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Resurrecting Transformation for the Post-Industrial Era

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Overview

We must hold our minds alert and receptive to the application of unglimpsed methods and weapons. The next war will be won in the future, not in the past. We must go on, or we will go under.

—General of the Army Douglas A. MacArthur,
while serving as Chief of Staff, 1931

The Bush administration took office amid high hopes for the fundamental transformation of the Armed Forces. Yet within months, the problem that transformation was designed to solve—changing a large, expensive Industrial Age structure, especially the Army, into a leaner, more strategically agile Information Age force—receded as more pressing issues arose. Instead of being transformed, Cold War military structures will remain unchanged for the time being, while morale and quality of life are shored up. Into this policy vacuum, military leaders have tossed an expensive collection of wish lists that tend to one of two extremes: a bigger, faster, better version of some platform already in use, or something out of science fiction with delivery timelines that stretch all the way to 2032.[1] Although these modernization programs are billed as promoting transformation, they are business as usual.

Fortunately, this is not the whole story. Help may be on the way. The terms of reference for the current Quadrennial Defense Review (QDR) anticipate the emergence of new ground, naval, and air forces reorganized for "more rapidly responsive, scalable, modular task-organized units, capable of independent combat action as well as integration into larger joint and combined operations"[2] sometime after 2006. How the bureaucratic politics of service-centric operational thinking and single-service modernization will produce this outcome is unclear.

This statement also begs the question, why wait until 2006 to build *joint* warfighting capabilities with today's forces and technologies when the United States needs—and can achieve—these capabilities now to protect its global interests? Experience in the private sector demonstrates that successful corporations do not plan to transform in the distant future; they transform constantly, just as the world around them transforms. Military transformation is a process, not an end-state that depends on exotic technologies that may not be available for decades. America can lose its position of military dominance only by standing still and investing in the past.

Rethinking Transformation

Transformation—defined as change in the structure of command, control, training, readiness, doctrine, technology, and organization for combat—can produce short-term economies *and* increased capability well before 2006. Transformation can be phased in now through continuous adaptation, using today's forces and technology with reform and reorganization that will result in significant

Center for Technology and National Security Policy

The National Defense University established the Center for Technology and National Security Policy in June 2001 to study the implications of technological innovation for U.S. national security policy and military planning. The center combines scientific and technical assessments with analyses of current strategic and defense policy issues. Its major initial areas of focus include: (1) technologies and concepts that encourage and/or enable the transformation of the Armed Forces, (2) developments by defense laboratories, (3) investments in research, development, and acquisition and improvements to their processes, (4) relationships among the Department of Defense, the industrial sector, and academe, and (5) social science techniques that enhance the detection and prevention of conflict. The staff is led by two senior analysts who will hold the Roosevelt Chair of National Security Policy and the Edison Chair of Science and Technology and who can call on the expertise of the university community and colleagues at institutions nationwide. The papers published in the *Defense Horizons* series present key research and analysis conducted by the center and its associate members.

improvements in the quality of life and morale, as well as the fighting power of soldiers, sailors, airmen, and marines.

The Bush administration needs a unifying strategic vision for the post-Industrial Age that can drive transformation. The first step requires recognizing that the two-major theater war (MTW) capability strategy based on known threats, doctrines, and orders of battle no longer applies. The second step requires developing a new strategic formula for the use of American military power that is neither scenario-dependent nor based on service-centric concepts and structures designed to deploy masses of men and materiel; the focus must be on critical warfighting capabilities.

Dramatic advances in technology and 10 years of experience point the way to a paradigm shift in warfare that will reshape the structure of American military power through the integration of ground, naval, and air forces within a joint, network-centric system of warfare. To cope with the new strategic environment, a new operational paradigm based on air, space, missile, and information power must emerge long before 2006 to support military operations scaled to meet the requirements of any contingency exactly as envisioned by the Secretary of Defense in the context of the QDR. At the same time, a fresh approach to American military strategy and the employment of American military power is needed—an approach that buttresses the stability of key states around the world, preserves American access to critical bases and infrastructure, and operates to prevent regional crises and conflict rather than react to them.

