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Defense Transformation: Background and Oversight Issues for Congress

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Summary

The Bush Administration identified transformation as a major goal for the Department of Defense (DOD) soon after taking office, and initially justified many of its proposals for DOD on the grounds that they were needed for defense transformation. Although defense transformation is still discussed in administration defense-policy documents and budget-justification materials, the concept is now less prominent in discussions of U.S. defense policy and programs than it was during the earlier years of the Bush Administration.

The Administration's vision for defense transformation calls for placing increased emphasis in U.S. defense planning on the following: irregular warfare, including terrorism, insurgencies, and civil war; potential catastrophic security threats, such as the possession and possible use of weapons of mass destruction by terrorists and rogue states; and potential disruptive events, such as the emergence of new technologies that could undermine current U.S. military advantages. The Administration's vision for defense transformation calls for shifting U.S. military forces toward a greater reliance on joint operations, network-centric warfare, effects-based operations, speed and agility, and precision application of firepower. Transformation could affect the defense industrial base by transferring funding from "legacy" systems to transformational systems, and from traditional DOD contractors to firms that previously have not done much defense work.

Potential oversight issues for Congress regarding defense transformation include the potential for DOD transformation plans to change as a result of Robert Gates succeeding Donald Rumsfeld as Secretary of Defense; the merits of certain elements of DOD's transformation plan; overall leadership and management of transformation; experiments and exercises conducted in support of transformation; measures for creating a culture of innovation viewed as necessary to support transformation; the adequacy of information provided to Congress regarding transformation-related initiatives; and whether the Administration has invoked the term transformation as an all-purpose rhetorical tool for justifying its various proposals for DOD. This report will be updated as events warrant.

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Introduction

Issue For Congress

The Bush Administration identified transformation as a major goal for the Department of Defense (DOD) soon after taking office, and initially justified many of its proposals for DOD on the grounds that they are needed for defense transformation. The Administration's early emphasis on transformation altered the framework of debate for numerous issues relating to U.S. defense policy and programs.

Although defense transformation is still discussed in administration defense-policy documents and budget-justification materials, the concept is now less prominent in discussions of U.S. defense policy and programs than it was during the earlier years of the Bush Administration.

Related CRS Reports

This report addresses defense transformation from a DOD-wide perspective. For discussions of transformation as it relates to specific parts of DOD, see the following CRS reports:

- CRS Report RS20787, *Army Transformation and Modernization: Overview and Issues for Congress*, by Edward F. Bruner,
- CRS Report RL32476, *U.S. Army's Modular Redesign: Issues for Congress*, by Andrew Feickert,
- CRS Report RS20859, *Air Force Transformation*, by Christopher Bolkcom,
- CRS Report RS20851, *Naval Transformation: Background and Issues for Congress*, by Ronald O'Rourke,
- CRS Report RL32411, *Network Centric Operations: Background and Oversight Issues for Congress*, by Clay Wilson,
- CRS Report RL31425, *Military Transformation: Intelligence, Surveillance and Reconnaissance*, by Judy Chizek,
- CRS Report RL32151, *DOD Transformation Initiatives and the Military Personnel System: Proceedings of a CRS Seminar*, by Lawrence Kapp, and
- CRS Report RL33148, *U.S. Military Overseas Basing: New Developments and Oversight Issues for Congress*, by Robert D. Critchlow.

Background

What Is Defense Transformation?

The term defense transformation came into common use among military officials and defense analysts in the late 1990s. It has been defined by military officials, military analysts, and other observers in various ways. In general, defense transformation can be thought of as large-scale, discontinuous, and possibly disruptive changes in military weapons, organization, and concepts of operations (i.e., approaches to warfighting) that are prompted by significant changes in technology or the emergence of new and different international security challenges.

Advocates of defense transformation stress that, in contrast to incremental or evolutionary military change brought about by normal modernization efforts, defense transformation is more

likely to feature discontinuous or disruptive forms of change. They also stress that while much of the discussion over transformation centers on changes in military weapons and systems, changes in organization and concepts of operations can be as important, or even more important, than changes in weapons and systems in bringing about transformation. Changes in organization and concepts of operation, some have argued, can lead to transformation even without changes in weapons and systems, while even dramatic changes in weapons and systems might not lead to transformation if not accompanied by changes in organization and concepts of operation.

DOD has defined transformation in one document as a

> process that shapes the changing nature of military competition and cooperation through new combinations of concepts, capabilities, people and organizations that exploit our nation's advantages and protect against our asymmetric vulnerabilities to sustain our strategic position, which helps underpin peace and stability in the world.
>
> First and foremost, transformation is a continuing process. It does not have an end point. Transformation anticipates and creates the future and deals with the co-evolution of concepts, processes, organizations, and technology. Profound change in any one of these areas necessitates change in all. Transformation creates new competitive areas and competencies and identifies, leverages, or creates new underlying principles for the way things are done. Transformation also identifies and leverages new sources of power. The overall objective of these changes is to sustain U.S. competitive advantage in warfare.[1]

The Administration's view of transformation has evolved somewhat since 2001 to include more emphasis on transformation as a continuing process rather than one with an endpoint, and on making changes not just in combat forces and warfighting doctrine, but in supporting DOD activities such as training, personnel management, logistics, and worldwide basing arrangements. The Administration's definition of transformation also encompasses making changes in DOD business policies, practices, and procedures, particularly with an eye toward streamlining operations and achieving efficiencies so as to reduce costs and move new weapon technologies from the laboratory to the field more quickly. The Administration has also used the term transformation to refer to proposed changes in matters such as the budget process and environmental matters affecting military training.[2]

Some observers have equated transformation principally with the idea of making U.S. forces more mobile, agile, and lethal through greater reliance on things such as unmanned vehicles (UVs), advanced technologies for precision-strike operations, and special operations forces (SOF). Other observers have equated transformation principally with the concept of network-centric warfare (NCW)[3] and the C4ISR[4] technologies needed to implement NCW. Still others have equated transformation primarily with making U.S. military forces more expeditionary,[5]

[1] U.S. Department of Defense, Office of the Secretary of Defense, Director, Force Transformation, *Military Transformation[:] A Strategic Approach*, fall 2003, p. 8.

[2] For additional discussion, see U.S. Department of Defense, *Elements of Defense Transformation*. Washington, 2004, 17 pp. Available on the Internet at http://www.oft.osd.mil/library/library_files/document_383_ElementsOfTransformation_LR.pdf

[3] NCW refers to using networking technology—computers, data links, and networking software—to link U.S. military personnel, ground vehicles, aircraft, and ships into a series of highly integrated local- and wide-area networks capable of sharing critical tactical information on a rapid and continuous basis. For more on NCW, see U.S. Department of Defense, Office of Force Transformation, *The Implementation of Network-Centric Warfare*. Washington, 2005, 76 pp. Available on the Internet at http://www.oft.osd.mil/library/library_files/document_387_NCW_Book_LowRes.pdf

[4] C4ISR stands for command, control, communications, computers, intelligence, surveillance, and reconnaissance.

