

*Joint Forces Staff College*  
Joint Advanced Warfighting School



**“Enabling Joint Interdependence through Capability Portfolio Management”**

by

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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.

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The future security environment will likely be characterized by uncertainty and dynamic, adaptive challenges. To successfully meet those challenges, the U.S. Department of Defense must become more responsive and efficient. The Department has made great strides in achieving efficiencies and unity of effort since the Goldwater-Nichols Defense Reform Act of 1986. Recent joint operational successes demonstrate the value of joint planning, unity of command and short, clear lines of authority in achieving unified action among the Services.  
Strategic defense planning guidance has failed to provide a cohesive structure by which to identify areas of emphasis and risk, and where to shift short, mid and long-term investments to meet the perceived challenges and opportunities. The combined Defense requirements, budgeting and acquisition processes are not structured to both respond quickly to an adaptive threat and deliver joint warfighting capabilities that will enable interdependent operations. This paper proposes that improved strategic defense planning guidance and horizontal integration processes such as Capability Portfolio Management will be required to achieve a true joint culture and reap the benefits of interdependent operations.

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## Abstract

The future security environment will likely be characterized by uncertainty and dynamic, adaptive challenges. To successfully meet those challenges, the U.S. Department of Defense must become more responsive and efficient. The Department has made great strides in achieving efficiencies and unity of effort from an operational perspective since the Goldwater-Nichols Defense Reform Act of 1986. Joint operational successes in Operations JUST CAUSE and ENDURING FREEDOM demonstrate the value of joint planning, unity of command and short, clear lines of authority in achieving unified action among the Services.

To achieve significant additional increases in the effectiveness and efficiency associated with unified action, force development processes must be improved. Strategic defense planning guidance in the past has failed to provide a cohesive structure by which to identify areas of emphasis and risk, and where to shift short, mid and long-term investments to meet the perceived challenges and exploit opportunities. The combined Defense requirements, budgeting and acquisition processes are not structured to either respond quickly to an adaptive threat or to deliver joint warfighting capabilities that will enable interdependent operations. This paper proposes that improved strategic defense planning guidance and a horizontal integration process such as Capability Portfolio Management will be required to achieve a true joint culture and reap the benefits of interdependent operations.

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## *Chapter 1*

### INTRODUCTION

Security challenges in the post-Cold War era are no longer dominated by well-defined actors employing traditional forms of warfare, but now include transnational organizations utilizing irregular, catastrophic and disruptive warfare methods.<sup>1</sup> Achieving national security objectives in a dynamic and uncertain environment requires agility, decisiveness<sup>2</sup>, and the unified effort of the unique and diverse set of capabilities brought by all elements of national power. The U.S. military, as one of the key elements of national power, must ensure that its activities are synchronized among the contributing Services as a necessary precursor to achieving unity of effort with external organizations.

The adaptive and diverse nature of the threats to national security highlights a long-standing challenge for the Department of Defense referred to as “the paradox of joint culture”.<sup>3</sup> The argument is centered on the apparently contradictory objectives of achieving unity of effort through a joint, “purple” force and maintaining the diverse perspectives of the individual Services. The pursuit of unity of effort through joint operations, some argue, erodes unique thought and service core competencies, hence reducing options available to the joint force commander. Reduced competitiveness in the domain of ideas can produce a monopolistic viewpoint that stifles innovation, is unable to

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<sup>1</sup> U.S. Department of Defense, Office of the Chairman of the Joint Chiefs of Staff, *2004 National Military Strategy*, Open-file report, (Washington, DC: Government Printing Office, 2004), 4-7.

<sup>2</sup> The 2004 National Military Strategy defines decisiveness as the ability of the combatant commander to tailor joint force capabilities and employ them in unique ways in order to mass effects and achieve the desired outcome.

<sup>3</sup> David T. Fautua, “The Paradox of Joint Culture,” *Joint Forces Quarterly*, no. 26 (Autumn 2000): 81.

perceive both gaps and seams in capabilities, and is incapable of adapting quickly to changes in the strategic environment.

The nature of competition between groups does not tend to inspire cooperation, and transforming a culture of competition into one of cooperation is often a deliberate process. A number of essential elements must be in place to achieve cooperation and teamwork among a group of would-be competitors. First, group members have a clearly defined set of common values – a vision - to which individuals are willing to subordinate their own interests. The legendary football coach Vince Lombardi said “individual commitment to a group effort – that is what makes a team work, a company work, a society work, a civilization work.”<sup>4</sup> Equally important is trust and confidence between group members, both in terms of commitment to the common values and expertise in individual core competency. Teamwork among the military Services involves a clear understanding of “what your fellow soldiers, sailors, airmen, and Marines bring to the battle and trusting them to do it right and well – and their feeling the same way about you.”<sup>5</sup> Removing institutional barriers, such as language, terminology, and doctrine are essential for establishing trust, but ultimately operational excellence within each service is the bedrock of the joint team.

The U.S. military Services, codified by law as separate and distinct organizations, exist as both members of the Department of Defense team and competitors for limited

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<sup>4</sup> Brainy Quote, “Vince Lombardi Quotes,” [http://www.brainyquote.com/quotes/authors/v/vince\\_lombardi.html](http://www.brainyquote.com/quotes/authors/v/vince_lombardi.html) (accessed 30 Nov 2007).

<sup>5</sup> Lawrence B. Wilkerson, “What exactly is jointness?,” *Joint Forces Quarterly*, no. 16 (Summer 1997): 66.

resources and primacy of operating concepts. There have been significant improvements in cooperation among the U.S. military Services through continued excellence within service core competencies along with changes in organizational structure, doctrine, and training.<sup>6</sup> The pace of transformation of the Department of Defense business enterprise for providing joint warfighting capabilities has been much slower despite significant reform efforts during the last seven years of the Bush Administration. Cold-war era, service-centric business processes continue to resist change and critical financial resources are frequently out of alignment with joint capability priorities.<sup>7</sup> The individual Military Services provide the majority of the Department's resources, but the lack of governance and incentive for organizing across service boundaries has led to both seams and excess redundancy in a number of key capability areas.<sup>8</sup> Cultures and parochialisms have discouraged interdependence, contributing to the tendency for each Service to seek to deliver a stand-alone warfighting package.

The United States military service structures have produced the finest fighting forces in the world, yet those same individual service structures have been slow to adapt and develop a culture of effective joint operations. The 1986 Goldwater-Nichols Act was created to address this long-standing tension between service parochialism and the need for effective joint operations, and it has provided a significant impetus toward achieving true unity of effort among the military forces of the United States. The act streamlined chains

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<sup>6</sup> U.S. Department of Defense, *Quadrennial Defense Review Report*, Office of the Secretary of Defense. Washington, DC: Government Printing Office, 63.

<sup>7</sup> U.S. Department of Defense, *Joint Defense Capabilities Study Final Report*. January 2004, 2-5.

<sup>8</sup> U.S. Department of Defense, 2006 Quadrennial Defense Review Report, 68.

of command and made functional and regional unified Combatant Commanders directly responsible to the President for mission planning and execution, bypassing the service chiefs. The individual Services retained the responsibility to organize, train, and equip their respective forces in support of the unified and specified combatant commands. Goldwater-Nichols specifically stated that Service Secretaries are responsible for “carrying out the functions of [their] Department ... so as to fulfill (to the maximum extent practicable) the current and future operational requirements of the unified and specified combatant commands.”<sup>9</sup> The act failed to create the strong governance required to integrate capabilities across the Services and more effectively support the joint force commander.

Recent acquisition reform studies have recognized the inability of the defense enterprise to effectively determine, prioritize and deliver capabilities to the joint warfighter<sup>10</sup>. The 2006 Quadrennial Defense Review further identified the “need to bring further agility, flexibility and horizontal integration to the defense support infrastructure”<sup>11</sup> to meet the challenges of the dynamic security environment. In September 2006, Deputy Secretary of Defense Gordon England issued a directive to begin a series of Capability Portfolio Management (CPM) test cases as an effort to more effectively deliver priority capabilities to the joint warfighter<sup>12</sup>. The initial focus areas are Joint Command and Control (JC2), Joint Net-Centric Operations (JNO), Battlespace Awareness (BA), and Joint

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<sup>9</sup> Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-433, 10 USC 3013 C4.

<sup>10</sup> U.S. Department of Defense, *Joint Defense Capabilities Study Final Report*. January 2004, iii.

<sup>11</sup> U.S. Department of Defense, 2006 Quadrennial Defense Review Report, 63.

<sup>12</sup> *Ibid*, 67.

Logistics (JL), which are in various stages of maturity at the time of this writing. The DEPSECDEF formally established these four and established five additional test-case CPMs in 2007 oriented along Joint Capability Areas (JCAs).<sup>13</sup>

The CPM process is modeled after successful commercial business practices for developing and marketing the new products essential to a corporation's growth and competitiveness. The portfolio management concept originated in the securities investment field, where in 1924 three Boston securities executives combined resources to form the Massachusetts Investors Trust mutual fund.<sup>14</sup> There are now over 8,000 mutual funds with assets exceeding \$12.35 trillion.<sup>15</sup> The central tenant of modern portfolio theory is that risk can be managed through diversification, or holding a variety of assets, without necessarily reducing the return of the portfolio. Project portfolio management (PPM), which evolved from investment portfolio theory, is a resource allocation decision tool designed to "maximise the contribution of projects to the overall welfare and success of the enterprise."<sup>16</sup> The process has gained widespread commercial acceptance as one that will enhance the corporation's ability to choose a blend of products that minimizes risk and produces a greater return within existing corporate resources. The project portfolio management process alone is not a sufficient guarantor of success. Studies have shown

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<sup>13</sup> Gordon England, "Capability Portfolio Management Way Ahead" (Memorandum from the Office of the Deputy Secretary of Defense, Washington, DC, 07 February 2008).

<sup>14</sup> A to Z Investments, "Discover the Origins of Mutual Fund Investing," <http://www.atozinvestments.com/mutualfunds.html> (accessed October 12, 2007).

<sup>15</sup> Investment Company Institute, "ICI Statistics and Research," [http://www.ici.org/stats/mf/trends\\_10\\_07.html](http://www.ici.org/stats/mf/trends_10_07.html), (accessed December 01, 2007).

<sup>16</sup> Shan Rajeqopal, Phillip McGuin and James Waller *Project Portfolio Management: Leading the Corporate Vision*. (Basingstoke: Palgrave Macmillan, 2007), 11.

that a sound business strategy, empowered decision makers, and a combination of PPM techniques are required to achieve business objectives.

The Quadrennial Defense Review (QDR) is the Department of Defense document that is the closest analogy to a business strategy. The intent of the QDR is to conduct a complete review of defense policies and programs, and establish a defense strategy and those capabilities required to successfully execute that strategy over the next 20 years.<sup>17</sup> The 2006 QDR examined the current external and internal operating environments, and proposed a number of initiatives to strengthen internal capabilities to provide the basis for a competitive advantage in the future operating environment. Defense analyst Michèle A. Flournoy, a panel member for 1997 and 2001 QDRs, provided criteria for evaluating the success of a QDR from a strategic perspective. Two of those key criteria ask if the QDR:

- Provides a sound framework for setting strategic priorities for the department and assist decisions on where to place emphasis and where to accept or manage a degree of risk;
- Identifies the near, mid and long-term shifts in investment required to achieve a force that is prepared to meet the 21<sup>st</sup> century threats and opportunities.<sup>18</sup>

This paper will examine the 2006 QDR using this construct to determine if it represents a sound strategy for 21<sup>st</sup> century U.S. security challenges and opportunities.

The joint capability portfolio management approach being undertaken by the Department of Defense is intended to manage groups of like capabilities across all Services

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<sup>17</sup> Department of Defense, "Quadrennial Defense Review Report," Office of the Undersecretary of Defense (Policy), <http://www.defenselink.mil/qdr/> (accessed 10 January 2008).

<sup>18</sup> Center for Strategic and International Studies, "The 2006 Quadrennial Defense Review," <http://www.csis.org/isp/qdr/> (accessed 10 January 2008).

to “improve interoperability, minimize capability redundancies and gaps, and maximize capability effectiveness.”<sup>19</sup> Military capabilities, or the ability to generate an effect, are the equivalent of corporate products. To maximize capabilities within fiscal constraints, portfolio managers are responsible to look across the entire spectrum of doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF). The intent is that their horizontal view, cutting across Services lines, will make them a strong advocate for joint warfighting needs in the requirements, resourcing and acquisition management processes.

The thesis of this paper is that Defense strategic guidance must provide a sound framework for capabilities and investment areas and Capability Portfolio Managers must have the requisite portfolio management authorities to develop a joint, interdependent force that can successfully meet the challenges of a dynamic future operating environment. Chapter 2 will provide a background on the tensions between service and joint culture, and the effectiveness of efforts to date to maintain diversity of ideas and core competencies while achieving unity of effort. Chapter 3 will examine defense reform studies and their recommendations to build on internal strengths and address weaknesses. Chapter 4 will introduce the principles of strategy development and provide a historical analogy that illustrates the difficulties in producing significant shifts in defense strategy. The chapter will also detail the concept of portfolio management and assess its implementation with the Joint Command and Control (JC2) and Joint Net-Centric Operations (JNO) portfolios. The

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<sup>19</sup> Gordon England, “Capability Portfolio Management Test Case Roles, Responsibilities, Authorities, and Approaches” (Memorandum from the Office of the Deputy Secretary of Defense, Washington, DC, 14 September 2006).

conclusions will propose recommended changes for the next QDR and the CPM process, and provide an assessment of the degree to which those improvements will potentially help create a culture that rewards diversity, strengthens core competencies, and achieves a more capable interdependent joint force.

## Chapter 2

*He whose ranks are united in purpose will be victorious.*

- Sun Tzu, The Art of War

### CREATING THE JOINT TEAM - HISTORICAL TENSIONS AND REFORM EFFORTS

*The nature of the challenges to the United States and its interests demand that the Armed Forces operate as a fully integrated joint team across the range of military operations. These operations may take place with the military forces of allies and coalition partners, US and foreign government agencies, state and local government agencies, and intergovernmental and nongovernmental organizations. The challenges are best met when the unified action of the Armed Forces elicits the maximum contribution from each Service and Department of Defense (DOD) agency and their unique but complementary capabilities. The resulting synergy from their synchronized and integrated action is a direct reflection of those capabilities.<sup>1</sup>*

The true art of teamwork is to unite team members harmoniously in the pursuit of a common objective, maintaining an environment where each team member is positioned to contribute their individual capabilities while subordinating their individual agendas in order to achieve team goals. Effective teamwork does not mean there is a total absence of internal conflict, but that a consensus regarding the best path to achieve team goals is reached and a common vision is adopted by all team members. The goals of the joint DoD team are to protect the United States against external attacks and aggression, prevent

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<sup>1</sup> U.S. Department of Defense, *Doctrine for the Armed Forces of the United States*, Joint Publication 1 (Washington, DC, 14 May 2007), i.

conflict and surprise attack, and prevail against adversaries.<sup>2</sup> The need to transform the defense establishment and engender service teamwork has been evident for many years, and the diverse, complex and adaptive nature of today's security challenges further reinforce the idea that no one service can unilaterally achieve military objectives. A historical examination of efforts to institutionalize teamwork among the Services provides insight into the challenges that remain.

