A Word from the Chairman: Understanding Transformation

By GEN Richard B. Myers, Chairman Joint Chiefs of Staff

When the bombs fell on Pearl Harbor in 1941, they shattered more than the silence of a peaceful Sunday morning; they destroyed the illusion that U.S. military forces were safe at home. During the three and a half years that followed, a world war transformed the U.S. armed forces into a first-rate military. The urgency of fighting a global conflict propelled the genius of Americans to make this transformation a reality.

In a similar manner, September 11th shattered the illusion that Americans are safe at home. Today, we have the same imperative to transform our military forces in order to defeat the new threats of the 21st century and protect our nation. Transformation cannot wait — it must take place as we wage the War on Terrorism. President Bush summed up this challenge: "It's like overhauling an engine while driving 80 miles per hour. Yet we have no choice."[1]

If the U.S. Armed Forces are to meet the President's expectations, those in uniform must have a common understanding of what transformation is and what it is not. Understanding transformation requires appreciating past transformation efforts and the current security environment. This article does not replace the detailed description of our approach to transform the Joint Force found in the new Joint Vision. Instead, it offers insight into the foundation of transformation and its corresponding intellectual, cultural and technological aspects.

Insight from the Past

The history of the U.S. military is a history of the nation's Armed Forces evolving to meet new threats and opportunities. During the Civil War, Generals Grant and Lee exploited the telegraph for theaterwide information-sharing and the railroad network to give their forces theaterwide mobility. During World War I, General Pershing incorporated the airplane to benefit U.S. ground maneuver units and gain information on enemy formations and positions.

A more contemporary example of transformation is how President Eisenhower refocused the nation's defense establishment as the United States entered the Cold War. He adopted the New Look strategy to meet the dual risk of deterring nuclear war and containing communist expansion. His administration fielded strategic nuclear forces to deter a Soviet nuclear attack on the U.S. homeland. His administration also developed tactical nuclear forces, like the Army's Honest John missile, to counter the Warsaw Pact's massive armies aimed at the heart of Europe. For four decades, U.S. military planning, organization and training focused on this dual threat of the Soviet Union and Warsaw Pact. As the threat did not change much, the U.S. military's mental agility to anticipate other challenges remained underdeveloped.

With the collapse of the Soviet Union and the fall of the Berlin Wall, the U.S. military sought to redefine its focus and strategy. The Base Force and Bottom-Up Review of the early 1990s guided U.S. forces away from the "Fulda Gap" mentality. Defense planning, however, remained threat driven. U.S. military forces were organized, trained and equipped to handle the task of conducting two nearly simultaneous regional conflicts against predetermined, conventional, predictable adversaries.

21st Century Security Environment

The 2001 Quadrennial Defense Review (QDR)

Transformation is a process and a mind-set — not a product. Adopting a transformational mind-set means applying current fielded capabilities — in the current environment — to accomplish any assigned mission. In today's fluid and dynamic world, no Service's core competencies can accomplish the mission alone. Transformation is about creating Joint competencies from the separate Service capabilities.

marked a complete departure from Cold War planning. In this document, the Defense Department articulated a more sophisticated appreciation of the 21st century strategic environment, the challenges to U.S. interests, and what military capabilities are needed. Today, the threats to U.S. interests go beyond Iraq and North Korea. During the past decade, political, ethnic, social, and historical factors have given rise to a range of conflict and crisis — from ethnic fighting to mass starvation to massacres. Disparities in economies, resources and populations remain powerful motivators for future intrastate and interstate strife. Likewise, religious and cultural differences may arise that reflect ancient hatreds and cause additional crises around the globe.

Belligerents motivated by this wide array of influences now have access to modern conventional arms markets, a sophisticated industrial production infrastructure, and advanced communications. Advanced production capabilities also mean that hostile nations and agents may have access to weapons of mass destruction — chemical, biological, radiological, and nuclear. In addition, the global $3 trillion communications network allows previously isolated groups to communicate instantly on a worldwide scale. It also gives them access to a wide array of information and intelligence, at little relative cost. The past U.S. monopoly on the latest and most sophisticated capabilities is gone.

