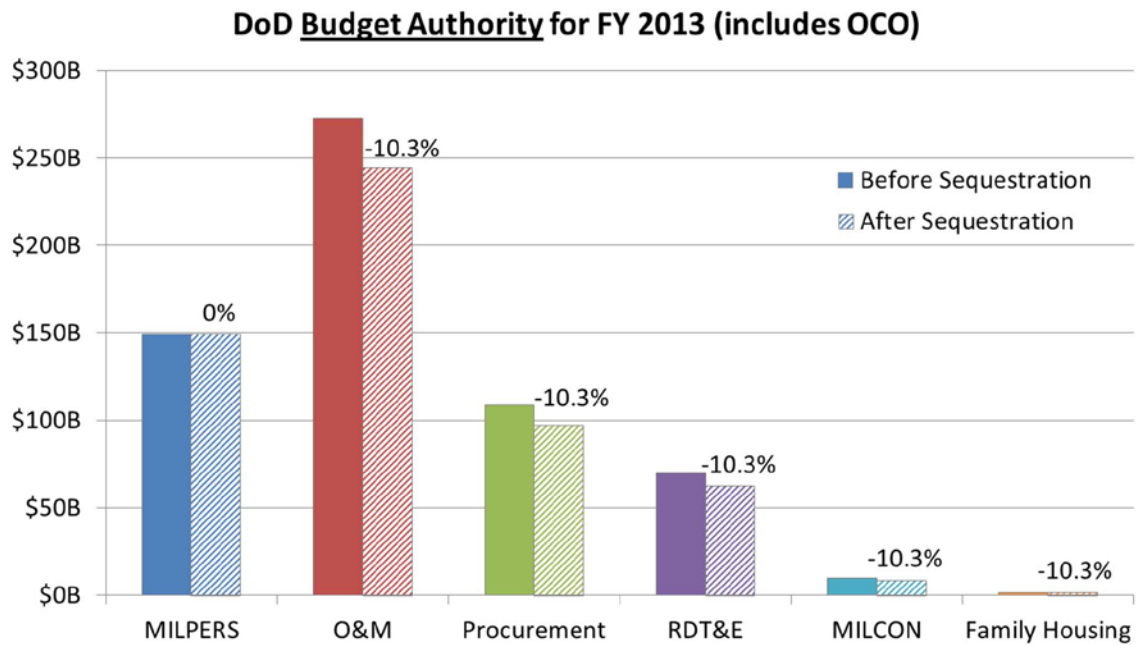


Figure 4. Budget Reduction from Sequestration¹¹

¹⁰ Ibid., 6.

¹¹ Todd Harrison, "Analysis of the FY13 Defense Budget," Center for Strategic and Budget Assessments, 24 Aug 2012 (accessed September 1, 2012).

In FY13, each Service took respective cuts along with defense-wide reductions. The U.S. Army was reduced by 9.3 percent, the U.S. Navy and Marine Corps by 5.2 percent, the U.S. Air Force by 6.1 percent, and defense-wide industry by 7.3 percent.¹²

While the BCA's impact on the DoD is significant, the economy's private sector could be impacted heavily as well. Worst case scenario, according to "The Economic Impact of the 2011 Budget Control Act on DoD and non-DoD Agencies," over 48,000 healthcare jobs, 98,000 construction jobs, 473,000 manufacturing jobs, and 617,000 federal jobs are at risk.¹³ The study outlined the impacts of all 50 states with Virginia, California, and Texas experiencing the largest potential jobs loss and most states taking five-digit job losses. The President's budget reduced defense spending to \$525.4 billion, a somewhat small down payment toward a total reduction of \$487 billion by 2021.¹⁴

According to the Center for Strategic and Budgetary Assessments, the BCA's sequester provision will reduce the defense annual budget an estimated \$50 billion per year starting in FY13 and a total additional cut of approximately \$500 billion from FY13 to FY21. Essentially, sequester cuts will amount to an additional 10 percent cut to the current FY13 defense budget on top of the initial round of BCA cuts.

There are near-term impacts of the BCA not only associated with DoD military and civil-service employees but the entire defense industry. For DoD contractors, there would be a reduction in new contract awards, contracts extensions, and options. DoD contractors will be forced to renegotiate contracts to buy in smaller quantities and

¹² Todd Harrison, "Analysis of the FY13 Defense Budget," Center for Strategic and Budget Assessments, August 24, 2012, <http://www.csbaonline.org/publications/2012/08/analysis-of-the-fy2013-defense-budget-and-sequestration.pdf> (accessed September 1, 2012).

¹³ Stephen S. Fuller, PhD., "The Economic Impact of the 2011 Budget Control on DoD and non-DoD Agencies," George Mason University Center for Regional Analysis, July 17, 2012, 18, http://www.aia-aerospace.org/assets/Fuller_II_Final_Report.pdf (accessed September 15, 2012).

¹⁴ *Ibid.*, 8.

reconsider continuing some acquisition programs in the future.¹⁵ For DoD civilians that are paid directly by the government, nearly all the budget becomes outlays in the first year. Additionally, an estimated reduction of 13.7 percent (approximately 108,000 jobs) in the final months of FY13 would be needed to achieve a 10.3 percent reduction in budget authority. Overall, these impacts will slow down everything the DoD is tasked to perform: military construction, training, and peacetime operations.¹⁶ In contrast, there are some notable exemptions to the BCA. They include zero closures of bases, no involuntary separation for active or reserve component personnel even though health care will be funded through O&M dollars, no reductions to military pay, and no immediate program terminations.¹⁷ These exemptions have severely limited the options and choices for senior defense leaders in making the necessary cuts required by the BCA.

The DoD faces a spending crisis that threatens military readiness, effectiveness, and national security based on BCA cuts. While defense cuts are predictable after major combat operations to assist in getting the nation's fiscal house in order, it is important for U.S. policymakers not to allow senior defense leaders to "hollow out" the force. The DoD has made strides in preventing another hollow force by adopting better business practices, making small-but-significant reforms to military compensation and benefits, and charging weapons programs to make their development schedules more sustainable.

¹⁵ Harrison, "Analysis of the FY13 Defense Budget & Sequestration," 12.

¹⁶ Ibid.

¹⁷ Ibid., 13.

CHAPTER 3: THE IMPACT OF SEQUESTRATION

“It’s mindless, and it will hollow out the military.”¹ Sequestration was meant to be a political threat attempting to break the gridlock in Congress over spending, taxes, and the debt ceiling. Instead of a compromise, the Congress stalemated and passed the BCA, which included the sequestration provision. Since the Congress failed to amend the BCA's sequester provision, massive spending cuts are now starting to take effect, which will threaten America's economic health and national security. Sequestration will cut roughly \$1.2 trillion in federal spending over the next decade. Half of the \$1.2 trillion cuts are targeted at domestic spending and the other half at defense spending. For the DoD, sequestration means an additional \$492 billion in defense cuts from FY13 to FY21, on top of the already implemented \$487 billion cut from the first round of the BCA. The original sequestration provision called for the DoD to cut an additional \$54.7 billion for FY13, followed by \$54.7 billion in defense cuts each year through FY21.² Additionally, DoD officials have noted, the resulting defense cuts from sequestration will likely increase the national unemployment rate by a full percentage point.³

The American Taxpayer Relief Act (ATRA) of 2012, signed into law in January 2013, temporarily averted the so-called "fiscal cliff." The bill made several changes that affect the DoD. It delayed sequestration for two months, reduced the amount of cuts in proportion to the delay, and altered the way the budget caps are applied in FY13.⁴ Specifically, the ATRA made three major changes to the original sequestration provision

¹ William Matthews, "Tick, Tick, Tick." *National Guard* 66, no. 10 (October 2012): 24, <http://search.proquest.com/docview/1114110419?accountid=12686> (accessed November 15, 2012).

² *Ibid.*, 23.

³ Barno, Bensahel, and Sharp, "Hard Choices: Responsible Defense in an Age of Austerity," 10.

⁴ Todd Harrison, "What the Fiscal Cliff Deal means for Defense," Center for Strategic and Budgetary Assessments, January 2013, 2, <http://www.csbaonline.org/publications/2013/01/what-the-fiscal-cliff-deal-means-for-defense/> (accessed January 11, 2013).

contained in the BCA. First, it changed the implementation date of sequestration from January to March, 2013. Second, the ATRA reduced the penalty amount of sequestration for FY13. In the original BCA, the FY13 sequester was \$54.7 billion for national defense funding. The ATRA reduced that by \$12 billion to \$42.7 billion and is proportional to the two-month delay in sequestration. Instead of cutting \$54.7 billion over the remaining nine months of FY13, \$42.7 billion will be cut over seven months.⁵ The third major change is a reduction in the FY13 cap by \$2 billion and the FY14 cap by \$4 billion.⁶

According to the SECDEF and CJCS, sequestration is an irresponsible method to reduce national defense spending for three primary reasons. First, large defense cuts imposed by sequestration makes it tough for the U.S. military to pursue its traditional strategy of engagement. Second, the inflexible process for implementing cuts would unnecessarily damage defense capabilities by taking key decisions and options out of the hands of senior military leaders. Third, sequestration has already failed to achieve its purpose, which was to get the Congressional "super committee" to compromise.⁷

The impact on more than 1,200 government budget accounts is a solid indication that sequestration will have a devastating impact on important defense and non-defense programs. Although the DoD can divert funds to ensure critical warfighting and military readiness capabilities are not degraded, sequestration will likely result in a reduction in readiness of many non-deployed units due to significant cuts in O&M training funding. Additionally, sequestration will likely cause investments delays in new equipment and facilities, reductions in maintenance repairs, declines in military R&D initiatives, and reductions in base services and quality of life programs for military families. For non-

⁵ Ibid., 2

⁶ Ibid.

⁷ Sharp, "Down Payment," 1.

defense programs such as infrastructure, education, transportation, and law enforcement, sequestration will undermine investments vital to economic growth, threaten the safety and security of U.S. citizens, and cause considerable damage to programs that benefit the middle-class, senior citizens, and the nation's youth.

In multiple years since 2000, the U.S. government has spent more money than it collects in revenue resulting in large annual deficits. For example, the 2013 federal budget called for \$3.8 trillion in spending, but took in only \$2.5 trillion in taxes, thus creating a \$1.3 trillion deficit adding to the national debt which now exceeds \$16 trillion. For FY13, the total defense budget is roughly \$613 billion which includes a \$525 billion base budget and \$89 billion for OCO. After sequestration, the FY13 defense budget will be reduced to approximately \$570.5 billion, cutting \$42.7 billion out of the total defense budget. By contrast, the 2012 defense budget included a \$530.6 billion base budget and \$115.1 billion for OCO.⁸

The impact of sequestration, especially the 2nd and 3rd order affects such as training, long-term readiness, and contractor support, will be significant to the DoD and national defense, and will potentially create another hollow force. According to former SECDEF, Leon Panetta, sequestration is a "doomsday mechanism and compared it to shooting ourselves in the foot."⁹ The worst part of sequestration is the implementation of across-the-board cuts that takes an equal percentage out of every account category except for personnel. By exempting personnel based on Presidential guidance in July 2012, sequestration cuts will significantly impact the O&M (training and readiness) portion of the budget. This non-discriminatory method of cutting defense reduces senior military

⁸ Matthews, "Tick, Tick, Tick," 23-24.

⁹ Ibid., 24.

leaders' ability to enhance training, readiness, and maintain advanced weapons system capability. The timing of sequestration cuts will force its implementation in a mode of panic versus a systematic process. Additionally, equipment inventories will be cut; troops will receive less training and fewer dollars would be available to keep aircraft flying, vehicles operating, and weapons in good repair. The result is deploying forces without adequate training or proper equipment leading to a classic "hollow force."¹⁰

Currently, President Obama's administration has placed several restrictions on the implementation of sequestration. Protecting the estimated \$150 billion budgeted for military pay, bonuses, benefits and allowances means that defense spending in other budget categories such as O&M, R&D, and weapons procurement will be significantly reduced. Therefore, what would have been an approximate 8 percent cut to all defense accounts including personnel is now a 10.3 percent cut to everything except personnel.¹¹

Based on sequestration, force levels over time will likely fall below pre-9/11 levels and the ability to respond to contingencies in places like North Korea or Iran will be impacted. The U.S. Army and associated ground forces personnel will be at its smallest level since 1940. The U.S. Navy will have fewer than 230 ships, the smallest level since 1915. The U.S. Air Force will have its smallest tactical fighter force in its history. The nuclear triad that has kept the United States and 30 of its allies safe for decades will be in jeopardy. Finally, sequestration will likely trigger two Base Realignment and Closure (BRAC) events in an attempt to cut expensive force structure.¹²

¹⁰ Ibid., 23.

¹¹ Ibid.

¹² Congresswoman Virginia Foxx, "President should Stop Holding Defense Hostage to Advance Class Warfare Agenda," Federal Information and News Dispatch, September 13, 2012, <http://foxx.house.gov/index.cfm?sectionid=55&itemid=1751> (accessed October 1, 2012).

For the U.S. Military's Reserve Component (Army and Air National Guard), sequestration creates a shutdown scenario by threatening the closure of 600 armories and halting 1,800 construction projects according to Lieutenant General H. Stephen Blum, a former chief of the National Guard Bureau. Other significant impacts include a realistic threat of delayed responses to emergencies such as natural disasters (i.e., hurricanes). Additionally, sequestration means less money to pay for National Guard troops to patrol the U.S. borders and less money to protect critical infrastructure. Finally, sequestration will limit the National Guard's ability to function as an operational force and will likely reduce the department's capacity to protect the homeland and respond to emergencies.¹³

Not only does sequestration impact the military and national defense, but it also severely impacts the U.S. economy. Sequestration could eliminate an estimated 2.14 million U.S. jobs and push the unemployment rate over 9 percent according to Steve Fuller, a professor at George Mason University in Virginia. Fuller also calculated that sequestration would cut \$215 billion from the economy and \$109 billion from personal earnings, and would ultimately lead to conditions creating another economic recession.¹⁴

Senior DoD leaders have gone on record explaining that another \$500 billion cut in defense due to sequestration will be devastating to the U.S. Armed Forces and a high risk to national security. General Martin Dempsey, CJCS, stated "In my personal military judgment, formed over 38 years, we are living in the most dangerous time in my lifetime right now, and I think sequestration would be completely obvious to that, and counterproductive."¹⁵ General Dempsey went on to say that "sequestration allows only

¹³ Matthews, "Tick, Tick, Tick." 25.

¹⁴ Ibid.