Tensions between the Services have existed since they were formed, though it is not until the 20<sup>th</sup> century that combined service operations became common. The Army, Navy, and Marine Corps were established in 1775 to provide for the common defense of what was soon to be the United States. They were later organized under separate departments, with the Army under the War Department in 1789 and the Navy and Marine Corps under the Department of the Navy in 1798. Roles and missions were established around the land and sea environments, though the amphibious naval infantry nature of the Marine Corps provided a bridge between the two mediums. Common capabilities resident within the Army and Marine Corps have generated significant friction between the two Services, and there is a long history of attempts by prominent members of the Army to eliminate the Marine Corps as a separate service.<sup>3</sup> The Services from the outset were organized around the medium in which they fought and were not institutionalized to work together for the *common* defense.

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<sup>2</sup> U.S. Department of Defense, *The National Military Strategy of the United States of America*, Office of the Chairman of the Joint Chiefs of Staff (Washington, DC, 2004), viii.

<sup>3</sup> Victor H. Krulak, *First to Fight: An Inside View of the U.S. Marine Corps* (Annapolis, Maryland: Naval Institute Press, 1984), 113-119.

## World War II Lessons

Challenging operational and tactical conditions in World War II made it apparent that employing the diversity of capabilities resident in the four Services in a coordinated fashion was imperative to success. Cooperative planning, command and control arrangements were established in an informal, ad hoc manner and subsequently disestablished once the conflicts ended and service peacetime culture returned.<sup>4</sup> The lack of governance to institutionalize cooperation and reduce the roles of service parochialism and individual personalities on achieving joint culture was a major factor in numerous military failures in World War II. The Congressional report on the 1941 Japanese attack on Pearl Harbor, for example, revealed “the complete inadequacy of command by mutual cooperation where decisive action is of the essence. Both Army and Navy commanders in Hawaii failed to coordinate and integrate their combined facilities... the system of mutual cooperation ... presents unnecessary and inevitable opportunities for personal failures and shortcomings”.<sup>5</sup> Service integration through World War II was merely a marriage of convenience that dissolved when the common goal that bound them together – defeating the Axis powers - was no longer present.

President Harry Truman, faced with a huge post-war military demobilization, large federal budget deficits and the need to rebuild the peacetime economic engine, perceived a window of opportunity immediately following World War II to apply valuable

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<sup>4</sup> Williamson Murray, “The Evolution of Joint Warfare, Williamson Murray,” *Joint Forces Quarterly* no. 31 (Summer 2002), 72.

<sup>5</sup> Senate Committee, *The Investigation of the Pearl Harbor Attack*, Congress of the United States pursuant to S. Con. Res 27, 79th Congress, July 16, 1946, section 240.

organizational lessons to achieve both operational and economic efficiencies. He wanted to transform the force from one that was integrated only during wartime into one organized the same way for war and peace. An intense debate ensued regarding whether unification of the entire defense establishment was the best way to consistently achieve the military excellence that was essential to winning major wars on two fronts. President Truman, observing that friction between the Admiral Nimitz and General MacArthur in the Pacific theater hampered efforts in WWII, sided with the Army as the principal advocate of a single service with land, sea, and air components.<sup>6</sup> In addition to the perceived benefits of centralized command of operational forces, Truman was concerned about unnecessary duplication and waste in the two departments. He felt that unification would promote fiscal discipline and take advantage of economies in consolidated logistics and supply. The Navy, on the other hand, argued that “unification took second place to the need for a general tightening of government-wide coordination for national security on a more permanent and far-reaching basis than had been achieved during the war.”<sup>7</sup> The Eberstadt study of 1945, commissioned by Secretary of the Navy James Forrestal, went beyond the subject of military service unification to recommend the creation of the National Security Council as an interagency coordinating body that would create unity of effort across the

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<sup>6</sup> Clark Clifford, *Counsel to the President* (New York: Random House, 1991), 146.

<sup>7</sup> U.S. Department of Defense, *History of the Secretary of Defense, Volume I: The Formative Years, 1947-1950*. (Washington, DC, 1984), 19.

whole of government. Concurrently, the Navy and Marine Corps strongly petitioned Congressional leaders to reject unification efforts over fears of losing their aviation arms.<sup>8</sup>

#### The National Security Act of 1947

The 1947 National Security Act, which was designed to strengthen unity of command, encourage cooperation and integrate land, sea, and air operations, ended up as a compromise between those who favored unification and those who supported continued federation of the Services. The War Department and the Department of the Navy were combined under a new National Military Establishment headed by the Secretary of Defense. Congress specifically called for the Departments of the Army, Navy, and the newly-created Department of the Air Force to be “administered as individual executive departments by their service Secretaries”<sup>9</sup> and prohibited merging of service components. Vertical integration along service lines was enforced, with each service being directed to organize, train and equip for prompt and sustained combat incident to operations on either land, sea or in the air. The Joint Chiefs of Staff, consisting of the chiefs of each service, was formally instituted and was tasked to horizontally integrate service plans, operations, training, education and logistics. The Secretary of Defense was made responsible for policies to provide unified strategic direction of the Services, supervision and coordination of service budget estimates, and the elimination of unnecessary duplication in areas such as procurement, supply and research. Operational and administrative authority of the

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<sup>8</sup> U.S. Department of Defense, *Basic Documents on Roles and Missions*, by Richard I. Wolf. Open-file report, Office of the Air Force History (Washington DC, 1987), 53.

<sup>9</sup> National Security Act of 1947, Public Law 80-253, Section 202.

Secretary of Defense over the individual Services in his coordinating and unifying role was limited and both the service Secretaries and Secretary of Defense maintained equal status through seats on the National Security Council. These issues were quickly recognized and the 1949 amendment to the National Security Act strengthened the position of the Secretary of Defense and removed the service Secretaries from the National Security Council, thereby establishing their subordinate role.

The National Security Act of 1947 formally established unified commands as a means to coordinate ground, sea and air warfare utilizing the model tested on the battlefields of World War II. A single joint force commander was made responsible for the conduct of military missions utilizing the forces provided by the Services. Organization of the forces under a Unified Command Plan (UCP) was a matter of significant debate indicative of disparate service cultures. The Navy advocated forces organized around geographic regions that tended to maintain their tradition autonomous operations. The Army and the Air Force favored a functional structure, based on assignment of mission and forces and more in line with their service cultures which emphasized centralized control. The resulting UCP was a mixture of geographic and functional commands where each joint force commander reported to the President through a designated service Chief (who represented the JCS), the service Secretary, and the Secretary of Defense.<sup>10</sup> “The JCS exercised strategic direction over the armed forces, assigning forces to the unified

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<sup>10</sup> U.S. Department of Defense, *The History of the Unified Command Plan 1946-1993*, by Ronald H. Cole, Walter S. Poole, James F. Schnabel, Robert J. Watson, and Willard J. Webb. Open-file report, Joint History Office (Washington, DC, February 1995), 14.

commands as well as missions and tasks.”<sup>11</sup> The command structure left service Secretaries and Chiefs in both the operational and administrative chains of command, which did not empower the joint force commander to integrate assigned forces effectively without undue influence from the individual Services. The failure of the 1947 National Security Act to create a single, clear line of operational authority inhibited the formation of an efficient team of land, sea, and air forces.

Severe cuts in personnel and funding immediately following the conclusion of World War II elevated the competition between the Services to establish the primacy of both their unique operating concepts and the corresponding resources to support them in the dynamic post-war security environment. The National Security Act’s retention of aviation elements in all the Services was an example of both service influence and Congress’ unwillingness to direct one service to depend on capabilities resident in another to support their core mission. In an attempt to reduce inter-service tensions, facilitate joint operations, and reduce duplication of effort, roles and missions of the military Services were clarified in the Presidential Directive entitled “Functions of the Armed Forces and Joint Chiefs of Staff”, also known as the Key West Agreement of 1948. The document outlined primary functions, or core competencies, of each service and directed “maximum practicable integration ... to produce an effective, economical, harmonious and businesslike organization which will insure the military security of the United States.”<sup>12</sup> The Key West Agreement emphasized service collaboration, but the Secretary Defense

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<sup>11</sup> *Basic Documents on Roles and Missions*, 53.

<sup>12</sup> *Basic Documents on Roles and Missions*, 155.

lacked the independent analysis necessary to arbitrate and make the hard fiscal choices that would define roles and missions in the seams between land, sea and air operations. The lack of a joint operating culture contributed to Services arguments for the preeminence of their missions to organize, train and equip for prompt and sustained combat incident to operations on either land, sea or in the air, as stated in the authoritative National Security Act. When faced with limited resources, a clear threat, and absent a strong internal allegiance to joint warfighting, Services continued to direct resources toward producing a complete, self-contained warfighting package that did not depend on the other Services.

#### Eisenhower's Vision

President Eisenhower, a former commander of unified forces in Europe during World War II, envisioned a new era of operations that transcended service and environmental boundaries.

*...Separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements with all Services, as one single concentrated effort. Peacetime preparatory and organizational activity must conform to this fact. Strategic and tactical planning must be completely unified, combat forces organized into unified commands, each equipped with the most efficient weapons systems that science can develop, singly led and prepared to fight as one regardless of Service.<sup>13</sup>*

Defense studies following the Korean War concluded that “service roles and missions had become competitive, rather than complementary as technology and threats evolved; Joint Chiefs of Staff (JCS) organization and responsibilities precluded coherent

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<sup>13</sup> U.S. Department of Defense, *Fact Sheet, DOD Reorganization Act of 1986 – A Primer*. Association of the United States Army (Arlington Virginia, 1986).

strategic direction; and the Secretary of Defense, burdened with arbitrating interservice disputes, was unable to initiate and direct military policy development.”<sup>14</sup> The 1958 Defense Reorganization Act reflected a compromise between proponents of service unification and those who maintained that unity of action could be achieved through coordination without necessitating centralized control. The act removed the service Secretaries from the operational chain of command, while retaining their responsibility to organize, train and equip their forces. Service Chiefs maintained both their administrative function and continued to exercise operational control through their role on the JCS. The joint force commander was not given the authority commensurate with the responsibility to select and integrate the appropriate land, sea and air forces into an effective fighting force.

#### Lessons from Vietnam

The complex and confusing command relationships during the Vietnam conflict also failed to reflect a significant shift toward unified military operations. Commander of the U. S. Military Advisory Command (COMUSMACV), under the Commander in Chief Pacific (CINCPAC), was responsible for operations within South Vietnam, but command of naval gunfire and air support provided by 7<sup>th</sup> Fleet forces remained under the control of the service component, Pacific Fleet (PACFLT). Operations in North Vietnam and Laos were delegated by CINCPAC to service components, Pacific Air Forces (PACAF) and PACFLT. Though B-52 operations in South Vietnam were under the Commander in Chief, Strategic Air Command (CINCSAC), but “targets in South Vietnam were selected

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<sup>14</sup> *Basic Documents on Roles and Missions*, 325.

by COMUSMACV, refined by CINCPAC, and approved in Washington.”<sup>15</sup> The intricate organization of and relationship between unified commands was problematic and created a substantial amount of friction between the Army, Air Force, and Navy and did not permit their effective integration.<sup>16</sup>

Service cultures, doctrine and organization proved to be substantial barriers to achieving success in the conflict. In 1965, U.S. operations in Viet Nam were under General William Westmoreland, Commander of the U. S. Military Advisory Command (COMUSMACV), who perceived Viet Nam to be a conventional war. Consequently, they applied traditional Army warfare methods involving large-scale operations, massive forces and high volumes of firepower. The Marine Corps, on the other hand, saw the conflict through the lens of their small war experiences. When the Marine combat forces arrived, they brought a counter-insurgency approach which had been developed over years of exposure to small-scale warfare. The strategy, derived from the Marines’ Small Arms Manual, was to gain decisive results with the least application of force and the consequent minimum loss of life,<sup>17</sup> which was diametrically opposed to the Army strategy. Despite numerous successes by the Marine Corps employing these warfare methods, the Army continued to advocate an overall strategy for ground operations in Viet Nam that corresponded to how they were traditionally organized, trained, and equipped. While the distinction between the Services had permitted an essential diversity of ideas to develop,

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<sup>15</sup> *The History of the Unified Command Plan 1946-1993*, 2.

<sup>16</sup> *The History of the Unified Command Plan 1946-1993*, 2.

<sup>17</sup> U.S. Department of Defense, United States Marine Corps, *Fleet Marine Force Reference Publication (FMFRP) 12-15, Small Wars Manual*, (Washington, DC, 1990), 2-2.

ultimately service parochialism dominated strategy, operational plans, and tactical execution.

Service rivalries were also evident in air operations in Southeast Asia, where the “main areas of disagreement concerned the command and control of airpower assets, close air support of ground forces and the application of the new concept of air mobility to military operations.”<sup>18</sup> The U.S. Air Force, based on lessons learned in North Africa during World War II, had developed a doctrine strongly favoring centralized control of all air assets. During the period after the Korean War, the Air Force shifted its focus to strategic bombing and continued to refine the doctrine of centralized control of air power, which they believed provided for more efficient management of high-demand, low-density assets. Navy and Marine Corps doctrine advocated decentralized control as a result of their expeditionary history. The Marine Corps in particular considered aviation an essential organic capability whose primary purpose was to support relatively lightly armed amphibious assault troops. They vehemently resisted efforts to relinquish control over their aviation assets to the USAF, distrusting the ability of high-level integration of aviation assets to ensure adequate and timely support for Marines on the ground.<sup>19</sup>

Significant friction also existed between the Army and Air Force regarding close air support and air mobility. In the mid-1950s the Army developed tactics to employ land forces on a nuclear battlefield. The Pentomic division concept emphasized dispersed,

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<sup>18</sup> Ian Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, (Fort Leavenworth, Kansas: Combat Studies Institute Press, 2006), 4.

<sup>19</sup> *Interservice Rivalry and Airpower in the Vietnam War*, 94.

synchronized forces that require organic support to enable increased troop and logistics mobility. The Army also argued that organic helicopter aviation was necessary in the Pentomic model, serving in a screening, reconnaissance, exploitation and pursuit role much like airborne cavalry.<sup>20</sup> The disagreement between the Army and the Air Force over roles and missions continued unabated during Vietnam, such that “the service chiefs sought compromise so the dispute did not spiral out of control with consequent serious damage for both Services’ aviation programs and budgets.”<sup>21</sup> The Johnson-McConnel agreement of 1966 was an attempt to ease service tensions. It specified that the Air Force relinquish helicopters for the purpose of intra-theater movement, fire support, and supply of ground forces. The Army, in turn, was to cede responsibility for fixed-wing close air support and intra-theater transport to the Air Force.<sup>22</sup> The lack of trust among the Services was evident, as each sought to maintain its ability to conduct independent, coordinated operations.