The current and future security environment is further complicated by the presence of non-state actors who frequently transcend political borders. As such, they confound conventional diplomacy. Some of these non-state organizations are cooperative and sympathetic to U.S. security objectives — such as humanitarian aid organizations. Others, such as al Qaida and terrorist organizations, are hostile and directly threaten U.S. interests.

In the 2001 QDR, the Defense Department recognized that U.S. defense strategy must emphasize capabilities-based forces to meet such challenges. These forces must be able to rapidly project forces, and sustain them, over great distance into inhospitable and adverse environments. U.S. forces must be capable of rapidly developing intelligence on enemy capabilities, vulnerabilities, intentions, and centers of gravity. U.S. forces must be capable of precision engagement. U.S. command-and-control networks must direct dispersed U.S. and coalition forces to gain massed fires and effects.

Secretary Rumsfeld summed up the task ahead when he said the U.S. military must be prepared "to defend our nation against the unknown, the uncertain, the unseen, and the unexpected."[2] To meet this broad and all-encompassing task, America's Joint team must transform into a capabilities-based force.

Transformation ... What It Is NOT

First, transformation is not just about technology. It's not about wheeled or tracked vehicles, stealthier aircraft, or the types of missiles on submarines. It's not about 20th century forces being renamed with 21st century titles. Such approaches risk reducing important concepts into a budget drill. These mind-sets inspire Service program managers to declare their program as "transformational" and therefore safe in the budget process. This singular mentality reduces transformation efforts into rear-guard actions to defend rice bowls.

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Second, transformation is not just about seeking revolutionary changes in the conduct of warfare. Sudden and dramatic changes do occur. Nuclear weapons and stealth technology are examples of previous remarkable changes.

Revolutionary changes, however, should not be the sole focus of our transformational activities. Silver-bullet solutions to meet future defense requirements are rare.

Finally, transformation is not a new concept. As mentioned previously, the U.S. military has been transforming for two centuries. Military historians can point to how Generals Dwight Eisenhower, Carl "Tooey" Spaatz and Holland "Howling Mad" Smith plus ADM Chester Nimitz transformed American fighting forces during World War II. Fifty years later, Generals Fred Franks, Chuck Horner and Walt Boomer, together with ADM Stan Arthur, also transformed the way U.S. ground, air and maritime forces were employed during Desert Storm.

After the terrorist attacks in September 2001, transformation has taken a new urgency. We must accelerate our efforts to gain transformation's potential for our new security environment. We can't wait until the War on Terrorism is finished. The Joint team needs transformation's agility and responsiveness to defeat those who threaten our nation, our citizens and our liberties. The United States no longer has the luxury of time to prepare.

Transformation ... What It Is

Transformation is a process and a mind-set — not a product. Adopting a transformational mind-set means applying current fielded capabilities — in the current environment — to accomplish any assigned mission. In today's fluid and dynamic world, no Service's core competencies can accomplish the mission alone. Transformation is about creating Joint competencies from the separate Service capabilities. Transformation is specifically about uniting unique Service capabilities into a seamless Joint framework to accomplish the Joint force commander's objectives.

Stated another way, transformation is about demonstrating flexibility, dexterity and adaptability to anticipate how the Joint force can master unexpected challenges. To understand this, warfighters must understand transformation's intellectual, cultural and technological elements.

This understanding of transformation starts with the intellectual element. The most important breakthroughs will take place between the ears of warfighters and planners. Soldiers, sailors, airmen, marines, coast guardmen and DoD civilians must know their units' technical and operational capability. Joint leaders must comprehend the Joint force commander's intent and adapt their capabilities — sometimes in an unanticipated environment — to fulfill that intent. They must understand not just the probable employment of their unit — they must appreciate its possible employment.

Commanders should draw on their previous experience — not just repeat past endeavors. In some cases, transformation may mean reaching beyond doctrine — because doctrine may not have described the specific scenario faced by the warfighter. As a result, transformation involves taking operational risk.

That's not to say military professionals should be reckless. Rather, commanders and leaders must take educated and calculated risks. They must weigh the options — to include the option of doing nothing — in the context of the ultimate objective. Transformation also means encouraging and rewarding subordinates to do the same. That carries an obligation not to punish subordinates when they try something creative and fail.