[5] In general, this means making U.S. forces more capable of rapidly moving to distant operating areas and conducting operations in those areas with less reliance on pre-existing in-theater bases, infrastructure, or supplies.

with making order-of-magnitude improvements in specific military capabilities, with making many smaller improvements that add up to larger improvements, or with the notion of weapon modernization in general.

Some of these alternative formulations are not so much definitions of transformation as prescriptions for how U.S. military forces should be transformed. Others can be viewed as reducing the threshold of what qualifies as transformation by including changes that, while perhaps dramatic, represent an elaboration of current practices and arrangements rather than something discontinuous with or disruptive of those practices and arrangements.

Related to the concept of defense transformation is the somewhat earlier term Revolution in Military Affairs (RMA), which came into use in the early 1990s.[6] RMAs are periodic major changes—discontinuities—in the character of warfare. Depending on the source consulted, a few or several RMAs are deemed to have occurred in recent decades or centuries. Although the terms transformation and RMA have sometimes been used interchangeably, RMA can be used to refer to a major change in the character of warfare, while transformation can be used to refer to the process of changing military weapons, concepts of operation, and organization in reaction to (or anticipation of) an RMA.

What Are The Administration's Plans For Transformation?

DOD Publications

DOD has published a number of documents describing the Administration's plans for defense transformation. Among these are *Elements of Defense Transformation*, published in October 2004, *Military Transformation: A Strategic Approach*, published in the fall of 2003, *Transformation Planning Guidance*, published in April 2003, and separate transformation plans (called road maps) for each of the military services.

Overall Vision

In general, the Administration's vision for defense transformation calls for placing increased emphasis in U.S. defense planning on the following: irregular warfare (including terrorism, insurgencies, and civil war), potential catastrophic security threats (such as the possession and possible use of weapons of mass destruction by terrorists and rogue states), and potential disruptive events (such as the emergence of new technologies that could undermine current U.S. military advantages).[7]

The Administration's vision for defense transformation calls for shifting the U.S. military away from a reliance on massed forces, sheer quantity of firepower, military services operating in

[6] The term RMA was a reformulation of the even earlier term, Military Technical Revolution (MTR), which was coined by Soviet military analysts during the Cold War to refer to fundamental changes in warfare that are brought about by major new technologies, such as nuclear weapons. Western military analysts, concerned that the term MTR placed too exclusive an emphasis on changes in technology, created the term RMA so as to take into account changes in military organization and concepts of operations as well.

[7] For press articles discussing this shift in the focus of U.S. defense planning, see Jason Sherman, "US Revises Threat Scenarios," *DefenseNews.com*, Nov. 22, 2004; Jason Sherman, "US War On Terror Looms For QDR," *Defense News*, Oct. 25, 2004: 4; Jason Sherman, "U.S. Goals Sought On Battling The Unconventional," *Defense News*, Sept. 20, 2004; and Thomas E. Ricks, "Shift From Traditional War Seen At Pentagon," *Washington Post*, Sept. 3, 2004: 1.For a discussion of the relationship between transformation and potential disruptive events, see Terry J. Pudas, "Disruptive Challenges and Accelerating Force Transformation," *Joint Force Quarterly*, Issue 42, 3rd Quarter, 2006: 43-50.

isolation from one another, and attrition-style warfare,[8] and toward a greater reliance on joint (i.e., integrated multi-service) operations, NCW, effects-based operations (EBO),[9] speed and agility, and precision application of firepower. Some transformation advocates characterize these changes as shifting from an industrial-age approach to war to an information-age approach.

As mentioned earlier, the Administration's transformation vision also includes proposals for changing things like training practices, personnel management practices, logistics operations, and worldwide basing arrangements, and for changing DOD's business practices, particularly with an eye toward streamlining those practices so as to accelerate the fielding of new weapons and generate savings that can be used to invest in them. A potential emerging area of DOD's vision for defense transformation are actions to reduce DOD's energy requirements and to develop alternative energy sources, particularly for forces operating in distant theaters.[10]

DOD has stated that its transformation effort is focused on achieving six "critical operational goals" and consists of four essential "pillars:"

> Six critical operational goals identified by Secretary of Defense Donald H. Rumsfeld provide the focus for the Department's transformation efforts: (1) Protecting critical bases and defeating chemical, biological, radiological, and nuclear weapons; (2) Projecting and sustaining forces in anti-access environments; (3) Denying enemy sanctuary; (4) Leveraging information technology; (5) Assuring information systems and conducting information operations; and (6) Enhancing space capabilities. Over time, the continued focus of the Department's force transformation efforts on the development of the capabilities necessary to achieve these six critical operational goals will help shift the balance of U.S. forces and broaden our capabilities....
>
> The four military transformation pillars identified by the Secretary—strengthening joint operations, exploiting U.S. intelligence advantages, concept development and experimentation, and developing transformational capabilities—constitute the essential elements of the Department's force transformation strategy. The first pillar focuses on strengthening joint operations through the development of joint concepts and architectures and the pursuit of other important jointness initiatives and interoperability goals. The overarching *Joint Operations Concepts (JOpsC)* document provides the operational context for military transformation by linking strategic guidance with the integrated application of Joint Force capabilities. The second pillar involves exploiting U.S. intelligence advantages through multiple intelligence collection assets, global surveillance and reconnaissance, and enhanced exploitation and dissemination. Our ability to defend

[8] Attrition-style warfare refers to a traditional warfighting strategy that focuses on seeking out the enemy's military forces, wherever they might be, and then using firepower to destroy them piece by piece, through a process of gradual attrition, until the enemy is no longer capable of fighting effectively.

[9] Effects-based operations , also called effects-based warfare, refers to a warfighting strategy that has been proposed as an alternative to traditional attrition-style warfare. Rather than focusing on seeking out and destroying enemy forces wherever they might be, effects-based operations focuses on attacking selected key elements of the enemy's ability to fight in a coordinated manner. Under an effects-based strategy, U.S. forces might attack the enemy's military leadership, its military command-and-control systems, and the most politically and militarily significant elements of the enemy's fielded military forces while bypassing less significant enemy military forces. The goal of effects-based warfare is to create specific effects on the enemy that lead to a rapid collapse of the enemy's willingness and ability to fight, without having to go through a time-consuming and potentially costly effort to destroy the bulk of the enemy's military forces through a gradual process of attrition.

Some observers argue that the concept of effects-based operations is not new and has been employed in past conflicts. Observers also argue, however, that new technologies may significantly increase the effectiveness of effects-based operations.

[10] Scott C. Buchanan, "Energy and Force Transformation," *Joint Force Quarterly*, Issue 42, 3rd Quarter, 2006: 51-54.

