



Soldiers mounting M-240 machine gun on top of M1-A1 Abrams tank in Najaf Province, Operation Iraqi Freedom

Combat Camera Group, Pacific (Edward G. Martens)

Transformation in Concept and Policy

By STEPHEN J. CIMBALA

The subject of military transformation has expanded to the point that it transcends focused discussion. From a cult phenomenon among military historians, government officials, and policy analysts in the 1980s and 1990s, the concept has morphed into a 21st-century all-purpose explanation for military decisionmaking. It provides a rationale for expanded foreign policy objectives. Further, it has been adopted as a touchstone by the Department of

Defense (DOD), especially the civilian leadership, to justify weapons programs and operational approaches. Finally, it has been the object of scholastic attention. Transformation is thus in danger of being the most oversold military-strategic concept since deterrence. A vast academic and military literature and extensive policy-related discussion have raised important questions about U.S. military policy, strategy, and war. Transformation, as understood by Pentagon planners and the punditocracy, has the

potential to improve military performance in important ways. But it is far from a guarantor of strategic success or sensible policy choices at the margin. This discussion asks pertinent questions about what transformation means and explores its implications for policy and strategy issues that have both immediate and longer-term importance.

A Nuclear Retro

Despite a large literature, uncertainty remains about exactly what transformation is. A transformed military presumably thinks differently about the art of war and about preparation for battle than one that is not transformed. It might also have a different relationship with the society it serves. Financing the Armed Forces is presumably also affected: transformation might make militaries more or less expensive, either per unit of effect or relative to other components of state budgets. Finally, transformation might lead to a rethinking of the very purposes of armies and the utility of war itself.

Stephen J. Cimbala is a distinguished professor of political science at Pennsylvania State University, Delaware County, and author of *The Past and Future of Nuclear Deterrence and Coercive Military Strategy*.

Discussions of the revolution in military affairs, as military transformation was first known among aficionados, sometimes assumed that the impact of technology on strategy was straightforward and progressive. But history refutes the assumption of a linear relationship. Consider an example.

Nuclear weapons were first used in anger to bring World War II to a conclusion. Many observers assumed that atomic weapons were a continu-

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ation of the industrial age technology of mass destruction. And so they were, from a strictly technical standpoint. Thus early Cold War military planning incorporated nuclear weapons within a broader strategic framework of total war with the Soviet Union. All available nuclear weapons would be used in the early phases of such a conflict. Once those were expended, a large-scale protracted conventional war between mass armies, air forces, and fleets would take place across Europe and Asia until one side or the other was exhausted of its war resources. Nuclear weapons did not appear to have changed military strategy and preparedness for major war in any fundamental way from this perspective.

It soon became apparent that strategy had been changed not only at the margin, but also in essence. Fighting to prevail in combat with the most destructive weapons at hand was now applicable only in wars fought below the nuclear threshold. Further refinement of strategic thinking established that the numbers of U.S. and Soviet warheads and delivery systems were less important than the survivability of those forces against any plausible first strike and their ability to inflict retaliation on enemy targets. It also came to be understood that not only did nuclear forces need to be survivable,

but also their command, control, and communications systems needed to be safe from two types of errors: launching a “retaliatory” strike when no actual attack was under way, or failing to launch a timely strike despite a clear indication that the United States was under attack.

This review of how nuclear weapons evolved, from apparent strategic garnishes on prior weapons of mass destruction into true instruments that revolutionized warfare, makes an important point. The early stages of a military revolution may conceal more than they reveal about the ultimate impact of a particular set of technologies on warfare and armed forces. Only in hindsight can we appreciate how far the U.S. and Soviet strategies of the Cold War had to depart from prior tradition and training. This example should be kept in mind as we generalize about the impact of the information age on warfare.

The Afghan Model

The conjunction of breakthroughs in electronics, communications, and cybernetics has impacted every aspect of American life, including military affairs. Accordingly, some argue that information-based warfare is a true military revolution, or a new revolution in military affairs, comparable to the Napoleonic, industrial, or nuclear revolutions, and potentially bigger on account of its global impact. The United States, by adapting faster and more effectively to information-based technologies, can achieve global military preeminence by linking a system of systems that will provide nearly comprehensive battlespace awareness for U.S. commanders while denying it to enemies.