During the Second World War, GEN George Kenney personified transformation's intellectual element. He adapted the capabilities of the Fifth Air Force in the Southwest Pacific theater to meet GEN Douglas MacArthur's objectives. In one example, during August 1943, Kenney employed six squadrons of B-25s to strafe and bomb the Japanese airfield at Nadzab in advance of an airborne assault. He then used the A-20 Havoc to lay a smoke screen to shield the paratroopers as they descended on the airfield. This innovative use of bombers (to strafe) and attack aircraft (to lay smoke) allowed the U.S. forces to quickly seize the airfield. Kenney comprehended the potential of his forces and employed them in an imaginative way. Kenney matched his forces' capabilities to the mission and environment — rather than trying to make the environment fit his preconceived notions. Stated another way, Kenney motivated his units to perform as the mission required — not as their habit patterns dictated.

Transformation's second element is cultural — it involves the operating culture within and among military units and Services. American military cultures are reinforced by tested checklists and proven tactics, techniques and procedures. It's a comfortable environment of known quantities, familiar faces and common verbal shorthand. Transforming the U.S. military means operating in new ways and sometimes with untested procedures. When a new idea surfaces, we should avoid dismissing it because we never did it that way before. The new idea may not work — but we should first evaluate the concept on its merits. This will require commanders and warfighters to rely on their judgment. Success in embracing the required cultural change will be driven by the degree of trust and confidence among Joint warfighters.

In the past, the trust and confidence among Service components made the difference in combat. Generals "Fighting Joe" Collins and Pete Quesada demonstrated what is possible when warriors extend trust across components' boundaries. Following the breakout at Saint-Lô, Fighting Joe and Quesada created a shortcut in the targeting procedures to support VII Corps' exploitation of the fluid battlefield. Quesada took some of his pilots, gave them an FM radio and had them ride with the lead Army tanks. In the process, they reduced the role of the upper chain of command. Collins

and Quesada delegated the target approval to the lowest level — to the warriors facing the enemy.

No one told them they had to do this. These commanders assumed risk in their operation. After all, Quesada and Collins didn't have approved procedures or prescriptive doctrine. Instead, they demonstrated flexibility and adaptability. They succeeded because they trusted each other's judgment and experience. As a result, they accomplished the mission with far fewer American casualties.

This is just one example of what S. L. A. Marshall observed after the Second World War — "Improvisation is the essence of initiative in all combat."[3] To succeed in the crucible of combat often requires warriors to adopt innovative approaches. As the Joint team comes together, such original concepts will only succeed if there is trust among the Service components.

Technology is the third element of transformation's foundation. For Fiscal Year 2003, the Department of Defense has requested nearly $128 billion for current and future weapon systems and capabilities. The Defense Department must invest in the right capabilities that reinforce its ability to perform the unexpected and master emerging challenges of the 21st century. To be successful in the future, these capabilities must allow Joint commanders to integrate our Service capabilities — not force commanders to deconflict them.

In the past, Joint warfare was segregated warfare. Desert Storm is an example of a successful campaign that had sectored operations. Air operations kicked things off and lasted 38 days. When ground combat began, U.S. Marines attacked in a path along the Kuwait coast; the Arab coalition forces assaulted the middle sector while the U.S. VII Corps and XVIII Airborne Corps swept around the western flank. Close air support sorties were flown during the ground war, but they were employed beyond the sight of the troops they supported. These are a few examples of how we segregated and sequenced our efforts. It was not integration — it was deconfliction.

In the future, the Joint warfighters must meld component capabilities into a seamless Joint framework. The key to this effort will be shared information among the components. That's what Quesada and Collins did by having an aviator with a radio accompany the lead tanks. Transformational technologies are an area of great promise for integrated information-sharing across Service boundaries. Such technological solutions, however, must be applied in an environment of trust.

Interoperable and integrated command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) suites are critical. Joint ISR will allow our commanders to "watch" the enemy. Enhanced Joint command and control will allow Joint commanders to make decisions faster with other members of the Joint force. It allows for horizontal and vertical integration of plans and operations at all levels. The issue is not moving data faster — the issue is moving the right data to the right people. Then, components gain the insight needed to fulfill the commander's intent in an unpredictable environment. Improved Joint C4ISR will allow U.S. forces to exploit a decision cycle — to observe, decide and act — faster than an adversary. History is pretty clear: The side that does this faster — wins.