These points raise a host of questions. What conclusions can be drawn about the direction of the Bush administration's strategic review process and its impact on transformation? What are the strategic implications of review recommendations? And, finally, how can the Bush administration move from the implications for change in strategy, structure, and jointness, derived from the strategic review process, to implementation of real transformation?

These are big questions, but transformation, strategy, jointness, and, strange as it may seem, readiness, are inextricably intertwined. Otherwise, transformation is reduced to a service-centric, Industrial Age quest for a new armored vehicle, ship, or airplane that can transform warfare, as the rifled musket and the machine gun are thought to have done. That approach would miss the real promise of the Information Age—the potential for revolutionary change and transformation through the integration of critical military capabilities across service lines.

Where Is Transformation Headed?

In his speech at The Citadel on September 23, 1999, then-Governor George W. Bush promised to begin an immediate, comprehensive review of the American military—the structure of its forces, the state of its strategy, the priorities of its procurement—conducted by a leadership team under the Secretary of Defense. Bush also noted that he wanted to move beyond marginal improvements to replace existing programs with new technologies and strategies and exploit the opportunity to skip a generation of technology. Shortly after being appointed Secretary of Defense in early 2001, Donald Rumsfeld used this guidance to create dozens of panels to study a range of security issues. The reviews ended in June 2001, and administration leanings on the criticality of jointness to transformation are discernible from the results that have been released.

General James P. McCarthy, USAF (Ret.), who led a panel on transformation, presented recommendations on June 12, 2001, that highlighted the concept of multiservice early-entry "Global Joint Response Forces." According to McCarthy, these forces would combine units from different services as tailorable force modules that train and exercise together and build on common building blocks: command-and-control systems, intelligence, surveillance, and reconnaissance capabilities, space-based assets, and joint logistics capabilities. Though few details on the structure of such a force were provided, McCarthy stressed that the panel was not talking about a new force, but how to organize, exercise, and train the existing forces and what capabilities to give them.[3]

RAND analyst David Gompert led the panel on America's conventional forces. He echoed McCarthy's recommendations when he told reporters in a June 22 briefing that all joint units must be "ready, rapidly deployable, and employable; tailorable for [a] range of operations; easily integrated and networked; [and] supportable despite distance and dispersion."[4] When asked about transformation initiatives during testimony in Congress in June, Secretary Rumsfeld listed "rapidly deployable standing joint forces" as part of a new approach to handling military operations in both the near and long term.[5]

Why is this important? For the first time in recent history, a top-level defense review did not focus on what used to be the outputs of defense planning: carrier battlegroups, fighter wings, army divisions, and marine expeditionary forces. Instead, the defense review posed the vital question: What are the capabilities that a joint force commander needs today and will need in the future? Asking this question in the context of defense planning converted the traditional outputs of defense planning to inputs and equated the results of defense planning with the capabilities provided to a joint task force (JTF) pursuing an operational mission. In theory, this overturns the unstated World War II-era assumption (despite the Goldwater-Nichols Act of 1986) that developing tactical capabilities and conducting operations remain a purely service function. In this sense, the implications are profound for American defense policy and the administration's subtle advocacy for change.

If implemented as outlined by the panel in its published recommendations, JTFs would become the order of the day. Command at the three-star level and above would become joint. Service Title 10 functions would be modified to focus exclusively on organizing, training, and equipping for *specific joint roles and missions* versus current service missions. The services would then provide the JTF building blocks or force modules based on the core competencies of each branch.

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The recommendations also set the stage for legislation to abolish the World War II mode of relatively independent, sequential missions accomplished by service components under a regional warfighting commander in chief (CINC). This change presumably would lead to the elimination of single-service, three- and four-star headquarters that would no longer be required for the command and control (C^2) of joint forces and that otherwise divert needed personnel and financial resources. Finally, as forces are converted to building-block formations for JTFs, the resulting Armed Forces could adopt a joint rotational readiness base that would make deployments more predictable and that would identify the ground, naval, and air forces available at any given time for contingencies. If carried through to its logical end, the new administration's brand of joint transformation would end the wasteful practice of pouring billions into the services to build sufficient capability to compensate for the hopelessly inefficient single-service mode of employment under a weak and inadequate joint command and control structure. All of these measures could reduce unneeded bureaucratic layers and yield efficiencies that promise significant resource, dollar, and personnel savings.