> America in the new security environment requires unprecedented intelligence capabilities to anticipate where, when, and how adversaries intend to harm us.
>
> The third pillar, concept development and experimentation, involves experimentation with new approaches to warfare, operational concepts and capabilities, and organizational constructs through war gaming, simulations, and field exercises focused on emerging challenges and opportunities. Experiments designed to evaluate new concepts provide results that help refine those concepts in an iterative fashion. [Regarding the fourth pillar, the] Department requires strong mechanisms for implementing results from concept development and experimentation and, more immediately, for developing transformational capabilities needed to support the JOpsC and subordinate Joint Operating Concepts.[11]

In its report on the 2005 Quadrennial Defense Review, submitted to Congress on February 6, 2006, DOD stated:

> If one were to attempt to characterize the nature of how the Department of Defense is transforming and how the senior leaders of this Department view that transformation, it is useful to view it as a shift of emphasis to meet the new strategic environment. In this era, characterized by uncertainty and surprise, examples of this shift in emphasis include:
>
> - From a peacetime tempo—to a wartime sense of urgency.
> - From a time of reasonable predictability—to an era of surprise and uncertainty.
> - From single-focused threats—to multiple, complex challenges.
> - From nation-state threats—to decentralized network threats from non-state enemies.
> - From conducting war against nations—to conducting war in countries we are not at war with (safe havens).
> - From "one size fits all" deterrence—to tailored deterrence for rogue powers, terrorist networks and near-term competitors.
> - From responding after a crisis starts (reactive)—to preventive actions so problems do not become crises (proactive).
> - From crisis response—to shaping the future.
> - From threat-based planning—to capabilities-based planning.
> - From peacetime planning—to rapid adaptive planning.
> - From a focus on kinetics—to a focus on effects.
> - From 20th century processes—to 21st century integrated approaches.
> - From static defense, garrison forces—to mobile, expeditionary operations.
> - From under-resourced, standby forces (hollow units)—to fully-equipped and fully-manned forces (combat ready units).
> - From a battle-ready force (peace)—to battle-hardened forces (war).
> - From large institutional forces (tail)—to more powerful operational capabilities (teeth).
> - From major conventional combat operations—to multiple irregular, asymmetric operations.

[11] *Military Transformation[:] A Strategic Approach*, op. cit., p. 3.

- From separate military Service concepts of operation—to joint and combined operations.
- From forces that need to deconflict—to integrated, interdependent forces.
- From exposed forces forward—to reaching back to CONUS [the continental United States] to support expeditionary forces.
- From an emphasis on ships, guns, tanks and planes—to focus on information, knowledge and timely, actionable intelligence.
- From massing forces—to massing effects.
- From set-piece maneuver and mass—to agility and precision.
- From single Service acquisition systems—to joint portfolio management.
- From broad-based industrial mobilization—to targeted commercial solutions.
- From Service and agency intelligence—to truly Joint Information Operations Centers.
- From vertical structures and processes (stovepipes)—to more transparent, horizontal integration (matrix).
- From moving the user to the data—to moving data to the user.
- From fragmented homeland assistance—to integrated homeland security.
- From static alliances—to dynamic partnerships.
- From predetermined force packages—to tailored, flexible forces.
- From the U.S. military performing tasks—to a focus on building partner capabilities.
- From static post-operations analysis—to dynamic diagnostics and real-time lessons learned.
- From focusing on inputs (effort)—to tracking outputs (results).
- From Department of Defense solutions—to interagency approaches.[12]

Service and Agency Transformation Plans

The military services and DOD agencies have developed transformation plans or road maps in support of DOD's overall transformation vision.

The Army's transformation plan centers on reorganizing the Army into modular, brigade-sized forces called Units of Action (UAs) that can be deployed to distant operating areas more easily and can be more easily tailored to meet the needs of each contingency.

Key elements of the Air Force's transformation plan include reorganizing the service to make it more expeditionary, and exploiting new technologies and operational concepts to dramatically improve its ability to rapidly deploy and sustain forces, to dominate air and space, and to rapidly identify and precisely attack targets on a global basis.

Key elements of naval transformation include a focus on operating in littoral (i.e., near shore) waters, new-design ships requiring much-smaller crews, directly launching and supporting expeditionary operations ashore from sea bases, more flexible naval formations, and more flexible ship-deployment methods.

[12] U.S. Department of Defense, *Quadrennial Defense Review Report*. Washington, 2006. (February 6, 2006) pp. vi-vii.

Elements common to the transformation plans of all the services include greater jointness, implementing NCW, and greater use of unmanned vehicles (UVs). As mentioned earlier, for more on the transformation plans of the Army in general, the Army plan for UAs, the Air Force, and the Navy, see CRS Report RS20787, CRS Report RL32476, CRS Report RS20859, and CRS Report RS20851, respectively.

Office of Force Transformation

As part of its strategy for implementing transformation,[13] DOD in October 2001 created the Office of Force Transformation (OFT), which resided within the Office of the Secretary of Defense (OSD). OFT was a small office with a staff of roughly 18 people and an annual budget of roughly $20 million. It reported directly to the Secretary of Defense. Among other things, OFT issued guidance to the rest of DOD on transformation; reviewed and approved transformation plans submitted by the military services and DOD agencies; acted as a generator, promoter, and clearinghouse of ideas for transformation; and generally evangelized in support of transformation.[14]

From October 29, 2001, until January 31, 2005, the director of OFT was retired Navy Vice Admiral Arthur K. Cebrowski.[15] Cebrowski, who died in November 2005, was a leading advocate and intellectual developer of defense transformation. Prior to becoming director of OFT, Cebrowski was President of the Naval War College, where he was a proponent of the then-emerging concept of NCW and initiated studies on radically new kinds of Navy warships. Following Cebrowski's departure from OFT in January 2005, the office's deputy director, Terry Pudas, served as acting director.

On August 28, 2006, DOD announced that it planned to dissolve OFT and transfer its functions into other DOD offices.[16] The announcement followed press reports dating back to April 2005

[13] For a general discussion of this strategy, see Walter P. Fairbanks, "Implementing the Transformation Vision," *Joint Force Quarterly*, Issue 42, 3rd Quarter, 2006: 36-42.

[14] An official from OFT, in an article published in the summer of 2006, stated the following:

> One DOD tool for tracking overall progress each year is the *Strategic Transformation Appraisal*. Preparing the appraisal and presenting it to the Secretary of Defense are important responsibilities of the Director of Force Transformation; the document assists the Secretary in evaluating progress across DOD in the implementation of transformation, both in direction and balance. In developing the appraisal, the OFT reviews the annual Service transformation roadmaps and the joint roadmap prepared by U.S. Joint Forces Command and assesses the direction of transformation. These roadmaps are compared with broad guidance contained in key DOD documents such as the *Quadrennial Defense Review Report*, *Transformation Planning Guidance*, and *Strategic Planning Guidance*.
>
> The Office of Force Transformation employs three sets of qualitative metrics to analyze roadmaps. The first set, derived from the *National Defense Strategy*, reviews the four strategic challenges facing the United States (traditional, irregular, catastrophic, and disruptive) as the first step in a top-down CBP [capabilities-based planning] effort. The second set focuses on capabilities described in the four approved joint operating concepts (JOCs). The joint interdependencies the Services have identified in their transformation roadmaps form the third set of qualitative metrics used in the analysis. The OFT analysis identifies capability gaps and shortfalls that have not been addressed in the transformation roadmaps and generates conclusions and recommendations concerning the state of transformation in DOD.
>
> (Walter P. Fairbanks, "Implementing the Transformation Vision," Joint Force Quarterly, Issue 42, 3rd Quarter, 2006: 36-42.)

[15] Vice Admiral Cebrowski died on November 12, 2005, after a long illness.