Improved C4ISR connectivity is more than a military issue. It must extend to information — and knowledge-sharing with other federal agencies and with U.S. coalition partners. The War on Terrorism has demonstrated that all instruments of national power perform best when they have access to the best available and most complete information.

Investing in the right new capabilities requires the Defense Department to ensure that new systems are "born Joint" in order to share information with the other Services' systems. The U.S. military must avoid buying technologies that bolster a Service-centric vision. Such an approach risks segregating the battlefield. To ensure that the systems are born Joint, the Joint Chiefs of Staff are developing a Joint operations concept to better describe how we will operate across the range of military operations and to better evaluate how individual Service capabilities fit into the Joint operational framework.

The Way Ahead

A liberally educated person meets new ideas with curiosity and fascination. An illiberally educated person meets new ideas with fear.

— ADM James Stockdale

Joint professional military education (JPME) is an ideal place for the intellectual, cultural and technological mind-set changes we need to inspire our transformation efforts. JPME must reinforce within the U.S. military — both in the officer and senior noncommissioned officer ranks — the mental agility to understand Service and unit capabilities and match them with the mission at hand. A revamped JPME system must foster an ability and a desire to look forward and anticipate future conflict, which is much different than the ability to look back and recite past solutions. A transformed

The end result of transformation is a dramatically better Joint force. Joint operations will function best when Service capabilities are integrated in a seamless operation.

JPME must teach our leaders not what to think, but how to think and it must foster a culture that accepts intelligent, calculated risk. Most importantly, JPME must inculcate a culture of understanding and trust among the leaders of the Services and agencies.

A transformed JPME requires reforming our intermediate and senior Service schools, incorporating new and focused education for our general and flag level officers and offering Joint educational and training opportunities for those who have not received it before — our junior officers and senior NCOs. These reforms will proceed beyond formal education and training opportunities and include how the U.S. armed forces "grow" senior general and flag officers. Joint task force commanders and regional combatant commanders must have an array of leaders with a full understanding of how to integrate the Joint team prior to a crisis, when the lives of Servicemen and Servicewomen are at risk, and the mission's success hangs in the balance.

The idea that JPME must match the demands of the new security environment is not a new one. When President Theodore Roosevelt accelerated the transformation of the U.S. Armed Forces from a frontier Army and coastal Navy at the turn of the 20th century, he and his Secretary of War Elihu Root placed a premium on the education of the officers who would lead the new forces. The Roosevelt administration matched their procurement of 16 new battleships by expanding West Point and starting the Army War College to educate the officers who would lead the force. Following this model, we know that current and future commanders must have the same intellectual capital to match the technological marvels this nation provides for its defense.

The end result of transformation is a dramatically better Joint force. Joint operations will function best when Service capabilities are integrated in a seamless operation. Understanding, trust and confidence among warfighters; intelligent risk taking; and forward-looking leaders who anticipate future conflict are vital to making this happen. Investing in the right technology, such as improved Joint C4ISR, will also prove essential to ensuring that personnel at all levels have the information to reduce the boundaries among organizations.

The new Joint Vision document defines in further detail the security environment, the military tasks and the pillars of transformation, but this article complements that effort by defining transformation's foundation — its intellectual, cultural and technological elements. These elements will give U.S. Joint forces the best tools to ensure the security of our nation.

I challenge readers of Army Space Journal to build on what I've written here. Give me your ideas of how transformation applies to our nation's Joint forces. If you think you know a better way to define the potential and promise of transformation — put that in writing also. Send me a copy of what you write — I will get back to you. By all means, do not sit on the sidelines and think that others are responsible for transforming our forces to meet the challenges of the 21st century. Your ideas can and will make a difference.

Notes

1. President George W. Bush, remarks to The Citadel, Charleston, S.C., Dec. 11, 2001.
2. Secretary of Defense Donald Rumsfeld, "Transforming the Military," Foreign Affairs, May/June 2002.
3. BG S. L. A. Marshall, Men against Fire: The Problem of Battle Command (1947; reprint, Oklahoma City: University of Oklahoma Press, 2000).

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