#### Joint Failures in Operation Eagle Claw

The U.S. military emerged from the Viet Nam War in the mid-1970s suffering from low morale, marginal public support, dwindling budgets and a lack of strategic direction. There was little momentum for institutional changes to capture lessons learned from Viet Nam, in contrast to events after World War II and the Korean War. President Carter elected to shift the focus of the military from Southeast Asia, and gathering lessons from that conflict, to a myopic focus on defending Europe against the Soviet conventional threat.

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<sup>20</sup> J. Kristopher Keener, “*The Helicopter Innovation in United States Army Aviation*” (master’s thesis, Massachusetts Institute of Technology Security Studies Program, Jan 2001), 9.

<sup>21</sup> *Interservice Rivalry and Airpower in the Vietnam War*, 120.

<sup>22</sup> *Ibid*, 120.

The issues of successfully integrating the diverse capabilities brought by the individual Services remained unresolved.

The storming of the U.S. Embassy in Tehran by Iranian students in 1979 resulted in 52 Americans being taken hostage. Five months of diplomatic efforts failed to resolve the situation and President Carter chose to undertake a complex, multi-service military rescue operation. The operation, code named Eagle Claw, ended tragically with the loss of eight U.S. military personnel and a failure to rescue the hostages at the Iranian desert staging area code-named Desert One. Eagle Claw was an operational and strategic failure that demonstrated the inability of the U.S. military to successfully plan and execute an operation requiring effective coordination among all the Services.<sup>23</sup> The failure of the operation brought the issues of joint planning, doctrine, training and unified command and control to the national spotlight.

Planning for the operation was accomplished through the formation of Joint Task Force 1-79, code named *Rice Bowl*.<sup>24</sup> The small ad-hoc planning staff was both selected by and reported directly to the CJCS as opposed to the responsible unified, geographic combatant commander. The CJCS determined that the Commander of the Joint Task Force (CJTF) would report directly to him, effectively placing himself in the operational role of a Combatant Commander as well as principal military advisor to the President. The institutional failure to give the Joint Force Commander the authorities commensurate with

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<sup>23</sup> Otto Kreishe, "Desert One," *Air Force Magazine Online: Journal of the Air Force Association* vol. 82, no. 1 (January 1999), <http://www.afa.org/magazine/jan1999/0199desertone.asp> (accessed 12 January 2008).

<sup>24</sup> Charlie A. Beckwith and Donald Knox, *Delta Force*, (New York: Harcourt Brace Jovanovich, 1983), 194.

his responsibilities resulted in Service Chiefs who were “actively involved in providing advice on the employment of their Services at the operational and tactical levels.”<sup>25</sup> The chain of command for the operation was complex and not well understood by the participants at the time of the operation, and issues with the lack of unity of command were cited by after-action reports as a causal factor in the failure of the mission.<sup>26</sup>

The planning team quickly determined that the capabilities necessary to successfully execute a complex rescue mission were not resident in any one service alone. Service Chiefs, and not the JTF Commander, were tasked to choose the operational forces for the mission. Parochial service interests dominated the force selection process, resulting in a critical mismatch in skills to the mission. US Marine Corps pilots were chosen for their shipboard experience, though they had little training in either long overland navigation or the model helicopter they would fly. While a mix of USMC and USAF pilots skill sets would have been appropriate, service interests dominated the decision making process. The culture of joint training and the supporting joint tactics, technique, and procedures did not exist. There was little opportunity to develop the essential trust and confidence between the men and machines, both of which would be stretched to their limits. Training evolutions were separated for operational security reasons, and component mission commanders were expected to merge seamlessly under extraordinarily demanding conditions.

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<sup>25</sup> C.E. Holzworth, “Operation Eagle Claw: A Catalyst for Change in the American Military,” (thesis on Global Security.org), <http://www.globalsecurity.org/military/library/report/1997/Holzworth.htm> (accessed 07 January 2008).

<sup>26</sup> Kreishe, “Desert One”.

In retrospect, the seeds for the failure of the operation were sown during the formation of the JTF. The first priority of the National Command Authority was operational security, which had the effect of erecting walls that would inhibit the formation of the trust necessary to successfully execute a complex, multi-service operation. Plans and training were compartmentalized along service lines and never brought together for a full mission rehearsal. The myopic prioritization of operational security reinforced parochial service boundaries and inhibited the transparent, free-flow of information across the Joint Task Force necessary for successful execution. Valuable lessons from both successes and failures to integrate multi-service combat operations in Vietnam did not produce the institutional changes in the Department of Defense that would horizontally integrate diverse service capabilities into an effective joint task force.

#### AirLand Battle – A Case of Cooperation

While the United States was deeply engaged in Vietnam, the Soviet war machine continued to develop a large conventional force capability. After the Vietnam War, it was clear that the United States and her NATO allies were numerically overmatched by the Soviets on the plains of Europe. In response, the U.S. Army developed a combined arms doctrine called Active Defense. It sought to take advantage of a technological lead in anti-tank and artillery weapons to ‘win the first battle’, emphasizing both firepower and maneuver in a concentrated fashion to present effective force ratios.

General Donn Starry and the Army’s Training and Doctrine Command (TRADOC) began to develop the extended battlefield concept in the late 1970s after years of spirited

debate. Inspired by the Israeli successes in the Mideast War of 1973, General Starry noted that by attacking enemy ground formations deep behind traditional combat lines utilizing the air power, the battlefield stretched in physical and temporal dimensions, creating opportunities for the commander to attack and counterattack and limit the enemy's freedom of action. The relationship developed between General Starry at TRADOC and the Commander of Tactical Air Command (TAC), Air Force General Creech, produced joint tactical training, doctrine and material development requirements. The Air Force's E-8 Joint Surveillance Target Attack Radar System (JSTARS), for example, was a joint Army and Air Force program designed specifically to meet the deep attack role in AirLand Battle.<sup>27</sup> "The logical end of doctrinal cooperation was a truly integrated air-land battle concept – a goal transformed into a necessity by the nature of modern battle."<sup>28</sup> The transparent relationship that developed between the Army and the Air Force during the formation of AirLand Battle was the product of a clear, common objective and influential leadership in both Services. It facilitated a glimpse into what can be achieved through interdependent operations, as evidenced by the success of the doctrine in Operation Desert Storm. The trust achieved between the U.S. Army and Air Force through the development of AirLand Battle was isolated and did not result in institutional changes, remove interservice barriers and reduce the role of individual personalities on achieving an interdependent joint force.

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<sup>27</sup> Alvin and Heidi Toffler, *War and Anti-War: Making Sense of Today's Global Chaos* (New York: Warner Books, 1993), 60.

<sup>28</sup> U.S. Department of Defense, Historical Office United States Army Training and Doctrine Command. *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982*. (Fort Monroe, VA, 1984), 62.

## The Need for Reform

Lessons learned from Operation Eagle Claw, and similar lessons from Operation Urgent Fury – the U.S. invasion of Grenada in 1983 - provided a catalyst for significant reform in the Department of Defense. Despite numerous attempts since the 1947 National Security Act to engender service cooperation, the U.S. military structure did not provide the framework necessary to build lasting trust in both times of war and peace. Service chiefs and unified commanders both exercised operational control of forces, creating unproductive friction that reduced the effectiveness of military operations. Competition between the Services over roles and missions, and the corresponding resources, dominated strategic and operational planning. The Joint Chiefs of Staff were designated the source of service integration, but the dual operational and administrative role of the Service Chiefs presented a quandary.

*In providing advice to the Secretary of Defense during crises or wars, the JCS have traditionally given undue emphasis to Service interests. Each Service wants to be involved in responding to the crisis or war whether or not its forces are suited to the mission. The resulting JCS recommendations are designed more to balance Service interests than provide the most effective fighting force.<sup>29</sup>*

There was neither an institutional incentive nor a measure of accountability to create the cooperative environment necessary to build the joint warfighting team. The Joint Force Commander lacked the authority commensurate with the responsibility to horizontally integrate assigned land, sea and air forces and execute assigned missions without potential involvement from Service Chiefs.

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<sup>29</sup> Committee on Armed Services, *Defense Organization: The Need for Change: Staff Report to the Committee on Armed Services*, 99th Cong., 1985. <http://www.ndu.edu/library/goldnich/goldnich.html> (accessed 12 January 2008), 163.

### The Goldwater-Nichols 1986 Defense Reform Act

Successful integration of the diverse capabilities resident in each of the four Services into an effective, joint warfighting team was limited by their individual influence and the lack of incentive to cooperate. The Service Chiefs retained a commanding voice in both the operational employment and development of their forces. The 1947 National Security Act, in an effort to ensure the balance of power between the Legislative and Executive branches, specifically retained the right of each Service Chief to make such recommendations to Congress as they deemed appropriate. A series of defense reform studies and Senate hearings in the mid-1980s examined the issues and ultimately led to a consolidation of a number of initiatives into the 1986 Goldwater-Nichols Defense Reorganization Act. The principal objectives of Congress were to:

- Strengthen civilian authority in the Department of Defense;
- Improve the military advice provided to the President, the National Security Council, and the Secretary of Defense;
- Place clear responsibility on the commanders of the unified and specified combatant commands for the accomplishment of missions assigned to those commands;
- Ensure that the authority of those commanders is fully commensurate with that responsibility;
- Increase attention to the formulation of strategy and contingency planning;
- Provide for more efficient use of defense resources;
- Improve joint officer management policies;
- And to otherwise enhance the effectiveness of military operations and improve the management and administration of the Department of Defense.<sup>30</sup>

Goldwater-Nichols removed a significant number of inter-service barriers which stood in the way of creating a joint warfighting team. Joint Force Commanders were given sufficient authorities to create and execute operational plans that horizontally integrated the

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<sup>30</sup> James R. Locher III, "Taking Stock of Goldwater-Nichols," *Joint Forces Quarterly*, no. 13 (Autumn 1996), 10-11.

variety of service capabilities necessary to achieve mission success. The invasion of Panama during Operation Just Cause in 1989 demonstrated the effectiveness of some of the reform efforts. The clear, short operational chain of command, which did not include the Service Chiefs, and the strong support for a joint contingency plan were two of the principal keys to the success of the operation.<sup>31</sup> The Joint Force Commander was also given the authority and ample opportunity to take forces which were organized and trained separately and successfully blend their capabilities into an effective joint task force.

There is ample evidence that Goldwater-Nichols reforms have yet to create the horizontal threads which cut across service boundaries at the operational-tactical nexus. Operation Desert Storm, cited frequently as an example of the success of joint reform, “was a joint military operation in name rather than in fact.”<sup>32</sup> The military Services continued to execute according to their own individual doctrine and along lines drawn primarily to provide deconfliction of the individual service components. The Army, Marines, Air Force and Navy also suffered from technical limitations that were a reflection of stove-piped acquisition processes. The Air Tasking Order (ATO) produced by the Joint Forces Air Component Commander (JFACC) could not be electronically transmitted to U.S. Navy ships, but instead paper copies had to be flown aboard daily.<sup>33</sup> Radios and secure communications equipment were frequently not interoperable.<sup>34</sup> These challenges

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<sup>31</sup> U.S. Department of Defense, *Operation Just Cause, Panama* by Ronald H. Cole. Open-file report, Office of the Chairman of the Joint Chiefs of Staff Joint History Office, (Washington, DC: Government Printing Office, 1995), 74.

<sup>32</sup> Bill Owens, *Lifting the Fog of War*. (Baltimore, Maryland: The Johns Hopkins University Press, 2001), 91.

<sup>33</sup> U.S. Department of Defense. *Conduct of the Persian Gulf War: Final Report to Congress*. Open-file report (Washington, DC: Government Printing Office, 1992), K-49.

<sup>34</sup> *Ibid*, K-44.

prevented effective communication across service lines on and off the battlefield, limiting their ability to execute combined operations.

Arguments for service participation in military operations are often more an effort to justify service budgets before Congress than to employ the variety of service capabilities to achieve the Joint Force Commander's objectives. In Operation Allied Force in 1999, USMC F/A-18 Hornets and AV-8B Harriers deployed in support of air-to-ground operations in the Balkans. Marine Corps doctrine emphasized centralized command and decentralized control of their air assets.<sup>35</sup> The Marines have doctrinally viewed aviation as a key element of combined arms in support of the Marine Air Ground Task Force (MAGTF), but in Kosovo there were no Allied ground forces to support. Their argument to be involved in an air-only conflict is an example of a military service's overriding desire to participate in every conflict as a means to demonstrate continued relevance and justify their piece of the defense budget. CENTCOM Commander, General Tommy Franks, experienced similar service parochialism during the planning for Operation Enduring Freedom. After reviewing the plan with the Joint Chiefs and the SECDEF in the tank, General Franks stated "I want your advice as the Joint Chiefs of Staff, not as individual Service Chiefs scrabbling for the biggest piece of the pie in this operation."<sup>36</sup> He went on

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<sup>35</sup> U.S. Department of Defense, United States Marine Corps. *Marine Corps Warfighting Publication (MCWP) 3-2, Aviation Operations*. (Washington, DC: Government Printing Office, May 2000), 4-5.

<sup>36</sup> Tommy Franks, *American Soldier*. (New York: Harper-Collins Publishers, Inc., 2004), 276

to note that “no operation that is totally satisfying to any one service is truly a joint operation.”<sup>37</sup>

### Joint Tensions in Resource Allocation

While Goldwater-Nichols encouraged administrative cooperation and coordination between the Services, it did not mandate the horizontal integration of the service strategies that drove the organization, training and equipping of their forces. The lessons learned regarding operational efficiency, such as a short and clearly defined chain of command and the need for joint planning, were not applied to the area of resourcing the Joint Force Commander. The Services retained the authority to organize, train and equip their respective forces for use by the functional and geographic combatant commanders. Each Service Secretary was specifically cited as responsible to the Secretary of Defense for fulfilling, to the maximum extent practicable, the current and future operational requirements of the unified and specified combatant commands and for the “effective cooperation and coordination [with] other military departments and agencies of the Department of Defense to provide for more effective, efficient, and economical administration and to eliminate duplication.”<sup>38</sup>

The Goldwater-Nichols Act stipulated that horizontal integration of service strategies and resource allocation should occur at the Chairman of the Joint Chiefs of Staff (CJCS) level, but retained a very hierarchical, vertical force provider structure within each

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<sup>37</sup> Ibid, .277.

<sup>38</sup> Armed Forces, Public Law 99-433, section 3013c5.

service. The act did not provide either the incentive or accountability to ensure that service budgets were in alignment with DoD strategy and Joint Force Commander priorities. The CJCS was tasked with generating the National Military Strategy, which nested within the National Security Strategy, and advising the SECDEF on the degree to which service program recommendations and budget proposals conform to both strategic priorities and those of the combatant commands. The CJCS lacked the analytical tools to successfully integrate service budget proposals. Consequently, each service continued to develop “unique strategic interpretations of the Defense Strategy, unique operational viewpoints, and unique ways to identify and test solutions. Service developments were conceived and tested against Service-focused scenarios that often assumed away the contributions of other Services to the warfight.”<sup>39</sup> There was a weak tie between the National Security Strategy, the nested NDS and NMS, the QDR and resource allocation.

