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2012803

JAMES C. MCCONVILLE
General, United States Army
Chief of Staff

Cover photo: Sgt. 1st Class Thomas Gorman, a critical care flight paramedic, with Company C, 3rd Battalion, 10th Combat Aviation Brigade, 10th Mountain Division, sits for a portrait in his flight gear 11 December 2018 at Fort Drum, New York. (Photo by Sgt. 1st Class Garrick Morgenweck, U.S. Army)

Next page: Sgt. Joel Mauricio, a drummer assigned to the U.S. Army Europe Rock Band, plays with the band during an icebreaker performance 2 March 2020 ahead of Operation Defender-Europe 20 in Suwalki, Poland. (Photo by Sgt. Timothy Hamlin, U.S. Army)

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Articles will be comparatively judged by a panel of senior Army leaders on how well they have clearly identified issues requiring solutions relevant to the Army in general or to a significant portion of the Army; how effectively detailed and feasible the solutions to the identified problem are; and the level of writing excellence achieved. Writing must be logically developed and well organized, demonstrate professional-level grammar and usage, provide original insights, and be thoroughly researched as manifest in pertinent sources.

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3rd Place	$500 and consideration for publication in *Military Review*

For information on how to submit an entry, please visit https://www.armyupress.army.mil/DePuy-Writing-Competition/.

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Suggested Themes and Topics

Large-Scale Combat Operations

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- What is the relationship between multi-domain operations and mission command in LSCO? How can they be integrated and synchronized?
- What specific impacts on the Army's renewed emphasis on LSCO training, readiness, and doctrine are to be expected? How does one measure the effectiveness of adjustments in those areas?
- First strike: discuss how hypersonic weapons and other means would be employed by Russia to neutralize/devastate U.S. capabilities in the first stage of a conflict.
- Hypersonic weapons: What is the real threat? How do we defend against them? How do we use them?
- Specifically, what new kinetic threats can we expect to see in LSCO? How do we defend against them? How do we use them?
- How do we survive in hyperlethal engagements where "if you can see it, you can kill it; if you can be seen, you can be killed" (including attacks using weapons of mass destruction)?
- How does one perceive and seize fleeting opportunities in LSCO? What examples are there of fleeting opportunities and temporary advantages that were exploited? Are there repeating characteristics of such events to guide cultivation of future perception training?
- How do we offset "one-off" dependencies and contested domains?
- How do we continually present multiple dilemmas to a peer enemy?
- What must be done to adjust junior leader development to succeed in a modern operational environment?
- What changes are required to the professional development models for officers and noncommissioned officers?
- What logistical challenges are foreseen in LSCO due to infrastructure limitations in potential foreign areas of operation and how can we mitigate them?
- Regarding sustainment and mobilization for LSCO, how should the industrial base change to support LSCO? How does the Army communicate its requirements to industry?
- What rapid training and mobilization is required for COMPO2 and COMPO3 units to "join the fight" and meet deployment requirements?
- Brigade combat teams have the training centers, division headquarters have warfighters, and sustainment brigades sometimes rotate smaller elements to training centers, but how does a division exercise the sustainment function on a large scale?

General Topics

- What training gaps is the U.S. Army facing (e.g., mechanic training, talent management, and retention; large-scale casualty training [medical and G1 functions], etc.)?
- Is there a capability gap in air defense and rocket artillery at lower echelons? Do we need to become a more artillery- and air-defense-centric army?
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U.S. Army helicopters fly above the Japanese coastline 9 January 2020 during a joint training exercise with Japanese Ground Self-Defense Force members to rehearse tactical flight operations at Camp Zama, Japan. (Photo by Sgt. Raquel Villalona, U.S. Army)

To Change an Army—Winning Tomorrow

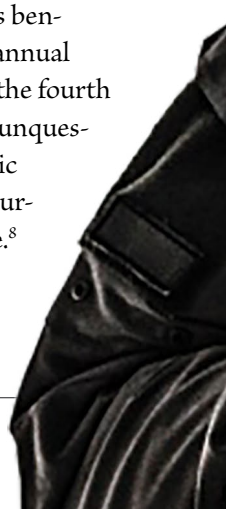
Lt. Gen. Eric J. Wesley, U.S. Army
Chief Warrant Officer 5 Jon Bates, U.S. Army

Editor's note: In March 1983, Gen. Donn A. Starry penned an essay for Military Review *titled "To Change an Army" that described the process of modernization to build an AirLand Battle Army. Much of his approach is leveraged by Army Futures Command today.*

In the summer of 2008, the Russian military conducted an incursion into the former Soviet state of Georgia. Although it defeated the less capable Georgian forces, by most accounts the Russian military's performance during this operation was poor. Its ability to conduct intelligence, logistics, and ground combat operations, and its ability to integrate air and ground forces was questionable at best.[1] After withdrawing and recognizing the significant deficiencies in its security forces, Russia set about modernizing its military. In March 2014, just six short years later, Russia annexed Crimea without engaging in battle. Eight months after that, it conducted an incursion into eastern Ukraine and revealed to the world that the problems exhibited in 2008 had largely been remedied. To those who might have thought these improvements had implications solely for small, isolated conflicts in Russia's own backyard, it should be noted that in 2015, just one year later, Russia conducted expeditionary operations into Syria, demonstrating that it could simultaneously sustain operations in both its near abroad (Ukraine) and at the end of extended lines of communication (Syria).[2] Concurrent to these operations, the Russians have conducted annual, large-scale exercises, such as the aggressive Zapad exercises in Belarus.[3] In November 2018, just over eighteen months ago, the Russian Navy seized several Ukrainian maritime craft and sailors in the Sea of Azov just north of the Kerch Strait.[4] Though the world watched, little was done about it. We should, therefore, ask ourselves whether Russia just annexed the Sea of Azov too. And what about the Black Sea? If so, what, if anything, should we or can we do about it?

These behaviors are not just confined to Russia. China too is signaling its strategic intent to expand its political and economic influence through its Belt and Road Initiative where Beijing employs tributary trade practices to wield influence over those who might be beneficiaries of their investments.[5] This initiative extends into Europe and—approaching the American doorstep—Central America. China's development of, investment in, and presumptive annexation of artificial islands—patrolled by "dark" fishing fleets that serve as a de facto private navy while masking their true intentions—are a lightly veiled attempt to extend its domestic waters in the South China Sea.[6] It does not stop there. China continues to unapologetically steal commercial and military technology from the United States and its allies, adding to an already long list of dubious activities to exert and enhance its global influence with calculated consequences.

China's unprecedented economic growth over the last thirty years has enabled it to expand. It has benefited from a thirty-year average 9.46 percent annual GDP growth rate, which at its lowest point in the fourth quarter of 1990 was still 3.80 percent.[7] That is unquestionably powerful and unprecedented economic growth! For comparison, the United States is currently thriving at 2.3 percent GDP growth rate.[8]



(Photo by David McNally, U.S. Army Shutterstock)

This is what has elevated China to one of the world's largest economies in a matter of just twenty to thirty years. China will likely surpass Russia in the next five to ten years as the premier military competitor with the United States. In fact, China has publicly declared its intent to be a global superpower by 2049, and analysts believe China is well ahead of schedule in its pursuit of the "great rejuvenation of the Chinese Nation."[9]

Second only to concerns over Russia and China's global expansion and rapid technological advancement is the acquisition of sophisticated capabilities by malign actors such as Iran and North Korea that increasingly threaten to use them against the United States and its allies. Consider the events of 14 September 2019, when a drone swarm—initially unattributed, unannounced, and ambiguous—conducted a kinetic strike against the Kingdom of Saudi Arabia's oil facilities, marking one of the largest strikes against Saudi Arabia's fossil fuel enterprise in its history. Although the attack initially was claimed by Iranian-backed Yemeni Houthi rebels, it is unclear if the Houthis launched it or if it actually originated from their Iranian sponsors. Even still, the international community continues to question and debate the extent of, if any, Iran's role in the attack to this day.[10] Thirteen weeks after this underhanded attack, the Iranians orchestrated the Popular Mobilization Force attack against the U.S. embassy in Baghdad. Within a week, Gen. Qasem Soleimani, the infamous commander of the Quds Force, was dead from a strike conducted by the United States of America of which U.S. Defense Secretary Mark Esper remarked in its aftermath, "The game has changed."[11]

The Game Has Changed

Indeed it has. In fact, the world has changed and continues to do so at a quickening pace. This is a new era of great power competition. Absent change, capable and emboldened adversaries will, in just a few short years, reach parity with U.S. military strength. And in some areas, they may even achieve overmatch relative to current U.S. capabilities. The United States finds itself with significant challenges on the horizon, and as Gen. James

McConville, fortieth chief of staff of the Army, recently remarked, "Great power competition does not necessarily mean great power conflict, but it could if we don't have a strong military."[12] And right he is. Having been engaged in counterinsurgency operations for nearly two decades, the Army now faces the daunting challenge of reorienting itself and modernizing for large-scale combat and—just as important—readying itself for competition left of conflict. Therefore, the United States must modernize. To do so, there must be a common understanding of the secretary of the Army's and chief of staff of the Army's vision. And, there must be a common understanding and applied leadership to the modernization effort.

But how does one modernize an Army? Those of us wearing the uniform today have little experience in such an endeavor at an institutional scale. Instead, the United States has enjoyed the luxuries of an Army that has not had to fundamentally modernize—aside from incremental advances in acute technologies—in more than forty years. The unchallenged power differential following the Cold War produced a generation of leaders who were able to focus on the task at hand—deterrence and counterinsurgency—but who lost the muscle memory necessary for wholesale institutional modernization. So, like any good student of history, one must look for parallel lessons of the past as guides to navigate through problems anticipated in the future. Fortunately, there are historical examples that are not too dissimilar to the current situation.

The post-Vietnam era serves as a period where the Army demonstrated the activities of fundamental institutional modernization. In the late 1970s, the Soviet Union threatened to leap ahead of the United States with massive investments in its conventional forces in Eastern Europe while the United States had been committed to fighting an insurgency in Southeast Asia. Subsequent to the war, the United States was exhausted by partisan bitterness and politically exhausted with defense spending. Today, Russia and China's increased military spending, downward pressure on U.S. defense spending, political polarization in Washington, a war-weary nation, and an Army that reflects two decades of fighting, are all recognizable analogues to the environment and the challenges America faced then.

During the 1970s and 1980s, Gen. Donn A. Starry, the second commanding general of U.S. Army Training and Doctrine Command (TRADOC), contended with challenges and institutional dynamics similar to those we experience today. The efforts of his generation of leadership resulted in the Army's AirLand Battle concept and ushered in a fundamental modernization of the entire institution. In fact, the current DNA found in the U.S. Army organizational structure, materiel capabilities, doctrine, and culture can be traced back to that time. However, unlike then, the Army now faces not one, but two threats that require understanding and leadership to develop and execute a transformative modernization strategy.

Modernization Framework and Development of a New Operating Concept

In 1973, Gen. Creighton Abrams, the Army chief of staff, directed then Maj. Gen. Starry, who was the chief of armor at the time, to go to Israel and study

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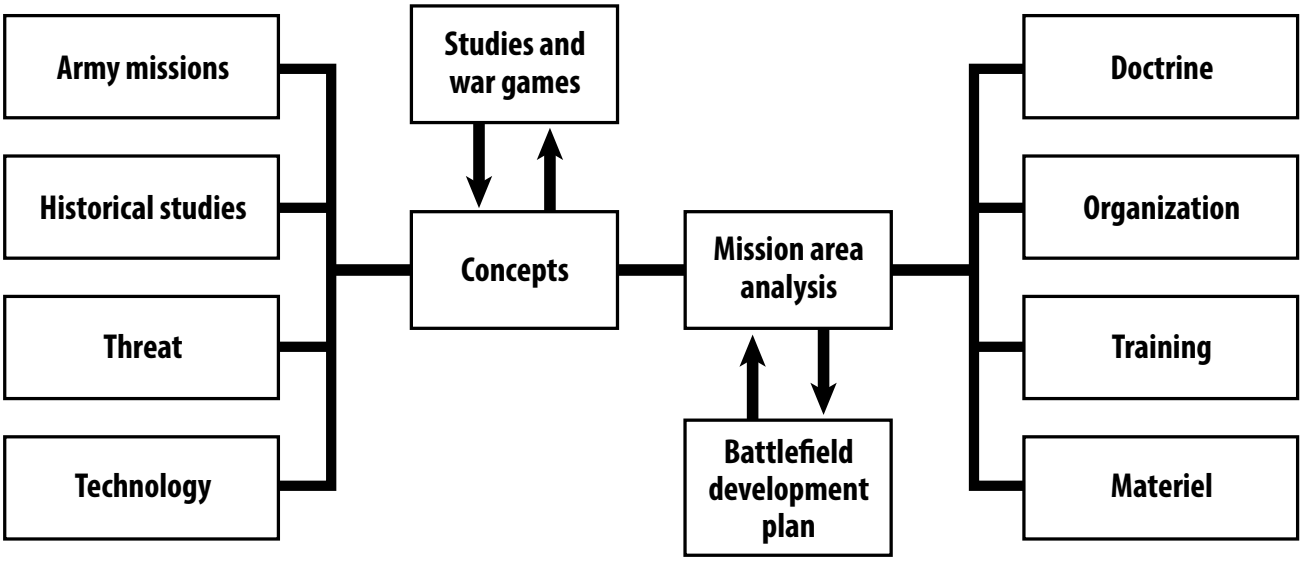


(Figure courtesy of Brownlee and Mullen, *Changing an Army: An Oral History of General William E. DePuy, USA Retired*)

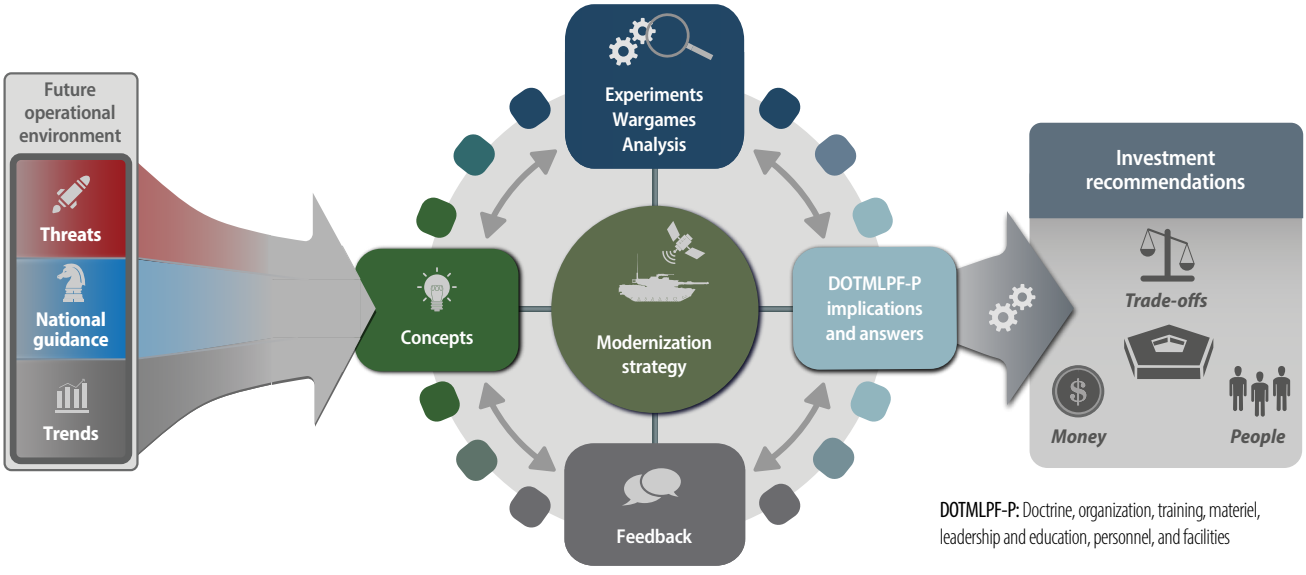
Figure 1. Concept-Based Requirements System

the Yom Kippur War between Israel and Soviet-equipped Arab states (Egypt and Syria). Abrams told Starry to return with a summary of the war's major lessons to understand what the United States would be up against and to examine the impact of these lessons on U.S. Army tactics, doctrine, training, and materiel development. His findings were published in what became known as the "Starry Study," which detailed the approach Soviet satellite states were using and specific problems the United States needed to solve.[13] The first solution TRADOC developed in response to his work was a concept called "Active Defense."

When later serving as the V Corps commander in Europe, Starry conducted exercises, wargames, and analyses of the Army's Active Defense concept and determined it was not sufficient for the significant numbers of Soviet tanks, artillery, and the multiple echelons of both that the U.S. Army would face in Eastern Europe. Starry was subsequently selected as TRADOC commanding general, and armed with lessons learned in Europe and aided by an exceptional handful of the Army's brightest thinkers and writers, he developed and published a new concept, AirLand Battle, in 1981.[14] AirLand Battle became the foundational document to drive the Army into the future. During the ensuing years at TRADOC, Starry continued to develop and refine the Battlefield Development Plan, which provided the rigor and specific tasks of modernization over time. Thus, the Army of the 1980s was able to develop and integrate the "Big 5" weapons systems progressively, publish AirLand Battle as its doctrine, change professional military education, evolve its training paradigm, and adjust personnel management processes, to name just a few changes—forever altering the DNA of the Army.[15]

In short, Starry assessed an anticipated future operational environment (threat), developed a description of how the Army must fight to reconcile that threat (concept), analyzed and assessed capability requirements, and formed a strategy to modernize the Army (modernization strategy). Starry labeled this the "Concept-Based Requirements System" (see figure 1).[16]

Not coincidentally, one of the first activities the newly created U.S. Army Futures Command (AFC) pursued upon activation was to codify its approach to modernization. Gen. John (Mike) Murray, the command's inaugural commander, validated "The Army Modernization Framework"—the model that is driving U.S. military activity now (see figure 2, page 10).



(Figure by Bates, Krueger, and Fliesen)

Figure 2. Army Modernization Framework

The Future Operational Environment—the Underpinning

As with any study effort, we had to start with the environment. As most of you know, in recent years the Soviet Union has significantly increased its warfighting capability. Our quantitative inferiority has been evident for some time. An aggressive Soviet R&D program has now reduced the qualitative edge that we once enjoyed. The Soviets are equal to or ahead of us in the quality of most fielded ground combat systems.

—Gen. Donn A. Starry, September 1980[17]

The future operational environment (FOE) is a composite of anticipated conditions, circumstances, and influences that affect the development of concepts and capabilities, and bear on the decisions of our leaders.[18] The FOE includes analyses of socioeconomic and technology trends, pacing and anticipated future threats/adversaries, and existing national strategies that guide Army operations.

Just as the introduction of fast-moving tanks and armored vehicles dislodged horse cavalry as the primary means of battlefield mobility and assault, there must be recognition that advances in technology are ushering in a fundamental change to the character of how wars will be fought in the future. As new technologies emerge and military applications become clearer, their impact will inevitably make battlefields unlike anything previously experienced. It is therefore essential for institutional recognition across the Army that new technologies are shaping future conflicts in ways that require creativity and in-depth research to envision. But it is not just about technology.

In order to change an army, one must begin more broadly with the pacing threat. A pacing threat provides the army an archetype against which to build solutions. It represents the benchmark of what the problems are and what must be fixed. In contrast, for the past thirty years—since the end of the Cold War—the Army has been capability based. However, today we are facing not one but two threats—a revanchist Russia and revisionist China. Russia has already demonstrated its expeditionary capacity as demonstrated by its operations in Ukraine and Syria. China continues to increase its military capabilities and reach at a quickening pace. And unlike the United States, both Russia and China pursue their global ambitions through whole-of-nation, coordinated efforts, making no legalistic distinctions between government and private enterprise, nor war and peace, in what they already publicly assert is a global conflict with the United States. Therefore, the "behavior" of these threats becomes equally important.

Much like Abrams's charter to Starry to study the Yom Kippur War, so too did TRADOC commander Gen. David Perkins commission a team to study what was being termed "Russian New Generation Warfare" (RNGW). Under the direction of the chief of infantry, Brig. Gen. Peter Jones, the 2016 RNGW study endeavored to analyze how Russian forces and their proxies employ disruptive technologies in the conduct of modern warfare, identify enhanced Russian capabilities and their implications for the U.S. Army, and recommend actions the Army should take to ensure overmatch against Russia.[19] The RNGW study team visited multiple European countries, conducted over ninety interviews, and reviewed more than seven hundred reports. The RNGW study determined that current U.S. Army capabilities, capacity, and warfighting doctrine were inadequate to defeat a reemergent Russia in a major conflict and that "unless the Army adapts to the new realities of the modern battlefield, future U.S. Joint Forces could face operational and tactical defeat in war."[20] The RNGW study, and others like it, reinforces the continual threat and socioeconomic/technological trend analysis and illustrates a clearer representation of the FOE. This provided Army leaders with the requisite demand signal and served as a starting point in developing a new way of war—a new operating concept termed multi-domain operations (MDO).

"The Russian New Generation Warfare study determined that current U.S. Army capabilities, capacity, and warfighting doctrine were inadequate to defeat a reemergent Russia in a major conflict."

Concepts—the Vision

A concept is an idea, a thought, a general notion. In its broadest sense, a concept describes what is to be done; in its more specific sense it can be used to describe how something is done. They must also be dynamic—changing as perceptions and circumstances change.

—Gen. Donn A. Starry, February 1979[21]

It is likely not necessary to improve on Starry's articulation of what a *concept* is. But to reinforce, it "describes what is to be done" that the United States cannot already do today. An operating concept is an examination and articulation of how the United States must fight in anticipation of the changing character of war.[22] Paramount to a good concept is it must solve the fundamental problems the threat(s) pose now and in the future—those efforts that are infeasible today. And for it to be worthy of igniting change, it must be a "reach goal" that will shape capability development and help pull the present force into the future—not merely a description of existing programs.

TRADOC Pamphlet 525-3-1, *The U.S. Army in Multi-Domain Operations 2028*, known simply as the "MDO Concept," is the Army's operating concept.[23] It was developed partly in response to the RNGW study, but it also integrated myriad data from the intelligence community and experimentation. It begins with an articulation of the FOE and an assessment of the implications of the *National Defense Strategy*.[24] Then, it examines the military implications of socioeconomic and technological trends and assesses the threats that the United States' potential adversaries pose to the future security environment. Importantly, MDO's FOE assessment, supported by the RNGW study's findings, postulates that Russia and China are different; yet, they are sufficiently similar to build a concept against. Russia (the U.S.'s pacing threat) and China (a far more dangerous emerging threat) pose three common challenges to U.S. interests. First, both challenge the United States and its allies in all domains—land, maritime, air, space, and cyberspace. Second, they create multiple layers of physical and political stand-off designed to create separation amongst the joint force, U.S. partners and allies, and among the American people. Third, they leverage the competition space to achieve operational and strategic objectives without crossing the threshold of armed conflict with the United States. The net effect of each of these problems is diluted deterrence, and

without change, U.S. global influence will erode and international order and global stability will suffer.

The MDO concept seeks to solve these problems and return a greater capacity to deter. The MDO concept describes how "Army forces, as an element of the Joint Force, conduct Multi-Domain Operations to prevail in competition; when necessary, Army forces penetrate and dis-integrate enemy anti-access and area denial systems and exploit the resultant freedom of maneuver to achieve strategic objectives (win) and force a return to competition on favorable terms."[25]

The Army cannot currently perform many of the tasks described in the MDO concept. But yet, to accomplish the mission, the Army *must* do them. In this way, the concept creates the necessary reach goal by providing the aiming point to align and shape corresponding capability development. This is why the MDO concept is so important—not just for AFC, but for the entire enterprise.

However, a concept by itself is insufficient. It must be accompanied by something to turn the ideas into action. Otherwise, if left alone, it will merely be seen as a white paper with little effect. While a concept provides the description—or portrait—of the future, the Army still needs specific strategic direction—a document that will integrate every part of the enterprise and align resources to priorities. There must be an accompanying modernization strategy.

A Pathway to the Future—the Modernization Strategy

The Battlefield Development Plan (BDP), first published in November 1978, is designed to be used as a road map for the future. It sets forth priorities and issues that

require the Army's attention. The BDP is based on an assessment of selected Army near-term force readiness and midrange force modernization programs. It lists requirements necessary for program improvement. An assessment of U.S. and Soviet combat readiness, force modernization, personnel, weapon systems, force mixes, technology, training, and production capabilities is also included in the BDP. Effects of technology on the Army of the 1980s are described, as are problems of training, personnel acquisition, and spiraling costs.

—Gen. Donn A. Starry, September 1980[26]

In the early 1980s, TRADOC developed, tested, and refined a "roadmap for the future," which Starry termed the Battlefield Development Plan (BDP). At first, the BDP was an Army G-2 (intelligence) product compiled on an annual basis that drove Army modernization efforts in response to the Soviet threat. As the Cold War between the United States and the Soviet Union ended, so too did the BDP's utility, leading to its discontinuance. Today, AFC's Futures and Concepts Center has rejuvenated the BDP to examine how the current operating concept, multi-domain operations, measures up to the threats posed by anticipated near-peer adversaries. The BDP examines how the U.S. Army, as part of the joint force, conducts MDO to deter—or when deterrence fails, to defeat—a near-peer threat or other adversary. It is an examination and analysis of projected Army capabilities, systems, and force structure employed against U.S. adversaries in specific scenarios, and it serves as a running estimate to inform programmatic and investment decisions toward an MDO-capable force.

The BDP represents the intellectual and analytical rigor foundational to a modernization strategy by

The 11th Armored Cavalry Regiment and the Threat Systems Management Office push a swarm of forty drones through the town 8 May 2019 during the battle of Razish at the National Training Center, Fort Irwin, California. Drone usage is just one example of the many technologically advanced threats that U.S. forces might face in the modern operational environment. (Photo by Pvt. James Newsome, U.S. Army)

employing principles outlined in the MDO concept. By tapping into this foundation, the modernization strategy articulates the ends, ways, and means for achieving the vision of the future Army. It sets a vision for the Army, establishes core principles to guide the way forward, sets priorities, and articulates key milestones and objectives, setting the course toward the future. For it to be effective, a modernization strategy must gain civilian and joint leadership support, and prioritize and synchronize limited resources to provide continuity of vision and guide action across multiple resourcing windows.

Modernization entails more than just new materiel—it must address doctrine, organization, training, materiel, leader development and education, personnel, facilities, and policy (DOTMLPF-P) to operationalize the concept's vision. Unlike previous modernization strategies that primarily focused on materiel, the "2019 Army Modernization Strategy" (AMS) is holistic. It drives who we are, how we fight, and what we fight with by guiding, synchronizing, and integrating changes needed across DOTMLPF-P elements over time while maintaining continuity of priorities.[27]

For more information on Russian new generation warfare, *Military Review* recommends the 2016 "Russian New Generation Warfare: Unclassified Summary of the U.S. Army Training and Doctrine Command Russian New Generation Warfare Study," commissioned by then TRADOC commander Gen. David Perkins to "analyze how Russian forces and their proxies employ disruptive technologies in the conduct of modern warfare, identify enhanced Russian capabilities and their implications for the U.S. Army, and recommend actions the Army should take to ensure overmatch against Russia." To view the report, please visit https://www.armyupress.army.mil/Portals/7/online-publications/documents/RNGW-Unclassified-Summary-Report.pdf?ver=2020-03-25-122734-383.

The 2019 AMS focuses on developing *doctrine* to operationalize the MDO concept commensurate with capability maturity, and dependent on a deliberate learning and experimentation program. It calls for force designs to be reviewed and updated so new Army *organizations*—in the near term, multi-domain task forces and security force assistance brigades—meet the requirements for multi-domain tasks.

Additionally, it requires the Army to continue to test, experiment with, and evolve new formations and echelons that currently do not exist. The AMS calls for a comprehensive paradigm shift in *training*. For MDO, training must be tough and realistic at every echelon and reflective of highly contested multi-domain environments. In the 1980s, AirLand Battle required expanded training areas to enable fighting "deep" simultaneously with the "close" fight. This led to the creation of the combat training centers we have today. New capabilities like cyber ranges and synthetic training environments—whether live, virtual, constructive, or simulated—will reflect the global nature of MDO and enable specialized and collective training at echelon from home station.

Most recall the signature "Big 5" systems of AirLand Battle. The 2019 AMS requires new *materiel* development initiatives to both enable MDO and to create unmatched lethality against peer adversaries by leveraging cross-functional-team-developed solutions in support of the Army's modernization priorities (i.e., long-range precision fires, Next-Generation Combat Vehicle, Future Vertical Lift, Army network, air and missile defense, and soldier lethality). To effectively wield new and improved capabilities, future leaders must be capable of thinking, accessing, and employing tools in all domains with a keen eye for opportunities to enable his or her success in a future fight. *Leader development and education*, therefore, will forge leaders who can deliver results through the complexities of cross-domain synergy and mission command. The Army will develop leaders who can confidently *trust* subordinates to make decisions while out of contact, who accept *risk* to empower soldiers' ability to seize

fleeting opportunities, and who instill in soldiers the ethical foundation to act absent orders to better achieve the mission. To accomplish this, the Army will maximize the human potential of its *personnel* by modernizing its systems and policies as reflected in Gen. McConville's twenty-first-century talent management initiatives (e.g., Army Talent Alignment Process, Battalion Commander Assessment Program). *Facilities* will be designed and/or modified to support new requirements for training, materiel, and organizations. Finally, we will pursue *policy* changes to increasingly enable the Army and the larger joint force in competition and to leverage the space and cyber domains.

Unified Leadership

While I started BDP [Battle Development Plan] with the idea it would provide a way of setting out our combat development strategy, it has developed broader applicability. In addition to setting the course for developments efforts, it can also set forth a training strategy and a strategy for sustaining the Army. If it is to be useful as an Army strategy for the future, however, it must be decided upon and agreed to by its leaders today.

—Gen. Donn A. Starry, April 1979[28]

The Army must constantly balance operational demands with its competing needs for near-term readiness and long-term modernization. Often, operational demands and readiness understandably consume the bandwidth of organizations responsible for modernization, resulting in only incremental change. Post-Vietnam, Army leadership recognized that it had, in effect, a span-of-control problem that impeded its ability to prioritize modernization. For years, the responsibility rested with Continental Army Command (CONARC) to both modernize its forces and effectively run the Army within the United States, but its breadth of responsibilities grew too large, and it became mired with bureaucratic processes and policies. The solution, the Army decided, was to reorganize CONARC into two new four-star commands—TRADOC and Forces Command (FORSCOM)—the former to manage institutional development and the latter to manage near-term readiness.[29]

Today, the U.S. Army is comprised of over a million soldiers and growing, more than 195,000 civil servants, and countless contractor-aided support staff. It has a $182 billion service budget and is actively conducting a range of operations in more than 140 countries worldwide.[30] Until recently, modernization responsibilities were divided between Headquarters, Department of the Army; TRADOC; FORSCOM; and Army Materiel Command (AMC), each with responsibilities to coordinate with its secretariat counterparts to man, ready, train, and equip the Army's massive enterprise. To bring unity of effort and reduce mounting bureaucracy, in May 2018, the Army established Army Futures Command—a single organization responsible for describing the future operational environment, developing concepts and future force designs, and supporting—in collaboration with the assistant secretary of the Army for acquisition, logistics, and technology—the delivery of modernization solutions.

AFC is a key leader among the Army Modernization Enterprise (AME). It is modernizing the requirements development processes to adapt to the emerging realities of twenty-first-century warfare. In addition to realigning organizations with key modernization roles under one command, AFC is experimenting with new organizational constructs like cross-functional teams designed to support faster delivery of materiel solutions to the Army's top priorities and established others to reach a wider range of nontraditional solution sources. It concurrently guides and synchronizes near-term modernization activities across the AME by way of the Army Modernization Strategy. To implement and govern that strategy, AFC also publishes the annual modernization guidance—or "AMG"—an annual mission-type order coordinating the AME to sustain or reallocate efforts against priorities—as a way of keeping the Army's modernization efforts on azimuth toward the future MDO force. In just two short years, Army senior leadership and AFC, in collaboration with the many parts of the enterprise, have delivered an assessment of the FOE, published the Army's operating concept, provided the "Army Modernization Strategy" to the institution, supplying the requisite analytical foundation to weigh risk decisions in pursuit of a modernized future force, and manifest material development with speed by way of cross-functional teams. In effect, Army senior leaders

and AFC have systematically delivered each component of the Army Modernization Framework and are providing unity of effort toward an MDO force.

Conclusion—Winning the Next Fight

Army 86 brought about concepts and force structure to best use the equipment already under development. If we do it right, the concept-based acquisition strategy will guide investments in today's tech base that will result in materiel that fits a concept of how our Army should fight in the 90s.

—Gen. Donn A. Starry, 30 January 1981[31]

Like Gen. McConville recently remarked, "It's not about winning the last fight, it's really about being ready to win the next fight."[32] The Army faces diminishing windows for senior leaders to impact critical resourcing decisions and mitigate the capabilities being developed by our adversaries, many of which are already deployed. Presently, senior Army leaders are already weighing organizational decisions bearing on a 2024–2028 force structure and program decisions for 2023–2027. The United States is already in the window to decide how it meets the future. Regardless of U.S. views concerning the likelihood of a conflict with peer states, the United States must acknowledge that—absent change in its ability to operate within the FOE—it will find that its operational deterrence capacity will be diluted, and therefore, American influence will incrementally wane in the ensuing years. The Army Modernization Framework, properly applied, provides a roadmap to reconcile American shortfalls, but the framework itself will not modernize the Army. Leadership matters—not just at the highest offices in the Pentagon, but at every echelon and across the enterprise, including the other services. All Army professionals have an obligation now to understand and apply the unified vision and arrive at the future ready to fight and win. There is little maneuver space remaining and thus the United States cannot hesitate, delay, or divert focus; otherwise, the next major conflict will be sure to upend many entrenched assumptions about the new character of war resulting in compromised security at best, or bloodshed at worst.

The strength of the heavy division and the corps work in Division 86, in my view at least, comes from the fact that we did an enormous amount of consensus building in the development of those organizations. … Philosophically, it's essential that you do that. … [N]o matter how good the organization you may draw up is … —it could be perfect, but if you don't do a little consensus building out there among the people that have to write about it, use it, employ it, develop it, and so on, in its finite detail, it's not going to get very far.

—Gen. Donn A. Starry, 29 July 1981[33] ■

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Military Review
RECOMMENDS

One of the most important articles you will ever read on China's successful effort to take over global maritime shipping is "Asia Rising: Ships of State?," by Christopher R. O'Dea. This article from 2019 was published in the *Naval War College Review* 72, no. 1, and is available for download at https://digital-commons.usnwc.edu/nwc-review/vol72/iss1/5.

SHIPS OF STATE?

Christopher R. O'Dea

Our Ship of State, which recent storms have threatened to destroy, has come safely to harbor at last.

CREON, IN SOPHOCLES'S *ANTIGONE*

Backed by substantial financing and political support, China COSCO Shipping Corporation Limited (COSCO) emerged from the container shipping industry's recent turmoil with one of the largest fleets of commercial vessels in the world and control of a rapidly expanding network of ports and terminals. This article argues that this expansion is a new and distinctly Chinese approach to maritime development and asks whether the state-owned shipping company has become the flagship of China's ambition to become a global maritime power.

Chinese maritime and logistics firms, supported by state-subsidized capital deployed overseas, quickly are becoming a leading edge of China's global influence. In recent years, Chinese state-owned companies have built a global network of shipping and port assets that suggests the country is using maritime commercial investments to advance its geostrategic priorities by establishing economic influence over countries in which Chinese-controlled port facilities are located.

These Chinese state-owned enterprises (SOEs) are creating one of the most extensive maritime networks in the world by acquiring strategically located port assets in the European Union (EU), Latin America, the Middle East, and the Indian Ocean. They provide the capital to build or upgrade commercial terminals; then they direct container traffic to those ports through shipping lines

A former international investment management executive, Christopher R. O'Dea is an authority on global capital market trends and the security implications of infrastructure finance. Mr. O'Dea's work appears regularly in Investments & Pensions Europe *and* IPE Real Assets, *London-based publications specializing in institutional investment management. He is a contributor to* National Review Online *and a contributing editor of Korn Ferry Institute's* Briefings on Talent & Leadership. *A native of Long Island, New York, Mr. O'Dea graduated from Brown University with a degree in American history, concentrating on colonial maritime trade. A life member of the Naval War College Foundation, he is a member of Business Executives for National Security and the Pritzker Military Museum & Library.*

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Working to Master Large-Scale Combat Operations

Recommendations for Commanders to Consider during Home-Station Training

Col. Michael J. Simmering, U.S. Army

A previous version of this article was provided by the National Training Center to leaders across the Army in October 2019.

As the U.S. Army continues to refine its ability to execute the tasks set forth in the 2018 *National Defense Strategy*, the ability of units to operate in large-scale combat operations (LSCO) becomes a critical component of deterrence, compelling our enemies, and winning.[1] In the coming years, as the Army introduces new capabilities into the force, tactical units must not lose sight of the reason that they exist. The Army's proficiency at the tactical level provides strategic leaders time, space, and known capabilities to inform their decision-making processes. For that reason, the core capabilities that allow the Army to conduct sustained LSCO against near-peer threats must be maintained. Building upon the proficiency achieved in the last few years is necessary, improving the force at various levels must continue, and commanders should focus their efforts on the following critical areas when executing home-station training in preparation for LSCO.