[16] Gopal Ratnam, "Pentagon To Dissolve Transformation Office," *DefenseNews.com*, Aug. 29, 2006; Christopher P.

about the possible fate of the office.[17] OFT was disestablished on October 1, 2006; its research and development projects were transferred to DOD's Director for Defense Research and Engineering (DDR&E), and its operation and maintenance activities were transferred to the Under Secretary of Defense for Policy.[18] An April 2007 press article stated:

> The Defense Department's decision in August 2006 to close the Office of Force Transformation left many people inside and outside the department wondering what would happen to the office's programs and track record of innovation. Some experts even said DOD's catalyst for experimentation would be lost.
>
> Now, more than seven months later, those concerns and questions remain unanswered. DOD has folded most of OFT into a reorganized policy office within the Office of the Secretary of Defense. It has shifted OFT's people and projects into new offices, but it has not finalized the role of the new office.
>
> "We're starting to settle into the new construct as we move from outside the [policy] organization to a more aligned construct," said Terry Pudas, former acting director of OFT. Pudas now is acting deputy assistant secretary of Defense for forces transformation and resources in the Office of the Undersecretary of Defense for Policy.
>
> When DOD decided to close OFT, Pentagon officials countered critics by saying transformational thinking at DOD had matured and was engrained [sic] throughout the department. They emphasized how network-centric warfare and the emerging Global Information Grid are revolutionizing intelligence collaboration and battlefield command and control.
>
> The decision to move OFT inside OSD's policy structure was a double-edged sword, Pudas said. On the one hand, former OFT employees are more directly connected to policy development and implementation, which encourages better coordination. But now they now spend much of their time in meetings rather than focusing on new initiatives.
>
> Pudas' new office houses 20 people, about the same number as at OFT. But staff members aren't leading any projects yet, he said. Instead, they are focused on collaborating with other offices and overseeing policy concerns of the Joint Forces and Transportation commands.
>
> John Garstka, director of force transformation in the new office, said being inside the OSD policy shop has advantages, but the unique character of the original OFT has been lost.
>
> "It all revolves around the money," Garstka said, adding that the former OFT leadership pursued project funding without getting specific permission. It remains to be seen whether OFT's technology concept development activities, now under the director for Defense research and engineering, will remain robust, he said.

Cavas, "Pentagon May Close Transformation Office," *Defense News*, Aug. 28, 2006.

[17] In April 2005, it was reported that the Office of the Secretary of Defense had commissioned retired admiral James Ellis, who commanded the U.S. Strategic Command from 2001 to 2004, to prepare a set of options for OFT's future. These options reportedly included, but may not have been be limited to, keeping OFT as is, moving it to a new location within DOD (such as under DOD's acquisition office or under U.S. Joint Forces Command), or expanding OFT. Ellis' study reportedly also recommended that a new director be found for OFT. (Jason Sherman, "DSB: Commanders Require New Tools For Transformation In Terror War," *Inside the Pentagon*, Sept. 1, 2005.)In September 2005, it was reported that a study conducted by the Defense Science Board (DSB)—an advisory panel to the Secretary of Defense—suggested that, in light of the broad acceptance of transformation within DOD over the last few years, OFT may no longer be necessary. The DSB study reportedly referred to OFT as "an organizational applique" and criticized OFT's role in overseeing and critiquing the services transformation plans. (Ibid. See also Roxana Tiron, "Military-Transformation Agency At Crossroads, After Cebrowski," *The Hill*, Sept. 15, 2005.)

[18] Jason Sherman, "England Memo Spells Official End of DOD Transformation Office," *InsideDefense.com*, Oct. 4, 2006.

> Proximity to the policy-making process doesn't necessarily correspond to increased influence in that process, Garstka added....
>
> Network-centric operations, a core philosophy of [the first OFT director, retired Vice Adm. Art] Cebrowski and OFT, is one idea that DOD has embraced, officials say. DOD has applied OFT's conceptual framework for network-centric operations to a variety of case studies, including research into the use of Blue Force Tracking and the benefit of Stryker Brigade Combat Teams....
>
> Meanwhile, DOD gave OFT's technology projects and research funding, along with four staff members, to the Office of the Director for Defense Research and Engineering, led by John Young. Those projects are continuing as planned, said Alan Shaffer, the office's director of plans and programs....
>
> DOD will rename the part of the office that houses those projects the Operational Experimentation Division, Shaffer said. As those projects reach the demonstration phase, the office will replace them with new, midsize projects that carry higher-than-normal risk.
>
> Overall, DOD must figure out how to make transformation fiscally sustainable by leveraging initiatives that offer returns and losing others, Pudas said. DOD officials must also balance investments in information with investments in other capabilities to close a gap in usability, he added.
>
> The new OFT policy section still can be a catalyst for innovation, Pudas said. "We haven't lost that charter."[19]

U.S. Joint Forces Command

As another measure to help implement transformation, DOD designated U.S. Joint Forces Command (USJFCOM), a unified military command with a staff of more than 800 headquartered in Norfolk, VA, as the military's premier "transformation laboratory." USJFCOM states:

> U. S. Joint Forces Command (USJFCOM) is one of nine combatant commands in the Department of Defense, and the only combatant command focused on the transformation of U.S. military capabilities.
>
> Among his duties, the commander of USJFCOM oversees the command's four primary roles in transformation—joint concept development and experimentation, joint training, joint interoperability and integration, and the primary conventional force provider as outlined in the Unified Command Plan approved by the president.
>
> The Unified Command Plan designates USJFCOM as the "transformation laboratory" of the United States military to enhance the combatant commanders' capabilities to implement the president's strategy. USJFCOM develops joint operational concepts, tests these concepts through rigorous experimentation, educates joint leaders, trains joint task force commanders and staffs, and recommends joint solutions to the Army, Navy, Air Force and Marines to better integrate their warfighting capabilities....
>
> As the joint force integrator, USJFCOM helps develop, evaluate, and prioritize the solutions to the interoperability problems plaguing the joint warfighter. At USJFCOM, joint interoperability and integration initiatives continue to deliver materiel and non-materiel solutions to interoperability challenges by working closely with combatant commanders, services and government agencies to identify and resolve joint warfighting deficiencies.

[19] Josh Rogin, "Defense Transformation Searches For New Identity," *Federal Computer Week*, April 16, 2007.

> This work is one of the most important near-term factors required to transform the legacy forces and establish a "coherently integrated joint force."[20]

New Weapon Acquisition Regulations

As an additional measure to help implement transformation, the Administration has revised the regulations governing the acquisition of new weapons and systems with the aim of reducing costs and "acquisition cycle time"—the time needed to turn useful new technologies into fielded weapon systems. One element of DOD's effort in this regard is evolutionary acquisition with spiral development (EA/SD), which DOD has identified is its new preferred acquisition strategy. EA/SD is an outgrowth of the defense acquisition reform movement of the 1990s and is intended to make its acquisition system more responsive to rapid changes in threats, technology, and warfighter needs. For more on EA/SD, see CRS Report RS21195.[21]

How Much Would Transformation Cost?

