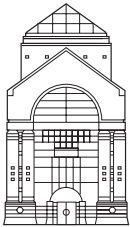


Transforming Defense

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Introduction

Transforming the defense establishment and U.S. Armed Forces remains a major strategic challenge for the rest of the decade and beyond. As a Presidential candidate in 2000, Governor George W. Bush campaigned on a promise to transform America's defense establishment and warfighting capabilities. In the Bush administration, Secretary of Defense Donald Rumsfeld made transformation his signature issue for his tenure at the Pentagon. Despite the resources and attention consumed by the war on terror, and recent decisions by the White House to curtail the growth of defense spending, the senior leadership of the Department of Defense (DOD) remains committed to the transformation agenda. Indeed, Secretary Rumsfeld insists that transformation is necessary for success in the war on terror, and it remains an integral part of his defense strategy.

Concern with military transformation predates the Bush administration. During the 1990s, consensus was growing that the Nation should put more emphasis on transforming its military, even as it was drawing down its force structure from Cold War-era levels. Many believed that the information revolution, stimulated by advances in modern computing power and associated effects, was fundamentally altering social, economic, and political affairs and would do the same for military capabilities. Defense leaders came to believe that transformation was necessary to exploit the information revolution for a dramatic increase in military capabilities. They thought transformation would be necessary to prepare for future adversaries who also would exploit the information revolution and use other asymmetric approaches (such as weapons of mass destruction [WMD], missiles, and advanced naval mines) to counter U.S. conventional military superiority.

By the mid-1990s, senior DOD officials were expressing interest in a revolution

in military affairs that would transform military capabilities, and a supporting revolution in business affairs that would transform defense planning and resource allocation processes. The Clinton administration made transformation a major dimension of the "prepare" portion of a new defense strategy—so-called shape, respond, prepare—that it articulated in the first Quadrennial Defense Review (QDR) in 1997. That report emphasized the importance of building a strong backbone of command, control, communications, computers, intelligence, surveillance, and reconnaissance systems (C⁴ISR), areas that were most obviously affected by the information revolution. However, at the time, Pentagon leadership did not otherwise make a sharp distinction between modernization programs already under way and transformed military capabilities. In other words, the tendency was to claim that all existing major acquisition programs help transform U.S. forces. During this period, most transformation progress was made in improving the rigor and scope of concept development and experimentation activities undertaken by the services and Joint Forces Command (JFCOM) to explore better means of warfighting.¹

When the Bush administration took office, it articulated a more ambitious vision for the overall transformation effort. The breadth of the agenda is reflected in Secretary Rumsfeld's Transformation Planning Guidance, which defines *transformation* 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.

This broad definition put transformation in a strategic context by noting that it includes the need to identify unique U.S. strategic strengths and potential vulnerabilities. Interestingly, the document also offered a more discriminating

criterion that could be used to help adjudicate what is, and what is not, transformational and, hence, what programs would be favored in resource allocation decisions:

Shaping the nature of military competition ultimately means redefining standards for military success by accomplishing military missions that were previously unimaginable or impossible except at prohibitive risk and cost.

The implication here is that modernizing military capabilities merely improves the ability to execute missions under existing standards of performance, while transforming military capabilities completely redefines the standards for success.² The Bush administration hoped to invest in the latter at the expense of the former, and fully expects that doing so will eventually produce capabilities that render previous ways of warfighting obsolete, thus radically changing the measures of success in military operations overall.

Hence, transformation is currently defined both broadly, as a sweeping set of reforms designed to prepare the U.S. military establishment for a new era, and more narrowly, as a revolution in military operational art and science. The Transformation Planning Guidance provides a framework that covers both meanings when it describes the scope of transformation to include: “how we fight, how we do business inside the Department, and how we work with our interagency and multinational partners.”³ The narrower meaning of transformation boils down to “how we fight,” while the broader transformation agenda also includes reforms in business processes and interagency and multinational relationships.

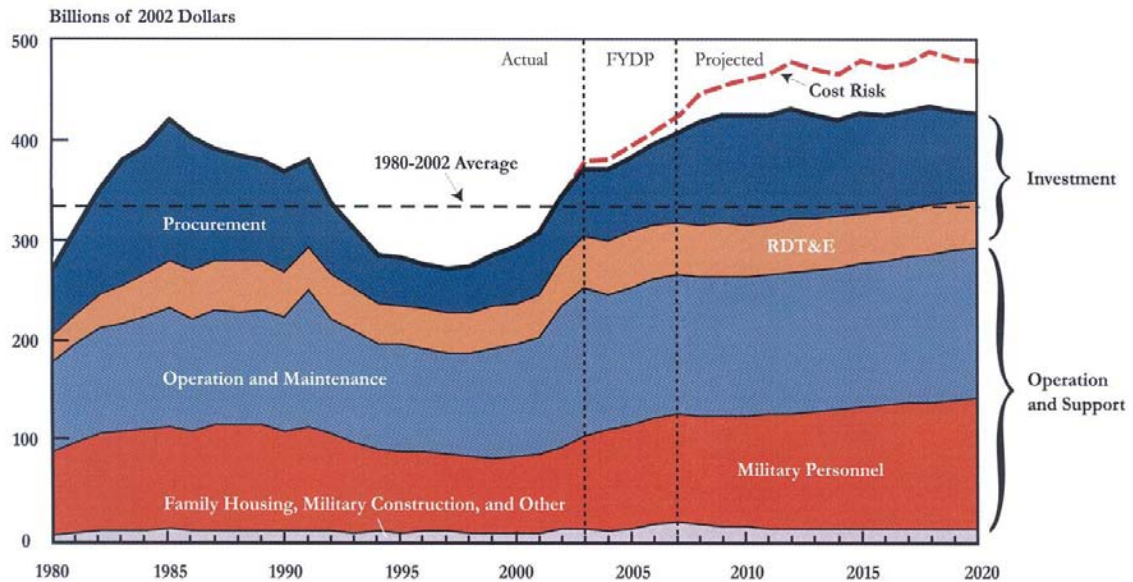
How much progress has been made on transformation, and what challenges lie ahead over the next 4 years? Many would evaluate progress by reviewing transformational output to date—that is, revolutionary new military capabilities fielded or begun by the Bush administration. This would require an overview of the

many defense acquisition programs and estimates of their transformational impact. Instead, this paper evaluates progress and remaining challenges with a broader, top-down view of transformation. It looks in detail at three core elements of transformation that may well determine over time whether the Pentagon can field and manage transformational military forces.⁴ *Joint operating concepts* (JOCs) capture the most important changes in the way U.S. forces fight. A *capabilities-based* approach to defense planning and resource allocation is the most significant internal change in the DOD process. *Global force planning* is a broad term coined here that involves new command and control relationships, global posture, and global force characteristics. The new command and control relationships include interagency and foreign partners and should allow the Pentagon leadership to manage better a new global force posture and forces with global capabilities.

Evaluating progress on these three important initiatives—joint operating concepts, capabilities-based approach, and global force planning—demonstrates how challenging and far-reaching the transformation reforms initiated by the Bush administration are. This paper also examines the strategic rationale behind transformation policy, and how it has affected progress on the transformation agenda to date. To establish some context for discussing these subjects, a review of how the Bush administration’s transformation agenda fits in with its broader defense strategy is in order.

The new defense strategy rolled out by the Bush administration in its 2001 Quadrennial Defense Review report underscored the importance of transformation. The strategy called for dissuading future military competition, in part by experimentation with revolutionary operational concepts, capabilities, and organizational arrangements stimulated by a culture of innovation and risk-taking. Transformation was still understood to encompass both U.S. military forces and the

Figure 1. Congressional Budget Office Depiction of Budget Risks Inherent in Current Defense Program



Source: Congressional Budget Office using data from the Department of Defense.

Notes: FYDP = Future Years Defense Program; RDT&E = research, development, test, and evaluation.

Portions of the budget titles for family housing and military construction pay for support activities, whereas other portions pay for investment. Thus, it is not possible to allocate all of the funding in each of those titles to either category.

defense establishment. What garnered the most attention and gave transformation more immediacy than previous efforts, however, was the willingness of the new administration to single out specific operational areas as keys to transforming U.S. forces. The QDR report levied a requirement for transformation roadmaps that would specify timelines to develop capabilities to meet six key operational goals:

- protect the U.S. homeland and critical bases of operation
- deny enemies sanctuary
- protect and sustain power in access-denied areas
- leverage information technology to connect troops and their operations

- improve and protect information networks from attack
- enhance space operations.⁵

Early Bush administration defense planning and programming adjustments were designed to shift resources to these key operational areas. After the initial set of program and budget adjustments was executed in support of the transformation vision, increasingly difficult questions arose about the value of additional resource allocations in these areas. Concretely, how would additional investments in these priority areas produce a substantial return in the form of transformed capabilities?

The challenge of identifying the type, timing, and amount of investments in transformational capabilities was exacerbated by the need to justify such resource allocations in

the aftermath of the terrorist attacks on September 11, 2001. Responding to the terrorists generally, and the wars in Afghanistan and Iraq specifically, required significant increases in resources for current operations and led some to question whether DOD could both transform and fight the war on terrorism (see figure 1). Nevertheless, the Secretary of Defense steadfastly maintained that the Defense Department would do both at the same time and argued that it must do so since the possibility of terrorist WMD use was an example of the new security problems that demanded transformed military capabilities.

Congressional support for increases to the defense budget greatly reduced but did not eliminate the tension between a high operations tempo and transformation investments. Increasingly, DOD leaders were required to make tough judgments about where to cut back in order to maintain the pace of investments in the six priority transformation areas. The decisions to cut major Army programs, namely the Crusader self-propelled artillery system and the Comanche helicopter, are the most notable (but not the only) examples to date of where DOD accepted some increased risk in near-term operational capabilities in order to fund more transformational, longer-term capabilities. Indeed, other dramatic program cuts were made when the White House determined that the defense buildup had to be scaled back for fiscal reasons.⁶ In order to manage, implement, defend, and assess the impact of such decisions, which invariably spark passionate debate within the Pentagon and Congress, it is important for DOD to have a well-understood process that clarifies assumptions and generates analysis and evidence about where it is best to take and minimize risk while pursuing transformation.

Transformational capabilities are only obvious in retrospect. The conceptual struggle to comprehend and anticipate the changing character and conduct of war is always intense,

as is the bureaucratic struggle to acquire resources in support of any given vision of the future. Transformation theorists argue that it is profitable, even indispensable, to have a rich competition of ideas, concepts, and prototype systems in order to stimulate innovation. Ultimately, however, some process for picking the most promising initiatives for major investment opportunities is necessary.

In recognition of this fact, DOD published the Transformation Planning Guidance in April 2003 to organize for managing transformation.⁷ The document clarified senior leader and organizational roles and responsibilities for implementing transformation strategy. Among the most significant responsibilities, assigned by the Secretary of Defense, was the requirement for the Chairman of the Joint Chiefs of Staff, in coordination with the JFCOM commander, to develop joint operating concepts that would depict how transformed forces will fight. These concepts would help senior decisionmakers decide between competing investment options by helping clarify which capabilities are most useful. The objective was to ensure that strategy and joint warfighting concepts drove requirements and programs, rather than the other way around, as so often was the case in the past.

Joint Operating Concepts

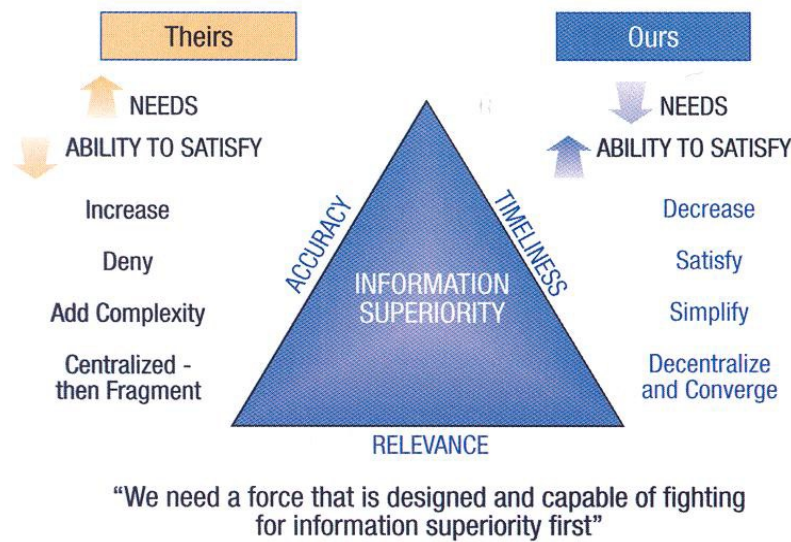
The JOCs directed by the Secretary are intended to guide the transformation of the joint force so that it is prepared to operate successfully against the most important security threats it will face in the next 10 to 20 years. Since new capabilities can help make possible new concepts of operation, and new concepts can help guide the development of new capabilities, both concepts and capabilities need to be developed in light of one another. Thus, as the defense program rolls forward, year-to-year investments can be made in building capabilities that both enable and in turn are informed by concepts of how future forces will operate.