Mastering the Fundamentals

The word "fundamental" gets tossed around by leaders at all echelons quite often in conversation. Is physical training fundamental? Is maintenance fundamental? Yes, on both counts. However, when speaking of fundamental tasks that units must perform at the *collective level*, we should gauge our unit training proficiency by our ability to perform the fundamental tasks for which a unit was designed. For example, an FM radio retransmission team that is great at maintenance but cannot establish a retransmission site to extend the reach of tactical communications in a timely manner is not trained at a fundamental task for which it was designed. A tank platoon that cannot conduct tactical movement toward an objective and conduct a subsequent attack by fire or support by fire is not trained in the fundamental tasks for which the organization was designed. A forward observer team that cannot call for fire both digitally and via voice is not trained in the fundamental task for which the team was designed. Brigade, battalion, and even company commanders should ask themselves these questions when formulating their home-station training plans:

- Have I focused collective training in my organization on the fundamental battle tasks (platoon and lower) and mission essential tasks (company and higher) we must accomplish at echelon to be successful against a near-peer threat in the decisive action training environment?[2]
- Once task focus has been achieved, have I geared the training program in my organization, at echelon, to allow the repetitions required to achieve true mastery of these tasks under battlefield conditions?
- Have I allowed time for critical retraining at lower echelons?
- Am I moving my formation to the next level (squad, platoon, company, battalion) too quickly, or am I prudently accepting risk to retrain deficiencies at a later point?
- Have I held leaders accountable for the ability of their organization to perform these tasks?

The recently published Army Doctrine Publication (ADP) 7-0, *Training*, describes "battle focus" as commanders "consciously narrow[ing] the training focus to those collective tasks (METs [mission essential tasks]) and weapon systems necessary for the unit to meet the higher commander's guidance."[3] Simply put, a unit "cannot simultaneously train every task to standard because of mission, time, or resource constraints. Attempting to train too many tasks to proficiency only serves to diffuse the unit's training effort."[4] A unit's ability to achieve battle focus and subsequently train to a high standard for the decisive action operational environment determines a large portion of its performance at the National Training Center. Above all, remember the Army principles of training, whether at home station, deployed, or at a combat training center:

- Train as you fight.
- Train to standard.
- Train to sustain.
- Train to maintain.[5]

For further information to help an organization master the fundamentals, see ADP 7-0, *Training*.

Previous page: Soldiers assigned to 1st Armored Brigade Combat Team, 3rd Infantry Division, Fort Stewart, Georgia, engage the opposing force 13 February 2020 during Decisive Action Rotation 20-04 at the National Training Center, Fort Irwin, California. Decisive action rotations ensure Army brigade combat teams remain versatile, responsive, and consistently available for current and future contingencies. (Photo by Spc. Brooke Davis, U.S. Army)

Command and Control

Most units embrace the philosophy of mission command as set forth by ADP 6-0, *Mission Command: Command and Control of Army Forces*. However, the ability to command and control a brigade combat team (BCT) spread over more than sixty kilometers has always represented an immense challenge. Coordination, timing, and synchronization all stem from an ability to simply talk to one another. Yet, Army doctrine states that "different operations and phases of operations may require tighter or more relaxed control over subordinate elements than other phases."[6] Intermix typical command-and-control challenges with the ability of near-peer threats to deny FM and satellite communications and to contest the electromagnetic spectrum and cyberspace, and just talking becomes an emotional event. Therefore, a well-thought-out communications plan across all warfighting functions, at echelon, such as the PACE (primary, alternative, contingency, emergency) plan becomes essential in allowing commanders to conduct the operations process and simply command-and-control operations. When exploring the functionality of command-and-control systems, commanders (regardless of echelon) should ask themselves these questions:

- Does my organization have an established, resourced, and trained PACE plan? (Note: If only 30 percent of the Force XXI Battle Command, Brigade and Below [FBCB2] Joint Capabilities Release [JCR] systems are operational, then is JCR really a viable "alternate" in the PACE plan?)[7]
- Have I forced my organization to establish our entire communication architecture at home station—at distance?
- As a BCT commander located on the forward line of own troops, how would I personally communicate with my rearward-most unit?
- Have I assigned responsibilities for command and control throughout the depth of the battlefield to help me coordinate and synchronize operations?
- Within my staff sections, is there an established PACE plan by warfighting function? How is my brigade S-2 (intelligence officer) coordinating with all battalion S-2s? Brigade S-6 (signal officer) with battalion S-6s? Brigade fire support officer with task force fire support officers?

ADP 6-0, dated 31 July 2019, clearly describes the criticality of effective command and control. Most importantly, it states,

> Command and Control (also known as C2) is fundamental to the art and science of warfare. No single activity in operations is more important than command and control. Command and Control by itself will not secure an objective, destroy an enemy target, or deliver supplies. Yet, none of these activities could be coordinated towards a common objective, or synchronized to achieve maximum effect, without effective command and control.[8]

Finally, the command-and-control warfighting function speaks of a "system" made up of people, processes, networks, and command posts. Unless commanders personally invest the time in their command-and-control systems, their ability to drive the operations process becomes challenged.

For further information on command and control, see ADP 6-0, *Mission Command: Command and Control of Army Forces*.

Staff Proficiency

Over the last two years, the Combined Arms Center reemphasized the importance of the military decision-making process (MDMP) by increasing the MDMP repetitions for each student. Every Captains Career Course and Command and General Staff Officers' Course graduate demonstrates proficiency in the MDMP. However, education not reinforced by practice creates gaps over time. Upon arrival at the National Training Center, staffs are not simply tasked to conduct MDMP. Instead, the decisive action training environment confronts staffs with conducting the MDMP at speed in an environment where planning and current operations must occur simultaneously. Most staffs

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find this a challenge—primarily because our education and training focus often revolves around planning alone. Often, commanders become frustrated in the ability of the staff to coordinate and synchronize current operations at the pace required during a combat training center rotation. Regarding their staffs, commanders should ask themselves the following questions:

- Does my staff clearly understand how I receive information?
- Do I have an established system/process for communicating the commander's guidance that my staff understands?
- Have I personally *taught* each staff section my expectations of them as the entire staff progresses through the MDMP?
- Have I built a progressive training program for my staff at home station focused on increasing our ability to operate at an increased tempo?
- Have I trained my staff to conduct both planning and current operations simultaneously?

As the Army hones our skills in LSCO, commanders should remember that a very well-trained staff becomes a critical requirement to effectively negotiate the operations process. ADP 5-0, *The Operations Process*, states,

> During large-scale ground combat, command posts displace often, communications are degraded, and troops receive limited precise information about the enemy. These conditions influence the operations process. Streamlining staff processes and the unit's battle rhythm to those related to the defeat of the enemy is essential.[9]

For further information on the operations process and the criticality of effective staffs at echelon, see ADP 5-0, *The Operations Process*.

Reconnaissance and Security

Reconnaissance and security (R&S) operations happen at echelon. From local security patrols and establishment of observation posts at the lowest tactical levels to the scout platoons at the battalion level, to the cavalry squadron at the brigade level, to the employment of additional collection assets, every organization plays a role in the reconnaissance and security fight. Reconnaissance operations focus on the collection against established priority information requirements at echelon in order to provide time and space for commanders to act. Security operations provide early warning in order to protect the main body of the unit. Both are invaluable but neither happens effectively when only the scout platoon or cavalry squadron executes them. Just like everything else, R&S is a team sport. Brigade and battalion commanders should ask themselves these questions:

- How, where, and when does the BCT plan for the R&S fight? Who are the key personnel required?
- Am I providing my subordinates clear reconnaissance or security guidance? Am I employing my cavalry squadron and scout platoons to allow a greater understanding of the situation and allow for timely decision-making?
- Have I articulated *everyone's* roles and responsibilities in the BCT's reconnaissance and security fights?
- Who in the BCT is overall responsible for coordinating and synchronizing the R&S plan and fight? Who manages the information collection plan? Are they complementing each other's efforts?
- Am I layering reconnaissance assets and sensors to establish contact with the smallest element possible?
- Have I included both technical sensors and ground units as part of my comprehensive reconnaissance and security effort?
- Have we developed a robust communications architecture plan that will support the R&S plan?
- Have I resourced and enabled the reconnaissance organizations to perform the task I am asking them to achieve (e.g., dismounts to clear restricted terrain, fires capability, realistic amount of time, etc.)? Overall, how have I established a holistic reconnaissance effort to enable my organization? Does it allow for decision-making and plan adjustment?
- Have I set conditions to successfully execute the R&S fights (e.g., position areas for artillery, Role 2 medical care, forward logistics elements established and ready to support; echelons-above-brigade assets collecting; attack aviation, etc.)?

Field Manual (FM) 3-98, *Reconnaissance and Security Operations*, clearly states that the BCT information collection, intelligence, surveillance, and reconnaissance managers; S-3 plans; the brigade aviation element; the air liaison officer; and the fire support coordinator contribute to allocate organic, attached, and supporting assets and enablers against the named areas of interest to ensure seamless and in-depth reconnaissance operations. All too often, these elements work in isolation, focusing efforts predominately on the maneuver of a combined arms battalion independent of an overall synchronized reconnaissance-and-security effort at the BCT level. Continuous BCT-level operations at the National Training Center demonstrate that upon the conclusion of a major battle, setting conditions must begin immediately. FM 3-98 goes on to state,

> BCT reconnaissance and collection teaming is the pairing of collection assets, usually by the Brigade S-3, to enhance collection assets ability to conduct integrated reconnaissance and security tasks to answer the CCIR [commander's critical information requirements]. Do not

M1A2 Abrams tanks assigned to Company B, 1st Battalion, 68th Armored Regiment, 3rd Armored Brigade Combat Team, 4th Infantry Division, Fort Carson, Colorado, maneuver across the battlefield toward an objective 1 November 2018 during Decisive Action Rotation 19-02 at the National Training Center, Fort Irwin, California. (Photo by Spc. Lisa Orender, U.S. Army)

Soldiers from the 15th Brigade Support Battalion, 2nd Armored Brigade Combat Team, 1st Cavalry Division, conduct base operations 11 April 2019 during Decisive Action Rotation 19-06 at the National Training Center, Fort Irwin, California. (Photo by Sgt. Nathan Franco, U.S. Army)

> keep reconnaissance and information collection assets in reserve. The commanders form reconnaissance and collection teams to complement the capabilities of reconnaissance and intelligence collection. Those teams consist of appropriate combinations of Cavalry Soldiers and multi-discipline intelligence Soldiers.[10]

In order to be successful, information collection assets, manned by multidiscipline intelligence soldiers and reconnaissance elements of the BCT, must operate in tandem to create a comprehensive, fully resourced R&S plan at the BCT level. Remember, "through effective information collection and continuous reconnaissance, Brigades develop and sustain the necessary understanding to defeat adaptive and determined enemies."[11]

For further information on R&S operations, see FM 3-98, *Reconnaissance and Security Operations*.

Fires Integration

The BCT commander and fire support coordinator should always consider the following problem statement in every operational effort: "How does the BCT establish, maintain, and transition a lethal, permissive joint fires environment?" Units must synchronize fires with the movement of tactical formations at the speed required to function effectively in the decisive action training environment. Units that do not can find themselves out of range to effectively shape enemy formations in accordance with the BCT-commander-approved high-payoff target list, attack guidance matrix, and target selection standards prior to contact with "close area" forces. Units sometimes hesitate to push these critical brigade-level enablers forward enough in proximity of the forward line of own troops and coordinated fire line in order to truly effect and transition the fight from the BCT deep fight to the close fight. Those that do move forward fail to account for near-peer threat capabilities and attempt to operate in a manner not commensurate with the operational environment, requiring them to see

and protect themselves. Dispersion, extended distance communications, camouflage, and digital fires capability from sensor to shooter all take on an increased level of importance in this environment. Brigade and field artillery battalion commanders set the tone and enable the necessary discipline to execute a synchronized joint fires plan. When formulating a home-station training plan, ask these questions:

- Have I specifically focused my field artillery units on the tasks they must perform for the BCT in order to achieve collective success (i.e., fire support tasks with particular emphasis on special munitions)? Subsequently, have I tasked these units with so many requirements that I am diluting the effectiveness of fires in the BCT?
- Am I providing clear offensive (shaping) and defensive (counterfire) targeting guidance to my staff to allow them to effectively target the enemy?
- Am I putting my artillery in the correct positions, and do I have a clear understanding of how early I can start affecting the enemy with organic assets?
- Are the task force mortars capable of supplementing and complementing an echelonment of fires to properly influence each task force fight in accordance with a clearly defined priority of fires?
- Do I have a clearly defined observer plan, integrated throughout the BCT with both primary and alternate observers?
- Do those observers understand the desired effect and the importance of their role in the fight?
- Do I understand, down to the platform, which observers have the ability to digitally call for fire, and is the BCT aggregate retransmission plan supportive of the applicable networks?

For further information on ensuring a unit effectively integrates fires, see Army Techniques Publication 3-09.42, *Fire Support for the Brigade Combat Team*.[12]

Sustainment in Contact

Sustainment constitutes one of the most challenging warfighting functions to synchronize effectively in a BCT. However, a failure to sustain our BCTs serves as the single most guaranteed method to hinder success. The sustainment business, like other warfighting functions, relies heavily on relationships. The relationship between the brigade support battalion (BSB) commander, the brigade executive officer, the support operations officer, and the BCT S-4 (logistics officer) is a critical and complex relationship that needs clear delineation of roles and responsibilities for the BCT sustainment enterprise to function at its best.

It is important that each of these key leaders understands his or her role as described in FM 3-96, *Brigade Combat Team*.[13] The BCT executive officer ensures synchronization of the concept of support with the scheme of maneuver. The BCT S-4 develops the support plans and determines support requirements. The support operations officer, while not a BCT staff member, is responsible for synchronizing all support operations in the BCT, including the actions taken by the fires support coordinators. The BSB commander is the senior logistician in the BCT and is the proponent for the sustainment warfighting function, which includes logistics, health service support, personnel services, and financial management. The BSB commander needs to be able to surge, mass, and reallocate capabilities if he or she is going to fulfill his or her responsibility to sustain the BCT fight.

Additionally, while we generally focus our sustainers on supporting the remainder of the BCT, we often forget that sustainment units have training requirements as well. The ability to sustain an entire BCT in the decisive action training environment depends on the ability to develop, organize, and execute a simple, comprehensive concept of support that is understood throughout all echelons of the formation. The decisive action training environment typically includes a great deal of fighting and sustaining in contact. As units become contaminated and work to decontaminate, the rate that commodities are consumed, specifically water, increases dramatically, and the battlefield geometry can drastically change. Planning for survivability moves and decontamination operations will set the unit on the path toward success.

High-intensity combat operations produce casualties, and the BCT's ability to move soldiers from the point of injury to Role 1 medical care (specialized first aid, triage, resuscitation, and stabilization) and beyond is critical to the regeneration of combat power. The died-of-wounds rate is greatest between the point of injury and the Role 1 level of care. The movement of soldiers from the point of injury to Role 1 care must be rehearsed at echelon like any other battle drill. Focus all efforts on identifying the vehicles and locations for the nonstandard evacuation platforms, rehearse self-aid and buddy aid, and ensure every soldier understands casualty evacuation in order to reduce the died-of-wounds rate.

All commanders must ask themselves these questions:

- Does my unit have a well-developed concept of support understood from the platoon through the brigade levels?
- Does my unit have a redundant system for passing logistical status reports to my higher headquarters?
- Are my sustainment units trained to protect themselves in the support area, including chemical, biological, radiological, and nuclear contamination?
- Are my sustainment units trained to protect themselves as they maneuver supplies throughout the consolidation area?
- Have I resourced my sustainment units with the tools necessary to defend against the threats that they will likely encounter?
- Is the BSB commander empowered to influence the allocation and distribution of assets for the entire BCT, including fire support coordinator resources?
- Has each battalion within my organization properly trained, manned, and equipped a field trains command post capable of requesting, organizing, and coordinating for supply movements?
- Is my unit giving the same level of emphasis on the sustainment rehearsal as on the combined arms rehearsal and the fires rehearsal?

For further information on sustainment operations, see ADP 4-0, *Sustainment*.[14] ■

For further information on common observations or recommendations for home-station training, any leader in our Army should feel free to contact Operations Group at the National Training Center. Points of contact for all Operations Group leadership are distributed each month to brigade combat team and division commanders. Battalion commanders should never hesitate if they need assistance. The National Training Center's singular focus is helping them win the U.S. Army's next fight.

Notes

1. Department of Defense, *Summary of the National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge* (Washington, DC: U.S. Government Publishing Office [GPO], 2018).

2. Field Manual (FM) 7-0, *Train to Win in a Complex World* (Washington, DC: U.S. GPO, 5 October 2016), 1-10.

3. Army Doctrine Publication (ADP) 7-0, *Training* (Washington, DC: U.S. GPO, 31 July 2019), 4-3.

4. Ibid.

5. Ibid., 3-1–3-3.

6. ADP 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: U.S. GPO, 31 July 2019), para. 1-25.

7. "FBCB2 System," JBC-P [Joint Battle Command-Platform], accessed 5 February 2020, https://jbc-p.army.mil/jbcp/Help/FAQ/index.cfm?type=2. "FBCB2 [Force XXI Battle Command, Brigade and Below] is a digital battle command information system providing integrated, on-the-move, timely, relevant battle command information to tactical combat leaders and soldiers from brigade to platform and across platforms within the brigade task force. It allows warfighters to pass orders and graphics to visualize the commander's intent and scheme of maneuver. FBCB2 is a key component of the Army Battle Command System"; "Joint Capabilities Release," Stand-To!, 21 February 2013, accessed 5 February 2020, https://www.army.mil/standto/2013-02-21. "Joint Capabilities Release (JCR) is the Army's next generation friendly force tracking system."

8. ADP 6-0, *Mission Command*, para. 1-74.

9. ADP 5-0, *The Operations Process* (Washington, DC: U.S. GPO, 31 July 2019), para. 1-25.

10. FM 3-98, *Reconnaissance and Security Operations* (Washington, DC: U.S. GPO, 1 July 2015), 1-16.

11. Ibid., para. 1-58.

12. Army Techniques Publication 3-09.42, *Fire Support for the Brigade Combat Team* (Washington, DC: U.S. GPO, 1 March 2016).

13. FM 3-96, *Brigade Combat Team* (Washington, DC: U.S. GPO, 8 October 2015).

14. ADP 4-0, *Sustainment* (Washington, DC: U.S. GPO, 31 July 2019).

Indian and Gurkha soldiers inspect captured Japanese ordnance during the Imphal-Kohima battle in World War II, 1944. The tide of the battle turned in favor of the British and Indian forces when savvy commander Field Marshall Viscount William Slim was able to discern the intent of his enemy and take advantage of the situation, providing a good example of what the author of this article refers to as the emergence of exceptional information. (Photo courtesy of the Study Collection at the National Army Museum)

Connecting the Dots

Developing Leaders Who Can Turn Threats into Opportunities

Lt. Col. Richard A. McConnell, DM, U.S. Army, Retired

Within a week of the start of the Japanese offensive … it became clear that the situation in the Kohima area was likely to be even more dangerous than that at Imphal. Not only were enemy columns closing in on Kohima at much greater speed than I had expected, but they were obviously in much greater strength. … I had been confident that the most the enemy could bring and maintain through such country would be 1 regimental group … I had badly underestimated the Japanese capacity for large scale, long range infiltration, and for their readiness to accept odds in a gamble on supply. Luckily, Major General Soto, Commander of the Japanese 31st Division, was without exception the most unenterprising of all the Japanese generals I encountered. He had been ordered to take Kohima and dig in. … It never struck him that he could inflict terrible damage on us without taking Kohima at all. … I have said I was saved from the gravest effects of my mistake in underestimating the enemy's capacity to penetrate Kohima by the stubborn valor of our troops; but it needed the stupidity of the local enemy commander to make it quite sure.

—Field Marshall Viscount William Slim

Then the Unexpected Struck

The unexpected emergence of either threats or opportunities during battle is called exceptional information (EI).[1] The above account by Field Marshall Viscount William Slim is an excellent description of EI emergence. Most notably, Slim recognized the threat when he realized that he had underestimated his opponent. However, Slim also recognized his opponent was incapable of discerning the opportunity with which he, Slim, had been presented. In this case, Slim's ability to perceive the emergence of EI helped him turn a threat into an opportunity. If commanders could recognize EI that helped them mitigate threats, seize opportunities, and turn threats into opportunities, would they do it? Why would they not? Moreover, since commanders are not always present when EI emerges, it would be valuable for them to educate their subordinate leaders to recognize EI and exploit it. Although EI exploitation is not a guarantee of success, commanders who can inflict surprises upon their opponents through the exploitation of EI have a much better chance of seizing the initiative and prevailing during battle.

Interestingly, once military professionals begin looking for examples of EI in operations, numerous examples emerge.

Battle of Antietam. Leading up to the Battle of Antietam during the Civil War, Confederate battle plans were discovered wrapped around a bundle of cigars.[2] Leaders in the Union army were slow to recognize this EI and slow to grasp the opportunity with which they had been presented. Recognizing the opportunity early on when there was a chance to act might have prevented the bloody outcome of Antietam.

World War II. During the 1940 German attack into France, there were indicators that the Germans might be attacking through the Ardennes Forest toward the city of Sedan.[3] Large amounts of straw had been delivered to the vicinity directly across the Meuse River from the Allies, even though there were few cows or horses in the vicinity that could use the fodder. It turned out that the Germans were using the straw to deaden the sound of their tank tracks when they attacked through the Ardennes Forest. Additionally, French reconnaissance aircraft noticed a large traffic jam of tactical vehicles on the German side of the Ardennes.[4] The emergence of the traffic jam EI combined with the straw EI should have been compelling but was ignored by the Allies. This failure to recognize EI was repeated in December 1944 when soldiers in the Bastogne area began reporting that large amounts of straw were being delivered there by the enemy, even though there were not many cows or horses in the area. Allied leaders failed to grasp the significance of this EI, and their first indication of the emerging threat was when hundreds of German tanks emerged from the forest.

9/11. Prior to the attacks on 11 September 2001, flight instructors in Minnesota reported "suspicious 747 flight training."[5] Zacarias Moussaoui had paid over $8,000 for rudimentary flight instruction, supposedly for recreation, but did not possess any flight certifications of any kind. It turned out that Moussaoui only wanted the basics and did not have time to do more than that. This, combined with recent upgrades to the 747 autopilot system that made it easier to manipulate, made flight instructors suspicious.[6]

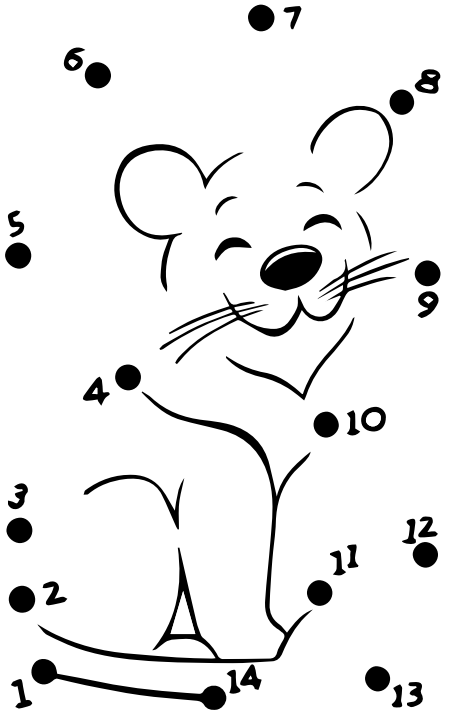
The Big Short. A few years prior to the 2008 housing market crash, Dr. Michael Burry noticed the emergence of EI in the form of increased mortgage failure rates amongst adjustable-rate mortgages in mortgage-backed securities.[7] This emerging threat might have discouraged Burry from investing in mortgage-backed securities. Instead, he negotiated with banks to build credit default

swaps that were in effect insurance policies to bet against the housing market. Because of his ability to turn this threat into an opportunity, Burry was able to return several hundred percent on his investment.

The above are just a few examples that illustrate the vital importance of cultivating the skills to recognize and exploit EI. Anticipating the unexpected is a skill that leaders can hone through practice and multiple repetitions. Furthermore, they should pass those acquired skills on to their subordinates. The key is to develop leaders at all levels who can capitalize on the recognition of EI rather than become victims of it. What follows is a deeper discussion of not only what EI is but also how commanders can develop in their subordinate leaders the skills to recognize it as it appears and exploit it to the benefit of their formations.

Planning to Recognize EI

Before discussing how to recognize EI, it is important to clearly establish how EI is defined. U.S. Army doctrinal references in the past may provide meaningful definitions. For example, thirty years ago, Field Manual 101-5, *Staff Organization and Operations*, defined EI as "the emergence of an unanticipated or unpredicted event that may present an opportunity for success or reveal an immediate or impending threat."[8] This manual was very descriptive in explaining the various ways to recognize EI and what key leaders should do about it. Today, however, EI is only identified in one location within Army doctrine with a less explicitly useful definition. Field Manual 6-0, *Commander and Staff Organization and Operations*, describes EI as "information that would have answered one of the CCIRs [commander's critical information requirements] if the requirement for it had been foreseen and stated as one of the CCIRs."[9] This definition may not seem to be particularly useful in describing the concept of EI; Maj. Jason Wolfe argued in his master's thesis that this doctrinal gap should be corrected by updating doctrine regarding EI and educating leaders of its importance and application.[10] Some might argue that identifying and applying EI is inherently complicated by the fact that we do not know what we do not know, and any attempt to identify it is like fortune-telling or reading tea leaves. However, this practice is not an application of mysticism but instead is a combination of critical and creative thinking.



(Graphic courtesy of www.raisingourkids.com)

Figure 1. Connecting the Dots

Leaders can improve their ability to anticipate the unexpected through improving their visualization skills. Many people have improved their visualization skills without even knowing it. For example, as children, many of us were given connect-the-dots sketches where one draws a line between sequential numbered dots that eventually reveal an image (see figure 1). After we had done a few of these connect-the-dots exercises, we got better at anticipating what the image would look like. It simply is a skill of pattern recognition, making connections, filling in knowledge gaps about what we think we see. That is what identification of EI truly is—gaining understanding of the situation through the connection of clues. So if we use the connect-the-dots example, learners who can quickly identify an image without having to connect all the dots might be able to make a decision to either seize an opportunity or mitigate a threat before an opponent can do so. That is essentially what Slim did in the opening scenario of this article. He identified a threat more quickly than his opponent could anticipate an opportunity, and Slim seized the initiative. Currently, doctrine does not address EI to the extent it should; therefore, commanders

are less prepared to teach their subordinates how to identify and apply it to operations.

Identifying and applying EI to timely decision-making constitutes a knowledge gap for leaders attempting to operate in dynamic environments of uncertainty such as combat. Some leaders may have applied EI in planning and simply not been aware. For example, during the military decision-making process course of action analysis (wargaming) step, identifying EI is of paramount importance because identification influences the overall quality of the process and the resulting wargaming products. One key aspect to improving the process and the products is the quality of the thinking that underpins it all.

During an experiment examining wargaming at the U.S. Army Command and General Staff College (CGSC), Fort Leavenworth, Kansas, researchers designed a theoretical model to describe a reflective process they had observed during planning that identified three cognitive planning domains (see figure 2, page 31).[11] These cognitive planning domains were labeled the "factory," the "laboratory," and the "art institute." These planning domains are informative in helping understand the breadth and depth of thinking required to create detailed plans. The cognitive planning domains are also a useful construct to assist leaders as they exercise the cognitive skills required to recognize and apply EI.

In the factory, planners are focused on synchronization, integration, and executing the plan. In the laboratory, planners test assumptions and validate the plan. In the art institute, planners use creativity, imagination, and forecasting to determine the level of creative ingenuity within the plan. Where these domains intersect is the confluence of the science of control and the art of command. The key to this process of thinking is to gain a deeper understanding of the quality of thinking underpinning a plan. Investing time in each one of these cognitive planning domains is important to building a comprehensive, detailed plan. However, the utility of the cognitive planning domains goes beyond the mere formulation of a plan. These domains create the context for building EI recognition skills and at the same time building planner capabilities to apply EI once it has been recognized.

Perhaps leaders have heard the common lament of less experienced planners who believe their time was wasted if a plan was not executed the way it was anticipated. Experienced planners know that there is nothing wasted in the planning process. Products can be repurposed and redesigned based on emerging information. But more importantly, the thinking that produced those products constitutes a cognitive muscle exercised and made stronger and more capable by the process itself. This is why if leaders allow staffs to take shortcuts and abbreviate the process by focusing on the factory (such as directed courses of action), they may produce inexperienced staff officers who do not know how to validate plans or stretch their creative wings to ingeniously envision what might be possible. Planners with experience employ all three cognitive planning domains and have the skills needed to identify and apply EI. Proficiency at such skills have a direct impact on the level to which planners understand what is truly occurring in their environment. Therefore, planning processes are more than a means to create products. Rather, planning processes are a form of leader development designed to create planners and leaders who are better thinkers that can make sense of what they see.

Planners continually gather data and process it into useable information. The sooner that information can be analyzed and developed into knowledge, the more likely it is to identify EI. Having identified EI, leaders can then apply judgment to their knowledge to directly affect how the commander understands EI's significance and how it applies to his or her situation.[12] This cyclical process is a skill that must be practiced, repeated, and taught to less experienced planners so that their ability to recognize it as it emerges continues to develop

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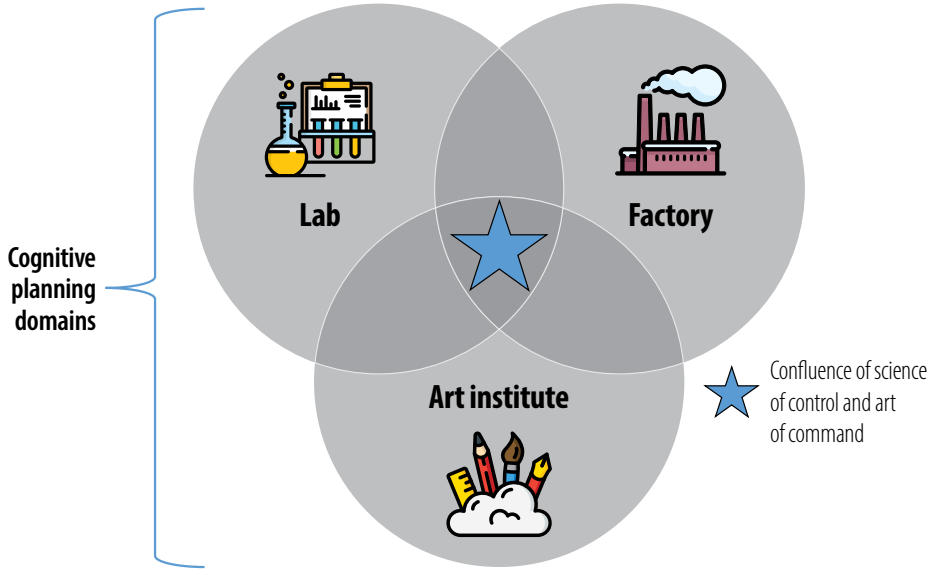
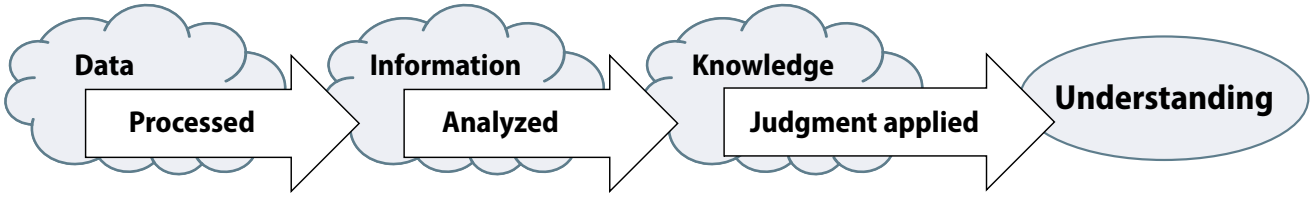


(Figure by author)

Figure 2. The Cognitive Planning Domain

(see figure 3).[13] In this way, the deliberate planning process is a proving ground for EI's recognition and application as it emerges during execution. Leaders who are deliberate in instilling these skills into their junior planners will be more likely to swiftly identify, apply, and exploit EI, potentially seizing the initiative from their opponents.



(Figure from Field Manual 6-0, *Commander and Staff Organization and Operations*, May 2014)

Figure 3. Achieving Understanding

Recognizing EI during Execution

Once a detailed plan has been formulated, planners are tempted to take up permanent residence in the cognitive planning domain of the factory, but that temptation must be resisted. Experienced planners know that plans rarely come out in the way they were initially devised. The enemy gets a vote, things change in the operational environment, and new information is learned that is turned into knowledge for use during decision-making. Therefore, decisions during execution tend to resemble active experimentation where planners can pair the current state with the envisioned end state while staying sensitive to the emergence of variances to the plan (either threats or opportunities) that might derail it (see figure 4, page 32).[14] In this model, there are two types of decisions: execution decisions and adjustment decisions. If planners effectively identify EI during the planning phase, then they have already anticipated execution decisions that will address threats or opportunities in order to get the plan back on course. However, often planners discover EI while in execution that had not been anticipated, resulting in the need to make adjustment decisions. If the planners are not sensitive to EI emergence, their chances of identifying these adjustment decisions may be hampered, ceding an opportunity to their opponents to recognize and seize the initiative.

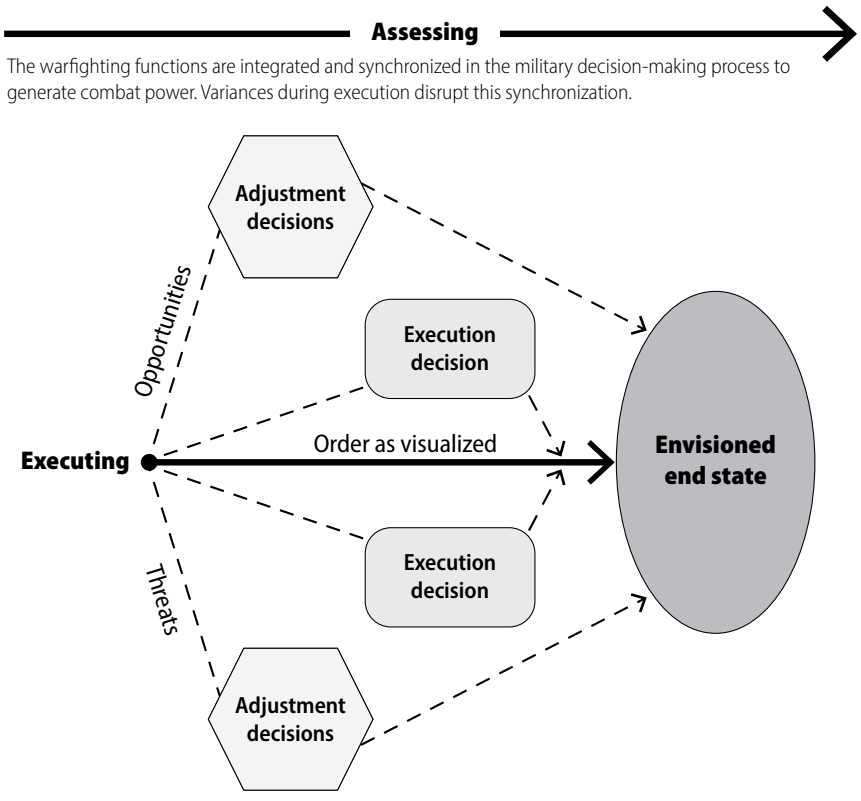
Planners have a process for making adjustment decisions known as the rapid decision-making and synchronization process (RDSP).[15] The RDSP can only work when planners recognize EI emergence. Accordingly, a way for planners to remain sensitive to EI emergence is to maintain the type of thinking employed during planning and to employ all three of the cognitive planning domains. In this regard, the Army design methodology (ADM) may be useful beyond

conceptual planning and employed as plans unfold during execution.

Planners experienced with the ADM are aware that the process is one where leaders identify the current state and the desired end state, frame the problem, develop an operational approach, and then develop the plan (see figure 5, page 33).[16] The model explicitly states "continuous assessment and reframing as required," implying that this model can be useful throughout planning and execution. Constant assessment and reframing should be applied to all of the elements in the ADM. For example, if the current state is incorrectly assessed, it could negatively influence everything that is subsequently developed based on that assessment.

Continual reassessment must also apply to the problem statement. In a recent Small Wars Journal article, CGSC associate professor Dale Spurlin argued that although Army doctrine prescribes problem statements to be developed during planning, once the problem statement is written, many planners never look at the problem statement again.[17] Problem statements should be part of the ongoing assessment process but are often not included. For example, in the opening epigraph regarding Kohima, Slim's initial problem statement might have been: How can the Fourteenth Army prevail against one Japanese regimental group in the vicinity of Kohima given restricted terrain, extended lines of communication, and shortness of time? If Slim's staff had remained focused on continual assessment and reframing, they would have recognized the emergence of the EI of a bigger force moving faster than they expected. In such a case, the problem statement would have had to be adjusted to replace one regimental group with one division—a significantly more difficult problem to solve.

Slim's headquarters was actually experienced at recognizing EI because of its experience with failure earlier in the war; Slim and his soldiers had faced horrendous defeats the year prior to the battle for Kohima. Nevertheless, leaders should consider how they can get their staff and subordinate leaders to gain similar experience through experiential learning without having to face defeat in actual combat in real time. One way to improve EI recognition skills is to deliberately design events that can be inserted into training and educational scenarios that stimulate leaders to use their visualization skills. Such deliberate, repetitive, learning-objective-focused experiences can help commanders develop leaders who can connect the dots to recognize and apply EI.



The warfighting functions are integrated and synchronized in the military decision-making process to generate combat power. Variances during execution disrupt this synchronization.

During execution, commanders and staff also assess the underlying framework of the plan itself. This involves reexamining the original design concept and determining if it is still relevant to the situation.