However, regardless of the national military strategy, the services will oppose change that does not give their core competencies due appreciation in defense planning and spending.[6] Although the Goldwater-Nichols Act was supposed to address this problem, so many single-service headquarters and control structures survived the process (on the grounds that joint organizations had yet to demonstrate success) that enormous and expensive redundancies remain.

Now that the conceptual groundwork has been laid, the issue is how to maintain the current readiness of the Armed Forces to conduct operations while transformation is implemented through changes in organization, doctrine, and technology.

From Implications to Implementation

As reported in the press,[7] the new national military strategy establishes four objectives: to assure friends and allies, dissuade future adversaries, deter threats and counter coercion, and defeat adversaries if deterrence fails. To these strategic tenets must be added the administration's reported willingness to scrap the scenario-based two-MTW requirement that has driven U.S. military strategy since the end of the Cold War and to replace it with a one-war-plus policy.

These elegantly formulated tenets of national military strategy provide neither a formula that translates theoretical goals into attainable strategic military objectives nor guidelines for sizing or employing the force. The problem is not hard to fathom. The absence of Soviet tank armies poised to invade allied territory on short notice complicates matters. Only North Korea fields a force designed to attack on short notice, and this force is rapidly declining in capability and strength. In the meantime, a complex range of threats to American and allied interests is emerging that no single service can address. Accounting for this inability is the fact that future state and nonstate actors will possess not only some form of weapon of mass destruction but also a limited supply of precision-guided munitions, modern air defense technology, and access to electronic intelligence and satellite imagery provided by third powers. (This is why theater and national missile defense must be seen as part of a broader joint transformation strategy.) In sum, a broader range of enemies armed with new mixes of technologies—some Industrial and some Information Age capabilities—will confront the Armed Forces. Adversaries do not require the ability to defeat those forces, only to frustrate their employment in some way.

JTFs will need highly mobile, rapidly deployable forces-in-being. These forces must be structured for interoperability

Whatever strategic framework the administration adopts, it will have certain, unavoidable core features because it must link the raw military capability to dominate the strategic landscape to those areas of the world where economic progress and political stability directly benefit American and allied security. If defense planners will stop trying to predict the future, they will be able to identify straightforward requirements for America's military:

- The Armed Forces must be able to intervene militarily and fight in areas where the United States and its allies have no presence but have either declared strategic interests that are threatened or a real political stake in the outcome.
- They must also maintain an overseas military presence on land, at sea, and in the air in pivotal states or regions to ensure that the United States and its allies can either influence or become involved in crises or fight in conflicts that directly impinge on strategic interests.

This means selectively using JTFs in war and peace to buttress the stability of key states, primarily around the Eurasian periphery, the Middle East, and North Africa and operating to prevent regional crises and conflicts rather than reacting to them. (This regional focus takes into consideration that the rest of the world either is friendly toward the American people or can present no significant resistance to American military power.) In terms of force design and employment, the implications for military transformation of this peripheral strategy are clear:

- JTFs will need highly mobile, rapidly deployable forces-in-being. These forces must be structured for interoperability within an evolving joint framework to incorporate and exploit new technology on a continuous basis.
- Some portion of the ground, naval, and air forces will be forward deployed in key states to preserve American access to critical infrastructure so that the United States can project military power inland. Forward-deployed forces provide tangible evidence of American commitment and a link to the larger strategic power of the United States. In the absence of large forces poised to attack our allies, fewer forces will be needed in a forward-deployed posture than previously, which presents the opportunity to reduce, though not eliminate, expensive overseas garrisons.

What military power remains—the bulk of the Armed Forces—must be capable of moving rapidly from widely dispersed staging areas overseas and within the continental United States, deploying into crisis or conflict and initiating offensive operations, all without pausing. Organizing these ground, naval, and air forces into specialized modules of combat power on rotational readiness so that they can rapidly assemble into joint task forces is vital.