#### History of Joint Tensions in Resource Allocation

The tensions that existed between the Services were not isolated to military operations, but also manifested themselves in the battle for resources in Washington, D.C. In times of budget plenty, as in the height of World War II, each Service was content with their share. In the years following the war, there was a rapid decline in defense spending and the budget battles became public. President Truman had a strong desire to provide a balanced budget, and he viewed the significant duplication of capabilities within the four military Services as an opportunity to achieve efficiencies. The President noted that the

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<sup>39</sup> Robert Larsen, “Evolution of the JROC Warfighting Capabilities-Based Assessments,” *Phalanx: The Bulletin of Military Operations Research* Vol. 37, no. 4, (2005): 6.

Services tended to request an equal division of the total budget authority of the military establishment, and he demanded line-item justification for their requests. Truman hired Louis Johnson as Secretary of Defense in 1949 to employ his business background to reduce waste and inefficiencies in the Department. “Attaining a higher level of efficiency and lowering expenditures were two of Johnson’s paramount aims.”<sup>40</sup> Johnson believed that the U.S. could rely on the atomic bomb as a deterrent, a strategy that would enable him to eliminate the Navy and Marine Corps, reduce the Army, and focus the Air Force on strategic nuclear delivery systems.<sup>41</sup> The Services each designed force structures to counter an emerging Soviet military threat, but the combined force structure greatly exceeded the balanced budget guidance provided by the President. The Secretary of Defense lacked a system of analysis to effectively arbitrate the separate budgets, coordinate defense planning across service lines and achieve the efficiencies he desired. Service budgets were prepared in isolation and focused only on the next execution year, and Services expected their ‘fair share’ of the overall DOD budget and were not challenged on their budget submissions.

The status quo continued until 1961 when President Kennedy’s new Secretary of Defense, Robert McNamara, introduced a number of new initiatives designed to provide greater efficiency, foresight and accountability into the service budgets. He introduced the Operational Research Systems Analysis division to ensure service requests were rationally justified, and the Program Analysis and Evaluation Division to reduce inefficiencies within

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<sup>40</sup> Rearden, 48.

<sup>41</sup> Ibid, 49.

the Services' internal procurement and management organizations. McNamara's Planning, Programming and Budgeting System (PPBS) was designed to concentrate power in the Secretary of Defense through his philosophy of active management. McNamara utilized these tools to establish long-range planning objectives, analyze the costs and benefits of alternative programs to meet those objectives, and translate programs into budget proposals. Services were forced to justify their budgets based on missions, but in the absence of an overarching DoD strategy they retained their individual responsibilities to define those missions and the corresponding requirements. The PPBS was inherently fiscally unconstrained, which by design allowed McNamara to centralize control at the SECDEF level and choose programs to meet fiscal ceilings. A number of changes were attempted to the PPBS, including the institution of budget ceilings, but a large number fell out of favor with each successive administration. The Services continued to develop their own unique analysis methodologies, complicating program comparisons. While PPBS made great strides toward the efficient use of resources, it still did not provide a systematic way to ensure that the combined service budget submissions supported the mission or plans of the Joint Force Commander and the Department of Defense.

#### The Joint Requirements Oversight Council (JROC)

In 1984 the Joint Chiefs of Staff created the Joint Requirements Management Board (JRMB), which in 1986 was renamed the Joint Requirements Oversight Council (JROC), to advise the Joint Chiefs on major acquisition programs and adjust "the parochial interests of the separate military Services to produce a better whole, one that achieves cross-service resource allocations yielding an overall national defense capability more than the sum of

separate service capabilities.”<sup>42</sup> The council, whose makeup remains the same today, included the Vice Chairman of the Joint Chiefs of Staff (VJCS), the Vice Chiefs of the Services and the Assistant Commandant of the Marine Corps. Combatant Commanders developed and submitted to the JROC separate Integrated Priority Lists (IPL), a list of the highest priority requirements that adversely affected their ability to accomplish their assigned mission. The JROC in its original form did not have the assessment tools necessary to look across service boundaries and make choices to best support the COCOMs. In 1995, the VJCS Admiral Bill Owens created Joint Warfare Capability Assessments (JWCA) as an analytical tool covering ten warfare areas independent of the military Services, such as joint strike, command and control, and information warfare. He also introduced the Chairman’s Program Assessment, fed by this analytical process, to provide guidance to the Services on where to reallocate funds. These efforts were intended to cut across service boundaries and achieve a greater overall balance within the Department.

Ultimately these attempts to provide horizontal integration of service capabilities fell short. Joint requirements were submitted to service programmers in the form of JROC memorandums where they competed with service priorities for limited resources. Frequently, the joint requirements fell below the budget cut line and were not funded. Admiral Owens observed that joint force requirements were “far subordinate to that of the individual Services at a time when each recognizes increasing budget constraints and

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<sup>42</sup> Department of Defense, Office of the Vice Chairman of the Joint Chiefs of Staff. *Planning in a Revolutionary Era*, Open-file report (Washington, DC: Government Printing Office, 1996), 20-22.

believes it is involved in a zero-sum funding contest.”<sup>43</sup> The JROC lacked the authority to enforce their decisions, and service budget autonomy continued to be the source of independence and parochialism.

The requirements process has undergone significant change over the past five years with the introduction of the capabilities-based planning (CBP) process and the Joint Capabilities Integration and Development System (JCIDS). The intent of Capabilities-based thinking is to transition the Department of Defense from a Cold War structure oriented around countering and maintaining superiority over specific threats to developing a wide range of military capabilities that can be applied across a broad spectrum of conflict. The 2001 Quadrennial Defense Review stated that a capabilities model is “one that focuses more on how an adversary might fight than who the adversary might be and where a war might occur - broadens the strategic perspective.”<sup>44</sup> The CBA analysis tool seeks to identify capability needs, gaps, excesses, and approaches to provide those capabilities.

The JROC capabilities-based process is intended to maintain a competitive environment while encouraging the collaboration required for integrated joint warfighting solutions. Joint Operating Concepts (JOpsC) are derived from higher strategic direction, as opposed to service operating concepts which are derived from their own unique interpretation of defense strategy. The JOpsCs provide a lens through which to view and assist in prioritizing COCOM and service-specific requirements. Functional Capabilities

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<sup>43</sup> Bill Owens, “Making the Joint Journey,” *Joint Forces Quarterly* (Spring 1999): 92.

<sup>44</sup> U.S. Department of Defense, *Quadrennial Defense Review Report 2001*, Office of the Secretary of Defense. (Washington, DC: Government Printing Office, February 2001), 14.

Boards (FCBs) aligned with cross-cutting Joint Capability Areas (JCAs) are the analysis engine used to evaluate requirements and determine capability gaps and redundancies. Once a materiel solution passes through the JCIDS process entry gate and is validated as a need by the JROC, programs tend to take on lives of their own and become difficult to ‘kill’ or eliminate. The institutions with the authority to make kill decisions are separate from the JROC, limiting the JROC’s ability to affect real change. Consequently, in “the 4 years since JCIDS was implemented, nearly all of the warfighting needs identified by the Services and submitted for review in an ICD have been validated and sent into the acquisition pipeline for further analysis as potential programs, which calls into question whether go/no-go decisions are the point of this first key gate.”<sup>45</sup> While the JCIDS process may in fact validate joint warfighting needs, it does not provide decision makers with recommendations on how to best balance warfighting capabilities across the spectrum of JCAs. The process is slow and cumbersome and not well suited to responding to an adaptive threat environment.

### Chapter Summary – Managing Joint Tensions

Since the country’s inception the principal goal of the United States military has been to provide for the common defense. The evolution of separate Services, each optimized to operate in either land, air, sea or the land-sea interface, has produced a long history of tensions that have hampered the ability to achieve unified action. On the one hand, these tensions have resulted in a healthy competition of ideas, maintained a diversity

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<sup>45</sup> Government Accountability Office, *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD’s Acquisition Outcomes*, Report GAO-07-388 (Washington, DC: Government Printing Office, March 2007), 29.

of solutions, and increased freedom of military action available. Diverse ways of thinking and solving problems are essential to successfully addressing the complex challenges faced by the U.S. military today and in the future operating environment. Unmanaged interservice tensions have reduced the military's effectiveness when attempting to operate as a joint team. Teamwork is founded on trust and the understanding that each team member will competently perform their job when called upon. The unwillingness of the Services to subjugate themselves and rely on one another has produced functional redundancy and duplication. Numerous reform efforts, beginning with the National Security Act of 1947, have attempted to provide a structure for the Department of Defense within which interservice tensions could be managed to produce a synergistic, synchronized and integrated joint force. These reform efforts have been hampered by a structure that does not provide personal or corporate incentives for cooperation among the Services. There has been progress in forming the diverse and unique capabilities provided by the four Services into a joint team on the battlefield, but the process tends to result in a kludge of separately organized, trained and equipped forces. The ingenuity of the warriors, from the Joint Force Commander to those sharing the foxhole, has been the driving force behind successful joint operations. Service parochialism, enabled by budget autonomy, has produced individual service excellence but has not ensured that service capabilities are interoperable and set a foundation for interdependent operations.

*Chapter 3***FORCE DEVELOPMENT REFORM**

The comprehensive Department of Defense acquisition process has been the subject of a substantial number of studies over the past fifteen years. This paper reviewed the following studies:

- Joint Defense Capabilities Study (January 2004)
- Beyond Goldwater-Nichols Phase 1-4 series (2004-2008)
- Defense Acquisition Performance Assessment (January 2006)
- Defense Science Board 2005 Summer Study on Transformation: A Progress Assessment (April 2006)
- 2006 Quadrennial Defense Review

An examination of these studies reveals a number of common themes, many of which tie either directly or indirectly to the way financial resources are allocated.

**Requirements Reform Studies**

The requirements process is designed to allocate resources to generate the capabilities required to successfully execute National Strategy. The COCOMs are the agents responsible for planning and executing the military missions in support of National Strategy, and are therefore the principal customer for the capabilities supplied by the Services. The studies singularly conclude that the requirements process continues to be dominated by the military Services and does not adequately address current and future

COCOM needs. “Much of the Department’s focus is on Service programs and platforms rather than capabilities required to accomplish Combatant Command missions. A Service focus does not provide an accurate picture of joint needs, nor does it provide a consistent view of priorities and acceptable risks across the Department.”<sup>1</sup> Inadequate customer representation results in a system that is out of alignment with customer requirements and fails to meet the demand signal from the COCOMs.

The studies also found that the COCOMs are not resourced to maintain the robust analysis capability and capacity necessary to examine adequately their mid and long-term requirements. In addition, the Department has also not provided common metrics and financial analysis tools which help form a common basis for comparison and prioritization of capabilities both within the individual IPL submission and across COCOM seams. None of the studies recommended attempting to resource COCOMs to analyze longer term requirements, instead advocating increased COCOM participation in the JROC process.

The body intended to represent capability demand for the COCOMs is the JROC, but it is run by the Vice Chiefs who are effectively the heads of supply. This arrangement calls into question whether the system truly considers the COCOMs to be the customer for military capabilities. The studies recommend restructuring the JROC to incorporate more customer representation, with options ranging from replacing the Service Vice Chiefs with COCOM deputies to incorporating OSD civilian leads to provide technological, acquisition and financial expertise. The JCIDS decision support process was assessed as complex,

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<sup>1</sup> *Joint Defense Capabilities Study*, 3.

slow and unresponsive. It is not well-suited to the complex and adaptive security environment. The “process that the concepts feed (JCIDS) is cumbersome, still dominated by Service influence at the expense of joint perspectives and not well connected to the non-materiel elements of doctrine, organization, training, materiel, leadership, personnel, facilities (DOTMLPF).”<sup>2</sup> Recommendations were not universal among the various studies, ranging from modifications to the process to complete replacement. One notable conclusion was that JCIDS was inadequate at identifying excess capability, and hence providing recommended areas for divestment.

The lethargic acquisition system has produced long cycle times and significant cost overruns that have limited the Department’s buying power. This trend has precipitated a tendency to increase Key Performance Parameters (KPPs) in an attempt to make the fewer systems that are actually purchased more capable and multi-dimensional. Developers have stretched the limits of available technology, and even counted on significant technological advances, to meet these requirements. The GAO detailed that significant increases in financial investment, often combined with reduction in quantity, is evident in nearly all the major DOD acquisition programs.<sup>3</sup> The system has not supported performance trades to maintain cost and schedule targets. The studies recommend a reduction in the number of KPPs, limiting technical reach, and forcing capability tradeoffs to maintain cost and schedule.

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<sup>2</sup> U.S. Department of Defense, Office of the Undersecretary of Defense for Acquisition, Technology and Logistics, *Defense Science Board 2005 Summer Study on Transformation: A Progress Assessment*, Open-file report (Washington, DC: Government Printing Office, 2005), 120.

<sup>3</sup> Government Accountability Office, *DOD Acquisition Outcomes: A Case for Change*, Report GAO-06-257T (Washington, DC: Government Printing Office, November 2005), 2.

## Budgeting Reform

The majority of military capabilities require a research, development, test and evaluation and procurement cycle that is measured in years. Resource allocation perturbations are a major source of program instability, as Services struggle to fund unanticipated operations, maintenance, and emerging requirements. Major programs often find themselves as ‘bill payers’, and program managers are forced to restructure their programs a number of times before completing the development and procurement cycle. The system lacks common commercial industry practices of employing management reserves and contingency funding as shock absorbers to maintain program financial stability. The Department’s overall short-term budgetary view results in stretched program cycle times, significant cost growth and lower return on investment.

The studies found that weak advocacy for joint priorities in the programming phase of the PPBE system tends to cause joint programs to fall below the budgetary cut line or to be underfunded. High demand, low density ISR capabilities are a prime example of critical joint capabilities which are consistently underfunded. Compounding the problem is the Department’s consistent practice of accepting more projects than there are funds available. Joint requirements are often seen as a funding source, and “critical service-acquired capabilities, particularly in the command and control (C2) area are not interoperable.”<sup>4</sup> The 2006 QDR recommended establishing a Joint Task Assignment Process to oversee the

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<sup>4</sup> David A. Scruggs, *Beyond Goldwater-Nichols: An Annotated Brief, Department of Defense Acquisition and Planning, Programming, Budgeting and Execution System Reform* (Washington, D.C.: Center for Strategic and International Studies, August 2006), 14.

development of joint capabilities, but without the authority to move money, the process will be ineffective.

All of the studies recommend employing accepted commercial practices of management reserves and contingency funds. Acquisition funding should also be stabilized through capital accounts that identify and plan for resources through the complete development phase of the program. They also recommend moving financial responsibility and authority out of the Services in the case of Joint Command and Control as a way to facilitate interoperable systems. There was no universal agreement on how much fiscal authority joint acquisition commands beyond JC2 should have.

#### Acquisition Reform

The principal criticism of defense acquisition management is the lack of accountability for acquisition execution. It is unusual to see a program that meets performance criteria executed within original time and budget constraints. Three of the four studies recommended aligning acquisition execution responsibility and accountability with the Service Chiefs. Goldwater-Nichols reforms resulted in a split chain of command for acquisition, where the Services maintained control of requirements and resources but Service Acquisition Executives were responsible to the office of Acquisition, Technology & Logistics (AT&L) in OSD for program execution. The misalignment of responsibility and authority, and the subsequent lack of accountability, has been a major contributor to systemic program execution problems in DOD.