The Hierarchy of Joint Operating Concepts

The Secretary required the Chairman of the Joint Chiefs to develop initially one overarching joint concept that would capture the broad outline of the new American way of war enabled by the emergence of information technologies. The overarching concept, originally called the joint operations concept, is now referred to as the Capstone Concept for Joint Operations. The joint operations concept was constructed around the tenets of network-centric warfare and effects-based operations⁸ in a joint environment. It emphasizes high-quality shared awareness, dispersed forces, speed of command, and flexibility in planning and execution. The premise of the concept is that if U.S. forces fight first for information superiority (see figure 2), the future Joint Force Commander will be able to bring all available assets together rapidly to achieve desired effects better. The concept assumes the availability of the requisite information and the existence of more agile and rapidly deployable forces that can:⁹

- achieve common understanding of all dimensions of the battlespace throughout the Joint Force
- make joint decisions and take action throughout the Joint Force faster than the opponent
- adapt in scope, scale, and method as the situation requires
- rapidly deploy selected portions of the Joint Force that can immediately transition to execution, even in the absence of developed infrastructure
- create and sustain continuous pressure throughout the battlespace for as little or as much time as it takes to accomplish strategic or operational aims
- disintegrate, disorient, dislocate, or destroy any opponent with a combination of lethal and nonlethal means
- conduct deployment and sustainment activities in support of multiple simultaneous, distributed, decentralized battles and campaigns

Figure 2. Elements of Defense Transformation



Source: Office of Force Transformation, "Elements of Defense Transformation," 16. Accessed at <http://www.oft.osd.mil/library/library_files/document_383_ElementsOfTransformation_LR.pdf>.

- accomplish all of the above in an inter-agency and multinational context.

This broad conceptualization of the new American approach to military operations makes it clear that interoperability, information sharing, and mobility will be accorded greater priority than in the past. However, the overarching concept is too broad to describe the different approaches that U.S. forces will take for different reasons, which by extension require different capabilities. Accordingly, the Secretary also directed the development of four subordinate joint operating concepts, which the Chairman assigned to combatant commanders for development as follows:¹⁰

- homeland security, developed by Northern Command
- strategic deterrence, developed by Strategic Command
- major combat operations, developed by Joint Forces Command
- stability operations, developed by Joint Forces Command

These four concepts broadened the traditional focus of the defense establishment on deterring and winning wars. Major combat operations and strategic deterrence are traditional military competencies, but the military's approach to each requires adjustment. The operating concept for major combat operations must evolve to account for evolving adversary strategies designed to hamper U.S. power projection into its regions by holding bases and lines of communication at risk with new technologies and weapons of mass destruction. The strategic deterrence concept must account for the proliferation of weapons of mass destruction and their means of delivery. Stability operations, understood to encompass the range of problems engendered by irregular forces (terrorists, insurgents, saboteurs, and so forth)

are not new, but they arguably are increasingly important, qualitatively different than major combat operations, and constitute a problem set for which the American military lacks a uniform and well-understood operating concept. Of course, the need for a new concept for homeland security is manifest given the terrorist attacks against New York and Washington on September 11.

From the beginning, defense analysts debated about whether these four concepts were sufficiently discriminating and relevant. Many thought that the concept for strategic deterrence should be better bounded, perhaps by focusing on WMD deterrence as opposed to deterrence of all threatening adversary behavior. Similarly, some argued that stability operations should be narrowed to focus exclusively on the problem of terrorism, and especially transnational terrorism. In addition, it was understood that the four concepts would still not be sufficiently detailed to allow individual capabilities to be assessed, so a third layer of supporting concepts that would elucidate more specific military missions (for example, air-to-air superiority, global strike, undersea superiority, forced entry, and logistics) would be required as well (see figure 3).¹¹

For the time being, the four concepts remain the centerpiece of the Pentagon's efforts to develop joint operating concepts and a critical component of its transformation strategy. Despite the possibility that the concepts may be revised in the future to align them better with a more diverse or narrow categorization of security priorities,¹² there is value in assessing progress to date on the four extant concepts. Doing so illuminates some general problems and principles for concept development that are relevant regardless of the operating concept in question.

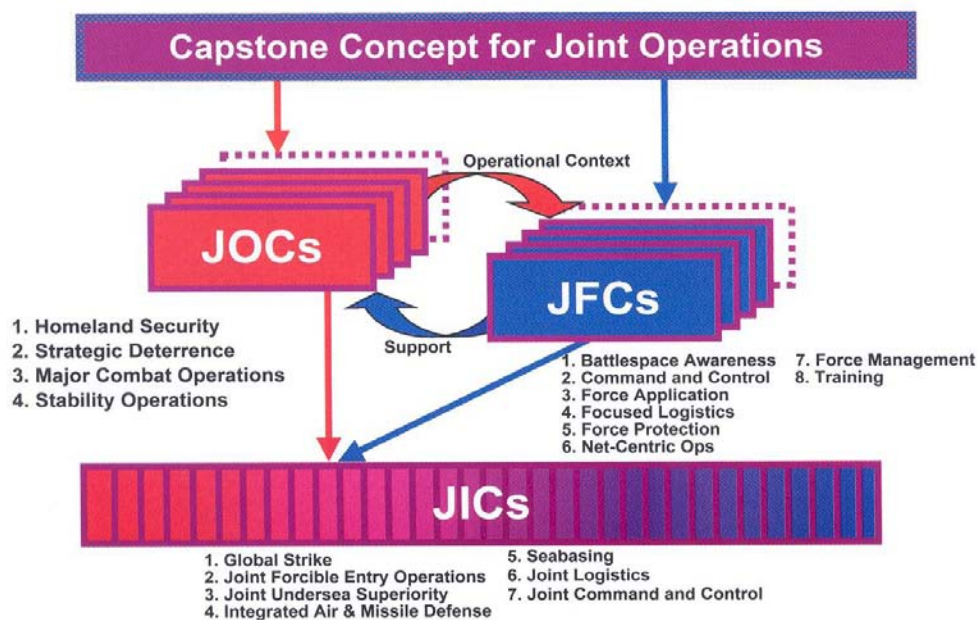
The Four Major Joint Operating Concepts

The Homeland Security JOC. The obvious need for a concept for homeland security is complicated by the need for careful delineation between military and civilian

responsibilities. The homeland security JOC envisions a layered and comprehensive defense requiring geographical and functional integration.¹³ The first layer of defense consists of efforts to neutralize threats in forward regions through major combat operations, preemptive attack, stability operations, and strategic deterrence. Next, joint forces counter threats that are transiting the “approaches” to the United States, and do so as far from the homeland as possible, through surveillance and reconnaissance, missile defense, air defense, land defense, and maritime interception. Finally, the military must detect, deter, prevent, and defeat direct external threats to all U.S. states

example, air surveillance. Whereas the Federal Aviation Administration (FAA) is focused on civilian passenger craft that ostensibly wants to cooperate with the FAA surveillance system, the military needs to consider stealthy airborne platforms that would attempt to avoid detection. Should the existing FAA system be upgraded to military detection standards, or augmented by existing or completely new military capabilities? These sorts of questions apply to many other aspects of homeland defense as well, including civil defense and consequence management operations. Regardless of the division of labor that is ultimately adopted, there is universal agreement that

Figure 3. Joint Operating Concepts Family



and territories, as well as support civilian agencies in mitigating the effects of catastrophic emergencies.

The most difficult challenge in developing this JOC is delimiting the military mission and devising appropriate means of coordination with the many other Federal and state agencies that will be involved in the event of attacks on the homeland. Consider, for

information will have to be exchanged rapidly between a large number of government organizations. This in turn raises innumerable difficulties concerning the security, reliability, and declassification of information. To date, drafts of the concept have not been able to sort out such vexing issues, and thus the concept is not sufficiently discriminating to be of much help

in assessing the relative value of competing capabilities.

The Strategic Deterrence JOC. Strategic deterrence is often associated with deterring the use of nuclear weapons, but it also can be interpreted more broadly, which is the case with the current strategic deterrence JOC. It defines *strategic deterrence* as “the prevention of adversary aggression or coercion threatening vital interests of the United States and/or our national survival.”¹⁴ In keeping with such a broad definition, the concept identifies similarly broad objectives and means to accomplish those objectives. The concept defines the objective of strategic deterrence as decisive influence over adversary decisionmaking in order to convince the adversary to forego grievous courses of action against the United States. This objective can be achieved in three ways: by denying the adversary benefits, imposing unacceptable costs, and affecting his understanding of the consequences of his actions. Virtually every capability resident in the U.S. military is applicable to these endeavors.¹⁵ In fact, defined so broadly, the concept must encompass not only the entirety of the U.S. military, but also all other instruments of national power (for example, diplomatic, informational, and economic).

The net effect of such breadth is the same high level of abstraction and lack of discrimination that marked the homeland defense concept. The consequences are the same, too: the concept does not come to grips with the most significant trends in strategic deterrence, and it is not useful as a means of discrimination between alternative capabilities based on their utility for implementing the concept.

The concept obscures several significant strategic deterrence challenges for U.S. military forces, including the increasingly diverse types of adversaries, weapons of mass destruction, and defenses that may be employed against them, all of which beg for a

reassessment of strategic deterrence strategy. For example, despite some nonproliferation successes in 1990s, most notably in South America and South Africa, and more recent evidence that the danger of proliferation has been reversed in Libya and Iraq, the general trend remains that more countries, such as Iran and North Korea, are acquiring increasingly diverse sets of weapons of mass destruction and their delivery systems. Moreover, there has been a steady rise in the involvement of nonstate actors, some with the intent to proliferate and others with a desire to use WMD. The extensive supplier network of Pakistani scientist A.Q. Khan presents new challenges to traditional counterproliferation concepts, as does Osama bin Laden’s professed desire to obtain and use a nuclear or biological weapon. Nonstate actors such as bin Laden are unlikely to be dissuaded or deterred by threats to hold traditional targets at risk. Even state actors may conclude they can use some chemical or biological weapons without precipitating a U.S. nuclear response.

In addition, because of the growing accuracy of conventional weapons, it is possible to envision their use against nuclear weapons. In part because of these trends, the United States has opted to develop missile defenses and to change its approach to strategic deterrence, scrapping the historic reliance on the Anti-Ballistic Missile Defense Treaty and an offensive strategic triad of nuclear intercontinental ballistic missiles, submarine/sea-launched ballistic missiles, and bombers. In its place is a new triad, consisting of offensive strike (conventional, nonkinetic, and nuclear), defenses (both active and passive), and a responsive infrastructure for maintaining and updating strategic capabilities. These changes, and the reality that an adversary can much more easily hold U.S. allies at risk than the United States (which was not the case in the Cold War, when the Soviet Union *could* hold both the United States and its allies at

risk), demand a reconsideration of strategy for deterring weapons of mass destruction. Currently, the breadth of the concept means that this important issue goes unaddressed. As is the case with the homeland defense concept, a secondary effect of such a high level of abstraction is that the concept is not helpful for assessing the value of alternative strategic deterrent capabilities.

The Major Combat Operations JOC.

The JOC for major combat operations¹⁶ envisions an effects-based approach to be used throughout the deployment, employment, and sustainment of the combined (joint and allied) force. The concept is focused on a regional power with significant antiaccess capabilities and weapons of mass destruction.¹⁷ The major combat operations JOC accounts for the information revolution and for the likelihood that an adversary will use weapons of mass destruction against U.S. forces. It stresses that future large-scale military operations will be conducted in a distributed, collaborative environment, where mass is replaced by precision and information dominance is the key enabler of success. In many ways, this continues the trajectory of warfare first established in Operation *Desert Storm* and most recently demonstrated by the speed and decisiveness of major combat operations in Iraq. Since it is an area increasingly well practiced by the United States, this concept is perhaps the best developed of the four. However, as with the others, it lacks much specificity and is mute on some of the more difficult issues that it should address.

For example, the reliance on information dominance raises difficult questions about how to preserve access and reliability of information and the extent to which information processing will occur at information hubs instead of on individual platforms.¹⁸ The assumption that the adversary will use weapons of mass destruction and other antiaccess tactics raises questions about the advisability of fixed bases

and the best way to ensure defense of critical transportation nodes. In addition, as the difficult transition from combat to stability operations in Iraq underscores, there is the need to conclude combat operations in such a way as to facilitate a smooth transition to the stabilization phase of a major combat operation. Finally, in its current form the concept states an intent eventually to expand and examine major irregular types of warfare, which suggests an unfortunate potential for overlap with the concept for stability operations.

The Stability Operations JOC. The initial version of the stability operations JOC picks up where the major combat concept leaves off by articulating how a future joint force commander uses a joint force to conduct stability operations that precede, occur during, or follow conventional combat operations.¹⁹ The scope of the JOC will eventually cover four cases, but initially is concerned only with one case: stability operations in conjunction with major combat operations. The concept attempts to capitalize on lessons learned from recent operations in Afghanistan and Iraq. It assumes that the joint force will act as part of a multinational and integrated multiagency operation that provides security, conducts initial humanitarian assistance, performs limited governance, and restores essential public services and other reconstruction assistance, at least until civilian agencies are able to take over these functions. Future stability operations will emphasize:

- pervasive knowledge and comprehensive situational understanding through military, criminal, economic, political, and financial intelligence
- integrated, multiagency unity of purpose and coherence of action
- coercive posture against obstructionists
- unified direction from legitimate civil authority

- sophisticated media operations
- sufficient popular support and organizational endurance to facilitate transition to legitimate local governance.