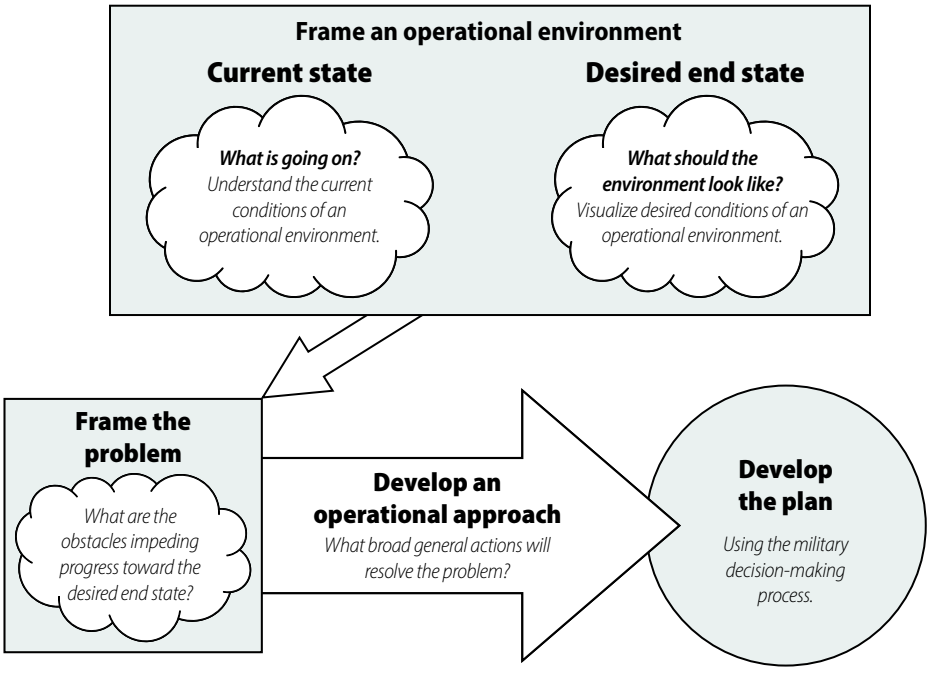
(Figure from Army Doctrine Publication [ADP] 5-0, *The Operations Process*, May 2012)

Figure 4. Decisions in Execution

Developing Leaders Who Can Connect the Dots

In her book *Mindset: The New Psychology of Success*, Carol Dweck describes the difference between a fixed mindset and a growth mindset, a distinction that can be informative for commanders attempting to improve

subordinates' visualization skills.[18] Fixed-mindset people believe that they cannot improve their abilities cognitively. Conversely, growth-mindset people believe that with effort and practice, they can improve their cognitive skills. Commanders who encourage growth mindsets in their subordinate leaders through deliberate practice will have a better chance of making progress and gaining achievements in visualization skills, resulting in more successful EI identification and application.



(Figure from ADP 5-0, *The Operations Process*, May 2012)

Figure 5. Army Design Methodology

In her book *Grit: The Power of Passion and Perseverance*, Angela Duckworth describes two key concepts that would also assist commanders as they strive to improve subordinate visualization skills and EI identification.[19] First, Duckworth discusses how talent, skill, and effort relate to achievement, expressed mathematically as "talent x effort = skill" and "skill x effort = achievement." In other words, resilient people who improve their capabilities get double credit for effort. Therefore, commanders who do not deliberately expend effort to improve subordinate visualization skills to recognize and apply EI should not be surprised if their units do not improve at this skill. Secondly, Duckworth discusses the concept of deliberate practice, which includes four specific requirements:

- a clearly defined stretch goal,
- full concentration and effort,
- immediate and informative feedback, and
- repetition with reflection and refinement.[20]

Commanders who expend effort to achieve improvements in visualization skills by employing these requirements for deliberate practice may find that their subordinate leaders will improve in this vital skill.

In his book *Nine Keys to Effective Small Group Leadership*, Carl George describes an effective, practical approach to build new skills in subordinate leaders through an iterative and progressive process that supports Duckworth's requirements:

I do. You watch. We talk.
I do. You help. We talk.
You do. I help. We talk.
You do. I watch. We talk.
You do. Someone else watches.[21]

In this approach, George gives commanders and organizational leaders a practical protocol for coaching subordinate leaders to improve. This approach would be especially useful as leaders endeavor to inculcate visualization skills and EI identification capabilities in subordinates. Both Duckworth and George emphasize reflection and refinement throughout the process of leader development. Importantly, George completes the process by describing leaders teaching someone else this new skill. This is especially important while improving visualization and EI recognition skills as it gives everyone involved multiple practice repetitions and reinforces the learning through teaching others.

Visualization and EI identification skills have been improved consistently for years during exercises using master event scenario lists (MESLs).[22] During the exercise design process for mission rehearsal exercises, exercise directors use MESLs to focus training to achieve desired learning objectives. Commanders can use the same process to improve subordinate-leader visualization skills. Through the after-action review process, commanders can identify deficiencies in visualization skills and set those as learning objectives for the next phase of the exercise. Various staff members can be enlisted to design MESLs to support learning objectives to improve visualization and EI identification skills. Such design work aids in leader development in two ways. First, it gives subordinate leaders experience in intentionally looking for holes in the plan to exploit in a form of red teaming.

> Red Teaming is a flexible cognitive approach to thinking and planning that is specifically tailored to each organization and each situation. It is conducted by skilled practitioners normally working under charter from organizational leadership. It uses structured tools and techniques to help us ask better questions, challenge explicit and implicit assumptions, expose information we might otherwise have missed, and develop alternatives we might not have realized exist. It cultivates mental agility to allow Red Teamers to rapidly shift between multiple perspectives to develop a fuller appreciation of complex situations and environments. This leads to improved understanding, more options generated by everyone (regardless of rank or position), better decisions, and a level of protection from the unseen biases and tendencies inherent in all of us.[23]

By encouraging the above cognitive approach to thinking and planning, commanders can nurture within their subordinate leaders the cognitive skills needed for improved visualization, EI identification, and application. Commanders can then incorporate these MESLs into their battle rhythm in the command post. For example, a best practice among effective units is to rehearse battle drills at the beginning of every shift. These MESLs can easily be inserted into that process, stimulating discovery-learning that has the potential of not only improving products, but more importantly, the thinking that underpins those products.

Second, commanders who encourage this kind of red team thinking can improve the climate and culture of their organizations. Encouraging red team thinking can support visualization that will make EI identification more likely. As discussed earlier, inexperienced planners are tempted to live in the cognitive planning domain of the factory. Encouraging planners to continue to operate in the cognitive planning domains of the laboratory and the art institute as well as the factory will support visualization and EI identification and application. By deliberately practicing the design process of MESLs during execution, commanders can encourage their subordinate leaders to maintain the balance of critical and creative thinking needed for EI identification.

Conclusion

Few plans turn out the way planners expected they would. For unexpected variances that create threats and opportunities, planners should use the RDSP. However, if the staff cannot recognize and apply EI, they will never be able to commence the RDSP. Adjustment decisions are made necessary by EI emergence. Therefore, commanders should expend deliberate effort to improve their subordinate leaders' capabilities to recognize unexpected threats and opportunities and act on them. One way to improve these skills is to engage in ongoing exercise design throughout execution. This can be accomplished by crafting MESLs (monkey wrenches to throw into the plan) and ongoing reflection and feedback connected to deliberate goals such as learning objectives. EI recognition and application is not a form of magic but is a skill that leaders can improve through deliberate practice, multiple repetitions, and by transmitting this skill to the next generation of leaders. History is filled with examples of leaders who were able to seize opportunities and mitigate threats as they emerged as well as leaders who were punished for their lack of vision.

Uncertainty in warfare is a constant, change in warfare will accelerate, and the magnitude of change in warfare will increase. Therefore, future commanders can ill afford subordinate leaders who cannot connect the dots and turn threats into opportunities. ■

Notes

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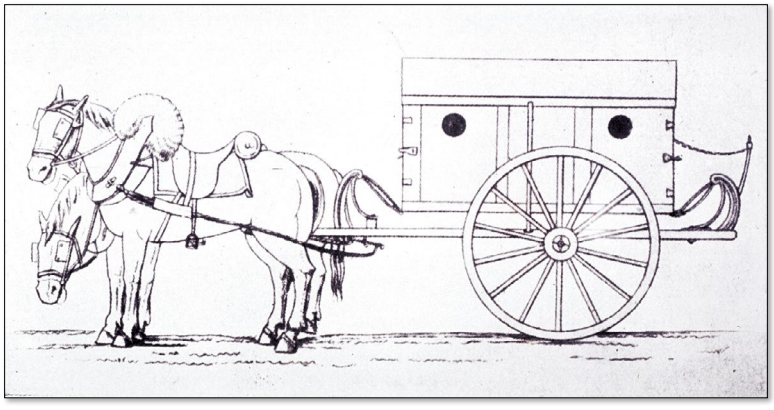
Medical Changes Needed for Large-Scale Combat Operations

Observations from Mission Command Training Program Warfighter Exercises

Col. Matthew Fandre, MD, U.S. Army

Successful treatment of combat casualties, for the most part, has become an expectation throughout the past eighteen years of combat operations. The U.S. military has the highest level of survival for preventable death in history, with a 92 percent survivability of battlefield injuries.[1] The lessons learned in the treatment of these casualties have not been lost; however, when looking through the lens of large-scale combat operations (LSCO), many of these underlying assumptions and expectations cannot be taken for granted by commanders, soldiers, and the American public.

Changes in the nature of warfare required Baron Dominique-Jean Larrey to revolutionize medical planning and operations under Napoléon Bonaparte.[2] Similarly, the transition to LSCO brings with it a multitude of challenges, not only for operational forces (e.g., fires integration, multi-domain threats, lack of air superiority) but also for all enabling functions including sustainment, protection, and intelligence. Medical considerations in LSCO have the same challenges. Reliance on past successes in wars in which we controlled the majority of operational variables does not guarantee success or readiness for the next war. A generation of officers and enlisted soldiers is unfamiliar with the medical actualities of prolonged, multi-corps fights against a peer or near-peer threat. Analysis and observations gained during Warfighter exercises (WFXs) identify areas in which the U.S. Army is not prepared for the medical realities of LSCO.



French surgeon Baron Dominique-Jean Larrey's *ambulance volante*, or flying ambulance, used to evacuate casualties from the battlefield during the Napoleonic wars. (Image courtesy of The National Library of Medicine)

The Mission Command Training Program (MCTP) trains and evaluates division and corps operations in a simulated operational environment to test mission command, staff synchronization, and staff integration (vertically and horizontally) through WFXs. The WFX program uses an intricate and robust system of computer programs and technicians to simulate (not replicate) combat situations to force commanders and staffs to maximize their processes and utilize subordinate units to achieve operational goals. In contrast to recent operations, in LSCO, brigades and divisions are no longer the pinnacle of operational forces; rather, they are tactical units used by the corps in a singular or multi-corps fight to defeat a peer or near-peer adversary. In contrast to the counterinsurgency paradigm of the past eighteen years where the focus was on small-unit engagements with an enemy of limited weaponry, peer/near-peer threats possess a scale and lethality not witnessed since World War II.

Within the MCTP construct, divisions and corps fight for eight days. Based on last year's five exercises, the average number of combat casualties (for a fighting force of approximately one hundred thousand) is consistently fifty thousand to fifty-five thousand: about thirty thousand to thirty-five thousand soldiers sustained wounds requiring evacuation out of theater, ten thousand to fifteen thousand were killed, and ten thousand to fifteen thousand were injured but able to return to duty. This is roughly the same number of casualties collectively incurred in Iraq and Afghanistan; however, the survivability percentage in Iraq and Afghanistan is significantly higher. Nevertheless, while injuries and death will occur in any war, it is the U.S. military's collective responsibility to minimize the number of deaths and combat injuries.

Previous page: An Army Ranger combat medic conducts routine medical training during 2nd Battalion, 75th Ranger Regiment, task force training in August 2019. The Ranger O Low Titer (ROLO) Whole Blood Program protocol, designed to bring emergency blood transfusion from the hospital to the battlefield, is practiced multiple times a year with volunteers and medics to maintain a high level of medical proficiency. (Photo by Sgt. Jaerett Engeseth, U.S. Army)

Since combat operations must continue despite a large number of casualties, the United States must continue to provide personnel to fight the fight. All too often, the Army calculation of combat power is focused primarily on major end items like tanks, vehicles, artillery, and helicopters. Unfortunately, if there are a thousand tanks but only one hundred crews, there are effectively one hundred tanks and nine hundred road blocks. In order to maximize combat strength, the U.S. military must invest in the necessary medical infrastructure to care for the anticipated massive number of casualties (as well as in a robust personnel replacement system).

From the medical perspective, the primary focus of the Army Medical Department's (AMEDD) previous motto "to conserve fighting strength," has never been truer than now.[3] This kind of focus incorporates everything from preventive medicine and day-to-day readiness to treating infectious diseases and performing lifesaving damage-control surgery. Historically, the impacts of noncombat medical issues greatly outnumber combat injuries; in my personal experience of eleven deployments in multiple operational assignments, over 90 percent of medical duties were for noncombat-related issues. The significance of nonbattle injuries is vitally important and cannot be overlooked because it dramatically affects combat power. Force health protection must be emphasized in all environments.

Lessons learned from the MCTP WFXs will highlight the medical realities of LSCO and will identify areas that must be addressed in order to minimize deaths and maximize the fighting force (combat power).

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A Change in Thinking

As Gen. Mark Milley has repeatedly stated, the United States must be prepared for war on a large scale.[4] The operational realities, the stresses upon the medical system and sustainment units, and the psychological and emotional impact of significant casualties cannot be underestimated and must be prioritized.

A large-scale war will resemble World War II in scale but will involve modern lethality. A day of combat could potentially incur three thousand to four thousand casualties daily, and the U.S. military's medical system lacks the capacity (not the capability) to care for all of these casualties. Triage as we know it, namely that the most severely injured (who can survive) are treated first, will change. Not everyone who can survive will survive (there are not enough resources). Furthermore, the Golden Hour will become a goal, not an expectation. This is not a paradigm shift; instead, it would be a return to the patterns and expectations of World War II operations and Cold War planning, exacerbated by current technology and lethality. Lastly, although mass casualty situations will occur periodically across the battlefield, realistically, the entire operation will experience a continuous mass casualty environment.

The number of casualties will require massive investments into intratheater surgical and hospitalization capabilities. Furthermore, it will require a vast number of ground and air assets to medically evacuate the wounded to higher levels of care. As air superiority cannot be guaranteed, the threats to aviation assets could limit aerial medical evacuation (medevac), and thus, ground medevac will be the primary means of movement from point of injury to Role 2 treatment facilities (lab and holding capabilities, possibly surgical assets) and potentially to definitive Role 3 hospitals (full surgical services and ICU capability). However, tactical ground vehicles have limited litter transport capabilities. Therefore, when aligning the need for assets with the total number of casualties, the need vastly exceeds the medical system inventory in both direct patient care and in evacuation capacity. The resultant effect will dramatically increase died-of-wounds rates. Expedited transportation may be further limited by degraded road networks (due to enemy damage or threat), displaced civilians, and dense urban environments. Casualty evacuation by nonmedical platforms will be limited by an overall shortage of troop transport assets due to competing mission requirements.

Corps, division, and brigade medical staffs conduct operational planning and synchronization 8 February 2020 in the I Corps surgeon's planning area during Warfighter Exercise 20-3 at Joint Base Lewis-McChord, Washington. (Photo courtesy of James Garner, Mission Command Training Program)

To mitigate these challenges, medics, nurses, and providers at all levels must be trained and prepared for prolonged casualty care to maximize the survivability rates of wounded soldiers. The importance of Tactical Combat Casualty Care and lifesaving medical skills by all members of the military cannot be overstated.[5] Individuals and leaders at all levels must prioritize medical skills training (combat lifesaver) and medical specialist training in order to preserve life and combat power. As demonstrated in Operations Iraqi Freedom and Enduring Freedom, when soldiers reach surgical treatment promptly, the AMEDD has the medical skills and capabilities to provide greater than a 90 percent survivability rate. However, AMEDD's current structure and staffing lacks sufficient capacity for far-forward extended casualty care to meet these medical demands. The resultant effect will be a lower survivability rate and the inability to sustain the impressive gains and successes in tactical medical care witnessed over the past two decades. Lack of medical access and bed availability is even further compounded when considering the significant burden of noncombat casualty care demands from those with infectious diseases or other conditions requiring observation and hospitalization.

Assessing the medical realities of LSCO requires a significant shift in expectations from the counterinsurgency environment. As mentioned previously, no longer can surgical treatment within the Golden Hour be an expectation. Not only will air medevac be tactically unavailable at point of injury or from Role 1 (unit aid stations), but the assets necessary to move thousands of casualties to surgical facilities also do not exist. And even if the transportation assets were available, inadequate numbers of surgeons and operating tables translate to insufficient supply to meet the demand. Lastly, and potentially the most challenging change in expectations, relates to triage of casualties. The standard principles of triage may need to be reversed in order to maximize combat power. Instead of prioritizing casualties based on severity of injuries,

An aerial view of the 10th Field Hospital, 627th Hospital Center, and augmentation detachments setup for a field training exercise at Fort Carson, Colorado, in September 2017. (Photo courtesy of the U.S. Army)

determination of who gets treated first may be based on a utilitarian principle to maximize the number of service members who can remain in the fight (e.g., treating three to four individuals who can return to fighting versus one critically wounded individual who requires vast quantities of medical resources). Moreover, all of these considerations and challenges are magnified when in a chemical, biological, radiological, or nuclear environment. All leaders, not just medical leaders, must wrestle with this reality and the resultant difficult decisions that must be made.

Direct and Indirect Effects on Combat Operations

The United States has one mission in war: to win! The majority of the focus in war planning and execution lies in maximizing lethality with weapon systems, employing the most successful tactics, and utilizing adjunct systems (such as intelligence, surveillance, and reconnaissance; engineer support; and nonlethal assets). However, as proven throughout U.S. military operations, combat support planning and sustainment operations are critical for combat success. In the same manner that the sustainment community quickly resupplies units with ammunition, fuel, and repair parts, the human dimension must have similar attention during LSCO.

As previously mentioned, the tens of thousands of casualties encountered in LSCO will have direct effects on combat power and combat operations. The movement of casualties will also require dedicated and continued coordination to clear the battlefield and medical facilities to ensure capacity for the next day's wounded. Prioritization of medical supplies on constrained

movement assets will need synchronization at the highest levels (as medical logistics is dependent on sustainment brigades and combat support supply battalions to distribute Class VIII medical supplies). Medical supplies will compete for limited transportation assets and will diminish the throughput of Class III (petroleum, oil, and lubricants), Class V (ammunition), and Class VII (major end items) to forward-deployed units.

The same level of attention and synchronization is required in retrograde operations to incorporate movement of casualties to the rear. The current medical evacuation system does not possess the robustness needed for massive medevac. Dedicated ground and air medevac will properly move critical patients needing ongoing en route medical care. However, moving the remaining patients will necessitate use of nonmedical assets to include ground logistical vehicles and contracted support by bus and rail.

Army Role 3 Capacity, Support, Structure, and Utilization

The Army has two deployable hospital models: the combat support hospital (CSH) and the hospital center, which has two subordinate field hospitals. The transformation from the CSH to the hospital center is currently ongoing and should be complete within the next two to three years. Both hospitals provide Role 3 care; the hospital center uses a modular construct to provide greater flexibility to meet varying mission demands. In terms of total beds, there is little difference as the CSH has a total of 248 beds and the hospital center (with both field hospitals) has a total of 240 beds.

For medical planning, the basis of allocation (the determination of hospitals needed for an expected number of casualties) for a hospital is 3.78/1,000 conventional hospital patients per day in the corps.[6] Depending on the responsiveness of casualty movement, in a war with three thousand combat casualties requiring hospitalization a day, the total bill is around ten fully functional CSHs or hospital centers. In fiscal year 2019, the total Army inventory is twenty-eight CSHs (ten active, eighteen reserve), or twelve hospital centers (six active component/six reserve component) and nineteen field hospitals (seven active/twelve reserve).[7] Thus, a one-corps fight will require half of all available hospitals, and a multicorps war will require most of the entire inventory, leaving little to none in reserve or for other missions worldwide.

To further complicate the situation, CSHs and hospital centers are not fully equipped. Full sets of equipment and perishable medical supplies are stored in national warehouses. Unfortunately, current inventory of equipment, supplies, and personnel limit the ability to quickly resource mobilization. Thus, the number of hospitals that could be deployed tomorrow is dramatically fewer than what is needed on the battlefield. Conversion of CSHs to hospital centers has been delayed due to problems with equipment issuance. Furthermore, in contrast to many of the U.S. wars, there may not be multiple months available to mobilize and activate the industrial base in a LSCO situation to fully stock hospitals and medical units.

Another significantly compounding factor is the lack of adequate medical staffing. The AMEDD relies heavily on military reserve medical professionals to staff units, particularly for very highly trained, low-density positions like surgeons, anesthesiologists, and emergency medicine physicians. Based on historical combat experience, 70 percent of combat injuries require surgical intervention due to the mechanism of injury.[8] The current manning of board-certified orthopedic and general surgeons (active and reserve) is around 30 percent.[9] Thus, there are insufficient numbers of providers to staff the operating tables required to support LSCO and still provide casualty follow-up care at military bases in the United States, garrison care (preventive and treatment), graduate medical education (training and development of the next generation of providers), and contingency support throughout the rest of the combatant commands.

An added medical capability to bring surgery forward on the battlefield and increase the capacity of operating rooms is the forward surgical resuscitative team (FRST). In the past two decades, these teams have performed magnificently and saved countless lives as shown by the historic survival rates on the battlefield. But in LSCO, with a lack of air superiority, difficult resupply, and fluid front lines, forward surgical teams may have limited functionality (perhaps outside of the special operations environment). Having forward surgical capability gives confidence to commanders and soldiers, but what true value does it hold when there are three thousand to four thousand casualties a day, 70 percent of which are surgical, and an FRST that has only two operating tables? Prioritizing evacuation and consolidation of surgical

assets at higher levels of care may be more important than putting these limited assets forward.

On average, the WFX allocates four CSHs and ten FRSTs within the medical brigade to directly support the tactical corps. The total personnel bill is forty-six general surgeons, twenty-eight orthopedic surgeons, and twenty-eight emergency medicine physicians. In aggregate, this number makes up a significant portion of the AMEDD inventory; it is equivalent to the staffing of a large metropolitan trauma system. Conflict with a peer or near-peer enemy will eventually require more hospitals than what we've allocated in the WFXs, and the United States simply does not have the inventory. Senior military leaders and politicians need to be prepared for probable need of a medical draft when LSCO occurs.

The final area for consideration and discussion involves whether CSHs and field hospitals are the proper models for a LSCO. Designed in the era of Iraq and Afghanistan, hospital centers and field hospitals prioritized modularity, flexibility, and enhanced capabilities that may not be as critical in LSCO. Having modularity or a computed topography scanner (which was added in the new design) is nice for some environments, but to maximize readiness for LSCO, constrained resources (people, equipment, and money) need to be allocated to produce the greatest possible throughput. The U.S. military needs to prioritize funding to provide the greatest number of operating room beds and hospital beds to minimize deaths. In LSCO, the number of casualties would be overwhelming, and in its current state, the U.S. Transportation Command would be unable to evacuate everyone expeditiously. Thus, bolstering the capacity and capability of the hospitals should be prioritized.

Additionally, CSHs and field hospitals are considered mobile. But when they take over thirty C-17s or one hundred assorted trucks, how mobile are they?[10] Commanders must understand and anticipate the herculean efforts required to move a hospital and consider the needed space (over fifteen acres) and the daily consumables required to operate one, much less ten, CSHs or hospital centers. Commanders must thoroughly weigh the decision of when and where to establish a hospital, and consider the time and resources required to transfer or discharge all the patients, tear down, pack, move, and then reestablish the hospital in a new location.

Changes in Training

One area requiring change is the way in which the U.S. military integrates medical planning and operations into WFXs and other training exercises. At MCTP, medical brigades have recently been added in a limited role as response cells. This allows commanders and staffs the opportunity to exercise mission command through their subordinate combat support hospitals, hospital centers, and multifunctional medical battalions. As a functional brigade, medical brigades are assigned to either a tactical corps or the medical command (deployment support).[11] An added benefit of inclusion in WFXs is the ability for medical brigade commanders and staffs to work directly with their corps' higher headquarters counterparts during the exercise in order to fully integrate and coordinate operational and sustainment planning. Too often, medical exercises occur separately from an operational unit's training exercises, which deprives both elements the ability to train, synchronize, and improve. Future iterations should include medical brigades as training audiences or enhanced response cells in order to fully simulate all ten medical functions for which they are responsible.[12] Once fully enmeshed as training audiences, an option would be simultaneous medical-unit command-post exercises (CSHs or hospital centers) during the WFX to further expand the medical realism and train all units collectively. This option also provides sustainment units (expeditionary sustainment commands and sustainment brigades) with the opportunity to coordinate and plan support for deployed medical units and medical logistic requirements. For example, a typical CSH requires massive amounts of life support that must be provided by other entities (see table on page 43 for a summary of space and daily sustainment requirements).[13] The integration of medical considerations in the exercise through operationally experienced and focused medical officers allows this discussion to be integral to the scenario design and WFX.

The final expansion of medical integration would add the medical high command role. Similar to the function of an expeditionary sustainment command, the Army Medical Command (Deployment Support) units provide the medical high command for medical brigades and a theater-enabling command for the Army. Furthermore, the medical command has the critical role of coordinating with Air Force theater hospitals, Navy hospitals and hospital ships, and host-nation medical assets (if authorized) for care and medical regulation (movement of

Table. Hospital Center Requirements

Hospital center sections	Diesel (gallons/day)	Gas (gallons/day)	Power (kilowatts/day)	Water (gallons/day)	Operational space (acres)	Housing (acres)	Commercial trucks (assisted)	Rail (flatcar)	Air (C-17)
Headquarters and headquarters detachment, hospital center, 27 personnel	10	0	118	Surgical 625 Patient care 4,135 Universal unit level 3,889 Laundry 3,836 Showers 2,633	1.12	0.35	4	2	2
Hospital augmentation detachment, 24-bed surgical, 66 personnel	360	97	380		1.09	0.2	13	6	6
Hospital augmentation detachment, 32-bed medical, 45 personnel	240	75	263		0.23	0.2	12	6	6
Medical augmentation detachment, 60-bed intermediate care ward, 33 personnel	120	55	89		0.32	0.14	5	3	3
Medical augmentation detachment, 60-bed intermediate care ward, 33 personnel	120	55	89		0.32	0.14	5	3	3
Field hospital, 166 personnel	1,006	176	755		6.78	0.39	37	15	13
Field hospital, 166 personnel	1,006	176	755		6.78	0.39	37	15	13
Total 536 personnel	2,862	635	2,450	15,117	16.64	1.81	113	50	46

(Table from *Army Health System Doctrine Smart Book*, 3 February 2020)

patients throughout the area of operation). Only the U.S. Army has a designated higher-level mission command to provide command and control for theater medical operations and to conduct joint medical coordination. Currently, there are three medical command units in the Army (one active duty unit and two reserve units). As the higher medical command, those units will own the majority of the medical regulation and movement coordination. Given the enormous numbers of casualties, integration in planning and training is essential since that has not been stressed at this level for decades. Furthermore, holistic medical integration provides the theater commander with accurate medical updates and potential impacts on operations. Medical command incorporation in the exercise provides greater robustness to the overall exercise and fulfills the missing higher medical command function for the medical brigades. Finally, involvement in the exercise can help shape and refine Army and joint doctrine to clearly articulate these units' roles and authorities in joint medical planning and operations.

Intertheater Management and Movement

As in World War II, many casualties will remain in theater to recuperate and rejoin their units. Units at large may cycle to the rear to refit, retrain, and return to the

U.S. Air Force Expeditionary Aeromedical Evacuation Squadron members monitor patients 25 February 2007 during a C-17 aeromedical evacuation mission from Balad Air Base, Iraq, to Ramstein Air Base, Germany. (Photo by Master Sgt. Scott Reed, U.S. Air Force)

front lines. Extensive medical networks will need to exist to care for and feed those recovering.

Moreover, many patients will need to leave the-ater, but the military lacks the ability to manage and transport the large number of casualties anticipated in LSCO. Currently, two airframes in the inventory conduct intertheater aerial medevac, C-17s and C-130s. Although both platforms provide needed capabilities, the thousands of litter patients that must be rapidly evacuated from theater means there will be a capacity shortfall. One potential joint material solution is to resurrect the concept of dedicated medevac aircraft with the capacity to hold a much greater number of casualties. Just as with the now retired Nightingale C-9, a modification of civilian aircraft designed to hold a large number of casualties and to provide critical capabilities is possible. With new designs (such as the Airbus 380), a double-deck aircraft can be configured with critical care capabilities above and minimal care below. When returning to theater, these aircraft can be utilized to transport Class VIII medical resupply and decrease the burden on other airframes. The military does not need this capability daily, so utilization of a system like the Civil Response Air Fleet could be the ideal model. Additionally, Navy hospital ships could be configured to transport greater numbers of casualties from the theater back to the United States. Many casualties may recover and recuperate in theater (much like World War II); however, those unable to return to the fight could take a longer transport home via the hospital ships. This is not solely a material gap; the U.S. military must also have the trained critical care teams to treat the wounded while in transit.

Lastly, where do recovering casualties go when they get home? Military treatment facilities and Veterans Affairs hospitals do not have the capacity to house a large number of casualties. In order to correct this problem, there must be a nationwide effort to coordinate efforts

through the U.S. Department of Health and Human Services and the National Disaster Medical System.

Conclusion

Awareness of and attention to medical considerations related to LSCO is critical. By utilizing and applying observations from the WFX, the U.S. military can simulate the challenges that commanders, operational headquarters, and sustainment and medical units could face in LSCO. MCTP's units use complex algorithms to drive the exercise; even if the accuracy is not perfect, the conclusions drawn from the system data are accurate enough to recognize that the United States is not fully prepared for this number of casualties. The military, and society at large, must acknowledge there are constrained resources, and it must manage expectations on survivability. Depending on the combat environment and threat (such as the use of chemical, biological, or nuclear weapons), all of these sobering challenges could be significantly worse. The U.S. military has a professional and personal responsibility to think hard now to be able to make hard choices later. The focus must be on medical capacity, not only on capabilities, and there must be a joint solution. Just as Maj. Jonathan Letterman's changes to the medical department saved countless lives during the bloodiest day of combat in the Nation's history at Antietam, the remainder of the Civil War, and all subsequent wars, we owe it to all service people, their families, and America to evaluate and make changes now.[14] ■

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Preventable Casualties

Rommel's Flaw, Slim's Edge

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For tactical brilliance, energy of execution and inspiring leadership, Field Marshal Erwin Rommel's exploits in the Western African Desert in 1941–42 find few equals in this century. Today, many view Rommel as the quintessential armor commander and a role model in tactical and operational skills. Beyond these acknowledged areas of excellence, however, Rommel's performance as a commander showed deficiencies bordering on negligence.

The impact of virtually nonexistent field sanitation and associated preventable diseases on the *Afrika Korps* in 1942 demonstrates the likely outcome when a commander and his staff either ignore or are ignorant of the fundamentals of military medicine. Rommel's inattention to the health of his command led to massive attrition of irreplaceable seasoned veteran troops and contributed significantly to his ultimate defeat.

Conversely, in Burma during 1943–44, an enlightened contemporary of Rommel, British Lt. Gen. Sir William J. Slim, successfully attacked the disease and sanitation problems that were destroying the British 14th Army. He ultimately succeeded in defeating the Japanese in Burma.

The analysis of these two contrasting cases points up some lessons for the professional education of Army officers today.

After a succession of spectacular successes, Rommel was ultimately defeated in the Western Desert of North Africa. This defeat is usually attributed solely to the overwhelming personnel and material superiority of his opponents. What is not generally known, however, is the extent to which his own actions contributed to the numerical inferiority of his army.

The period between October 1941 and December 1942 includes Rommel's most famous battles: the British Crusader offensive; Rommel's retreat and subsequent counteroffensive in January 1942; the German offensive of late May, culminating a month later in the capture of Tobruk; the first battle of Alamein; Rommel's failure at Alam Halfa in August; and his decisive defeat during the second battle of Alamein in late October and November.

During this period, for every German absent from duty because of battle injury, three were lost because of disease. Through sickness, Rommel lost temporarily or permanently a force equal to twice his average strength. Even during the climatic battle of Alamein, sickness was second only to being taken prisoner as a source of German personnel attrition. Many who became ill returned to their units after a short time; however, because of the nature of the diseases causing this attrition (dysentery, hepatitis, malaria, skin disease), it is likely that many additional cases were not hospitalized and therefore not counted. Both the cases returning to duty and the nonhospitalized performed with reduced combat effectiveness, and many suffered relapses leading to long-term hospital care.

Supporting evidence shows that of the 40,867 German troops medically evacuated from North Africa in 1942, disease was the cause in 28,488 cases.

Could Field Marshal Rommel have reduced the German military attrition caused by sickness? Certainly the concurrent British

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Field Marshal Erwin Rommel (*second from left*) visits a U-boat base 12 February 1944 in La Rochelle, France. (Photo courtesy of Bundesarchiv via Wikimedia Commons)

experience in the Western Desert suggests that Rommel could have done much better. In comparing the sickness rates of the British 8th Army and Rommel's *Panzerarmee Afrika* from October 1941 to December 1942, a German soldier was 2.6 times as likely to become medically noneffective as his British opponent. In the two months preceding the second battle of Alamein, the German attrition rate exceeded 200. More than one in every five Germans had become ill. No wonder that elite units such as the 15th *Panzer* division were terribly understrength (3,840 men versus a TOE [table of organization and equipment] strength of more than 10,000).

Matthew Cooper in his book, *The German Army 1933–1945*, quotes Sir Sheldon F. Dudley: "Montgomery says the Eighth Army won, but Rommel claimed the victory for dysentery … But, as the Germans learned at El Alamein, dysentery can still win battles when hygiene discipline on one side is slack."

Since the two sides were fighting in the same hostile desert environment, one may ask why the Germans were more profoundly affected by disease. In reality, many of the medical conditions that so weakened Field Marshal Rommel's army were preventable by well-understood and usually simple measures.

The official British history says that "the British Army and its medical services … fully understood that problems of military hygiene would assume very considerable

Top: The 21st Panzer Division of the Afrika Korps on the move 1942 in northern Africa. (Photo by George Weber via Wikimedia Commons)
Middle: Doctors treat a wounded soldier of the 81st West African Division in an improvised operating room 1944 in the Kaladan Valley, Burma. (Photo courtesy of the Imperial War Museum, London)
Bottom: Troops line up to receive their water rations from a one hundred-gallon mobile tanker in Burma. Drinking local water that had not been tested was strictly forbidden. (Photo courtesy of Sgt. A Stubbs, courtesy of the Imperial War Museum, London)

Decades of routine peacetime medical practice have eroded the ultimate responsibility of commanders for the health of their troops, a principle well illustrated in the battlefield careers of two famous World War II field generals.

dimensions when large numbers of troops, imperfectly trained in matters of private and public sanitation, became congregated [in the desert]."

Rommel's command clearly did not have a similar degree of awareness. F. A. E. Crew writes in *The Army Medical Services*, Vol. I and Vol. II that "the complete lack of sanitation among both the Germans and Italians did much to undermine their morale in the Alamein position … "

The field sanitary discipline of German troops in various portions of this theater was lax, and they suffered from excessively high rates of intestinal diseases. Paradoxically, the otherwise exceptionally well-disciplined *Afrika Korps* neglected basic disease prevention procedures.

This is illustrated in the following report by Col. H. S. Gear, the British assistant director of hygiene in the Middle East—"Hygiene Aspects of the El Alamein Victory"—which appeared in the *British Medical Journal*, March 1944:

> Enemy defensive localities are obvious from the amount of faeces lying on the surface of the ground … This contempt for hygiene became such a menace to the enemy as to affect from 40 to 50 percent of his front-line troops, as interrogation of captured medical officers revealed … The enemy appears to have no conception of the most elementary sanitary measures, and has a dysentery rate so very much higher than ours that [it] is believed that the poor physical condition of these troops played a great part in the recent victory at El Alamein.

Rommel's behavior is difficult to comprehend. While the field marshal was dashing about the battlefield performing the exploits for which he is now acclaimed, his army was literally "rotting away." Either his senior medical officers or personnel officers should have alerted him to the problem. The data were available.

In general, a military commander whose force is experiencing enormous attrition from causes other than battle injury must identify the problem and institute corrective actions. Field Marshal Rommel demonstrated only a vague awareness of the disease and sanitation disaster plaguing his forces.

According to Sir B. H. Liddell Hart in his book, *The Rommel Papers*, Rommel's diary contains only two references to the problem. On 2 August, 1941, Rommel wrote, " … a lot of sickness … " In September, he wrote, "On my visits to the front I was continually hearing of growing sick parades caused by bad rations."

It should have been obvious to him that there was a medical problem, for Rommel himself was twice evacuated to Germany because of hepatitis. His diary also contains multiple references to members of his staff who had been rendered noneffective for medical reasons.

Rommel had either never learned to effectively employ his medical staff or was uninterested in the medical aspects of manpower maintenance and conservation. There is no evidence to show his recognition of the commander's ultimate responsibility for the health and welfare of his troops, and the ability of military medicine to maintain the health of the command. At a minimum, a commander of Rommel's experience and expertise should have recognized the tactical military significance of his temporary and permanent troop losses resulting from disease.