The inability to respond to urgent warfighter needs in an agile fashion was consistently noted by the various study groups, producing a recommendation to expand the rapid acquisition process that provides the means for insertion of critical technologies to operational forces and bypassing the often lengthy traditional acquisition structure. To help address the tendency for acquisition programs to stretch and suffer substantial cost growth, commercial practices such as time-certain development and risk-based source-selection criteria should also be adopted, emphasizing the methodical use of risk analysis to make trades in performance to meet cost and schedule criteria.

### Chapter Summary

Numerous defense acquisition reform studies concluded that significant changes in requirements, budgeting, and acquisition management are required to address the long term internal and external challenges successfully. The most significant conclusions from these studies are: lack of adequate customer representation in determining future defense capabilities; unstable funding streams; lethargic hierarchical organizational structures; and the lack of acquisition accountability. While it is worth noting what the studies identified, it is perhaps at least equally instructive to consider what they did not. In his book *The 7 Habits of Highly Effective People*, author Stephen Covey notes that “you basically get what you reward”.<sup>5</sup> Incentives are one of the principal elements in successful execution of defense strategy. “Unless employees have real incentives to implement the strategy, they

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<sup>5</sup> Stephen R. Covey, *The 7 Habits of Highly Effective People* (New York: Simon and Schuster, 1989), 229.

will not commit to it, and the strategy will probably fail.”<sup>6</sup> While the National Security Personnel System (NSPS) is experimenting with a performance-based incentive system, there appears to be no analogous effort to influence key Military Service personnel. The Services’ current incentive process is internally-oriented and does not reward cooperation among key stakeholders or efforts to achieve interdependence.

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<sup>6</sup> Harvard Business School, *Harvard Business Essentials: Strategy* (Boston, MA: Harvard Business School Publications, 2005), 67.

*Chapter 4*

## STRATEGY, RESOURCE ALIGNMENT AND PORTFOLIO MANAGEMENT

*Success demands singleness of purpose – Vince Lombardi*

The primary function of strategy is to align resources, or elements of power, and synchronize the effects of their application within the context of the current and future strategic environment. Singleness of purpose is generated through alignment with the organization's goals, but because organizations are rarely homogeneous, alignment is multi-dimensional. Successful organizations require specialization and expertise to focus limited resources and achieve a competitive advantage, but such sub-organizations can compete with one another and adversely impact organizational unity. Internal and external environmental factors are constantly changing, complicating the organization's ability to make alignment a steady-state condition. The objective is to develop an organizational culture that is self-aligning and rapidly adapts to changes to maintain the competitive advantage.

Successful corporations such as Southwest Airlines have demonstrated an uncanny ability to self-align in multiple dimensions – employees to strategy and process improvement to customers – in the midst of a very dynamic and competitive strategic environment. Southwest's sub-organizations include pilots, flight attendants, and baggage handlers. Each of these specialized groups of employees is focused on efficiently implementing and reflecting the Southwest strategy in their core competency, and they are empowered to recommend and make improvements. This is the essence of vertical

alignment. At the same time, each of these sub-organizations must work together as a team to achieve the mission of the highest quality customer service. This form of teamwork among sub-organizations is horizontal alignment, or customer-focus.

Southwest's sub-organizations are analogous to the four vertically-aligned military Services, and service interaction in support of the Joint Force Commander is the horizontal alignment component.

This chapter will discuss the importance of strategy development, where the 2006 Quadrennial Defense Review fell short, and examine product portfolio management as a resource allocation tool in relation to achieving a self-aligning organization. The Joint Command and Control (JC2) and Joint Net-Centric Operations (JNO) Capability Portfolio Management efforts will be assessed against the background of best commercial product portfolio management practices.

### Strategy Development

The success of an organization is dependent on doing the right things, and then doing those things right. Determining the right things to do is the function of strategy development, while doing those things the right way is strategy execution. Strategy connects ends, ways and means within the context of internal and external environmental factors to achieve the organization's goals. Military strategy theorist Dr. Harry Yarger expressed national strategy as "the art and science of developing and using the political, economic, social-psychological, and military powers of the state in accordance with policy guidance to create effects that protect or advance national interests relative to other states,

actors, or circumstances.”<sup>1</sup> Similarly, business strategists emphasize that strategy is a careful plan to inform decision-making and allocate corporate resources to develop and sustain a competitive advantage. The source of the competitive advantage lies in key differences between you and your competition for a share of common market segments. Resource allocation decisions are not limited to pursuit of new initiatives, but must also include trade-offs to maintain focus and freedom of action.

Sound strategies both provide guidance on what to do as well as what not to do, drawing boundaries that will focus and steer the efforts of the entire organization. Strategy development flows from the organization’s fundamental mission and tangible goals, set by senior leadership, by which progress can be measured. The goals do not exist in isolation and are bounded by what is achievable within the organization’s internal capabilities and the external environment. Business scholar Michael Porter contends that “the essence of formulating a competitive strategy is relating a company to its environment”<sup>2</sup>, because it is the environment that contains strengths, weaknesses, opportunities and threats from which the organization can create differentiation and competitive advantage.

A cursory comparison of the global business and national security environments reveals that both are characterized by a wide array of challenges and opportunities, including globalization, the emergence of powerful new markets, rapid distribution of information and abundant, agile competition. The Department of Defense and businesses

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<sup>1</sup> Harry Yarger, “Strategic Theory for the 21st Century: The Little Book on Big Strategy,” U.S. Army Strategic Studies Institute, February 2006, <http://www.StrategicStudiesInstitute.army.mil/> (accessed 12 December 2007), 1.

<sup>2</sup> Michael E. Porter, *Competitive Strategy* (New York: Free Press, 1980), 3.

are both faced with the need to adapt quickly to changing market conditions and customer demands. Kenneth Andrews articulated a methodology for developing a strategy by analyzing the internal and external environment in terms of strengths, weaknesses, opportunities and threats, or SWOT. Strengths and weaknesses are the product of an internal analysis and represent capabilities that can be leveraged or areas that need to be addressed to be successful. Opportunities and threats are external factors that the organization can take advantage of or things that must be avoided or mitigated.

The first step in business strategy development is to identify corporate profit objectives and market focus areas such as cellular communication, microprocessors, and industrial construction equipment. The strategy must also consider the balance between existing and new product development and resource allocation across the corporation. A sound, realistic business strategy is essential as it forms the lens through which potential market initiatives are assessed. The SWOT process examines a variety of both external and internal factors, such as those in Table 1, to identify targeted market segments.

### Strategic Analysis

#### External Analysis

Customer Analysis: Segments, motivations, unmet needs

Competitor Analysis: Identity, strategic groups, performance, image, objectives, strategies, culture, cost structure, strengths, and weaknesses.

Market Analysis: Size, projected growth, profitability, entry barriers, cost structure, distribution systems, trends, key success factors.

Environmental Analysis: Technological, governmental, economic, cultural, demographic, scenarios, information-need areas.

#### Internal Analysis

Performance Analysis: Profitability, sales, shareholder value analysis, customer satisfaction, product quality, brand associations, relative cost, new products, employee capability and performance, product portfolio analysis.

Determinants of Strategic Options: Past and current strategies, strategic problems, organizational capabilities and constraints, financial resources and constraints, strengths and weaknesses.

Table 1. Strategic Analysis Criteria. <sup>3</sup>

Individual opportunities are identified and prioritized within market segments consistent with corporate strategy. Studies have shown that one of the most important factors in identification and prioritization of market opportunities is an in-depth understanding and continuous refinement of customers and their needs.

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<sup>3</sup> David A. Aaker, *Developing Business Strategies* (New York: Wiley and Sons, 2001), 19.

## Internal Defense Environment

The internal environment in which DOD operates is shaped by a number of key influences including institutional governance and culture, diverse stakeholders ranging from the Joint warfighter to Congress and worldwide corporations, existing capability portfolios and resource competition with other U.S. Government agencies. A sound understanding of internal capabilities and limitations helps to clarify options when developing strategy. The previous chapter's survey of defense acquisition reform studies identified a significant number of institutional governance challenges within the DOD. This section will focus on the financial resources and constraints, and their potential impact on future strategy development.

The nature of the U.S. Federal budget has changed significantly over the past half-century, establishing a trend that will place increasing pressure on defense spending. In 1962, mandatory spending constituted just 32% of the total federal budget, leaving 68% for discretionary spending. By 2007, figure 1 depicts how mandatory federal spending had risen to 62% of the total budget while discretionary spending had decreased to 38%. Tax revenue as a percentage of Gross Domestic Product (GDP) is predicted to remain fairly flat over the next 20 years, barring any major tax increases, and it is likely that future administration efforts will prioritize elimination of deficit spending and achieving a balanced budget. Figure 2 illustrates the Office of Management and Budget (OMB) prediction that discretionary spending under a balanced budget will go to zero by 2060, potentially eliminating defense and other discretionary programs. Without institutional changes, the growth of the entitlement program expenditures which constitute the majority

of mandatory federal spending will rise substantially as the baby-boomer generation begins to draw Social Security. Social security tax receipts are expected to be outpaced by payments by 2018,<sup>4</sup> requiring the federal government to utilize tax receipts which normally fund discretionary spending to pay for social security benefits. These federal budget challenges will likely result in significant pressure to cap or reduce defense spending.

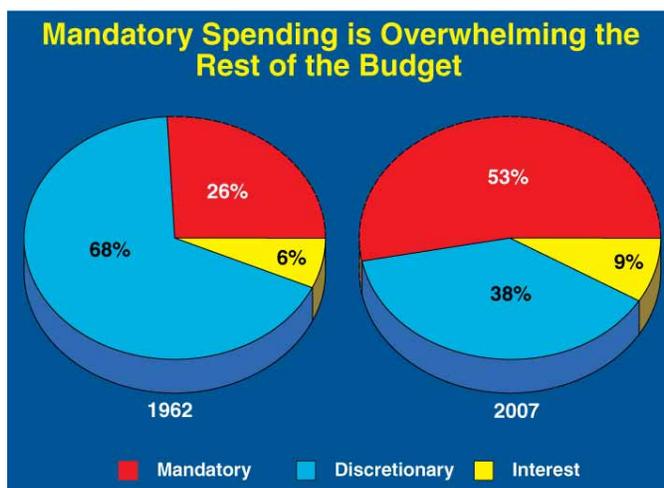


Figure 1. U.S. Federal Budget Spending Distribution.<sup>5</sup>

<sup>4</sup> The White House, Office of Management and Budget, “Strengthening Social Security,” <http://www.whitehouse.gov/infocus/social-security/200501/socialsecurity1.pdf> (accessed 12 December 2007).

<sup>5</sup> Office of Management and Budget, <http://www.whitehouse.gov/omb/budget/fy2009/outlook.html>, (accessed 05 March 2008).

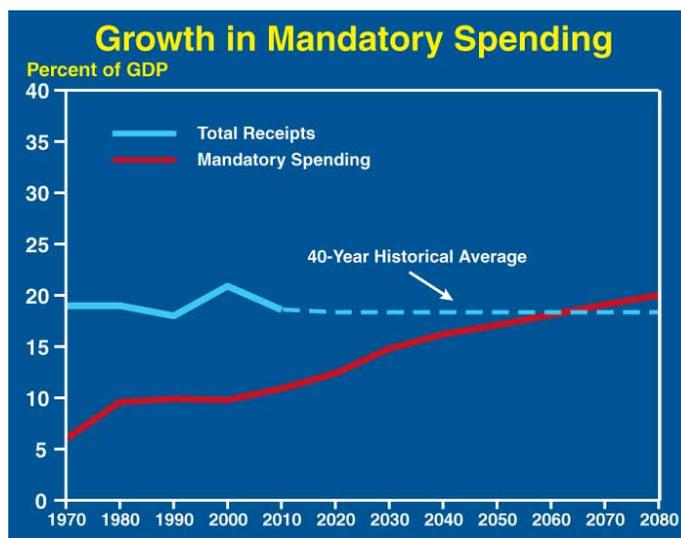


Figure 2. U.S. Federal Budget Mandatory Spending Prediction.<sup>6</sup>

Military personnel costs constitute twenty-five percent of the DOD budget.<sup>7</sup> The U.S. Army and Marine Corps are in the beginning stages of a significant personnel expansion to meet near-term strategic military objectives. The current trend for military healthcare expenditures is also a growing concern, with the annual costs of military healthcare more than doubling from \$19 billion to \$39 billion since 2001. That number is expected to climb to \$64 billion by 2015, Pentagon officials estimate, consuming roughly 12 percent of the defense budget.<sup>8</sup> The Assistant Secretary of Defense for health affairs stated in Congressional testimony that without relief, "spending for healthcare will . . .

<sup>6</sup> Office of Management and Budget, <http://www.whitehouse.gov/omb/budget/fy2009/defense.html> (accessed 05 March 2008).

<sup>7</sup> Ibid.

<sup>8</sup> Statement of Secretary of Defense Donald H. Rumsfeld, FY 2007 Posture Statement Before the House Armed Services Committee, February 8, 2006.

divert critical funds needed for war fighters, their readiness, and for critical equipment.”<sup>9</sup>

It is unlikely that defense spending will increase to absorb health care costs that continue to rise at rates well above inflation.

Financial pressures, both in terms of limits on the top line of the Defense budget and increased internal costs, will force DOD to make hard choices to preserve freedom of action and achieve national security goals. Strategic defense planning must provide sound guidance for decision-makers to align capabilities with the challenges and opportunities in the future operating environment.

#### External Environment

An organization must not be viewed in isolation, but in the context of a competitive external environment. The opportunities and threats portion of the SWOT analysis provides insight into what strategic options are available to DOD. This section will detail the influence of competitors on defense strategy and how the Department has historically been slow to adapt to changing external conditions, taking advantage of fleeting opportunities and mitigating existing and future threats.

Immediately following World War II, the world security environment quickly polarized around the two remaining powers, the United States and the Soviet Union. Bold, aggressive moves by either nation were constrained by the threat of a nuclear exchange, providing a degree of international order and stability. A set of rules had developed concerning war and peace, centered on a strategy of deterrence and containment, the free-

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<sup>9</sup> Rumsfeld, FY 2007 Posture Statement Before the House Armed Services Committee.

market and socialist economies. There were few organizations either willing or capable of challenging the hegemony of the two super powers.

The demise of the Soviet empire offered both opportunities and challenges for the United States as the sole remaining super power. “With the relaxing of international tensions came a conviction that a new world order of peace, prosperity, and security was approaching.”<sup>10</sup> Many saw this pivotal event as an opportunity to reap a “peace dividend” and significantly reduce defense spending in the absence of a peer, conventional force competitor. Four decades of the Cold War thinking that emerged from George Kennan’s long telegraph and subsequent Mr. X-article gave rise to a ‘stand-up, they’ll back down’ confrontational mindset.<sup>11</sup> The lack of a clear threat to American dominance on the international stage produced a corresponding lack of a clear and effective U.S. security strategy. The United States thought a new world *order* would simply emerge without the leadership of the most world’s most influential nation. “When the Cold War ended, we thought the world had changed. It had – but not in the way we thought.”<sup>12</sup> The failure to recognize the significant change in the external environment was reflected in a defense strategy which produced capabilities to prevail against a threat that was no longer present. Former Secretary of Defense Donald Rumsfeld, who served in the same capacity from 1975 to 1977 during the heart of the Cold War, observed that when he “returned to the

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<sup>10</sup> Anthony Zinni and Tony Koltz, *The Battle for Peace: A Frontline Vision of America’s Power and Purpose*. (New York: Palgrave Macmillan, 2006), 39.