¹⁵ Steven Bucci and Owen Graham, "Flawed Sequester Report Reinforces to Quickly Reverse Damaging Defense Cuts," *The Heritage Foundation* (accessed October 1, 2012).

three areas to find additional military funding—operations, maintenance, and training. That's the definition of a hollow force."¹⁶

Evaluating the impact of a \$42.7 billion cut in FY13 to all DoD programs except military personnel, Comptroller Mr. Robert Hale predicted cuts would be concentrated more in O&M. This is primarily due to senior leader reluctance to cut military pay, retirement benefits, and quality of life programs such as health care which would decrease the morale of the all-volunteer-force. Hale further explained that "the Army and Marine Corps would have less training, and there would be civilian hiring freezes and possibly unpaid furloughs."¹⁷ "There would be substantial adverse effects on research and development, procurement, and military construction. [The DoD] would buy fewer quantities of weapons, which drives up the costs, and shipbuilding would be delayed."¹⁸

General Lloyd Austin, the U.S. Army's former Vice Chief of Staff, said sequestration would "significantly increase risks and cause [the United States] to relook" at the strategy the current administration released in January 2012. If automatic cuts are unavoidable, General Austin said "[the U.S. Armed Forces] must be afforded resources to adjust, to reduce inefficiencies and focus on the highest priorities."¹⁹ Admiral Mark Ferguson, Vice Chief of Naval Operations, explained the Navy would be hit with a \$12 billion cut that would require "difficult choices in the second half of fiscal 2013," primarily in procurement and force structure.²⁰ "That would translate into fewer sailors, fewer [shows of fleet force] and less maintenance, and would impact the industrial base

¹⁶ Foxx, "President should Stop Holding Defense Hostage to Advance Class Warfare Agenda," 1.

¹⁷ Sandra I. Erwin, "Pentagon Budget Cuts are Only Prelude to Future 'Grand Bargain'," *National Defense* 96, no. 700 (March 2012): 6.

¹⁸ Ibid.

¹⁹ Charles S. Clark. "Furloughs Remain a Recurring Theme in Forecasting Sequestration's Impact." *National Journal*, September 20, 2012, <http://www.govexec.com/defense/2012/09/furloughs-remain-recurring-theme-forecasting-sequestrations-impact/58259/> (accessed September 27, 2012).

²⁰ Ibid.

and the service of platforms."²¹ Sequestration will cut an estimated \$4 billion in shipbuilding and acquisitions, which harm technology development centers.

General Joseph Dunford, Commander of U.S. forces in Afghanistan, made a contrary point, saying the troops in Afghanistan "are too busy doing their jobs to care about what we are doing in Washington for the next budget."²² However, General Dunford feared that "[the United States] will lose trust and confidence of the all-volunteer force, which will take a longer time to get back."²³ General Dunford added that potential sequestration cuts in March 2013 might bring the beginning of another hollow force. "The bench back home would get thinner and thinner, causing significant degradation in our readiness."²⁴

There are specific examples of the sequestration impact for FY13 alone. The DoD will procure four less F-35 JSF aircraft, one less Navy P-8A Poseidon maritime patrol aircraft, 12 fewer Army Stryker vehicles, and 300 fewer Army tactical vehicles. Most significant are O&M cuts (e.g., flying hours, steaming days, training exercises) that impact readiness for today's warfighter. Additional impacts include: delays in Navy ship construction for the CVN 78 aircraft carrier and Littoral Combat Ships; reduction in maintenance personnel to repair and maintain equipment; devastating impacts on U.S. intelligence operations; cutbacks on training and readiness; fewer contracts and financial personnel for contract execution and renegotiation; partial or full hiring freeze, unpaid furloughs and layoffs of temporary employees, and 89,000 job cuts within DoD.²⁵

²¹ Ibid.

²² Bucci, "Flawed Sequester Report Reinforces to Quickly Reverse Damaging Defense Cuts."

²³ Ibid.

²⁴ Ibid.

²⁵ Stephen Losey, "Sequestration Promises Much Federal Pain," *Defense News* 27, no. 31 (August 6, 2012): 22.

In essence, sequestration amounts to reduced buying power. Under the current law, the implementation of sequestration is mandatory for FY13 unless Congress agrees to a deficit reduction resolution. However, sequestration is not required in future fiscal years if the DoD budget comes in under the BCA caps. Based on the implementation of sequestration, many defense contracts will need to be renegotiated, contract options may not be awarded, fewer quantities will be procured, unit prices will rise, and the entire acquisition process will slow down. Sequestration is likely to result in near-term savings with potentially devastating long-term consequences. The DoD does have the option of submitting a reprogramming request to realign funding to priority programs, but this takes time and effort as well as approval from Congress.²⁶

If a trillion dollars is cut from the defense budget, there will be consequences. The non-partisan Congressional Budget Office suggests the United States could slip into a recession if Congress fails to modify these planned spending cuts. Disruptions and inefficiencies up and down the defense supply chain portend to be monumental. The failure of the Congressional “super committee” to reach an agreement on a deficit reduction solution has caused serious wasted effort and additional fiscal uncertainty.²⁷

By exempting military personnel from defense cuts, the burden of sequestration falls directly on military operations, training and maintenance, along with weapons modernization accounts. Keeping force levels steady, while cutting funds for readiness, research, and procurement, is a recipe for creating the "hollow force" that service chiefs of the four military services have repeated they are determined to avoid.

²⁶ Cordesman and Shelala, "The 2013 Defense Budget, the Threat of Defense Cuts and Sequestration, and the Strategy-Reality Gap," 1-8.

²⁷ Ibid.

CHAPTER 4: THE HOLLOW FORCE

The term "hollow force" originated in the late 1970s and was later used in the 1990s to describe U.S. military forces that appeared to be combat-ready, but actually suffered from shortages in personnel, equipment, and maintenance or from training deficiencies.¹ Although the force size and composition appeared to be adequate on paper through readiness reporting, shortfalls identified when those military forces were further evaluated questioned if those forces would be able to accomplish their assigned wartime missions.² In essence, a "hollow force" gives the appearance of military readiness when actual combat capability does not exist. Lawrence Korb described the "hollow force" as tanks, ships, and aircraft without the personnel or spare parts to keep them running.³ Today, the current DoD senior leadership would define a "hollow force" as preserving greater force structure than can be fully equipped or adequately trained.⁴

The post-Vietnam era and the mid-1990s were considered classic "hollow force" periods. In the post-Vietnam era, social and economic problems in the military coupled with funding decisions that favored advanced weapons systems development rather than funding other critical requirements such as manpower led to the hollow force.⁵ In the 1990s, the hollow force was created by U.S. Armed Forces being "overcommitted" relative to their size and resources. For example, the U.S. Air Force and Navy conducted multiple combat deployments supporting the United Nations Security Council resolutions

¹ Congressional Research Service, *A Historical Perspective on 'Hollow Forces', by the Congressional Research Service, January 2012* (Washington, DC: Government Printing Office, 2012): 1.

² Ibid.

³ Lieutenant Colonel Polly A. Peyer, USAF, "Hollow Force: Scare or Dare?," Executive Research Project, The Industrial College of the Armed Forces, Washington, DC, 1994: 9.

⁴ Frank Jones, "A 'Hollow Army' Reappraised: President Carter, Defense Budgets, and the Politics of Military Readiness." *The Letort Papers*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 4, <http://www.strategicstudiesinstitute.army.mil/pdf/PUB1125.pdf> (accessed October 20, 2012).

⁵ Congressional Research Service, *A Historical Perspective on 'Hollow Forces', 2.*

(no-fly zone enforcement) in southern and northern Iraq while the U.S. Army conducted humanitarian and stability operations in places like Haiti and Somalia. This over-commitment of a smaller military was exacerbated by recruiting and retention problems and a lack of funding to procure new weapons systems due to DoD decisions emphasizing mission readiness-related funding.⁶

The fundamental elements associated with a hollow force include quality of personnel, training, and equipment.⁷ After Vietnam, the hollow force developed for multiple factors such as personnel issues, low morale, and socio-economic problems. Some military units barely met their requirements while other units could not achieve the minimum readiness standards. Another factor was the lack of adequate defense funding which was highlighted by the lowest defense budget since the WWII drawdown and military pay that lagged behind the civilian workforce by 20 percent.⁸ Logistically, mission-capable rates dropped drastically due to lack of spare parts. In short, the post-Vietnam era hollow force can be directly attributed to maintaining force structure over personnel; retaining the equipment without the personnel and/or spare parts to support.⁹

In the late 1970s, the U.S. Army was in bad shape. Troop discipline, racial strife, widespread drug abuse undermined soldiers' effectiveness.¹⁰ The end of the Vietnam War and the draft in 1973 failed to improve the situation. The early years of the all-volunteer-force saw education levels and test scores of military recruits decline, widespread recruitment scandals, and record levels of bad conduct discharges and

⁶ Ibid.

⁷ Peyer, "Hollow Force: Scare or Dare?," 10.

⁸ Congressional Research Service, *A Historical Perspective on 'Hollow Forces,'* 8.

⁹ Ibid., 5.

¹⁰ William D. Henderson, *The Hollow Army: How the U.S. Army is Oversold and Undermanned*, (New York: Greenwood Press, 1990), 5.

desertions in peacetime. According to retired U.S. Army Colonel Darryl Henderson, the Army was simply oversold and undermanned during the late 1970s. General Edward C. Meyer, former Army Chief of Staff, described the post-Vietnam era as a shortfall in leadership, manpower, material, and doctrine. However, a significant turnaround began in the early 1980s with increased defense funding under President Reagan. High quality personnel began entering the service again and training was considered very effective. Sound leadership and doctrine were also developed which included the Air Land Battle concept devised to defeat Soviet forces in Europe. U.S. Army soldiers became enthusiastic and morale soared. By the late 1980s, the U.S. Army was once again considered the best ever.¹¹

In contrast to the post-Vietnam era, the hollow force of the 1990s was created by different drawdown challenges like the need for operations and maintenance funding, along with modernization of forces and technology.¹² The difference in the 1990s was the reconstitution from the over-commitment in multiple regional conflicts (e.g., Somalia, Haiti, Bosnia, Kosovo). In essence, the DoD sacrificed hardware programs for overseas deployments and boots on the ground. Budget cuts, base closures, and troop reductions led to poor military readiness.¹³ According to many military experts, the 1990s' hollow force is described by over-stretched commitments, a lack of recruiting and retaining quality personnel, and a failure to stay current with military modernization in the midst of budget cuts. The common issues that impacted the forces of the 1990s were personnel, spares and equipment readiness, and infrastructure. Additional drivers were high

¹¹ Ibid., 6.

¹² Congressional Research Service, *A Historical Perspective on 'Hollow Forces'*, 6.

¹³ Ibid., 12.

operational tempo and adopting non-traditional service roles such as humanitarian and stability operations.¹⁴

In the 1990s, the U.S. Armed Forces' active-duty component was reduced from 2 million to 1.5 million personnel after Desert Storm. Unfortunately, during the same timeframe, military commitments expanded and contingency deployments increased significantly compared to that of the previous decade (e.g., Iraq, Kosovo, Bosnia, Haiti, Somalia). Similar to today, the basic issue is that a leaner, numerically smaller military is being asked to patrol, police, and provide security in an even larger part of the world.¹⁵

In 1993, the U.S. Army smartly reduced manpower simultaneously as reductions in equipment occurred in order to avoid the hollow force created back in the 1970s. The U.S. Army considered itself the most vulnerable service to the hollow force potential. The U.S. Navy and Marine Corps believed they were giving up technology and future advancements due to budget cuts, so they began stretching out programs to survive (e.g., V-22 Osprey) and planned to retire 100 ships. The Air Force was less impacted due to smaller numbers of personnel and end-strength compared to other Services. In 1997, a bottom-up review was conducted which proved important in identifying inefficiencies and maintaining key core capabilities and core competencies.¹⁶

For over three decades, the term "hollow force" represented President Carter's alleged willingness to allow U.S. military capability to deteriorate in the face of growing Soviet military capability.¹⁷ According to Army War College Professor Frank Jones, the term "hollow force" is as relevant today as it was over 30 years ago when General Meyer

¹⁴ Ibid., 13.

¹⁵ Ibid.

¹⁶ Ibid., 11.

¹⁷ Jones, "A 'Hollow Army' Reappraised," 1.

coined the phrase to describe the state of the Army back in the late 1970s. Jones argues that the Carter administration defense budgets honored the commitment to NATO and made a sizable contribution to modernization and readiness. However, the end of the draft hampered meeting personnel requirements. Young men were not inclined to enlist in the new all-volunteer-force. There were problems in the Army regarding its ability to measure readiness as well as mistakes in the development and production of new weapon systems.¹⁸ Today, with huge defense cuts looming, the term "hollow force" continues to resonate. However, the President, SECDEF, and CJCS have articulated how the defense strategic guidance and budget priorities signal a real effort to not "hollow out" the force.¹⁹

There are several "hollow force" similarities between the post-Vietnam era, the 1990s, and today's military with regards to the operational environment. The first is the significant impact of post-war drawdowns; specifically, Vietnam in 1975, the Cold War in 1991, Iraq in 2011, and eventually Afghanistan in 2014. Second, similar to the post-Vietnam era and the end of the Cold War, the U.S. government faces many economic challenges and fiscal constraints such as a large federal deficit and national debt. In the late 1970s, high inflation dominated the U.S. economy, while in the early 1990s; slow economic growth was a significant factor. Today, the U.S. economy's anemic growth, high unemployment rate, and enormous national debt severely impacts defense funding. Third, the international situation was unstable in the post-Vietnam era and in the 1990s similar to today. In the post-Vietnam era, the United States focused mainly on the threat of the Soviet military buildup and expansion, while in the 1990s, it focused on multiple regional conflicts. Today, the United States faces instability in the Middle East as well as

¹⁸ Ibid., viii.

¹⁹ Ibid.

the challenge of shifting its strategic focus to the Asia-Pacific region in order to counter China's military modernization and growing regional influence.

While there are similarities in the "hollow force" analogy from the post-Vietnam era, the 1990s, and perhaps even today, there are several stark differences. First, low troop morale and discipline issues were more prevalent in the 1970s as compared to the 1990s or today. Second, recruiting levels were higher in the 1990s and today versus the late 1970s. Third, public support in the 1970s was extremely anti-military compared to the public support in the 1990s and the extraordinary high public support today's military receives. Due to high operational tempo, multiple deployments, and large defense budget cuts, today's military is spread thin and could easily be hollowed out if the United States continues to over-commit its military power while underfunding them at the same time.