The 1999 Kosovo crisis illustrates the need for rapidly deployable, ready ground forces to integrate seamlessly into the global

Joint Readiness Deployment Cycle

	6-month phases in an 18-month cycle		
	Pre-Deployment Training Phase	**Deployment Phase**	**Reconstitution Phase**
	Service Control	**Joint Control**	**Service Control**
Army Combat Forces	Army formations smaller than divisions, larger than brigades	Army formations smaller than divisions, larger than brigades	Army formations smaller than divisions, larger than brigades
Navy Expeditionary Forces	Surface combat groups, carriers, etc.	Surface combat groups, carriers, etc.	Surface combat groups, carriers, etc.
Marine Expeditionary Forces	Marine Expeditionary Brigade + 3 Marine Expeditionary Units	Marine Expeditionary Brigade + 3 Marine Expeditionary Units	Marine Expeditionary Brigade + 3 Marine Expeditionary Units
Air Force Expeditionary Forces	AEF elements	AEF elements	AEF elements

strike capabilities that American air, missile, information, and space power make possible, both to exploit their potential and to guarantee the safety of the deployed American and allied ground forces. If technology can be exploited to create the conditions for an Inchon-style operation wherever strikes are concentrated, the development of a new structure for readiness and training that is inherently joint is critical. One way to pursue this goal is to treat the forces under service control as a pool of capability packages and place them into a joint rotational readiness structure.

This is different from the notion of standing JTFs that would permanently control large numbers of forces normally under service command and control. A glance at the military organization chart during the Cold War explains why. At the top was the National Command Authorities, below which were the CINCs, then the service component four-star headquarters, then the three-star numbered Army corps, fleets, marine expeditionary, and air force headquarters. Below these were the above-the-line forces such as Army divisions and Air Force fighter wings. Today, nothing has changed at the top, but the bottom layer has contracted, which implies greater sharing of the forces by the same number of higher echelon headquarters.

Clearly, the echelons need to be reduced, but replacing them with standing JTFs that permanently control the shrunken forces at the bottom may not be the answer. For example, the two JTFs or global joint response forces suggested by Gompert would have to be designed for the full range of missions, from an Operation *Desert Storm* to an Operation *Sea Angel*. This seems unworkable and would limit flexibility.

Instead, reconfiguring existing single service three- and four-star headquarters to U.S. Joint Force Command modules and assigning them to joint command and control in the regional warfighting commands could provide the assets from which the CINCs can establish operational JTF command structures to command these forces. The JTFs could be established on the basis of specific mission requirements, albeit much more rapidly and effectively than is the case today. This arrangement also avoids the complicated and unrewarding interservice squabbling associated with the establishment of any one-size-fits-all JTF headquarters.

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The approach outlined here preserves today's forces that deploy and fight by creating a larger, predictable pool of ready, available ground, naval, and air forces on rotational readiness. These forces can be rapidly deployed to regional commands with a combination of strategic air and fast sealift to arrive in strategically pivotal regions "before the peace is lost." This approach is vital to the readiness of today's forces while routine joint experimentation and modernization are conducted. It also promises to reduce personnel tempo and make deployments and costs more predictable. A possible structure could resemble the following:

Training cycle (6 months): Unit and individual training is conducted under service control.

Deployment cycle (6 months): Units are ready for deployment to joint command and control and become part of the pool that responds to major theater of war missions, crises, peace support operations, or whatever mission the National Command Authorities assign.

Reconstitution cycle (6 months): Unit returns to home station for refitting, modernization (if required), and leave.

Clearly, this structure also facilitates regular joint training of the forces that are likely to be committed within the readiness windows and makes the commitment of the Armed Forces more comprehensible to the National Command Authorities. Perhaps more important, it allows more humane treatment of the soldiers, sailors, marines, and airmen who must deploy on a routine basis.