<sup>11</sup> X, “The Sources of Soviet Conduct,” *Foreign Affairs* (July 1947), <http://www.foreignaffairs.org/19470701faessay25403/x/the-sources-of-soviet-conduct.html> (accessed 12 December 2007).

<sup>12</sup> Thomas P.M. Barnett, *The Pentagon’s New Map* (New York: Berkley Books, 2004), I.

Department in 2001, the Armed Forces – though smaller – were in many respects still pretty much organized the same way they were during the Cold War.”<sup>13</sup> The Department of Defense did not adequately assess the external environment and alter defense strategy.

The events of September 11, 2001 provided clear indication that a new strategic environment had emerged while the U.S. had retreated from a position of world leadership in the 1990s. America awoke to a complex, dynamic and uncertain world that provided both new challenges and opportunities. The opportunities afforded through globalization and market expansion stand in contrast to challenge of extremist ideologies, regional instabilities, the rise of China and the resurgence of Russia. Thomas Friedman characterized the 21<sup>st</sup> century world as much more horizontal or flat as the result of the U.S. being the sole remaining superpower. “What the flattening of the world means is that we are now connecting all the knowledge centers on the planet together into a single global network, which – if politics and terrorism do not get in the way – could usher in an amazing era of prosperity, innovation, and collaboration, by companies, communities, and individuals.”<sup>14</sup> The threats posed by weak nation-states, instability within and across nation state boundaries, and transnational terrorist groups threaten our future security and prosperity. These traditional, irregular, catastrophic, and disruptive challenges to U.S. national security are significantly more diverse than what the U.S. faced throughout the 20<sup>th</sup>

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<sup>13</sup> Statement of Secretary of Defense Donald H. Rumsfeld FY 2007 Posture Statement, before the House Armed Services Committee, February 8, 2006.

<sup>14</sup> Thomas L. Friedman, *The World is Flat: A Brief History of the Twenty-first Century* (New York: Farrar, Straus and Giroux, 2006), 8.

century, and successfully meeting these challenges will require a much more diverse set of military capabilities.

### Strategic Focus and the Quadrennial Defense Review

The Quadrennial Defense Review (QDR) calls for the Secretary of Defense to “conduct a comprehensive examination ... of the national defense strategy, force structure, force modernization plans, infrastructure, budget plan, and other elements of the defense program and policies of the United States with a view toward determining and expressing the defense strategy of the United States and establishing a defense program for the next 20 years.”<sup>15</sup> The 2006 QDR recognized the need to provide a strong voice for the joint warfighter within the defense enterprise and that the current structure, in which resources are provided through the Military Services, is detrimental to the joint force. “This arrangement can lead to both gaps [and] redundancies within capability areas as each Service attempts to supply a complete warfighting package rather than organize to depend on capabilities provided by other Military Departments.”<sup>16</sup> It went on to recommend a phased approach to orient department processes around Joint Capability Areas (JCAs), cutting across service boundaries and providing a more comprehensive look at overall DOD capabilities.

The 2006 QDR fell short as a defense planning tool to set clear strategic priorities and allocate risk. The report recognized we are in an era of surprise and uncertainty, facing

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<sup>15</sup>Department of Defense, “Quadrennial Defense Review Report,” Office of the Undersecretary of Defense (Policy), <http://www.defenselink.mil/qdr/> (accessed 10 January 2008).

<sup>16</sup> 2006 *Quadrennial Defense Review Report*, 68.

a greater breadth of challenges than in the past, yet it failed to recommend the corresponding shifts in resource allocation to provide the capabilities required for future success. While it emphasized developing capabilities in irregular warfare and building partnership capacity - both of which are manpower intensive operations - it did not recommend corresponding increases in Army and Marine Corps end strength. Recommended shifts in resource allocation were primarily expressed within the service stovepipes and not across service boundaries. In Fiscal Year 2007, each department received between 25% and 28% of the total defense budget, fractions which have remained fairly constant over the last 40 years. The current Chairman of the Joint Chiefs captured the essence of the degree to which the Services guard their budgets when he was questioned about the potential impacts of budgetary reform in the Pentagon. He said he worries that if budget reform is “not done well, it has a tendency to turn Services against each other.”<sup>17</sup> In the absence of clear strategic guidance from senior Defense Department leadership, it is likely that increasing fiscal pressures will serve to divide rather than unify the Military Services.

### Strategy Implementation and Portfolio Management

A sound strategy is merely words on paper without effective implementation – the processes which turn strategic intent into tangible results. One of the most popular models for successful strategy implementation is expressed in terms of people, leadership,

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<sup>17</sup> Gordon Lubold, “Congress: Why should each military branch get same budget?,” Christian Science Monitor, February 26, 2008.

structure, incentives, culture, and support activities.<sup>18</sup> As discussed previously, strategy is implemented not in isolation but in relation to the external environment. To implement DOD's strategy of increased agility to counter agile threats and take advantage of fleeting opportunities, the organizational structure must be lean and nonhierarchical, flatter with more distributed decision-making. This section will detail the essential elements of portfolio management as a flat organizational structure and examine two of DOD's portfolio management initiatives.

Achieving and maintaining a competitive advantage is becoming more challenging for corporations as the number and diversity of competitors increase, technology rapidly advances, and markets become more globalized. To be more responsive to changing market conditions and customer requirements, a number of successful corporations have employed product portfolio management as a business process to generate horizontal alignment between the corporation and the target market. The product portfolio management (PPM) concept is derived from the investment industry, where modern theory suggests that it is possible to minimize exposure to individual asset risk by spreading, or diversifying, investments. Investment managers take a holistic view of a particular market segment, such as large corporations, and select a broad range of investments as a hedge against uncertainty. Each investment manager has a set of criteria that looks at corporate past performance, strengths and weaknesses, and market trends as indicators of future performance potential. In the same way, PPM is a process through which portfolio

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<sup>18</sup> *Harvard Business Essentials: Strategy*, 65.

managers take a holistic, enterprise view and attempt to select only the products with the greatest market potential within available corporate resources and maximize return on investment. The following paragraphs will detail the strengths and weaknesses of common PPM business practices.

Corporate implementation of PPM has not been universally successful, just as not all mutual funds beat the market indices, but there are common characteristics of effective process implementation. A recent Government Accounting Office (GAO) study of corporations with thriving PPM processes indicate that “portfolio management is enabled by strong governance with committed leadership, clearly aligned organizational roles and responsibilities, empowered portfolio managers who determine the best way to invest resources, and accountability at all levels of the organization.”<sup>19</sup> Individual investments are viewed from an enterprise perspective in terms of their contribution to achieving value, balance, and strategic alignment for the corporation. The multitude of investment opportunities are funneled through a disciplined, sequential gated review process that assesses individual investments against standard performance criteria, competing investments, corporate resources and strategy. The result is that successful companies pursue investments that are aligned with corporate strategy, within available resources, and with an acceptable risk of entering the enterprise portfolio.<sup>20</sup>

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<sup>19</sup> GAO-07-388. *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD’s Acquisition Outcomes*, 3.

<sup>20</sup> *Ibid.*, 8.

## Successful Product Portfolio Management Techniques

Companies with effective PPM processes follow a disciplined process to identify new products and achieve a balanced portfolio. Once initiatives are selected and prioritized, assessments are refined through a series of structured, gated reviews which examine individual initiatives and portfolio reviews which look at the entire portfolio. Assessment methodologies employed during the review process fall into three general categories – maximization of value, balance, and strategic alignment.

The value methodology focuses principally on maximizing the value of the portfolio of initiatives as measured against business objectives which include strategy, risk, and profitability. Maximizing value is a popular method and is the best of the three at incorporating corporate resource constraints. The main difficulty with applying any of the value maximization tools as the sole determinant for initiative selection or comparison involves choosing the right measures of financial performance and getting solid financial data to input into the models. Application of modern portfolio theory to PPM has limitations, and consequently studies have found that employing solely value maximization techniques results in poor portfolio balance and strategic alignment.

Long-term corporate viability requires a balanced or diversified portfolio across a number of different dimensions to balance risk and reward. Temporally, the majority of corporate portfolios contain a predominance of short-term and a distinct lack of high-impact, long-term initiatives. There is also a tendency to overweight resource application to specific markets or business areas because of failure to use measurable and defined

metrics and milestones and rely on emotion instead.<sup>21</sup> A number of ingenious balance methods have been developed, most of which are visual representations or “charts and maps”. The keys to successful implementation of any of the myriad portfolio balance methods are to understand the limitations of the metrics (e.g. financial data similar to the value maximization methods) that go into making the charts and maps and recognize that they are information display techniques and do not produce a rank order of initiatives. The balance methodologies are an essential element of the overall PPM process, but they are not recommended as a sole measure to down-select initiatives

Resource allocation is a series of choices that should be traceable to business priorities as reflected in the corporate strategy. “The mission, vision, and strategy of the business must be operationalized in terms of where the business spends its money and which development projects it undertakes.”<sup>22</sup> Strategic alignment PPM techniques assess the degree to which the resource commitment to the initiative is in alignment with priorities expressed in its strategy. Motorola, for example, specifies resource allocation targets for products which maintain its core business, those which pursue new markets with existing products, and developing of new markets and products.<sup>23</sup> This is an example of a top-down ‘strategic buckets’ approach, where business strategy is translated into strategic bins or ‘buckets’. Other possible strategic dimensions include product lines, market segments,

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<sup>21</sup> Anand Sanwal, *Optimizing Corporate Portfolio Management: Aligning Investment Proposals with Organizational Strategy* (New Jersey: John Wiley & Sons, Inc. 2007), 2.

<sup>22</sup> Robert G. Cooper, Scott J. Edgett, and Elko J. Kleinschmidt, *Portfolio Management for New Products* (Cambridge, MA: Perseus Publishing, 2001), 105.

<sup>23</sup> GAO-07-388. *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD’s Acquisition Outcomes*, 11.

and technology and product types. Resources are then distributed across the buckets, which form a series of lenses, according to areas the corporation wants to attack. Criticisms of this methodology are centered on the fact that resource buckets are created outside the context of specific products and opportunities. This methodology tends to fail to adapt quickly to a fluid market environment and stifle creativity and entrepreneurial spirit. The bottom-up product selection method opens the aperture at the point where market opportunities are initially identified and seeks to develop a product portfolio from the best ideas across the corporation. Potential products are selected using scoring models that ensure products are within established corporate strategic direction, but generally this methodology does not ensure that the resulting portfolio reflects strategic resource allocation priorities. As a result, a number of companies have developed a hybrid top-down, bottom-up approach that examines products from both perspectives and then merges the two prioritized lists. While incorporating the best from both methods, the hybrid top-down, bottom-up approach can be cumbersome and difficult to execute.

Establishing which PPM methodology works best depends on what metric is important – value, balance, or strategic alignment. Research indicates that a hybrid approach incorporating strategic and value methods, along with bubble charts to help create portfolio balance, yield the best results. Value maximization methodologies can work well if decision makers understand that the powerful financial tools in use today often exceed the quality of data available during the initial stages of a project when go/kill decisions should be made. Strategic alignment methods tend to perform well and highlight the need for a sound business strategy. Regardless of the approach chosen, it must be rigorous,

consistently applied, and supported by key decision makers. Each of the methods demands transparency along with clear metrics consisting of quantifiable data with confidence intervals to ensure initiatives can be effectively compared.

### Review Processes

Successful PPM implementation depends not only on the specific methodology chosen, but also on a series of reviews driven by specific events or times in the development cycle. The reviews can focus on individual projects, as with ‘gated’ reviews, or on the entire portfolio. Gated reviews of individual projects allow more time to be devoted to a detailed assessment of the project. Multiple review gates during the concept development phase are critical, and corporations the significant uncertainties inherent during early stages to decrease as initiatives approach the development phase. Recurring portfolio reviews are essential to look holistically across that specific segment of the business enterprise. Successful PPM programs tend to employ both gated and portfolio reviews due to their differing area of focus. Some corporations make go/kill decisions during the gated reviews and others choose to use the portfolio review for that purpose. Researchers concluded that it was more effective to make go/kill decisions during the gated review process, and those corporations which made these decisions at portfolio reviews “tend to never be killed once the initial go decision is made at the portfolio review.”<sup>24</sup> Once the potential product entered the portfolio, it tended to take on a life of its own and

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<sup>24</sup> *Portfolio Management for New Products*, 198.

adverse information regarding its development did not result in a kill decision, likely because of the insufficient time devoted to each project in a portfolio review.

### Product Portfolio Management – Keys to Success

The portfolio decision process is decidedly non-linear. Instead, it is characterized by uncertain and changing information, dynamic opportunities, multiple goals and strategic considerations, interdependence among projects, and multiple decision makers in dispersed locations. “Successful portfolio management requires strong governance with committed leadership that empowers portfolio managers to make decisions about the best way to invest resources and holds those managers accountable for the outcomes they achieve.”<sup>25</sup>

Additional key elements include:

- Initiative selection must be closely linked to corporate strategy;
- Those responsible for corporate strategy must be closely involved with initiative selection decisions;
- Good communication and understanding must exist across the organization;
- The initiative selection process must engender a sense of ownership from the business units involved;
- The real value in PPM is in achieving transparency to enable informed decisions;
- The selection method must accommodate change and the interaction of goals and players;
- The portfolio selection method must accommodate decision making at different levels in the organization (e.g. stand-alone versus interdependent projects);
- Risk must be accommodated by the selection technique;
- Comprehensive portfolio reviews are essential to maintain balance and assess projects in a holistic context;

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<sup>25</sup> GAO-07-388. *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes*, 17

- Organizational structure must support formal and informal knowledge sharing to build consensus.<sup>26</sup>

The portfolio manager provides the link between corporate product definition, resourcing and development processes. A combination of portfolio management tools, the right performance metrics, clear lines of responsibility and requisite authorities are necessary for successful portfolio management.

### Common PPM Challenges

Product Portfolio Management is not a magical panacea and there are common characteristics of unsuccessful PPM processes. A conscious decision to selectively apply portfolio management only to a product category such as large capital expenditures arbitrarily limits opportunities to improve performance and accountability over the entire organization. The same rationale that was used to justify PPM for one product category should be applied equally to all categories.

Portfolios are not self-managing. In a dynamic and competitive environment, continuous portfolio management is required. One common struggle, though not specific to portfolio management, is a firm commitment to resources. Senior leadership must create a stable funding stream throughout the development cycle to avoid large increases in risk to the project achieving cost and schedule targets. The information regarding the performance of the elements of the portfolio should be updated frequently with accurate, current information to enable sound decision-making. Often quality information that offers the ability to discriminate between projects can be hard to come by, particularly in the early

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<sup>26</sup> *Project Portfolio Management, Leading the Corporate Vision*, 1-15.

stages of a project. In a related manner, the information being used to measure performance must be common to facilitate comparison of products. Decisions should be objective and data-driven to the maximum extent practical. Too many metrics can lead to confusion and bad decisions or paralyze the process. Too few metrics will likely not paint the entire picture. Determining the right metrics and analyzing assumptions is essential.