Based on the current state of the U.S. military, it can be argued that the use of the term "hollow force" is inappropriate. Conditions that existed during the post-Vietnam era do not exist today. It is unlikely that even in the case of reduced defense funding and a smaller military, recruit quality would decline, pay and benefits would be cut, or public support for the military would erode. This is due to senior leaders refusing to sacrifice the quality of today's all-volunteer-force while internalizing the lessons from Vietnam. A better analogy would be to compare today's military with the 1990s force when defense leaders were concerned about "over-extending a smaller but capable military."²⁰

During Operation IRAQI FREEDOM (OIF), a third of the Army's end-strength was committed to Iraq. Based on resources drained in OIF, the stop-loss program, and constant reserve component activation, the U.S. had a difficult time sustaining its all-volunteer-force. Another problem was the United States had too many troops tied down

²⁰ Congressional Research Service, *A Historical Perspective on 'Hollow Forces'*, 18.

multiple places. During OIF, nearly half of the Army's active duty strength was officially in the two lowest readiness states or categories. The dilemma between global power projection and budget is significant. If the United States wants to remain the preeminent power, it must present global presence with a larger military footprint of personnel. U.S. troop presence represents its priorities around the world. Unfortunately, each troop costs approximately \$50,000 to \$100,000, based on an average 4-year enlistment/commitment. Therefore, the United States must continue to preserve its hard military and economic power with a balance of soft diplomatic power through strong alliances as the best method in hedging its bet against future threats.

The United States spends more on defense than any other country. However, the United States is facing a budget crisis with four straight years of \$1 trillion deficits and a debt over \$16 trillion. The problem with current force structure includes high personnel costs, equipment, supplies, spare parts and the logistics systems to sustain those assets based on both combat and peacetime requirements. After the Cold War, several bases were closed, and hundreds of thousands of soldiers were demobilized. The issue for today's military is how to avoid a "hollow force" post drawdown after major combat operations. The key is proper strategic leadership and guidance, as well as appropriately funding critical capabilities (e.g., manpower, ballistic missile defense, special operations forces, space and cyber technology) to meet threats ranging from terrorism to conventional or nuclear warfare. The DoD must not only optimize its resources and funding stream, but to continue to invest wisely in quality personnel, training, and equipment procurement.

Personnel is the U.S. military's most important resource. To protect this resource, each military service must continue to recruit and retain high quality personnel. Critical

personnel issues include proper education, benefits, and facilities in order to maximize personnel and unit training and teamwork while promoting morale. Equipment investment must include modernization, R&D, and adequate spare parts. Modernization consists of efforts like acquiring the F-35 JSF as the next advanced tactical fighter aircraft to replace legacy A-10 and F-16 fighter aircraft. Additionally, the DoD must upgrade current programs like it did by installing night-vision systems on its existing tanks. R&D seeks improvements in technology as systems become obsolete. This effort must be funded in order for the United States to maintain its military advantage. Finally, having enough spares, which includes robust maintenance is an absolutely crucial investment.

Many foreign policy experts believe, after Afghanistan, the United States will be less inclined to deploy forces in great numbers to deal with threats. Instead, those experts believe the United States will rely on other instruments of power such as diplomatic efforts and economic sanctions to avoid potential military crisis. However, based on instability in the Middle East, tensions over Iran obtaining a nuclear weapon, and China's military modernization, there is a real potential to over-commit and hollow out the force.

In contrast, other experts believe that recent, limited U.S. involvement in NATO's operations against Libya might be the future model for a more measured U.S. military response to security challenges. They also note that the United States has yet to correctly predict future security challenges and it would be a mistake to rule out having to deploy large numbers of U.S. forces in the future for an extended duration to respond to a crisis.

An alternative solution for senior military leaders might be to avoid the reference "hollow force" and adopt a more measured approach to inform Congress about their concerns for the future of the U.S. military. Future social and economic conditions

facing the U.S. military bear little resemblance to those of the post-Vietnam era. While cuts to the DoD's budget will likely have a major impact on force structure and weapons programs, senior leadership must continue to play a significant role in determining how resources are allocated to avoid the "hollow forces" of the post-Vietnam era or 1990s.

Reflection on history and past mistakes is key to avoiding a future hollow force. By identifying the root cause for the hollow force in the post-Vietnam era and the 1990s, the DoD can draw parallels and lessons applicable to the current military situation. The trend for creating a hollow force has been a faster drawdown in force levels and funding compared to on-going military commitments. A major drawdown creates a target rich environment for defense budget cuts or reductions. The DoD needs better predictive systems to assess pitfalls and risk associated with acquisition reform and budget cuts. Funding impacts readiness and operations tempo must be adjusted to ensure requirements are met. The goals are to link defense planning to national security strategy, target and enhance critical combat capabilities, and lower operational tempo.

While the defense cuts contained in the Budget Control Act are necessary to help balance the larger federal budget, the United States cannot allow sequestration to hollow out its military based on the current threat environment. Projecting national power is based on resources and influence. To preserve its ability to power project, the U.S. military must be properly funded, organized, trained, and equipped with the best technology to counter all potential adversaries. Significant cuts in defense spending are a calculated risk. Based on the current paradigm that it does not plan to fight another protracted ground war, the DoD must make careful, prioritized spending cut decisions to avoid hollowing out the force.

CHAPTER 5: LESSONS FROM MAJOR DEFENSE DRAWDOWNS

Although the major drawdowns in defense following the Korean War, Vietnam War, and Cold War differ greatly in the degree and rate of force reductions, each post-war period provides some unique insight into the types of challenges the DoD faces today. It is important for military leaders to evaluate past drawdowns and incorporate the lessons into a strategy-driven approach in order to prevent a future hollow force.

Post-Korean War Drawdown

Following the Korean War, President Eisenhower significantly reduced both the defense budget and the size of the U.S. Armed Forces. From 1954 to 1961, the defense budget declined as a percentage of GDP from 13.1 percent to 9.4 percent, while the U.S. Army was cut by a half million between 1953 and 1955.¹ These cuts in defense were based on President Eisenhower's fiscally conservative approach as well as his adherence to the doctrine of "sufficiency," meaning minimal gains in capabilities could not justify disproportionately high levels of spending.² Instead of making large-scale investments in weapons systems acquisition and procurement, President Eisenhower chose to leverage existing nuclear capabilities to achieve offsetting advantages against the Soviet Union. This resulted in the development and adoption of the "New Look" national security strategy and policy which emphasized massive retaliation through nuclear weapons and other cost-saving methods including alliances, psychological warfare, covert action, and diplomatic negotiations.³ Despite significant cuts in military personnel, President Eisenhower eventually changed his defense spending strategy to allow large increases in

¹ John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War* (Oxford University Press, 2005), 169.

² *Ibid.*, 145.

³ *Ibid.*

R&D funding; primarily in nuclear weapons capability, from \$19 billion in 1954 to \$41.7 billion in 1961.⁴ This adjustment in defense spending was a hedge against unpredictable technological advancement by the Soviet Union.⁵ Unfortunately, this strategy left President Eisenhower and the U.S. military with a less-than-optimal conventional force option and decreased capability to counter the Soviet Union and communist expansion.

Post-Vietnam War Drawdown

Post-Vietnam, there was a less dramatic reduction in the overall defense budget compared to the post-Korean War drawdown. However, reductions in active-duty troop levels were similar. The impact of these reductions was magnified by the end of the draft and the transition to the all-volunteer-force, which relied heavily on monetary and benefit incentives. These incentives were undercut by the failure of military salaries to keep pace with inflation. As a result, the U.S. military struggled to meet recruitment goals and maintain sufficient readiness levels which ultimately led to a lowering of military standards. Lack of readiness and lowering military standards resulted in decreased combat capability. The Congressional Research Service reported that "the Army signed up so many poor-quality soldiers during the late 1970s that 40 percent of new recruits were separated from the Army for disciplinary reasons or unsuitability prior to the completion of their first enlistment...By 1979, 6 of 10 Army divisions stationed in the United States were assessed as 'not combat-ready'."⁶

⁴ Office of the Undersecretary of Defense, "National Budget Estimates for FY2013," March 2012, http://comptroller.defense.gov/defbudget/fy2013/FY13_Green_Book.pdf (accessed September 23, 2012).

⁵ Lawrence Korb and Alex Rothman, "A Historical Perspective on Defense Budgets," Center for American Progress, July 6, 2011, http://www.americanprogress.org/issues/2011/07/historical_defense_budget.html (accessed September 23, 2012).

⁶ Andrew Feickert and Stephen Daggett, "A Historical Perspective on 'Hollow Forces,'" *Congressional Research Service*, January 31, 2012, 5, <http://www.fas.org/sgp/crs/natsec/R42334.pdf> (accessed October 13, 2012).

Post-Cold War Drawdown

Following the military buildup and robust levels of acquisition spending in the 1980s under President Reagan, "procurement declined to a low point [in 1997] of about half the peak in the mid-1980s."⁷ The resulting period was labeled as the "procurement holiday" where the United States failed to adjust its acquisition strategy and recapitalize force modernization programs following the collapse of the Soviet Union. This procurement decline was justified based on the scale and success of force modernization under President Reagan. However, the decline's long duration led to problems with mission available and capable rates for key equipment, most notably aircraft, as weapons systems were retained far beyond their intended service lives.⁸ The problem was exacerbated by the wide use of military forces, which were mobilized throughout the 1990s for nation-building and stability operations (e.g., Somalia, Haiti, Bosnia, Kosovo).⁹

Additionally, the desire for a post-Cold War "peace dividend" led to reductions in active duty forces as well as a transition to a smaller, more agile, portfolio of high-technology capabilities. These capabilities, intended to counter a near-peer competitor, were less effective versus the asymmetric threats and the irregular war that developed in Iraq and Afghanistan following the shock of the 9/11 terrorist attacks.¹⁰ Similarly, the revolution in military affairs after Desert Storm and the defense transformation paradigm (reliance on precision weapons and a smaller footprint of ground forces) championed by former SECDEF Donald Rumsfeld, shaped a military force that was ill prepared for the counterinsurgency strategy that was subsequently employed in each respective AOR.

⁷ Ibid.

⁸ Michael O'Hanlon, "Clinton's Strong Defense Legacy," *Foreign Affairs* 82, no. 6 (November/December 2003): 130, <http://www.foreignaffairs.com/articles/59374/michael-ohanlon/clintons-strong-defense-legacy> (accessed September 20, 2012).

⁹ Feickert and Daggert, "A Historical Perspective on 'Hollow Forces,'" 13.

¹⁰ Ibid., 11.

Outlook for the Future

In conjunction with the 2012 Defense Strategic Guidance, President Obama's administration conducted an independent review of lessons from past drawdowns. The conclusions were characterized by strong commitments from senior leaders to keep the faith with the U.S. military, retain high-technology leverage capabilities, and maintain military readiness by preserving key organizational structures and ensuring sufficient training opportunities for personnel.¹¹

The current administration has attempted to draw lessons of previous drawdowns in developing its approach to implementing cuts required by the Budget Control Act. President Obama emphasized, "we can't afford to repeat the mistakes that have been made in the past - after WWII, after Vietnam - when our military was left ill prepared for the future." For this reason, "the size and the structure of our military and defense budgets have to be driven by a strategy, not the other way around."¹² According to the President, the defense budget request has "endeavored to avoid the mistakes of the previous drawdowns that attempted to maintain more force structure than the defense budget could afford."¹³ The Obama administration is adamant that the current drawdown must be guided by the principles of reversibility and balance, while distributing risk across a range of national security challenges.¹⁴

¹¹ Martin Dempsey, "Statement of General Martin E. Dempsey, USA Chairman Joint Chiefs of Staff before the House Armed Services Committee: FY13 Department of Defense Budget," February 15, 2012, <http://www.jcs.mil/speech.aspx?ID=1678> (accessed September 1, 2012).

¹² Barack Obama, "Remarks by the President on the Defense Strategic Review," January 5, 2012, <http://www.whitehouse.gov/the-press-office/2012/01/05/remarks-president-defense-strategic-review> (accessed September 1, 2012).

¹³ U.S. Department of Defense, *Defense Budget Priorities and Choices*, 2.

¹⁴ Michele Flournoy, "Defense Strategic Guidance Media Roundtable at the Pentagon," January 5, 2012, <http://www.defense.gov/transcript.aspx?transcriptid=4954> (accessed September 5, 2012).

The 2012 Defense Strategic Guidance established four primary goals or objectives for national defense: (1) deter and defeat aggression, (2) counter terrorism, (3) counter WMD proliferation, and (4) operate and prevail in anti-access/area denial (A2/AD) environments.¹⁵ By assessing the first objective, one can argue that the United States plans to invest heavily in the full-spectrum of military capabilities and operations. These capabilities are costly and the generic "deter and defeat" objective fosters the prevalent DoD mentality which seeks to plan, procure, program, and budget for the worst case, most costly threat scenario; a protracted, large-scale conventional war. This is the same "threat-based" approach or paradigm used throughout the Cold War period. However, this type of strategy during peacetime is extremely costly to the American taxpayer.

On the other hand, one can argue that "threat-based" planning and excessive defense spending serves as a formidable deterrent which often prevents the United States from a more costly option of going to war. In contrast, there are risks to national security associated with cutting defense budgets. To project national power properly, the United States must maintain its unique warfighting capabilities, resources, forward presence, and worldwide influence. At the end of the acquisition and PPBE process, there must be a balance between national defense and fiscal responsibility.

The second objective is to counter terrorism or violent extremism which is an incredibly lofty goal. Countering terrorism can be categorized via homeland defense or globally. To counter terrorism worldwide, significant resources must be dedicated to the overall effort. Manpower, specialty trained forces, extensive intelligence networking, and international partner cooperation are keys to an effective counter-terrorism strategy.

¹⁵ U.S. Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* (Washington, DC: Department of Defense, January 2012), 4-5, http://www.defense.gov/news/Defense_Strategic_Guidance.pdf (accessed July 29, 2012).

The third objective is to counter WMD proliferation. Based on the latest Strategic Arms Reduction Treaty, the United States and Russia continue to drawdown their nuclear arsenals which generates significant defense cost-savings associated with nuclear weapons inventory maintenance. Currently, Iran is seeking nuclear weapons capability and continues to deny the International Atomic Energy Agency inspectors into its facilities. With U.S. leadership, several countries from the United Nations have imposed economic sanctions on Iran in an attempt to dissuade Iranian nuclear weapon desires. However, economic sanctions have not historically proven to be decisive in preventing a country from obtaining nuclear weapons (e.g., North Korea). The current crisis could lead to military conflict or, at a minimum, an increase in the U.S. nuclear deterrence.

The fourth objective is to dominate in an A2/AD environment. Developing and fielding weapons systems (air, sea, space) that prevail in the A2/AD environment will cost billions of acquisition dollars to counter threats such as China. China has modeled its military after the United States and leverages a strong global economy into their rapid military modernization program. The People's Liberation Army is the largest army in the world with over 1.5 million troops. China's Air Force has developed and engineered stealth technology by producing J-20 and J-31 fighter aircraft. China's Navy has produced approximately 68 submarines, which closely resembles the size of the U.S. Navy's submarine inventory. More alarming is China's ballistic missile technology and cyber capabilities. In order to operate and ultimately prevail in an A2/AD environment, it will cost the DoD billions of dollars in research and development, high technology acquisition, and fielding.