The most pertinent technologies to be leveraged in order to maintain U.S. superiority in information-based warfare have been described as command, control, communications, computers, intelligence, surveillance, and reconnaissance (C⁴ISR); precision-guided weapons, especially those of

longer range; stealth or low-observable delivery systems; and more reliable and flexible networks, permitting coordination of battlespace awareness among diverse force elements; and the synchronization of multiple fires from various platforms and arms of service on assigned targets. In addition, the United States is assumed to require superior capability to exploit space for military purposes relative to the capabilities of any enemy. Space denial practiced against the United States would negate advantages in most of the categories of information age systems just noted.

Policymakers and defense analysts further contend that superiority in C⁴ISR and long-range precision strike, in particular, were displayed in Afghanistan and Iraq. Some find the Afghan model a particularly vivid demonstration of how leveraging technology can permit rapid and decisive victory at low cost in U.S., noncombatant, and even enemy lives. This new American way of war has, according to some, superseded the previously dominant U.S. military paradigm of protracted wars of attrition fought by mass armies, as in the American Civil War and the two World Wars.

Were the wars in Afghanistan in 2001–2002 and in Iraq in 2003 examples of successful transformation? The Donald Rumsfeld Pentagon thinks so. It has used these conflicts to sweep aside the more cautious proponents of gradual, as opposed to accelerated, changes in technology, organization, and doctrine (to include operational art and tactics). The sudden collapse of Iraqi resistance around Baghdad and the meltdown of Saddam Hussein’s crack Republican Guard divisions set to defend the capital appeared to silence the critics and justify the Pentagon’s strategy of substituting speed, agility, and savvy for size and strength. In the government as well as in the defense analytic community, proponents of network-centric warfare and “shock and awe” as new templates for U.S. warfighting felt vindicated. As Frederick W. Kagan noted:

*“Shock and awe,” network-centric warfare, dominant (or predictive) battlespace awareness—these are the critical concepts that define the current visions of U.S. military transformation as they are being planned, programmed, and executed today. They rely unequivocally on having essentially perfect intelligence about the enemy such that American commanders will be able to predict what he will do in time to take action to prevent it.*¹

Some experts doubt that the U.S. and allied war against the Taliban and al Qaeda in Afghanistan demonstrated an Afghan model of warfare that can serve as a paradigm for other conflicts. According to Stephen Biddle, Afghanistan is neither an example of military revolution nor an idiosyncratic fluke. The victory was made possible by the combination of long-range, lethal firepower and skilled ground maneuver in a campaign that was close to a typical 20th-century mid-intensity conflict. Biddle writes:

*Many now believe that in Afghanistan we turned a ragtag militia into conquerors who subsequently overwhelmed a superior enemy by simply walking forward in the wake of our precision bombing. This belief is largely responsible for the general perception of military revolution in Afghanistan—and if the war had really been fought this way, then the perception would be right. But the war was not actually fought this way. And what did happen was much closer to the long-standing historical precedent on the need for integrating fire and maneuver to overcome skilled, resolute opponents.*²

New technology makes it possible to apply the Afghan model where allies provide ground maneuver forces that are at least the equal of their enemies in combat skills. But fire superiority aided by all the bells and whistles of dominant battlespace awareness and special operations forces cannot guarantee victory where indigenous forces are poorly trained, led, or motivated compared to their opposite numbers. The Afghan model is less a generic template for future war than a model for those limited situations in which U.S. allies can pro-

vide sufficient maneuver forces to tip the balance against their adversaries.

The United States and Britain provided their own maneuver forces for Operation Iraqi Freedom in 2003. Indigenous allies such as Kurdish forces in northern Iraq and Shi’a militia in the south moved occupation forces into contested areas after the Americans had cleared them of the enemy. Transformation proponents found that the Pentagon had demonstrated a new way of fighting major regional conflicts or theater wars with limited numbers of ground forces and without significant indigenous assistance. U.S. and allied dominating firepower was supported by rapid and decisive maneuver warfare that rolled up resistance by organized Iraqi formations within several weeks. A campaign that began on March 19 was effectively finished by mid-April, and President Bush declared that the active combat phase concluded on May 1. According to Max Boot:

*Previously, the gold standard of operational excellence had been the German blitzkrieg through the Low Countries and France in 1940. The Germans managed to conquer France, the Netherlands, and Belgium in just 44 days, at a cost of “only” 27,000 dead soldiers. The United States and Britain took just 26 days to conquer Iraq (a country 80 percent the size of France), at a cost of 161 dead, making fabled generals such as Erwin Rommel and Heinz Guderian seem positively incompetent by comparison.*³