Transforming Concepts and Organization

Secretary Rumsfeld insists that new joint operational concepts are the keys to both transformation and rationalizing defense. But what is a joint operational concept, and how does one develop? A joint operational concept involves the integration of *service core tactical capabilities* on the *operational level* to achieve unity of purpose and action in the conduct of military operations. American naval aviators in the interwar period developed new operational concepts when they experimented with the employment of carrier-based aviation to reverse the striking and supporting roles of battleships and aircraft carriers. In fact, American naval tactics evolved throughout World War II, and by 1945 no category of warship except minesweepers was employed for the purpose for which it originally had been built.

new joint operational concepts and structures that integrate diverse service capabilities require a new joint operational architecture to be effective

Studies of European and American forces during the interwar period suggest a pattern of transformation that is still relevant today:

- A new operational concept
- A new doctrine and organization to execute the concept that increases fighting power
- A new joint operational architecture to integrate the technologies of ground, naval, and air warfare
- A new approach to modernization, education, training, and readiness.

To this pattern must be added the corollaries that information processes are also sources of combat power and should drive organizational design for combat and that warfighting systems must evolve along with concepts and organizations; the current pace of technological development is so fast that static organizational thinking is impossible. Adaptive structures for the continuous incorporation of new technologies to provide new capabilities are essential.

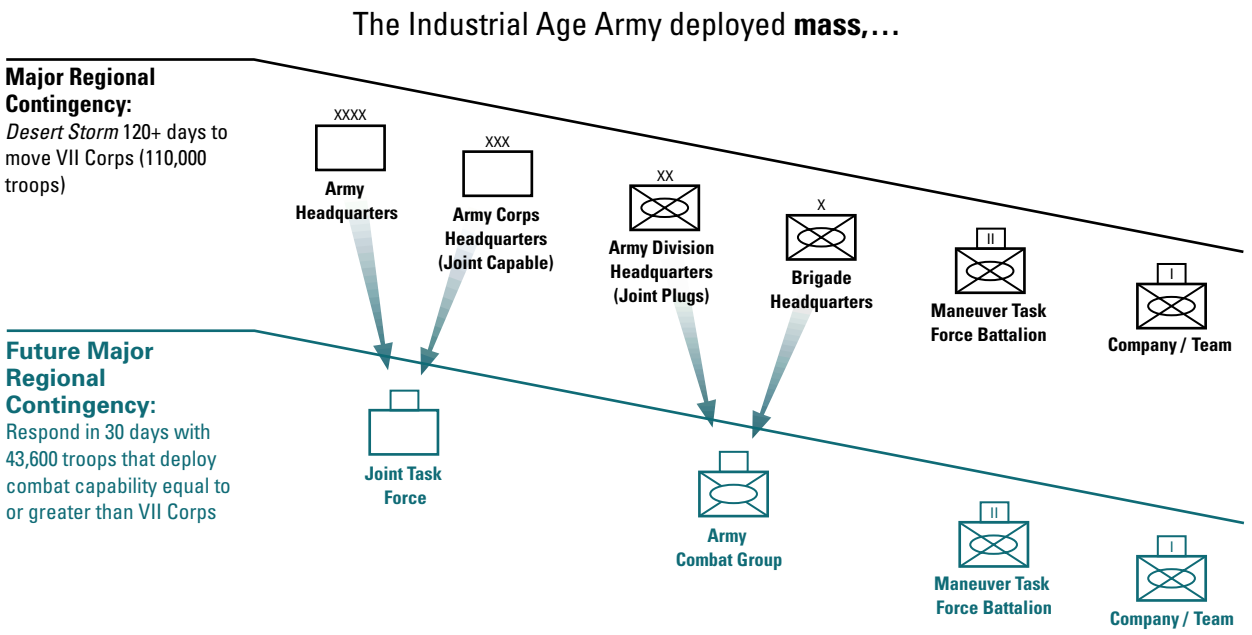
The current integration of strike and maneuver assets linked through a nodal architecture empowered by new terrestrial and space-based communications is the foundation for a new joint operational concept with enormous potential, but few people are sure how it would work in a purely joint setting. However, effects-based operations, which originated in the naval and air forces, present an opportunity to demonstrate the integrative nature of joint network-centric warfare in action.