In his book, *Burma, The Longest War, 1941–45*, the British military historian Louis Allen, when describing the April 1942 arrival in Burma of a senior British commander, said, "Who, more than any other soldier in the theatre was to imprint his will on the course of the war: … William Slim … "

How did Gen. Slim imprint his will on the course of the war? Primarily, he reversed the longest and most humiliating retreat in the history of the British Army, and ultimately inflicted upon the Japanese army its greatest defeat. Gen. Slim's memoirs are appropriately entitled *Defeat into Victory*. His achievements forcefully underline the importance of a knowledge of military medicine for the combat

A section of British soldiers of Field Marshal William Slim's 14th Army are briefed by their company commander before a patrol 12 April 1945 in Burma. A wide variety of weapons can be seen, including the Sten submachine gun, the Bren light machine gun, and the Enfield rifle. The disheveled appearance of the troops reflects the harshness of the Burmese terrain. (Photo by Sgt. Frederick Wackett, courtesy of the Imperial War Museum, London)

commander. This is best demonstrated by quoting directly from his book:

> My second great problem was health [the first was supply, and the third, morale]. In 1943, for every man evacuated with wounds we had one hundred and twenty evacuated sick. The annual malaria rate alone was 84 percent per annum of the *total* strength of the army and was still higher among the forward troops … A simple calculation showed me that in a matter of months at this rate my army would have melted away. Indeed it was doing so under my eyes. Good doctors are no use without good discipline. More than half the battle against disease is fought not by doctors, but by regimental officers. It is they who see that the daily dose

> of mepacrine (an antimalarial drug) is taken … if mepacrine was not taken, I sacked the commander. I only had to sack three; by then the rest had got my meaning. Slowly, but with increasing rapidity, as all of us, commanders, doctors, regimental officers, staff officers and NCOs united in the drive against sickness, results began to appear. On the chart that hung on my wall the curves of admissions to hospitals and malaria in forward treatment units sank lower and lower, until in 1945 the sickness rate for the whole Fourteenth Army was one per thousand per day. But at the end of 1943 that was a long way off.

The central truth about military medicine, a truth appreciated by Gen. Slim but not Field Marshal Rommel, is that the commander is responsible for the health of his men. In the broadest sense, the medical officer is primarily an adviser. What he advises can be implemented only when the commander sets policy and either enforces it through command channels or delegates the necessary authority while providing unambiguous command emphasis.

The involvement of Gen. Slim in the health and medical problems of his command may seem strange or inappropriate in today's Army, where medical matters are almost solely retained within the province of medical commands and the medical officers in these commands.

To a great extent, this results from the fact that peacetime military medical practice resembles a civilian model, wherein typical civilian health care problems are generally managed in a medical setting approximating that in the civilian sector. This is best described as *medicine in the military* and is only very distantly related to *military medicine* and the problems faced by Rommel, Slim and subsequent commanders in the Korean War, the Falklands expedition and the Iran-Iraq war.

After U.S. military forces experienced significant difficulties with disease in the Spanish-American War, Secretary of War Elihu Root directed that a professor of military hygiene be assigned to the U.S. Military Academy and that courses in military hygiene be taught.

Leading practitioners of military medicine were also assigned to the faculty of the Command and General Staff College at Ft. Leavenworth, Kan., and the curriculum included lectures and exercises in planning the medical support of military operations.

Attrition Rates Due to Sickness (per 1,000 men per month)

Months	Year	German	British
October–December	1941	154	52
January–March	1942	95	51
April–June	1942	105	42
July–September	1942	158	67
October–December	1942	153	48
Average		**133**	**52**

(Table courtesy of original article; Source: Fischer—*Der deutsche Sanitätsdienst 1921–1945* and Vols. I and II of *The Army Medical Services—Campaign* by F. A. E. Crew, Her Majesty's Stationery Office, 1956–57)

Medical topics were added, and faculty members were assigned to the combat arms basic and advanced courses. Much of this disappeared after World War II or was reduced to inadequate levels.

Similarly, in the past, medical officers assigned as battalion and brigade or regimental surgeons were integrated into the staff planning process, thus providing company and field grade officers with direct exposure to practitioners of military medicine outside their clinical treatment roles. Since the Vietnam conflict, this integration and exposure have been inadequate at best.

Currently, no courses in military hygiene are offered at the military academies, staff colleges or war colleges. While a very small number of medical service corps officers are assigned to the combat arms advanced course faculties, medical content in the curriculum—a few lectures—is totally inadequate.

Rarely are military physicians assigned to the faculties of the command and general staff and war colleges. Physician's assistants currently serve as battalion surgeons, and inexperienced general medical officers just out of internship are assigned as brigade surgeons. Consequently, nonmedical officers have no basis for understanding the distinction between *medicine in the military* and *military medicine*.

German prisoners captured in a raid by British forces stand in line 28 August 1942 in Tel El Eisa, Egypt. (Photo by Associated Press)

It is thus no surprise that they are unprepared to integrate medical planning and military hygiene into joint task force contingency operations such as that in Grenada. Unfortunately, medical officers with substantial field and operational assignments and experience constitute a minute percentage of the peacetime medical corps.

Division and corps surgeons often have no previous unit and staff experience and are frequently double-hatted as dispensary or hospital commanders. For these reasons, it seems probable that contemporary commanders facing a major problem in military medicine would be more likely to respond in the fashion of Field Marshal Rommel than Gen. Slim—not the preferred outcome. How then will a combat arms officer recognize the problems and utilize the capability of military medicine?

Military medicine is "that body of knowledge peculiar to the diseases and injuries incurred as a consequence of military occupations."

It is taught and understood as a discrete body of knowledge with an extensive historical, academic and technical literature with several major components, including the following:

- Deployment medicine—military hygiene.
  - Ensuring the health and fitness of troops before and during deployment.
  - Identifying health hazards associated with deployment and subsequent military operations and mission impact.
  - Providing command policies for countering these hazards—environmental stresses, disease and injuries—and managing resulting casualties if prevention fails.
- Combat casualty care.
  - The prevention and treatment of injuries resulting from hostile enemy actions.

British Lt. Gen. Sir William Slim, 14th Army commander (*left*); British Air Vice Marshal Stanley F. Vincent, South East Asia Air Forces; and Maj. Gen. Henry M. Chambers, British Indian Army officer (*right*) 8 May 1945 at the Government House in Rangoon, Burma. (Photo by Sgt. Frederick Wackett, courtesy of the Imperial War Museum, London)

- The organization, capabilities and tactics of deployable medical units from battalion aid station to fourth echelon hospital.
- Integrating medical estimates and requirements into the logistics estimate and the overall operational plan for support of military operations.

Deployment medicine and the organization and capabilities of deployable medical units are the areas that Gen. Slim mastered and Field Marshal Rommel failed to understand. If the experience of the U.S. Army from Lebanon in 1958, through Vietnam, to Grenada in 1983 is considered, these are the areas of most likely failure in the future. Enlightened commanders and staffs at all levels who understand the importance of military medicine are the best guarantee that we will not repeat Rommel's experience.

There is certainly no need to know the arcane aspects of surgical management of war wounds, or therapeutic interventions used in the treatment of infectious diseases. Broad concepts and selected principles must be stressed, including the following:

- The commander's responsibility for the health of his command. How to gain "command of health."
- What the commander needs to know to assess the health of his command and the adequacy of his medical support.
- What the commander should expect from his medical staff and medical units.
- The sources of attrition in war and the spectrum of the medical threat.
- A basic knowledge of field sanitation.
- The commander's role in countering the principal medical threats to military operations and personnel.
- A realistic understanding of the limitations of combat casualty care (it can do less than many think).
- Combat stress reactions—prevention, management and impact on troops and commanders.

As far as we are aware, no Army school includes these topics in its curriculum. Among the other services, only the Marine Corps Command and Staff College has incorporated much of this material into the professional education of its students.

Military medicine should be taught with the goal of making nonmedical officers more intelligent consumers of medical services. Instruction should begin in the precommissioning phase and continue through basic and advanced courses, staff college and war college.

Instruction in military medicine for nonmedical officers would not require a significant proportion of curriculum time. The effort would be worthwhile if today's officers come to understand why Gen. Slim and not Field Marshal Rommel is the desirable role model. Similarly, they should understand that procedures do exist for the commander to be as involved in the health of his command as he is in its signal or maintenance support. An additional benefit might be the growth of an officer corps that knows what it requires and expects from the medical department when the latter is focusing on its primary mission—military medicine. ■

Higher Command in War

Field Marshal Sir William Slim (1891–1970)

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Field Marshal Sir William Slim served in World War I and in the Indian army during the interwar period. As commander of the 1st Burma Corps (1942–1945) and supreme Allied commander of ground forces in Southeast Asia (1945–1946), he was the driving force behind the successful campaign to drive the Japanese out of India and the defeat of the Japanese armies in Burma. After the war, he served as commandant of the Imperial Defense College, chief of the Imperial Staff, British army, and governor general of Australia. The following remarks, delivered to the students and faculty of the U.S. Army Command and General Staff College on 8 April 1952, provide his unique and invaluable insights on the art of command at the senior levels. His remarks have been edited for publication.

Although I selected the subject of this talk, "Higher Command in War," I do address you with a certain amount of diffidence. Command is an intensely personal affair; anyone who has exercised it and then goes on to talk about it (which may not be very wise) is bound to base all that he says on his own personal experience. Any man's personal experience, however wide

You very often hear people say, "So and so is a lucky commander." Well, you can be lucky once; you can be lucky twice; but I don't think you will be lucky three times. If a chap is lucky three times, there is something more to it … The commander who always guesses right doesn't really guess, it is a product of … training, knowledge, observation, and character.

Previous page: British Army Field Marshal Sir William Slim, chief of the Imperial General Staff (*second from left*), pauses to speak to one of the members of the special honor guard while visiting Fort Leavenworth, Kansas, in April 1952 to present the Kermit Roosevelt Memorial Lecture to the students of the Command and General Staff College (CGSC) Regular Course. Immediately following Slim is U.S. Army Maj. Gen. Henry I. Hodes, CGSC commandant and post commanding general (*left*). (Photo courtesy of the U.S. Army)

I had a sort of motto, "No details, no paper, and no regrets." No details—don't go about setting machine guns on different sides of bushes. That is done a damn sight better by a platoon commander. Then, no paper. You cannot entirely do without paper, but you can get rid of quite a lot of it. Do not have people coming to you with huge files, telling you all about it. Make the man explain it; and if he cannot explain it, get somebody who can.

A portrait of William Joseph Slim, 1st Viscount Slim, taken 3 August 1945. (Photo by Bassano Ltd., courtesy of the National Portrait Gallery, London)

it may have been, is limited. Another thing that makes talks on command from us old generals sometimes rather a bore is that we are frightfully inclined to sprinkle our talk with a very large number of capital "I"s, and the capital "I" is not really a very elegant letter. I'll try not to, but I probably shall.

The sort of command that I am talking about, mainly, is higher command—that is, the command of any army or of an army group. Most of the things I shall say hold good, I think, for command at any level. If, when I have finished, any of you care to get up and say, "Well, we know a better way to do it," I will not contradict you at all—as long as you say, "I know a better way for *me* to do it, but not

necessarily for you," because I do emphasize throughout that command is a personal thing.

I have been very lucky in my military career—very much more lucky than I deserve. I have commanded everything from a section of six men as a lance corporal to an army group of a million and a quarter, and the conclusion I have come to, after 40 years of doing that, is that command, on whatever level you exercise it, is very much the same thing. It is based on the same qualities.

Command is that mixture of example, persuasion and compulsion by which you get men to do what you want them to do, even if they do not want to do it themselves. If you ask me really to define it, I should say command is the projection of personality—and like all true art, and command is an art, it is exercised by each man in his own way. But, you cannot be a commander without having certain qualities. In command itself, I think there are three elements. I am talking now, remember, of the command of a big organization. There is, first of all, the commander himself; then there are his headquarters and his staff; and third, there is the way he keeps contact with the people he commands. I will talk about each of these.

The Commander

If you ever have to organize a command or a campaign, believe me, the first thing to do is to select your commander and select him early because he should be the mainspring of the whole enterprise. I said just now that command was the projection of personality. So it is a question of what sort of personality a commander should have. He ought to have a whole lot of qualities, but there are certain ones that are basic and without which, he will never be a commander at all.

Will Power. The first of these is will power, or determination if you like to call it that. Not only does the commander have to decide what is going to be done—that is perhaps one of the easier things—but he has got to see that it is done. I don't think you really need me to tell you that, because most of you have had experience of command on some level.

You do not need me to tell you, either, of the amount of opposition you will meet. There will be opposition first of all from the enemy. Well, that is fair enough; that is the attitude you expect of the enemy. I can remember in World War I, when I was a very young officer, some fellow at the back started sending up forms and one of the things you had to fill in was the attitude of the enemy. A certain young officer filled in *"hostile!"* He got it back with a very rude note from the staff saying, "Amplify your answer." So he sent it back. *"Definitely hostile!"* So you will meet opposition from the enemy, but there are other forms of opposition. Strangely enough, there will be your own staff. Sometimes I used to get cross with my staff, which was one of the finest Anglo-American staffs you could

It is astonishing how obstinate [allies] are, how parochially minded, how ridiculously sensitive to prestige, and how wrapped up in obsolete political ideas. It is equally astonishing how they fail to see how broad-minded you are, how clear your picture is … and how cooperative and big-hearted you are … Just remind yourself of two things. First, that you are an ally too … If you walk to the other side of the table, you will look just like that to the fellow sitting opposite. Then the next thing to remember is that there is only one thing worse than having allies—that is not having allies.

have had, and I used to say, "You fellows do nothing but tell me that anything I want to do is logistically impossible." You will get most of the opposition to the things you want to do from the administrative or what you call the logistics staff—and that is very understandable because the one thing that an administrative staff officer wants to avoid is letting down his commander. So he is always a little bit on the cautious side. There is always a tendency on the part of your administrative staffs to say, "Look here, you're taking too great a risk." Sometimes you may be, but you must be the judge of that.

Then there are your subordinate commanders who probably want to do the thing a little bit differently or have other ideas, and sometimes you will find your superiors have very strong ideas of their own. You have to deal with that sort of opposition. When you get rather high up, there are doubting and interfering politicians. You have to deal with them. They aren't so hard to deal with when you get down to it; they are not half as tough as they look sometimes. Then, of course, there are your allies.

There is an obvious conflict between flexibility of mind and strength of will. You have to be very careful to see that your strength of will does not become just obstinacy and that your flexibility of mind does not become mere vacillation … You have somehow, in yourselves, in your own characters, to strike [a] balance.

Now, it is an extraordinary thing that you should meet with so much opposition from allies. Allies, altogether, are really very extraordinary people. It is astonishing how obstinate they are, how parochially minded, how ridiculously sensitive to prestige and how wrapped up in obsolete political ideas. It is equally astonishing how they fail to see how broad-minded you are, how clear your picture is, how up-to-date you are and how cooperative and big-hearted you are. It is extraordinary. But let me tell you, when you feel like that about allies—and you have even worse allies than the British, believe me—when you feel like that, just remind yourself of two things. First, that you are an ally too, and all allies look just the same. If you walk to the other side of the table, you will look just like that to the fellow sitting opposite. Then the next thing to remember is that there is only one thing worse than having allies—that is not having allies. You will get opposition from all those sources. You simply have got to drive through what you want against *every* kind of opposition, including the opposition of nature. The opposition of nature can be, of course, the worst of the lot. The British army fights all its battles uphill and usually on the junction of four map sheets.

To be a little more serious, this determination, this will power, which is the first essential of the commander, is really based on courage. Not so much physical courage; you will have that because, thank God, courage is bred in us. You will have physical courage, but what else you commanders will have to have is rarer—that is moral courage. Moral courage simply means that you do what you think is right without bothering too much about the effect on yourself. That is the courage that you will have to have. You must be as big as your job and you must not be too afraid of losing it. It does not matter what your job is, whether supreme commander or lance corporal, you must not be too afraid of losing

it—some people are. So the one quality no leader can do without is determination, based on moral courage.

Judgment. The prime task of the commander is to make decisions. What you have to do is to weigh all the various factors, recognizing that in war half of your information may be wrong, that a lot of it is missing completely, and that there are all sorts of elements over which you have no control, such as the weather and, to a certain extent, the action of the enemy. You have to weigh all these things and come to a decision as to what you want to do. You must have that judgment. Another kind of judgment that you need is the judgment of men. You must be able to select your subordinates. I have known at least one man who had every attribute of the great commander and would have been one of the greatest commanders that we have produced, but who lacked the power properly to select his subordinates. He was too loyal to them sometimes and clung to them when he should have gotten rid of them. Choose your subordinates and then, decentralize to them. Do not try to do everything yourself because you will kill yourself, unless you make somebody so angry by interfering with his job that he shoots you. The motto for a commander who is going to survive the strain of command for any length of time, is "Don't keep dogs and bark yourself." Deal, also, with the things that matter and have the judgment to determine which they are.

British Lt. Gen. Sir William Slim, 14th Army commander, chatting with a Gurkha rifleman November 1944 in the Palel area of Burma. (Photo by Sgt. A. Stubbs, courtesy of the Imperial War Museum)

When I commanded, I had a sort of motto, "No details, no paper and no regrets." No details—don't go about setting machine guns on different sides of bushes. That is done a damn sight better by a platoon commander. No details.

Then, no paper. You cannot *entirely* do without paper, but you can get rid of quite a lot of it. Do not have people coming to you with huge files, telling you all about it. Make the man explain it; and if he cannot explain it, get somebody who can.

When I say "no regrets," that is important. You do the best you can. You may have gotten it wrong; you may have lost a battle. You may

even have lost a good many of your men's lives which hurts more, but do not have regrets. Do not sit in the corner and say, "Oh, if I had only gone to the left instead of the right," or, "If I had only fought in front of the river instead of behind it." You have done the best you could—it hasn't come off. All right! What's the next problem? Get on to that. Do not sit in the corner weeping about what you might have done. No details, no paper, no regrets.

If you go on that motto and if you combine it, as I did, with going to bed at 10 o'clock every night, getting up at 6 o'clock, and crucifying anybody who woke you up between those hours unless it was for a major disaster, you will probably survive five years of higher command in war as I did.

Now in some commanders, the ability to judge correctly seems instinctive. You very often hear people say, "So and so is a lucky commander." Well, you can be lucky once; you can be lucky twice; but I don't think you will be lucky three times. If a chap is lucky three times, there is something more to it. I think I can illustrate that to you. I was once having my portrait painted by a very well-known artist. I was not paying for it—the government was doing that. I watched him doing it. He took his little toothpaste tubes and squeezed out blobs of the primary colors all down the side of his pallet. Then he took a brush, dabbed at the colors he fancied and mixed them all together. Then he put his stroke straight on the canvas to give the color of my nose or whatever it was. It struck me as the most extraordinary thing; because if I had been doing that, I should have wanted to try the tone on something first to see if I had it right. I asked him how he did it. He said, quite frankly, he did not know, but he supposed it was practice. Well, of course, it was a good deal more than practice. It was a mixture of training, observation, knowledge and "feel" for his task—and that is what people call luck with a commander. The commander who always guesses right doesn't really guess, it is a product of all those things—training, knowledge, observation and character. There is only one more point I would like to make about judgment. The stronger a commander's will power, the more dangerous or even fatal it may become if his judgment is bad. Therefore, when you select your commanders and when you train yourselves as commanders, keep the balance between strength of will and judgment.

It is not usually difficult for a commander to know what he wants to do; major tactics will be the basis of that knowledge. The thing that is difficult to know is if he can do it with the resources he has … Unless the commander has a wide knowledge of general administration and logistics, he will find himself much too much in the hands of his logistic experts who will be admirable chaps but who, as I said, will be on the cautious side.

Flexibility of Mind. Modern war, tactics and techniques change rapidly. Indeed, the whole background against which you fight a war may change very rapidly. The invention of a new weapon, a political change, a break in the weather and the whole thing may change very rapidly. Unless you can adapt yourself to that—unless your mind is sufficiently flexible—you will not be a good commander. What you have to cultivate is imagination, but a controlled imagination, and a flexibility of mind. There is an obvious conflict between flexibility of mind and

strength of will. You have to be very careful to see that your strength of will does not become just obstinacy and that your flexibility of mind does not become mere vacillation. We have, all of us, known the chap who went about thumping himself on the chest and saying, "I am a strong man." He has a weakness somewhere and, of course, if he never changes his mind, he will be wrong more often than he is right. Then you get the other fellow who has such a flexible mind that he always agrees with the last chap who talked to him, and he's terrible. You have somehow, in yourselves, in your own characters, to strike the balance between flexibility of mind and strength of will. When you have done that, you will be well on the road to being a commander in quite a big way. But nobody can help you very much, you have to do it yourself.

Knowledge. Another quality you must possess is knowledge. Now, when you command a small unit, if you are a platoon commander, you should be able to do everything that you ask any man in that platoon to do rather better than he can himself. When you get higher up and you command divisions, corps and armies, you cannot, of course, be expected to perform all the operations that everybody under your command performs or to have their technical skill. You can't take a wireless set to pieces and put it together again like a trained mechanic should be able to do. You can't take out a fellow's appendix as well as a doctor would, though God knows, sometimes I felt I could do better than some of them. But you have to know the capabilities of the machines that they handle; you have to know the sort of conditions under which they have to work; and you have to know how long it takes them to do certain things. You must have that kind of knowledge.

Another kind of knowledge you should attain is the knowledge of your enemy. We, the British, at any rate, are not very good at that. We didn't study our enemy enough. When you are a commander, one of the people you want to study very closely is your opposite number—the fellow you are fighting—because battle is largely a struggle between the wills of the commanders.

I found it very difficult to get very much information about the Japanese. We were not very clever at it at the start of the war with Japan. I remember, on one occasion, I really thought I knew my opposite number pretty well. I used to keep his photo on my desk. If I couldn't do anything else, I used to look at him and say, "Well, I may not be much of a general, but I am better looking than you." I thought I knew that fellow very well. I planned the whole campaign on what I reckoned he would do as a reaction. It did not go right at all; everything went the other way. It was only after I had been fooling around at this game for some time that I discovered that they had told him he could go home, and had produced another commander who had different ideas. The whole tempo of the thing was quite different because they had changed

In the Burma Campaign, very often owing to shortage of air transport, a lot of my troops, my forward formations, had to be on half rations. Whenever they went on half rations, I used to put my own headquarters on half rations. It was a bit theatrical, I admit, but it did remind the young staff officers with healthy appetites what it is like to be hungry, and it perhaps put a little more ginger in getting the supplies forward.

Field Marshal Bernard Law Montgomery, 1st Viscount Montgomery of Alamein. (Photo courtesy of Wikimedia Commons)

When you are a commander, one of the people you want to study very closely is your opposite number—the fellow you are fighting—because battle is largely a struggle between the wills of the commanders … I planned the whole campaign on what I reckoned he would do as a reaction. It did not go right at all; everything went the other way … [later] I discovered that they had told him he could go home, and had produced another commander who had different ideas.

the commander. One of the things you must have knowledge of is your enemy and especially the commander.

Now, it is not usually difficult for a commander to know what he *wants* to do; major tactics will be the basis of that knowledge. The thing that is difficult to know is if he can do it with the resources he has. But what I do stress and what I think we sometimes (we, the British, I won't say you do, although I think you do) miss is a *general* knowledge of administration. The answer to that is the logistic answer, almost always. Unless the commander has a wide knowledge of general administration and logistics, he will find himself much too much in the hands of his logistic experts who will be admirable chaps but who, as I said, will be on the cautious side.

I once had an argument with Field Marshal (Sir Bernard L.) Montgomery—I didn't have many because I nearly always agree with him on military matters—about what the qualifications of a great commander are. We each tried not to give our own qualifications—but I said (which rather surprised him) that I thought the real test of a great commander in the field was to be a judge of administrative risk. A judge of administrative risk—now you think that over.

Integrity. If you have those qualities that I mentioned—will power, judgment, flexibility of mind and knowledge—you will be a commander. You will be a good commander, you may even be a great commander, but you won't necessarily have the confidence of your men, especially when things are not going your way. And the confidence of your men is essential. In order to get that, all those qualities must be based on a simple honesty, on integrity. You have to have this massive and simple honesty. All the really great commanders who have held their men have had it because the only foundations under man which will stand under great stress are the moral ones.

You're all right as long as you're winning. I'm a hell of a general when I'm winning, anybody is. But it is when you are not winning—and I have not always been winning, if you had been a British general at the start of a war you'd know that—it is then that the real test of leadership is made. It's a funny thing, but when you are in command and things have gone wrong, there always comes a pause when your men stop and—they look at you. They don't say anything—they just look at you. It is rather an awful moment for the commander because then he knows that their courage is ebbing, their will is fading, and he has got to pull up out of himself the courage and the will power that will stiffen them again and make them go on. That happens to every commander sometime or other. He will never get over that moment unless he has the confidence of his men.

I can remember myself, I am not telling you this as an example of leadership, but I remember once I stepped out of a tank. I was using a tank because it was the only means of communication I had left. I saw

waiting for me two of my subordinate commanders with a couple of staff officers and one or two other fellows, standing in a melancholy group. The situation was just about as bad as it could be. A division was cut off; we had no means of getting it out; and I didn't think we could last very long or it didn't look like we could. As I stepped out, those chaps just looked at me and I did not know what to say. So, I put the best face I could on it. I tried to look cheerful, and said, "Well, gentlemen, it might be worse." And one of those unspeakable fellows said, "How?" The only thing I could think of saying was, "Well, it might be raining," and in two hours it was.

Now, I don't hold that up to you as an example of leadership or how to deal with it, but it was a situation that I shall never forget. You, too, will all sometime have to face it and what you have got to do is build yourself up for it, because it will come. The way you will survive it is by having the confidence of your men, which you will get by honesty in dealing and with integrity. Now, to get on to the headquarters, which is the second element in command.

The Headquarters

A headquarters is important as far as the commander himself is concerned, in its effect on him and in its effect on the people who are commanded. I believe that a commander has a right to demand from his headquarters two things—the first is information, and the second is suggestions. The information has to cover a tremendously wide field; his own troops, the enemy, photography, everything. On it, he must form his judgments. Then, I think it is the duty of his headquarters to put up to him suggestions for alternative courses of action, from which he selects one, or perhaps he thinks of one for himself. That is what the headquarters should do for the commander. For the troops, the first essential is that the headquarters should translate to them quickly and accurately the will of the commander. I suppose I have published dozens of operations instructions and orders, and I have never written one myself because I have always had excellent staff officers who could do it. But, there is one part of an order that I have always made a point of writing myself. That is the object. I do recommend it to you, gentlemen, that when long orders are being written for complicated operations, you take up your pen yourself and write the object in your own words so that object goes down to everybody.

You must insist that your headquarters regards itself as the servant of the fighting troops. In practice that means that staff members won't collect to themselves an undue proportion of the amenities, but they will confine themselves or you will confine them to having the necessary degree of comfort for them to perform their duties efficiently. In the Burma Campaign, very often owing to shortage of air transport, a lot of

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You have to see that your headquarters is the servant of the fighting troops. It has to be a friendly headquarters—I don't mean friendly amongst yourselves, it must be that—but it must be friendly to the people who come to it from outside. If an officer comes to headquarters to find out something, do not keep him hanging about; have somebody ready to take him to the chap who can give him an answer. Do not forget that your headquarters, any headquarters, is *always* under inspection. Always, it is being inspected by the people who come up from below. Do not bother too much about the people who come down from above, but the headquarters must be efficient and look efficient.

If a man loses a battle, or gets a setback, go and see him and find out why. If he did it because he was careless, if he did it because he was stupid or, above all, if he did it because he got cold feet, sack him. Tell him why you sacked him. But if he did it because he was a little bit overeager, because he took just a little bit too much risk, or because he was a little bit too pugnacious, give him another chance. Lots of fellows benefit a great deal by a little setback once.

Organization of Headquarters. We organize our headquarters now on the chief of staff system; so do you. Personally, I am not very fond of it—I like the old-fashioned British system before we began to copy the Germans, of the commander dealing directly with his principal staff officers. I know all the arguments in favor of the others and they are very good ones, but I run on the old system. Don't let that worry you, I am not preaching heresy, I am not asking you to change anything. When you get to a height in command, it really will not matter what the theoretical organization of your headquarters is. By changing the emphasis a little bit, you will have it running the way you want it. Whatever you do, see that in your headquarters there isn't too much (Erich) Ludendorff and too little (Paul von) Hindenburg.

Choices of Staffs. There are certain key staff officers to whose selection you ought to pay a great deal of attention. First of all, of course, there is your chief general staff officer, or your chief of staff. There is next, and in many ways more important, your chief administrative officer. Then there are two other fellows I would draw your attention to—one is your chief intelligence officer. Now, when you select your chief intelligence officer, do not select him because he is a fellow who can put on false whiskers and go down to the bazaar and pass himself off as Chinese or something. He cannot do it anyway, but you do not want that sort of fellow. What you want first and foremost is a good organizer. A man who can organize the collection and interpretation of intelligence—not necessarily collect it himself. You want an officer who will represent to you the mind of the enemy commander. They are very hard to find, these chaps, very hard to find. They are very rarely regular officers—they are usually university dons or something like that. Get a fellow with the extraordinary flair of being able to put

Field Marshal Sir William Slim holding binoculars 5 March 1945 outside of the 14th Army Headquarters in Burma. (Photo by Maj. B. Hipkins, courtesy of the Imperial War Museum)

himself in the mind of the enemy commander—get him and put him in your pocket, because he's very useful.

Then, you want some good planners. They also come from what we might sometimes think strange places. Of two of the best planners I ever had, one was a fellow of All Souls College at Oxford, a son of the Archbishop of Canterbury; and the other one was an American National Guard officer whose profession was selling refrigerators. They were both of them absolutely first class, and you must have high-class planners.

Traveling Circuses. Do not go in for traveling circuses. We developed a very bad habit in the British army. When an officer was promoted, he took all his staff from the lower formation. That meant that you pushed out a lot of really very good fellows to make room for the circus, broke up the staff of the lower formation and it was not good for the commander himself.

Size of Headquarters. All British and all American headquarters are too big and should be cut down. As far as I know, there are only three ways of cutting down headquarters. One is by a flat, overall cut—you reduce your staff by say, 10 percent. I do that about once a year to the War Office, and the excruciating noise of the corks coming out of the bottles

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Field Marshal Viscount Slim, on serving with foreign troops in World War II

*"Accustomed as I was to Indian battalions in the field with usually only seven or eight Europeans, it [having a large number of European soldiers in native units] struck me as an unnecessarily generous supply. I never changed that view and later experience confirmed it. This I know is rank heresy to many very experienced 'coasters.' I was constantly told that, far from being too many, with the rapidly expanded African forces, more British officers and NCOs [**noncommissioned officers**] were needed. But these large British establishments in African units had great drawbacks. The only way to fill them was to draft officers and NCOs willy-nilly to them, and this did not always give the right kind. The European who serves with native troops should be, not only much above average in efficiency and character, as he must accept greater responsibility, but he should serve with them because he wants to, because he likes them."*

—William Slim, Viscount,
Defeat into Victory,
MacMillan Publisher Limited:
London, 1986, p. 166

is heartbreaking! Another way of doing it is by elimination of complete sections. That is possible because you do find, especially in wartime, that around your headquarters all sorts of fancy sections grow up that you can really very well do without or you can push farther back.

Lastly, a way, which I recommend to your attention, is to cut out one complete tier of the staff hierarchy. That is, roughly speaking you get rid of say, all the captains, and send them back to their regiments where they are very badly wanted, or you get rid of all the majors and you let the captains do their own job and the majors' jobs. In a big headquarters what you will find is that in effect this merely means that there is one note less on the file, and that's no harm. Unless you constantly keep your eye on the size of your headquarters, it will grow out of all knowledge and usefulness.

Contact Between Commander and His Command

Now, the third and last element is the contact between the commander and his command. You cannot, when you get a big formation, know more than a very small fraction of your men. But every man in your command—and I don't care how big it is—ought to know you, at least by sight. As you walk onto any parade or pass any men in your army, they ought to be able to say, "There's the 'Old Man,' I wonder what he's up to now." You have to be known to them. You have to show yourself to your troops.

Publicity. Then, there comes this business of publicity. I've hardly known a general in the British army and strangely enough in the American either, who has not said that he disliked publicity. I have never yet seen a general in either army who did not rush to the newspaper to see what it said about him. Publicity is with us and it is here to stay. It is necessary, and a good general uses it for his own purposes.

I have only one bit of advice about publicity to give you and that is, if you take over an army or large formation, do not start outside publicity until you are really well known to your own men. I suggest that you don't start it until you have won a battle or two, and then you won't have to bother because it will be done for you. Get yourself known to your own men before you start trying to get yourself known to people outside. The best way of getting yourself known to your own men is going about amongst them and actually *talking* to them. If you want to talk to men, it does not matter whether they are private soldiers or staff officers, if you want to talk to them as a soldier, and not as a politician, there are only two things necessary. The first is to have something to say that is worth saying, to know what you want to say. The second, and terribly important thing, is to believe it yourself. Do not tell men something that you don't believe

yourself, because they will spot it, and if they do not spot it at the time, they will find out. Then you're finished.

Scapegoats. Do not go chasing scapegoats; if some fellow under your command has made a blob, has lost a battle or done something that is wrong, do not rush off straight away and "sack" him. Some people think that's big stuff in the way of command. My advice to you is if a man loses a battle, or gets a setback, go and see him and find out why. If he did it because he was careless, if he did it because he was stupid or, above all, if he did it because he got cold feet, sack him. Tell him why you sacked him. But if he did it because he was a little bit overeager, because he took just a little bit too much risk or because he was a little bit too pugnacious, give him another chance. Lots of fellows benefit a great deal by a little setback once—but the thing to do is to find out *why*—don't be in too big a hurry to sack people.

If you have to sack anybody, which is the most unpleasant thing in the world because the chaps you have to sack are usually rather nice people, do it yourself. Send for him or go to see him and do it straight to his face and tell him why you have done it. Then push him straight out, put him in an airplane and send him out of your army area. Do not leave it to other people to do and do not do it by letter. Similarly, if a rebuke has to be given to a subordinate commander, even a small one, sign it yourself. There is nothing more annoying if you are a major general, than to get a raspberry signed, "Doolittle, CAPTAIN."

Finally, when you become great generals, as some of you will, and you have all these publicity merchants rushing about, watch it that they do not make a monkey of you. Watch it, that they do not make you begin to act as they think you ought to act. If you start putting your cap on at a particular slant in front of the mirror before you go out to face the flash bulbs, just watch it, because there has been more than one good chap who has been a little bit ruined by trying to act up to what the publicity boys thought he ought to be. It may even affect your judgment.

Now, all I tell you is this—that command is a completely personal thing. That you must have certain essential qualities: will power, judgment, flexibility of mind, knowledge and integrity. Do not confuse those with the frills that commanders always cultivate—they cultivate them because they want to get known to their troops. If you wear a couple of pearl-handled revolvers, you will not be a Patton; if you put two badges on a beret, you will not be a Monty. Look for the essentials that are in those commanders and copy those. You all have the makings of commanders in you. You wouldn't be here in this hall if you didn't. Some of you have already been commanders. You can develop your power of command. The last thing I say to you is this—Command is you. As you develop, be yourselves, because no imitation was ever a masterpiece. ■

Training the Shield Arm

How U.S. Army Air Defense Forces Are Embracing Field Manual 3-0 and Preparing for Large-Scale Ground Combat

Col. Judson Gillett, U.S. Army
Maj. Catalina Rosales, U.S. Army
Maj. Brandon Thompson, U.S. Army
Maj. Grady Stebbins, U.S. Army

It was early in the morning on 5 March 2019. The 108th Air Defense Artillery (ADA) Brigade staff, headquartered at Fort Bragg, North Carolina, assembled in their expeditionary main command post, now located on the MacGregor Range Training Complex at Fort Bliss, Texas. They were on day five of Roving Sands, an air defense training exercise set in a large-scale combat scenario. The staff knew that this day would be both crucial and stressful. Late the prior evening, their higher headquarters, II Corps, had set conditions for the transition into Phase IIIC and the corps' decisive operation: a three-brigade attack to defeat an enemy armor brigade occupying a hasty defense. While the II Corps staff—or rather, a small contingent of 32nd Army Air and Missile Defense Command (AAMDC) soldiers that replicated the corps staff for the scenario—had released the latest fragmentary order directing the attack, the 108th ADA Brigade staff was busy redesigning the

air defense posture that would protect the corps' critical assets and enable the success of that decisive operation.

The brigade's Patriot and Terminal High Altitude Air Defense (THAAD) systems had already engaged dozens of simulated ballistic and cruise missiles in this exercise, but the hundreds of kilometers traveled across the rough terrain of the operational area were taking their toll on the sensitive radar and launcher equipment. This day would be no different, as the corps maneuver fight would require at least a battalion's worth of air defense assets to displace and extend coverage to new critical assets—a complex move that could significantly interfere with the maintenance plan.

Adding to these tactical stressors, the 108th ADA Brigade staff also had to prepare input for the corps commander's update brief occurring later that morning, as well as participate in numerous internal and external working groups. The brigade's morning report to the corps staff was due soon. Fortunately, the staff had grown more comfortable with the corps' battle rhythm and formats over the previous five days, but consolidating, translating, and verifying data before reporting it to a maneuver headquarters still took hours.

The idea of tough and realistic training setting conditions for success on the battlefield is as old as the idea of military training itself. However, the stressors described above created a challenge that was unlike anything a U.S. Army Forces Command (FORSCOM) ADA brigade had encountered in training for years. The 108th ADA Brigade was among the first units to have a new focus for air defense training: support to large-scale combat operations (LSCO) on a highly contested modern battlefield.