CHAPTER 6: DOD ACQUISITION AND MANAGEMENT SYSTEM

Today, the U.S. military is considered the most powerful military in the world.¹ While the U.S. population is smaller than other powers such as China and India, the United States compensates with highly trained forces that are more technologically advanced.² A primary reason the United States maintains its military supremacy is through a robust, systematic acquisition and procurement process that dedicates extensive research and vast resources to national defense. U.S. science and technology is a key reason that "each U.S. military service has dominating weapons not found in the arsenals of other countries."³ However, soaring costs and schedule delays found in many of the Major Defense Acquisition Programs (MDAP) such as the F-35 JSF highlight critical issues within the current defense acquisition and management system. The lack of fiscal responsibility and accountability in the system has led to severe cost overruns and major programs stagnating years behind schedule. The solution for the DoD is to reprioritize the ultimate goal of the acquisition community, which should provide improved weapons and weapons systems to the U.S. Armed Forces as quickly and as cheaply as possible.

There are two major problems associated with the current acquisition system: economic and political. Economically, there are extremely high costs associated with R&D and establishing sustainable long-term defense programs of record. The total cost of the DoD's 2011 portfolio of 96 MDAPs was \$1.58 trillion. In FY12, the total acquisition cost of these programs grew by over \$74.4 billion or 5 percent (see Figure 5),

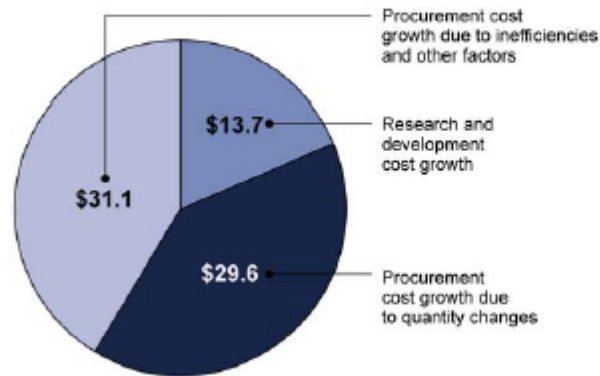
¹ Jonathan D. Ritschel, "Political Economy of Military Weapon Systems Acquisitions" (PhD diss., George Mason University, 2011), 1.

² Barry R. Posen, "Command of the Commons: The Military Foundation of U.S. Hegemony," *International Security* 28, no. 1 (Summer 2003): 5, <http://www.mitpressjournals.org/doi/abs/10.1162/016228803322427965> (accessed September 15, 2012).

³ Robert L. Paarlberg, "Knowledge as Power: Science, Military Dominance, and U.S. Security," *International Security* 29, no. 1 (Summer 2004): 122, <http://www.mitpressjournals.org/doi/abs/10.1162/0162288041762959> (accessed September 15, 2012).

of which \$31.1 billion can be attributed to factors such as inefficiencies in production, \$29.6 billion to quantity changes, and \$13.7 billion to R&D cost growth.⁴

Cost Growth over the Past Year for DOD's 2011 Portfolio of Major Defense Acquisition Programs (Fiscal Year 2012 Dollars in Billions)



Source: GAO analysis of DOD data.

Figure 5. Cost Growth of DoD's 2011 Major Defense Acquisition Programs⁵

Currently, the U.S. defense budget is an estimated four times larger than China.

The economic commitment to the U.S. military and defense industry allows strong deterrence and continues to keep the United States well ahead of other countries. The dilemma is balancing national security with record deficits and a large national debt.

Today, each federal government department to include the DoD has been tasked to make tough budget priority decisions in an effort to reduce the federal deficit. However, the problem is the current acquisition process is dominated more by politics than purely economic considerations. Often, an individual service will submit a budget with targeted program cuts and Congress will reject those proposed cuts based on the economic impact and loss of jobs in a particular political district. An example is the U.S. Army's M-1 Abrams tank program. The Department of the Army felt it currently possessed enough tank capability to meet all wartime requirements and desired to cut the

⁴ Government Accountability Office (2012), *Defense Acquisitions*, 6.

⁵ *Ibid.*, 2.

production of the M-1 Abrams tank. However, Congress refused to approve the production line closure citing a negative impact to the defense industry and a loss of thousands of local jobs.⁶ Coupled with a PPBE system which fails to deliver an optimal allocation of resources, this political influence results in less combat capability, large defense budgets, military parochialism, and maximum profits for the defense industry.

The F-35 JSF program vividly illustrates the problems of the current U.S. defense acquisition system. In terms of cost alone, the F-35 JSF was selected as an "affordable" replacement to the U.S. Air Force's aging fleet of A-10 and F-16 fighter aircraft. Almost a decade into the JSF program and less than two years before the program was scheduled to have 600 aircraft procured; fewer than twelve aircraft had been built.⁷ According to a RAND study, over 70 percent of the estimated JSF development cost had been funded, while only 3 percent of the expected procurement funds had been dispersed.⁸ Cost growth since then has been attributed to "estimating" and "quantity" issues, meaning the original cost and schedule estimates were overly optimistic and the quantity had to be decreased as a result.⁹ The same is true for the U.S. Navy's Littoral Combat Ship and the U.S. Army's Future Combat Systems. It is symbolic of the larger problem within the current defense acquisition system, which often strives to build and produce weapon systems without adequately addressing cost and timeliness factors.¹⁰

⁶ Drew Griffin and Kathleen Johnston, "Army to Congress: Thanks but no Tanks," *CNN Security Clearance*, October 9, 2012, <http://security.blogs.cnn.com/2012/10/09/army-to-congress-thanks-but-no-tanks/> (accessed November 24, 2012).

⁷ Irv Blickstein and John Birkler, et al, "Root Cause Analysis of Nunn-McCurdy Breaches," *RAND National Defense Research Institute*, 2011: 39, <http://www.rand.org/pubs/monographs/MG1171z1.html> (accessed October 7, 2012).

⁸ John Birkler, "Assessing Competitive Strategies for the Joint Strike Fighter," *RAND National Defense Research Institute*, 2001: 9, http://www.rand.org/pubs/monograph_reports/MR1362.html (accessed October 7, 2012).

⁹ Ibid.

¹⁰ Task Force Report, "Defense, Deficits, and Deployments," 154.

To maintain its superior military advantage, the DoD needs a more efficient and effective process to accomplish weapon systems development, procurement and fielding. Defense spending and acquisition costs for weapons systems have risen dramatically over the past decade. In 2009, the Government Accountability Office (GAO) released its annual report "Defense Acquisitions: Assessments of Selected Weapons Programs" citing that cumulative cost growth among assessed DoD programs had reached \$296 billion.¹¹ According to Colonel Peter Eide and Colonel Charles Allen from the U.S. Army War College, behavior changes are needed for transformation to occur within the current DoD acquisition system. Acquisition reforms can be coerced, but will not endure as true transformation unless cultural change occurs.¹²

Currently, the DoD has three major decision-making systems to support the overall defense management system: (1) PPBE, (2) Joint Capabilities Integration and Development System (JCIDS), and (3) Defense Acquisition System (DAS). In theory, these systems are supposed to be used as an integrated approach for strategic planning, identification of military capabilities needs, acquisition, and budget development. Chaired by the Vice Chairman of the Joint Chiefs of Staff, the Joint Requirements Oversight Council (JROC) is designed to conduct joint warfighting capability assessments, consider balance between programs, near-term programs and programs to recapitalize the force, and evaluate the Services' programs.¹³

PPBE is the DoD's primary resource allocation and management system. The goals of PPBE are to: (1) support strategy; (2) identify the size, structure, and equipment

¹¹ Eide and Allen, "The More Things Change, Acquisition Reform Remains the Same," 101.

¹² *Ibid.*, 99.

¹³ Congressional Research Service, *Defense acquisitions: How DoD acquires weapon systems and recent efforts to reform the process: April 2010* (Washington, DC: Government Printing Office, 2010), 17.

for forces; (3) set programming priorities; (4) allocate resources; and (5) evaluate output against planned performance and adjust resources as appropriate.¹⁴ PPBE is a two-year process used for obtaining funding for major weapon systems acquisition and provides a factual basis for affordability assessment and resource allocation decisions. PPBE is a formal, structured system for making decisions on policies, strategies, prioritized goals, and the development of necessary forces and capabilities to accomplish DoD missions.¹⁵ It is similar to a business or family budget building process. However, the problem with the PPBE system is it is highly influenced by politics versus economic considerations and is inflexible in meeting operational warfighting needs. Again, the M-1 tank program is a prime example of this political influence. The Army wants to cut the program for other important requirements while Congress refuses to cut the program's production line funding. This leads to unnecessary defense spending and reduced combat capability.

JCIDS validates and prioritizes joint capabilities and requirements. The process is dependent on warfighting deficiencies or needs. JCIDS assesses mission requirements and strategies for meeting those requirements as well as providing the basis for establishing priorities. Similar to PPBE, JCIDS is a politically-charged process which often pits individual military services against each other. The DAS uses a streamlined management process that is supposed to deliver capable, reliable, and sustainable systems to the user. The DAS uses periodic reviews and program approvals to progress into subsequent efforts of the acquisition life cycle. This process connects milestone decisions to demonstrated accomplishments.¹⁶ Unfortunately, many acquisition and

¹⁴ Strano, "Planning, Programming, Budgeting, and Execution," (lecture, December 11, 2012).

¹⁵ Congressional Research Service, *Defense acquisitions*, 4-5.

¹⁶ Congressional Research Service, *Defense acquisitions*, 7.

procurement decisions are often made in advance of demonstrated capabilities and mature technologies which leads to cost growth and schedule delays.

In 2009, former SECDEF Robert Gates expressed concerns regarding the need for acquisition reform. "We must reform how and what we buy"..."meaning a fundamental overhaul of our approach to procurement acquisition."¹⁷ According to Gates, dramatic changes are required to maintain U.S. military superiority in a fiscally-constrained environment.¹⁸ Gates identified three ways to accomplish acquisition reform. First, senior leaders must have the commitment and courage to cancel programs that are failing or procuring more capability than is needed. Second, performance requirements must be scrutinized and limited to avoid cost and schedule overruns while procuring what is technically feasible. Third, program teams should be adequately staffed for oversight, cost estimates should be more realistic, and budgets protected for program stability.¹⁹

One of the challenges to improving cost-effectiveness within the DoD is a lack of simple, consistently used means of decision making. As budgets shrink, the DoD should incorporate a standard decision support system similar to the business world's profit-and-loss spreadsheet to replace the current system of decisions.²⁰ Another issue affecting the goal of cost-effectiveness is the DoD's stove-piped approach to planning, programming, and budgeting. This approach is politically driven and single military service oriented. Overall, the PPBE process is wasteful due to working off continuing resolutions and the fear of under-executing yearly appropriations. PPBE fosters Services' parochialism in procuring resources in a fiscally-constrained environment. Former SECDEF Rumsfeld

¹⁷ Eide and Allen, "The More Things Change, Acquisition Reform Remains the Same," 104.

¹⁸ Ibid.

¹⁹ Ibid., 105.

²⁰ Miller, "Improving Cost-Effectiveness in the Department of Defense," 35.

claimed that 25 percent of the DoD spending was wasteful.²¹ However, according to Colonel Drew Miller, the DoD could improve its cost-effectiveness by utilizing a simple decision making tool such as the one developed by RAND, which uses commercial spreadsheet software. As an end result, the DoD would have improved analysis, enhanced accountability for results, and more cost-effective resource management.²²

Despite the goals of the PPBE, the DoD's resource management fails to optimize either military capability or cost-effectiveness. Former U.S. Air Force budget chief, General Stephen Lorenz explained that, "[PPBE] rewards advocates who are better at articulating increases in spending but sometimes punishes programs that can produce savings."²³ More importantly, the PPBE process lacks fundamental measures on which to base decisions. The current defense management system provides little incentive to reduce costs and limited accountability for those costs.²⁴

To overcome inefficiencies in the acquisition system, DoD leaders must recognize the importance of the cultural change required for true acquisition transformation and reform. The key is acquisition excellence (cost, time, and performance). The DoD must clarify, simplify, and standardize metrics in measuring success, track those metrics, and hold personnel accountable for them. Metrics are required by law for major initiatives and they would assist the DoD to make regular estimates of savings, which will help in future years when defense managers are called to assess their efficiency efforts.²⁵ This is accomplished by outcome-based metrics that balance performance with schedule and

²¹ Ibid.

²² Ibid.

²³ Ibid., 37.

²⁴ Ibid.

²⁵ Robert H. Hale, "Promoting Efficiency in the Department of Defense: Keep Trying, But Be Realistic," Center for Strategic and Budgetary Assessments, 25 January 2002, iii, <http://www.csbaonline.org/publications/2002/01/promoting-efficiency-in-the-department-of-defense-keep-trying-but-be-realistic.pdf> (accessed 20 September 2012).

cost. Monitoring and adjusting performance metrics allow decision makers to preserve timely and on-budget outcomes. The DoD must formally identify its guiding directives, recognizing that acquisition program outcomes are influenced by stakeholders outside the professional acquisition community. Success requires commitment to change versus simple compliance to superficial rewards and consequences. Effective reform requires leadership and institutional processes to drive change in the culture of defense acquisition. With shrinking defense budgets, it is time for a long-term, culturally focused effort to transform DoD's acquisition process.²⁶

Quadrennial Defense Review

Prior to 2001, defense spending and the DoD's acquisition system was based on a "threat-based" approach. Due to the threat posed by the Soviet Union, the United States was able to plan and budget effectively during the Cold War. However, with the collapse of the Soviet Union, the United States became the world's only military superpower. To maximize defense dollars, the DoD, through the 2001 Quadrennial Defense Review (QDR), transitioned from the "threat-based" approach to a "capabilities-based" approach. The DoD incorporated the QDR as the roadmap for change to transform the U.S. military to an outcome-focused, capability-based force to better support joint warfighters deep into the 21st century. The QDR's charter continually seeks adaption and reorientation for an integrated force that is capable to defend U.S. interests as well as to deter and defeat potential adversaries. The QDR's goal is to shape DoD plans, policies, and programs into a macro-level strategy, which later becomes part of the President's budget request.²⁷

²⁶ Eide and Allen, "The More Things Change, Acquisition Reform Remains the Same," 115.

²⁷ Andy Fainer, "A Glimpse into DoD Weapon Systems Programs." *Defense AR Journal* 15, no. 2 (July 2008): 195.