The concept of creating effects to achieve a specific political-military objective is inherently joint and network-centric; the ground, naval, and air forces involved must be interconnected or netted to be effective. This condition makes it imperative that all parts of the joint force see the same picture of the battlespace and that whatever one part knows is available to the whole force.[8] To transform how enemy ground forces are attacked in the future, the United States must exploit its unique and unprecedented airborne ground surveillance and precision-targeting capabilities by jointly detecting, tracking, and targeting a moving or dispersed enemy with ever-increasing speed and precision throughout a large area. This creates an immensely powerful joint warfighting synergy by enabling a joint commander to orchestrate ground, naval, and air forces to achieve effects that complement each other dynamically at the operational and tactical levels of war. The collection, processing, analysis, fusion, and dissemination of information must be addressed in a joint operational setting as new technologies compress events in time and space.

New joint operational concepts and structures that integrate diverse service capabilities require a new joint operational architecture to be effective because this architecture breathes life into the concept in two ways. First, it creates a new set of command relationships that are different from today's World War II legacy single-service warfighting C^2 structure. This set of command relationships provides the C^2 elements from which CINCs constitute joint task forces. Second, it drives the services to organize their core capabilities into specialized modules of mission-focused combat power that can be integrated as required into JTFs. The first point requires change on the operational level to supplant the multitude of single-service component commands at home and overseas with joint command and control elements from which JTFs can be constituted. The second point requires change on the tactical level to achieve the interoperability essential to joint operations.

For the naval and air services, grouping forces to become mission-focused capability packages within a joint network-centric framework is easier than it sounds. Operational thinking in the naval and air forces is converging on ways to exploit jointly the global reconnaissance-strike complex. The Air Force plan to establish 10 Air Expeditionary Forces is a critical step in this direction. Air Force strike packages evolve in response to the required mission and target set. The Navy is accustomed to assembling ships into task forces for specific missions. While new naval platforms are designed and built for strike and maneuver operations in the littoral, existing platforms can be equipped and employed differently to provide the capabilities JTF commanders require.

Transforming the Army for Joint Operations



In recent months, the idea of a Marine Expeditionary Brigade (MEB) has reemerged. It is, in effect, a specialized module of combat power capable of deploying a force of 5,000 or more marines quickly and sustaining combat over a wider area than the 2,000-man Marine Expeditionary Unit can. The MEB is scalable in size and can execute independent missions within JTFs but without the long deployment timelines for a larger Marine Expeditionary Force—the Marine equivalent of an Army corps.[9]

In sum, scaling and equipping naval and air forces for integration into a plug-and-play joint operational architecture may entail modifications in communications and procedures to facilitate joint interoperability, but these actions will not necessitate dramatic organizational change. For the Army, however, the challenge of integration for joint interoperability has proved thus far insurmountable.

Recent history provides plenty of evidence for why change in the American structure for and thinking about warfare is needed now. In contrast to the German attack on France that split the French and British forces by maneuver through and around enemy forces to reach the English Channel, Army ground forces in the Gulf War were slowly and deliberately deployed against Iraq's strength, the Republican Guard Corps. The opportunity to exploit the paralysis achieved in the opening days of the air campaign was lost, and the strategic realities of Baghdad's regional influence did not change. During the Kosovo crisis in 1999, the Army and the Air Force were unable to overcome the single-service nature of American warfare. Because they did not face a robust Allied combat force on the ground capable of decisive maneuver operations, the Yugoslav forces were never compelled to mass and present the target array Allied air forces sought.