Stability operations will no longer be considered as preludes and aftermaths of major combat, but instead will be addressed throughout all phases of a major combat operation. The strength of the stability operations concept is its emphasis on the need to deal with irregular forces. It demonstrates sophistication in observing that there are a variety of potential stability “spoilers,” ranging from those motivated by greed to those with unwavering political or religious convictions, and notes that the former may be dealt with by a variety of means short of force. The concept includes many of the historically validated attributes of success in stability operations: patience, perseverance, all-source intelligence, discriminating use of force, effective use of information, and, above all, the need to secure legitimacy and popular support for military operations.

The primary difficulty with the stability operations concept as it is currently expressed is an element of ambiguity about the use of force against irregular forces, which are the factor that makes stability operations so difficult and qualitatively different from major combat operations. The concept helpfully notes that the purpose of using force is to achieve political objectives and, particularly, to isolate irregular forces from popular support by finding, fixing, and striking them. The concept also explicitly notes that the key metric for success in use of force is not the number of casualties inflicted or irregular forces that are caught, but the number that can be persuaded to ally themselves with the U.S.-sponsored effort. Yet elsewhere, the concept states plainly that most resolute irregular forces must be defeated by military means and that overmatching military power (left undefined) must be used to

eliminate violent opposition. This element of ambiguity about the purpose of lethal force is reinforced by frequent references to the need for commanders to strike a balance between the “velvet glove” and “mailed fist,” restraint and “overmatching power,” and an “offensive mindset and a peacemaker’s heart.”

Stability operations complicated by resolute irregular forces do require a mix of relentless lethal force and integrated application of nonlethal instruments of power. However, the concept ought to be clear about the central purpose of tactical combat operations in stability operations and unequivocal about how force is to be applied. In this regard, the concept would benefit in places from less ambiguous language such as that contained in an earlier classic on stability operations: the 1940 Marine Corps *Small Wars Manual*.²⁰ The manual notes that “In small wars, caution must be exercised, and instead of striving to generate the maximum power with forces available, the goal is to gain decisive results with the least application of force and the consequent minimum loss of life.” The manual argues for an offensive spirit in tactical operations against irregular forces, but not so much because it is possible to destroy them completely as it is desirable to keep them on the run and dispersed so that the political process of reform may continue. In describing the strategy to be employed in small wars, the manual argues that “the solution of such problems being basically a political adjustment, the military measures to be applied must be of secondary importance and should be applied only to such extent as to permit the continuation of peaceful corrective measures.” These and other passages in the *Small Wars Manual* explain unequivocally the strategic and tactical purpose of combat operations, which is a necessary prerequisite for a more detailed description of the concept for defeating irregular forces. In short, the value of the concept would be improved by defining overmatching force in terms of maintaining

relentless pressure on insurgents and terrorists and describing how to do so with an integrated use of lethal and nonlethal force applications.²¹

Fundamental Attributes of a Good Joint Operating Concept. The joint operating concept development process is still in its formative stages. Even so, it is possible to identify some common problems and potential guidelines that will help permit joint operating concepts to fulfill their intended role as the “engines of transformation.”²² In fact, as the brief survey of the four major joint operating concepts above indicates, failure to abide by these requirements seriously impairs the usefulness of joint operating concepts for transformation.

1. *Discriminating Definitions.* All military problems, from weapons of mass destruction to guerrilla warfare, have similar and dissimilar characteristics. The overarching Capstone Concept for Joint Operations must focus on their similarities (for example, the need to provide security through threat or use of organized lethal force) and emphasize an approach that will be applicable to all employment of military force (for example, by emphasizing the importance of first securing critical information about the specific problem at hand in order to employ force effectively).

However, the underlying premise of the four specific joint concepts is that different approaches are required for military problems that are dissimilar in critically important ways. Each concept must come to grips with the defining characteristics of the military problem. Since invariably there is more than one way to solve a problem, deciding between alternative approaches to solve the core problem is the essence of a good operating concept.

Therefore, the first priority for an operating concept is delimiting the problem with a discriminating definition, something that the Transformation Planning Guidance failed to do. Instead, those charged with developing

the concepts were allowed to develop their own definitions. They all opted for overly broad definitions that substantially overlap with one another and thus confuse the problem being addressed. Not surprisingly, the recommended approaches to the problem are so broad that they are not readily distinguishable and thus are not useful for discriminating between alternative capability sets. These joint operating concepts do not assist with strategic management of the defense program by making the choices among alternative capabilities more transparent. Instead, they confuse strategic management of the defense program by obscuring the differences between both the problem and potential solution sets.

2. *Presumptive Causal Linkages.* Joint operating concepts should describe how a future commander plans, prepares, deploys, employs, and sustains a joint force against potential adversaries.²³ In short, they presume an understanding of what will produce a successful operation. Thus, a good operating concept will articulate a clear path of presumptively causal linkages for resolving a clearly defined problem. To do so, most military theorists begin by establishing a lexicon and associated framework of essential concept components²⁴ and then proceed to explain how the key conceptual elements are used to produce a solution to the military problem. In other words, the concept must provide a description of the objective (end) that includes the desired end-state and associated effects that are necessary to achieve the objective; an explanation of how the operation proceeds to produce the desired effects (ways); and identify the capabilities (means) necessary to execute the concept, preferably prioritized by their order of importance for success. Having failed to be sufficiently discriminating in the description of the objective, it is not surprising that all four major concepts developed to date tend to avoid presumptive causal linkages. Instead, they provide an inventory of possible means that

vary in application, as circumstances seem to warrant. To some extent, joint operating concepts are situation-dependent, but the core idea requires explicit descriptions of *how* to execute the concepts rather than just a catalogue of possible means to employ.

3. Risk Identification and Mitigation.

A good operating concept not only articulates ways and means, but it also does so cognizant of alternatives and their presumed advantages and disadvantages. If it is a transformational concept, it must knowingly depart from current practices and be aware of how it incurs risk by doing so. For example, the German military innovators who advocated blitzkrieg tactics knew that their mobile forces penetrating deep behind enemy front lines were vulnerable to being cut off, starved for supplies, and defeated piecemeal. They estimated that their enemies would not be able to organize and move quickly enough to exploit this potential vulnerability, and they did everything possible to make sure this was the case.

A good concept, then, needs to identify ways to mitigate known risks and establish warning signs that it is failing to do so when the operations are actually undertaken. Going a step further, a set of metrics for assessing successful employment of a concept would assist with evaluating the contribution of any given capability to the concept's execution. Since all four concepts developed by the Pentagon are ill-defined at the moment, none can rise to the level of specificity required for risk identification and mitigation.

If the Pentagon's joint operating concepts are to be effective tools for transformation, they must eventually become discriminating and detailed enough to allow identification and prioritization of transformation requirements in the defense program. They also must remain open to modification in order to incorporate new findings from experimentation and practical experience. Absent these characteristics, the joint operating concepts will

not become engines of transformation, and a central element of the Pentagon's much-needed transformation to capabilities-based planning will remain missing as well.

A Capabilities-based Approach²⁵

The emphasis on new concepts of operation is fueled by the conviction that new military capabilities permit forces to be employed in dramatically different and more effective ways. Prior to his election in 2000, President Bush promised "a future force that is defined less by size and more by mobility and swiftness, one that is easier to deploy and sustain, one that relies more heavily on stealth, precision weaponry and information technologies."²⁶ Since then, transformation theorists in the Pentagon have elaborated on this vision and promised an information-age military that will be less platform-centric and more network-centric, able to distribute forces more widely by increasing information sharing via a secure network that provides actionable information at all levels of command.

Recent operations provide some evidence that this vision is already taking shape, as creative commanders in the field now exploit with good effect information systems developed and fielded by the Pentagon in the 1990s. The campaigns in Afghanistan and Iraq seemed to validate the new Pentagon catch phrase for transformation: "fight first for information superiority." A precise understanding of where friendly and enemy forces were, and the consequent ability to outmaneuver and attack the enemy rapidly and with great precision, were hallmarks in the combat phases of these operations. President Bush and Secretary Rumsfeld want to build on this progress and recognize that doing so would require a more systematic way to identify military capabilities that would best support transformation objectives.

The 2001 Quadrennial Defense Review emphasized that DOD needed to

adopt a new approach to developing military forces, which it referred to as capabilities-based planning. Arguing that the United States could not know the origin of threats decades from now, QDR 2001 focused instead on the idea of anticipating the kinds of capabilities that an adversary might employ. A capabilities-based model would focus more on “how an adversary might fight than who the adversary might be and where a war might occur,” and it would require identifying capabilities that U.S. military forces would need to deter and defeat adversaries who will rely on “surprise, deception, and asymmetric warfare to achieve their objectives.”²⁷

The 2001 QDR closely tied a capabilities-based approach to strategy but also made a reactive and proactive case for a capabilities-based approach that paralleled the case it made for transformation in general. It asserted that capabilities-based planning is necessary to prepare for a more diverse and uncertain set of security threats and to exploit information-age opportunities to produce transformational capabilities, such as advanced remote sensing and long-range precision strike.

Thesis: The Need to Abandon Atypical Threat Cases and Platform-centric Planning

The two-part strategic rationale used to justify capabilities-based planning has a lot of appeal, and it satisfied two longstanding complaints about defense planning. Critics of Pentagon planning during the 1990s protested that it focused exclusively on two archetypical threat cases that were actually anomalies: Korea and Iraq. If the United States had to fight on the Korean Peninsula, it would benefit from more than 20 immediately available, well-trained and well-equipped South Korean divisions—not a circumstance likely to be true in most other plausible future contingencies. In the case of an Iraqi contingency, the United States would benefit from a massive amount of

base infrastructure it developed in and around the Gulf region for precisely this purpose—again, not a circumstance likely to be repeated elsewhere. Critics argue that since the United States cannot predict precisely where it will have to fight, planning ought not to assume such a specific set of cases (see figure 4). Allowing the entire Pentagon planning system to be driven by these two atypical cases for almost 10 years, they argued, resulted in force structure and program decisions optimized for an extremely narrow problem set.

The other common complaint about Pentagon planning that capabilities-based planning seemed to address was the tendency simply to react to the systems deployed by potential enemies. Over the course of the Cold War, critics argue, the services increasingly defaulted to producing weapons that were qualitatively better than whatever the Soviet Union deployed, irrespective of whether there might be a better way to accomplish the mission. Since the Soviet Union was the predominant threat, it was enough to show that any given system was better than whatever the Soviet Union had. After the demise of the Soviet Union, the United States celebrated with an extended military “procurement holiday” during the 1990s. Now that recapitalization of the force could no longer be avoided, critics worried that the Pentagon was about to spend the new decade modernizing its forces by pumping out advanced tanks, planes, and ships that best addressed the Cold War requirement to project power across the vast oceans and stop large, multi-echelon mass armor attacks in the Soviet tradition. By emphasizing capabilities rather than threat, these critics hoped to shake off the old “bottom-up, stove-piped” acquisition processes that produced great individual platforms but ignored the larger issue of how joint forces communicate and operate together for greater effect. Critics wanted the Pentagon to invest more in information-age systems that would

Figure 4. Excerpts for 1997 National Defense Panel Report on Two-Theater-War Planning Construct

- Current defense strategy states that U. S. forces should be capable of fighting two regional wars at almost the same time. . . . This two-theater war concept is predicated on the belief that the ability to fight more than one major war at a time deters an enemy from seeking to take advantage of the opportunity to strike while the United States is preoccupied in another theater.
- Our current forces, however, with the support of allies, should be capable of dealing with Iraq. . . . The risks in Korea remain high, but . . . [a]s long as we retain the ability to introduce forces into the region, we have adequate combat power within the present force structure to deal with this threat. As a result, it is our judgment that our current force structure is sufficient for the regional threats that we see today.
- We are concerned that the [two-military-theater-of-war construct] may have become a force-protection mechanism—a means of justifying the current force structure—especially for those searching for the certainties of the Cold War era. . . . The two-theater construct has been a useful mechanism for determining what forces to retain as the Cold War came to a close. To some degree, it remains a useful mechanism today. But, it is fast becoming an inhibitor to reaching the capabilities we will need in the 2010–2020 time frame.
- The real issue is where we are willing to take risk. The current posture minimizes near-term risk at a time when danger is moderate to low. A significant share of the Defense Department’s resources is focused on the unlikely contingency that two major wars will break out at once, putting greater risk on our long-term security. While we cannot identify future threats precisely, we can identify the challenges. Our priority emphasis (including resources) must go to the future.

Source: Report of the National Defense Panel, “Transforming Defense: National Security in the 21st Century,” December 1997. Accessed on April 22, 2005 at <<http://www.fas.org/man/docs/ndp/part03.htm>>.

be inherently more capable, flexible, and, not incidentally, more applicable to a wider range of threats.

Antithesis: The Need to Bound Uncertainty

Although defensible, the two-part strategic rationale for capabilities-based planning is not without problems, some of which have retarded the implementation of capabilities-based planning since the QDR 2001 report was published. First, the assumption that it is easier to anticipate the tactics an adversary will use than it is to predict the identity of the adversary is open to challenge. Looking back at recent operations in Iraq and Afghanistan, one might argue that it would have been easier to predict

the adversary location than the tactics. The United States contemplated attacking terrorist bases in Afghanistan during the 1990s, and Iraq was a well-recognized potential belligerent. As for enemy tactics, many would have predicted that the Taliban and al Qaeda would have quickly transitioned to a prolonged guerrilla struggle rather than attempt to hold on to major population centers. Also, many supposed that Saddam Hussein would not fight the United States again without employing weapons of mass destruction or using terrorism and information operations to disrupt the flow of U.S. forces through Gulf ports. Only in retrospect did it become clear that he was either not able or not willing to do so.