Within the QDR, threats to the United States are categorized as either traditional, irregular, catastrophic, or disruptive. Traditional threats use military capabilities and forces in a military conflict. Irregular threats use unconventional methods to offset an adversary's traditional advantages. Catastrophic threats use WMD or similar methods producing WMD-like effects. A disruptive threat is identified when an adversary finds a breakthrough technology that nullifies a particular U.S. advantage.²⁸

Also within the QDR process, force planning is an important process to identify and counter threats to national or regional security. Force planning determines the size of the force (capacity) and types of capabilities (forces and equipment) needed for a diverse range of scenarios. In both the 2006 and 2010 QDR, four focus areas were identified: defeat terrorist networks, defend the homeland, shape choices of countries as strategic crossroads, and prevent hostile states and non-state actors from acquiring or using WMD.²⁹ These areas were the foundation of the force planning construct, showing the capabilities and forces needed to mitigate the four threat categories. In the 2006 QDR, senior U.S. leaders confirmed the four focus areas, but divided the force planning construct into three objective areas: homeland defense, counter terrorism/irregular warfare, and conventional campaigns.³⁰

In the 2006 QDR, both DoD and Congress expressed concerns with the current acquisition system. As a result, the GAO reviewed concerns about the major acquisition programs and discovered that the lack of confidence in the system was a result of measuring weapon systems acquisition by cost, schedule, and performance. The GAO

²⁸ Ibid., 196.

²⁹ U.S. Department of Defense, *Quadrennial Defense Review Report 2006* (Washington, DC: Department of Defense, 6 February 2006), 5, <http://www.defense.gov/qdr/report/Report20060203.pdf> (accessed September 15, 2012).

³⁰ Ibid., 36.

found acquisitions were considered unpredictable and unstable (e.g., the Army's Future Combat Systems and the Navy's DDX Destroyer). Further reviews for improvements continue to be conducted within and outside the DoD to enhance these acquisitions, resulting in better outcomes for the taxpayer and more rapid support to the warfighter.³¹

During its review of the defense acquisition system, the GAO highlighted several issues. First, the GAO concluded that the United States currently has the world's best weapon systems.³² However, the process to deploy these weapon systems needs to be fixed. In today's acquisition environment, 40 percent cost increases are common, which amounts to billions of dollars, schedule delays, and rebaselining of large and expensive programs. Ultimately, some programs are canceled or their production lines are shutdown (e.g., Future Combat Systems and F-22). Consequently, reduced quantities and capabilities are delivered to the warfighter.³³ The solution is to start the acquisition process with mature technologies, set fixed milestones, identify critical issues early, correct them, or cut funding based on poor performance. The quality and timeliness of the acquisition system is essential to maintain weapon systems superiority and quickly counter threats, in order to better protect and enable the warfighter.

Over several years, the GAO has documented many acquisition problems. In 2001, the top five programs cost \$290 billion while the top five programs in 2006 totaled \$550 billion.³⁴ From 2005 to 2009, the DoD spent more than \$1.4 trillion for new weapon systems. With this increased spending trend for new weapon systems and a

³¹ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapon Programs*, (Washington, DC: Government Accountability Office, March 2012), 4, <http://www.gao.gov/products/GAO-12-400SP> (accessed December 11, 2012).

³² Government Accountability Office, *Defense Acquisitions: Assessments of Selected Major Weapon Programs*, (Washington, DC: Government Accountability Office, March 2006), 4, <http://www.gao.gov/products/GAO-06-391> (accessed December 11, 2012).

³³ *Ibid.*, 5.

³⁴ *Ibid.*

shrinking defense budget, the U.S. Government and DoD will be forced to take funds from other federal programs if it wants to continue to fund future weapon systems.

Currently, the DoD fails to separate long-term needs from desires. The DoD starts many programs that it cannot afford. Each Service competes for funding which creates a parochial structure and disjointed decision-making process. The system fails to prioritize programs based on warfighter needs and the DoD's long-term vision. When a program needs funds because of cost increases, overruns or delays, funds are taken away from other programs. This decision-making process tends to reward poor performance.³⁵

An investment strategy, similar to the business world, would produce executable programs and ensure better outcomes. More importantly, warfighters would receive greater quantities and capabilities. An investment strategy would prioritize the order of needed capabilities and match them up against resources-dollars, technologies, time, and people required to obtain these capabilities. This strategy would define incremental product development programs for obtaining these capabilities and establish controls so the requirements, funding, and acquisition processes could synchronize more efficiently. Without an integrated investment strategy, improvements are likely to fail.³⁶

In 2003, the DoD adopted the Defense Life Cycle Management System which is a knowledge-based product development approach. The GAO reviewed programs that began after this system was established and found the DoD was simply not following it. Early decisions were bypassed, resulting in decisions committing programs to premature system demonstration and initial manufacturing despite unknowns about technology,

³⁵ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapon Programs*, (Washington, DC: Government Accountability Office, March 2007), 4-7, <http://www.gao.gov/products/GAO-07-406SP> (accessed December 11, 2012).

³⁶ Government Accountability Office (2006), *Defense Acquisitions*, 8.

design, and production.³⁷ The GAO found that milestones and design readiness reviews were often not followed and many programs began system development with immature technologies.³⁸ For example, the U.S. Army’s Future Combat Systems program entered the System Development and Demonstration (SDD) phase with 32 percent of its critical technologies mature while the U.S. Air Force’s F-35 JSF program began SDD with only 25 percent mature technologies. The result was a 50 percent and 30 percent increase in R&D costs, respectively for the U.S. Army and the U.S. Air Force (see Table 1). The trend is as major programs begin development with mature technologies, there are lower development costs and unit cost increases compared to programs started with immature technologies.

Program	Percent increase in R&D costs	Percent of critical technologies at program development start
Advanced Threat Infrared Countermeasure / Common Missile Warning System	5.6%	50% (3 of 6)
C-5 Reliability Enhancement and Reengineering Program	2.1%	100% (11 of 11)
DD(X) Destroyer	417.3%	25% (3 of 12)
Future Combat System	50.8%	32% (17 of 52)
Joint Strike Fighter	30.1%	25% (2 of 8)

Table 1. Technology Maturity and Program Outcomes³⁹

The GAO discovered that major defense programs which begin development with immature technologies and advance without demonstrated knowledge produce significant cost increases and schedule delays (see Table 2). The result is the DoD delivers reduced

³⁷ Government Accountability Office, *Defense Acquisitions: Assessments of Major Weapon Programs*, (Washington, DC: Government Accountability Office, May 2003), 2, <http://www.gao.gov/products/GAO-03-476> (accessed December 11, 2012).

³⁸ Government Accountability Office (2006), *Defense Acquisitions*, 12.

³⁹ *Ibid.*, 42.

quantities and capabilities to the joint warfighter, and ultimately, loses buying power.

Table 3 gives examples of DoD programs with reduced buying power.⁴⁰

Programs	Percent development cost growth	Delivery delay of initial capability in months	Percent of development remaining
Aerial Common Sensor	45%	24 months	85%
Future Combat System	48%	48 months	78%
Joint Strike Fighter	30%	23 months	60%
Expeditionary Fighting Vehicle	61%	48 months	49%
C-130 Avionics Modernization Program	122%	Delays anticipated due to program restructure	Undetermined due to program restructure
Global Hawk (RQ-4B)	166%	Delays anticipated due to program restructure	Delays anticipated due to program restructure

Table 2. Cost and Schedule Outcomes for Largest Development Programs⁴¹

Programs	Initial Estimate	Initial Quantity	Latest Estimate	Latest Quantity	Percent of Unit Cost Increase
Joint Strike Fighter	\$189.6 Billion	2,866 aircraft	\$206.3 Billion	2,458 aircraft	26.7%
Future Combat System	\$82.6 Billion	15 systems	\$127.5 Billion	15 systems	54.4%
F-22 Raptor	\$81.1 Billion	648 aircraft	\$65.4 Billion	181 aircraft	188.7%
Evolved Expendable Launch Vehicle	\$15.4 Billion	181 vehicles	\$28.0 Billion	138 vehicles	137.8%
Space Based Infrared System High	\$4.1 Billion	5 satellites	\$10.2 Billion	3 satellites	315.4%
Expeditionary Fighting Vehicle	\$8.1 Billion	1,025 vehicles	\$11.0 Billion	1,025 vehicles	35.9%

Table 3. Examples of DoD Programs with Reduced Buying Power⁴²

Next, technical data must be included and readily available. Technical data is recorded information used to define a design and produce, support, maintain, or operate the item.⁴³ The U.S. Army and Air Force have experienced sustainment limitations on several deployed weapons systems because they lacked technical data rights. Both have been unable to take advantage of savings and meet requirements for depot and

⁴⁰ Ibid., 10.

⁴¹ Ibid.

⁴² Ibid., 5.

⁴³ Fainer, "A Glimpse into DoD Weapon Systems Programs," 203.

maintenance. The GAO discovered several systems lacking technical data rights: C-17, F-22, C-130J, and Airborne Warning and Control System aircraft; Up-armored High Mobility Multipurpose Wheeled Vehicles, Striker vehicles, and the M4 carbine. Technical data must be in the requirements before contract solicitation is issued.⁴⁴

Finally, the DoD's concept of success needs to be redefined. In business, success is defined by maximizing profit. For the DoD, success is defined by the ability to procure funds for new programs and to maintain funding for current programs. Optimistic cost, schedule, and technology readiness factors attract funding. Honest program assessments could result in a loss of funding. Delayed testing is preferred over early testing because bad news could result in a loss of funding. Success measures such as risk reduction, knowledge-based decision making, discipline, collaboration, trust, commitment, consistency, realism, and accountability would result in better outcomes for the DoD.⁴⁵

Today's defense acquisition and management system is both vital and expensive. Its impact is critical on the nation's economic policies, especially regarding current long-term fiscal imbalances associated with increased competition for limited resources. For decades, concern over the management effectiveness of major weapon systems has prompted the DoD to change business practices. By reforming the established DoD acquisition system guidelines, each weapons system could produce an affordable investment and an executable program, achieving a better acquisition outcome.⁴⁶

⁴⁴ Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapon Programs*, (Washington, DC: Government Accountability Office, March 2009), 128, <http://www.gao.gov/products/GAO-09-326SP> (accessed December 11, 2012).

⁴⁵ Government Accountability Office (2006), *Defense Acquisitions*, 9-10.

⁴⁶ Fainer, "A Glimpse into DoD Weapon Systems Programs," 205.

CHAPTER 7: ALTERNATIVES FOR NATIONAL DEFENSE SAVINGS

Currently, the DoD's annual base budget constitutes approximately 52 percent of the federal government's discretionary spending minus wartime or OCO funding. With OCO funding factored in, the defense budget makes up about 70 percent of discretionary spending. Since 2000, the defense budget has risen roughly 42 percent which included wartime expenses for both the ground wars in Iraq and Afghanistan. However, with the drawdowns in Iraq and Afghanistan, the DoD is expected to play a larger role in reducing the overall size of federal budget deficit and national debt.¹ According to Arnold Punaro, a retired U.S. Marine Corps major general and former staff director of the Senate Armed Services Committee, "soaring compensation costs, inefficient weapons-acquisition programs, and bloated overhead expenses are 'ticking time bombs' in the defense budget" that the DoD must immediately address.²

Since 2010, multiple government task forces, commissions, policy centers, and think tanks have developed a range of options for defense savings. In general, the goal of these task forces and commissions was curtailment or reductions in five distinct areas. First, assets and capabilities that mismatch or exceed current and emerging military threats. Second, identifying expensive assets and capabilities where more cost-effective options exist. Third, investments tied to the past, reflecting bureaucratic inertia or individual service interests, rather than current collective defense needs. Fourth, acquisition programs that exhibit persistent cost overruns, while failing to deliver

¹ Carl Conetta, Charles Knight, Ethan Rosenkranz, Christopher Preble, and Benjamin H. Friedman, "Defense Sense: Options for National Defense Savings, Fiscal Year 2013," May 15, 2012, 2, <http://www.cato.org/sites/cato.org/files/articles/120515DefSense.pdf> (accessed November 24, 2012).

² Craig Whitlock, "Hagel Would Face Immediate Budget Cuts: More than \$500 billion in Pentagon reductions are expected," *Washington Post*, January 8, 2013. <http://www.pressdisplay.com/pressdisplay/viewer.aspx> (accessed January 13, 2013).

promised capability. Finally, identifying those acquisition programs that are based on immature or unproven technologies.³

While the DoD has implemented a strategy for cuts associated with the BCA (\$487 billion) through FY21, it continues to struggle with ways to reduce spending and inefficiencies while still meeting national security requirements. As Congress searches for ways to reduce the deficit, the DoD must continue to lead efforts in seeking cost-savings in unproven, unnecessary, inefficient, and wasteful national security programs.⁴

Although the DoD certainly wastes money, identifying waste and inefficiency is difficult. Competition, outsourcing, and use of sound business practices can produce savings but normally in the range of hundreds of millions of dollars per year, not much more.⁵ Significant cuts in defense programs and spending require tough decisions about which capabilities the United States and DoD can afford to live without in the future.

In 2012, an independent government organization, Project On Government Oversight (POGO), conducted extensive research and identified significant DoD cost-savings by cutting several current FYDP defense programs. The following is a summary of those cost-saving alternatives and recommended cuts to various defense programs:

1. F-35 JSF program. At \$396 billion, the JSF is the largest weapons systems program in DoD history. By replacing two of the three variants (both Navy and Marine variants) with F/A-18 E/F aircraft, the DoD could save an estimated \$61.7 billion. The JSF program epitomizes the problems in the current defense acquisition system. The program exceeds defense requirements as well as suffers chronic cost and development problems. Among the three variants, the U.S. Marine Corps' STOVL version is the most

³ Conetta et al, "Defense Sense: Options for National Defense Savings, Fiscal Year 2013," 2.

⁴ Ibid., 3.

⁵ Hale, "Promoting Efficiency in the Department of Defense: Keep Trying, But Be Realistic," ii.

costly and troubled. Conventional fixed-wing fighters and current helicopters could adequately substitute in the required mission sets.⁶ From FY13 to FY22, a total of 328 Naval and Marine JSF variants are scheduled to be procured. Replacing these variants with F-18 E/F aircraft would save \$54 billion in procurement costs and the lower flight-hour costs associated with F-18 E/Fs would save another \$7.7 billion.⁷

2. Lockheed Martin variant of the Littoral Combat Ship. By canceling the Lockheed Martin (LM) variant, the DoD could save an estimated \$187.2 million.⁸ The Navy plans to buy 55 LCS over the life of the program for mine sweeping, counter submarine warfare, and as a surface combatant. There are two LCS variants; one built by General Dynamics (GD) and the other variant built by LM. The GD variant costs \$345 million per ship and the LM variant costs \$357 million; \$12 million more per ship. According to experts, both variants are not expected to be survivable in a hostile environment. However, the Lockheed variant has been plagued by cracks, corrosion, and equipment failures. If the 31 LCS scheduled to be purchased from FY13 to FY22 were bought from GD, the DoD would save an estimated \$187.2 million in procurement costs.⁹

3. U.S. Army's Abrams M-1 tank program. \$230 million in cost-savings by eliminating unrequested funding for the M-1 tank. The Department of the Army has more than 500 tanks in its inventory and does not desire additional M-1 tank production. However, Congress continues to push for production line funding to promote local and state economies and defense industry jobs.¹⁰

⁶ Canterbury and Freeman, "Spending Less, Spending even Smarter," 5.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

4. Ground-based Midcourse Defense and Space-based Infrared Systems. By freezing development on the Ground-based Midcourse Defense System and canceling future satellites of the Space-Based Infrared System, the DoD cost-savings would be \$12 billion.¹¹ However, this option is unlikely based on various Theater Missile Defense requirements in the Middle East and increased A2/AD capability requirements in Asia-Pacific region.