To create change in the modern Army, leaders must first amend doctrine, adjust organizations, and then train those organizations to become comfortable with the new tasks they must perform, the conditions they must endure, and the standards they must meet. In October 2017, the U.S. Army Combined Arms Center published a major update to Field Manual (FM) 3-0, *Operations*, in order to reintroduce the LSCO framework at the division, corps, and theater army echelons. In the foreword to FM 3-0, Lt. Gen. Michael D. Lundy clearly identifies that this doctrinal update must drive the Army's preparation for LSCO and the execution of such operations.[1] The 32nd AAMDC listened, and through research, planning, and some debate, it developed an ambitious training strategy to prepare ADA units to meet that challenge. Of course, it learned many tough lessons along the way. The FORSCOM air defense enterprise is embracing the LSCO framework from FM 3-0.

Previous page: Bravo Battery, 1st Battalion, 7th Air Defense Artillery, trains on expeditionary deployment operations and air and missile defense operations in March 2019 during the Roving Sands exercise near Orogrande, New Mexico. (Photo courtesy of 3rd Marine Aircraft Wing, Marine Aircraft Group 39, Marine Light Attack Helicopter Squadron 469, U.S. Marine Corps)

Background

In the modern U.S. military, senior leaders primarily use Patriot and THAAD systems as operational and strategic assets in missions with high visibility and sometimes direct political implications. However, this high-tempo operational and strategic alignment has not always been the norm for air defense forces. As recently as 1996, the Army had aligned an air defense brigade with each corps. Within the continental United States, the Army reserved only the 11th ADA Brigade, headquartered at Fort Bliss, Texas, for echelons-above-corps missions. The corps air defense brigades—the 108th ADA Brigade aligned with the XVIII Airborne Corps, the 69th ADA Brigade aligned with V Corps, the 35th ADA Brigade aligned with I Corps, and the 31st ADA Brigade aligned with III Corps—existed to provide a tactical corps commander the capability to defend critical points on the battlefield from an increasingly sophisticated and proliferate air threat.[2]

Due to concerns about standardization of Patriot forces, this alignment was short-lived. With the reactivation of the 32nd AAMDC in 1998, the Army consolidated all air defense brigades at Fort Bliss, Texas, where they could benefit from shared facilities and training areas as they worked toward standardized operations.[3] This, of course, came at a cost to their previous tactical alignment. The consolidation at Fort Bliss, Texas, was also short-lived. A result of the 2005 base realignment and closure strategy, the 32nd AAMDC's air defense brigades received orders to relocate to new posts. In fact, the 35th Air Defense Artillery Brigade had relocated to Korea a year prior.[4] This move had the potential to redevelop the corps air defense relationships; however, the Army had concurrently decided to reorganize its operational forces from divisions organically equipped for independent operations into brigade combat teams (BCTs). For better

or worse, this step down in functional echelons served to deemphasize corps-level operations. This rapidly changing relationship with maneuver headquarters was not a pressing concern to the 32nd AAMDC or its brigades. In the meantime, FORSCOM ADA had started a new mission, which was proving to be very time-consuming.

In October 2006, the Department of Defense (DOD) ordered the deployment of a Patriot battalion headquarters and two firing units to Qatar in support of the Doha Asian Games.[5] This deployment demonstrated a commitment to Qatar while serving to protect the American service members and materiel stationed forward at Al Udeid Air Base and Camp As Sayliyah. The Doha Asian Games concluded at the end of November 2006. Instead of retrograding the air defense battalion, the DOD issued a change of mission that extended the deployment to twelve months. In early 2007, an additional Patriot battalion headquarters and two firing units deployed to Kuwait, doubling the air defense posture within the U.S. Central Command (CENTCOM) area of responsibility. Over the next six years, FORSCOM increased its Patriot presence to three battalion headquarters and eleven firing units.[6] Patriot launchers stayed in Qatar and Kuwait, and new Patriot units deployed to Bahrain, Jordan, and the United Arab Emirates. By 2013, the 32nd AAMDC had a full brigade's worth of air defense deployed in this new area of operations. The deployed Patriot units occupied and improved tactical sites from which they could provide air defense to U.S. assets and interests along the Arabian Gulf. Slowly, these tactical sites were hardened into fixed positions.

The Arabian Gulf mission had become the primary tactical influence on an entire generation of air defense soldiers and officers. Because of the mission requirements, Patriot units increasingly prioritized training their technical skills, referred to as air battle management, over the tactical skills required for supporting large-scale maneuver. This heavy focus on technical training continued to grow in earnest until 2018, when the DOD reduced its CENTCOM Patriot allocation down to eight firing units—a net reduction of a full battalion.[7] The 32nd AAMDC support to the CENTCOM mission has remained essential to national security objectives; however, the global increase in regional-power competition demanded a new posture outlook for FORSCOM air defense forces. Moreover, FORSCOM air defense forces needed to adjust their training to a new operational construct: LSCO.

Roving Sands

With a reduction in the CENTCOM air defense mission and a renewed focus on training toward LSCO, the senior leadership of the 32nd AAMDC developed and implemented a strategy for modernizing the way the 32nd AAMDC trains. Central to this strategy is a yearly brigade-size field exercise designed around LSCO. In keeping with tradition, the 32nd AAMDC leaders named this exercise "Roving Sands" after a 1986–2005-era joint air defense exercise, which had ended with a shift in priorities to the high demands of the Global War on Terrorism. Besides the ambitious scale of the exercise, the modern Roving Sands has little in common with its predecessor.

At face value, Roving Sands provides the opportunity for an entire air defense brigade—from the brigade commander down to the newest soldiers—the opportunity to execute individual and collective tasks within the LSCO

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Maj. Grady Stebbins, U.S. Army, is a field artillery officer serving as the fire support officer for 3rd Armored Brigade Combat Team, 1st Armored Division. Stebbins designed the scenario for and assisted in the execution of Roving Sands 2019.

framework. However, the existential value of the exercise is as a change agent for all FORSCOM air defense training. As combat training centers provide a forcing function for corps, division, and BCT commanders to adapt to Army combat maneuver and logistics changes, the modern Roving Sands exercise seeks to instill change in air defense training as commanders and leaders at every level train for success in the exercise, and by extension, large-scale combat execution.

When the 32nd AAMDC developed Roving Sands, it focused exercise design on three primary training objectives. First, *create tactical proficiency in the air defense role during LSCO*. To enable this kind of proficiency, the exercise controllers required the 108th ADA Brigade to defend a prioritized list of critical assets while simultaneously planning to adjust local defense postures for future phases of the operation. Exercise controllers also used time as a training stressor, providing final information on the locations and dimensions of future critical assets to the 108th ADA with a limited amount of time to plan, reconnoiter, move, and occupy new tactical sites to support the adjusted defense.

The second training objective was to *reinforce technical air defense skills*. The exercise designers enabled this training objective by networking the participating air defense systems into Pelorus, a simulation device that allowed the operators to see and engage virtual enemy ballistic missiles, cruise missiles, and fighter sorties that were integrated into the scenario.[8]

The third training objective was to *develop tactical skill in security and movement control through the consolidation area.* The training audience was required to practice field craft and secure movements and assembly areas against Level I threats.[9]

Exercise designers created the tactical scenario for Roving Sands using Training Circular 7-101, *Exercise Design*; FM 3-0; and the Decisive Action Training Environment 3.0.[10] In the Roving Sands road to war, a division tactical group of the opposing force attacked south across the international border of a NATO partner nation to seize key terrain and natural resources. A combined and joint coalition comprised of a U.S. Army corps, with two U.S. divisions and one United Kingdom division, conducted force flow and staging operations to attack north, defeat the enemy formation, and reestablish the international border. A corps operation order and a projected set of fragmentary orders would develop the scenario and provide the in-line adjustments to the corps' critical-asset list to stimulate planning and execution in the 108th ADA Brigade. Exercise designers also created two different mission command nodes to enable execution of the exercise (see figure 1, page 73). The first node,

Bravo Battery, 3rd Battalion, 4th Air Defense Artillery Regiment, conducts a mission readiness exercise in February 2019 at McGregor Base Camp, New Mexico, prior to participating in Roving Sands. (Photo by Capt. Brandon Nalley, U.S. Army)

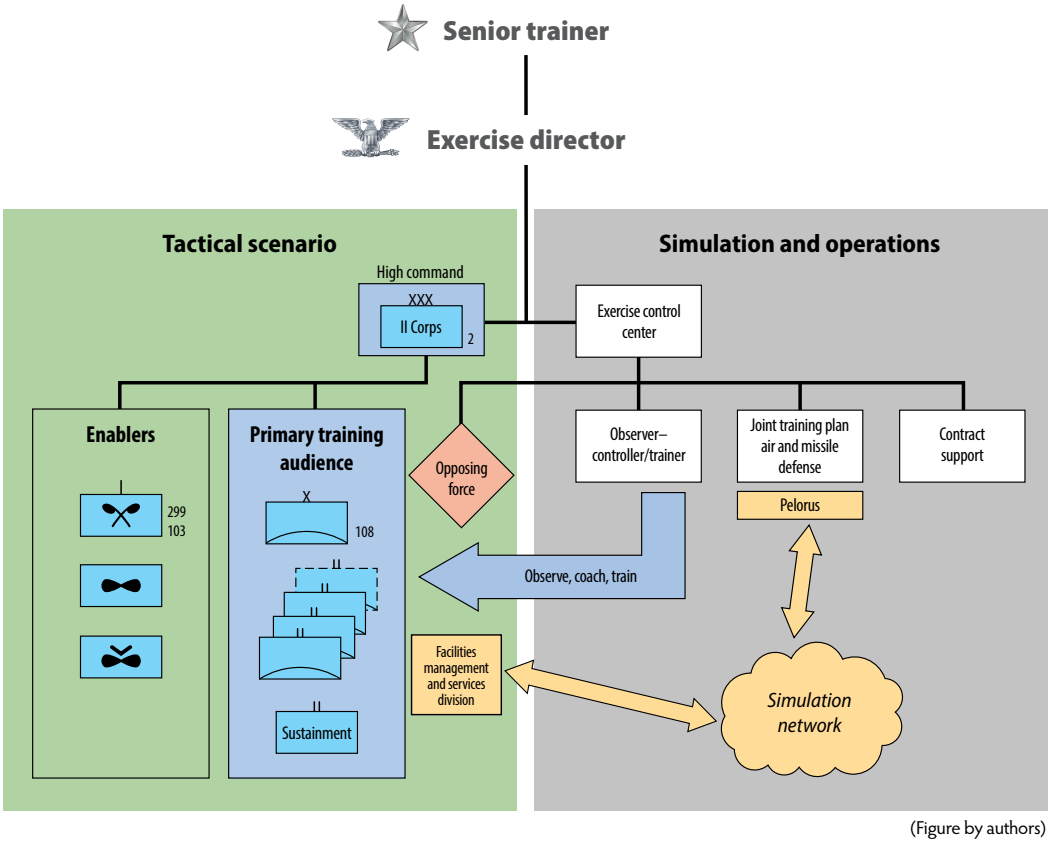
Vehicles from 3rd Battalion, 4th Air Defense Artillery Regiment, 108th Air Defense Artillery Brigade, are downloaded and refueled 11 February 2019 at the rail yard for the Roving Sands Exercise at Fort Bliss, Texas. (Photo by Sgt. LaShawna Custom, U.S. Army)

exercise control, provided overall mission command of the exercise, oversight of the observer-coach/trainers (sourced from the 11th ADA Brigade, 31st ADA Brigade, and 69th ADA Brigade), and control over the simulation architecture and contents. The second node, the II Corps response cell (in the role as high command), was designed to serve as the direct mission command node for the 108th ADA Brigade; it issued orders, received reports, and executed regular battle-rhythm events. Both of these mission command nodes were sourced from the 32nd AAMDC headquarters personnel. Given the small size of the 32nd AAMDC staff—a division-level headquarters with one-third of a maneuver division's manning—this aspect was challenging. However, dedicating personnel to serve as a simulated higher headquarters created authenticity for the training audience and prevented the blending of tactical and administrative functions.

From the 108th ADA Brigade's perspective, Roving Sands challenged the status quo and forced the staff to adjust to a new type of operation by working directly for a corps commander as an air defense brigade. Supporting a ground maneuver fight forced the brigade staff to think and plan more dynamically, especially as the critical-asset list remained situationally fluid to continue to achieve the commander's objectives. This type of fight was a significant departure from the current ADA mission in CENTCOM, where locations of ADA assets remain largely static through an entire deployment. To gain and maintain the initiative during Roving Sands, the corps had to prioritize and protect key tactical assets such as forward area resupply points, divisional support areas, and command posts (see figure 2, page 74). Complicating the problem, these assets moved regularly in support of the maneuver plan. These conditions compelled the ADA brigade, battalion, and battery leaders to understand the maneuver and support plans; coordinate tactical movements with the operational environment owners; and plan and resource external force protection assets based on mission, enemy, terrain, troops available, time, and civilian considerations well in advance of their movements and missions.

The brigade planners' success centered on shifting the mindset from a mature theater of operations with well-established tactics, techniques, and procedures, and rehearsed movements in accordance with a standing and well-understood operation plan, to an immature theater of operations in a contested environment. Contrary to a theater air defense mission, the 108th ADA Brigade entered Roving Sands as the senior ADA command in the corps. The brigade planners took an in-depth look at capabilities and limitations of the Patriot and THAAD weapon systems task-organized under their control, as well as the assets the corps commander directed them to defend. The commander and staff analyzed

these capabilities and responsibilities against the complex threat set comprised of short-range ballistic missiles, fixed-wing and rotary-wing aircraft, cruise missiles, and unmanned aircraft systems. To create a successful defense in a contested area, planners also had to carefully consider the location, disposition, and composition of enemy maneuver; distances of planned convoy movements; and sustainment capabilities in order to extend the ADA commander's operational reach. Finally, leaders and planners had to contend with strict movement timelines and resource constraints that result from the complexities of LSCO.



(Figure by authors)

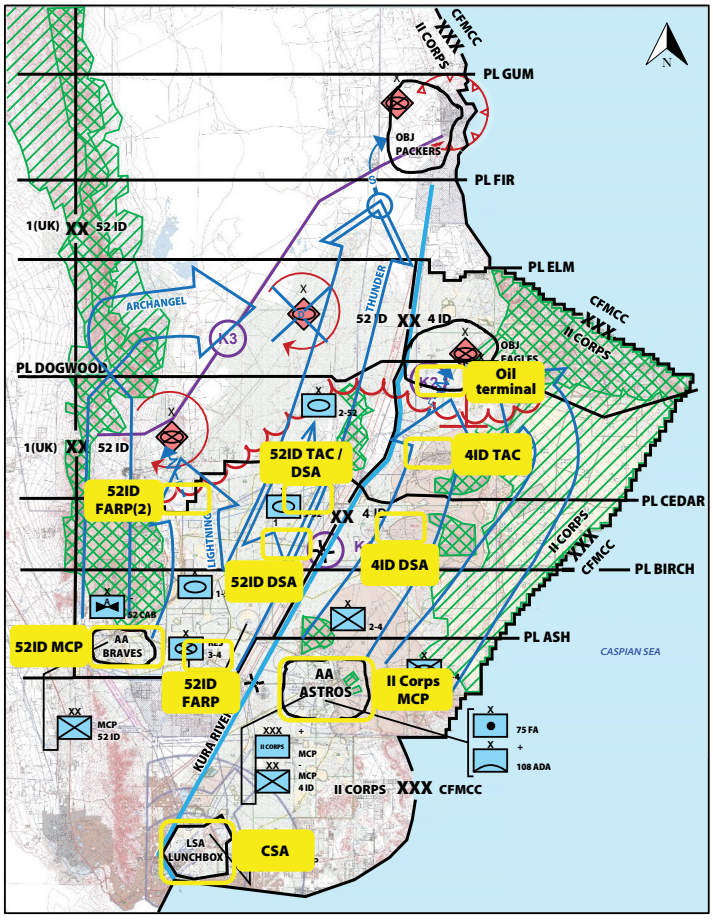
Figure 1. Roving Sands Exercise Design Concept

Executing Roving Sands also highlighted the challenge of communicating between a technically specialized branch and general maneuver forces. The ADA brigade staff had to translate its detailed internal tracking mechanisms and reports into standardized formats to enable shared understanding with the corps commander and staff. At first, this proved more difficult than anticipated. Air defense planners and staff are accustomed to reporting directly to technical experts at a U.S. Air Force air operations center capable of understanding and interpreting the nuances of air defense data. During Roving Sands, the brigade commander and staff performed much of the interpretation of this data themselves to communicate effectively with their maneuver higher headquarters. Communication improved over time as the brigade staff became comfortable interacting with their corps counterparts. With experience, the staff developed systems that facilitated meaningful dialogue and accurate, timely, and succinct reporting, which allowed the maneuver commander to make decisions regarding the corps' air defense plan.

As the uppermost air defense echelon in the decisive-action operation, the brigade planners found themselves in a position to influence the process of selecting which assets they should defend. At the theater level, nominating the prioritization of a critical-asset list is a function of an AAMDC headquarters. Army Techniques Publication (ATP) 3-01.94, *Army Air and Missile Defense Operations*, describes this theater-level process in detail.[11] Doctrine does not clearly describe the process by which a tactical corps headquarters would prioritize assets for an assigned or attached air defense capability. Roving Sands tested this construct, requiring the ADA brigade to perform analysis and nomination of a prioritized corps commander's critical-asset list. This concept of corps critical and defended assets is sure to be controversial to doctrinal hard-liners; however, during LSCO in an immature theater, an ADA brigade staff may need to perform this analysis in the absence of an AAMDC. Roving Sands

pushed the 108th ADA Brigade planners well beyond their comfort zones, but they met the challenge by devising ways to provide asset input to their higher headquarters.

Roving Sands also provided the 108th ADA Brigade's subordinate battalions a significant opportunity to train on tactical operations. The high tempo of the battle forced leaders at the battery and battalion level to conduct rapid planning and simultaneous execution to stay abreast of the supported maneuver force. Patriot units, long used to execute movements based on unit availability and maintenance, learned that they must execute their moves in accordance with the corps plan or risk desynchronizing the corps scheme of maneuver. Junior leaders accustomed to improved tactical sites with external force protection had to balance conducting their primary air defense mission with simultaneously defending their perimeter from enemy ground forces. These opportunities for tactical training are few and far between for many in the ADA community, but Roving Sands provided a unique opportunity for practicing these skills on a significantly larger scale.



AA–Assembly area

CFMCC–Combined force maritime component command

CSA–Corps sustainment area

DSA–Division support area

FA–Field artillery

FARP–Forward arming and refueling point

ID–Infantry division

MCP–Main command post

OBJ–Objective

PL–Phase line

TAC–Tactical command post

(Figure by authors. The yellow boxes and flagged text highlight current and future corps critical assets, which the commander required the 108th Air Defense Artillery Brigade to defend.)

Figure 2. Roving Sands Operational Graphics

Perhaps the most important lesson learned for commanders and planners was the critical role of logistics in enabling operational reach. Unit commanders quickly realized that Patriot units will not always be the priority for support in LSCO. For many leaders at the brigade, battalion, and battery, Roving Sands was the first opportunity in their careers where they directly planned and operated with a combat sustainment support battalion. The last thirteen to fifteen years of static air defense operations have accustomed unit leaders to "tailgate" logistics, whereby all necessary classes of supply are delivered to the customer at a fixed location. In a static mission, error in a logistics status report has minimal consequences. Commanders can request additional fuel, food, or medical supplies through local base support to correct the error. In Roving Sands, however, an inaccurate logistics status report potentially meant catastrophic mission failure. A unit's inability to accurately forecast requirements meant that resupply might not have been planned, emergency resupply was potentially unavailable, and critical shortages could possibly halt operations. It was a hard but valuable lesson learned that will remain with those leaders for years to come. From the brigade to the battery level, Roving Sands served as an opportunity for leaders to participate, often for the first time, in a maneuver-centric, LSCO exercise.

Soldiers from Bravo Battery (Terminal High Altitude Area Defense, or THAAD), 62nd Air Defense Artillery Regiment, 69th Air Defense Artillery Brigade, based out of Fort Hood, Texas, conduct THAAD reload training 5 March 2019 during the Roving Sands Exercise at Fort Bliss, Texas. (Photo by Sgt. LaShawna Custom, U.S. Army)

Takeaways and Future Application

In the final after action report for the exercise, one theme was abundantly clear: Roving Sands provided a tremendous opportunity for reenergizing the skills particular to large-scale combat, but it also highlighted the need for renewed focus on training tactics at every echelon and further repetitions as an institution.

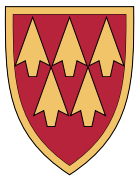
One major takeaway from Roving Sands was the need for clear command emphasis on training for LSCO across all echelons. To codify this within the FORSCOM air defense community, Maj. Gen. Clement Coward, the 32nd AAMDC commander, has published command training guidance identifying his expectation for training at echelon and the 32nd AAMDC strategy for future major training events such as Roving Sands. To aid ADA leaders, the 32nd AAMDC staff published this document with a summary of required individual and collective tasks that support large-scale combat at each echelon and a suggested long-range training schedule at the battalion level that complements those tasks.

A second major takeaway from the exercise is the need to conduct an orderly integration of mission-focused training (such as preparing for a deployment) into the overall training plan for large-scale combat. It is likely that FORSCOM ADA units will maintain a high operational tempo of deployments for the foreseeable future. Like BCTs continuing to rotate through train, advise, and assist missions, air defense brigades must balance current mission requirements with training for large-scale combat. Many (but not all) skills parallel.

A final takeaway from planning this exercise is the value of reading and applying new doctrine. Recent doctrinal updates include reference publications, which are highly readable and highly useful for learning and applying the Army's new operational construct. Exercise designers relied upon references such as FM 3-0, *Operations*; Army Doctrine Publication 3-37, *Protection*; FM 3-94, *Theater Army, Corps, and Division Operations*; Army Doctrine Reference Publication 5-0, *The Operations Process*; FM 6-0, *Commander and Staff Organization and Operations*;

ATP 6-0.5, *Command Post Organization and Operations*; FM 7-0, *Train to Win in a Complex World*; and others.[12] 32nd AAMDC planners could not have executed an exercise such as Roving Sands without that clear direction and guidance. Leaders who wish to train to the Army's new operational construct are recommended to start there.

Primary Units in this Article



Unit: 32nd Army Air and Missile Defense Command (AAMDC)

Mission: On order, 32nd AAMDC rapidly deploys forces worldwide to conduct air and missile defense operations in order to protect critical assets and support regional security.

Commander: Maj. Gen. Clement S. Coward

Garrison: Fort Bliss, Texas

Unit: 108th Air Defense Artillery Brigade (ADA)

Mission: On order, 108th ADA brigade rapidly deploys worldwide to defend U.S. forces and critical assets from aerial threats in order to support combatant commander operational and strategic objectives.

Commander: Col. Charles E. Branson

Garrison: Fort Bragg, North Carolina

Conclusion

In his September-October 2018 *Military Review* article, "Meeting the Challenge of Large-Scale Combat Operations Today and Tomorrow," Lundy characterizes FM 3-0 as a "pivot point to steer the Army toward both persistent competition below armed conflict and, when necessary, armed conflict against highly lethal and adaptive peer and near-peer enemies."[13] For the 32nd AAMDC, Roving Sands is the next turn in the road. Should armed conflict in a highly contested environment demand the services of the air defense, the 32nd AAMDC will be trained, ready, swift, and sure. ■

Notes

1. Michael D. Lundy, foreword to Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2017).

2. John A. Hamilton, *Blazing Skies: Air Defense Artillery on Fort Bliss, 1940–2009* (Washington, DC: U.S. Government Printing Office, 2009), 290–91.

3. Ibid., 292–93.

4. Ibid., 330–32.

5. "Qatar Emiri Air Force (QEAF) Air and Missile Defense," GlobalSecurity.org, accessed 18 February 2020, https://www.globalsecurity.org/military/world/gulf/qatar-air-force-bmd.htm.

6. Gregory J. Brady, *The Army Needs More Patriots* (Carlisle, PA: U.S. Army War College, 2013), 4–5.

7. Gordon Lubold, "U.S. Pulling Some Missile Defense Systems Out of Middle East," *Wall Street Journal* (website), 26 September 2018, accessed 18 February 2020, https://www.wsj.com/articles/u-s-pulling-some-antiaircraft-and-missile-batteries-out-of-mid-east-1537954204.

8. "About Us," Jessix, accessed 15 January 2020, https://jessix.com/.

9. Joint Publication 3-10, *Joint Security Operations in Theater* (Washington, DC: U.S. GPO, 25 July 2019), fig. I-1. There are three threat levels; Level I threats include agents, saboteurs, sympathizers, terrorists, and civil disturbances.

10. FM 3-0, *Operations*; Training Circular 7-101, *Exercise Design* (Washington, DC: U.S. Government Printing Office, November 2010); U.S. Army Training and Doctrine Command (TRADOC) G-2, *Decisive Action Training Environment*, ver. 3.0 (Fort Leavenworth, KS: ACE Threats Integration, July 2017), accessed 15 January 2020, https://wss.apan.org/3084/Decisive%20Action%20Training%20Environment/DATE_3.0.pdf.

11. Appendix B, "Critical and Defended Asset Methodology," in Army Techniques Publication (ATP) 3-01.94, *Army Air and Missile Defense Operations* (Washington, DC: U.S. GPO, 2016).

12. FM 3-0, *Operations*; Army Doctrine Publication 3-37, *Protection* (Washington, DC: U.S. GPO, 2019); FM 3-94, *Theater Army, Corps, and Division Operations* (Washington, DC: U.S. GPO, 2014); Army Doctrine Reference Publication 5-0, *The Operations Process* (Washington, DC: U.S. Government Printing Office, 2012 [obsolete]); FM 6-0, *Commander and Staff Organization and Operations* (Washington, DC: U.S. GPO, 2014); ATP 6-0.5, *Command Post Organization and Operations* (Washington, DC: U.S. GPO, 2017); FM 7-0, *Train to Win in a Complex World* (Washington, DC: U.S. GPO, 2016).

13. Michael D. Lundy, "Meeting the Challenge of Large-Scale Combat Operations Today and Tomorrow," *Military Review* 98, no. 5 (September-October 2018): 113.

U.S. Secretary of Defense Robert McNamara points to a map of Vietnam 26 April 1965 during a press conference in Washington, D.C. Strategic and operational planning for the conduct of the Vietnam War did not sufficiently describe an attainable end state that took into consideration the history or prevailing social and geoeconomic conditions of the divided nation. (Photo courtesy of the Library of Congress)

Keep Your Eye on the Prize

The Importance of Stability Operations

Col. George F. Oliver, PhD, U.S. Army, Retired

"You know you never defeated us on the battlefield," said the American colonel.
The North Vietnamese colonel pondered this remark a moment. "That may be so," he replied, "but it is also irrelevant."
—Conversation in Hanoi, April 1975

The epigraph has been explained in shorter, more direct terms by many about the Vietnam War: the United States won every battle but lost the war. Many military leaders now compare U.S. experiences in Vietnam with the most recent wars in Iraq and

Afghanistan and ponder how strategists and military operational planners can ensure the hard-fought war, costing both lives and money, is not lost.

Time must pass before a thorough examination of the wars in Iraq and Afghanistan is possible. For example, Harry Summers's book *On Strategy* (the source of this article's epigraph) was written in 1982, almost a decade after America lost the war in Vietnam. In time, scholars will do the same for both Afghanistan and Iraq. However, like the notion above, many believe the United States won every battle in Afghanistan and Iraq yet lost both wars. This raises the question of whether America kept its eye on the prize—the desired end state. For Operation Iraqi Freedom, at least, the answer may be yes. As this ugly war progresses, perhaps the coalition that took down Saddam Hussein may have succeeded. After all, though as yet unstable, immature, and inclined to widespread corruption, Iraq arguably does have a functioning democracy. Time will tell if it stabilizes and permanently takes root. The final outcome of Afghanistan is much more in doubt in terms of whether the wartime objective of establishing a democratic government will be realized.

Both give observers pause. Successful wars generally conclude as a result of some kind of stabilization operation. It is the quality of such an operation that really determines the ultimate success or failure of a war. Thus, understanding the character and scope of what kind of stability operation can be executed is key to achieving final victory in any war. More so than force-on-force warfare, stability operations are beset with complex problems well beyond the mere application of force. Having largely forgotten or ignored the lessons of stability operations from World War II and other previous wars, the American military has had to relearn a great deal about stability operations from its experiences in Afghanistan and Iraq. The 2016 Joint Publication (JP) 3-07, *Stability*, largely a product of our recent experience with war, is quite good, and the recently released Army Doctrine Publication (ADP) 3-07, also titled *Stability*, is even better.[1] Yet there is one lesson that needs far more emphasis: ensuring victory after the war concludes by taking decisive and robust steps to winning the peace through stability operations.

Unfortunately, as practical experience has shown, developing an understanding of how one can achievable an acceptable end state at the onset of a war is much harder than it sounds. Political leaders often do not want to make that prediction because wars and stability operations are fluid, and the environment in which they must be conducted is always changing. But a prolonged war that meanders away from an effort to identify and state objectives often indicates that political leaders did not do a thorough analysis of ends, ways, and means before initiating a conflict. Consequently, no matter what kind of war is being fought, it is imperative that military and civilian strategists and operational planners keep a focus on the desired end state—what the most senior leaders want the postconflict operational environment to look like when the war is over even if initially somewhat abstract.

> A prolonged war that meanders away from an effort to identify and state objectives often indicates that political leaders did not do a thorough analysis of ends, ways, and means before initiating a conflict.

Operational Art and the End State

Operational art is at the very center of planning for war and subsequent combat operations. Military doctrine has taken many ideas from military theorists that can help planners devise major operations and campaigns to achieve victory in war. Such doctrine is taught in professional military education programs to enable future planners to devise effective approaches to future military operations. The study of history is a good supporting teacher for doctrine, and military leaders and strategists at all levels must reflect on the history of both armed conflict as well as stability operations to help avoid mistakes of the past and learn from good practices. It is important to emphasize that learning from previous postwar activities is just as important as learning from historical combat operations.

Additionally, any article written about operational art should pay homage to its pioneers, Sun Tzu and Carl von Clausewitz. Sun Tzu's short quips on the art of war clearly discuss what commanders must consider in the aftermath of armed conflict. In his chapter on the offense, Sun Tzu writes, "Generally in war the best policy is to take the state intact; to ruin it is inferior to this."[2] In another chapter, he writes, "Hence what is essential in war is victory, not prolonged operations. And therefore the general who understands war is the Minister of the people's fate and arbiter of the nation's destiny."[3] In these two short notes on warfare, he is clearly focused on what happens after combat. The people of the vanquished are key to success in war, and any commander who avoids the total destruction of society and protects the people greatly increases the likelihood of ultimately achieving victory.

Clausewitz has several dictums that relate to how to proceed in war. His often quoted phase, "War is not a mere act of policy, but a true political instrument, a continuation of policy by other means," should compel political leaders to think about the long-term ramifications of their policies.[4] In another chapter, Clausewitz focuses on the end state when he says, "No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war."[5] To increase the likelihood of ultimate success, leaders must be clear on the broad outlines of what they intend to achieve before embarking on military operations; there must be some vision of an end state, though obviously, the aspirations within such a vision might have to be modified as circumstances related to a war evolve.

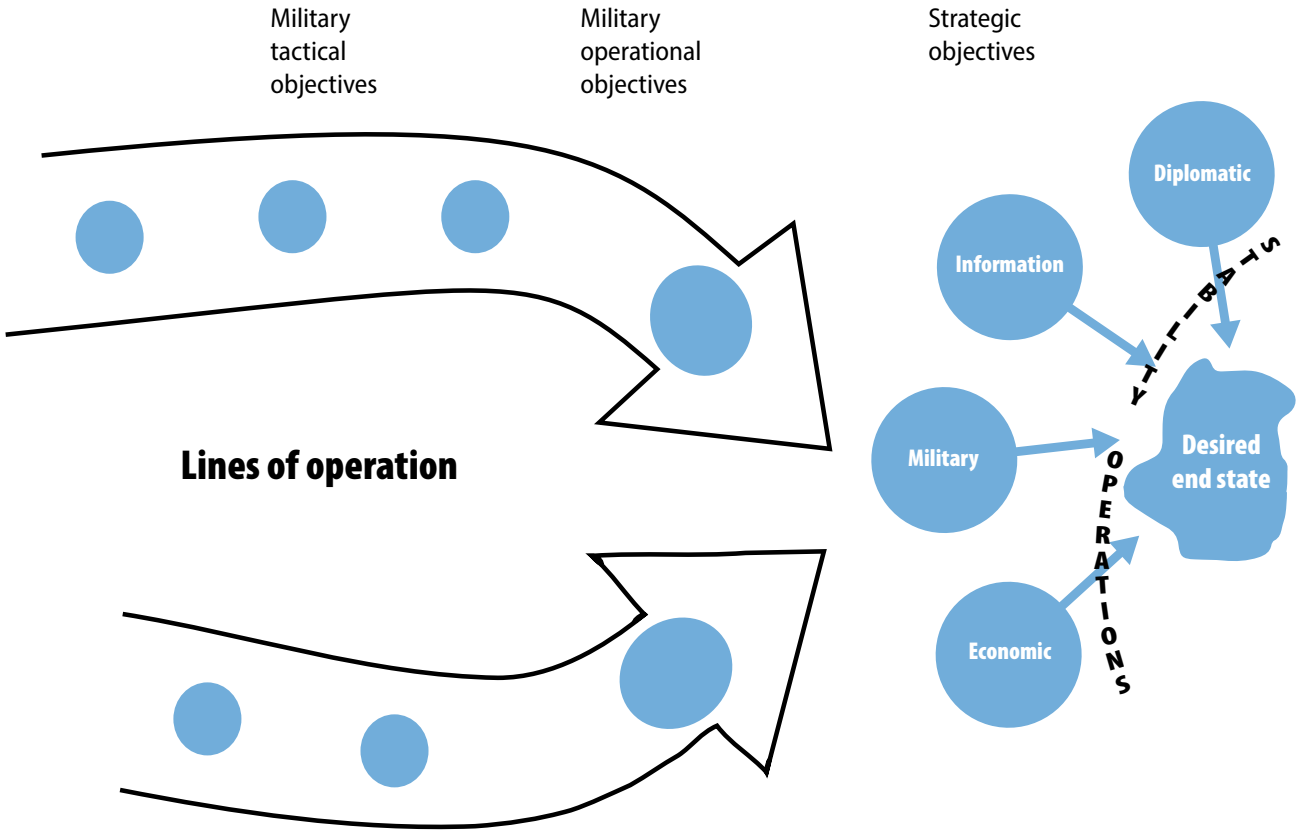
B. H. Liddell Hart, a British historian and military theorist, is somewhat critical of Clausewitz's discussion of strategy and policy. Liddell Hart takes policy to a higher level, to that of governments. In his book *Strategy*, Liddell Hart criticizes the term "objective" used by Clausewitz by writing, "The term objective, although common usage, is not really a good one. It has a physical and geographical sense–and thus tends to confuse thought. It would be better to speak of 'the object' when dealing with the purpose of policy."[6] He goes further in another chapter:

> The object in war is a better state of peace—even if only from your own point of view. Hence it is essential to conduct war with constant regard to the peace you desire. This is the truth underlying Clausewitz's definition of war as a 'continuation of policy by other means'—the prolongation of that policy through the war into the subsequent peace must always be borne in mind. If you concentrate exclusively on victory, with no thought for the after affect, you may be too exhausted to profit by the peace, while it is almost certain that the peace will be a bad one, containing the germs of another war. This is a lesson supported by abundant experience.[7]

The theory of war has evolved over the centuries. Neither Sun Tzu nor Clausewitz directly discussed an envisioned end state promulgated by political leaders before the start of a war. Liddell Hart was more precise in discussing the role of political leaders by discussing policy, or the "object" of war. Clausewitz, however, was adamant on keeping one's focus on the objective. Does this mean the object, as Liddell Hart discusses, is a better peace? He is most likely talking about a clearly defined end state.

For over thirty years, Milan Vego of the U.S. Naval War College has studied, translated, and written extensively about operational art. His *Joint Operational Warfare: Theory and Practice* is probably the most comprehensive book on the subject. The introductory chapter, "On Operational Art," discusses the need for senior political leaders to consider a desired end state for any military operation or campaign.[8] In the chapter titled "Policy-Strategy-Operational Art Nexus," Vego writes, "The desired end state encompasses the political,

Col. George F. Oliver, PhD, U.S. Army, retired, is a recently retired professor from the U.S. Naval War College. In the Army, he served in a variety of light infantry, ranger, and Special Forces units. In the later part of his career, he was the military adviser to the U.S. ambassador to the United Nations and director of the U.S. Army Peacekeeping and Stability Operations Institute. While a professor at the U.S. Naval War College, he was responsible for stability operations lessons at the War College and taught an elective on Understanding and Resolving Conflict. Oliver has two master's degrees and a PhD from George Mason University School of Conflict Analysis and Resolution. He is also the author of an online course on peacebuilding with the Peace Operations Training Institute.



(Figure by the U.S. Naval War College. This diagram is often used by instructors from the Joint Military Operations Department at the U.S. Naval War College to show the relationship of tactical, operational, and strategic objectives to the desired end state.)