The contrast between the *Wehrmacht* thrust of 1940 and the U.S. military campaign against Iraq in 2003 might be misleading on several counts. First, the Pentagon was not fighting a military opponent of the first rank in Iraq, as was Germany against France. Second, Germany’s victory was not based on superior technology (French armor was actually better), but on its operational art and field leadership. In both wars against Iraq, the United States was dominant in technology and in operational art. Third, if the Germans had failed to conquer France and the Low Countries in a rapid and decisive cam-

paign, it would have spelled the end of their plans for expansion in Europe and quite possibly of Hitler’s political mastery at home. Germany had everything at stake in 1940. The United States, on the other hand, so overmatched its opponent in Baghdad that loss was inconceivable. A more delayed campaign than originally conceived was an outside possibility, but military defeat in Mesopotamia was not.

Numbers Matter

The most important transformation in the Armed Forces since World War II was the change from a draft to an all-volunteer force (AVF). Related was the deliberate shift in the relationship between the Active and Reserve forces.

The first change, ending the draft and creating the all-volunteer force in the 1970s, really made possible the American military preeminence of the latter Cold War, post-Cold War era (1990s), and early 21st-century. Those who fail to see this have put the cart before the horse, crediting technology with accomplishments that rightly belong to an empowered military with smarter and more motivated people. The all-volunteer force obtained quality personnel who not only enlisted but also reenlisted at unprecedented rates. This improvement was critical for enhancing the quality of the force, for reenlistees provided the nucleus from which the senior sergeants, chief petty officers, and other drivers of combat effectiveness in the field were recruited. Although the AVF recruitment had a rocky beginning in the 1970s, by the end of the Reagan years the military, compared to its 1950s or Vietnam counterparts, was unrecognizable in terms of the motivation, cognitive ability, and leadership skills of its junior officers and enlistees.

Military innovation is both top-down and bottom-up. For technology to find its way into military transformation, it must impact on doctrine, organization, and training related to combat. DOD and service leaders must push from the top. Technologies not



Airmen preflight B-2 during air expeditionary force deployment to Andersen Air Base, Guam

U.S. Air Force (Via Gempis)

strong contrast to the Iraqi showing. Adaptive mission successes resulted from the impact of smart people exploiting technology for maximum effect. Predator drones were used not only as reconnaissance or surveillance platforms, but also as launchers of air-to-ground missiles that could be used to attack detected but elusive targets.

Special operations forces really came of age in the Afghan war. During most of the Cold War they were stepchildren, and a separate joint special operations command was not established until the Reagan administration, and then by congressional fiat. Special operations forces were accepted into *Desert Storm* with reluctance by the theater command and were used only for carefully circumscribed missions. By *Iraqi Freedom*, the emergence of special operations forces as pillars of strategy instead of optional adjuncts to regular forces was not an issue. Their performance there was followed by the DOD announcement that U.S. Special Operations Command (SOCOM) would have its own planning structure like other unified or specified commands. It would no longer be a mere supplier of forces but could now plan its own missions. The Pentagon decision in 2003 to appoint General Peter Schoomaker, USA (Ret.), formerly Commander, SOCOM, as Army Chief of Staff, sent a signal that the centrality of special operations forces in transformation was irreversible.

SOCOM had come a long way from the days when President John Kennedy had to authorize personally the green beret as approved headgear for Army special forces over the objection of the service brass. Equally telling was Army Chief of Staff General Eric Shinseki's controversial decision to assign black berets to regular Army troops. His move was widely derided by former Army Rangers and others who understandably coveted the black beret as a special symbol of valor and branch solidarity. But the critics missed the larger message: in a post-Cold War force that must be smaller, faster, and smarter, everybody is required to think "special" and be

owned by any service or supported by high-ranking officers have little chance of survival. Joint technology development requires collaboration across services and high-octane promotion from the Office of the Secretary of Defense. DOD and service technology development programs are part of the larger budgetary process, which Congress ultimately controls.

Technology means nothing in war if it is lodged with a general staff that is remote from the field forces and rankers who must apply it for more effective fire and maneuver against an enemy. Soldiers are the best arbiters of mission effectiveness, and the lower

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the rank, the more ground truth is obtained. The validation of technology effectiveness in terms of mission requires smart soldiers who are empowered to speak frankly. "Zero defects" mentalities or preformatted "lessons learned" are killers of the initiative required for a fast-moving, quick-thinking, and cyber-smart military. Even before the information age, militaries that encouraged lower-level initiative and responsibility were rewarded

with superior performances. The German armed forces in the World Wars are examples.