Another problem is that the enemy tactics identified in the QDR report—surprise, deception, and asymmetric warfare—are notably vague. They seem tantamount to saying we need to be prepared for just about anything except what we currently think might be most likely. Indeed, the report claims that the “senior leaders of the Defense Department set out to establish a new strategy for America’s defense that would embrace uncertainty and contend with surprise.”²⁸ There is a problem with uncertainty as a strategic principle, however. Taken absolutely, it is the antithesis of planning. It is not possible to plan for that which cannot be anticipated, and it is not possible to distribute resources to priority solutions if there is no corresponding known problem set. The only way to avoid this dilemma is to identify solutions that apply equally well to any conceivable security problem. Future transformation capabilities are often described in vague ways that make them seem like easy and simple solutions to a wide variety of problems, but in reality they are not so. Some capabilities obviously have broader application than others, but difficult choices about what capabilities merit the most investment cannot be avoided.

Therefore, while it is understandable that the new leadership in the Pentagon wanted to avoid the optimistic assumption that future adversaries would confront U.S. conventional force advantages head on where U.S. forces have the greatest comparative advantage, just assuming the contrary does not get a defense planner very far. At worst, concentrating on uncertainty amounts to an abnegation of planning. The likely result is that less transparent and perhaps less rational influences will dictate allocation of limited resources.²⁹ The only real advantage of emphasizing the unpredictability of the security environment is that it should stimulate planners to consider a wider set of possible threat scenarios against which they can then measure the sufficiency of alternative future force and capability options.

Contrary to the popular misperception, however, the Pentagon already had a wide range of alternative scenarios before 2000. It did not typically analyze them for several reasons. Some of the scenarios did not involve large-scale force-on-force battles, and the Pentagon lacked a set of modeling and simulation approaches and tools to assess them effectively. In addition, although the strategy formally underscored the importance of atypical contingencies, in practice there were insufficient political will and analytic resources to investigate and act upon the requirements associated with anything other than the best-known warfighting scenarios.

Justifying capabilities-based planning by associating it with transformational output is also problematic. It is true that changing the focus of the discussion to capabilities rather than threats opens the door for redefining the most desired capabilities. Instead of military requirements being defined in terms of something similar to, but better than, whatever the most likely enemy has, the focus on capabilities tends to open the debate to include proposals for new ways to accomplish a mission and thus potentially support new transformational capabilities.

However, changing the terms of the debate does not guarantee that transformational capabilities will be identified and developed. If you are one to believe that having the ability to kill enemy tanks is a good thing, and that the best antitank capability is another tank, you can ignore specific threat countries altogether, focus on desired antitank “capability,” and still come up with a recommendation to build a bigger, heavier (and decidedly not transformational) tank. The same could be said about air-to-air superiority and fighter aircraft, and so on.

In short, contrary to QDR report assertions, capabilities-based planning does not necessarily lead to the conclusion that the U.S. military needs “advanced remote

sensing, long-range precision strike, transformed maneuver and expeditionary forces and systems, to overcome anti-access and area denial threats.”³⁰ It only increases the possibility that these capabilities will be looked at seriously, particularly if the problem set (threat environment) is defined as robust antiaccess and area denial threats.

These flaws in the strategic justification for capabilities-based planning and the established thinking that it reflected had some unfortunate effects, which, ironically, may have delayed implementation of capabilities-based planning. The undue emphasis on uncertainty instead of variability in threat, and the erroneous implication that there was a dichotomy between capabilities and threats, retarded work on the Department’s illustrative planning scenarios (now called defense planning cases). If threat was no longer important, why pay attention to illustrative threat cases?

Some proponents of capabilities-based planning understood the problem with unbounded uncertainty, and that some reference to threat cases was necessary. They still erred too much on the side of uncertainty by arguing that DOD should look at literally hundreds of cases and choose whatever capabilities most broadly applied to the greatest range of cases, irrespective of the importance of any given case. The problem with this approach is that it runs the distinct danger of sub-optimizing for the most critical cases. Not all security problems have equal consequences if handled poorly. Failure in some cases would more seriously damage the country’s security interests. Eventually the Pentagon recognized this and settled down to building a prioritized set of threat cases with sufficient variability, but time was lost in the process.

Another problem arose from the tendency to confuse capabilities-based planning with a broad vision of transformational capabilities that would be equally valuable for a wide range of contingencies and missions.

The tendency was to devalue the importance of analysis and detailed studies about marginal utilities. What was probably needed, many felt, was a new vision to break the Pentagon out of its rut and lethargy. It soon became apparent, however, that the hard questions about where to invest marginal defense dollars still benefit from good analysis. The key is to make sure that the analysis addresses the issues senior decisionmakers are concerned about and that it does so with transparent quantitative and qualitative input and methodologies that are appropriate to the subject matter. Transformation leaders eventually looked more favorably on analysis, but the Pentagon has yet to improve significantly the quality and quantity of the analysis that it can produce in support of capabilities-based planning.

Synthesis: Agreement on Next Steps for Capabilities-based Planning?

The 2001 QDR emphasis on capabilities-based planning was advantageous in several respects. It served notice to institutional forces in the Pentagon that major changes in the planning, programming, and budgeting system used for decades would be forthcoming. It shifted the terms of the planning debate to allow serious evaluation of a wider range of possible contingencies as the basis for planning and alerted the services that the usual justifications for their preferred major programs would be viewed skeptically if not deemed sufficiently transformational. However, as noted, flaws in the strategic rationale for capabilities-based planning tended to retard its implementation.

Today, there appears to be a better appreciation for what capabilities-based planning is and what it will require. Most now agree that capabilities-based planning is not an antidote to uncertainty and that completely divorcing threat and capabilities creates a false and deleterious dichotomy. Planning in the 1990s focused too much on a couple of specific potential enemies, and in so doing perhaps

ceded the initiative to other possible adversaries. However, it would be just as undesirable to go to the other extreme and conduct defense planning without reference to threats. Ignoring threat projections altogether means never being able to judge how much is enough, or how good is good enough. Specifically, it means no standards for the adequacy of the effects a capability can produce, and, more generally, it means no reference point for assessing the value of any given capability. In short, if the problem cannot be bounded, risk cannot be assessed or resources prioritized. The future threat environment may be less certain today than during the Cold War, but defense planners cannot escape the need to make judgments about the nature of the future security environment and the major problems that it will present for U.S. security interests.

The great innovation in capabilities-based planning, therefore, was not the irrelevance of the threat in an uncertain world, but the importance of assessing and managing risk across a much more diverse problem set. Threat is not ignored; it is simply assessed with much greater variation, as are capabilities. It is important to look at variation in capabilities as well as threat. Defense officials need some means of evaluating the respective merits of alternative capability sets by objective standards, including the ability to test those capabilities across a broader problem set in order to assess their benefits and risks. The upshot is that capabilities-based planning will require the ability to assess and manage risk more self-consciously by looking at much greater variation in problem definition (threat) and in solutions (strategy, concepts of operation, and capabilities), all while paying attention to costs and resource constraints.

Next Steps for a Capabilities-based Approach

To accelerate implementation of a capabilities-based approach to defense planning and resource management, there is a growing

consensus that the Pentagon will ultimately need to take several steps.

Establish an authoritative conceptual framework. First, a white paper or some other type of authoritative statement is needed to clear up much of the conceptual confusion surrounding capabilities-based planning. It should define capabilities-based planning, its purpose, and its attributes.³¹ Since the purpose of capabilities-based planning is to help senior decisionmakers adjudicate risks through their resource allocation decisions in an environment characterized by much greater variability in threats and capability options, the key to success is meaningful comparison of both risks and risk mitigation options.

Such comparison requires a conceptual framework, complete with taxonomy and lexicon to delimit and prioritize categories of threats and capabilities so that the debate about risk management can proceed on transparent and comprehensible terms. While the taxonomies and lexicon will change over time, it is virtually impossible to make comparisons across threats, mission areas, and platforms without a common set of reference points and terminology.

To be meaningful, the comparisons must use common qualitative and quantitative measurements of risk. Furthermore, the framework must distinguish between timeframes since risk and capabilities evolve over time, and investments come to fruition in different time periods. For example, it is possible to forego near-term operational capability in order to prepare better for future threats. The framework must also distinguish between levels of analyses since the variables relevant to threat, capabilities, and risk are different at the strategic, operational, and tactical levels of war.

Increase and organize joint analytic resources. Handling the variability in threat and capability options characteristic of a capabilities-based approach requires more robust

joint analysis, and a more integrated planning, programming, and budgeting system informed by that analysis than previously was the case. Today the overwhelming majority of analytic capability in the Pentagon is owned by the services, which conduct their own internal studies using their own data and models, and without attention to broad trades across military capability areas. While useful to the services, these studies do nothing for the senior decisionmakers who need to assess and evaluate options for alleviating risk. Thus, an immediate first step for implementing capabilities-based planning is to invest more resources in joint analysis at the strategic and operational levels. Reorganization also is required to ensure effective and efficient management of these resources. Currently, the scant joint analytic resources devoted to strategic and operational analysis are split between offices with different mandates and proclivities (the Joint Staff and multiple offices of the Office of the Secretary of Defense), either in the form of assigned personnel or dollars available for contractor support. It would be better to have these diverse organizations combine their resources under the same management with a common purpose and work more directly in support of senior decisionmakers.

Institutionalize an analytic system that is authoritative, transparent, and discriminating. There are several building blocks necessary for good analysis, each of which tends to suffer from lack of emphasis, transparency, discrimination, or some combination of these factors. The Pentagon needs authoritative planning cases instead of allowing service and joint analysts to create their own preferred cases, and (as discussed above) it needs sufficiently discriminating and detailed joint operating concepts for how forces will be employed. It also needs risk metrics for evaluating the results of different concepts employed in different scenarios. The

Pentagon also needs more diverse modeling and simulation tools that can evaluate a wider range of military phenomena than just force-on-force combat results, including the impact of irregular warfare, information, and weapons of mass destruction. Finally, it needs authoritative and transparent data to populate its models and simulations so that decisionmakers are not presented with conflicting conclusions based solely on assumptions hidden in different data sets.

Implementing a capabilities-based approach to defense planning and resource allocation processes will not be easy. Those charged with doing so often note that it took a decade or longer to institute the current planning, programming, and budgeting system, and that working through the details of a capabilities-based approach will take at least as long. No doubt this is true, which is even more reason to move out quickly on the prerequisites for capabilities-based decisionmaking that are already apparent.

Global Force Planning

A well-developed capabilities-based approach to strategic risk assessment would certainly assist decisionmakers with one of the most complex and difficult areas of transformational import: global force planning. A striking characteristic of the 2001 QDR is its emphasis on global capabilities. The 1997 QDR noted the importance of remaining a global power with global presence and engagement, but said little about global capabilities other than mentioning the need for worldwide communications and a “globally vigilant intelligence system.” The 2001 QDR adopted a strategy that exploits emerging global capabilities and demands more of them.

The new strategy assumed that U.S. forces postured and managed to contain defunct Soviet or 1990s regional threats could not efficiently respond to increasingly uncertain threats, some of which are most effectively dealt with

on a global basis and with some global capabilities. The strategy's overall intent, therefore, was to provide the President with a wider range of military options to discourage aggression. To stimulate the development of such capabilities, the strategy adopted a much more demanding goal for deterring foreign adversaries in an increasingly uncertain world. Instead of relying on forward-deployed forces to absorb the shock of an enemy onslaught and hold on until more U.S. forces could be projected into theater, the new strategy required forward-deployed forces, augmented by global capabilities, to defeat the enemy attacks rapidly in a wider range of potential contingencies "with only modest reinforcement from outside the theater." And they needed to be able to do so in spite of enemy antiaccess and area-denial threats.

To achieve this ambitious goal effectively, changes are required in three core areas: command and control, posture, and capabilities. A new global dimension for each of these areas was emphasized in the 2001 QDR report,³² albeit not organized under the umbrella rubric of *global force planning*, a term used for convenience here. The report promised changes in how global forward-deployed and forward-stationed forces were postured to support forward deterrence better, and it promised supporting changes in global force capabilities that could immediately augment those forces. In addition to long-range strike aircraft and special operations forces, which already are immediately available to supplement forward forces, the report noted that globally distributed capabilities and forces could also rapidly and precisely strike enemy targets at various distances.³³

The report also noted that the new strategy would require changes in how command and control over U.S. forces is exercised, including new command and control assets and integrated intelligence that would contribute to a "Global Command and Control System Common Operational Picture." It also

called for a new joint presence policy that would "increase the capability and flexibility of U.S. forward-stationed forces and aid in managing force management risks," including setting up choices between different combinations of force packages (that is, cross-service trades) based on which best support presence and deterrence.

The emphasis on new global command and control arrangements and global force presence policies, when combined, represents a new approach to global force management. Along with global force posture and global force capabilities, global force management promises to have a sweeping impact on the way the United States will develop, deploy, and operate its military forces in concert with allies and partners.