Figure 1. Relationship of Objectives and Desired End State

diplomatic, military, economic, social, ethnic, humanitarian and other considerations—or simply stated, 'the landscape'—the highest political leadership wants to exist or be created after the end of hostilities." He goes on: "Defining the desired end state requires a great deal of discussion among political and military leaders. Properly defined and understood, the desired strategic end state is a key prerequisite to determining the method, duration, and intensity of using one's available resources of military and nonmilitary power to accomplish a given military or theater-strategic objective."[9]

Vego stresses the need for political and senior military strategic planning leaders to define the desired end. This gives operational planners a focus and direction. Figure 1 depicts this relationship. In operational art, objectives are nested. Tactical objectives support the achievement of operational objectives, which in turn support attaining strategic objectives. Completing strategic objectives should lead (in theory) to the desired end state. The converging lines toward the desired end state show the necessary whole-of-government approach for successful stability operations. Throughout *On War*, Clausewitz focuses on the objective, which can be either tactical or operational. Since all objectives support the attainment of a higher-level objective, these objectives lead to an end state. Ideally, the envisioned end state should be clear to all leaders up and down the chain of command.

However, obtaining a clear vision of a desired end state, as Vego writes, is very hard to do. End states evolve and change over the course of the war, and often, political leaders delay describing what they want the world, region, or country to look like after the fighting has stopped. Nonetheless, Vego asserts that in war, defining the end state is difficult but necessary. That is why the desired end state is depicted in figure 1 as an open curve—a broad idea of a desired

end state. Vego describes several historical examples. The Allies had only a vague idea of what they wanted Europe to look like when they launched Operation Overlord. The same was true for Desert Storm, Allied Force, and Enduring Freedom.[10] Yet, to clarify Vego's assertion, political leaders in all of these wars developed more clearly defined aspirational end states as the wars progressed.

To be fair, as Vego describes, it is hard to predict the outcome in war. This is the reason Helmuth von Moltke the Elder said, "No plan of operations extends with any certainty beyond the first contact with the main hostile force."[11] It also may be the reason Gen. Dwight Eisenhower repeated on several occasions this quote from an anonymous soldier, "Plans are useless, but planning is indispensable."[12] Both these quotes are often used by military scholars and leaders. They both apply to warfare yet aptly relate to stability operations. Clausewitz's fog and friction in warfare result in unexpected changes; both Moltke and Eisenhower were basically saying the same thing. That is, thorough planning allows the commander to alter his or her plans to meet the unforeseen changes. This thorough planning also ensures that the commander can remain focused on the objective and not be sidetracked to other more attractive objectives that might not be nested with the initial lines of effort.

Senior political leaders and military commanders can easily extrapolate this meaning for stabilization operations as well—no plan survives the initial discussions with the host nation. When conducting stabilization operations, the host nation must be involved in the discussions on an end state. This calls to mind Sun Tzu's idea that commanders become ministers of the peoples' fate.

Political leaders must also be immersed in thinking through their policies and strategies before wars start. This was the thesis of Gen. Tony Zinni's book *Before the First Shots are Fired*: "Few Americans realize how many essential pieces have to fall into place before Johnny goes marching off to war, or how much these pieces drive success or failure after he deploys 'over there.'"[13]

Planning up front for the desired end state keeps military forces and civilian agencies (when the right time comes) focused on their task, or as Liddell Hart says, on the object (end state). Also, because of the fluid nature of military operations, it is all the more likely that the end state will be fluid too. Thus, as the war unfolds, so too must the desired end state. This was certainly true during World War II and Vietnam.

Another factor involving predicting an end state for military commanders is the interaction with other allies. Throughout history, America has rarely fought a war alone. Each allied nation will have a different view of what it wants the future environment to look like. This requires the allies to pull together and come up with a common vision. Such was the case during World War II. Allied conferences in Quebec, Casablanca, and Yalta yielded almost a common view of where the war was headed, if not a desired end state—that came later, much later.

If military planners are developing potential war plans for their senior political leaders, then they should ask what they want the state, region, etc., to look like when the fighting has ceased. In other words, what does victory look like? If political leaders do not quantifiably outline what they envision the future landscape to look like, then military leaders and planners should propose the features of a desired end state. Ignoring the essential planning element of describing a desired end state before the war begins may lead to winning every battle and losing the war. The old saying comes to mind, "If you do not know where you are going, any road will take you there." In fact, Zinni used this very same old adage in his book. He stresses that senior political leaders must think through ends, ways, and means in achieving a political objective.[14] Failure to do so leads not only to a waste of resources—both men and money—but also to failure itself.

Wars are fluid, and the enemy gets a vote. And in stabilization operations, the local people get a vote. Stability operations are wicked problems and complex adaptive systems where human interactions cause the situation to change. Failure to take this into account might lead to an insurgency or a prolonged war. So as operations in a particular country unfold, strategic leaders should revisit their desired end state and alter it accordingly. This was certainly the case for the vision of Europe from 1942 to 1946. The same was true in Iraq from 2003 to 2011.

Military Doctrine on Stabilization

Current U.S. military doctrine has taken the concepts of theorists discussed earlier to heart and crafted into both warfare doctrine and stabilization doctrine the concept of understanding the end state. Army and joint

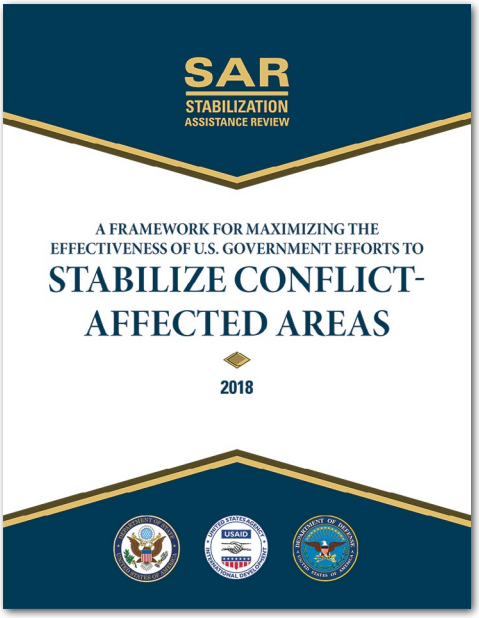
publications have over the last three decades embraced the concepts of operational art. Yet, more recently, the inclusion of a desired end state before the first shots are fired has gained new attention.

The events of 11 September 2001 caused the U.S. military to intervene first in Afghanistan and then in Iraq. By most accounts, the planning for the postconflict phase of Operation Iraqi Freedom did not go well.[15] The inadequate planning and faulty assumptions consequently stimulated a number of studies within the U.S. government. The first report was the *Defense Science Board 2004 Summer Study on Transition to and from Hostilities*.[16] This study resulted in a Department of Defense (DOD) directive that stated, "Stability operations are a core U.S. military mission that the Department of Defense shall be prepared to conduct and support."[17]

With activities in Iraq making front-page news daily and with this new DOD directive, articles, books, and studies about stability operations flourished. In short order, these ideas gained traction and evolved into a workable set of ideas that soon became military doctrine. JP 3-07, *Stability Operations*, was first published in 2011, with a revised version titled *Stability* published in 2016. In combination with international efforts toward peacebuilding (a synonym for stability operations), excellent concepts emerged to either help fragile and failing states avoid war or help nations recover from war. The approach to stabilization, as described in the Army's latest doctrine, includes "a safe and secure environment, an established rule of law, social well-being, stable government, and a sustainable economy."[18] These five lines of effort have gained international recognition as ways to help fragile or failed states.

When focusing on an end state, the current version of JP 3-07 states, "During stability actions, commanders achieve unity of effort across the stability sectors by focusing all activities toward a shared understanding of the desired end state. The end state focuses on the conditions required to support a secure lasting peace: a viable economy; and a legitimate HN [host nation] government capable of maintaining its legitimacy by meeting the expectations of its citizens and protecting its population and territory."[19]

ADP 3-07, *Stability*, discusses the desired end state with some clarity: "In operations dominated by offensive and defensive tasks, the end state is generally quantifiable and well defined in terms of enemy forces and time. Stabilization is a long-term effort and can only be achieved by integrating the collective actions of all instruments of national power, not by a single instrument applied in isolation."[20]



To view the Department of Defense, Department of State, and U.S. Agency for International Development endorsed document, *A Framework for Maximizing the Effectiveness of the U.S. Government Efforts to Stabilize Conflict Affected Areas*, please visit https://media.defense.gov/2018/Jun/13/2001931133/-1/-1/1/stabilization-assistance-review.pdf.

As the new ideas unfolded on stability operations, the military doctrine and the concepts in other U.S. government agencies and departments clearly saw that stability operations could be conducted across the spectrum of conflict—in peace, war, and postwar.[21] To fully integrate all instruments of national power and incorporate all relevant U.S. agencies and departments into stability operations planning and activities, in 2017 and 2018, the Department of State, the U.S. Agency for International Development (USAID), and the DOD completed a stabilization assistance review (SAR). The SAR reviewed articles and reports, analyzed eight current and past U.S. engagements in conflict-affected countries, and conducted interviews with experts. The review also sent questionnaires to the six DOD combatant commands. The result was a new document endorsed by the DOD, Department of State, and USAID called *A Framework for Maximizing the Effectiveness of the U.S. Government Efforts to Stabilize Conflict Affected Areas*.[22]

The report acknowledges, "The United States has strong national security and economic interests in reducing the level of violence and promoting stability in areas affected by armed conflict."[23] Yet it goes on to

Walt Whitman Rostow (*far right*) shows (*from left to right*) Press Secretary George Christian, President Lyndon B. Johnson, and Gen. Robert Ginsberg a model of the Khe Sanh area of Vietnam 15 February 1968 in the White House Situation Room, Washington, D.C. (Photo courtesy of the National Archives)

say the United States has "no appetite to repeat large-scale reconstruction efforts." The report also provides a new definition of stabilization: "A political endeavor to create conditions where locally legitimate authorities and systems can peaceably manage conflict and prevent a resurgence of violence."[24] (Consider this a link back to Clausewitz's war is a continuation of policy.)

The Department of State, specifically the Bureau of Conflict and Stabilization Operations, has the lead for planning U.S. support to conflict affected countries. The USAID is the implementing partner, and the DOD provides a supporting role. A set of core principles outlined in the report are essentially lessons from the past, yet focus more on lessons from the last eighteen years of conducting stabilization operations.

The *National Security Strategy* and the *National Defense Strategy*, published in 2017 and 2018, respectively, refocused the U.S. military toward near-peer competitors.[25] In anticipation of this new focus, the Army published its latest version of Field Manual 3-0, *Operations*.[26] In this new operations manual, the Army drifted away from previous doctrine where the Army conducted offense, defense, and stability operations. This new manual now focused on offense, defense, and consolidating gains. The discussion on consolidating gains confused many, and there was some concern that the ideas of stabilization would fade.

To clarify what the Army meant by consolidating gains, former commander of the U.S. Army Combined Arms Center, Lt. Gen. Michael Lundy, and three others published an article in *Military Review* titled "Three Perspectives on Consolidating Gains." The article traces the military history of the U.S. Army in stability operations. The authors direct their discussion on consolidating gains into tactical, operational, and strategic viewpoints. In the section "The Operational Artist's View," they state, "Planning to consolidate gains is integral to prevailing in armed conflict. Any campaign that does not account for the requirement to consolidate gains is either a punitive expedition or likely to result in protracted war. The

A German worker shovels debris in 1949 as part of construction efforts in West Berlin, Germany. The sign reads, "Emergency Program Berlin with the help of the Marshall Plan." Marshall Plan aid to Germany totaled $1,390,600 and enabled the country to rise from the ashes of defeat, as symbolized by this worker in West Berlin. Even a year before the end of the Marshall Plan in 1951, Germany had surpassed its prewar industrial production level. (Photo courtesy of the National Archives)

planning must therefore account for the desired end state of military operations and work backward."[27]

It was good to see the authors of this article refer to operational art and the desired end state. Keeping the military focus on the end state is critical to success in any operation, especially stability operations. Backward planning from the end state is the key to any good military campaign or major operation.

Recently, in July 2019, the Army released ADP 3-07 along with ADP 3-0, *Operations*.[28] These two documents add a more thorough discussion on consolidating gains and its relationship to stability operations. The new documents reiterate that land forces of the United States focus on offense, defense, and stability operations.

ADP 3-07 is a good document that incorporates many of the ideas learned about stability operations in the last fifteen years. Both ADP 3-0 and ADP 3-07 help focus the Army on prospective missions. The stability tasks outlined in figure 2 reflect the kinds of missions the Army might have to accomplish. A prominent lesson highlighted in the doctrine is incorporating not only other U.S. government agencies and departments but also activities from organizations like the United Nations, the World Bank, regional organizations, and nongovernmental organizations.

- Establish civil security
- Support to civil control
- Restore essential services
- Support to governance
- Support to economic and infrastructure development
- Conduct security cooperation

(Figure from Army Doctrine Publication 3-07, *Stability*, July 2019)

Figure 2. Army Stability Tasks

In addition, the recent SAR clearly shows that stabilization is a whole-of-government effort. In April 2019, Rep. Eliot Engel introduced a congressional bill called the Global Fragility Act. This bill passed in the House of Representatives, and at the time of this writing, is awaiting debate in the Senate. According to a summary of the bill, "The State Department shall select priority countries and regions that are particularly at risk, and report to Congress a 10-year plan for each. Each plan shall include information including descriptions of goals, plans for reaching such goals, and benchmarks for measuring progress."[29] If signed into law, the bill would support, with funds, the activities outlined in the SAR. The bill acknowledges that stability operations are a whole-of-government effort and can occur throughout the spectrum of conflict. Like the SAR, however, its focus is on preventing violent conflict and supporting fragile states emerging from conflict.[30]

Historical Examples

The following three examples—post-World War II Germany, Vietnam, and Iraq—demonstrate how a clearly defined end state helped U.S. war efforts.

Post-World War II Germany. As Eisenhower's planners were developing plans for the invasion of Europe into Normandy, a separate planning staff headed by British Lt. Gen. Frederick Morgan started working on postwar plans.[31] These plans were guided by political discussions among the heads of state of the Allied powers. Winston Churchill and Franklin Roosevelt met several times over the course of the war to determine guidance on the war for their military commanders. Although Joseph Stalin did not attend the first couple of meetings, Churchill and Roosevelt were in communication with him. Ideas for postwar Europe emerged from these meetings that provided planners some information to begin preparations, but it was an incomplete vision of what Europe would look like after the war. Each time the heads of state met, the postwar plan changed. At the second Quebec Conference, U.S. Secretary of the Treasury Hans Morgenthau presented his views. Because Germany rebounded after World War I, Morgenthau recommended that Germany be compelled to become an agrarian state with little or no industrial capacity.[32] This vision was accepted by Churchill, but there was much disagreement within Roosevelt's cabinet.

The leading opponent to the Morgenthau Plan was U.S. Secretary of War Henry Stimson. Eventually a watered-down version of the Morgenthau Plan resulted in the Joint Chiefs of Staff (JCS) issuing JCS Directive 1067 to Eisenhower in April 1945.[33] Ideas for postwar Germany were altered by decisions in the Allied Control Council and the Potsdam Conference. Eventually, one year after Germany surrendered, the JCS issued a new directive, JCS 1779. This new directive combined the zones of occupation of France, Britain, and the United States and was the basis for a West German nation.[34]

The full recovery of Europe would not take place until Secretary of State George C. Marshall outlined his ideas under the Marshall Plan at a speech in 1947.

However, even the Marshall Plan evolved in the course of its implementation. Yet the plan was a whole-of-government effort to rebuild Western Europe. Some scholars consider the Marshall Plan to be the greatest foreign policy effort of the United States in the twentieth century. For example, former Secretary of State Henry Kissinger said of the Marshall Plan,

> Every generation requires a vision before it can build its own reality. But no generation can rest on the laurels of its predecessors; each needs to make a new effort adapted to its own conditions. In Europe, the Marshall Plan helped consolidate nations whose political legitimacy had evolved over centuries. Once stabilized, those nations could move on to designing a more inclusive, cooperative order.[35]

Essentially, postwar Germany did not follow the theory on how to proceed with helping a nation recover from war through stability operations. Initially, only the destruction of the Wehrmacht (the German defense force) was envisioned. The complex ideas of an end state for Germany and Europe took much longer to develop. Still, it was necessary for political leaders to come up with a vision so the entire whole of government could proceed to total victory.

Vietnam. Political guidance is more essential in limited wars, and the Vietnam War was a classic case of a limited war. The United States wanted to halt the communist expansion so it drew a line in the sand between North and South Vietnam. Ultimately, President Lyndon Johnson wanted to defeat the enemy and force them back into North Vietnam.

Both Presidents Johnson and Richard Nixon saw pacification and the strengthening of the Vietnamese military forces as a way to win the war. However, neither of these strategic objectives were visions of an end state. Johnson did not publicly outline an end state for the war in Vietnam.[36] Yet in discussions with Robert Komer, who in 1966 served briefly as Johnson's national security adviser, Johnson "wanted to make Vietnam a showcase of economic, social, and political development in Asia."[37] This was more of an end state.

Johnson named Komer the czar of pacification in the spring of 1966. This meant Komer would tackle the other war in Vietnam—the fight against the Viet Cong to bring all of the country under the leadership of the South Vietnamese government. After leaving the National Security Council, Komer headed to Vietnam to manage the Civil Operations and Revolutionary Development Support (CORDS) pacification program. CORDS was a whole-of-government approach to restoring control and legitimacy to the rural villages all over Vietnam. Johnson picked Komer because he got things done. Unofficially, he was known as "Blowtorch Bob." By 1970, according to Richard Stewart, because of Komer's CORDS program, "93 percent of South Vietnamese lived in 'relatively secure' towns and villages, an increase of 20 percent from the middle of 1968."[38]

Although statistics may be misleading, many studies have shown the CORDS was successful and truly a whole of the U.S. government effort. The program also had strong support from the South Vietnamese government. In the CORDS program, civilians made up 20 percent of the eight thousand leader and staff positions, while the DOD provided the remainder. However, civilians held 50 percent of the key leadership positions.[39]

When Nixon came into office, his national security team met in July 1969 to discuss the war. According to Henry Kissinger, the national security adviser at the time, the administration developed a new mission statement for Gen. Creighton Abrams Jr., the military assistance command–Vietnam commander: "The new mission statement (which went into effect on August 15) focused on providing 'maximum assistance' to the South Vietnamese to strengthen their forces, supporting pacification efforts, and reducing the flow of supplies to the enemy."[40] Again, this was not a particularly good end state.

Next page top: Bill Graham (*right*) discusses a project to reopen the Thạnh Phú Village canal January 1970 in Châu Thành District, Vietnam. Dredging for the U.S. 9th Division's Đồng Tâm Base Camp had filled in the canal, and the Army refused to help dig it out. Civil Operations and Rural Development Support (CORDS) aid including in-kind money and surplus food commodities was used to compensate villagers for digging out the silt. The canal was nearly a kilometer long and took about three months to finish. (Photo courtesy of the American Foreign Service Association/*The Foreign Service Journal*, http://afsa.org/sites/default/files/flipping_book/0415/files/assets/basic-html/page-1.html)

Next page bottom: An undated photo of a CORDS office in Châu Đốc, Vietnam. (Photo courtesy of the James Nelson Tull Collection, The Vietnam Center and Sam Johnson Vietnam Archive, Texas Tech University, VA067961)


CORDS office CHAU DOC

President George W. Bush meets with his national security and communications advisors 19 March 2003 after authorizing military operations against Iraq. Present (*from left to right*) were Steve Hadley, deputy national security advisor; Karen Hughes, special advisor to the president; Chairman of the Joint Chiefs of Staff Richard B. Myers; Dan Bartlett, communications director; Vice President Dick Cheney, Secretary of Defense Donald Rumsfeld; National Security Advisor Condoleezza Rice; and Secretary of State Colin Powell. (Photo by Eric Draper, Official White House Archives)

In a review of several books including Kissinger's *The White House Years,* Harry Summers's *On Strategy: A Critical Analysis of the Vietnam War,* and Gary Hess's *Presidential Decisions for War: Korea, Vietnam and Persian Gulf,* there was no insight into a desired end state for Vietnam after the war. Even a review of Johnson's national security action memoranda failed to uncover a clear end state. Yet, because Komer had a personal relationship with Johnson, he understood the president's vision of an end state and set out to accomplish it.

Vietnam had other problems that might have caused America to lose the war. However, as the senior leader orchestrating the pacification program in Vietnam, Komer kept his eye on the prize: a democratic government where villages could live freely and unthreatened by the Viet Cong.

Iraq. Operation Iraqi Freedom is another historical example where perhaps a clearly defined end state helped the war effort. There are numerous books, articles, and blogs about America's failure in the operation. However, when looking at end states, perhaps America did better than many think.

In October 2002, five months before the war against Saddam Hussein began, President George W. Bush released a paper crafted by Condoleezza Rice titled "Principal's Committee Review of Iraq Policy Paper." In this paper, the United States' goals were outlined as "an Iraq that:

- does not threaten its neighbors;
- renounces support for, and sponsorship of, international terrorism;
- continues to be a single, unitary state;
- is free of weapons of mass destruction, their means of delivery, and associated programs;
- no longer oppresses or tyrannizes its people;

- respects the basic rights of all Iraqis—including women and minorities;
- adheres to the rule of law and respects fundamental human rights, including freedom of speech and worship; and
- encourages the building of democratic institutions."[41]

On the surface, this looks like a well-crafted end state. It is clearly a vision on what Bush wanted Iraq to be when the war was over. Since many are familiar with what happened in Iraq, the readers can draw their own conclusions on whether this end state was achieved. But in my opinion, most of these goals were met.

Peacetime End States

Stability operations, according to U.S. military doctrine, happen in peacetime as well. Military units conducting security cooperation activities in countries that support U.S. policy interests or are in competition with other near-peer competitors might have military, aid, and development programs organized by the U.S. ambassadors to those countries. These programs or military exercises are designed to achieve long-term U.S. goals.

During peacetime, there most likely will be limited strategic guidance for a particular country. The U.S. ambassador to that country, however, normally has a vision on what he or she wants to accomplish published in the embassy's Integrated Country Strategy. According to the Department of State website, ambassadors are required to conduct an in-country assessment, review the *National Security Strategy*, consult with the Department of State's regional bureau chief, and develop their own strategic plan.[42] For example, the U.S. ambassador's plan for Ukraine provides a good end state:

> A strong, resilient, and diplomatically engaged Ukraine, with a strong military, security agencies and border guards, partners with the United States to contribute to regional stability, resist Russian multi-dimensional aggression, and respond effectively to domestic and transnational global threats, such as illicit migration and pandemics, thereby protecting Americans in Ukraine and in the homeland and keeping the Russian threat farther from NATO's borders.[43]

This excellent end state allows U.S. departments and agencies to develop plans to achieve this vision.

It makes sense for leaders conducting theater security cooperation programs in a particular country to review the ambassador's Integrated Country Strategy for that country. The same holds true for the USAID or any other U.S. government agency representatives operating in a particular country. Programs in a particular country, in order to be cost effective and fit within the *National Security Strategy*, should be in line with the ambassador's end state.

Conclusion

If the U.S. military is to be victorious in war and not just win battles, leaders from the national level down through at least the operational level of war must follow the advice of Clausewitz: do not start or engage in a war unless you know what you want to accomplish by the end of that war. This means that senior leaders, whether they be civilian or military, must provide some sort of vision on what the operational environment should look like when the fighting is over. It is highly likely that this end state will change during the conduct of the war, but it is essential that some initial direction with regard to objectives to be accomplished be given before the first shots are fired.

Even in limited wars, a desired end state keeps military commanders and civilian agencies focused and reduces the commitment of resources to achieve victory. Serious thought and debate by both senior political and military leaders is a necessity for the development of a clear end state. If political leaders do not provide such intellectual thinking on an end state, military commanders should ask for one or, in the absence of one given, take the initiative to develop one and send it up the chain for consideration of approval. This end state will be very important as the conflict moves from cessation of armed conflict to the more arduous stabilization operation.

In peacetime, having a vague idea of a vision on what must be accomplished is good, but on commencement of hostilities one must take the next step and describe in greater detail the desired features of an end state. This will allow all elements of national power to share a common intent and put limited resources to good use. Security cooperation is a form of stabilization operations that can contribute to achieving a desired end state.

During any interagency effort, whether war or peace, planners must keep their eyes on the prize—the desired end state. In summary, the doctrinal ideas concerning the role of the military in stability operations have evolved into a workable and effective aggregation, and U.S. government policy has evolved as well. It is now incumbent

upon the military to ensure that the importance of stability operations planning stemming from agreement on the details of end states is inculcated into military as essential for achieving ultimate victory in war. ■

Notes

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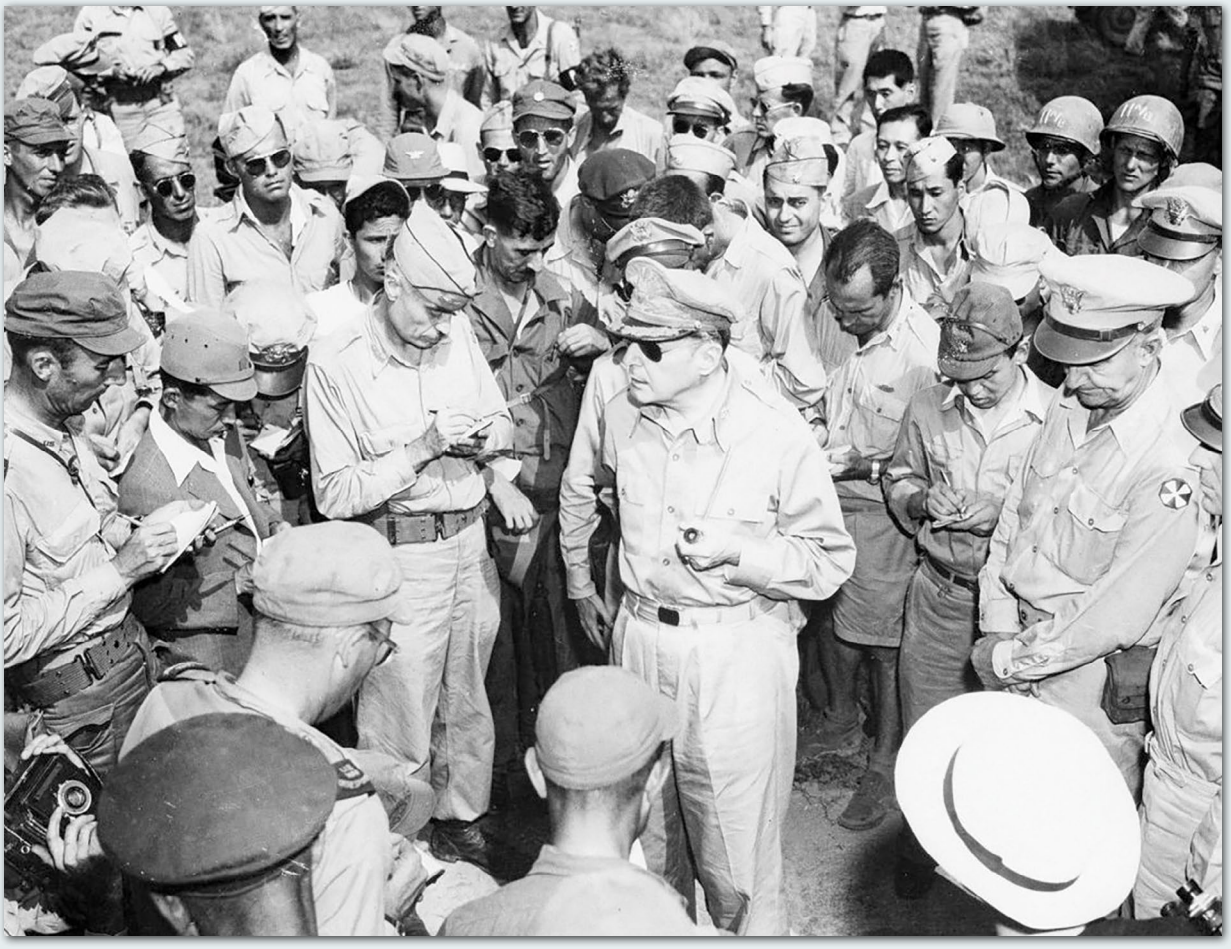

Flanked by Lt. Gen. Robert L. Eichelberger (*hands folded at right*), Gen. Douglas MacArthur (*center*) takes questions from reporters 30 August 1945 shortly after his arrival at Atsugi Airfield, Japan. (Photo courtesy of the National Archives)

Operation Blacklist

Recognizing the conflict between the United States and Japan could be reignited if an effective pacification program was not conducted expeditiously following the official Japanese surrender in 1945, Gen. Douglas MacArthur developed and oversaw Operation Blacklist, a detailed and comprehensive plan for economic development and social engineering that incorporated direct involvement of the emperor and other prestigious Japanese leaders. MacArthur's key priorities for the occupation and pacification plan included the establishment of a free press, a free labor movement, and separation of church and state. To view MacArthur's complete personal report, *MacArthur in Japan, The Occupation: Military Phase,* please visit https://history.army.mil/books/wwii/MacArthur%20Reports/MacArthur%20V1%20Sup/.

Kurdish-led militiamen ride atop military vehicles 17 October 2017 as they celebrate victory over the Islamic State in Raqqa, Syria. (Photo by Erik De Castro, Reuters)

The People's Protection Units' Branding Problem

Syrian Kurds and Potential Destabilization in Northeastern Syria

Lt. Cmdr. Joshua M. M. Portzer, U.S. Navy

The Syrian civil war has been one of the most destructive conflicts in recent international history. Hundreds of thousands of people have lost their lives, and even more people have been displaced from Syria. Amidst the tumult of violence, the Islamic State (IS) emerged as the most vicious strain of Islamic terrorists to date. The IS and numerous armed factions within Syria have taught the world a bloody lesson in the power of nonstate actors. Yet, ironically, a nonstate actor largely led the Syrian Democratic Forces (SDF) in defeating the IS. Supported by the United States, the Kurdish *Yekîneyên Parastina Gel* (People's Protection Units, or YPG) led Raqqa's recapture, and in demolishing the caliphate, the YPG reclaimed approximately a third of Syrian land known as the Rojava. The YPG fighters arguably have been the unsung heroes in the most recent international campaign against terror, as told by many media outlets such as CNN and *National Review*.[1] Unfortunately, these same media outlets now tell of another latent maelstrom of destruction.[2] The United States has stepped aside, enabling Turkey to invade the Kurdish Rojava region in northern Syria. While the White House vacillates between a full withdrawal and a limited one to quell a potentially resurgent IS, a secondary multination conflict is unfolding amid a wavering cease-fire and a joint Turkish-Russian agreement. Until the YPG satisfactorily distances itself from the Kurdistan Workers' Party (PKK) in Turkey's view, however, mediation efforts are almost certainly doomed to fail. Shaping the YPG's messaging and dialogue with Turkey should be the Syrian Kurds' main line of effort.

Who Are the People's Protection Units?

The YPG is the armed wing of the Syrian-based Democratic Union Party (PYD). Ethnic Kurds comprise most of its membership. Although the YPG was founded in response to the 2004 riots that took place in the Syrian city of Qamishli, the YPG gained international recognition by fighting the IS during the Syrian civil war.[3] In the process of fighting the IS between 2014 and 2016, the YPG and the Kurdish contingent writ large have come to dominate the Rojava—an area largely bordered by the Euphrates, extending through the northeastern portion of Syria (almost one-third of the country). The Rojava is a de facto autonomous region that has established a nascent liberal democracy.[4]

Turkey's Issue with the People's Protection Units

The PYD's founding philosophy hails from Abdullah Öcalan, a Kurdish socialist-turned-federalist who founded the PKK and who was imprisoned by Turkey.[5] Turkey has designated the PKK a terrorist organization and so have the United States and the European Union. The PKK's violent separatist campaign dates to the 1980s, and since 2015, Turkey has dealt with a PKK-launched insurgency. PKK attacks have killed over forty thousand people to date.[6] The common philosophical underpinnings of the PKK and YPG as well as Turkish Kurds fighting alongside Syrian Kurds (albeit against the IS) make the YPG and the PKK interchangeable in the eyes of Turkish President Recep Tayyip Erdoğan. In short, Erdoğan's government believes the YPG and PKK are one and the same, and for Turkey, there is little difference between "Kurdish terrorists" and the IS. As Turkey's former Foreign Minister Mevlüt Çavuşoğl commented in 2015, "How can you say that [the YPG] organization is better because it's fighting [the IS]? … They are the same. Terrorists are evil. They all must be eradicated. This is what we want."[7]

The military offensive that began 9 October 2019 is not the first time Erdoğan's forces have acted against the Syrian Kurds. Despite the Kurds' large stake in the Syrian civil war, Turkey has vetoed Kurdish participation in international talks throughout the conflict in order to include Kurdish membership in the High Negotiations Committee (HNC)—the body created to represent the Syrian opposition in 2016. Considering that the Syrian Kurds comprise

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A U.S. military commander (*second from right*) walks with Kurdish fighters from the People's Protection Units (YPG) 25 April 2017 at a YPG headquarters that was hit by Turkish airstrikes in Mount Karachok near Malikiya, Syria. (Photo by Rodi Said, Reuters)

a substantial portion of the anti-Syrian government forces, their exclusion from the committee has been particularly problematic for the negotiations process.

Why the United States Is Involved

In the summer of 2014, the U.S. government began aiding the YPG via air support during the IS siege of Kobani.[8] U.S.-led airdrops continued through 2015. Vis-à-vis this partnership in the "global war on terror," the YPG became a nonstate proxy-extension of the U.S. fight against the IS. President Barack Obama's "Assad must go" messaging helped elevate the YPG and its partnering contingent, the SDF, to become a center of mass away from the Alawite regime during the civil war.[9] As noted, the YPG and Kurdish footprint in the Rojava autonomous region also offered a small-scale proof-of-concept that a stable democratic government could persist in the Middle East. As of 2019, the YPG's anti-IS campaign arguably has been the largest dividend derived from Capitol Hill's investment of YPG-armament and general funding.

What does Everybody Want?

Turkey, the YPG, and the United States have differing, often conflicting, aspirations for the fate of the YPG, other Kurds in Rojava, and the region itself.

Turkey. As noted by Dr. Tim Cook and the Council on Foreign Relations (CFR), there are multiple items at play concerning Turkey's agenda.[10] Currently, there are approximately three million refugees from the Syrian civil war in Turkey.[11] Erdoğan is under a lot of domestic pressure to act. Politically, the party is much weaker than it has been in years past, having lost its majority in parliament for the first time in 2015.[12] The ruling party also suffered an unanticipated loss in the summer of 2019 in Istanbul's mayoral election.[13] As mentioned, Turkey has

dealt with various and periodic domestic terror attacks for decades to include a resurgent conflict with the PKK that has raged for the last four years. These two issues have resulted in two separate objectives. First, Turkey has an interest in "freeing up" adjacent land to return Syrian refugees in large numbers. Second, Turkey wants to remove the threat of armed Kurdish forces on its southern border. Both objectives led to the commencement of Operation Peace Spring and subsequent military operations on 9 October 2019.[14]

At the same time, Turkey feels betrayed by the United States and its public backing of the YPG. Per the CFR, there is no decisive evidence that Turkey has let go of the possibility of deposing Bashar al-Assad.[15] To this end, it is possible that Turkish forces will try moving down the Euphrates to enlist the previous members of the Free Syrian Army (FSA) who have been trained by Turkey—well beyond the twenty-mile "safe zone" that Turkey and the United States have previously discussed.[16]

YPG/Kurds in Rojava. The CFR panel's broadcast on 10 October 2019 suggested that what the YPG and Syrian Kurds want may be straightforward enough because they face an existential threat from Turkey.[17] Accordingly, the YPG and Syrian Kurds want stability within their cities and a sense of security. This includes allowing their children to attend school and not worrying about fleeing their homes.[18] As Cook notes, it is *not* clear that the YPG (or the larger Kurdish contingent) desires a nation-state per se.[19] It has been a "nation-stateless" democracy and has functioned that way for several years.[20] This is a complicated point though, considering the various Kurdish groups that have differing interests; for instance, the Iraqi Kurds under Masoud Barzani's leadership and the 2017 Independence Referendum.[21]

The United States has long made clear that it will not intervene militarily on behalf of the Kurds, but that does not lessen the sense of betrayal felt by the YPG.[22] Currently, the Kurds are looking for anyone to defend them, regardless of who. As of the week of 14 October 2019, the Kurds found a taker: Assad. Through a deal brokered by Russia, Syria will come to the Kurds' aid, though it will likely cost the Kurds their autonomy. But as the SDF's commander in chief, Gen. Mazloum Abdi, claimed, "If we have to choose between compromise and genocide, we will choose our people."[23]

The United States. The U.S. government's interests in the region are both complex and divergent. The YPG has been an efficacious partner in fighting the IS. While the United States invested heavily in arming and training the YPG against the IS, it has suffered fewer than five American combat deaths (eleven thousand people internationally have died in the fight against the IS).[24] Despite the low casualty figure, President Donald Trump seems driven by a desire to make good on his promise to bring back American troops from foreign wars. He believes the regional countries should "fight their own wars."[25] Weeks prior to Abu Bakr al-Baghdadi's recent demise, Trump was willing to accept Erdoğan's message at face value: "ISIS is defeated—leave the rest to us."[26] It was only after Iraq reported that the United States could not stay in the country for a prolonged period that a small number of U.S. troops guarded the Syrian oil fields against a possible IS resurgence.[27]

Yet Congress opposes the president's decision and does not agree with abandoning the Kurds (this includes GOP lawmakers).[28] Congress does not want to repeat what it believes has been a cardinal sin of presidents past: pulling out of a conflict before the right moment only to see the advancements gained crumble. Capitol Hill also understands the importance of allies and the requisite trust that follows. The image of Trump washing his hands of the situation sends a dangerous signal to allied nations, and it is not a good look for the United States regarding countries like Israel.[29]

Unintended Consequences

U.S. inaction coupled with Turkey's continued forward press into the Rojava region may result in various unintended consequences for all parties involved.