Many corporations struggle with what is probably the most important element of project management – the ability to say no. The presence of the right metrics does not abrogate the decision process. A set of criteria must be developed and consistently applied to rate projects and make go/kill decisions. Failure to kill those products that are underperforming in the development cycle or to divest in redundant or non-competitive products is a common problem. “In too many companies, projects tend to take on lives of their own...even when killed, some projects had a habit of being resurrected, perhaps under a new name.”<sup>27</sup> Research confirms that most firms have “far too many projects for the available resources. The result is that resources are spread very thinly across new product projects, so that even the best projects are starved for people, time, and money. The end result is that projects take too long to reach the market.”<sup>28</sup> Project reviews, or gates, as well as comprehensive portfolio reviews are necessary to provide the context for sound go/kill choices. The majority of top performing businesses employ clear lines of authority with a management group decision-making process. Product portfolio management does

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<sup>27</sup> *Portfolio Management for New Products*, 12

<sup>28</sup> *Ibid*, 12.

not claim to yield easy decisions, but if properly implemented, sound resource allocation decisions can be made in the midst of uncertainty.

### Joint Command and Control Capability Portfolio Management

The 2006 QDR and a subsequent Deputy Secretary of Defense Memorandum directed the implementation of the Joint Command and Control (JC2) portfolio with USJFCOM as the Capability Portfolio Manager (CPM).<sup>29</sup> USJFCOM has designated USJFCOM J-8 as the Joint Capability Developer responsible for the day-to-day execution of CPM functions. The JC2 capability portfolio is aligned with the JC2 Joint Capability Area (JCA), and the CPM is intended to act as the single-source for coordination with external government agencies (e.g. Department of Homeland Defense) and international partners. Success of the JC2 CPM is defined by its ability to more rapidly and efficiently deliver effective joint command and control capability solutions to the warfighter than the current process. Synchronizing investments & integrating capabilities across the force is the key to joint interoperability and portfolio management.<sup>30</sup>

The CPM is charged with being the horizontal integrator and manager of joint command and control capabilities across service lines. Each CPM has set up cross-portfolio engagement teams to manage portfolio seams. It is important to note that capabilities encompass the entire DOTMLPF spectrum, which provides a more comprehensive approach than considering material-only solutions. The vision for the JC2

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<sup>29</sup> *Capability Portfolio Management Test Case Roles, Responsibilities, Authorities, and Approaches.*

<sup>30</sup> Department of Defense, *Joint Command and Control (JC2) Capability Portfolio Management Operating Concept & Business Plan Version 1.0*, Open-file report, U.S. Joint Forces Command. (Norfolk, VA, November 20, 2007), 2.

CPM is to establish “JC2 capability portfolio management that delivers integrated joint capabilities, improves interoperability, minimizes capability redundancies and gaps, and maximizes joint operational effectiveness.”<sup>31</sup> Currently, the JC2 CPM operates in the nexus between existing JCIDS, PPBE, and DAS governance structures to assess, coordinate, manage and integrate the processes (see figure 4). The existing Agencies and Military Services retain the responsibility to implement and manage programs to deliver JC2 capabilities and senior DOD leadership retains program decision authority. Their principal measure of success is the ability to deliver joint warfighting capability more rapidly and effectively than the current process.

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<sup>31</sup> *Capability Portfolio Management Test Case Roles, Responsibilities, Authorities, and Approaches.*

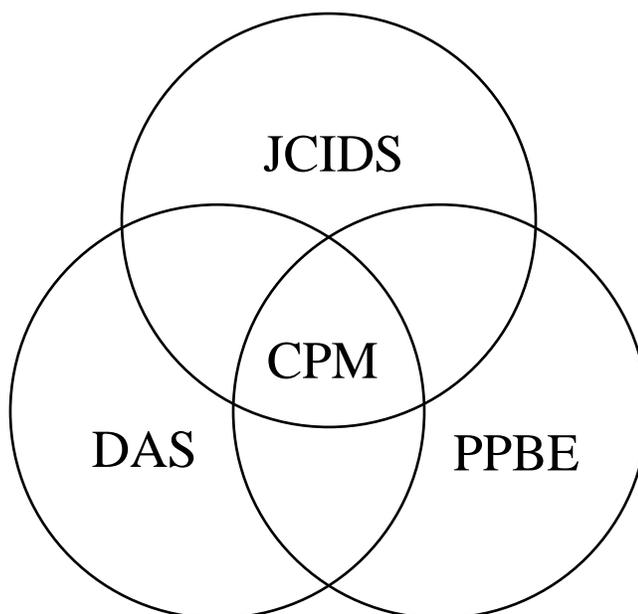


Figure 3. CPM relation to PPBE, JCIDS and DAS Processes.<sup>32</sup>

The 2009 Program Review (PR09) was the implementation target for the JC2 CPM. Lessons learned from PR09 include challenges with the JCIDS, PPBE and the DAS processes. The Department's PPBE and DAS processes were not structured to handle the capabilities-based approach, which caused problems when attempting to operate in the nexus between the three processes. The capabilities-based assessment (CBA) process was still immature and had not delivered a common framework with which to understand the problem. It discusses analysis of both 'challenges' to U.S. security in the current and future operating environment and a separate analysis of required capabilities, which may not be synchronized. The approach also lacked common metrics for establishing an effective decomposition of capabilities to define the limits of the portfolio, as well as determining

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<sup>32</sup> *Joint Command and Control (JC2) Capability Portfolio Management Operating Concept & Business Plan Version 1.0*, 6.

which programs are the physical manifestations of those capabilities. Proper definition of these metrics will also serve to provide an accurate comparison of capabilities for the purposes of initiative selection and termination. The CPM found that overall DOD thinking had not transitioned from the traditional material program solution set to capture the complete DOTMLPF aspects of capabilities. The Services, for example, did not use a common Program Element (PE) management structure which would offer a transparent look into programs, particularly during their early stages. This made assessment of second and third order effects of program shifts difficult. The tempo of the three processes was not suited for agile decision-making, and the JC2 CPM recommended more frequent capability assessments. PPBE and DAS must transition to a capabilities-based approach to allow the CPM to integrate effectively the requirements, budgeting and acquisition management processes.

The authorities of the CPM for PR09 were not clearly defined, particularly in the eyes of the Services. USAF MajGen Mike Hostage, the JC2 capability developer at JFCOM, captured Service perceptions and principal CPM challenges during a recent interview.

*The biggest challenge was making solid, significant enhancement recommendations to department leadership without giving the service chiefs the false impression that the CPMs are usurping their Title X authorities and responsibilities to man, equip and train their forces. Quite the opposite, the joint C2 CPM is working to integrate service-based C2 capability into a joint, interoperable and interdependent whole that supports the joint warfighter and joint force commander, while retaining the ability to execute service-specific missions.<sup>33</sup>*

It was unclear where the CPM fit in the DOD acquisition governance structure, driving a recommendation to institutionalize CPM into core practices. The JC2 CPM also found that the level of effort required to develop solid recommendations was very high. Performance assessment measures included actual shifts of \$0.6B out of a recommended \$2.68B for materiel solutions, along with other DOT\_LPF changes. In the aftermath of PR09, the CPM recommended they have an investment decision role at all three major requirements, budgeting and acquisition boards – the JROC, the 3-star programmers and the DAB. To deliver effective joint command and control solutions more rapidly and efficiently, the CPM must have the requisite authorities to make investment decisions.

#### Joint Net-Centric Operations Capability Portfolio Management

The Joint Net-Centric Operations (JNO) portfolio is focused on information transport, information assurance, network management, and enterprise Services. The overall objectives for the JNO CPM are to ensure the JNO portfolio is aligned with strategic objectives, the capability mix is synchronized, integrated and optimized to meet

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<sup>33</sup> Military Information Technology Online Edition, “Joint Capability Developer: Advancing Warfighter Effectiveness and Combat Capability,” <http://www.military-information-technology.com/article.cfm?DocID=2286> (accessed 20 February 2008).

warfighter needs, and is delivered to the joint warfighter more rapidly and efficiently.<sup>34</sup>

A critical JNO objective is to balance the capability demand with available resources and existing programmatic baselines. Capability delivery metrics include alignment to strategic direction, warfighter capability needs, and portfolio capability synchronization and integration.

The JNO CPM performance evaluation criteria for PR-09 included recommended shifts of \$1.6B within the portfolio, of which \$1.2B were funded or directed. They also developed an initial set of criteria for portfolio recommendations that addresses interdependencies and synchronization issues, impacts to operations effectiveness caused by changes in the portfolio, systems engineering, and program elements and financial concerns.<sup>35</sup> Overall, the JNO CPM was evaluated as an effective approach and was selected by the DEPSECDEF to transition from an experiment to a formalized CPM, along with the JC2, Joint Logistics and Battlespace Awareness CPMs.<sup>36</sup>

## Chapter Summary

Strategy development is critical to providing solid direction for the DOD enterprise, but it has not been an area of strength for the Department. There will never be enough resources to meet all our perceived requirements, so strategists must systematically analyze the external and internal environments and provide a clear prioritization of those limited

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<sup>34</sup> Department of Defense, *Joint Net-Centric Operations (JNO) Capability Portfolio Management Business Plan*, Open-file report. (Omaha, NE, April 16, 2007), 4.

<sup>35</sup> Response to March 6, 2008 NII/CIO Staffer Day Question-Net-Centric (NC) Capability Portfolio Management (CPM) initiative, March 11, 2008.

<sup>36</sup> *Capability Portfolio Management Way Ahead*

resources. Specific objectives focus the team and also provide a means of performance measurement and accountability. The strategy must also articulate a common approach to defining risk, along with where and how much risk the Department should accept. Finally, it should provide guidance across the areas of the DOTMLPF spectrum to effectively guide all DOD decision-making.

Portfolio management is a decision-support and execution tool that can more efficiently and effectively allocate resources across the entire Department. A solid portfolio management process will increase the degree of transparency required for informed choices and provide improved financial stewardship, strategic alignment and a more balanced portfolio of products or capabilities. Success requires a firm commitment to resource stability, continuous management, common and viable metrics, and a willingness to make tough go/kill and divestment decisions.

*Chapter 5*

## CONCLUSIONS AND RECOMMENDATIONS

The United States faces a diverse set of security challenges in an environment characterized by ambiguity, rapid change and complex interdependencies. Significant pressures on defense spending from both within and outside the Department of Defense will necessitate fiscal discipline and increased cooperation to provide the Nation the capabilities required to prevail in the strategic priorities of defending the homeland, winning the long war, promoting security, deterring conflict and winning our nation's wars. A culture of joint interdependence must develop within the DOD acquisition enterprise.

The U.S. military has a long and proud history of individual service excellence, but also a history of counterproductive competition and parochialism. Over 60 years of effort have succeeded in forming the foundations of a joint culture, but the focus has been predominantly on operations and planning. Progress in achieving a similar culture in the way Services organize, train and equip has been much slower. Whereas one of the principal successes in the Goldwater-Nichols reform act was to create short, clear lines of operational command, the defense acquisition enterprise has a complex command and control structure. In the commercial marketplace, alignment with customer needs is essential to ensure long-term viability of the company and executives are held accountable for corporate performance. The military Services have been slow to identify and respond to the Joint Force Commander as the customer. The complex chains of command in the acquisition enterprise make it difficult to hold executives accountable.

To achieve the speed, agility and alignment to respond effectively to emerging and future Joint Force requirements, the DOD acquisition enterprise must become a flatter, more balanced organization. The Service stovepipes that have dominated defense strategy interpretation, operating concept development and resource delivery cause capability gaps and redundancies to develop. A balance of vertical and horizontal alignment across the spectrum of joint capabilities will achieve truly interdependent force. Alignment requires a strategy that provides clear guidance for all decision making within the Department, indicating where to focus limited resources to achieve U.S. security objectives. Decision support processes must facilitate transparent, cross-service insights to effectively execute the strategy. Finally, the governance structure must have clearly defined roles and responsibilities, with executives both empowered and held accountable for performance.

The thesis of this paper is that to successfully acquire the capabilities required to form an interdependent joint force in a dynamic future operating environment, defense strategic guidance must provide a sound framework for capabilities and investment areas and Capability Portfolio Managers must have the requisite authorities to successfully manage their portfolios. Defense strategy has focused on ends and ways, disconnected from means. The result has been fiscally unconstrained, inexecutable strategic guidance that has consistently produced more requirements than the Services can resource.

Recommendation 1: Develop defense strategy in view of ends-ways-means, and develop a common lexicon for risk assessments. Ensure the executives involved in ways and means decisions are also involved in strategy creation.

The portfolio management process adopted by the Department of Defense is incorporating many of the lessons from corporate application of the process. There are principal areas that, if not addressed, will limit the ability of CPMs to rapidly and efficiently deliver joint capabilities to the warfighter. First, the lines of responsibility must be shortened and clarified. One of the principal objectives of Goldwater-Nichols was to eliminate the complex operational command structures that inhibited unified military action. Congress designated the CINC – since renamed COCOM – as responsible for the performance of assigned military missions. They created short, clear lines of responsibility and granted the COCOM the authorities commensurate with those responsibilities.

The same principles of command apply to defense acquisition. The CPM must be empowered to make investment decisions to be an effective advocate for the joint warfighter, much like the Joint Force Commander has been empowered to shift the resources that have been allocated to achieve mission success. Mutual fund investors expect the fund manager to exercise the authority to make investment decisions to meet fund and investor objectives. Individual investors do not directly purchase the securities in which the fund manager has decided to invest. Instead, they purchase shares or portions of the overall portfolio. The fund manager is responsible for buying and selling individual securities, thereby actively managing the portfolio mix. In the same way, the CPM should be responsible for actively managing the capability mix within the portfolio, and be

accountable to the DEPSECDEF as the Department's Chief Operating Officer (COO) for fund performance.

Recommendation 2: Shorten and clarify the lines of authority from the CPM to the DEPSECDEF.

Recommendation 3: Empower the CPM to make investment decisions within their respective portfolios.

The Services do not currently have a common lexicon for Program Elements (PEs), or sub-components of the overall program (e.g. the ground station of a new ISR platform), and they don't manage them in the same manner. The PEs frequently fall into multiple capability portfolios, causing CPM decisions regarding a PE within their portfolio to have cross-portfolio effects. Services are also currently resistant to allowing CPMs visibility into program requirements, budgeting and acquisition, making it difficult to provide sound recommendations. In addition, there is currently no common set of criteria by which programs can be compared, further exacerbating the program go/kill recommendation process.

Recommendation 4: Create a common, DOD-wide Program Element lexicon and provide CPMs total access to all aspects of program requirements, budgeting and acquisition.

Recommendation 5: Develop a common set of metrics and establish go/kill criteria that can be consistently applied to compare programs.