Global Force Management

The new approach to global force management includes tools and policies for managing global deployment of forces and associated risk assessments, and new combatant commander responsibilities that involve a global span of control over some forces and missions. The two reforms, which are discussed separately below, are related. Combatant commanders with new global command responsibilities are expected to provide expert opinion and inputs for the global force management system overseen by the Pentagon and other national authorities.

*New Tools and Policies.*³⁴ The driving force behind Global Force Management is the need to assess and manage risk better on a global basis. Doing so requires a more centralized approach to risk management. Regional commanders do not have visibility over all the relevant factors affecting global risk. Someone with a broader field of vision must make judgments about where to accept and reduce risks. For example, if a combatant commander responsible for current operations in Iraq

requests additional forces, granting the request would likely require accepting risk elsewhere. If the forces are taken from South Korea, the risk to the defense of South Korea from North Korea may increase. National authorities must consider whether moving an aircraft carrier or bomber wing forward to that part of the world, or repositioning other forces, is necessary to draw down that risk.

Making such risk assessments and decisions is difficult. To manage and assess such risks on a global basis, two general sets of reforms are required. First, the Pentagon needs tools and systems that would allow a near-real-time assessment of the location and readiness of all units around the globe, and second, it needs a rapid and joint means of assessing the risk associated with using those forces for different purposes. The Pentagon calls the set of tools and processes to support decisionmaking the global force management process,³⁵ and it projects that a prototype of the new system could be ready in fiscal year 2005.³⁶

When fully functional, the Global Force Management process will be the essential analytic DOD tool for managing risk on a global scale. Previously, the practice was for the Secretary of Defense to apportion forces well in advance to regional commanders who based their planning on the assumption that those forces would be available in the event of war. The real world is more complicated. Regional commanders do not always get all the forces they desire, in which case they must adapt their plans quickly. Sometimes they get more than they expected or even needed to reduce risk to an acceptable level. The tendency is to push everything forward as fast as possible to the location of the immediate conflict, regardless of planning assumptions. When this happens, risk may increase elsewhere if adversaries believe the United States is overcommitted and unable to respond to their provocations.

Meanwhile, functional commands such as Strategic Command, Transportation Command, and Joint Forces Command, which have critical wartime missions as well, often complain that they do not get a large enough say in which forces receive priority for a higher state of readiness. The Chairman of the Joint Chiefs and Secretary of Defense need to be able to see and understand all these competing priorities and assess their import. Ultimately, they need to be able to advise the President with risk assessments that reflect current operational realities and not outdated assumptions. To improve their ability to manage all forces on a global basis and in near real-time, the President and Secretary of Defense have also adjusted some of the combatant commander relationships, particularly where forces with global reach are concerned.

New Combatant Commander Relationships. The President, given his constitutional authority as Commander in Chief, ultimately has command and control of all U.S. forces. However, the President cannot oversee every military plan and operation on a day-to-day basis, nor can the Secretary of Defense. It is combatant commanders, under the guidance of the Secretary of Defense and President, who plan and prepare for potential military operations and, when necessary, command and control joint (and combined) military forces. In the past, the Pentagon organized U.S. combatant commands to deal with traditional contingencies occurring in one region or another, but those delineations are no longer satisfactory. Regional conflicts with significant escalation potential (especially to weapons of mass destruction) that could cut across regional boundaries—not to mention the war on terror—increase the need for global command and control. Consequently, U.S. defense leadership has begun to revise combatant commander responsibilities to deal with these cross-cutting issues better and to integrate

military capabilities more effectively with other elements of national power—diplomatic, informational, and economic.

1. Background and Record over Last 4 Years. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 shifted power and responsibilities from the military services to regional combatant commands. With its emphasis on jointness, Goldwater-Nichols gave regional combatant commands more responsibility and authority, primarily so they could better address regional contingencies. Regional combatant commands—European Command, Pacific Command, Central Command, and Southern Command—were assigned the majority of general purpose forces with the expectation that most wars would be confined to one or another geographic area of responsibility. While functional commands existed, they had narrowly circumscribed roles and missions.³⁷ Prestige and power clearly resided with the regional commands.

However, early in the Bush administration, Secretary Rumsfeld changed the nomenclature for the heads of the combatant commands from *commanders in chief* to *combatant commanders*. This was not merely a terminology change; it reemphasized civilian control of the military. The change reminded commanders that there is only one Commander in Chief in the United States—the President—and that the goal of the Unified Command Plan, which the President approves, is to ensure that the President and Secretary of Defense have a range of military options for dealing with whatever situations arise.

Beginning in 2002,³⁸ and continuing with changes over the next several years, the Bush administration made major changes to both regional and functional/global commands, both creating new commands and altering the missions of others. These changes:

- created a new regional command, Northern Command (NORTHCOM), whose primary mission is homeland defense. The

NORTHCOM commander is responsible for land, aerospace, and sea defenses of the United States, and for providing military support to civil authorities if needed in the case of natural disasters, attacks on U.S. soil, or other civil difficulties.³⁹

- expanded another regional command, European Command (EUCOM), with assignment of Russia⁴⁰
- created a new functional/global command with the merger of Space Command into the Strategic Command (STRATCOM). In addition to the nuclear deterrence and space missions that the new STRATCOM inherited, it also was given four previously unassigned missions:⁴¹ global strike; information operations; integrated missile defense; and C⁴ISR. Subsequently, STRATCOM was also assigned the mission of combating weapons of mass destruction.⁴²
- moved the regional responsibilities of Joint Forces Command to NORTHCOM and EUCOM, freeing JFCOM to focus on transformation and experimentation; interoperability; joint concepts, joint battle management/command and control; and global force management. This change underscored the point that regional combatant commands do not “own” the forces assigned to them, but that they will be apportioned as the Secretary of Defense believes appropriate, given circumstances at the time.
- assigned Special Operations Command (SOCOM), which has long both provided and managed the special operations forces supplied to regional combatant commands, the overall responsibility for the global war on terrorism, and not just when it involves special operations forces.

Thus, over the last 4 years, nonregional commands have been given expanded responsibilities for *global* missions that cross regional boundaries—altering the previous balance between regional and global commands as well as expanding *functional* responsibilities

as managers of joint capabilities—changing the previous balance between the services as capability providers and combatant commands as force employers.

2. Key Questions for Next 4 Years.

While the changes over the last 4 years have helped update the command structure to address 21st-century threats, the command structure may still require further changes in the face of current and future challenges. Several key issues are looming.

A. Regional/Global/Functional Balance. First, determining the proper balance in the future between regional, functional, and global commands will be difficult. The increasingly global security environment raises important questions about how combatant commands should be organized. How should DOD organize for missions such as the war on terror or combating WMD—missions that inherently cut across geographic boundaries? What is the best way to command and control capabilities that may operate across multiple time zones and more than one regional combatant command—such as global missile defense, space operations, global strike or intelligence, surveillance, and reconnaissance (ISR)? What sort of command and control arrangements are needed for “speed of light” capabilities—such as information operations, or (potentially) lasers? As these questions illustrate, security challenges are increasingly global in nature but also require a deep understanding of local regional conditions.

Regional commands and global/functional commands each have strengths and weaknesses. Regional commands understand the local conditions in the regions in which they operate—knowledge that may be essential to knowing how to assure allies, dissuade military competition, deter conflict, wage war, or secure the peace. However, some would argue that regional understanding is not an inherently military duty and is better handled by diplomats or intelligence officers. On the other hand,

regional commands may not have the in-depth knowledge about all capabilities they may be able to employ, and must rely on either functional commands or services to provide that expertise. They also lack the global perspective to look across multiple regions to assess implications of options and actions, since their responsibility and focus are a particular part of the world. Functional commands have in-depth knowledge of the capabilities for which they are responsible—such as special operations, global strike, or information operations—but lack the in-depth regional expertise about friends and adversaries in the regions. They also may not have a broad view of all the capabilities that can be brought to bear in a situation—since they primarily know the capabilities for which they are responsible. In their global role, however, they can look across regions and consider how actions and challenges in one geographic area may affect other areas.

SOCOM and STRATCOM have a combination of functional as well as geographically global missions. Both are capability providers to regional combatant commanders—SOCOM providing Special Operations Forces, and STRATCOM providing global strike forces. Both are responsible for independent global missions that require a variety of capabilities, SOCOM having the lead in the war on terror and STRATCOM for combating WMD. Some are concerned that giving a global mission to a functional force provider, such as making SOCOM responsible for the war on terror, will lead to applying the capability they own without adequately considering other capabilities—along the lines of the adage, “when all you have is a hammer, every problem looks like a nail.” If the war on terror is the Nation’s highest priority, perhaps it merits its own global (but not functional) command.

Ultimately, retaining some mix of the three—regional, functional, and global commands—with appropriate connectivity among them is desirable. Some operations, including

engagement and stability operations, are best handled by regional commanders. Others, including aspects of combating terrorism, missile defense, and countering WMD proliferation, require a global perspective (and a variety of capabilities) but also cognizance of differing regional conditions that must be taken into account. Some functional issues such as special operations forces and information operations are best handled by joint capabilities providers (whether such joint capabilities providers are called “combatant commanders” or something else), but also need to be tempered by regional awareness.

Another possibility is to take the “combatant” out of all the combatant commands, so that they serve the enduring missions of peacetime planning, security cooperation, integration, coordination, and synchronization, and have less permanent joint task forces (JTFs) that, as needed, are responsible for executing wars. Recognizing that JTFs are actually the warfighters could reduce tension about who is supporting and who is supported among regional/functional/global commands, since all would be in a support role to the actual warfighters for the duration of the conflict. Some find this idea impractical, arguing that it requires a four-star officer to build coalitions, fight wars and demand the support needed for combat. However, recent precedent is that in the circumstances where the higher rank is deemed necessary, the JTF commander could be a four-star—for example, General George Casey took over as the Commander of Multi-national Forces in Iraq in July 2004, replacing a three-star (LTG Ricardo Sanchez). It is the four-star in the region, General Casey, who is in charge of operations—not the four-star CENTCOM commander headquartered in Tampa.

B. Interagency Coordination. A second key issue will center on the need to move beyond combatant commander integration to true interagency integration. It has become

commonplace to assert that addressing current and future strategic problems often requires the integration among all instruments of national power—diplomatic, informational, military, economic, and legal. The question is how to make this integration real when the mechanisms for doing so are clearly inadequate. Interagency relationships are essential to the missions of all combatant commands, particularly in the pre- and postconflict stages. For instance, if the center of gravity for winning the war on terror is in influencing ideas and perceptions, that is not purely—or even primarily—a military function. The war in Iraq makes clear the downsides of not integrating military, diplomatic, informational, and reconstruction actions from the beginning. For commands such as NORTHCOM, where support to civil agencies is a key mission, essential tasks cannot be performed without close coordination among Federal, state, and local government agencies. Interagency cooperation, in short, while always helpful, has now become indispensable for success.

Many combatant commands have joint interagency coordination groups (JIACGs), with interagency representation. While JIACGs are useful to bring different agency perspectives together on a range of political-military matters, they are, as their name implies, coordination mechanisms. Civilian personnel assigned to the JIACGs operate mainly as liaisons for their home agencies and generally lack sufficient seniority and authority to speak definitively or give approval for their agencies.

A number of ideas have been advanced for how to improve interagency planning and operations, to include:

- creating a new independent government organization in Washington to integrate military and civilian planning⁴³
- designating a Deputy National Security Advisor as the lead for integrating interagency planning for and implementation

of complex operations and creating a new office and Crisis Action Teams in the National Security Council (NSC) to support this effort, as well as establishing planning offices in each agency⁴⁴

- replacing regional combatant command “proconsuls” with regional Embassy-like teams with all relevant agencies represented.⁴⁵

Clarifying the roles and missions of various agencies in dealing with key security concerns, bolstering planning and operational capabilities of relevant civilian agencies, and enhancing the capacity of the NSC staff to integrate interagency planning and monitor policy implementation are promising and practicable approaches to achieving greater unity of effort. Ultimately, however, the U.S. Government must learn to collaborate across the various agencies that own requisite expertise for working complex foreign contingency operations in much the same manner that many American businesses have had to collaborate across organizational components (marketing, design, and engineering) to be successful in a dynamic and increasingly dangerous (or competitive) environment. Without such collaboration in Washington, DC, and in the field, it will not be possible to successfully execute missions in support of homeland security, the war on terror, combating weapons of mass destruction, or stability operations.

C. *Working the “Seams.”* Efforts to resolve command and control issues *within* a combatant command at least benefit from clearly delineated responsibilities and chain of command. In contrast, command and control issues *across* combatant commands, where there may be overlapping or interrelated issues, and between combatant commands and non-DOD agencies, where there is no common chain of command (below the Presidential level) and little if any joint planning

capability, are far more complex. There will always be boundary lines, or “seams,” between organizations, where one organization’s responsibilities end and another’s begin. Seams are not necessarily bad; they allow for a reasonable span of control and division of labor. Seams are where organizations are soldered together, and as long as they do not become “stovepipes”—impeding coordination and integration, or letting things fall through the cracks between them—then “seam” is not figuratively a four-letter word.