A large-scale regional conflict. If left unchanged, these groups' trajectories could cause many consequences. On 16 October 2019, the Syrian army entered Kobani to block Turkish forces from advancing.[30] In the wake of Trump's declaration of Syrian withdrawal, Turkey and Russia have come to a security agreement. The agreement gave the YPG less than one week to withdraw from the mandated safety zone, which Turkish forces now patrol. Turkey, Russia, and Syria will collectively oversee the border region.[31] However, Assad has already declared that he will regain all lost territory and has referred to Turkey's actions as an invasion. He has claimed that he is ready "to support any 'popular resistance' against Turkey's invasion 'to expel the invader sooner or later.'"[32] While Damascus is determined to regain its territory, it

A convoy of U.S. military vehicles arrives near the Iraqi Kurdish town of Bardarash in the Dohuk Governorate 21 October 2019 after withdrawing from northern Syria. (Photo by Safin Hamed, Agence France-Presse)

is not clear how Assad will handle his agreement with the Kurds in the face of Turkey's military actions. It does not seem too far-fetched to think that there could be a skirmish between Syrian and Turkish forces in the future. Russia would likely play mediator but arguably would back Assad before Erdoğan if it came down to choice. While Turkey's military may be one of the North Atlantic Treaty Organization's (NATO) larger forces, it is not in top condition. Thus, the military actions against the Kurds could be precarious for Turkey.[33]

A protracted, guerrilla-based conflict. As mentioned, it is not necessarily the goal of the YPG and Kurdish within the Rojava to become a nation-state. Turkey publicly equates the YPG with the PKK as terrorists that want to harm Turkey. But if harm is the YPG's objective, then Turkey's moves are strategically questionable. The YPG would be better positioned to attack Turkey via guerrilla warfare—the YPG is in fact more vulnerable to Turkey's reprisals within its own territory.[34] Given this potential vulnerability, a Turkish offensive may initially push the Kurds further from Turkey's borders, but Turkey could initiate the guerrilla war it seeks to avoid. Regardless, the offensive would compel the Kurds to defend themselves in some capacity. Considering the domestic pressures Erdoğan faces, there is a high likelihood that the conflict could become protracted for Turkey; this is also not a desirable outcome for its military.[35]

A resurgence of radicals. Radicals gaining traction within Syria is a serious concern. This is not only true of the IS but also within the Free Syrian Army (FSA). Concerning the latter, according to Cook, there are Turkish trained fighters within the FSA that the Pentagon rejected as "allies" against the IS because the FSA fighters themselves were extremist (and poorly trained).[36] If Turkey reenergizes these extremist fighter groups as they continue down the Euphrates, that energy could create more chaos and could potentially fuel renewed multiparty conflict within Syria. Concerning the IS, although it has lost its caliphate and its original

caliph, the IS still exists (reportedly as many as fourteen thousand fighters remain).[37] The U.S. withdrawal further heightens the risk of resurgence as IS forces move to exploit a power vacuum.[38] The YPG has been a major buffering force up to this point, holding approximately eleven thousand IS fighters in detention.[39] However, to U.S. allies that America no longer honors its word as it once did. Such a signaling of unreliability is bad for business. Concomitantly, the more the United States withdraws from international agreements/partnerships and weakens relationships with other states, the stronger strategic rivals like Russia and Iran (and China) become.

"The more the United States withdraws from international agreements/partnerships and weakens relationships with other states, the stronger strategic rivals like Russia and Iran (and China) become."

between Turkey conducting an offensive and the YPG focused on asking Assad for sanctuary (and fleeing), it calls into question who will be left to target the IS head on. It is possible that Syria could take on the role of the United States as financier for the YPG's anti-IS campaign but that is far from certain.

Declining partnerships and emboldened competitors of the United States. In the short run, the moves thus far by the United States have strained relations with both its nonstate and major allies. The United States arguably abandoned the YPG for sake of a NATO partner. In the process of Turkey's escalating actions toward the Kurds, the United States then threatened Turkey with economic sanctions, putting serious strain on the relationship between the two countries. Seemingly, the United States has damaged both relationships and gained little in return (the fractured cease-fire does not instill a sense of hope or goodwill).

The long run could have more troubling strategic implications. For instance, officials such as Ambassador Dan Shapiro have already questioned whether the decision to withdraw from Syria and stand aside while Turkey crushes the Kurdish forces will weaken Israel's confidence in its longtime Western partner.[40] The question stands for other U.S. allies as well.[41] Abruptly announcing U.S. withdrawal from Syria has been one of many moves on behalf of Trump's "America First" strategy. It is possible that the Trump administration is expending unrenewable social capital vis-à-vis NATO and other U.S. allies. Announcing a withdrawal from Syria accompanies other relatively recent U.S. "back outs" such as the exiting the climate accords and the Trans-Pacific Partnership. One cannot help but wonder if this signals

Multiple Compatible Interests; One Major Nonstarter

Examining the interests of Turkey, the United States, and the YPG more closely reveals that they are not mutually exclusive.

- Turkey (Erdoğan) wants to quell terrorism, transfer Syrian refugees back to Syria, and be seen domestically as actively promoting Turkish interests.
- The YPG and Kurds want security and stability under their own autonomy (though they are willing to compromise autonomy for security in the face of genocide).
- The U.S. government wants to please the American public by making good on bringing troops home and "getting out of foreign wars."
- Congress wants to honor the treaty between NATO partners but does not want to abandon the in-country ally that has been most effective at defeating the IS (nor allow for the IS's resurgence). Capitol Hill is also very sensitive to strained tensions between the United States and its allies abroad. Finally, the United States does not want to continue allowing Syria and Russia to come away as the sole "winners" in the region.

None of these interests are necessarily mutually exclusive. Some require a good deal of compromise (largely from the Kurds), but the Kurds are at a point where compromise is favorable to destruction. As Abdi stated, allying with Assad is a strong signal from the YPG that it is willing to do whatever is necessary to prevent destruction of the Kurds.[42] However, as mentioned earlier, Turkey does not differentiate between the YPG and PKK. Until Erdoğan's party has a politically acceptable off ramp to

make such a distinction, many of these compatible interests are moot points because they are *not* compatible with Turkey, thus equating the YPG to a terrorist organization. Understanding why this is the case requires a deeper understanding of how Kurdish issues have become an existential threat for Erdoğan.

> The United States fails to properly understand these issues between Turkey and the Kurds … the Kurds, both domestically and across the border, are an existential threat to Erdoğan's government.

The Kurdish Issue: A Closer Look at Erdoğan's Existential Threat

Between 2013 and 2015, the Turkish-PKK conflict had reached a pseudo-abeyance. Erdoğan's administration hosted the PYD in Turkey's capital to discuss border stability and court as an ally against Assad.[43] However, this signaling toward a truce did not last. As Max Hoffman from the Center for American Progress (an independent policy institute) highlights, several manifested factors led Erdoğan into an intractable position on the Kurdish issue.[44] First, the more powerful the U.S.-supported YPG became, the more the PYD became a threat in Erdoğan's view. At the same time, the Kurdish People's Democratic Party within Turkey (HDP) was able to better mobilize toward the end of this two-year respite.[45] The HDP platform includes stark opposition to the power-monopolized presidency Erdoğan has been engineering for himself. This gave Erdoğan not only a growing concern across the border but also two concerns domestically—the HDP and the PKK. These concerns compounded with a lack of Turkish support toward the YPG, and violence soon erupted once more within Turkey due to Kurdish protests.[46]

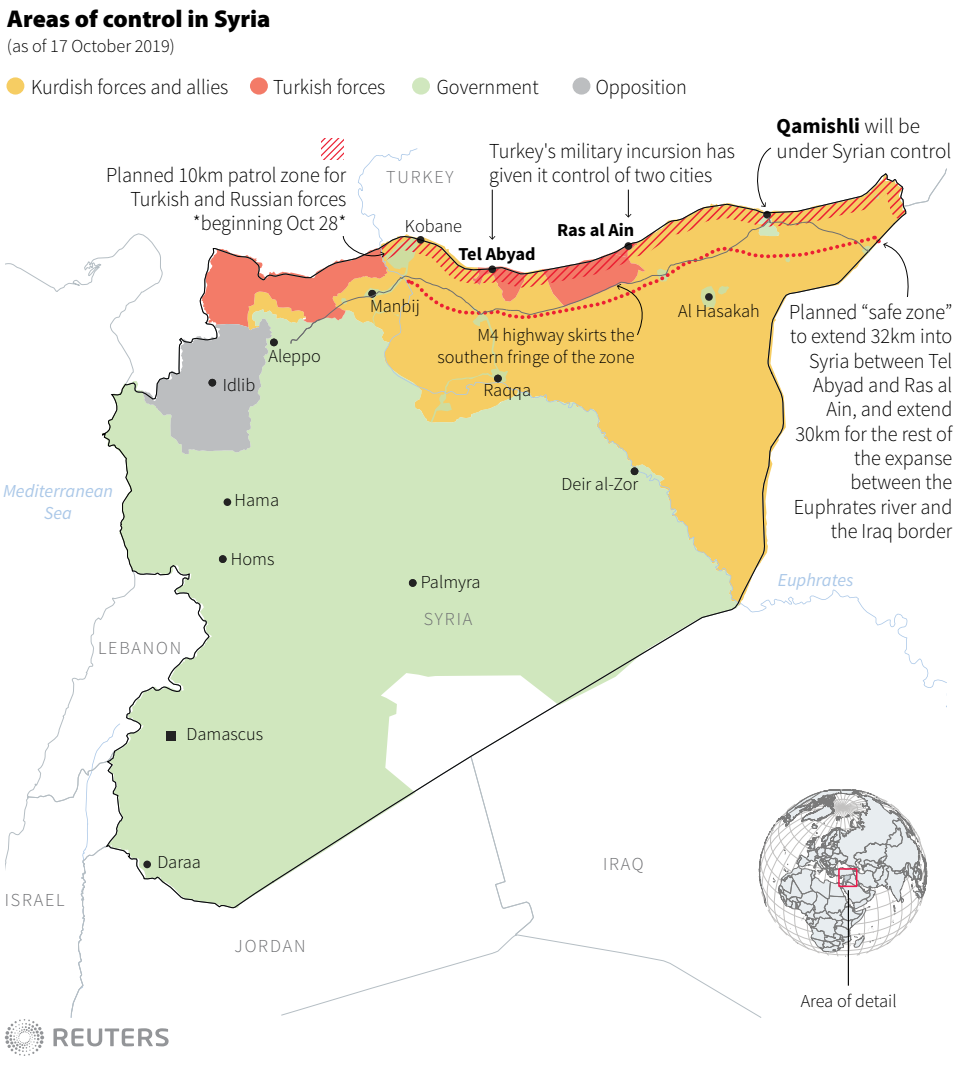
Erdoğan is up for reelection in 2023 and needs to consolidate his coalition to ensure reelection. With these recent moves, Erdoğan may be reaching out to right-wing nationalists who hold strong anti-Kurdish views.[47] Equating the People's Democratic Party to the Kurdistan Worker's Party gives Erdoğan's government two political dividends. First, linking terrorism to political expression permanently sidelines the Kurdish effort, which in part strengthens Erdoğan's supporters' platform. Second, if Erdoğan's supporters are strengthened, then so too are Erdoğan's prospects of reelection. This point is worth considering further because it suggests that there are other political motivations that explain Erdoğan's government's "inability" to make a distinction between the PYD and PKK. Political stability and regional stability are of equal import for Erdoğan. Moreover, internal state stability likely requires Erdoğan "to manage factions within the state security apparatus that favor a hardline response" against any of the Kurdish contingents that are within Turkey's realm.[48]

Separatism continues to be a concern for Ankara. It is a phenomenon the Turkish government feels transcends borders. On 22 October 2019, Erdoğan gave the Syrian Kurds a final warning to vacate prior to the end of the cease fire, referring to them as "separatists."[49]

The United States fails to properly understand these issues between Turkey and the Kurds. The United States has not acknowledged that the Kurds, both domestically and across the border, are an existential threat to Erdoğan's government. Accordingly, the likelihood is small that Turkey ceases hostilities even if the "safe zone" is vacated.

Changing the Tide

It may not be too late to stop the unfolding conflict in its tracks. However, it almost certainly requires the PYD and YPG to do some unsavory politicking. Ankara has been willing to settle peacefully before, but now the government is backed into a corner in a fight for political support toward 2023. Erdoğan needs an off-ramp that allows his party to court the Nationalist Movement Party and maintain a hard line against the PKK. The PYD and YPG contingents need to completely and unequivocally sever ties with the PKK. Disavowing any association or support of the PKK and publicly labeling it as a terrorist organization may give Erdoğan the room he needs to maneuver in order to de-escalate the situation. Consider that in 2017, the United States entreated the YPG to change its name and branding because of its assumed close association with the PKK.[50] While this branding change did



(Figure by P. K. Dutta and B. Simon, 23 October 2019; sources: Carter Center, Natural Earth, and Reuters)

Turkey's Incursion in Northeastern Syria

Turkey aims to establish a "safe zone" along most of its southern border that runs roughly 30 km into Syria so that it can settle up to two million Syrian refugees there. Under its "Operation Peace Spring," Turkey struck a deal with Moscow to clear the area of Syrian Kurdish YPG militia, which were long U.S. allies but which Ankara deems a terrorist group.

not go far, it does show that the YPG's "branding issue" has been identified as a problem before. Of course, this time there is now a lot more at stake.

The entire situation discussed thus far puts the Syrian Kurds in a hard place, though. To ask one group of Kurds to forsake another is a tall order. However, given the dire nature of the Syrian Kurds' situation and their current willingness to treat with Assad's government (of all entities), they may be willing to compromise. They too are facing their own existential threat. Prior to Trump's withdrawal announcement, the U.S. administration may likely have been in an opportune place to pressure the Syrian Kurdish leadership toward eschewing all association with the PKK in a rebranding effort. While this is no longer the case, U.S. forces still have close ties with YPG leaders, and a credible offer of U.S. assistance to help mediate an off-ramp from the current conflict might be accepted, if not welcomed. The United States also has the advantage of playing interlocutor with Ankara. Russia is another possible mediating entity, but it is in the United States' best interest to make the first attempt at starting a dialogue and to stymie further Russian influence in the region.

Even if all the Syrian Kurds vacate the safety zone, the most fundamental and underlying issue is not addressed. So long as the PYD and PKK are one and the same in Ankara's public view, Turkey's political objective to eradicate them is not so easily extinguished. By publicly renouncing the PKK (and perhaps leveraging backdoor talks through the United States), the PYD puts Turkey in an interesting political position. Erdoğan has been spared a large amount of domestic ridicule within Turkey concerning the Syrian Kurds because he has been able to color the Kurds in terms of terrorism and insurgency (and thus downplay Turkey's actions against them). But if the Syrian Kurds

Turkish-backed Syrian rebels and Turkish soldiers watch 12 October 2019 as smoke billows from the border town of Ras al-Ain as Turkey and its allies continued their assault on Kurdish-held border towns in northeastern Syria. (Photo by Nazeer Al-khatib, Agence France-Presse)

take the initiative and force an internationally acknowledged schism with the PKK, Erdoğan may not be able to deal with them so draconically. The current international narrative has focused more on the United States abandoning the Kurds as former allies—not that the Syrian Kurds are wrongfully pursued as a terrorist organization. Those two narratives are importantly distinct. For the Syrian Kurds' dilemma, the latter is much more important than the former. However, if a protracted regional conflict results, then the increase of international coverage ensues. That is a bad headache for Erdoğan, and the Turkish people may not have an appetite for that media-induced stress, given the internal stress already caused by the Syrian civil war.

It is prudent to mention that there is a line of thinking within some policy circles that are somewhat in tune with Erdoğan's accusations of YPG terrorism. Some commentators at both the Carnegie Endowment for Peace and the International Crisis Group claim that the PKK and YPD/YPG are more closely aligned than other scholars and commentators describe.[51] This includes claims that the PYD was established by PKK members in 2003 (coming from the Qandil Mountains), northern Syria is a "recruiting ground" for the PKK, and the decision-making contingent of the PYD (and thus, the YPG) are in fact influenced and consulted by PKK members.[52]

If these are well-founded facts, then simply exchanging one name tag for another may not be enough to do the trick for the Syrian Kurds. However, there are two major counterpoints to these assertions. First, some aspects of these assessments are based off a relatively small sample of interviews.[53] While information from an interview is a valid data point, there are other data points from other scholars' research that differ in messaging (for instance, at the Council on Foreign Relations as referenced earlier).[54] Greater current ties to PKK founder Abdullah Öcalan's ideology may not be all that problematic, considering that Öcalan no longer supports a central nation-state (as Elizabeth Tsurkov and Esam al-Hassan of the Carnegie Endowment for International

Peace discuss).[55] What these interviews illustrate is that opinions vary on how the Kurds should approach governing within the Rojava region. While there may be some elements of discord between the PYD and the Arabs who live in the Rojava region, such disagreements are not necessarily leading to large-scale repression (e.g., antibigamy laws are not enforced in regions that include an Arab majority).[56] Scholars like Tsurkov and al-Hassan do make a valid point though: the PYD should empower not only the Kurdish contingents within the Rojava but also the Arabs to follow self-administration. Explicit cooperation across ethnicities can only strengthen the PYD's and YPG's marketing efforts.

Second, even if at one time there were closer ties between the PKK and PYD than originally thought, it does not change the fact that the Syrian Kurds should drastically change their platform and messaging *now*. Even authors at the International Crisis Group and Carnegie Middle East Center who group the PYD close to the PKK recommend that the Syrian Kurds should avoid supporting PKK violence and note that the Iraqi Kurdish contingent has no appetite for PKK-affiliated groups spilling over into their territory.[57] There is no disagreement here. In fact, these suggestions are completely in line with the recommendations of this article.

Concluding Thoughts

It is ultimately in Erdoğan's interest to find a more moderate approach to the Kurdish issues. Erdoğan wants a powerful regional foothold for Turkey in addition to a powerful presidency. Yet, there is precedent for both regional and international pressure toward Turkey vis-à-vis the PKK.[58] The PYD is fast becoming a contender for inclusion as a regional chess piece in protracted conflict. If the PYD grants Erdoğan a politically acceptable off-ramp concerning hostilities that Ankara can take, then Syria (and Russia) lose out on a lever to potentially manipulate Turkey. That also gives Erdoğan a win.

The bottom line is that a drawn-out conflict with the YPG prolongs the duration of border instability. Stabilizing the border will allow the three million refugees (arguably a greater strain on Turkey than the Kurds) to return to Syria more quickly—a larger political win for Erdoğan. But that conflict cannot be quelled until Turkey no longer has the excuse to equate the PYD with the PKK. Admittedly, it delays solving the conflict with the PKK, which needs a peaceful solution as well. However, the PKK issue does not have the regional spillover that the PYD conflict does. Therefore, Ankara should aim to solve the Syrian-based one first. ■

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The Integrated Tactical Network

Pivoting Back to Communications Superiority

Maj. Matthew S. Blumberg, U.S. Army

While U.S. forces were focused on Iraq and Afghanistan over the past two decades, our nation's most dangerous adversaries set their sights elsewhere. Russia, China, North Korea, and others prioritized investments in advanced communications equipment, cyber capabilities, and exploitive electronic warfare technologies. At the tactical level, the advances made by those adversaries cast serious doubts on whether the U.S. Army has maintained its technological or communications edge. Because the Army's current and future combat systems, munitions, and mission command are interwoven with and heavily dependent on tactical networks, there is justified concern regarding its ability to maintain the tactical advantage. This is not a new phenomenon but is repeated in historical studies and assessments, including the 2018 National Defense Strategy Commission's *Providing for the Common Defense*.[1] Currently, the U.S. Army's ability to apply tactical communications is far from ready for the next major war and is in urgent need of transformational change.

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Future tactical communications must increase network mobility; decrease reliance on satellite services; make greater use of terrestrial and aerial relays and transport; and significantly reduce size, weight, and power requirements. This approach demands a simultaneous blending of multiple layers of communication transport and integration of consolidated mission data and network services. Systems should be technically and procedurally interoperable with joint, interagency, intergovernmental, and multinational (JIIM) partners and create a wholly integrated tactical network (ITN). When implemented, the ITN construct must be technically flexible, resilient, and adequately robust for all foreseeable future operations and programmatically sound for future acquisitions. If properly resourced, prioritized, and executed, the new network would mitigate threats and provide excellent expeditionary and on-the-move (OTM) communications.

Going forward, the ITN efforts should parallel Department of Defense and joint force requirements for collective benefits. Currently, the joint staff J6 (command, control, communications, and computers/

A forward observer with the 508th Parachute Infantry Regiment, 82nd Airborne Division, uses integrated tactical network components 24 January 2019 during a live-fire exercise at Camp Atterbury, Indiana. (Photo courtesy of the U.S. Army)

cyber) is working on the requirement with the Army's Futures Command, the Network Cross-Functional Team and other cross-functional teams, select Army program executive offices (PEOs), and other stakeholders. Early indications are positive, with initial requirements established through joint capabilities documents. Separately, the Army's vice chief of staff pushed a directed requirement in June 2018 that validated the ITN's operational need.[2]

Overall, the proposed ITN architecture is fundamentally sound and offers significant advantages over existing tactical communications. However, the current ITN concept is plagued by an extreme lack of awareness across the Army and the joint force. Additionally, there is overconfidence and there are incorrect assumptions that technical solutions can solve nonmateriel doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P) deficiencies.

What Does History Tell Us?

The tactical Army habitually relies on satellite-based communications for beyond line-of-sight (BLOS) connectivity. This reliance severely degrades the training, expertise, and equipment required to operate when satellite services are not available and to seamlessly communicate across BLOS expanses during expeditionary and OTM operations. Communications equipment is often complex, not operator friendly, and typically requires specific training for initial configuration, real-time changes, and performance of basic functions. When new technology is problematic or too complex, it is routinely pushed aside, put in storage, or not used to its full potential. Many soldiers expected to operate new communication systems are neither communicators nor are they leaders. A simple solution for the force does not translate into a simple solution for those working the problem.

"When new technology is problematic or too complex, it is routinely pushed aside, put in storage, or not used to its full potential. Many soldiers expected to operate new communication systems are neither communicators nor are they leaders. A simple solution for the force does not translate into a simple solution for those working the problem."

Baseline Requirements for Brigade Combat Team Communications

The military must understand our operational environment. High-intensity, large-scale combat does not promote stationary operations but favors at-the-halt and OTM operations in a decisive action environment. A commander's critical communication requirements must factor the technical and practical limitations of the most demanding parts of conflict, which are at-the-halt and OTM operations in a contested environment. Based on this notion, there are specific requirements that provide brigade combat team (BCT)-and-below commanders with the information they need when they need it.

First, tactical networks must enable synchronous and asynchronous, real-time, and interoperable communications. Synchronized systems rely on network timing, are critical for digitally networked systems (mesh networks), and help mitigate external threats. Asynchronous network attributes allow isolated systems (and units) to rejoin the larger network when timing is lost. Real-time, low-latency links are critical for mission data and a fire mission's immediate and automated information exchange.

Additionally, future conflict will require more than the U.S. Army. Its ability to operate in a joint or coalition environment, no matter the scale, requires interoperable systems. Interaction with anyone, at any time, with little delay, requires technical interoperability. The Army must also make certain that procedural and personal interoperability does not negate its technical ability. During operations, interoperability efforts should be prioritized as (1) Army-to-Army, (2) Army-to-joint, and then (3) Army-to-coalition (order is mission dependent). However, to drive innovation and "muscle memory" during training, commanders can deliberately flip the priorities (coalition, then joint, then Army).

Next, commanders should establish precedent where only mission-critical services are allowed. This does not mean the Army must limit bandwidth-intensive services or video feeds. Instead, the Army must prioritize what mission

command and intent require, not luxuries. Luxuries during combat operations often include social media and associated video streaming. Limiting these luxuries will improve network performance and directly reduce a BCT's operational risk. BCT networks must be configured to limit luxuries, to alleviate congestion, and to isolate (in addition to geographic isolation) when necessary to mitigate internal and external threats.

External communications should be limited with sparing support or contingency higher headquarters communications. Exceptions to this network concept include situational awareness (SA) and position location information (PLI), fires, and intelligence data. Commanders must determine the right mix for sharing of SA and PLI data, and to specific levels. A conservative approach will limit the effectiveness of adversarial offensive actions after friendly information compromise. On the contrary, poor or nonexistent planning can lead to significant risk after system compromise.

The SPM-622 Squad Power Manager will reduce power limitations and the battery weight carried by dismounted soldiers by enabling military forces to manage and prioritize power use for various electronics devices—including portable radios, GPS systems, medical and explosive ordnance disposal equipment, and computers—from any available power source. (Photo courtesy of Revision Military)

Finally, baseline communication capabilities must be identified and units should be fully proficient in their use. Based on direct observations of armor, Stryker, and infantry BCTs at multiple training centers and during multiple combat tours, the three capabilities are highlighted with a requirements-driven mindset. The list roughly parallels the three key elements of interoperable communications identified by retired Lt. Gen. Ben Hodges, the U.S. Army Europe commander from 2014 to 2017.[3] Each capability should be encrypted to at least Advanced Encryption Standard 256 and should be interoperable across the Army and JIIM community.[4]

Voice via radio. Voice communications have been, and should always be, the bedrock of tactical communications. They must be seamless, BCT-wide, and at minimum down to team level. The ability to communicate in real-time, with full mobility regardless of terrain, is critical. While units are often proficient using line of sight (LOS) radios, they are just as often inept when using anything except tactical satellite communications (TACSAT) for beyond-line-of-sight (BLOS) communication. The ability to bounce or relay transmissions for BLOS capability includes TACSAT, high frequency (HF), and terrestrial and aerial relay. Types of relays are aerial, which includes unmanned aircraft systems (UASs) tethered drones, manned rotary and fixed-wing aircraft, aerostat, and high-altitude balloons, each with persistent versus nonpersistent capabilities; mobile (vehicle-based); dismounted; and Radio over Internet Protocol (RoIP).

Common operating picture. Tactical communication must provide for a common operating picture (COP) that is accessible, shareable, and relevant. Preferably, COPs would include a topographic map with personnel and event PLI, enduring messages and chat functionality, and real-time overlays with over-the-air exchange. Ideally, BCTs only use one mission command or COP system. Too often, however, units use multiple systems for perceived improvements to overall SA and as a last-resort solution for interoperability and integration failures. Multiple systems create confusion, increase lag, invite errors, and give inaccurate and questionable data to the commander.

Fires and mission data. Fires and mission data must be seamlessly exchanged between all partners,

Soldiers from the 3rd Brigade Combat Team, 82nd Airborne Division, train on a new inflatable satellite communications system known as Transportable Tactical Command Communications on 21 February 2020. The system enables expeditionary mission command and situational awareness during evolving battles. (Photo by Amy Walker, PM Tactical Network PEO C3T public affairs, U.S. Army)

with emphasis on air-to-ground integration and joint, special operations forces (SOF), and coalition interoperability. To meet this requirement, communications systems must be low latency, digital and analog, and BLOS capable. Real-time video feeds are highly beneficial but not an absolute requirement.

BCT Communications: Looking in the Mirror

Regardless of BCT, variations exist in communication support, effectiveness, and resident expertise. For the few exceptional units, success is dependent on unit culture, supportive leadership, and collective efforts. Low-performing unit leaders often profess the inadequacy of their communications equipment. This rationale is how many leaders explain their unit's technical difficulties and lack of effective communications. This notion is commonly shared by many leaders within the Signal Corps; this is important because it is highly inaccurate.

Advantages of technology. From a technical perspective, Army BCTs have been well equipped with communications equipment for the counterinsurgency (COIN) environment since their inception. The Army has taken care to keep current technology within its ranks, from the Warfighter Information Network-Tactical (WIN-T) program for network transport to incremental capability set modernization efforts for tactical radios.[5] However, despite the Army's best materiel solutions, a lack of expertise, common knowledge, nonoperational equipment, and missing components often underlie poor performance. While some BCTs are very capable and may be fortunate enough to receive guidance from an extraordinary division signal officer, many BCTs only use their communications equipment for basic functionality, or not at all. If units do not fully understand and make use of their current communications equipment, how will they benefit from new equipment? If units continue to receive the

latest and greatest technology but continually neglect the equipment's full potential, the evidence points to a problem with our personnel, not the technology. Here are a few visible and recurring examples:

HF radio. Enough HF radio equipment is allocated to BCTs to provide BLOS capabilities to the brigade and battalions, with some units having systems down to the company level. However, minimal use of HF occurs at combat training centers (CTCs) and during home-station training. Units are routinely unable to set up an area of operation (AO)-wide voice or data network. While some units are adept with HF, and its use is trending upward, success is often isolated across BCTs and their headquarters. Deficiencies in the use of HF radio equipment include

- an inability to understand and implement the systems;
- small allocations of HF compared to very high frequency and satellite radios;
- failure to maintain historical knowledge;
- lack of HF-specific training and field craft;
- failure to properly account for, issue, and maintain radio cables, accessories, and software; and
- a lack of leader emphasis requiring HF use.[6]

Wideband technology and higher data rates are now possible with HF. New radios are BLOS voice and data assets as capable as most OTM satellite terminals but without some of the vulnerabilities or airtime cost. Wideband HF radios, such as the PRC-160, should be rapidly incorporated as replacements to legacy PRC-150 radios. *HF radios have been in use since prior to World War II but quickly fell out of favor with the introduction of satellite radios.*

Legacy, mesh networking radios. Mobile, ad hoc networking (MANET) radios combine mobility (e.g., mounted, dismount, aerial), a flexible architecture (e.g., point-to-point, point-to-multipoint), and range extension via radios acting as repeaters. BCTs rarely integrate their MANET radios for anything other than basic voice functionality. Moreover, many units urgently request approval and funding for cutting-edge MANET radios (e.g., PRC-148c, PRC-163, TSM 900/950, MPU5), despite existing, capable radios. When existing radios have long been neglected for data networking, why would the receipt of new equipment suddenly change the existing mindset and standard practice? To be fair, significant technological improvements with newer MANET radios include increased total node count, greater bandwidth, improved network management, and more capable waveforms. The increased data throughput and relay capability of newer MANET radios should be the foundation for the BCT-and-below tactical network. However, this does not negate the fact that existing radios are capable but are routinely underutilized or collect dust on a shelf.

Shadow UAS. The BCT-level Shadow UAS carries payload slots for two common BCT MANET radios. These radios provide aerial voice and data relay from thousands of feet above ground level. When compared with standard ground relay sites, aerial platforms reduce equipment and personnel overhead, lower the risk of compromise, greatly increase coverage area, and improve unit security. Despite the Shadow's prioritization for intelligence, surveillance, and reconnaissance missions, relays can be used without impact. Unfortunately, Shadow teams and communicators rarely work together to implement these relays.

Tactical Operations Center Intercom System (TOCNET). Army battalions and brigades outfitted with most increments of WIN-T have TOCNET equipment, including the E-Micro Central Switching Unit. The unit is an RoIP server that allows geographically isolated areas to connect local LOS radio traffic, through BLOS network connectivity, to distant AOs. Radio use is also extended to computer users with computer software. Despite BCTs being equipped with RoIP capabilities, units use their TOCNET for basic, single-hub functionality (like a local intercom but through isolated crew access units) or not at all. Even worse, they neglect systems and request other RoIP capabilities to fill the requirement.

Planning shortfalls. The BCT standard for communications planning is a PACE plan that develops a primary (P), alternate (A), contingency (C), and emergency (E) method. The plan's premise is to have multiple redundancies through different transport options. Units rely on their primary method until it is jammed or suspected of compromise and then shift to an alternate method. Within COIN, a single transport method for radio or network traffic is typically adequate. However, with the rise of more capable adversaries and advanced jamming and detection threats, the current PACE method for tactical communications is

no longer suitable. The future solution involves multiple, simultaneous transport methods that will make communications more agile, adaptive, and resilient to threats. ITN use should include the necessary transport required for all missions into a single plan (e.g., LOS, BLOS, spread spectrum, bandwidth needs, urban and subterranean factors). The goal for tactical communications should be an automated integration of the existing radio and network transport options into a single, unified transport. Based on current and future threats, this approach negates most of the unit-level and AO-wide jamming.

Ignoring layered communications. The proliferation of highly capable satellite communications (SATCOM) to lower echelons causes BCT leaders to ignore the benefits of a layered communications architecture. As such, BCTs lose the expertise to communicate in the absence of SATCOM, often overlook system limitations, and place less priority on prudent planning and training. This is a serious vulnerability. In a future peer fight, combat operations will likely lead to degraded or denied satellite services, with the few hardened and jam-resistant satellites prioritized to higher echelons. The recent trend is toward smaller, less costly, highly proliferated, and coherent low-earth orbit satellites. Some leaders argue that this approach is better suited for the future and reduces overall risk. There is a solid foundation for this argument; however, there are inherent risks with interconnected and meshed networks. Meshed satellite constellations are no different and care must be taken to help mitigate these new risks.

Training shortfalls. There are distinct differences between a BCT's combat operations and training. Specifically, because greater resources are available for deployed forces, the most capable equipment is often the norm in combat operations but not available for training. Adding to the equipment disparity, the Army's adaptation to the future fight (as outlined in Field Manual 3-0, *Operations*) cannot be fully evaluated based on its current operations in a COIN environment. Moreover, if decisive-action training events and CTC rotations are not realistic, or the threat is "throttled down" to ensure a baseline training value, BCTs will not accurately predict whether they are ready for future combat. Future training objectives must take into account the shifting operational environment, where technical considerations will likely gain prominence (electronic warfare, electromagnetic signatures, information operations, unmanned systems, offensive and defensive cyber, and the communication systems that connect everything).

Transformational Approach: ITN Background, Strategy, and Basics

In January 2016, the Army first published Army Techniques Publication (ATP) 6-02.53, *Techniques for Tactical Radio Operations*.[7] This publication was a major doctrinal shift that indicated future change, but it was unknown to most of the Army. The ATP introduced the concept of the integrated tactical networking environment as the successor network to the lower tactical internet and combat net radio, and it was planned for use down to the lowest tactical level. The plan focused on the integration of MANET radios with existing tactical networks. As updates to doctrine continue, the February 2020 ATP 6-02.53 revises the terms upper tactical internet (Upper TI) and lower tactical internet (Lower TI) with upper tier and lower tier. Additionally, the term "integrated tactical networking environment" is now "tactical networking environment."[8]

At the BCT, the ITN seeks to bridge networks into a unified network having three parts: applications, services, and transport. The transport forms the ITN foundation and relies on emerging waveforms and legacy systems from command posts to the tactical edge of the battlefield. The network is then refined across a flattened, lower-tier architecture. Based on the February 2020 ATP 6-02.53, the lower tier is from the individual soldier to brigade and the upper tier consists of multi-channel satellite systems from battalion to corps.

The lower tier slants heavily toward LOS-focused MANET radios paired with cellular end user devices (EUDs, e.g., 4G/5G/BT/Wi-Fi) primarily running Tactical Assault Kit software. EUDs are simply cellular phones or tablets paired with special software. While MANET radios can operate independently of the EUD, they gain SA and data tools when paired. The lower tier BLOS capabilities include HF, TACSAT, and future iterations of OTM and at-the-halt SATCOM. Despite long-held notions concerning SATCOM advantages, the most capable equipment for tactical network transport is a terrestrially based MANET mesh. To link air assets, the ITN includes Link-16 and other radios capable

of enhanced SA through tactical data link networks. When wideband HF is integrated, BCTs will further benefit from reductions in satellite dependency and improved BLOS redundancy.

Connecting the lower and upper tiers are network extensions and augmentations that enable LOS MANET radios to behave in BLOS ways. Examples include the relay capability inherent to MANET radios, cellular EUDs and their paired MANET radios, terrestrial and aerial platforms for elevated MANET relays, and RoIP via SATCOM.

The tactical infrastructure portion of the ITN provides the physical connection between the tactical transport and tactical applications (software). Gateways and hubs provide modularity and consolidate, translate, and redistribute data. Tactical, cross-domain solutions connect dissimilar data and radio networks on varying classification levels. Finally, unmanned and tethered drones provide the platform for LOS-to-BLOS aerial extension. Every component is mission critical and increases JIIM interoperability and accessibility.

Overall, the network must be singular but modular, fluid, and deployed with a depth of simultaneous and varied waveforms. A singular network reduces overhead, provides ease of access, and helps reduce variance within the COP. A modular network allows for quick pivots to new technology through standardization and open architecture. Spread spectrum, with multiple and simultaneous waveforms (transport methods), offers the best protection against jamming and provides increased bandwidth.