Calculating the potential cost of defense transformation is not an easy matter, for the following reasons:

- Opinions differ, often significantly, on what kinds of planned changes for DOD qualify as transformational, and which do not.
- Developing and acquiring new weapons and equipment that are deemed transformational can be very expensive, but the cost of this can be offset, perhaps substantially or even completely, by reducing or cancelling the development and procurement of non-transformational weapons and equipment that would no longer be needed.
- Implementing transformational changes in organization can also cost money, but these costs might similarly be offset by the reduced recurring cost of maintaining the new forms of organization.
- While exercises intended to explore new warfighting concepts of operation can be expensive, the cost of staging these exercises can be offset by curtailing other exercises that are intended to further develop older concepts of operations.
- If transformation is viewed as a continuing process rather than one with an endpoint, any calculations of its cost become snapshots rather than final figures.

In an article published in the summer of 2006, an official from DOD's Office of Force Transformation (OFT) stated:

> A frequent question is how much DOD spends on transformation. That is hard to say, because transformation is far more than a list of programs. The concepts, capabilities, and organizations developed through innovative ideas, experimentation, major training exercises, and assessment of lessons learned on the battlefields of Afghanistan and Iraq cannot be categorized under a transformation line item in the defense budget.[22]

Although some analysts who advocate defense transformation might personally support increased spending on defense, most appear to advocate transformation as a cost-neutral or cost-reducing

[20] http://www.jfcom.mil/about/about1.htm.

[21] CRS Report RS21195, *Evolutionary Acquisition and Spiral Development in DOD Programs: Policy Issues for Congress*, by Gary J. Pagliano and Ronald O'Rourke.

[22] Walter P. Fairbanks, "Implementing the Transformation Vision," *Joint Force Quarterly*, Issue 42, 3rd Quarter, 2006: 36-42.

proposition. Indeed, some advocates support their proposals for transformation on the grounds that they represent a less-expensive strategy for meeting future security challenges than the alternative of investing in programs for making more incremental or evolutionary changes to current military capabilities. Some analysts have gone even further, arguing that an increasing defense budget might actually impede transformation by permitting officials to believe that projected security challenges can be solved by investing larger amounts of funding in today's military forces, while a constrained or declining defense budget, conversely, might help encourage transformation by forcing officials to contemplate more seriously the idea of shifting to new and less expensive approaches for meeting these challenges.

The Administration has stressed that its interest in incorporating current best private-sector business practices in DOD operations, and in running DOD more "like a business," is driven in large part by a desire to run DOD more efficiently and thereby generate maximum savings that can be used for, among other things, investing in transformation.

The acting director of OFT, in an interview published in the summer of 2006, stated:

> Transformation should not be equated with plussing up the defense budget. Transformation should be associated with how we make choices, using a new logic, so it's not necessarily about spending more money. It's really about making better choices.[23]

What Weapons And Systems Are Transformational?

Although transformation involves (and might even depend more significantly on) changes in organization and concepts of operations, much of the debate over transformation has centered on which military weapons and systems should be deemed transformational, and which not. Experts disagree on this question, even when working from a common definition of transformation. As a result, lists of weapons and systems that qualify as transformational differ from one source to the next.

Supporters of various weapon procurement programs, keenly aware of the Administration's interest in transformation, have been eager to argue that their own favored weapon systems should be viewed transformational, or at least not as "legacy"—a label that for many has become synonymous with obsolescence and suitability for reduction or termination.[24] As a result, a wide variety of military weapons and systems have been presented at one point or another as transformational, while fewer have been spotlighted as non-transformational or legacy.

Weapons and systems that have frequently been identified as closely associated with the Administration's transformation vision include but are not necessarily limited to the following:

- C4ISR systems that link military units into highly integrated networks for conducting NCW,
- forces for countering terrorists and weapons of mass destruction,
- space systems,
- missile defense,
- unmanned vehicles,

[23] "An Interview With Acting Director, DOD Office of Force Transformation, Terry J. Pudas," *Joint Force Quarterly*, Issue 42, 3rd Quarter, 2006: 32-35.

[24] The term "legacy" was originally a policy-neutral term used to refer to existing or current-generation weapons that, while not transformational, could well be worth procuring or maintaining in inventory, at least for some number of years. Over time, however, the term "legacy" has come to be used in a more pejorative manner, to refer to systems that are not only not transformational, but obsolescent and ripe for immediate termination or elimination.

- special operations forces,
- precision-guided air-delivered weapons,
- lighter and more mobile Army ground forces, and
- smaller and faster Navy surface ships.

Weapons and systems that have been identified by various observers, not necessarily by DOD, as non-transformational or legacy include the following:

- weapons and associated C4ISR systems that operate in an isolated, stand-alone manner rather than as part of a network,
- unguided weapons,
- heavy armored forces for the Army,
- manned tactical aircraft, and
- large, slower-moving Navy surface ships.

How Might It Affect the Defense Industrial Base?

A related matter of interest to Congress is how the Administration's transformation plans, if implemented, might affect the composition of U.S. defense spending and, as a consequence, revenues and employment levels of various firms in the defense industrial base. In assessing this issue, potential points to consider include the following:

- **Transformational vs. non-transformational/legacy programs.** To some degree, implementing the Administration's transformation vision could lead to increased DOD spending on the items listed above as transformational, and more restrained amounts of spending on the items listed above as non-transformational or legacy.
- **Large-scale systems integration work.** Implementing the Administration's transformation plan could lead to increased DOD spending for the large-scale systems integration work that is required to tie individual military weapons and systems together into smoothly functioning "systems of systems." Some defense firms, particularly some of the larger ones, have taken steps to strengthen and publicize their capacity for performing this kind of work.
- **Large, diversified contractors vs. specific units within them and smaller firms.** For larger defense firms that perform a wide range of work for DOD,[25] implementing the Administration's transformation plan might transfer revenues from one part of the company to another without necessarily having a major effect on the company's bottom line. The potential effect on individual units within those firms, however, may be greater, if those facilities specialize in producing only certain kinds of defense goods or services. These units—as well as smaller defense firms that perform a less-diverse array of work for DOD—may be more likely to experience either an increase or decrease in revenues and employment levels as a result of transformation.[26]

[25] Examples of such firms would include Boeing, General Dynamics, Lockheed Martin, Northrop Grumman, and Raytheon—the 5 leading U.S. defense contractors that emerged from the consolidation of the defense sector that began in the early 1990s.

[26] For more on the potential effects of transformation on the industrial base, see Peter J. Dombrowski, Eugene Gholz,

- **Traditional vs. non-traditional DOD contractors.** Some new technologies that may contribute to transformation, particularly certain information technologies, are found more in the civilian economy than in the world of defense-related research. As a result, implementing the Administration's transformation plan could shift some DOD spending away from traditional DOD contractors and toward firms that previously have done little or no business with DOD. Indeed, DOD is attempting to encourage firms that have not previously done business with DOD—so-called "non-traditional" contractors—to begin doing business with DOD, so that DOD may make maximum use of applicable technologies from the civilian sector.

How Might It Affect Operations With Allied Forces?