The issue is not eliminating seams, but preventing or mitigating their negative aspects: anything that prevents effective flow of information, intelligence, personnel, and units across boundaries, or competing mandates or lack of a common understanding of the objective, which leads to inefficient or contradictory activities. Making sure that the “commander’s intent” by all commands is more important than precisely how responsibilities are divided among them. There is probably any number of Unified Command Plan alignments, or interagency divisions of responsibility, that would be satisfactory.

It is more important that senior leaders—combatant commanders, the Secretary of Defense, agency heads, NSC staff—spend enough time working on issues that arise from organizations’ intersection. That may mean that combatant commanders or organization heads focus on looking “across and up,” and leave it to their deputies to “look down” and manage internal processes. To work the seams may truly require a cultural change, since the military tends to be most comfortable with clear lines of authority and a chain of command that is clear and unequivocal. The problem is that a clear line of authority and command may not work well in the complexity of today’s world, where everything is related to everything else, and the boxes are not so neat. There may be many situations where the operative words are “coordinate and collaborate” rather than

“command and control.” Within DOD and commands, there needs to be increased emphasis on creating avenues for regular coordination and planning, both at the commander-to-commander level and at the working level.⁴⁶

Toward a More Agile Global Posture

While new command relationships and management tools and systems are needed for global force management, a new global force posture is also needed to improve the ability to move forces quickly to problems areas that can only imperfectly be anticipated in advance. Many U.S. military units are still stationed in proximity to potential flashpoints during the Cold War, particularly in Europe, and more specifically Germany, which are now quite secure. Even Korea, which has remained a volatile area since the Korean armistice of 1953, has changed dramatically. Today, South Korea is a country on the verge of entering the short list of the world’s top 10 performing economies and one that is capable of providing for much of its own defense. Clearly, Cold War assumptions about the location and structure of U.S. forces need to be reexamined.

It is easy enough to conclude that our Cold War–era overseas basing and force deployment are outdated; the much harder question is to determine precisely how force posture should be revised. There has been a general recognition that maintaining large amounts of ground forces in stable and powerful countries might be less important than making changes that would help consolidate relationships with new allies or better position U.S. forces for responses to new threats emanating from the arc of instability that has emerged along the southern reaches of the Northern Hemisphere. Yet the details of precisely what moves to make, and how and when to make them, are exceedingly complicated and have required detailed review.

A year following the 2001 QDR report, U.S. defense leadership initiated the Global Posture Review (GPR) to consider these

issues and make recommendations on updating basing of U.S. military forces around the globe. Officials on and off the record predicted the largest basing changes since World War II, describing a network of far-flung staging bases to support highly mobile units that would deploy out of strategically located new, rotationally staffed training garrisons. Inevitably, the result was a rising tide of expectations overseas. In Europe, speculation quickly followed that there might be brigade-sized bases with ports and airfields in Bulgaria, or major new training areas in Poland, or airfields in unnamed countries that could replace the American base at Ramstein. Over time, as speculation mounted, many countries inferred that political considerations would drive basing decisions, and they would be punished or rewarded for their policies regarding the war in Iraq or other U.S. policies. Many sources in Germany and Spain, for example, assumed that they would lose out on American bases due to their lack of support for operations in Iraq. In contrast, and especially among new U.S. allies in Central and Eastern Europe, expectations were clear that major (and lucrative) new arrangements with the American military were impending, in part because of their support for the U.S. operations in Iraq.⁴⁷

As part of an effort to downplay exaggerated hopes or unwarranted concerns, U.S. defense and diplomatic officials sought to emphasize the strategic rationale for the repositioning. Moving forces from their traditional (especially west European) bases to new foreign locations or back to the United States was touted as a way to avoid the onerous training restrictions U.S. forces faced with increasing frequency in their current bases. It would also be a way to avoid deployment delays when host nations disputed the policies prompting the deployment of American forces. Most of all, however, the re-posture was touted as a way to increase U.S. strategic agility by moving troops closer to potential hot spots and thereby speeding their potential deployment.

Not surprisingly, given the strategic rationale proffered, countries with close proximity to the arc of instability speculated that they were well-positioned candidates for hosting U.S. forces, and many assumed bases would be built eventually. In particular, some countries in Central Asia and the Caucasus saw an opportunity to secure American security guarantees or at least to strengthen defense relationships with the United States. Other, better-established U.S. allies, who seemed ill positioned to retain U.S. forces could not help but view proposed changes in light of their own domestic and international political concerns. Some countries, such as South Korea, expressed concern that decisions about repositioning U.S. forces would not sufficiently account for their strategic interests.⁴⁸ Others, such as Japan, saw an opportunity to revisit long-standing sources of irritation in current basing relationships.⁴⁹

Modest Initial Changes and Enduring Challenges. Two years after the initial flurry of discussion, the Pentagon in August 2004 announced the results of the GPR. Some important and salutary changes were proposed. A logical construct for overseas deployment infrastructure was elaborated, foreseeing well-equipped, permanent main operating bases for the stationing of major forces, austere forward operating locations for the temporary staging and onward movement of forces, and cooperative security locations for use as intermediate staging bases. One additional aircraft carrier battlegroup and more submarines will be forward-stationed in the Pacific, dramatically cutting transit time for these platforms from their home bases to their anticipated areas of deployment. Also, for the first time since the Vietnam War, Guam will have the continuous presence of B-52 bombers on its shores.⁵⁰ Army forces in Korea have begun a long-overdue downsizing that better reflects the evolution of the North Korean threat and the advances

made by the South Korean Defense Forces. Throughout the world, headquarters will be streamlined, redundant echelons of command eliminated, and forces reoriented toward global employment rather than regional focus.

Yet it must be said that the initial results of the Global Posture Review fell short of far-reaching expectations overseas. Contrary to early predictions of a politically or strategy-driven posture review, operational military logic has dominated the changes to date. Many of the early and more radical ideas for reposturing the military's global presence that had strong political or strategic rationale in the abstract proved less attractive when operational research demonstrated that they would contribute relatively little to the strategic agility needed to respond to the complex security environment in the next 25 years. Ultimately, most major reposturing decisions—that is, those involving relocation of brigade- or division-sized units—were made more on the basis of operational, not political or geostrategic, advantages.

This is particularly true with regard to ground forces, whose repositioning made up the bulk of the major proposals for unit relocation. Strategic agility of ground forces depends on the capability to deploy appropriately trained and ready forces to the problem area quickly. In this calculation, geography plays a role, but stationing forces closer to targets does not necessarily mean those forces can deploy to their targets more quickly. The effect of geography on the speed of deployment depends on three factors: proximity of deploying forces to the port of embarkation (sea or air); throughput at the ports of embarkation and debarkation; and distance to the target area.

These variables are not always controllable. Distance to the target area and the capacity of ports of debarkation will vary with the contingency. However, throughput at the port of embarkation can be considered a major factor when deciding whether or where

to relocate forces. Throughput depends on infrastructure, such as ramp-space, crash-fire rescue equipment, materiel handling equipment, rail or road access, sustainment facilities for staging forces, communications ability, and traffic management systems. It is hard to see how reposturing U.S. ground forces currently based overseas would improve these variables.⁵¹ Except for those in the United States, new locations would likely not offer the highly developed ports of embarkation our forces currently enjoy. Black Sea ports in Bulgaria and Romania would be hard-pressed to provide the sort of outload capacity found in Bremerhaven, Germany, or the Netherlands. Likewise, airbases near training areas in Bulgaria, Romania, or Poland would require major upgrade to equal even a medium-throughput facility in the West.

Proximity of deploying forces to the port of embarkation is also a controllable variable, one that depends on both raw distance and the capacity of the transportation infrastructure between the forces' garrisons and the port. Again, it is hard to see how significant improvements could be gained by moving major ground forces to locations in new countries. True, new locations might offer closer physical proximity of the deploying force to the port; however, given the state of transportation infrastructure outside of the U.S. and the modern countries where forces are currently located, it is not clear this proximity would compensate for a less developed outload capacity.

In any event, U.S. forces are already positioned close enough to major air and sea ports that "fort-to-port" transit is rarely the time-critical path in brigade-level deployment sequences. Throughput at the port itself and other nongeographic factors such as the pace of strategic decisionmaking, the time required to identify and outload cumbersome and diverse ground force equipment, aircraft flow plans, and even material handling equipment (for example, the size and

number of forklifts available) usually drive the speed of deployment. To offset disadvantages of undeveloped port infrastructure and make repositioning ground forces advantageous requires a significant decrease in distance to assumed targets. However, much of the early and most animated speculation surrounding the GPR involved moving ground forces fewer than 800 miles from their current locations. The costs in throughput and accessibility would be balanced against a mere 2-hour decrease in flight time—hardly worth the effort.

Indeed, while obviously dependent on the contingency in question, some studies suggest that the time required to move forces to and through a port may be two to three times the time required to actually transit to the conflict area. In the first Gulf war, for example, it took the Army's VII Corps, which left from four embarkation points in Europe, 42 days to load up 40,000 pieces of equipment on the ships, and only 20 days of transit to the Middle East. In short, finding ways to expedite the outloading process for ground forces may have a higher payoff than repositioning them or even investing in new strategic transportation capabilities. At least this is the case with ground forces.

Repositioning naval and air forces can have greater advantages. These forces are platform-centric, and the fighting package deploys *from* a port, not *through* one. Especially for ships, with their slower transit speeds, this means that moving closer to an area of potential employment can significantly add to its strategic responsiveness. Not surprisingly, some of the major repositioning called for by Global Posture Review concerns naval forces in the Pacific where the distances from current bases to potential conflict areas are the greatest.

Training requirements also helped determine GPR results. To achieve strategic agility, the forces that deploy must be trained and ready. Training and maintaining a complex modern

force requires that three things be readily available: adequate space where the force can train; instrumented training areas; and high-level maintenance capabilities. Some countries seem willing to provide more space for more aggressive training than is possible in much of the United States or Western Europe. However, it is doubtful that this environmental permissiveness will be sustained over time, especially as countries of Central Europe integrate with the European Union. Furthermore, these countries lack the sophisticated training and maintenance systems needed to hone a modern force. As with deployment infrastructure, it is unlikely that the United States could easily replicate the systems it already possesses, or could justify doing so. The (probably temporary) benefit to be gained by environmental permissiveness might not outweigh the disadvantage of lower-quality training infrastructure and maintenance. Although excellent training can be conducted in many nontraditional locations, their limitations in terms of instrumentation and professional personnel suggest they should be seen as supplements to the primary facilities we currently possess at places such as Hohenfels and Grafenwoer in Germany.

Summary. Political considerations can and should affect strategic basing decisions. The presence of American forces affects our relationships with host countries and can be used as a valuable tool in reassuring friends and dissuading enemies. However, political considerations cut both ways. Political complications can also slow the speed of deployment when states limit U.S. options by foot-dragging or outright denial of transit, overflight, or deployment, notwithstanding agreements covering these issues that seem more permissive. State policies are politically determined and fluctuate over time, but large fixed infrastructure cannot fluctuate so easily. In the absence of the Soviet threat, which helped cement U.S. relationships with key

allies, it is natural to expect a more diverse range of opinions and responses to American requests for base usage. Absent a strong and abiding strategic partnership with a country, it is increasingly precarious to “forward deploy” significant ground forces. Unless U.S. forces are mobile (amphibious or prepositioned materials afloat) or in locations that the United States reliably controls (for example, Guam or Diego Garcia), there is an increasing likelihood that local approval of deployments may not be granted. In this regard, the Global Posture Review actually concluded that political considerations reinforced military logic. Indeed, the largest movement of forces foreseen is the relocation of the better part of two ground divisions from Germany and a brigade from Korea to the United States—hardly the result anticipated abroad. The redeployment of heavy forces to the United States is a significant development, but one where political constraints on deployability were determined to be more important than the net effects of geographical location or the strategic-political effect of forward presence.

This is not to say that geostrategic positioning does not matter in a military sense; it matters greatly. Holding key ground, posturing for quick employment, and the consequent potential for improved deterrence all are important considerations influencing force locations. Ultimately, however, strategic agility is not simply a function of moving forces “closer” to the expected fight. Numerous other operational considerations must be taken into account. In the end, geostrategic reasoning ended up recommending a hierarchy of intermediate staging bases and ports of debarkation in forward locations with varying levels of operational capacity and fixed infrastructure. Unfortunately, the austere and almost temporary nature of these locations, some of which will consist of little more than a set of usage agreements, does not correspond well with the

high expectations aroused by the announcement of the posture review.

Since the initial results of the GPR deflated many expectations, some of which were backed up with significant investments of political capital, the United States will need to mend some fences with potential partner states. In doing so, it should make an effort to demonstrate how cooperative security locations and forward operating locations can improve U.S. strategic agility and produce local benefits as well. Such improvements are not obvious. The United States needs to make a case for how rapid and locally-contracted infrastructural improvements still have economic and political advantages, and how a smaller U.S. footprint in a host nation reduces political friction that hurts both the United States and the local government. In addition, routine operational (or training) use of cooperative security locations and forward operating locations demonstrate the strategic reach they provide for U.S. forces and the deterrence value they hold for host nations. These activities are not cost-free for U.S. forces, especially during times of high operational tempo, but the political and strategic benefits justify the effort and would help smooth ruffled feathers in the wake of the initial results of the Global Posture Review.