5. U.S. Air Force's Next Generation Bomber. By deferring the next generation bomber, the DoD could save an estimated \$6.3 billion. The DoD has failed to identify a cost-effective design for this follow-on bomber, and existing nuclear-delivery capabilities (e.g., B-1, B-2, B-52 aircraft) are sufficient to meet requirements for several decades.¹²

6. V-22 Osprey. \$17.1 billion could be saved by replacing the V-22 Osprey with less expensive, more reliable helicopter platforms. The V-22 is one of the most troubled aircraft in the DoD inventory. It has failed to prove itself cost-effective and has exhibited limited operational utility. According to the GAO, the V-22 had only a 6 percent full mission capability (FMC) rate while operating in Iraq between October 2007 and June 2008.¹³ Existing MH-60 or CH-53 helicopters, or a combination of the two, would provide a ready alternative for the remainder of the acquisition purchase.¹⁴ Replacing the 170 Ospreys scheduled to be built from FY13 to FY19 with MH-60 and MH-53 helicopters would save an estimated \$17.1 billion from FY13 to FY22.¹⁵

¹¹ Ibid.

¹² Ibid.

¹³ Michael J. Sullivan, "V-22 Osprey Aircraft: Assessment Needed to Address Operational and Cost Concerns to Define Future Investments," Director of Acquisition and Sourcing Management, Government Accountability Office, testimony before the Committee on Oversight and Government Reform, U.S. House of Representatives on June 23, 2009, 7 (accessed September 7, 2012).

¹⁴ Canterbury and Freeman, "Spending Less, Spending even Smarter," 3.

¹⁵ Ibid.

7. U.S. Navy Aircraft Carriers and Wings. \$18.4 billion in cost savings could be achieved by cutting the current fleet of aircraft carriers from 11 to 10 and Navy Wings from 10 to 9.¹⁶ The U.S. Navy currently has as many aircraft carriers as the rest of the world combined. Recent historical experience indicates that the U.S. Navy mobilizes 5 to 7 carriers to fight a major war. By maintaining 10 carriers in the fleet, the U.S. Navy could still mobilize 5 to 6 carriers within 90 days to fight the next war.¹⁷

8. Military personnel reductions in Europe. An estimated \$32 billion in cost-savings could be achieved by withdrawing 40,000 troops instead of the proposed 10,000 from Europe. The current plan removes 10,000 troops, including 7,000 Army soldiers, by the end of FY13. An additional reduction of 10,000 (20,000 total) would provide \$100 million in savings for FY13 and \$188 million per year after the withdrawal.¹⁸

9. DoD TRICARE health care system. Currently, health care costs consume over 50 percent of the DoD's base budget. Reforms to the current TRICARE health care system could save the DoD an estimated \$76.5 billion.¹⁹ However, these reforms would likely reduce the overall quality of life and morale of the military's all-volunteer-force.

10. Nuclear Arsenal and Nuclear Facility reductions. The DoD could generate \$2.1 billion in cost-savings by working with NATO partners to share the burden of B61 nuclear weapons in Europe. Additionally, eliminating the Chemistry and Metallurgy Research Replacement Facility at Los Alamos National Laboratory, the DoD would save an estimated \$5.9 billion.²⁰

¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Conetta et al, "Defense Sense: Options for National Defense Savings, Fiscal Year 2013," 5.

¹⁹ Canterbury and Freeman, "Spending Less, Spending even Smarter," 2.

²⁰ Ibid.

11. Fuel Fabrication Facility reductions. Halting the construction of the Mixed Oxide (MOX) Fuel Fabrication Facility, the DoD could save \$4.9 billion. The facility is intended to reprocess materials from dismantled nuclear weapons into fuel for nuclear power plants. However, the process is more dangerous than cost-effective. The project has grown exponentially since its inception and has no reliable customers for its product; the disposition of which poses both environmental and nuclear proliferation challenges.²¹

12. Uranium Processing (UPC) Facility reductions. \$6.5 billion in cost-savings by canceling the UPC facility at the Y-12 National Security Complex. The UPC is intended to replace existing facilities for uranium processing used in building nuclear weapons. While upgrades to facilities are needed, the UPC requires a replacement that is too costly and takes too long. The project's cost has doubled since its inception. With moderate upgrades, existing facilities should be able to meet the nation's requirements.²²

13. Improvements in Uranium enrichment program. By down blending more highly enriched uranium and selling it as low enriched, the DoD could save \$23 billion.²³

14. Non-DoD federal service contracts and DoD service contracts reductions. The DoD could generate \$33 billion in cost savings by reducing 15 percent spending on non-DoD national security federal service contracts and potentially \$372 billion in cost savings by reducing DoD service contracts by 15 percent. This 15 percent cut in non-DoD and DoD service contracts would return the defense department to pre-2001 levels where service contracts began to grow exponentially. Another recommendation would cap FY13 and later years spending on DoD base budget contract personnel at \$129 billion; a 5 percent reduction from FY12 levels. DoD's FY13 budget has an approximate

²¹ Ibid.

²² Ibid.

²³ Ibid.

contractor workforce of 308,500 full-time equivalents. This proposal would reduce that by approximately 6,500 positions.²⁴

Many critics argue that cutting military pay and benefits poses a greater political risk than cutting weapons programs because lawmakers consider veterans to be more politically influential than the defense industry.²⁵ However, as one senior DoD official stated, "weapons program cuts are no less political than personnel cuts. They are just a different kind of political."²⁶ The aerospace and defense industry employs about one million Americans nationwide, and many local economies depend heavily on defense dollars.²⁷ More importantly, the post-Cold War drawdown demonstrated that once parts of the defense industrial base erode, they are extremely difficult to reconstitute even if the United States faces a significant security threat.²⁸

The aforementioned cuts in defense programs would reduce the overall deficit by approximately \$688 billion over the next decade. While these cuts seem draconian, they provide the DoD with alternative solutions to target specific defense programs versus making an overall percentage cut across-the-board for all defense program accounts. Based on sequestration, the DoD must reassess its strategic priorities and eliminate costly programs that are not performing based on schedule or wasteful spending. Unfortunately, there is no perfect solution or silver bullet. It is a question of capacity versus capability. While the DoD can eliminate some redundancy, inefficiency, and wasteful spending, significant additional cuts in defense will likely hurt the U.S. economy and job market.

²⁴ Conetta et al, "Defense Sense: Options for National Defense Savings, Fiscal Year 2013," 7.

²⁵ Barno, Bensahel, and Sharp, "Hard Choices: Responsible Defense in an Age of Austerity," 10.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid.

CHAPTER 8: RECOMMENDATIONS

To maximize defense dollars, eliminate wasteful spending, and avoid another hollow force, the DoD must implement and fully commit to a strategy that addresses five keys to success. First, the DoD must continue reform initiatives that produce faster and cheaper weapons system development and delivery to the warfighter. Second, based on shrinking defense budgets and the future size of the U.S. military, operational tempo must be controlled at the strategic level to optimize combat readiness. The United States must exercise other instruments of national power prior to using military options to secure its strategic interests. The United States must work closely with allies, the United Nations, and interagency partners to counter terrorism and share in the burden of humanitarian, peacekeeping, and stability operations. Operational tempo must be focused on critical issues such as training, readiness, and force modernization. Third, the DoD must establish a rapid mobilization and deployment mechanism to compensate for smaller force structure. Fourth, the DoD must preserve the quality of the all-volunteer-force. Fifth, doctrine must be revised to consolidate the roles and capabilities of each Service. Joint doctrine should establish individual, unit, and joint training requirements and promote crosstalk between Services to maximize economies, synergistic acquisition and procurement practices.

For acquisition reform, one recommendation is to structure defense contracts so that the defense industry has an incentive to seek economies. For example, instead of awarding a cost-plus contract that adds a fixed percentage to costs as a profit margin (i.e., rewarding companies for making weapons more expensive), the DoD should create incentives for companies to lower the cost for weapons or weapon systems. This could be accomplished by tying some or all of a profit margin to producing weapons at a lower

cost.¹ Ensuring discipline and sound judgment is important in the acquisition management when determining which weapons or weapon systems to procure. The DoD should implement the idea from the Beyond Goldwater-Nichols study and the Defense Business Board, which calls for combatant commands to play a larger role in validating weapons requirements and needs of the services. Another improvement recommendation is for deputy combatant commanders to augment the deputy service chiefs on the JROC.²

In general, contract specifications should not change as the weapons or systems are being developed and built. This is a formula for cost growth. It is also important to develop robust designs of weapons and weapon systems, using demonstrated component technologies, before approving full-scale development and production of key weaponry.³

As defense budgets shrink, the DoD must establish priorities between individual capabilities portfolios. Drawdowns are difficult and require proper allocation of limited dollars to specific military capabilities in order to meet national security objectives and avoiding a hollow force. According to the Center for Strategic and International Studies, the DoD should separate military capabilities into categories that each combatant commander can identify as one of three types: must-have, nice-to-have, and not-needed.⁴ Establishing priorities between the DoD and combatant commanders is critical. For example, missions could be categorized according to whether they are mandatory or discretionary.⁵ Must-have capabilities are those essential and required for accomplishing mandatory missions. A nice-to-have capability for a mandatory mission would rank

¹ John T. Bennett, "Advisers: Overhaul DoD Arms Buying," *Defense News*, October 27, 2008, 1, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA515333> (accessed November 10, 2012).

² Ibid.

³ O'Hanlon, *Budgeting for Hard Power*, 80.

⁴ Clark A. Murdock, Ryan A. Crotty, and Kelley Sayler, "Planning for a Deep Defense Drawdown - Part I: A Proposed Methodological Approach," Center for Strategic and International Studies, May 2012, 1, http://csis.org/files/publication/120522_DD_Interim_Report.pdf (accessed 23 August 2012).

⁵ Ibid., 15.

higher than it would be for a discretionary mission. Defining these categories and requirements allows leaders to utilize their experience and judgment whether a must-have capability for a discretionary mission is a higher priority than a nice-to-have capability for a mandatory mission. Mission importance is irrelevant if a capability is not needed.⁶

There are four major drivers that should establish military capabilities and priority categories. First are threats to U.S. citizens and vital interests from adversaries, state or non-state actors, or terrorists, which require military intervention. A second driver is the environment. Rebalancing to the Asian-Pacific will significantly impact capabilities needed and the capacity of those capabilities. For example, the intra-theater requirements of Asia-Pacific region approximate the inter-theater requirements of CONUS-Europe.⁷

The third driver is the changing nature of warfare. Historically, the competition between offensive and defensive capabilities reflects the evolutionary nature of warfare as militaries look to counter or negate an adversary's advantages and attack potential adversaries' weakness. Several factors have shaped the evolution of warfare in unpredictable ways. The risk of nuclear warfare and annihilation has bounded the nature of warfare by deterring high-level conflict between major powers and increased the risks and potential costs of proliferation of nuclear technology.⁸ Advances in technology added three domains to warfare in the 20th century and 21st century (air, space, cyber). The U.S. military's conventional superiority has made direct warfare with the America unlikely and led adversaries to focus on asymmetric strategies as an indirect, less expensive, approach to counter U.S. advantages.⁹

⁶ Ibid.

⁷ Ibid.

⁸ Murdock, Crotty, and Sayler, "Planning for a Deep Defense Drawdown," 15.

⁹ Ibid., 16.

The fourth driver is the change in strategy. Capabilities required for isolationism are different than those needed for an engagement or containment strategy. For example, President Eisenhower's "New Look" strategy relied on nuclear weapons as a cost-effective method of executing the U.S.' containment strategy, which was important considering the post-Korean War reductions in the defense budget. However, decreased credibility of the threat of "massive retaliation" led to the adoption of the "Flexible Response" strategy under President Kennedy.¹⁰ This strategy enabled the United States to rebuild its conventional and special operations forces to counter threats such as the Cuban guerrillas during the 1960s. Additionally, it provided the U.S. military more conventional force capability to counter the Soviet Union short of nuclear engagement during the same timeframe.

As leaders consider these drivers, the DoD should adopt four guiding principles to manage the current drawdown. (1) The DoD must adjust its strategy-to-budget cuts by realigning ends to means and eliminate some missions. Stability operations without proper resources will likely result in over-commitment and another hollow force. (2) The DoD must preserve the quality of the all-volunteer-force. The DoD should prioritize funding military readiness at the expense of force structure. Readiness should be driven by the demand for military capabilities and DoD's strategy for meeting the requirement. (3) Protect "balanced" procurement and acquisition at the expense of force structure and end-strength numbers. The current drawdown takes 38 percent of the budget cuts from procurement accounts, although they only account for 20 percent of the overall defense budget. The most critical tradeoff in acquisition is between how much capability to buy to meet current threats versus how much to invest in preparing for future threats. (4) The

¹⁰ Ibid.

DoD must retain surge capability in selected areas (e.g., major combat ops, stability ops) by leveraging active and reserve component capability. Risk must be managed by retaining the ability to respond to lower probability events and strategic shocks.¹¹

As an end-state, the DoD should focus on a smaller force that is robustly manned, trained, and equipped. The goal is to avoid a hollow force by preserving readiness and modernization over force structure. Manning and readiness should be the top priority. This does not eliminate "tiered readiness" options, but the tiers are defined by strategy (e.g., do not prep for large-scale stability ops) and the ability to mobilize upon strategic warning. The result is a smaller, more agile force that is fully modernized and ready.¹²

In 2012, the Defense Drawdown Working Group developed and recommended a 7-step approach aimed at optimizing U.S. forces during the current defense drawdown. (1) Identify the demand for military capabilities that produce a framework for making the tough trade-off decisions needed to prioritize U.S. defense capabilities. (2) Identify high-leverage capabilities that are relevant to future military operations and ensure they are sustained. (3) Identify specific capabilities that a combatant commander "must have" to deal with future threats. (4) Size the force to determine the end-state of a deeper defense drawdown that costs about one third less than the total cost (base budget and OCO funding) of the 2010 force, the point where the post-9/11 buildup peaked. This reduction accounts for the increased OCO funding provided during both surge operations conducted in Iraq and Afghanistan. Critical capabilities could be preserved in the U.S. military's reserve component which costs approximately one third less than the active component. (5) Build a force planning template consisting of capability tradespace,

¹¹ Ibid., 20.