Command was optional prior to the information age. Armies could still prevail under a totally top-down system that treated the enlisted soldier and junior officer as serfs, as the Soviet army did in World War II. The option of cannon-fodder command no longer exists for any state that aspires to be a regional power, let alone a global one.

The United States provided a quick syllabus to this effect in *Iraqi Freedom*. The opposing military was decisively routed, and the regime was displaced in a matter of days. One reason was Iraq's obsolete command system, modeled on the Soviet structure. Lower-level initiative was precluded within the chain of command: all orders were bottlenecked through central bureaus and command centers. When those pressure points were rendered dysfunctional by destruction or cyber-corruption, orders to Republican Guard and other field commanders were nonexistent or garbled. Absent meaningful and timely orders, Iraqi commanders and rankers lay down their arms, defeated, or otherwise dissolved.

The performance of the U.S. Armed Forces in Afghanistan against the Taliban and al Qaeda stands in



Launching Tomahawk land attack missile from USS Porter, Operation Iraqi Freedom

U.S. Navy (Christopher Senenke)

“special.” There is no more room for menu-driven personalities.

A danger lurks in this otherwise optimistic assessment of military personnel. In the conduct of warfare, especially land warfare, numbers still matter—in peace, in war, and in the postconflict phase of nationbuilding. They matter for deterrence, defense, and postwar reconstruction. The military is currently spread too thin across geostrategic and sociopolitical space. Geostrategically, the United States has substantial troop commitments from Afghanistan to Bosnia. Planners say more instead of fewer troops may be needed to stabilize and rebuild Iraq, and Afghanistan has yet to be fully pacified or freed of danger from warlords and the Taliban. Sociopolitically, increased operational tempos imposed on a smaller active-duty force have strained the patience of military families and caused the Pentagon to rethink its rotation policies in Iraq. The postconflict phase of *Iraqi Freedom* has already exposed an interagency fiasco in prewar planning for postwar nationbuilding, including an underestimation of the numbers of troops needed for internal security and other nationbuilding missions.

Empires by Consent

This essay argues that the U.S. military supremacy of the 21st century is the result of a smarter and more motivated military that could take maximum advantage of technological innovation. Less competent personnel would have taken information technology into their bosoms more slowly and to less effect. There remains another issue: the character of civil-military relations.

After *Iraqi Freedom*, DOD announced plans to reorganize the Armed Forces so that prolonged or manpower-intensive deployments would require less Reserve component mobilization, especially in the Army. That seemed like a merely technical matter, but it was more far-reaching. The Pentagon's interest in relying less on Reserves and more on active-duty forces for overseas deployments and foreign wars has a history that should not be forgotten.

As the Army licked its wounds from Vietnam and considered how to adapt to the all-volunteer force, General Creighton Abrams, Chief of Staff, initiated important organizational reforms. He and other Army leaders decided to restructure the service so policymakers could never again wage a large-scale,

protracted war without mobilizing broad popular and congressional support. To that end, they placed important capabilities needed for any major regional contingency or theater war in the Army National Guard and Reserve.

This structure would raise the visibility of the deployments for members of Congress and the media, making middle America immediately aware of military call-ups and mobilizations. In short, there would be no more escalations of limited wars into major wars by stealth, as happened in Vietnam, with the Army left holding the bag after the aims of policymakers shifted from victory to stalemate. As the 1980s and 1990s demonstrated, a President can still act rapidly and decisively in a short and intensive military operation without extensive mobilization, as in Grenada, Panama, and Haiti. But apart from small wars and local conflicts, including humanitarian rescues and military operations other than war, the Reserve would be involved like Chicago voters: early and often.

Policymakers anxious for maximum flexibility in using military power, apart from the vicissitudes of public opinion, were understandably unhappy with the Abrams reforms that embedded vital military competencies in the Reserves. But noted academic experts on civil-military relations have also argued that the Abrams reorganization is too restrictive. Eliot Cohen, for example, after acknowledging that General Abrams was a true patriot and believer in the U.S. Constitution, argues:

This was, nonetheless, an extraordinary effort by the military to limit the choices available to their civilian masters, to tie the hands of policymakers through the seemingly technical manipulation of organizational structures. . . . It does not seem to have occurred to either soldier or statesman, however, that there is something highly improper, to say the least, in allowing the armed services to thus determine the ways in which they could be used in combat.⁴

The argument is clever but wrong. The issue is not constitutional subversion of policymakers' options, inten-

tional or otherwise. Properly framed, it is whether policymakers receive the most brutal and honest advice about the costs of war not only from their appointed civil and military counselors, but also from the American populace and their elected representatives in Congress. The Army belongs not to the Congress or the President but to the American populace. If the President cannot mobilize broad public support for a war, then he has no business sending troops into that theater for prolonged combat. This prescription is not a recipe for isolationism but for realism.