Recalibrating the Capabilities Mix

The need for new global command and control relationships and a new global defense posture in part reflects the emergence of new capabilities with truly global reach. Capabilities that provide rapid and, in some cases, virtually immediate response capabilities raise difficult command and control issues, but also make great contributions to the strategy goal of forward deterrence. National missile defense and global ISR capabilities were emphasized in the 2001 QDR, but the global reach of special operations forces and some types of information operations also were noted. In addition,

long-range bombers capable of precision bombing and the possibility of conventional intercontinental ballistic missiles and hypersonic vehicles that could deliver lethal payloads raise the promise of other global rapid response capabilities that support forward deterrence.

Risk Management and Force Design.

Some new global capabilities are extremely expensive and immediately raise complex investment and force design issues. Something must be given up in order to pay for building a future force that has more rather than less global intelligence, strike, and defense capabilities. What are the tradeoffs, and what force options make the most sense? This question must be answered on several levels. At the strategic level, there may be tradeoffs between investments in a more elaborate and flexible set of overseas base options and in forces that are not dependent upon bases.

Forces have differing levels of self-deployability and sustainment. Aircraft carriers are completely self-deployable, bring all their combat power and, depending on the types of combat operations, weeks or months of supplies to sustain operations as well. They can also be replenished at sea when necessary. Fighter aircraft can deploy to theater with the aid of refueling tankers but then depend upon local bases to support their operations. Ground forces are the least self-deployable and sustainable unless configured in an expeditionary manner such as the Marines. The Marines deploy aboard their own ships and, once ashore, can sustain ground operations for about a month before major sustainment support is required. Future options could make U.S. military forces more self-deployable and sustainable, and less onerous for allies as well, but at quite some cost.

For example, the Navy is experimenting with a sea-basing concept that would permit ground forces to attack their land objectives

from a collection of naval platforms without the need for an operational pause to regroup after having captured an enemy port. One report noted that such a capability could be replenished from major bases within 2,000 miles of the operation (for example, Guam or Diego Garcia), or perhaps even directly from the United States. Such a capability would significantly reduce reliance on host nation support for bases.⁵² Why invest a lot of resources in land bases that can only operate with the approval of the host nation government when the vast majority of the Earth's surface is within reach of internationally accessible sea lines?

Many observers believe a sea-basing capability makes sense in a period of shifting political relationships and loyalties. They believe it would be better to invest in more self-deployable and sustainable force capabilities than to incur the expense of trying to maintain a wide network of land bases that entail high political and material costs. Sea basing and mobile ballistic missile defense would be attractive to allies as well. They would be a less visible, and thus in some cases less politically onerous, form of American commitment, and their use would make the allied nation's key transportation nodes less attractive targets to the enemy.

Another potentially attractive operational-level trade is investing more in planning tools and transportation techniques that improve "fort-to-port" transit and port-to-foxhole movement such as unit containerization and "sense and respond logistics" that reveal needs and allocate resources in real time. Such investments might make more sense than expensive efforts either to lighten greatly Army forces or to improve their strategic mobility by means of high-speed vessels or novel airship designs. As noted above, when the total time to move Army units from "fort to foxhole" is considered, it is not the actual transit to theater, but the movement to the port, on-loading, and

subsequent off-loading and reorganization for combat that by far take the most time.

At the operational level, other tradeoffs in force design must be considered in light of growing global capabilities. Global force capabilities that have greater speed, range, and endurance generally have more flexibility to deal with surprise and enemy antiaccess strategies. Some argue that the first priority for operational success is to safeguard rapid movement along global lines of communication (sea, air, space, cyberspace). For example, Operation *Iraqi Freedom* used less than half the tactical air strike sorties of *Desert Storm*, but the tanker-to-sortie ratio was double that of *Desert Storm*. In short, if U.S. forces control space, air, and sea lines of communication, and can defend and transit them freely, it will be far easier to get to the fight faster with the most powerful joint strike capability, including ground forces. The question is how to pay for such global reach capabilities. Some have argued that the United States can afford to downsize some of its extensive forcible entry force structure, which ranges from diverse Army airborne units to Marine Expeditionary Forces. Sacrificing some of this force structure in favor of "flexible entry" capabilities that expand the range of entry points an enemy must protect would vastly complicate the enemy's challenge of mounting an effective defense.

The argument that U.S. forces fight first for information superiority also raises questions about tradeoffs between global ISR capabilities and force structure that provides strike capability. If there is greater assurance of hitting a target because of more accurate and timely intelligence, fewer "shooters" are needed. A more specific tradeoff can be considered between global and theater ISR capabilities. Some prefer space-based ISR systems that can survey the entire globe in persistent fashion, while others argue that deployable, air-breathing theater

ISR capabilities are better able to surge when demand is highest.

With respect to coalition operations, the greatest efficiencies may be possible from investments in command and control capabilities that permit U.S. forces to share such exquisite intelligence. Such investments might make allied forces much more capable and cost less than many other politically difficult and operationally less important interoperability initiatives such as common standards for logistics and transportation of military forces. Yet sharing command and control, and especially intelligence, is a security-sensitive and technically challenging enterprise. Usefully integrating the numerous sources of information available to the United States alone is a huge undertaking. Figuring out how to integrate allied intelligence and data sources as well, and to share it through a multilevel security process that allows different parties to access only part of the universe of available information, is a stupendously difficult challenge, but one with significant payoff.

Tactical capability trades must be considered as well. For example, some believe that mobility may be the best defense against area-denial weapons such as chemical agents that can be used to attack airbases and seaports. Rather than invest large amounts of resources in static chemical and biological defenses to protect key nodes like air and sea bases, more resources should be invested in long-range bombers, sea basing, and other global strike capabilities that are not so vulnerable to WMD. Similarly, since the easiest way to deliver weapons of mass destruction over significant distance is to use aircraft or missiles, many argue for greater investments in a combination of persistent theater ISR, hypersonic strike vehicles, and more robust theater air and missile defenses. These force capabilities, they argue, are more important perhaps than maintaining the size of the current tactical fighter

forces, an area in which the United States currently holds a comfortable advantage.

Transformation's Difficult Trades. The range and complexity of the choices highlighted by the emergence of global force capabilities underscore the importance of institutionalizing a capabilities-based approach to defense decision-making. Just as defense planners must now take into account a far greater variability in threat, so must they also consider a more diverse range of capability options. Identifying areas to reduce and accept risk in a deliberate manner, supported by the best possible analysis, is a major challenge to senior decisionmakers.

Changes have already been made to facilitate the move to a capabilities-based approach. For example, in May 2003, DOD adopted a 2-year planning cycle so that it could use the off-year to focus on key defense planning issues, fiscal execution, and program performance. The Defense Department also has adopted an enhanced planning process that furthers the institutionalization of capabilities-based planning.⁵³ Of course the specific studies and trades considered by the Department are classified,⁵⁴ but the process itself is described as dependent upon the development of joint operating concepts, risk metrics, better models and simulations, and supporting databases. However, unless the process takes an integrated look at strategic as well as operational and tactical level choices, it is likely to produce an overly narrow set of options uninformed by their broader strategic implications.

Conclusion

Transformation of the U.S. defense establishment accelerated with the 2001 Quadrennial Defense Review and the strong backing of both the President and Secretary of Defense. This paper only considers the most prominent initiatives under way in the Pentagon to transform how U.S. forces fight, how the Pentagon does business (including

planning and experimentation), and how it manages, postures, and designs its forces in cooperation with interagency and international partners. The Bush administration's commitment to transformation is driven by strategy considerations. The defense strategy now emphasizes the need to prepare for a more diverse and uncertain set of security threats. It also emphasizes the need to exploit information-age opportunities to produce transformational capabilities that will help dissuade erstwhile competitors and deter potential adversaries with global capabilities that better support forward deployed forces. DOD commitment to transformation should remain regardless of leadership changes and the demands of current operations. Thus, for the time being, the transformation challenge is to deepen, extend, and accelerate what has already begun.

Progress on implementing transformation may be slowed by several factors. Of first order concern is the war on terror, which is absorbing increasing amounts of senior leader attention and new-term funding. It is hard to estimate the likelihood that the war on terror will derail transformation. There is always a tension between nearer-term operational costs and longer-term investments. Since the stakes are so high in the war on terror, if forced to choose between successful current operations and transformation investments, the former would likely be given the nod. However, the Pentagon steadfastly maintains that it will not sacrifice success in current operations to safeguard the likelihood of successful transformation. There would seem to be no reason to do so as long as the President and Congress are willing to support increased levels of Pentagon spending to fund most of the current operations in the war on terror.

Certainly, the most difficult strategic tradeoffs can be avoided when so many resources are present. Some believe this helps transformation, as expensive transformation capabilities can be initiated and developed to the point where they can compete with

established and well-understood, albeit decidedly less revolutionary, capabilities. Other transformation theorists believe the infusion of resources from the war on terrorism pervasively handicaps transformation. They argue that critical resource shortages are a necessary stimulus for transformation, and that as long as hard choices can be avoided, the Pentagon will default to lower-risk and less revolutionary options. Both views seem to capture some truth now. The Pentagon is investing heavily in transformational starts without abandoning much near-term capability. How the Pentagon will adjudicate risk—when the tradeoffs between transformation, mere modernization, and current operations are more stark—remains uncertain but should be clarified by the results of the 2005 QDR, currently under way and due to be delivered to Congress in February 2006. If senior leaders are preoccupied with current events in Iraq and Afghanistan, however, the chances that difficult decisions will be avoided probably increases.

Other challenges to transformation are clearer. One challenge is conceptual clarity. Uncertainty is not a principle that can form the basis for defense planning. It is awkward to insist simultaneously, as the Pentagon has done, on the need to assume surprise as a condition of the future security environment and on the need to invest heavily in global intelligence to reduce the chance of surprise. It is possible to argue for the flexibility to respond well to surprise while trying to reduce its likelihood, but there is a tension between the two. Why invest billions in global intelligence if the result is invariably surprise? Ultimately, limited resources must go to one area or another based on an assessment of where they do the most good. It is inescapably important to make reasoned judgments about the future security environment and how to respond to the most critical anticipated problems.

The challenge for defense planners now is to cope with increased variability in

both the threat and the options for dealing with a diverse set of threats. Sharply defining the essential elements of the security problems embodied by the JOCs would be helpful for illuminating choices and increase the likelihood that joint operating concepts will fulfill their role as engines of transformation. Improving JOCs would also help accelerate the development of capabilities-based planning, which in turn is necessary to properly evaluate options for global force management, design, and posture. The need to assess and manage risk in light of far greater threat and capability variability is the *raison d'être* of capabilities-based planning. The significance of increased variability is that it increases the complexity of defense planning and analysis. Complexity can be managed only by holding firm to several large, foundational ideas about what the future will demand (that is, relying on a “vision” of what circumstances require). Yet as this paper has argued, even within the framework of a coherent vision, senior decisionmakers cannot make tough decisions about defense programs without supporting concepts, organizations, and new modes of analysis; at least, they cannot do so very well, neither substantively nor politically.

How one goes about transforming what is undisputedly already the world’s greatest military power is bound to be highly contentious. It is critically important to have a transparent and well-understood process that generates analysis and evidence about where it is best to take and minimize risk while implementing transformation.⁵⁵ In this regard, there is a clear need to tighten up and accelerate joint operating concept development and to better institutionalize the other key elements of a capabilities-based approach into a new planning and resource allocation system. Such a system will be critically needed to support the difficult choices inherent in all transformation decisions, but especially for choosing between alternative force postures and designs

under the aegis of global force planning, which puts established defense programs at risk and affects congressional constituencies across the United States, as well as numerous allied and friendly countries.

Notes

¹ For the Department of Defense’s own assessment of its transformation performance for this period, see William S. Cohen, Secretary of Defense, “Emerging Operational Concepts Quadrennial Report, 1996–1999,” Report to Congress, September 2000. The report was required by Congress (Section 486 of Title 10, United States Code), which directed the Secretary to submit a quadrennial report on emerging operational concepts, new organizational arrangements, and acquisition strategies used to harness emerging technologies, capabilities, and changes in the international order. The report was a gentle prod from Congress to get DOD to move faster on transformation.

² One example was the U.S. Army’s campaign to revolutionize its ability to fight at night with the aid of night-vision devices and precise geo-location devices. All other land forces had to adapt to this innovation or risk being rendered obsolete.

³ Transformation Planning Guidance (Washington, DC: Department of Defense, April 2003).

⁴ This paper analyzes salient aspects of defense transformation and assumes a rudimentary knowledge of defense affairs. For a more general overview of the current administration’s transformation agenda and its critics, see Ronald O’Rourke, “Defense Transformation: Background and Oversight Issues for Congress,” Congressional Research Service Report for Congress, updated December 20, 2004.

⁵ The March 2005 National Defense Strategy changed this list from six operational goals to eight operational capabilities, most notably adding “operating from the global commons,” “improving proficiency against irregular challenges,” and “increasing capabilities of partners, international and domestic.” Other modifications are consistent with the original list.

⁶ Greg Jaffe and Jonathan Karp, “Military Cuts Target Old Ways of War: Pentagon budget proposal would hit Navy, Air Force; Shipbuilders face squeeze,” *The Wall Street Journal*, January 25, 2005, 3.