DOD states that it is working toward a transformed force capable of conducting effective combined operations with other countries' military forces:

> As the U.S. military transforms, our interests are served by making arrangements for international military cooperation to ensure that rapidly transforming U.S. capabilities can be applied effectively with allied and coalition capabilities. U.S. transformation objectives should be used to shape and complement foreign military developments and priorities of likely partners, both in bilateral and multilateral contexts.[27]

Some observers have expressed concern that U.S. defense transformation could widen the current gap between U.S. and foreign military concepts and capabilities, which is already quite significant in some respects, and thereby make U.S. forces less compatible with allied and friendly forces. Reduced compatibility, they believe, could lead to reduced coalition warfighting effectiveness when the United States engages in combined operations with allied and friendly forces, increased risk of fratricide (i.e., friendly-fire) incidents involving U.S. and coalition forces, and increased risk of political friction between the United States and its coalition partners.

Whether transformation strengthens or weakens the ability of U.S. forces to participate in combined operations with foreign military forces will depend in part on decisions made by foreign governments. If these governments, for example, invest in networking technologies for NCW that are compatible with those used by U.S. forces, it could increase interoperability with U.S. military forces to a level that was not possible in pre-NCW times. Conversely, if those governments do not significantly invest in networking-related technologies for NCW, or invest in technologies that are not compatible with those of U.S. forces, it could reduce interoperability between U.S. forces and the forces of those countries below what it is today. Under this latter scenario, operations involving U.S. and foreign military forces might be combined operations in name only, with the foreign forces assigned to marginal or other functions that can be performed acceptably without being fully incorporated into the U.S. network or without creating complications.

Future interoperability with foreign military forces will also depend in part on decisions made together by U.S. and foreign leaders. Decisions that align emerging U.S. concepts of operations with those of foreign military forces, and to hold combined exercises employing these new concepts of operations, could improve the potential for conducting effective combined operations. Conversely, lack of coordination in emerging concepts of operations, or of exercises

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Andrew L. Ross, *Military Transformation and the Defense Industry after Next [:] The Defense Industrial Implications of Network-Centric Warfare, Final Report,* Newport Paper #18, (Newport: Naval War College, 2003).

[27] *Military Transformation[:] A Strategic Approach*, op. cit., p. 10.

to practice them together, could impede interoperability and reduce the potential for effective combined operations.

The acting director of DOD's Office of Force Transformation (OFT), in an interview published in the summer of 2006, stated the following when asked about the transformation efforts of other countries:

> I would point to three or four countries that have really accelerated their efforts in thinking about transformation, in pursuing this information-age construct of network-centric operations. We can look to the United Kingdom and to Australia, who are very engaged in things like network-enabled capabilities, and that is to be expected because we operate with each other all the time and we're very close. We can also look to countries like Sweden, which has taken this whole network-centric business to a really high level. Singapore is doing an enormous amount of work. They have something that's akin to a transformation office as well. And of course we've got the Allied Command Transformation, which is stood up, and this NATO Reaction Force.[28]

What Transformational Changes Has Congress Initiated?

Congress in past years has instituted changes that can be viewed as examples of, or contributors to, defense transformation, including changes that were opposed (or at least not proposed or actively supported) by DOD leaders. Examples of such actions include the following:

- Congress played a leading role in promoting jointness within DOD by creating the landmark 1986 Goldwater-Nichols Act (P.L. 99-433), which, among other things, strengthened the institutional roles played by the Joint Chiefs of Staff and the commanders in charge of joint forces assigned to various regions around the world. Although the term defense transformation was not in common use in 1986, the Goldwater-Nichols Act today can be viewed, in retrospect, as a significant early example of defense transformation.[29]
- Congress in 1986 also expressed concern for the status of SOF within overall U.S. defense planning and passed legislation—Section 1311 of the FY1987 defense authorization act (P.L. 99-661)—to strengthen its position. Among other things, Section 1311 established the U.S. Special Operations Command (USSOCOM) as a new unified command. To the extent that enhancement of special operations forces is now considered a key element of defense transformation, this action also can be viewed, in retrospect, as an early example of transformation.
- In 2000, Congress passed legislation—Section 220 of the FY2001 defense authorization act (P.L. 106-398)—that established a transformation-related goal for unmanned vehicles. The provision stated that "It shall be a goal of the Armed Forces to achieve the fielding of unmanned, remotely controlled technology such that—(1) by 2010, one-third of the aircraft in the operational deep strike force aircraft fleet are unmanned; and (2) by 2015, one-third of the operational ground combat vehicles are unmanned."

[28] "An Interview With Acting Director, DOD Office of Force Transformation, Terry J. Pudas," *Joint Force Quarterly*, Issue 42, 3rd Quarter, 2006: 32-35.

[29] For background information on the Goldwater-Nichols Act, see CRS Report RL30609, *Department of Defense Reorganization Act of 1986: Proposals for Reforming the Joint Officer Personnel Management Program*, by Katherine Lemay Brown.

Potential Oversight Issues for Congress

Transformation Under DOD's New Leadership

One potential oversight issue for Congress relating to defense transformation is how much DOD will continue to emphasize transformation, and how DOD's overall vision for transformation might change, as a result of Robert Gates succeeding Donald Rumsfeld as Secretary of Defense in December 2006. Rumsfeld was a key designer of DOD's transformation plans and, at his departure, perhaps the most prominent single advocate for defense transformation. Gates, whose career prior to becoming Secretary of Defense was primarily in intelligence rather than defense, is not generally known as a leading advocate of, or commentator on, defense transformation. An April 2007 news article stated that:

> far-reaching change toward a smaller, more high-tech force was to be a cornerstone of Rumsfeld's legacy, and he had a vested interest in the answer.... Today, new Defense Secretary Robert Gates has yet to say much about transformation. It's been largely pushed to the background by the immediate needs to, if anything, expand the military—a move consistently resisted by Rumsfeld.[30]

A November 2006 news article stated:

> Course corrections for Iraq are certainly anticipated, but officials predicted that Mr. Rumsfeld's push for future military transformation would become a secondary priority as Mr. Gates deals with the challenges that threaten to overwhelm both the military and its budget.
>
> "Gates will focus less on transformation and more on understanding the world around us," one Pentagon official said. "We all agree that needs to happen."[31]

A second November 2006 news article stated:

> Rumsfeld, who first served as secretary of defense during the Ford administration from 1975 to 1977, returned as defense secretary in 2001 vowing to transform the military into a highly mobile and technological force.
>
> But some of his decisions, such as relying more heavily on special forces rather than large divisions and slashing prized weapon systems, immediately sparked opposition. And his reputation for brooking little dissent and discounting military advice engendered growing resentment.
>
> Yet Rumsfeld—who next month will become the longest-serving defense secretary ever—is also credited with bringing his corporate executive's knife to a massive bureaucracy in critical need of reform. In particular, he improved the Defense Department's famously imprecise financial controls and forced unpopular changes to an entrenched civilian workforce.
>
> Many of his supporters believe the changes he championed—over the objections of a culture highly resistant to change—help explain his frayed relations with military leaders and a handful of retired generals who have increasingly called for his removal.[32]

A third November 2006 news article stated:

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[30] Anna Mulrine, "Rumsfeld's Unfinished Plans," *U.S. News & World Report*, April 16, 2007.

[31] Thom Shanker and Mark Mazzetti, "Gaining Military's Trust Is Early Step For Incoming Defense Secretary," *New York Times*, Nov. 9, 2006.