General George C. Marshall's vision and structure for expanding efficiently from an army of 200,000 to one that would grow to more than 6 million are a legacy of Henry Ford's assembly line and cannot remain the Army organization for combat or institutional strategy today. The contemporary organization for combat and concepts of warfare were developed when theater missile defense, deep strike operations, JTFs, and real-time information sharing did not exist. New missions for today's ground forces that were either unknown or unanticipated 50 years ago make institutional and organizational change imperative. *Without fundamental reorganization and reform of the Army's warfighting structure, the Army cannot integrate its ground maneuver formations around and through massed precision strikes from joint ground, naval, and air forces to seize the positional advantage in future war.*

Summoning the will to transform the whole Army for the future requires recognizing that the most brilliant victories are not those that cost the most blood or are achieved with the crushing weight of numbers but those that are won by surprise, joint strike, and maneuver to paralyze the enemy. This capability cannot be attained if the Army attempts transformation in isolation from the other services, nor can it transform by re-equipping the old division-based World War II force with new platforms whether they are wheeled or tracked.

When applied to land warfare, joint network-centric warfare demands a "dispersed mobile warfare" design that differs radically from the traditional army, corps, division, and brigade formations of linear warfare. It requires a transformational design with fewer echelons of C^2 and a faster decision cycle that employs joint sensors forward with maneuver elements to provide the coverage needed to exploit the joint potential in the Army's strike formations, as well as the advanced aviation and ground combat platforms in the Army's close combat formations. Maneuver and strike formations are transformed into nodes of joint combat power—deep, close, or sustaining—that have the capacity for joint operations on land similar to the operation of ships at sea.

This necessitates the reorganization of Army forces to become the mission-focused force packages that provide the building blocks for the integration of critical Army capabilities into JTFs. These capabilities range from theater missile defense assets and rocket artillery to combat maneuver forces and modern attack helicopters. This scheme for land power depends on evolving joint systems and a technical architecture (a set of building codes) for successful aggregation.

missiles and embargoes can punish governments and societies, but only ground forces can reach out and fundamentally change them

Reorganizing Army forces for integrated joint operations is essential because JTFs without powerful ground forces will not control events in areas of pivotal American strategic interest. Experience shows that missiles and embargoes can punish governments and societies, but only ground forces can reach out and fundamentally change them. Therefore, the question is not whether American dominance in space, in the air, and at sea can dramatically influence the conduct of all military operations on land as never before. The real question is whether the Army will be compelled to adjust its thinking, doctrine, and structure to exploit the new strategic reality.

Is Help Really on the Way?

In the Information Age, national military strategy, operational concepts, and force designs are all inseparable from the creation of new interdisciplinary teams of armed forces capable of both adaptation and rapid joint employment. This interconnection is why development of forces to operate jointly within a new joint network-centric warfighting structure is vital to transformation. It explains why simply recapitalizing old warfighting structures will not transform the way that America fights. Old structures and old thinking are linked. As Americans in uniform are witnessing the compression of warfighting operations into a new paradigm of simultaneity, there is a widening gulf between service transformation programs and transformation at the operational level, which must be joint.

The various service transformation programs, if pursued separately, would tinker on the margins of America's military status quo or electrify the horse cavalry, rather than fundamentally reform, reorganize, or change national military capability. The thousands of junior officers leaving the Army prematurely provide grim testimony to this fact. They are voting against the status quo with their feet. Only structural and organizational change and new institutional policies will cure this problem.

Without structural and organizational change, thinking is unlikely to change, nor will the substance of the future joint force. Until all of the Armed Forces begin to operate differently with existing assets, the parameters of modernization will not change, unneeded equipment sets cannot be eliminated, and new requirements will not be identified. The Armed Forces must emulate successful businesses by incorporating some new technologies, rejecting others, adapting practices and structures, narrowing or broadening activities—all in response to changing conditions.

Defense officials cite the transformational power of the German Army's operational concept of blitzkrieg as an example for U.S. forces to follow. They note that while only 10–15 percent of Germany's interwar military establishment was actually reorganized and reequipped for this new concept of warfare, the effect was dramatic.[10]

However, the comparison should be extended. The United States is not converting a horse-drawn 19th-century Army into a 20th-century force equipped with combustion engines, aviation technology, and FM radios. Also, whereas the Germans were compelled to develop simultaneously new operational concepts, tactics, and command structures while fielding entirely new sets of equipment, American ships, aircraft, satellites, tanks, guns, and rockets can support transformation now. Finally, German transformation was achieved during the Great Depression, amid political and social turmoil, and in the face of international criticism, whereas the United States is prosperous, stable, and the object of international pressure to become more involved militarily in international developments.