These recommendations certainly do not encompass everything that is required to create a self-aligning DOD acquisition enterprise. Additional changes will be required in personnel development, organizational culture, leadership, structure, incentives and support activities. To make General or Flag Officer, for example, military officers must have completed the joint education and joint duty requirements required to be designated a Joint Specialty Officer (JSO). The intent of the JSO program is to build understanding and trust among the Military Services. There are very few acquisition billets on the Joint Duty Assignment List (JDAL) making it difficult to build that same level of trust among the Services within the defense acquisition enterprise.

The best strategy and decision support processes are all pointless without a willingness to make tough go/kill and divestment decisions. These changes will reward diverse thought through competitive proposals by the Services within the JCIDS process. A movement toward interdependence will serve to strengthen Service core competencies, as they are no longer focused on attempting to provide a complete warfighting package, and provide the Joint Force Commander with what Eisenhower envisioned 50 years ago – a fight bringing the best of each Service to bear, acting as one single concentrated effort.

## Bibliography

- A to Z Investments. "Discover the Origins of Mutual Fund Investing."  
<http://www.atozinvestments.com/mutualfunds.html> (accessed October 12, 2007).
- Aaker, David A. *Developing Business Strategies*. New York: Wiley and Sons, 2001.
- Barnett, Thomas P.M. *The Pentagon's New Map*. New York: Berkley Books, 2004.
- Barnett, Thomas P.M. *Blueprint for Action*. New York: G.P. Putnam's Sons, 2005.
- Beckwith, Charlie A. and Knox, Donald. *Delta Force*. New York: Harcourt Brace Jovanovich, 1983.
- Brainy Quote, "Vince Lombardi Quotes,"  
[http://www.brainyquote.com/quotes/authors/v/vince\\_lombardi.html](http://www.brainyquote.com/quotes/authors/v/vince_lombardi.html) (accessed 30 Nov 2007).
- Center for Strategic and International Studies. "The 2006 Quadrennial Defense Review."  
<http://www.csis.org/isp/qdr/> (accessed 10 January 2008).
- Clifford, Clark. *Counsel to the President*. New York: Random House, 1991.
- Collis, David J. *Strategy – Create and Implement the Best Strategy for Your Business*. Boston, MA: Harvard Business School Press, 2005.
- Covey, Stephen R. *The 7 Habits of Highly Effective People*. New York: Simon and Schuster, 1989.
- Coss, Michael A. "Joint Professionals: Here Today, Here to Stay." *Joint Forces Quarterly* no. 38 (3<sup>rd</sup> Quarter 2005): 92-99.
- DeCandido, Carol L. "An Evolution of Department of Defense Planning, Programming, and Budgeting System: From SECDEF McNamara to VCJCS Owens." U.S. Army War College Paper, Carlisle Barracks, PA. 1996.
- England, Gordon. "Capability Portfolio Management Test Case Roles, Responsibilities, Authorities, and Approaches." Memorandum from the Office of the Deputy Secretary of Defense. Washington, DC, 14 September 2006.
- \_\_\_\_\_. "Capability Portfolio Management Way Ahead." Memorandum from the Office of the Deputy Secretary of Defense. Washington, DC, 07 February 2008.

- Fautua, David T. "The Paradox of Joint Culture." *Joint Forces Quarterly* no. 26 (Autumn 2000): 81-86.
- Flournoy, Michèle A. "Did the Pentagon Get the Quadrennial Defense Review Right?" *The Washington Quarterly* (Spring 2006): 67-84.
- Franks, Tommy. *American Soldier*. New York: Harper-Collins Publishers, Inc., 2004.
- Friedman, Thomas L. *The World is Flat: A Brief History of the Twenty-first Century*. New York: Farrar, Straus and Giroux, 2006.
- Government Accountability Office. *DOD Acquisition Outcomes: A Case for Change, Report GAO-06-257T*. Open-file report. Washington, DC: Government Printing Office, November 2005.
- \_\_\_\_\_. *Best Practices: An Integrated Portfolio Management Approach to Weapon System Investments Could Improve DOD's Acquisition Outcomes*. Open-file report to the Committee on Armed Services, U.S. Senate. Washington, DC: Government Printing Office, March 2007.
- Greenwald, Bryon. "Joint Capabilities Development" *Joint Forces Quarterly* no. 44 (1<sup>st</sup> Quarter 2007): 50-53.
- Harvard Business School. *Harvard Business Essentials: Strategy*. Boston, MA: Harvard Business School Publications, 2005.
- Hicks, Kathleen H. *Invigorating Defense Governance: A Beyond Goldwater-Nichols Phase 4 Project*. Washington, DC: Center for Strategic and International Studies, December 2007 (Working Draft Version 1.0).
- Horwood, Ian. *Interservice Rivalry and Airpower in the Vietnam War*. Fort Leavenworth, Kansas: Combat Studies Institute Press, 2006.
- Investment Company Institute. "ICI Statistics and Research." [http://www.ici.org/stats/mf/trends\\_10\\_07.html](http://www.ici.org/stats/mf/trends_10_07.html), (accessed December 01, 2007).
- Keener, J. Kristopher. "The Helicopter Innovation in United States Army Aviation." Master's thesis, Massachusetts Institute of Technology Security Studies Program, Jan 2001.
- Kotter, John P. *Leading Change*. Boston, MA: Harvard Business School Press, 1996.
- Kreishe, Otto. "Desert One." *Air Force Magazine Online: Journal of the Air Force Association* vol. 82, no. 1 (January 1999), <http://www.afa.org/magazine/jan1999/0199desertone.asp> (accessed 12 January 2008).

Krulak, Victor H. *First to Fight: An Inside View of the U.S. Marine Corps*. Annapolis, Maryland: Naval Institute Press, 1984.

Larsen, Robert F. "Evolution of the JROC Warfighting Capabilities-Based Assessments." *Phalanx: The Bulletin of Military Operations Research* vol.37, no. 4, (2005): 5-12.

\_\_\_\_\_. "The Evolution of the Pentagon's Strategic Warfighting Resource and Risk Process." *The Land Warfare Papers: The Institute of Land Warfare*, no. 64 (June 2007).

Levine, Harvey A. *Project Portfolio Management: A Practical Guide to Selecting Projects, Managing Portfolios, and Maximizing Benefits*. San Francisco: Jossey-Bass / John Wiley & Sons, Inc., 2005.

Locher, James R. III. "Taking Stock of Goldwater-Nichols." *Joint Forces Quarterly*, no. 13 (Autumn 1996): 10-17.

Lubold, Gordon. "Congress: Why Should Each Military Branch Get Same Budget?" *Christian Science Monitor*. February 26, 2008.  
<http://ebird/afis/mil/320080226583259.html> (accessed February 26, 2008).

Military Information Technology Online Edition, "Joint Capability Developer: Advancing Warfighter Effectiveness and Combat Capability," <http://www.military-information-technology.com/article.cfm?DocID=2286> (accessed 20 February 2008).

Murdock, Clark A. *Beyond Goldwater-Nichols Defense Reform for a New Strategic Era: Phase 1 Report*. Washington, DC: Center for Strategic and International Studies, March 2004.

Murdock, Clark A. and Flournoy, Michèle A. *Beyond Goldwater-Nichols U.S. Government and Defense Reform for a New Strategic Era: Phase 2 Report*. Washington, DC: Center for Strategic and International Studies, July 2005.

Murray, Williamson. "The Evolution of Joint Warfare, Williamson Murray." *Joint Forces Quarterly* no. 31 (Summer 2002), 30-37.

Office of Management and Budget,  
<http://www.whitehouse.gov/omb/budget/fy2009/outlook.html> (accessed 05 March 2008).

The White House, Office of Management and Budget, "Strengthening Social Security," <http://www.whitehouse.gov/infocus/social-security/200501/socialsecurity1.pdf> (accessed 12 December 2007).

Office of Management and Budget,  
<http://www.whitehouse.gov/omb/budget/fy2009/defense.html> (accessed 05 March 2008).

Owens, William A. "Making the Joint Journey" *Joint Forces Quarterly* no. 21 (Spring 1999): 92-95.

\_\_\_\_\_. *Lifting the Fog of War*. Baltimore, Maryland: The Johns Hopkins University Press, 2001.

Porter, Michael E. "What is Strategy?" *Harvard Business Review* (November-December 1996): 61-78.

\_\_\_\_\_. *Competitive Strategy*. New York: Free Press, 1980.

Rajegopal, Shan, and McGuin, Philip and Walle, James. *Project Portfolio Management: Leading the Corporate Vision*. Basingstoke: Palgrave Macmillan, 2007.

Sanwal, Anand. *Optimizing Corporate Portfolio Management: Aligning Investment Proposals with Organizational Strategy*. New Jersey: John Wiley & Sons, Inc., 2007.

Scruggs, David A. *Beyond Goldwater-Nichols: An Annotated Brief, Department of Defense Acquisition and Planning, Programming, Budgeting and Execution System Reform*. Washington, DC: Center for Strategic and International Studies, August 2006.

Snider, Don M. "Jointness, Defense Transformation and the Need for a New Joint Warfare Profession." *Parameters* (Autumn 2003): 17-30.

Stevenson, Charles A. "Underlying Assumptions of the National Security Act of 1947." *Joint Forces Quarterly*, no. 48 (1<sup>st</sup> Quarter 2008): 129-133.

Toffler, Alvin and Heidi. *War and Anti-War: Making Sense of Today's Global Chaos*. New York: Warner Books, 1993.

U.S. Department of Defense. Office of the Chairman of the Joint Chiefs of Staff. *The National Military Strategy of the United States of America*. Open-file report. Washington, DC: Government Printing Office, 2004.

U.S. Department of Defense. Office of the Secretary of Defense. *The National Defense Strategy of the United States of America*. Open-file report. Washington DC: Government Printing Office, 2005.

U.S. Department of Defense. Office of the Secretary of Defense. *Quadrennial Defense Review Report 2006*. Open-file report. Washington, DC: Government Printing Office, February 2006.

U.S. Department of Defense. Office of the Secretary of Defense. *Quadrennial Defense Review Report 2001*. Open-file report. Washington, DC: Government Printing Office, September 30, 2001.

U.S. Department of Defense. "Quadrennial Defense Review Report." Office of the Undersecretary of Defense (Policy), <http://www.defenselink.mil/qdr/> (accessed 10 January 2008).

U.S. Department of Defense. *Doctrine for the Armed Forces of the United States*, Joint Publication 1. Washington, DC: Government Printing Office, 14 May 2007.

U.S. Department of Defense. United States Marine Corps. *Fleet Marine Force Reference Publication (FMFRP) 12-15, Small Wars Manual*. Washington, DC: Government Printing Office, 1990.

U.S. Department of Defense. United States Marine Corps. *Marine Corps Warfighting Publication (MCWP) 3-2, Aviation Operations*. Washington, DC: Government Printing Office, May 2000.

U.S. Department of Defense. Office of the Chairman of the Joint Chiefs of Staff. *Joint Capabilities Integration and Development System: Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01F*. Open-file report. Washington, DC: Government Printing Office, 01 May 2007.

U.S. Department of Defense. *Joint Net-Centric Operations (JNO) Capability Portfolio Management Business Plan*. Open-file report. U.S. Strategic Command. Omaha, NE, April 16, 2007.

U.S. Department of Defense. *Joint Command and Control (JC2) Capability Portfolio Management Operating Concept & Business Plan Version 1.0*. Open-file report, U.S. Joint Forces Command. Norfolk, VA, November 20, 2007.

U.S. Department of Defense. *Basic Documents on Roles and Missions*, by Richard I. Wolf. Open-file report, Office of the Air Force History. Washington DC: Government Printing Office, 1987.

U.S. Department of Defense. *The History of the Unified Command Plan 1946-1993*, by Ronald H. Cole, Walter S. Poole, James F. Schnabel, Robert J. Watson, and Willard J. Webb. Open-file report, Joint History Office. Washington, DC: Government Printing Office, February 1995.

U.S. Department of Defense. Historical Office United States Army Training and Doctrine Command. *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973-1982*. Fort Monroe, VA: Government Printing Office, 1984.

U.S. Department of Defense. *Conduct of the Persian Gulf War: Final Report to Congress*. Open-file report. Washington, DC: Government Printing Office, 1992.

U.S. Department of Defense. Office of the Vice Chairman of the Joint Chiefs of Staff. *Planning in a Revolutionary Era*. Open-file report. Washington, DC: Government Printing Office, 1996.

U.S. Department of Defense. *Fact Sheet, DOD Reorganization Act of 1986 – A Primer*. Association of the United States Army. Arlington Virginia, 1986.

U.S. Department of Defense. *History of the Office of the Secretary of Defense, Volume I. The formative years 1947-1950* by Steven L. Rearden. OSD Historical Office, Washington, DC: Government Printing Office, 1984.

U.S. Department of Defense. *Operation Just Cause, Panama* by Ronald H. Cole. Joint History Office, Office of the Chairman of the Joint Chiefs of Staff. Washington, DC: Government Printing Office, 1995.

U.S. Department of Defense. *Joint Defense Capabilities Study: Final Report*, by Pete Aldridge. Washington, DC: Government Printing Office, January 2004.

U.S. Department of Defense. *Defense Acquisition Performance Assessment Report*, by Ronald Kadish. Open-file report. Washington, DC: Government Printing Office, January 2006.

U.S. Department of Defense. Office of the Undersecretary of Defense for Acquisition, Technology and Logistics. *Defense Science Board 2005 Summer Study on Transformation: A Progress Assessment*. Open-file report. Washington, DC: Government Printing Office, 2005.

Worley, Robert D. *Shaping U.S. Military Forces: Revolution or Relevance after the Cold War*. Arlington, Virginia: Lulu Press, 2005.

X. "The Sources of Soviet Conduct." *Foreign Affairs* (July 1947), <http://www.foreignaffairs.org/19470701faessay25403/x/the-sources-of-soviet-conduct.html> (accessed 12 December 2007).

Yarger, Harry. "Strategic Theory for the 21st Century: The Little Book on Big Strategy." U.S. Army Strategic Studies Institute, February 2006, <http://www.StrategicStudiesInstitute.army.mil/> (accessed 12 December 2007).

Zinni, Anthony and Koltz, Tony. *The Battle for Peace: A Frontline Vision of America's Power and Purpose*. New York: Palgrave Macmillan, 2006.

### **Vita**

Commander Peter Matisoo is a native of Yorktown, New York. He attended Colgate University and was commissioned through the Aviation Officer Candidate School program at NAS Pensacola in April 1989. He commenced flight training in June 1989 and was designated a Naval Aviator in Kingsville, Texas in January 1991.

Commander Matisoo is an FA-18 pilot and has served with Strike Aircraft Test Squadron, VFA-106, VFA-15, VFA-27 and VX-31. He is a 1996 graduate of the USAF Test Pilot School. His experience includes Operations DENY FLIGHT, SOUTHERN WATCH, and DELIBERATE FORCE, and IRAQI FREEDOM. Commander Matisoo recently Commanded VFA-15 and has over 4,000 flight hours in 45 aircraft and 800 carrier arrested landings. He is currently assigned to the Joint Advanced Warfighting School (JAWS) in Norfolk, Virginia.