⁷ The Transformation Planning Guidance advertised senior leadership commitment to transformation, articulated a strategic rationale for transformation, and described a strategy for pursuing transformation, all in order to “mobilize the rest of the Department and stimulate the bottom-up innovation

required for successful transformation.” It was intended to establish a process that would “define transformation investments that address future risk with enough specificity that they can be balanced against the other three primary risk areas identified in the Quadrennial Defense Review: force management, operational, and institutional risk.” Transformation Planning Guidance, 3.

⁸ *Network-centric warfare* has been defined as “the combination of emerging tactics, techniques, and technologies that a networked force employs to create a decisive warfighting advantage.” Department of Defense, Office of Force Transformation, *Military Transformation: A Strategic Approach* (Washington, DC: Office of Force Transformation, 2003). Joint Forces Command has defined *effects based operations* as “a process for obtaining a desired strategic outcome or ‘effect’ on the enemy, through the synergistic, multiplicative, and cumulative application of the full range of military and nonmilitary capabilities at the tactical, operational, and strategic levels.”

⁹ Department of Defense, *Joint Operations Concepts* (Washington, DC: Department of Defense, November, 2003).

¹⁰ Transformation Planning Guidance, 15.

¹¹ Currently, the Pentagon has two categories of supporting concepts: joint functional concepts (JFCs) and enabling concepts called joint integrating concepts (JICs). A JFC describes how the future joint force will perform a particular military function. The current set of JFCs include force application, protection, battlespace awareness, command and control, focused logistics, network-centric operations, force management, and training. JICs provide more specificity and a narrower focus. JICs describe fundamental tasks, conditions, and standards required to conduct narrow missions that support the broader JOCs and JFCs. Their level of detail permits more rigorous assessment of alternative capabilities. JICs have been developed for forcible entry operations and undersea superiority, and future JICs will include global strike operations, sea-basing operations, air and missile defense, joint command and control, joint logistics, and joint urban operations.

¹² Recently the Pentagon categorized future security problems in four areas: *traditional* large conventional force attacks, *irregular* attacks by terrorists and insurgents, *catastrophic* attacks involving weapons of mass destruction by terrorists or rogue states, and *disruptive* challenges, such as breakthrough technologies or other novel nontechnical asymmetric tactics. The joint operating concepts could be aligned with these categories, although it is difficult to envision a concept for disruptive challenges, which operationally would seem to be highly situation dependent, and best dealt with as an intelligence and research and development

challenge. Current work on the Quadrennial Defense Review (QDR) is exploring alternative depictions of the most critical security challenges as well. See Jason Sherman, “‘Revenue-Neutral’ Quadrennial Review to Squeeze Big-Ticket Programs,” *Inside the Pentagon*, January 27, 2005, 1. Sherman reports that a draft version of the QDR “terms of reference” indicate that “the review is set to examine four strategic problems: countering Islamic extremism, which includes “ensuring the demise of terrorist networks”; dealing with a “failed” nuclear-armed state; the military’s role in homeland security; and the conventional military of an emerging power.”

¹³ Department of Defense, *Homeland Security Joint Operating Concept* (Washington, DC: Department of Defense, February 2004).

¹⁴ Department of Defense, *Strategic Deterrence Joint Operating Concept* (Washington, DC: Department of Defense, February 2004). All the joint concepts reviewed in this paper are available online at <www.dtic.mil/jointvision/joc.htm>.

¹⁵ The concept identifies both direct and enabling means. Direct means include force projection, nuclear strike, active and passive defenses, global strike, strategic information operations, inducement operations, and space control. Enabling means include global situational awareness, command and control, overseas presence, and allied/coalition military cooperation and integration.

¹⁶ Department of Defense, *Major Combat Operations Joint Operations Concept* (Draft) (Washington, DC: Department of Defense, September 2004).

¹⁷ The concept actually mentions three categories of potential adversaries for large-scale operations: conventional, high-end regional threat; a major irregular enemy; and a peer competitor. Although the peer competitor is considered the most dangerous alternative, the assumption is that no near-peer competitor will emerge by 2015. Furthermore, it is assumed that the conventional, high-end regional threat will have a greater impact on total capability requirements, so the initial version of the concept does not address a major irregular enemy in any detail.

¹⁸ The question of information redundancy and whether platforms ought to retain sufficient information-processing capability to enable them to fight independent of the network is a critical issue. Some might argue that it is too detailed for an operating concept or that it need not be addressed in such an early version of the concept.

¹⁹ Department of Defense, *Stability Operations Joint Operations Concept* (Draft) (Washington, DC: Department of Defense, September, 2004).

²⁰ The rise of modern insurgencies in the past 50 years has been characterized as a new form of warfare called fourth-generation warfare. This form of warfare has been particularly vexing for U.S. forces in Vietnam, Lebanon, Somalia, and most recently in Iraq. Critics of defense transformation argue that high-technology, information-aged warfare is inappropriate for this type of adversary. See Thomas X. Hammes, *Insurgency: Modern Warfare Evolves into a Fourth Generation*, Strategic Forum No. 214 (Washington, DC: National Defense University Press, January, 2005).

²¹ U.S. Marine Corps, *Small Wars Manual* (Washington, DC: U.S. Government Printing Office, 1940), chapter I, 1–9(f), 1–16(c); chapter II, 2–5.

²² See John F. Schmitt, “A Practical Guide for Developing and Writing Military Concepts,” Working Paper #02–4, Defense Adaptive Red Team (McLean, VA: Hicks & Associates, December 2002).

²³ Department of Defense, *Joint Operations Concepts*.

²⁴ Some would consider the classic principles of war (mass, objective, security, simplicity) to be a good starting point. Others prefer the core military elements championed by some Army sources (sense, move, shoot, communicate, protect, sustain). A more recent example of an organizing framework is the three domains of warfare identified by the Pentagon’s Office of Force Transformation: cognitive, informational, and physical. The Office of Force Transformation asserts that the nexus of these three domains is the capabilities necessary to conduct network-centric warfare.

²⁵ The QDR referred to a capabilities-based strategy, approach, model, and force. Our concern here is primarily with planning, so the term *capabilities-based planning* is used. Ultimately, a broader term such as *approach* is probably more appropriate since certainly the scope of reform exceeds planning.

²⁶ George W. Bush, quoted in the Transformation Planning Guidance, 3.

²⁷ *QDR Report*, September 30, 2001; section on “A Capabilities-Based Approach,” 13–14. The link drawn between capabilities-based planning and transformation is made even more explicit in the foreword to the report:

Adopting this capabilities-based approach to planning . . . entails adapting existing military capabilities to new circumstances, while experimenting with the development of new military capabilities. In short, it requires the transformation of U.S. forces, capabilities, and institutions to extend America’s asymmetric advantages well into the future.

²⁸ *Ibid.*, 3.

²⁹ Examples of such influences are service parochialism, special pleading by select offices within the

Office of the Secretary of Defense, and imprecise studies based on faulty methodologies or data.

³⁰ *QDR Report*, 14.

³¹ Such a document was called for at a recent Pentagon-sponsored symposium on capabilities-based planning. See Military Operations Research Society, Capabilities-based Planning Workshop, Outbrief (Long Version), November 16, 2004.

³² Global posture and capabilities received somewhat more attention than global force management in 2001, but subsequently it has become a major area of interest and activity in the Pentagon.

³³ *QDR Report*, 26.

³⁴ The description of new tools and processes to support global force management is drawn primarily from the Operational Risk section of the 2004 Secretary of Defense Annual Report to the President and the Congress.

³⁵ “The Global Force Management process, now being developed, will provide insights into the global availability of forces, allowing military planners to do quick-turn, accurate assessments of how force changes will affect our ability to execute plans and evaluate associated risk. These assessments, in turn, will help us match the right force capabilities to emerging missions while providing visibility to stress on the force caused by frequent deployments away from home station.” 2004 Secretary of Defense Annual Report to the President and the Congress, 33+.

³⁶ According to the 2004 Secretary of Defense Annual Report to the President and the Congress, the Pentagon formally assigned roles and responsibilities for the new global force management process in 2004 and work is under way on improving force structure data and providing new risk assessment methodologies. A prototype of the new system using the Army is to be completed in fiscal year 2005, at which time the new global force management process will be represented in the “Forces For Unified Commands” document, which formally assigns forces to combatant commanders.

³⁷ They were as follows: Transportation Command to support regional combatant commands with transportation; Special Operations Command to support other commands with special operations forces; and Strategic Command to provide nuclear weapons and deterrence. Joint Forces Command (formerly Atlantic Command) had both functional (joint experimentation) and regional (U.S. and Atlantic Ocean) responsibilities.

³⁸ See briefing on the Unified Command Plan of 2002 at <www.defenselink.mil/transcripts/2002/t04172002_t0417sd.html>.

³⁹ Some would say NORTHCOM is a functional command, with a regional command’s name.

⁴⁰ Russia had previously not been assigned to a combatant commander's area of responsibility but had been in the portfolio of the Chairman of the Joint Chiefs of Staff.

⁴¹ These "missions" could be seen more as capabilities than missions.

⁴² This change was made by a Secretary of Defense executive order and has not yet been written into the Unified Command Plan.

⁴³ Anthony Zinni, speech at the Center for Strategic and International Studies, December 7, 2004.

⁴⁴ Clark A. Murdock et al., *Beyond Goldwater-Nichols: Defense Reform for a New Strategic Era*, Phase I Report (Washington, DC: Center for Strategic and International Studies, March 2004), 63.

⁴⁵ This option might be either in addition to having regional combatant commands, or instead of them, with regional political-military issues and security cooperation handled by the new interagency organizations—in which case operations could be under the command and control of joint task forces, or functional and/or global combatant commands.

⁴⁶ One measure of merit for evaluations might be "How many times did you talk to your counterpart in another command or agency each week?"

⁴⁷ By way of just one example, Madrid's *La Razon* reported on September 13, 2004, that Spain would lose U.S. bases to Portugal and Italy because of Spain's decision to withdraw its forces from Iraq. See FBIS, EUP20040913000281. The article claimed that Naples would be the new headquarters of the U.S. Naval Forces Europe and that Gaeta (Sicily) would keep the U.S. Sixth Fleet originally offered to Rota (Cadiz), Spain. Furthermore, it reported that Oeiras (Lisbon) would host the standing structure of the planned North Atlantic Treaty Organization Response Force, and therefore Lisbon would also become the Joint Headquarters under the command of the vice admiral of the Sixth Fleet.

⁴⁸ See Jong-Heon Lee, "U.S. Intent Questioned: Seoul seen as base for role in China-Taiwan fight," *The Washington Times*, December 3, 2004, 17. Lee relates how a South Korean legislator raised concerns that the U.S. intention was to use South Korea as a base for potential military operations in the event of a conflict between China and Taiwan. However, the same article demonstrated that American diplomacy was having some effect. It noted that Foreign Minister Ban Ki-moon said South Korea was not opposed to U.S. forces playing a greater role in Northeast Asia unless it meant a weakening of the combined defense posture for ensuring peace and stability on the Korean Peninsula. Mr. Ban stated, "I admit the necessity of what the Americans call strategic flexibility," and noted that the global security situation had changed in the past 50 years.

⁴⁹ See Anthony Faiola, "Japan Plans to Press U.S. on Troops: Foreign Minister Seeking Reduction of 'Burden' on Okinawa," *The Washington Post*, October 6, 2004, 24. Faiola reported that the Japanese Foreign Minister, Nobutaka Machimura, said he would press his country's case for reducing what he called "the excessive burden" placed on Okinawa by the presence of U.S. troops while leaving adequate forces in Japan to promote security in the region.

⁵⁰ Katie Worth, "B-52 Bombers Arrive: Andersen to host continuous rotation of aircraft," *Pacific Daily News* (Guam), February 23, 2004.

⁵¹ See Frances M. Lussier, "Options for Changing the Army's Overseas Basing," Congressional Budget Office Report, May 2004, especially 47. Lussier concludes that options for restationing of Army forces overseas would only make small improvements in the Army's strategic responsiveness, at least with respect to Germany. In part because of an excellent German transportation network (that the United States has invested in), the time required to deploy Army heavy units by sea to many potential trouble spots is not significantly shorter from Eastern Europe than it is from Germany. It also takes much longer to deploy a heavy brigade combat team from Eastern Europe than to deliver the prepositioned set of equipment that is maintained on board ships at Diego Garcia in the Indian Ocean.

⁵² Defense Science Board, *Report on Sea Basing*, August 2003. Accessed at <www.acq.osd.mil/dsb/reports/seabasing.pdf>.

⁵³ Secretary of Defense, Annual Defense Report to the President and the Congress, 2004, 39.

⁵⁴ Unfortunately, one important trade area associated with global intelligence became public recently. See "Disclosures about Program to Develop Spy Satellites Could Prompt Investigation," *The Wall Street Journal*, December 13, 2004, 5.

⁵⁵ For example, Members of Congress and their staffs wanted to see the operational analysis that drove the Pentagon's decision to cancel the Crusader self-propelled artillery system. More recently, in an open forum discussion with defense writers, Undersecretary of Defense for Policy, Douglas Feith, promised that the Defense Department would provide lawmakers with analysis that would put proposed defense program cuts into context. Apparently the promise emerged in response to speculation about the fate of Lockheed-Martin's C-130 program, which has numerous and powerful proponents on Capitol Hill. See Shailagh Murray, "Bush Faces Pentagon Gunfight: Proposed Weapons-System Cuts Stir Republican Opposition," *The Wall Street Journal*, February 1, 2005, 4.

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