¹² U.S. Department of Defense, "Defense Budget Priorities and Choices," 1.

innovation account, and institutional force.¹³ This template would allow DoD to maintain deployment flexibility, surge capacity, and preserves high-tech combat capability.

Capability tradespace refers to the percent of Total Obligation Authority (TOA) available for acquiring equipment, personnel, and infrastructure and comprises the "operational force." The innovation account is the percent which enables the DoD to force the pace of military innovation, shape the evolution of warfare, and maintain its technological superiority. It preserves the "strategic surprise" concept by fielding capabilities developed in covert programs (e.g., precision strike in the 1970s, stealth technology in the 1980s, and directed energy in 2020) that are game-changers during combat. The institutional force is the percentage of TOA that supports the operational force (Title 10 responsibilities, policy development, and oversight functions of OSD and the Joint Staff, combatant command structures, etc.). (6) Build a cost estimate of specific future capabilities which include weapons, force structure, and associate infrastructure in the capability portfolios. (7) The DoD should develop alternative future force mixes (air, land, sea, space, cyberspace) based on estimated defense dollars available for capability tradeoffs. Each future force mix would represent different strategies and priorities of how the DoD should spend its limited operational capability dollars beyond 2020.¹⁴

Each force mix alternative must indicate specific weapon systems, force structure elements and infrastructure that is currently being procured and what capabilities are not being acquired. Understanding the specifics associated with making strategic choices

¹³ Murdock, Crotty, and Saylor, "Planning for a Deep Defense Drawdown," 25.

¹⁴ Ibid., 26.

about the future capabilities is critical for senior leaders and decision makers who have the responsibility to make critical national defense capability investment decisions.

CONCLUSION

Many historians note that economically weak countries cannot remain great powers. The recent U.S. economic crisis and the national debt underscores this reality. The period between WWII and the Korean War is similar to today's fiscally-constrained and challenging national security environment. After WWII, President Truman faced tough economic conditions at home and the global spread of communism. The economy took priority over defense spending and security interests abroad. Clear lines of national interests drawn on a map in the Far East emboldened North Korea, with support from the Soviet Union and China, to invade South Korea in 1950. The United States found itself ill-prepared to fight an unexpected war, in an unexpected place, at an unexpected time.

Today, the DoD faces two distinct budget threats; fewer defense dollars available and a weaker defense dollar. Whether it is caused by the Budget Control Act's sequester provision or agreed to by a grand bargain over government spending and taxes, the DoD will be forced to deal with significantly deeper national defense cuts in addition to the \$487 billion BCA cut. The purchasing power of the defense budget has eroded over the past decade and continues to weaken based on inflation and exponential acquisition costs. The effect of both defense budget threats on the DoD's ability to provide military capabilities is the same; less capability to protect the nation and secure its interests.

Therefore, the DoD must implement an executable, long-range defense strategy, reform its costly acquisition system, reallocate resources to preserve the quality of today's all-volunteer-force and fund modernization programs, while retaining the flexibility to adapt to unpredictable threats. This strategy must be accomplished in the context of the nation's current debt crisis and the impact of sequestration. While the DoD has a large degree of redundancy, defense budget cuts should not be made indiscriminately since

they are difficult and risky. However, reforming the current defense acquisition system and PPBE system will allow the DoD to eliminate wasteful spending, optimize the future joint force, and help avoid another hollow force.

Through a prioritized security needs evaluation of DoD's key operations—air, land, sea, space, cyber, nuclear, and special operations forces—there are opportunities to cut redundant costs while maintaining critical military capabilities and capacity. Though politically unpopular to cut, personnel costs must be controlled as they continue to absorb an increasing share of the DoD's budget. Budget realities and the impact of sequestration to the national defense budget require serious solutions. These solutions must ensure defense needs are met while reducing spending on lower priority, unnecessary, failed, and duplicative programs throughout the federal government, including the DoD.

The readiness of the U.S. Armed Forces is at a critical point. The United States is on the verge of creating a hollow force based on cuts that force the DoD to retain more force structure than requested while underfunding readiness. America's debt threatens not only the defense budget, but the entire spectrum of national security. The DoD must consolidate duplicative programs and eliminate programs that do not impact national security. The DoD must prioritize every dollar spent ensuring that it is linked to national security strategy. While it is not time to further cut the DoD and the budget, there is a need for fiscal prudence. Reforming acquisition and PPBE systems are fundamental to the efficient and intelligent use of limited resources. The keys to optimizing the military is reforming the way DoD procures new equipment through acquisition transformation, and making sure that each of its military services is structured to respond to realistic threats the United States faces in the 21st century while avoiding another hollow force.

BIBLIOGRAPHY

- Adamsky, Dima. "The War Over Containing Iran: Can a Nuclear Iran be Stopped?" *Foreign Affairs* 90, no. 2 (April 2011): 155-68. <http://www.cfr.org/iran/war-over-containing-iran/p24181> (accessed August 15, 2012).
- Aerospace Industries Association. "New Report Predicts Widespread American Job Losses." *Defense & Aerospace Week* (July 17, 2012): 1040. http://www.aia-aerospace.org/newsroom/aia_news/new_report_predicts_widespread_american_job_losses/ (accessed September 1, 2012).
- Art, Robert J. "The United States and the Rise of China: Implications for the Long Haul." *Political Science Quarterly* 125, no. 3 (Fall 2010): 359-91. <http://www.psqonline.org/article.cfm?IDArticle=18621> (accessed August 23, 2012).
- Barno, David W., Lieutenant General, USA (Ret.), Nora Bensahel, and Travis Sharp. "Hard Choices: Responsible Defense in an Age of Austerity." Center for a New American Strategy, October 2011. http://www.cnas.org/files/documents/publications/CNAS_HardChoices_BarnoBensahelSharp_0.pdf (accessed January 20, 2013).
- Beckett, Mike, et al. "Defense, Deficits, and Deployments: The Future of U.S. Military Policy." *Henry M. Jackson School of International Studies*, University of Washington, Task Force Report (Winter 2012). <https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/19671/O%20Smith%20Task%20Force%20Final%20Report.pdf?sequence=1> (accessed August 15, 2012).
- Bennett, John T. "Advisers: Overhaul DoD Arms Buying, 'Business As Usual No Longer an Option,'" *Defense News*, October 27, 2008. <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA515333> (accessed November 10, 2012).
- Birkler, John. "Assessing Competitive Strategies for the Joint Strike Fighter." RAND National Defense Research Institute, 2001. http://www.rand.org/pubs/monograph_reports/MR1362.html (accessed October 7, 2012).
- Blickstein, Irv, and John Birkler, et al. "Root Cause Analysis of Nunn-McCurdy Breaches." RAND National Defense Research Institute, 2011. <http://www.rand.org/pubs/monographs/MG1171z1.html> (accessed October 7, 2012).
- Bucci, Steven, and Owen Graham. "Flawed Sequester Report Reinforces to Quickly Reverse Damaging Defense Cuts." The Heritage Foundation, September 20, 2012. <http://blog.heritage.org/2012/09/20/defending-defense-flawed-sequester-report-reinforces-need-to-quickly-reverse-damaging-defense-cuts/> (accessed October 1, 2012).

- Candrea, Philip J. "Global War on Resource Management." *The Armed Forces Comptroller* 49, no. 2 (Spring 2004): 15-8.
<http://news-business.vlex.com/vid/global-war-on-resource-management-53275651>
 (accessed August 15, 2012).
- Canterbury, Angela, and Ben Freeman. "Spending Less, Spending even Smarter: Recommendations for National Security Savings, FY2013-FY2022--Deficit Reduction: \$688 Billion." Project on Government Oversight, May 8, 2012,
<http://www.pogo.org/our-work/reports/2012/ns-wds-20120508-national-security-defense-savings.html> (accessed August 15, 2012).
- Chou, Shuo-Ju. "A Conceptual Methodology for Assessing Acquisition Requirements Robustness Against Technology Uncertainties." PhD diss., Georgia Institute of Technology, 2011. <http://udini.proquest.com/view/a-conceptual-methodology-for-pqid:2417072731/> (accessed August 9, 2012).
- Clark, Charles S. "Furloughs Remain a Recurring Theme in Forecasting Sequestration's Impact." *National Journal*, September 20, 2012. <http://www.govexec.com/defense/2012/09/furloughs-remain-recurring-theme-forecasting-sequestrations-impact/58259/> (accessed September 27, 2012).
- Clausewitz, Carl Von. *On War*. Edited by Michael Howard and Peter Paret. Translated by Michael Howard and Peter Paret. New York, NY: Alfred A. Knopf, 1993.
- Collins, Elizabeth M. "McHugh Discusses Army of Today, Army of 2020." *Soldiers Magazine*, June 22, 2012. http://www.army.mil/article/82205/McHugh_discusses_Army_of_today__Army_of_2020.pdf (accessed September 15, 2012).
- Conetta, Carl, Charles Knight, Ethan Rosenkranz, Christopher Preble, and Benjamin H. Friedman. "Defense Sense: Options for National Defense Savings, FY 2013," May 15, 2012. <http://www.cato.org/sites/cato.org/files/articles/120515DefSense.pdf> (accessed November 24, 2012).
- Congressional Research Service. *Defense Acquisitions: How DoD acquires Weapon Systems and recent efforts to reform the process, by the Congressional Research Service, April 2010*. Washington, DC: Government Printing Office, 2010.
- . *A Historical Perspective on 'Hollow Forces', by the Congressional Research Service, by the Congressional Research Service, January 2012*. Washington, DC: Government Printing Office, 2012.
- Cordesman, Anthony H., and Robert M. Shelala II. "The 2013 Defense Budget, the Threat of Defense Cuts and Sequestration, and the Strategy-Reality Gap." Center for Strategic and International Studies, June 12, 2012. http://csis.org/files/publication/120612US_New_Strategy_FY13_Budget.pdf (accessed November 24, 2012).

- Daddis, Gregory A. "Paris Revisited: Preparing for the Uncertain Future of Warfare." *Armor* 111, no. 4 (Jul/Aug 2002): 10-4. http://mafb-primo.hosted.exlibrisgroup.com/primo_library/libweb/action/diDisplay.do?vid=MAFB&docId=MAFB_AULIMP45203&fromSitemap=1&afterPDS=true (accessed September 10, 2012).
- Davis, Paul K., and Zalmay M. Khalilzad. "A Composite Approach to Air Force Planning." RAND Corporation, Santa Monica, CA, 1996.
- Dempsey, Martin, General, USA. "Statement of General Martin E. Dempsey, Chairman Joint Chiefs of Staff before the House Armed Services Committee: FY13 Department of Defense Budget." February 15, 2012. <http://www.jcs.mil/speech.aspx?ID=1678> (accessed September 1, 2012).
- Dunmire, Philip L. "'Challenges and Opportunities'." *Sea Power* 55, no. 2 (Feb 2012): 3. <http://ezproxy6.ndu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=tsh&AN=71251217&site=ehost-live&scope=site> (accessed September 10, 2012).
- Eide, Peter K., Colonel, USAF, and Charles D. Allen, USA (Ret.). "The More Things Change, Acquisition Reform Remains the Same." *Defense AR Journal* 19, no. 1 (Jan 2012): 99-120. [http://www.carlisle.army.mil/USAWC/DCLM/The%20More%20Things%20Change%20Acq%20Reform%20Remains%20the%20Same%20\(Eide,%20Allen,%20DARJ%2061\).pdf](http://www.carlisle.army.mil/USAWC/DCLM/The%20More%20Things%20Change%20Acq%20Reform%20Remains%20the%20Same%20(Eide,%20Allen,%20DARJ%2061).pdf) (accessed November 17, 2012).
- Erwin, Sandra I. "Pentagon Budget Cuts are Only Prelude to Future 'Grand Bargain'." *National Defense* 96, no. 700 (Mar 2012). <http://www.nationaldefensemagazine.org/archive/2012/March/Pages/PentagonBudgetCutsAreOnlyPreludetoFuture%E2%80%9898GrandBargain%E2%80%99.aspx> (accessed September 15, 2012).
- Fainer, Andy. "A Glimpse into DoD Weapon Systems Programs." *Defense AR Journal* 15, no. 2 (July 2008): 194-207.
- Farrell, Lawrence P. "'Gentlemen, we have Run Out of Money; Now we have to Think'." *National Defense* 96, no. 696 (November 2011). <http://www.nationaldefensemagazine.org/archive/2011/November/Pages/%E2%80%9898Gentlemen,WeHaveRunOutOfMoney;NowWeHavetoThink%E2%80%99.aspx> (accessed September 1, 2012).
- Flournoy, Michele. "Defense Strategic Guidance Media Roundtable at the Pentagon." January 5, 2012. <http://www.defense.gov/transcript.aspx?transcriptid=4954> (accessed September 5, 2012).
- Flournoy, Michele A., and Shawn W. Brimley. "Strategic Planning for National Security: A New Project Solarium." *Joint Forces Quarterly* Issue 41 (2nd Quarter 2006). <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA521724> (accessed August 21, 2012).

- Foxx, Virginia. "President should Stop Holding Defense Hostage to Advance Class Warfare Agenda." Federal Information and News Dispatch. September 13, 2012. <http://foxx.house.gov/index.cfm?sectionid=55&itemid=1751> (accessed October 1, 2012)
- Freier, Nathan. "Known Unknowns Strategic Shocks in Defense Strategy Development." Strategic Studies Institute (November 4, 2008). <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubID=890> (accessed September 1, 2012).
- Fuller, Stephen S., PhD. "The Economic Impact of the 2011 Budget Control on DoD and non-DoD Agencies." George Mason University Center for Regional Analysis. 17 July 2012. http://www.aia-aerospace.org/assets/Fuller_II_Final_Report.pdf (accessed September 15, 2012).
- Gaddis, John Lewis. *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War*. Oxford University Press, 2005.
- Government Accountability Office. *Defense Acquisitions: Assessments of Selected Weapons Programs*. Washington, DC: Government Accountability Office, March 2012. <http://www.gao.gov/assets/590/589695.pdf> (accessed November 24, 2012).
- . *Defense Acquisitions: Assessments of Selected Weapon Programs*. Washington, DC: Government Accountability Office, March 2009. <http://www.gao.gov/products/GAO-09-326SP> (accessed December 11, 2012).
- . *Defense Acquisitions: Assessments of Selected Weapons Programs*. Washington, DC: Government Accountability Office, March 2008. <http://www.gao.gov/assets/280/274156.pdf> (accessed November 24, 2012).
- . *Defense Acquisitions: Assessments of Selected Weapon Programs*. Washington, DC: Government Accountability Office, March 2007. <http://www.gao.gov/products/GAO-07-406SP> (accessed December 11, 2012).
- . *Defense Acquisitions: Assessments of Selected Major Weapon Programs*. Washington, DC: Government Accountability Office, March 2006. <http://www.gao.gov/products/GAO-06-391> (accessed December 11, 2012).
- . *Defense Acquisitions: Assessments of Major Weapon Programs*. Washington, DC: Government Accountability Office, May 2003. <http://www.gao.gov/products/GAO-03-476> (accessed December 11, 2012).
- Griffin, Drew, and Kathleen Johnston. "Army to Congress: Thanks but no Tanks." *CNN Security Clearance*. <http://security.blogs.cnn.com/2012/10/09/army-to-congress-thanks-but-no-tanks/> (accessed November 24, 2012).