Proponents of a new American empire ignore the reality of historical European and other empires, even those that survived into the 20th century. America fights most effectively as a united country when it fights wars of liberation—not of imperial conquest or subjugation. Some argue that since the Spanish-American War, the United States has been in the business of steadily building an American global empire that has come to fruition at the dawn of the 21st century. The empire is fact: the only argument should be about how to run it.

The controversy over empire contrasts the European experience with American options. The empires of the 19th and 20th centuries preceded globalization and the information revolution. These domains, including the Soviet Union, have vanished. Nowadays, peoples are not as easily repressed in the name of a foreign power, ideology, or commonwealth. Future empires must thus be based on voluntary consent and exist within a global village of finance, information, and technology.

Influence is based on soft power—the appeal of national culture and norms—as much as on hard power—the ability to coerce or destroy. Information makes repression harder and resistance easier, even against totalitarian regimes. Mikhail Gorbachev was brought down by many forces, but among the more important was the information revolution, which leaped across state boundaries and revealed

to the Soviet peoples that they were locked into an archaic political system.

Whether the United States prevails in the postconflict stage of the Iraq war of 2003, for example, will have as much to do with its ability to exercise soft power as hard power. The information war and the culture war after May 2003 will dictate whether the active combat phase was a success or a premature declaration of victory. Regardless of the outcome, Washington is not headed for any empire in the Middle East, and its military is already spread so thin that taking on any additional opponent in that region is virtually precluded, even assuming there is no outbreak of war on the Korean Peninsula during the George W. Bush presidency. The second Gulf War that toppled Saddam revealed that, despite Pentagon denials, the Army is short of people for the missions it already has. Plans to replace some military positions with civilians might add to efficiency but will not make up for missing battalions and divisions. The case for reducing the number of active-duty divisions from 10 to 8, proposed prior to *Iraqi Freedom*, appears ever less convincing.

Arguments against an American global empire are not rebutted by citing the historical experience of U.S. forces fighting small wars in the Western Hemisphere, including Marine expeditions in the Caribbean and Central America. The banana wars and other engagements were of a different geostrategic character than expansive designs for a Middle Eastern or South Asian empire. The Western Hemisphere is the military and political U.S. back yard. Regimes hostile to American interests, especially those close to U.S. shores and connected to foreign adversaries, cannot be tolerated if the Nation is to maintain credibility as a great power. Acting as sheriff of the hemisphere is not an option. Nor is Washington free to withdraw its commitment to act, in concert with North Atlantic Treaty Organization (NATO) Allies, in support of European pacification and democratization. Making Europe a war-free

zone was one of the greatest political achievements of the 20th century, and U.S. support for NATO was a key element of that achievement. National credibility is also at stake in historic commitments to Israel, South Korea, Taiwan, and Japan.

Given commitments already tabled prior to our 21st-century wars in Afghanistan and in Mesopotamia, it seems imprudent for the military to remain mute in the face of policymakers' tastes for imperial overstretch. The best photo of the postwar occupation of Iraq in summer 2003 showed a Reservist driving a jeep whose windshield read: "One month my —." Whether full- or part-time, American soldiers are civilians in uniform, not janissaries or mercenaries.

U.S. soldiers are not a military class apart from their civilian origins. They draw their strength from family and friends in their communities. That strength is the cultural and spiritual expectation that they are doing the right thing for the right reasons. Under those conditions the United States is unstoppable. Absent those supports, war is a risky proposition, as likely to destroy what we value as enhance it. Our civil-military relations should not make wars easy to wage, but rather hard, so that once we agree, the debate can end and the fighting to good effect can begin. That is the real lesson about our 20th-century wars. **JFQ**

NOTES

¹ Fredrick W. Kagan, "War and Aftermath," *Policy Review* (August 2003), 5.

² Stephen Biddle, *Afghanistan and the Future of Warfare: Implications for Army and Defense Policy* (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2002), 48–49.

³ Max Boot, "The New American Way of War," *Foreign Affairs* (July/August 2003), 41–58, citation 44.

⁴ Eliot A. Cohen, *Supreme Command: Soldiers, Statesmen, and Leadership in Wartime* (New York: The Free Press, 1992), 187.