[32] Bryan Bender, "Secretary's Style Drew Resentment," *Boston Globe*, Nov. 9, 2006.

> [Rumsfeld's] many supporters credit him with making tough decisions, speeding up the transformation of the military, cutting outdated weapons systems, advancing the missile defense system, creating a new focus on domestic security, repositioning forces out of Germany and South Korea, and reorganizing the Army to make it more adaptable.
>
> But critics shook their heads in dismay as he considered cutting the Army by two divisions early in his tenure. They also charge that he allowed strong-willed deputies to drop the military's adherence to the baseline standards of the Geneva Convention and created a military prison at Guantanamo Bay beyond the reach of American courts.
>
> The critics said he equated long experience with antiquated thinking, and ran roughshod over people who offered alternate ideas. To these critics, the difficulties of the Iraq war are the natural result of Rumsfeld's tendency to ignore the warnings of others.
>
> Lawrence DiRita, a former advisor to Rumsfeld, disputed the criticism and argued that his former boss accelerated the military's move toward a more nimble and faster-moving force.
>
> "Adversaries around the world understand how much more capable we are today," DiRita said. "There has been a paradigm shift at the Department of Defense toward speed, agility and precision."[33]

A fourth November 2006 news article stated:

> At the Pentagon, Mr. Rumsfeld's program was called "transformation," and it acquired the status of an official ideology. Mr. Rumsfeld was enamored of missile defense and space-based systems, issues he had worked on during his years out of office. Like many conservatives, he was wary about the Army leadership, which he considered to be too wedded to heavy forces and too slow to change....
>
> Within the military establishment, however, the defense secretary quickly became a contentious figure as his penchant for hands-on management and his theories on military transformation were given a field test. Mr. Rumsfeld did not decide how many troops would be deployed for the war in Iraq, but he helped pick the generals who did. He never hesitated to push, prod and ask questions to shape their recommendations....
>
> In terms of his transformation agenda, Mr. Rumsfeld enjoyed, at best, mixed success. He overhauled the cold-war-era system of military bases around the world, a decision that has led to the reduction in American forces in Europe and Korea. He also insisted on greater cooperation among the military services.
>
> "On the positive side he brought the armed forces to a much higher degree of joint thinking and integration," said Barry M. Blechman, a member of the Defense Policy Board, which advises Mr. Rumsfeld, and the president of DFI International, a consulting firm.
>
> Still, despite Mr. Rumsfeld's avowed intention to challenge orthodox Pentagon thinking, few major weapons programs were canceled and the military's force structure and spending patterns were not radically altered.
>
> "At the end of the day you would have to say that for Rumsfeld, transformation was more promise than reality," said Andrew F. Krepinevich Jr., the executive director of the Center for Strategic and Budgetary Assessments. "He made a start, but these things take time, and it is clear now that Iraq has denied him that time."[34]

[33] Julian E. Barnes, "Rumsfeld Sought A New Role For Pentagon," *Los Angeles Times*, Nov. 9, 2006.

[34] Michael R. Gordon, "Rumsfeld, A Force For Change, Did Not Change With The Times Amid Iraq Tumult," *New York Times*, Nov. 9, 2006.

Specific Elements of DOD's Transformation Vision

Certain specific elements of DOD's transformation vision, at least as articulated during Rumsfeld's tenure as Secretary of Defense, have been subject to debate at various points. These include the following:

- the emphasis on network-centric warfare,
- the planned total size of the force,
- the Army's transformation plan,
- the balance of air power vs. ground forces,
- the balance of tactical aircraft and unmanned air systems vs. long-range bombers,
- the emphasis on special operations forces,
- forces for stability operations,
- the role of reserve forces,
- ballistic missile defense, and
- the meaning of, and emphasis on, effects-based operations.

Overall Leadership and Management of Transformation

A December 2004 report from the Government Accountability Office on DOD's transformation efforts stated:

> DOD has taken positive steps to design and implement a complex strategy to transform U.S. military capabilities, but it has not established clear leadership and accountability or fully adopted results-oriented management tools to help guide and successfully implement this approach. The responsibility for transforming military capabilities is currently spread among various DOD organizations, with no one person or entity having the overarching and ongoing leadership responsibilities or the accountability for achieving transformation results. In addition, although DOD established an informal crosscutting group that meets occasionally to discuss transformation issues, this group has no charter, formal responsibilities, or authority to direct changes. GAO has previously reported that key practices for successful transformation include leadership that sets the direction of transformation and assigns accountability for results, and the use of crosscutting implementation teams, which can provide the day-to-day management needed for success. In recent testimony on DOD's business transformation, we underscored the importance of these elements and stated that DOD has not routinely assigned accountability for performance to specific organizations or individuals who have sufficient authority to accomplish goals. DOD officials believe that a single organization accountable for transformation results and a formal implementation team are not necessary because existing informal mechanisms involve key organizations that can individually implement needed changes, and an annual assessment of transformation roadmaps is prepared for the Secretary of Defense, who can direct the transformation efforts of each organization. However, in the absence of clear leadership, accountability, and a formal implementation mechanism, DOD may have difficulty resolving differences among competing priorities, directing resources to the highest priorities, and ensuring progress should changes in senior personnel occur. In addition, informal mechanisms are not sufficient to provide transparency to the process or assurance to Congress that DOD is allocating resources to address needed improvements rather than desired improvements.
>
> While DOD's strategy to transform military capabilities is a good first step, DOD has not fully developed results-oriented management tools that can help managers effectively implement and manage major efforts, and focus on achieving results. Specifically, DOD

> has not revised its initial transformation goals, set in 2001, to reflect new joint concepts—thus, DOD lacks a foundation for developing other tools such as performance goals and measures and linking specific resources needed to achieve each goal. DOD faces challenges in developing these tools because the joint concepts are being developed concurrently with its plans to acquire new capabilities. But without these results-oriented tools, it will be difficult for DOD to determine the extent to which its transformation efforts are achieving desired results, to measure its overall progress, or to provide transparency for how billions of dollars in planned investments are being applied.[35]

Experiments And Exercises

Some observers have expressed concern about whether experiments and exercises carried out nominally in support of transformation are sufficiently focused on exploring transformational warfighting ideas as opposed to demonstrating existing non-transformational capabilities. Observers have also expressed concerned about whether experiments and exercises are sufficiently challenging and realistic, and whether they are "scripted" to ensure the success of favored transformation ideas.[36] Potential questions for Congress regarding transformation-related tests and exercises include the following:

Culture of Innovation

DOD officials and other observers note that instilling a culture of innovation among DOD personnel will be critical to implementing transformation.[37] Instilling such a culture could involve things such as actions to create an institutional and workplace receptiveness to new ideas, procedures for protecting people who generate new ideas, and avoidance of the so-called "zero-defect" approach for assessing performance and selecting people for advancement.[38]

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[35] U.S. Government Accountability Office. *Military Transformation[:] Clear Leadership, Accountability, and Management Tools Are Needed to Enhance DOD's Efforts to Transform Military Capabilities,* GAO-05-70, December 2004.