Hale, Robert H. "Promoting Efficiency in the Department of Defense: Keep Trying, But Be Realistic." Center for Strategic and Budgetary Assessments. January 25, 2002. <http://www.csbaonline.org/publications/2002/01/promoting-efficiency-in-the-department-of-defense-keep-trying-but-be-realistic.pdf> (accessed September 20, 2012).

Harrison, Todd. "Analysis of the FY13 Defense Budget," Center for Strategic and Budget Assessments. August 24, 2012. <http://www.csbaonline.org/publications/2012/08/analysis-of-the-fy2013-defense-budget-and-sequestration.pdf> (accessed September 1, 2012).

----- "Strategic Choices: Navigating Austerity." Center for Strategic and Budgetary Assessments. November 2012. <http://www.csbaonline.org/publications/2012/11/strategic-choices-navigating-austerity.pdf> (accessed November 29, 2012).

----- "What the Fiscal Cliff Deal means for Defense." Center for Strategic and Budgetary Assessments. January 2013. <http://www.csbaonline.org/publications/2013/01/what-the-fiscal-cliff-deal-means-for-defense/> (accessed January 11, 2013).

Henderson, William D. *The Hollow Army: How the U.S. Army is Oversold and Undermanned*. New York: Greenwood Press, 1990.

Henry, Ryan. "Defense Transformation and the 2005 Quadrennial Defense Review." *Parameters* 35, no. 4 (Winter 2005): 5-15. <http://www.carlisle.army.mil/usawc/parameters/Articles/05winter/henry.pdf> (accessed October 1, 2012).

Huntley, Wade L. "Threats all the Way Down: US Strategic Initiatives in a Unipolar World." *Review of International Studies* 32, no. 1 (January 2006): 49-67. <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=40948> (accessed September 20, 2012).

Jasper, Scott E. "Transforming Joint Warfighting Capabilities." *Joint Force Quarterly*, no. 35 (2004): 69-76. <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA524598> (accessed September 23, 2012).

Jones, Frank L. "A 'Hollow Army' Reappraised: President Carter, Defense Budgets, and the Politics of Military Readiness." *The Letort Papers*. Strategic Studies Institute, U.S. Army War College, Carlisle, PA. <http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubid=1125> (accessed October 20, 2012).

Kennedy, Paul. *The Rise and Fall of the Great Powers*. New York, NY: Random House, 1987.

Kitfield, James. "After the Revolution." *National Journal* (February 4, 2006): 36. <http://search.proquest.com/docview/200291349?accountid=12686> (accessed September 1, 2012).

- Korb, Lawrence, and Alex Rothman, "A Historical Perspective on Defense Budgets." Center for American Progress. July 6, 2011. <http://www.americanprogress.org/issues/2011/07/historical-defense-budget.html> (accessed September 23, 2012).
- Kraft, Jonathan. "The Evolution of Program Budgeting in the United States Government." *The Armed Forces Comptroller* 54, no. 1 (Winter 2009): 40-1. <http://web.ebscohost.com/ehost/detail?sid=51824481-1adb-407c-bf01-2eff22180cf7%40sessionmgr15&vid=1&hid=18&bdata=JnNpdGU9ZWhvc3QtbGl2ZSdzY29wZT1zaXRl#db=bah&AN=37708433> (accessed September 12, 2012).
- Kramer, Robert. "The Politics of Sequestration: 2012." *Financial Executive* 28, no. 3 (Apr 2012). http://www.financialexecutives.org/KenticoCMS/Financial-Executive-Magazine/2012_04/The-Politics-of-Sequestration--2012.aspx#axzz2KzR7AULo (accessed August 10, 2012).
- Kurth, James. "American Strategy in the Global Era." *Naval War College Review* 53, no. 1 (Winter 2000): 7-24. <http://www.questia.com/library/1P3-53005319/american-strategy-in-the-global-era> (accessed September 15, 2012).
- Losey, Stephen. "Sequestration Promises Much Federal Pain." *Defense News* 27, no. 31 (August 6, 2012): 22. http://mafb-primo.hosted.exlibrisgroup.com/primo_library/libweb/action/dlDisplay.do?vid=MAFB&docId=MAFB_AULIMP196181&fromSite=map=1&afterPDS=true (accessed October 1, 2012).
- Marshall, Tyrone C. "Carter Describes Possible Unintended Effects of Sequestration Law." <http://www.defense.gov/News/NewsArticle.aspx?ID=117364> (accessed August 10, 2012).
- Matthews, William. "Tick, Tick, Tick." *National Guard* 66, no. 10 (Oct 2012): 22-5. <http://search.proquest.com/docview/1114110419?accountid=12686> (accessed November 15, 2012).
- Medeiros, Evan S. "Strategic Hedging and the Future of Asia-Pacific Stability." *The Washington Quarterly* 29, no. 1 (Winter 2005/2006): 145-67. http://www.cerium.ca/IMG/pdf/Strategic_Hedging_and_the_Future_of_Asia-Pacific_Stability.pdf (accessed August 15, 2012).
- Melcher, David F. "Planning, Programming, Budgeting and Execution (PPBE) for an Army at War and Transforming - Programming to Produce Preeminent Landpower." *Army AL & T* (Jul-Sep 2006): 34-7. <http://www.highbeam.com/doc/1P3-1095911731.html> (accessed September 1, 2012).
- Miller, Drew, Colonel, USAF. "Improving Cost-Effectiveness in the Department of Defense." *Air & Space Power Journal* 24, no. 1 (Spring 2010): 35-47. <http://www.airpower.au.af.mil/airchronicles/apj/apj10/spr10/miller.html> (accessed September 12, 2012).

- Murdock, Clark, Kelley Saylor, and Ryan Crotty. "The Defense Budget's Double Whammy: Drawing Down while Hollowing Out from Within." Center for Strategic and International Studies. 18 October 2012. http://csis.org/files/publication/121018_Murdoch_DefenseBudget_Commentary.pdf (accessed November 10, 2012).
- Murdock, Clark A., Ryan A. Crotty, and Kelley Saylor. "Planning for a Deep Defense Drawdown - Part I: A Proposed Methodological Approach." Center for Strategic and International Studies. May 2012. http://csis.org/files/publication/120522_DD_Interim_Report.pdf (accessed August 23, 2012).
- Obama, Barack. "Remarks by the President on the Defense Strategic Review." January 5, 2012. <http://www.whitehouse.gov/the-press-office/2012/01/05/remarks-president-defense-strategic-review> (accessed September 1, 2012).
- Office of Management and Budget. *Budget of the United States Government, Fiscal Year 2008: Historical Tables* (Government Printing Office, 2007). <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2008/pdf/hist.pdf> (accessed October 1, 2012).
- . *Historical Tables: Budget of the United States Government, Fiscal Year 2009* (Government Printing Office, February 2008). <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2009/pdf/hist.pdf> (accessed October 1, 2012).
- Office of the Under Secretary of Defense (Comptroller). "Department of Defense Efficiency Initiatives FY2012 Budget Estimates" (February 2011). http://comptroller.defense.gov/defbudget/fy2012/FY2012_Efficiency_Justification_Book.pdf (accessed September 10, 2012).
- . "National Budget Estimates for FY2013" (March 2012). http://comptroller.defense.gov/defbudget/fy2013/FY13_Green_Book.pdf (accessed September 23, 2012).
- O'Hanlon, Michael E. "Clinton's Strong Defense Legacy." *Foreign Affairs* 82, no. 6 (November/December 2003): 126-135. <http://www.foreignaffairs.com/articles/59374/michael-ohanlon/clintons-strong-defense-legacy> (accessed September 20, 2012).
- . *Budgeting for Hard Power: Defense and Security Spending Under Barack Obama*. Washington, DC: Brookings Institution Press, 2009.
- . "A Moderate Plan for Defense Budget Cuts." *Foreign Policy at Brookings*. Policy Paper, no. 30 (January 2013): 1-32. <http://www.brookings.edu/~media/research/files/papers/2013/1/defense%20budget%20cuts%20ohanlon/defense%20budget%20cuts%20ohanlon.pdf> (accessed February 14, 2013).

- Paarlberg, Robert L. "Knowledge as Power: Science, Military Dominance, and U.S. Security." *International Security* 29, no. 1 (Summer 2004): 122-51. <http://www.mitpressjournals.org/doi/abs/10.1162/0162288041762959> (accessed September 15, 2012).
- Paparone, Christopher R. "PPBE: A Red or a Blue Pill? Can Defense Sensemakers really be Rational in a Hyperturbulent World?" *Defense AR Journal* 15, no. 2 (July 2008): 150-73. http://www.dau.mil/pubscats/PubsCats/ARJ48_Paparone.pdf (accessed September 12, 2012).
- Peyer, Polly A., Lieutenant Colonel, USAF. "Hollow Force: Scare or Dare?" Executive Research Project, Industrial College of the Armed Forces. Washington, DC, 1994.
- Planeaux, James A., Lieutenant Colonel, USAF. "Beyond the Task Force CONOPS: The Path to a Capabilities-Based Modernization Framework for the Air Force." Master's Thesis, United States Air War College, 2003.
- Posen, Barry R. "Command of the Commons: The Military Foundation of U.S. Hegemony." *International Security* 28, no.1 (Summer 2003): 5-46. <http://www.mitpressjournals.org/doi/abs/10.1162/016228803322427965> (accessed September 15, 2012).
- Ritschel, Jonathan D. "Political Economy of Military Weapon Systems Acquisitions." PhD diss., George Mason University, 2011. <http://search.proquest.com/docview/895100902?accountid=12686> (accessed August 23, 2012).
- Shambaugh, David. "A New China Requires a New US Strategy." *Current History* 109, no. 728 (September 2010): 219-26. <http://search.proquest.com/docview/749601526?accountid=12686> (accessed September 9, 2012).
- Sharp, Travis. "Down Payment: Defense Guidance, 2013 Defense Budget and the Risks of Sequestration." Center for a New American Security. February 2012. <http://www.cnas.org/2013defensebudget> (accessed September 23, 2012).
- Sledge, Nathaniel H. "Defense Spending: Today's 'Broken' Budgeting Process must Change." *National Defense* 95, no. 684 (Nov 2010): 18-20. <http://www.nationaldefensemagazine.org/archive/2010/November/Pages/Today%E2%80%99s%E2%80%98Broken%E2%80%99BudgetingProcessMustChange.aspx> (accessed August 10, 2015).
- Stimson Report. "A New Defense Strategy for a New Era: Military Superiority, Agility, and Efficiency." Peterson G. Foundation (Washington, DC: Stimson, 2012). http://www.stimson.org/images/uploads/researchpdfs/A_New_US_Defense_Strategy_for_a_New_Era.pdf (accessed November 17, 2012)

- Strano, Michael A., Captain, USN. "Planning, Programming, Budgeting, and Execution." Lecture, Joint Advanced Warfighting School, Norfolk, VA, December 11, 2012.
- Sullivan, Michael J. "V-22 Osprey Aircraft: Assessment Needed to Address Operational and Cost Concerns to Define Future Investments." Director of Acquisition and Sourcing Management, Government Accountability Office, testimony before the Committee on Oversight and Government Reform, U.S. House of Representatives on June 23, 2009 (accessed September 7, 2012)
- Sutter, Robert. "The Obama Administration and US Policy in Asia." *Contemporary Southeast Asia* 31, no. 2 (August 2009): 189-216. http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/contemporary_southeast_asia_a_journal_of_international_and_strategic_affairs/v031/31.2.sutter.html (accessed September 5, 2012).
- Tessman, Brock F. "System Structure and State Strategy: Adding Hedging to the Menu." *Security Studies* 21, no. 2 (2012): 192. <http://tessman.myweb.uga.edu/research/System%20Structure%20and%20State%20Strategy> (accessed October 15, 2012).
- Tzu, Sun. *The Art of War*. Translated by Samuel B. Griffith. London: Oxford University Press, 1963.
- U.S. Department of Defense. *Defense Budget Priorities and Choices*. Washington, DC: Department of Defense, January 2012). http://www.defense.gov/news/Defense_Budget_Priorities.pdf (accessed August 19, 2012).
- . *Quadrennial Defense Review Report 2006*. Washington, DC: Department of Defense, February 6, 2006. <http://www.defense.gov/qdr/report/Report20060203.pdf> (accessed September 15, 2012).
- . *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*. Washington, DC: Department of Defense, January 2012. http://www.defense.gov/news/Defense_Strategic_Guidance.pdf (accessed July 29, 2012).
- U.S. President. *National Security Strategy*. Washington DC: Government Printing Office, May 2010.
- Whitlock, Craig. "Hagel Would Face Immediate Budget Cuts: More than \$500 billion in Pentagon reductions are expected." *Washington Post*, January 8, 2013. <http://www.pressdisplay.com/pressdisplay/viewer.aspx> (accessed January 13, 2013).
- Wilhelm, Karen S. "Mobilizing for War in the 21st Century: An American Perspective." D.L.S., Georgetown University, 2012. <http://search.proquest.com/docview/1012286994?accountid=12686> (accessed November 1, 2012).

VITA

Lieutenant Colonel Lay recently served as the Chief of Advanced Programs, Director of Staff, and Deputy Operations Group Commander at the 20th Fighter Wing, Shaw Air Force Base, South Carolina. Commissioned in May of 1992, Lieutenant Colonel Lay is a graduate of the United States Air Force Academy. He has served as an instructor pilot and evaluator pilot in the F-16 and his prior assignments include: Training Officer (80th Fighter Squadron), Flight Commander (68th Fighter Squadron), Plans Officer (61st Fighter Squadron), Wing Electronic Combat Pilot (56th Fighter Wing), United States Air Force Weapons School graduate, Weapons Officer (78th Fighter Squadron), Wing Weapons Officer (20th Fighter Wing), F-16 Weapons and Tactics Program Manager (Headquarters Air Combat Command), Operations Officer and Squadron Commander (23rd Fighter Squadron). Lieutenant Colonel Lay is a Command Pilot with more than 2,700 in the F-16 including over 600 combat hours in Operations SOUTHERN WATCH, NORTHERN WATCH, and IRAQI FREEDOM.

Lieutenant Colonel Lay holds an undergraduate degree in Human Factors Engineering from the United States Air Force Academy. He is also a graduate of the Embry-Riddle Aeronautical University Master's Degree program, Squadron Officer School, Air Command and Staff College, and Air War College.