Given these different circumstances, the United States should take no consolation in the fact that Germany succeeded in transforming only 10–15 percent of its military, an amount that should not be considered an adequate goal for American efforts. That small portion of Germany's military was 10 armored divisions—roughly the size of the U.S. Army today. Moreover, partial transformation ultimately proved disastrous for Germany. The performance of the transformed force could not compensate for the World War I-style infantry divisions that hampered the German military in Russia.

Winning the Battle of Ideas

Like Rome after the fall of Carthage, America wields supreme power in the world. But like the victorious Romans, Americans confront new threats and challenges to prosperity and security. America does not hold the patent on innovative ideas or a monopoly on new technology. History demonstrates that an early lead in any one area of military affairs does not convey permanent advantage; Britain introduced the tank in 1916, but Germany exploited it fully.

It is one thing to experiment with a technology or a concept, however, and quite another to displace existing assets or doctrine to make way for the new. Efforts at far-reaching change produce powerful resistance. As Niccolo Machiavelli observed, "There is nothing

more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. Because the innovator has for enemies all those who have done well under the old conditions, and lukewarm defenders in those who may do well under the new." But difficulty is no excuse for inaction. Transformation is not an option, it is an imperative.

The difficulty of change on the strategic level is what makes the President's commitment to transformation so important and difficult. Clearly, the Executive Branch cannot do this alone. Congress must also understand the need and sign on to the policy and plan.

The Nation's elected representatives are obligated for domestic political reasons to think about people, bases, and the defense industry. However, many in Congress would welcome the administration's lead if they believed true and comprehensive transformation were a top priority and were made participants in the process. Since the early 1990s, Congress has sounded a constant theme urging real change inside the Armed Forces, the Army in particular, during hearings and private sessions with the Nation's military leaders because Members of Congress do not view a smaller Cold War force as either prudent or affordable for the times. If they saw evidence that they were dealing with true and comprehensive transformation and were not being asked to support piecemeal reductions in selected defense programs or preserve today's forces in an obsolete Cold War configuration, Members would support administration efforts.

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Historic Opportunity

America's victory over Spain in 1898 marked the beginning of a new era in world affairs. Overnight, America became a world power. Realizing that American national security institutions had reached block obsolescence, President Theodore Roosevelt instructed Secretary of War Elihu Root to devise a new strategy and structure that would position the United States to play its role in the world as a great power. Then, as now, American military thinking lagged behind the technology of war. Then, as now, new thinking and new organizations were required to propel the Nation into the new century.

When the Roosevelt administration bill for Army reform and reorganization came before Congress, many senior officers opposed Root's plan to create an Army General Staff, to convert the 25,000-man Army of cavalry, infantry, and artillery regiments to a force of 100,000 troops and 6 divisions. They asked, "Why change; after all, we won the Spanish-American War, didn't we?"[11] Despite the opposition to change, Roosevelt skillfully maneuvered his bill through Congress, and within 2 years, Root's successor, Howard Taft, quietly retired the bill's opponents.

America's military leaders know in principle that obsolete paradigms lead to military disaster. They can cite historical examples of governments and armies that brought catastrophe on their nations by basing their forces and policies on imperfect or delusional models of the world. Now they have the opportunity to demonstrate that they are not prisoners of the past and that they will not repeat those mistakes.

Few historical figures have had Theodore Roosevelt's ability to recognize changes in the strategic landscape, to conceive the measures necessary for military forces to fight and win in the new environment, and to summon the resolve in himself and others to overcome the inevitable resistance to fundamental change. As America's first President of the 20th century, Roosevelt transformed the Army and Navy when there was no immediate threat to American survival. The result was imperfect, but it provided the foundation for American victory in two world wars. The question is, will the first American President of the 21st century, under similar circumstances, break the deadlock in defense, resurrect transformation, and convert today's disjointed armed services into a truly joint force that can guarantee American security and influence for the remainder of this century?

Notes

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