[36] Some observers, for example, expressed concern that USJFCOM's large Millennium Challenge 2002 exercise may have been scripted to ensure the success of favored DOD transformation ideas. See Richard Hart Sinnreich, "Cooking The Books Won't Help The Military Transform," *Lawton (OK) Constitution*, Aug. 18, 2002, p. 4; Dale Eisman, "Pentagon Leaders Defend War Game," *Norfolk Virginian-Pilot*, Aug. 21, 2002; Michael Gilbert, "General: Stryker Unit's Performance Not At Issue," *Tacoma New Tribune*, Aug. 22, 2002; Dennis O'Brien, "Controversial War Game Improved Warriors," *Norfolk Virginian-Pilot*, Aug. 23, 2002; Sean D. Naylor, "Fixed War Game?," *Army Times*, Aug. 26, 2002, p. 8; Jason Ma, "In Simulation, Navy Suffers Heavy Losses, Including Aircraft Carrier," *Inside the Navy*, Aug. 26, 2002: 1; Mackubin Thomas Owens, "Let's Not Rig Our War Games," *Wall Street Journal*, Aug. 29, 2002; William F. Kernan, "Joint War Games," *Army Times*, Sept. 16, 2002, p. 52 (letter to the editor); Bradley Graham, "Criticism Of War Game Rejected," *Washington Post*, Sept. 18, 2002, p. 27; Elaine M. Grossman, "Generals Take Stock Of U.S. Vulnerability To Common Technologies, "*Inside the Pentagon*, Sept. 19, 2002; Michael Schrage, "Military Overkill Defeats Virtual War," *Washington Post*, Sept. 22, 2002, p. B5; Lionel Van Deerlin, "Taking Their Warships And Going Home," *San Diego Union-Tribune*, Nov. 6, 2002; and Jeff Huber, "Invasion of the Transformers," *U.S. Naval Institute Proceedings*, October 2003, pp. 74-76, particularly the section entitled "New Dogs, Old Tricks." See, also, Loren B. Thompson, "Revolution Gone Awry[:] How Transformation May Undermine Military Preparedness," Remarks Before the Council on Foreign Relations Security Roundtable, Nov. 18, 2002 and Keith J. Costa, "Konetzni: Transformation In Need Of 'Solid Intellectual Analysis,'" *Inside the Pentagon*, May 22, 2003.

[37] See, for example, Geoff Fein, "Intellectual, Cultural Change Needed For Transformation, Official Says," *Defense Daily*, Jan. 24, 2006.

[38] Under the "zero-defect" approach, only applicants who have made zero mistakes are selected for promotion, while applicants who have one or more mistakes on their record are ruled out for promotion. Critics of this approach argue that people who have made no mistakes in their careers are also likely to have never tried to accomplish anything that, if successful, would have qualified as a useful innovation.

Potential challenges to creating a culture of innovation include a widespread familiarity and comfort with the status quo, the so-called "not-invented-here" syndrome,[39] a cadre of senior officers who were taught, and have spent their entire careers abiding by, traditional ideas and practices, and the difficulty of quantifying or explaining the potential advantages of proposed innovations. A 2002 survey of more than 2,500 U.S. military officers provided mixed evidence on whether those officers believed such a culture was being created.[40]

Adequacy of Information for Congress

Transformation is a broad topic with many elements subject to frequent change and development. In addition, measuring progress in attaining transformation can be a complex undertaking. Transformation thus raises a potential issue as to whether Congress has adequate information and tools for assessing DOD's progress in implementing transformation. Potential questions for Congress on this issue include the following:

- Are the defense budget and related budget-justification documents that are submitted to Congress adequately organized and presented to support the incorporation of the concept of transformation into Congress's review of the budget? If not, in what ways should the organization and content of the budget and the budget-justification documents be changed?
- Does DOD provide Congress with sufficiently detailed and periodic information about the status of DOD transformation efforts to support congressional oversight of these efforts? Should Congress, for example, require DOD to submit periodic reports on the status of transformation in general, or of specific aspects of transformation?
- Does Congress have adequate metrics for measuring military capability in light of transformation-related changes, such as NCW, or for assessing DOD's success in implementing transformation?

Transformation As All-Purpose Justification Tool

Some observers expressed concern that the Administration's regular (some might even say habitual) use of the term transformation in discussing its proposals for DOD during the period 2001-2004 turned the concept of transformation into an empty slogan or buzz-phrase. Other observers were concerned that the Administration invoked the term transformation as an all-purpose rhetorical tool for justifying its various proposals for DOD, whether they relate to transformation or not, and for encouraging minimal debate on those proposals by tying the concept of transformation to the urgent need to fight the war on terrorism.

Concerns along these lines were heightened by the "Defense Transformation for the 21st Century Act of 2003," a 205-page legislative proposal that the Administration submitted to Congress on April 10, 2003, that would, among other things, permit DOD to establish its own policies for hiring, firing, and compensating its civil service employees; change the terms in office for certain senior generals and admirals; give DOD increased authority to transfer funds between DOD

[39] This refers to an inclination to be uninterested, or hostile to, in ideas that come from outside one's own organization.

[40] Thomas G. Mahnken and James R. FitzSimonds, *The Limits of Transformation: Officer Attitudes Toward the Revolution in Military Affairs,* Newport Paper #17, (Newport: Naval War College, 2003). See also Gordon Lubold, "Survey Shows Many Officers Skeptical Of Transformation," *Marine Corps Times,* Nov. 24, 2003, p. 22.) See also Thomas E. Ricks, "A Test Case For Bush's Military Reform Pledge?" *Washington Post,* Feb. 20, 2002, p. 13.

budget accounts; alter laws relating to the protection of marine mammals; and eliminate many DOD reporting requirements that were instituted to assist Congress in conducting oversight of DOD activities.[41]

Potential oversight questions for Congress relating to the Administration's use of transformation in justifying its proposals for DOD include the following:

- Did the Administration debase the concept of transformation through overuse?
- Did the Administration, in justifying its proposals for DOD, draw adequate distinctions between proposals that are transformational and proposals that are not transformational but might nevertheless be worthwhile for other reasons?
- Did the Administration use the term transformation in part to cloud potential issues pertaining to its proposals for DOD or to minimize congressional debate on those proposals?
- Did the Administration use the large, complex, and somewhat abstract topic of transformation in part to occupy Congress's attention and thereby distract Congress from conducting detailed oversight on DOD's proposed budgets, or to keep Congress off balance as it attempted to conduct oversight of DOD activities?

Legislative Activity For FY2008

The proposed FY2008 defense budget was submitted to Congress in early February 2008.

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[41] See, for example, John M. Donnelly, "Hill Rebuffing Rumsfeld Plan To Kill Reports To Congress," *Defense Week Daily Update*, May 15, 2003; John Liang, "House Democrats Object To DoD Transformation Legislation," *InsideDefense.com*, May 14, 2003; William Matthews and Gopal Ratnam, "Transformation Act Draws U.S. Lawmakers' Fire," *DefenseNews*, May 5, 2003, p. 1; and Lawrence Korb, "Pentagon Independence," *DefenseNews*, June 2, 2003, p. 29. For more on this proposed legislative package, see CRS Report RL31916, *Defense Department Original Transformation Proposal: Compared to Existing Law*, by Robert L. Goldich et al.

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