Standardization of a secure but unclassified (SBU) network enhances JIIM and coalition interoperability

Sgt. Devon Cloud and Sgt. 1st Class Joseph Wambach, members of the 1st Stryker Brigade Combat Team, 25th Infantry Division, Tactical Electronic Warfare Team, and civilian contractor Don Behr use an integrated system of sensors 15 January 2017 on a hilltop overlooking the brigade tactical operations center to survey the electromagnetic spectrum and identify frequencies of interest at the National Training Center, Fort Irwin, California. (Photo by Sgt. Michael Spandau, U.S. Army)

U.S. and coalition soldiers monitor the tactical network and the common operational picture at the Coalition Network Operations and Security Center 3 May 2018 during Joint Warfighting Assessment 18.1 at Grafenwöhr, Germany. The Global Agile Integrated Transport network design enables units in theater and/or at home station to share mission command, network operations, and the coalition common operating picture. (Photo by Amy Walker, PM Tactical Network PEO C3T public affairs, U.S. Army)

and accessibility at the lower tier. Because SBU network security is commercial encryption in lieu of military-grade encryption, SBU only requires commercial equipment. This new standard allows for connectivity to partners without Type 1 communications security or without large quantities of Type 1 equipment. Users connect to SBU networks with Type 1 military radios (with Type 3 compatibility) and commercial radios, cellular phones, and network devices with Advanced Encryption Standard 256 or stronger encryption.[9]

ITN Concerns and Future Focus Areas

Despite some ITN evaluations from 2016 to late 2018, ground-truth assessments by Asymmetric Warfare Group operational advisors and signal, electronic warfare, and intelligence personnel highlight the following enduring and significant challenges.[10]

Scalability. Despite the tangible benefits of the ITN, there are valid concerns for the equipment's scalability from SOF to the conventional force. Specifically, the overall concept and equipment might not be technically or intellectually scalable to the conventional force's size or resident expertise. For the past decade, ITN-like equipment has been in the SOF community, with most lessons learned coming from these units. However, SOF units are vastly different than conventional units, and certain SOF characteristics are likely contributors to ITN effectiveness. Such characteristics include higher personnel aptitude requirements, the knowledge base of specially selected

and trained military members, and large contingents of communication-focused contractors and government civilians. Additionally, leaders who transit from SOF to conventional units often expect similar capabilities and levels of expertise.

Next, early ITN use included small-to-midsize SOF teams with a relatively small number of MANET radios when compared to conventional Army requirements. Currently, the most capable technology only allows for simultaneous operation of approximately 300–350 MANET radios. If too many radios connect to the network, severe degradation or network failure could occur. Based on a conservative estimate of 400–450 MANET radios per BCT, gaining units need to rethink radio allocation, acquire more capable radios, or create properly sized and aligned subnetworks (unit and internet protocol schemes).

Finally, no matter how simple we attempt to make operator and user experience, the ITN equipment still requires expert-level conceptual, technical, and system-specific knowledge to engineer the network's complexity. Even with future systems, there should only be so much automation built into the foundation. Currently, the Signal Corps has an ongoing occupational specialty consolidation effort that is leading to well-versed and capable communicators. However, there should be a conscience effort that any materiel improvements made are paralleled in scope by similar increases to the nonmaterial DOTMLPF-P.

Program management and support. As of this article's creation, no consolidated Army or joint program of record (PoR) exists for the ITN. This is both positive and negative. It is positive because PoRs are notoriously slow to adapt and keep pace with technological progress. However, not having a PoR is detrimental because they are relatively proficient with back-end support and developing training programs, and they have established organizational ties to the Army's centers of excellence.

Currently, the ITN is an assortment of government-off-the-shelf, commercial-off-the-shelf, small equipment fieldings, and individual PoRs that are scattered across the Army and the Department of Defense. There is inconsistent, delayed, or withheld information and unpredictable equipment refresh, reset, and life cycles despite stakeholder efforts. By late 2018, most ITN technical support was provided by equipment vendors and contractor teams out of Army program executive offices such as PEO Soldier; PEO Intelligence, Electronic Warfare, and Sensors (PEO IEWS); and PEO Command, Control, and Communications Tactical (PEO C3T). The current timeline puts the initial fielding of the ITN capability set equipment in late 2020.

Limited equipment equals limited effectiveness. Direct observations from CTCs, large-scale equipment evaluations, and on-hand testing reveal the limited effectiveness of select ITN equipment when deployed in limited quantities. For example, if a battalion's number of MANET radios is issued to an entire BCT, the limited equipment is routinely scattered to key leaders. Filling piecemeal across the BCT also spreads individual radios past their LOS capability. This cuts off the rest of the mesh network and negates the intended operational gain. MANET radios are not complementary to legacy systems, though they are compatible. Operating MANET radios on legacy waveforms nullifies the substantial benefit the radios can provide. This is no different than using existing equipment for basic functionality. The most advantageous distribution is to fill the entire unit. If equipment is limited, fill one subordinate unit at a time.

Rough estimates for outfitting an entire BCT with ITN equipment ranges from $200 million to $400 million. Even limited to just MANET radios, a full BCT order of kits with installation and support could exceed $20 million to $30 million. Currently, these fiscal constraints and production capacity limit quick fielding of the ITN. However, certain equipment provides gap-filling advantages to both the ITN and legacy systems. As mentioned, not enough radios equals little-to-no gain. Until that level of funding is available, a more practical choice is technology that is both complementary and legacy compatible, such as a twin-radio capable, tethered drone. The organic ability to quickly and persistently extend terrestrial communications through aerial platforms, in lieu of vulnerable, costly, and latent SATCOM, makes considerable sense. Depending on capability and model, current prices range from $80,000 to $250,000 per kit, which includes training, spares, and initial warranty. At this moment, some current models might already be designated

as government-off-the-shelf and would provide for easier acquisition and support.

User equipment power requirements and limitations. For dismounts, the use of EUDs, always-on MANET radios, GPS and video receivers, tactical cross-domain solutions, and other ITN devices significantly increase the power requirements at the tactical edge. Depending on the requirement, ITN equipment for only one person could include a Type 1 radio, Type 3 radio for SBU, handheld Link-16 radio for air-to-ground integration, an EUD, a tactical cross-domain solution, and a Defense Advanced GPS Receiver (DAGR). Dismount ITN components will require improved personal power generation, more capable batteries, and power distribution kits.

Lack of adept brigade-level, or additional-skill-identifier trained, ITN subject-matter experts. The established BCT expert for radio networking is the brigade network technician warrant officer (255N).[11] Despite the requirement, the 2017 course map for the 255N warrant officer basic course provided only seventy-two of the 952 hours (roughly 7.5 percent) for combat net radio and transmission, spectrum, and OTM planning.[12] As the future BCT network shifts to the ITN, so too should the 255N basic course. The first step is to reconsider the importance of ITN and the proper ratio for training requirements. Step two is informing BCT leaders and signal personnel that the 255N is the Army-designated subject-matter expert. Step three is the creation of a separate additional-skill-identifier-producing course for ITN, or adaptation of an existing course (such as Signal Digital Master Gunner), that would provide BCTs with the requisite expertise.

Lack of standardized training for leaders, users, and communications personnel. While select units create training plans for their ITN equipment, there is widespread misinformation, misaligned standards, variance by type of unit, and a severe lack of formalized training. Too often, units simply send their communications personnel to the training and not the leaders or primary users of the equipment. Training on communications equipment is rarely a priority in BCTs. If this approach continues with the ITN, BCTs will be unable to communicate and will be tactically ineffective in their conduct of mission command.

Increased vulnerabilities of a MANET architecture. One of the advantages to legacy voice transmission is that users can use brevity to limit outgoing radio frequency (RF) signatures and reduce the likelihood that an enemy can intercept, jam, or locate friendly forces. However, MANET radios use an always-on network. This creates a constant RF signature that enemy forces can use to locate friendly forces. Currently, users can help reduce the risk of RF or electromagnetic signature detection through terrain masking, lowering radio power levels, using directional antennas or beam forming from multiple omnidirectional antennas, or obfuscation and deception with properly placed decoys or coherent antenna arrays.

The Way Forward

There is justified concern that our future operational effectiveness will be limited by our ability to maintain tactical communications and network-dependent combat systems. Feeding this concern is an obvious increase in adversarial threats, historical credence that past standards and performance are likely indicative of future performance, and a debatable approach where advanced technology is partially meant to mitigate deficient human capital and expertise.

We must continue to outfit our tactical forces with the most advanced and capable equipment. The ITN equipment and construct is the technical solution to support JIIM interoperability and mitigate adversarial threats. While no equipment is future proof and void of complications, the ITN's inherent capabilities and modularity make it adequately robust for foreseeable future operations.

Futures Command, the Joint Staff, and other stakeholders are making significant progress. The Army's future tactical communications plan is of such consequence that parallel steps must include widespread awareness, understanding, and adoption by the force. Follow-on efforts must be feasible, adequate, and complete to address lingering DOTMLPF-P deficiencies. Army leaders should be confident in the current plan and future capabilities but must remain motivated and proactive to keep us on target. ■

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Competing Below the Threshold

Harnessing Nonviolent Action

Maj. John Chambers, U.S. Army
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A number of recent events highlight how nonviolent resistance has befuddled foreign militaries. In the spring of 2018, for example, a nonviolent Pashtun movement rose to protest the Pakistani military's oppression and extrajudicial killings of ethnic Pashtuns.[1] In January 2019, nationwide protests in Venezuela left security forces unclear on who was in charge and how the international community might respond.[2] In the summer of 2019, prodemocracy protesters took to the streets of Hong Kong to voice opposition to Beijing.[3] In each case, civilians were able to leverage protests to force regimes to acknowledge their demands, and the regimes struggled to respond to nonviolent threats against their authority appropriately.

As the U.S. military finds its capability to project conventional power unrivaled in its history, the current operational environment is giving rise to forms of warfare that are nonviolent by design and that challenge the cherished Jominian beliefs that war requires armed actors engaged in large-scale combat operations. As a result, American soldiers will find themselves increasingly tasked to take on issues outside the bounds of simply killing the enemy to achieve the Nation's strategic objectives. Consequently, we must evaluate and pursue strategies in order to achieve our objectives within these constraints. Nonviolent action is one of these strategies.

Nonviolent action is a kind of proxy warfare that falls below the threshold of armed conflict. History is replete with states attempting to "delegate war" to nonstate actors or insurgent groups as a way to outsource the management of violence to achieve certain ends or to avoid escalation with a more powerful enemy. Under conditions defined by competition short of armed conflict, nonviolent approaches fill a critical gap in the national security toolkit.[4]

External support of nonviolent actions is an effective component of military strategy. The term "external support" refers to the provision of technical, logistical, financial, or material support to an unarmed actor through the actions of capacity building and connecting. Although predominantly the purview of civilian agencies, support for nonviolent actions should be integrated into

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Tens of thousands of protesters carrying posters and banners march through the streets of Hong Kong protesting an extradition bill 16 June 2019, which highlighted the territory's apprehension about relations with mainland China. (Photo by Kin Cheung, Associated Press)

U.S. military doctrine. This is not to argue that nonviolent action is a substitute for what militaries should train and equip for; rather, it can serve as a vital complement, whether deployed simultaneously or sequentially, as a way to create multiple dilemmas for a targeted regime.

The logic is manifold. Given the interconnectedness of today's world, where images of disproportionate collateral damage can be broadcast across the globe at an instant, cases of nonviolent action highlight the shortcomings of traditional military tools and approaches. Warfare, moreover, is becoming more diffused and decentralized, enabling individuals and nonstate actors in ways unprecedented. Consider the ways in which nonstate actors can conduct cyberattacks largely undetected or how a sophisticated bot can weaponize information to disrupt democratic elections. States, too, are incentivized to operate "below the threshold" of armed conflict and engage in nonlethal activities that fall into the "gray zone."[5] Below the threshold of conflict, the U.S. military finds itself at a disadvantage, given its doctrine, organization, training, equipment, personnel, norms, and standard operating procedures.

What Is Nonviolent Action, and How Does It Work?

U.S. military strategists and policy makers have not paid sufficient attention to the utility of nonviolent action despite historical precedent and ample academic research supporting its effectiveness. Nonviolent action removed post-Soviet strongmen in Georgia and Ukraine; ousted dictators in the Philippines, Serbia, and Egypt; and enabled the Russian Federation's near-bloodless annexation of Crimea. Scholars find that nonviolent resistance campaigns are nearly twice as likely to succeed as those that employ violence.[6] Put bluntly, nonviolent action works by eroding the power base of a regime through the mobilization of the people against it; it fails if the people do not support the regime.

Nonviolent action is the application of power in a conflict using "symbolic protests, noncooperation, and defiance but not physical violence."[7] The purpose of nonviolent action is to achieve strategic objectives—ranging from varying degrees of governmental reform to removal of the incumbent regime and to expulsion of a foreign occupier.[8] Proponents of strategic nonviolent conflict emphasize the choice to engage in civil resistance as one based on pragmatism rather than moral considerations. That is, militaries support such strategies because of their operational effectiveness, not out of some normative principle, though advancing American values is part of the *National Security Strategy*.[9]

Nonviolent campaigns may achieve their objectives via one of four mechanisms, or a combination thereof: conversion, accommodation, coercion, or disintegration.[10] Conversion occurs when the incumbent changes its views and accepts the claims of the nonviolent group. Accommodation is the outcome of compromise, where both parties relinquish part of their objectives without appearing to violate their fundamental principles. Coercion and disintegration occur when the incumbent maintains its intent to control the political system but is weakened to the point where it must acquiesce or it simply falls apart.

Two key dynamics of nonviolence are relevant to the external sponsor: eroding a regime's sources of political power and enabling postconflict political outcomes favorable to the sponsor's core values. Regarding the first dynamic, regimes derive political power from authority, human resources, skills and knowledge, material resources, sanctions, and psychological factors that lead to habits and attitudes.[11] A regime's authority is derived from its possession of a "monopoly of the legitimate use of physical force within a given territory."[12] It emphasizes that legitimacy is derived from the people, and power depends on the obedience and cooperation of the governed.[13] Under many authoritarian states, citizens act "as if" they revere the regime, and the mere act of adorning societies with symbols of rules and cults of personality, even if meaningless, is evidence of a form of power.[14] Other scholars note that coercion is costly for regimes, so leaders should prefer that their citizens comply with orders—say, paying one's taxes—voluntarily.[15] When large swaths of the population disobey and refuse to recognize or legitimize these sources of power, the regime loses control and can ultimately be removed.[16]

Greater numbers of mobilized citizens lead to enhanced resilience, a higher level of tactical innovation, and thus, a greater opportunity for disruption. Disruptions shift the loyalty of opponents, most crucially members of the security forces that undergird the repressive regime, which creates further pressure to alter the status quo. Security force defections increase the chance of success of nonviolent action by nearly 60 percent, and the likelihood of inducing defections increases steadily as resistance membership grows.[17] In this way, nonviolent action achieves strategic objectives by undermining the power structures in a regime that depends on obedience and cooperation.[18]

A second key component of nonviolent action is enabling postconflict political outcomes favorable to the sponsor's core values. Successor governments ushered in through nonviolent methods are more democratic and durable than those established through violent insurgency. Successful nonviolent campaigns increase the probability of democratic regime type emergence by over 50 percent.[19] In contrast, countries are more likely to experience recurrence of civil war within ten years if exposed to a violent campaign.[20] These outcomes occur because citizens involved in mass nonviolent action are likely to remain politically engaged in the transition process, citizens may expect movement leadership to maintain nonviolent relationships with their constituents, and nonviolent movements are less likely to rely on secrecy and military virtues as part of the new regime.[21] On a more basic level, the death, destruction, and sectarian enmity often wrought by violent insurgency make postconflict consolidation difficult and costly.

Core Benefits of External Sponsorship

Beyond the empirical evidence that nonviolent campaigns are more successful than their violent counterparts, we point to four key benefits of this kind of sponsorship: nonkinetic solutions, nonattribution, amplification of other elements of national power, and support for liberal norms and values.

Nonkinetic solutions. There are many instances where kinetic solutions to achieve strategic ends are either inappropriate or ineffective. These instances arise due to risk aversion resulting from domestic political considerations or competing alliances. Often, domestic political considerations such as an aversion to casualties or large-scale troop deployments constrain the options

available to decision-makers. A recent example of this risk aversion was the war against the Islamic State in Syria, which was fought mostly by proxy on both the Russian and U.S. sides. When risk aversion exists, nonviolent action provides a nonkinetic option to achieve national objectives while limiting the danger troops are exposed to and the number of troops involved in the conflict. Furthermore, sponsoring a nonviolent movement can help prevent escalation to a broader "shooting war" through its nonviolent nature. This limits collateral damage and preserves infrastructure in already unstable regions. More importantly, engaging in nonviolent action keeps the conflict below the threshold of war and limits the ability of regimes to bring their allies into the fight for additional support. Consequently, nonviolent action can achieve its objectives while limiting the scope of a conflict and decreasing the risk for escalation.

> "Nonviolent action is the application of power in a conflict using 'symbolic protests, noncooperation, and defiance but not physical violence.'"

Nonattribution. Covertly sponsoring a nonviolent campaign may allow an external sponsor to influence the operational environment to achieve strategic ends while maintaining plausible deniability. This lowers domestic political risk as well as the risk of intervention by adversaries of the external sponsor who may be allied with the targeted regime. This likely keeps the conflict below the threshold of war and in the so-called gray zone between peace and war. Additionally, should the nonviolent movement shift to violence or change direction in its strategic objectives, nonattribution allows the external sponsor to withdraw support without negative domestic and international consequences.

Amplification of other elements of national power. Nonviolent movements erode the power of regimes and force the regimes to devote significant time and resources to addressing actions of the movement. Consequently, regime leadership is often preoccupied with ending the nonviolent movement and regaining lost power. This allows the external sponsor to achieve greater effects with its other elements of power—diplomatic, economic, and information. For example, as regimes lose power, they may be more susceptible to diplomatic pressure if it allows them to maintain their current status and position. Similarly, if an external power has imposed economic sanctions on a targeted regime's industrial base and the nonviolent movement focuses its effects on disrupting production and transportation through the use of walkouts, work stoppages, work slowdowns, and marches, the impact of economic sanctions is amplified.[22]

Support for liberal norms and values. Sponsoring nonviolent action allows the external sponsor to support liberal norms and values, such as life, liberty, equality, freedom of speech, and democracy, while maintaining the moral high ground and not engaging in violent regime change. Democracies rely on their people to elect their leaders, and supporting regime change through violent means is often antithetical to these liberal norms and values. Consequently, sponsoring nonviolent action allows external sponsors to support liberal norms and values while maintaining the moral high ground and achieving strategic ends that are beneficial to the external sponsors. In virtually all of the national security strategies going back decades, there has been an emphasis on spreading American values, such as individual liberty, justice, and rule of law.

Nonviolent Action in Modern Conflict

In the post-Cold War era, the United States became wedded to a paradigm defined by the binary conditions of war or peace in the international system. Russia's annexation of Crimea in 2014 forced a reassessment of the pervading mental models of conflict and an adaptation to a spectrum that includes interstate competition below the threshold of traditional war. Literature on gray-zone conflict and recent military concepts focus on such competition, but the role of nonviolent action remains largely unexplored. The special operations community has been the most proactive in discussing nonviolent action within the context of its unconventional warfare core activity, but progress remains limited. Resolving this gap is critical

The Knotted Gun (1985), famously known as the "Non-Violence Sculpture," is a bronze sculpture by Swedish artist Carl Fredrik Reuterswärd of an oversized Colt Python .357 Magnum revolver with its muzzle tied in a knot. Located at the United Nations Headquarters in New York City, this is one of thirty-one copies of the sculpture on display around the world. (Photo by Neerav Bhatt via Flickr)

to optimizing the application of limited resources to compete in today's complex operating environment.

The gray zone describes the competitive space below the internationally recognized legal understanding of war. Mixing nontraditional, military, and nonmilitary tools to pursue political objectives while avoiding escalatory thresholds characterizes such competition.[23] The U.S. defense community has only recently begun to wrap its head around this concept, but America's adversaries have been drawing lessons from the past two decades.[24] A number of top Russian officials described color revolutions as "a new form of warfare invented by Western governments" to enact regime change short of war.[25]

Following the collapse of the Soviet Union, U.S. government-financed organizations such as the International Republican Institute and National Democratic Institute spent millions of dollars on democratic civil society movements that contributed to the "rose" and "orange" revolutions in Georgia (2003) and Ukraine (2004), respectively.[26] However, these were part of broader democracy promotion efforts rather than a deliberate attempt to compete with Russia through nonviolent methods. Ironically, in condemning the United States' use of nonmilitary means, Russia incorporates nonmilitary means such as support to political opposition and information warfare as key elements of its gray-zone approach.[27]

Paralleling the gray-zone discussion, the idea of "competition" pervades recent military concepts such as the U.S. Army's multi-domain operations (MDO) and the Joint Concept for Integrated Campaigning (JCIC). MDO recognizes the role of U.S. forces in "competition" as active campaigning to "advance or defend national interests without the large-scale violence that characterized armed conflict."[28] It specifically calls for "converging political and military capabilities—lethal and nonlethal—across multiple domains in space and time to create windows of advantage" but then primarily focuses on deterring and defeating adversary aggression with an emphasis toward setting conditions to win maneuver campaigns in armed conflict.[29]

The JCIC advances the discussion by providing a framework for competition that allows for conveying prioritization and specifying the degree of ambition or restraint based on political objectives, resources, and

risk. The United States may improve its strategic position or counter or contest adversaries—all with the aim of setting conditions "to enable the maximum range of measures to absorb change and respond effectively as the intensity of the political situation changes."[30] Less prescriptive than MDO, the JCIC provides a fertile place to incorporate nonviolent action as a way to compete.

Before Russia's 2014 annexation of Crimea, the Arab Spring generated a wave of discussion amongst academia, practitioners, and military thinkers on the utility of nonviolent action as a form of warfare. Erica Chenoweth and Srdja Popovic both refer to nonviolent action in the context of "asymmetric" and "unconventional" warfare.[31] On the military side, limited attempts have been made to introduce social movement theory and civil resistance into the official special operations core activity of unconventional warfare (UW). Doowan Lee first provided a "social movement approach" to UW that expanded the aperture from the traditional emphasis on supporting violent insurgencies to include nonviolent resistance movements.[32] Will Irwin of the Joint Special Operations University offers the most comprehensive examination to date, describing how "full-spectrum" UW may enable successful competition in the gray zone.[33] Despite efforts to incorporate nonviolent action under the UW umbrella, even special operations leaders recognize that critical gaps in policy and military doctrine remain.[34]

> "Ironically, in condemning the United States' use of nonmilitary means, Russia incorporates nonmilitary means such as support to political opposition and information warfare as key elements of its gray-zone approach."

Operationalizing External Support to Nonviolent Action

Gene Sharp, sometimes described as the "Clausewitz of nonviolent warfare," characterizes the role of external support as "at best supplementary and complementary to internal resistance, never as the main actions of the struggle," because to be most effective, the aggrieved group must bear the brunt of the struggle against the repressive regime.[35] Despite his view of the limited use and effectiveness of international support, third-party nonviolent intervention (TPNI) continues to proliferate amongst grassroots organizations and state actors alike.[36] This article focuses on the military's ability to leverage the TPNI mechanisms of capacity building via technical and financial assistance, and connecting by facilitating planning, communication, and linkages across indigenous activist networks and between transnational actors.[37]

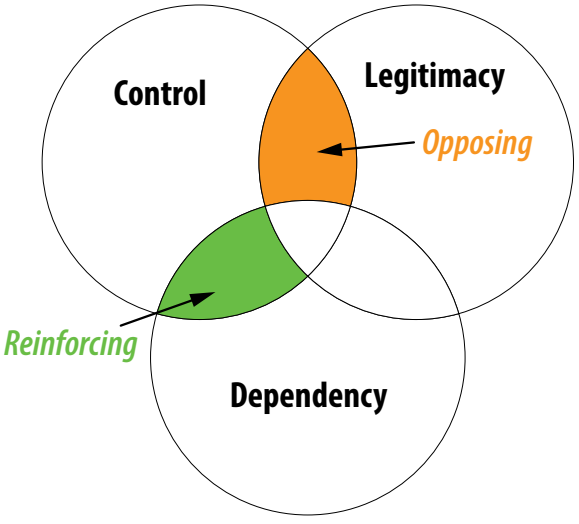
How can the U.S. military more effectively incorporate support for nonviolent action into its toolkit? The existing capability resident within U.S. special operations forces provides an available solution for the U.S. military to support a nonviolent action campaign through capacity building via technical, financial, and material assistance, and connecting through the facilitation of communications and networking. Through the strategies, tactics, techniques, and procedures of UW, which focus on supporting resistance movements against adversarial regimes, U.S. special operations forces could externally sponsor a nonviolent campaign to achieve their strategic ends.[38] While sponsoring and executing a nonviolent campaign might seem counterintuitive to some who argue that the military is meant to apply overwhelming force and kill the enemy, it is an important tool that can be more effective than blunt violent action under certain circumstances.

As described in the U.S. Army Special Operation Command's "The Unconventional Warfare Pocket Guide," key phases of a UW campaign include organization, building, and employment.[39] During the organization phase, Special Forces (SF) teams organize, train, and equip resistance cadre with an emphasis on developing infrastructure.[40] In essence, SF teams are building capacity for the resistance movement. To do this in a TPNI setting, teams may provide technical and material assistance, and in some cases, financial assistance to allow the movement to build infrastructure essential for expansion and the ability to build a larger following and increase pressure on the regime.

During the buildup phase of UW, SF teams focus on expanding the movement into an effective resistance

organization.[41] The teams connect the resistance organization to additional resources and personnel in order to increase their size and effectiveness. In a TPNI setting, the ability to increase resources and personnel available to a nonviolent movement builds leverage and places more pressure on the regime as more citizens are brought into the movement against the regime.

Finally, during the employment phase of UW, SF teams support the resistance as it initiates operations against the regime.[42] In the context of TPNI, SF teams could use their special skill sets and enablers to help the resistance movement plan and conduct an effective nonviolent campaign to increase pressure on the regime. Teams could also leverage psychological operations capabilities using social media platforms to increase the effectiveness of their operations and the pressure on the regime to capitulate through conversion, accommodation, coercion, or disintegration.



(Figure by Maj. Jonathan Bate, U.S. Army)

Figure. Challenges of External Sponsorship: Control, Legitimacy, and Dependency

Factors Influencing Successful External Sponsorship

An external sponsor has limited leverage over internal movement dynamics via the mechanisms of capacity building and connecting as discussed above, but its influence over radical flanks, moreover, is virtually nonexistent. Regarding the former, an external sponsor may attempt to pressure the movement to remain united and maintain nonviolent discipline. The sponsor may also abandon its efforts by terminating support when violent opposition reaches an unacceptable threshold and leverage mechanisms cease to be effective at arresting the slide toward violence. Abandonment may demonstrate the sponsor's commitment to nonviolent principles, but it may also have a perverse effect on the sponsor's overall credibility: Why would any movement hitch its wagon to the sponsor if it will ultimately be left to its demise? Consequently, policy makers and military planners must also understand the factors that influence the success of nonviolent action campaigns.

First, and most significant, a state cannot export a revolution—the population that will execute a nonviolent action campaign must be committed to resisting those in charge. If the population is not committed, nothing the intervening force does will lead to or culminate in revolution or regime change. Also, it can backfire. State repression may lead to a spiral effect of tit-for-tat violence that escalates to a broader civil war as seen in the initial phase of the Syria conflict. Violence can also signal to the international community one's willingness to incur risks for a cause, and conversely, nonviolence can unwittingly signal the opposite, creating perverse incentives and moral hazards.

Beyond those broad-based factors, external sponsors face a number of challenges unique to harnessing nonviolent action employed by indigenous resistance movements—these are the dilemmas of control, legitimacy, and dependency that result in reinforcing and opposing relationships caused by internal and external dynamics (see figure).

Control. Support to nonviolent resistance is essentially proxy warfare. History is replete with states attempting to "delegate war" to rebel organizations, primarily as a material and political cost-saving device.[43] A sponsor's ability to extract favorable outcomes is a function of first choosing the right group to support and subsequently the ability to influence the proxy's actions. In principle-agent theory, these are known as adverse selection and agency slack—incomplete information often prevents the sponsor from understanding the proxy's true capabilities or intentions, and divergent goals are difficult to mitigate if the sponsor does not have sufficient leverage over the proxy.[44]

People attend a rally against Russia 2 March 2014 at Independence Square in Kyiv, Ukraine. Ukraine said it would call up all military reservists after Russian President Vladimir Putin's threat to invade Russia's neighbor drew a blunt response from then U.S. President Barack Obama. Pro-Russian forces seized control of key government buildings and airports in the strategic Crimean Peninsula. (Photo by Bulent Kilic, Agence France-Presse)

This may be troublesome if a sponsor chooses to categorically reject violence, but the proxy decides to transition from nonviolence to violence—how to ensure nonviolent discipline is maintained. Similarly, if a sponsor chooses to pursue a parallel approach to capitalize on a potential positive radical flank effect, or build violent capacity in preparation for sequential action, how does one restrain the violent wings or prevent them from acting too soon? There is inherent tension between building capacity and creating expectations that may go unmet.

Legitimacy. The attribution of assistance to a local nonstate actor from an external sponsor can create the very spiral dynamics nonviolent action seeks to avoid. Groups may be resistant for this reason of accepting financial transfers or training. The "foreign taint" can also negatively impact a group's legitimacy among its population. An example of this was the Bush-era push to give Iranian opposition groups $75 million as a way to boost civil society there, establish a prodemocracy broadcast in Farsi, and undermine the regime, yet the effort was soundly rejected by locals.[45] The Maidan movement in Kyiv's 2014 uprising was similarly tarred by Russia-backed separatists in Ukraine and the Kremlin as agents of the West. The effects of external support may be particularly acute for nonviolent movements because support impacts the ability of movement leaders to mobilize potential participants and contributes to the regime's rationale for excessive repression. The external sponsor must consider the trade-offs between overt and covert support, as well as the role of cumulative credibility on long-term ability to effectively employ nonviolent resistance movements in support of strategic objectives.

Covert support affords the sponsor the potential for deniability, which may allow both the sponsor and the recipient to mitigate the costs associated with outside manipulation. However, given realistic constraints on maintaining plausible deniability, sponsors and recipients may consider the value of Robert Helvey's guidance on the influence of foreign nationals: "Such assistance should be readily acknowledged or even matter-of-factly

characterized by the movement as opposition requested technical assistance which has no line authority and strict accountability."[46] Transparency may increase movement credibility in the eyes of constituents if leadership is upfront about its sources of support, and this may preclude embarrassing revelations later on. However, research shows that overt, external state support may have no effect on the success of nonviolent campaigns, so the benefits of disclosure should be weighed against the potential for conflict escalation with the target regime.[47]

Sponsor credibility is a key concern for both sides. Véronique Dudouet notes there has been inconsistency on the part of Western nations supporting prodemocracy activists, which is often a function of competing foreign policy interests focused on security and economics.[48] This perception may impact the initial willingness of nonviolent resistance movements to partner with the United States, and the manner in which the United States executes the support will impact long-term ability to repeatedly employ nonviolent resistance movements. The United States has a history of abandoning its proxies when political winds shift. Transparency may also allow the targeted regime to delegitimize the movement by labeling them as "supporters of Western imperialism" and "American agents."[49] Indeed in the past, just as Russia accuses today, regimes such as Iran, Belarus, and Burma have claimed democracy promotion efforts were "soft coups" against governments considered hostile to U.S. interests.[50] Beyond delegitimizing the movement, U.S. support could also provide the justification for increased repression. Unless the repression results in backfire, this increases the barriers to entry for growing and sustaining the movement.

Dependency. The external sponsorship of nonviolent action can have the same perverse incentives of external sponsorship of violent insurgencies, including the creation of a kind of dependency that can erode morale and motivation, as well as inhibit the development of homegrown innovation or logistical capacity. Resistance movements must acquire resources to mobilize against the target regime. The origin of such material support may impact how the movement behaves toward its constituents. Studies indicate that dependence on foreign sponsorship contributes to abusive relationships between rebel groups and civilian populations. This dynamic may stem from initial resource endowments: resource-poor rebels are more likely to moderate their behavior toward civilians because they need community buy-in to secure support; in contrast, resource-rich rebels, owing either from a monopoly on natural resource extraction or external patronage, are less likely to rely on the populace for their survival and may subsequently engage in abusive activity that alienates a mass support base.[51] Idean Salehyan qualifies this dynamic based on the type of external sponsorship: support by democratic states with a track record in favor of human rights is better able to constrain rebel behavior via initial selection criteria and subsequent leverage mechanisms.[52] With caution toward drawing too direct a comparison between violent and nonviolent insurgencies, a similar dynamic exists with nonviolent movements where activists may lose their power base by relying too heavily on foreign rather than local support.[53]

Navigating the linkage of control, legitimacy, and dependency is the critical dilemma impacting a sponsor's effective employment of nonviolent resistance movements. Sponsors require leverage over their clients to influence their actions. This leverage may be best attained by control of resource provision. However, the more reliant resistance movements are on external sponsors, the more likely they will neglect their constituents. If the success of nonviolent action is contingent upon mobilizing the largest popular base, the presence of external sponsorship may become problematic for all parties involved if these dynamics are not carefully managed.

For those interested in reading more on subjects related to civil disobedience, color revolutions, and democratic coups, your attention is invited to "Coups and Color Revolutions," a limited collection of documents maintained by *Military Review*, which is available at https://www.armyupress.army.mil/Special-Topics/Hot-Topics/Coups-CR/.

(Graphic courtesy of vecteezy.com)

Conclusion

From Russian interference in Western elections to the reverberations from the 2011 Arab Spring uprisings, nonviolent actions

have left their indelible mark on modern states and societies, even as these actions reshape our preconceptions of what contemporary warfare resembles. Nonviolent action also puts militaries trained and equipped to fight conventional armies or to counter insurgencies or terrorist groups at a disadvantage. There may be institutional resistance within some quarters of the U.S. military to engage in nonviolent action, given the opportunity costs associated with it, especially when it comes to training. But as warfare changes and looks less like what Carl von Clausewitz envisioned—the harnessing of a large-scale and organized violence to achieve some political end—and is more diffused, urban, and unconventional, demand for nonviolent action will increase.

The U.S. military must look past its institutional biases toward large-scale combat operations, and in line with MDO, truly look toward converging political and military capabilities across multiple domains to create windows of advantage.[54] If we look at future conflict through the lens of most likely and most dangerous, the most likely form is low-intensity, gray-zone type conflict. In these types of conflicts, third-party nonviolent intervention is a viable course—within its constraints—which allows nations to achieve strategic objectives without resorting to large-scale troop deployments, and in some cases, maintaining plausible deniability. As the ubiquitous "small wars" continue and the U.S. military prioritizes preparation for large-scale, decisive-action type conflict, policy makers need a capability to limit U.S. entanglement while still achieving strategic objectives. Support for nonviolent action fills this niche, and consequently, deserves recognition and resources. ■

Notes

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7. "What Is Nonviolent Action?," Albert Einstein Institution, last modified 23 September 2015, accessed 6 January 2020, http://www.aeinstein.org/nonviolentaction/what-is-nonviolent-action/. This report uses the terms nonviolent action, nonviolent resistance, nonviolent struggle, civil resistance, and people power interchangeably.

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9. The White House, *National Security Strategy of the United States* (Washington, DC: The White House), 4.

10. Gene Sharp, *Waging Nonviolent Struggle: 20th Century Practice and 21st Century Potential* (East Boston, MA: Albert Einstein Institution), 45-46.

11. Gene Sharp, *The Role of Power in Nonviolent Struggle* (East Boston, MA: Albert Einstein Institution, 1990), 4.

12. Max Weber, "Politics as Vocation," in *Weber's Rationalism and Modern Society*, trans. and ed. Tony Waters and Dagmar Waters (New York: Palgrave Books, 2015), 136.

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14. Lisa Wedeen, *Ambiguities of Domination: Politics, Rhetoric, and Symbols in Contemporary Syria* (Chicago: University of Chicago Press, 2015).

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16. For a more in-depth discussion of the role of power in nonviolent movements, see Sharp, *The Role of Power in Nonviolent Struggle*.

17. Chenoweth and Stephan, *Why Civil Resistance Works*, 48, 58.

18. Sharp, *Waging Nonviolent Struggle*, 29.

19. Chenoweth and Stephan, *Why Civil Resistance Works*, 213.

20. Ibid., 217. Countries with violent campaigns have a 42 percent chance of civil war recurrence, compared to 28 percent for countries in which nonviolent campaigns occurred. For example, reference Peru where the violent Tupac Amaru Revolutionary Movement emerged following the defeat of the *Sendero Luminoso* (Shining Path) insurgency in 1995.

21. Ibid., 207–8.

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28. *Multi-Domain Battle: Evolution of Combined Arms for the 21st Century, 2025-2040*, version 1.0 (Fort Eustis, VA: Training and Doctrine Command, October 2017), 2.

29. Ibid., 21.

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36. See Véronique Dudouet, "Sources, Functions, and Dilemmas of External Assistance to Civil Resistance Movements," in *Civil Resistance: Comparative Perspectives on Nonviolent Struggle*, ed. Kurt Schock (Minneapolis: University of Minnesota Press, 2015), 168–69. "Third-party nonviolent intervention is defined as an action that is carried out, or has impact, across a national border, with the aim of supporting local nonviolent movements for human rights or democracy by applying the principles of nonviolent action."

37. Ibid., 169; see Chenoweth and Stephan, *Why Civil Resistance Works*, 52–53. Third-party actors can support indigenous nonviolent resistance movements through a number of mechanisms: informing, connecting, promoting, capacity building, protecting, monitoring, and pressure.

38. Joint Publication 3-05.1, *Unconventional Warfare* (Washington, DC: U.S. Government Publishing Office, 15 September 2015), 249. Joint doctrine defines unconventional warfare as "activities conducted to enable a resistance movement or insurgency to coerce, disrupt or overthrow a government or occupying power by operating through or with an underground, auxiliary, and guerrilla force in a denied area."

39. U.S. Army Special Operations Command (USASOC), "The Unconventional Warfare Pocket Guide," version 1.0 (Fort Bragg, NC: USASOC, April 2016), accessed 6 January 2020, https://www.soc.mil/ARIS/books/arisbooks.html.

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The President's Pardon Power

Dr. Michael J. Davidson

On 6 May 2019, President Donald Trump granted "a full and unconditional pardon" to a former Army officer who had been convicted at court-martial of unpremeditated murder and assault that occurred in Iraq; the officer had been sentenced to forfeiture of all pay and allowances, twenty-five years' confinement, and dismissal from the Army.[1] By the time the president issued the pardon, the recipient had already unsuccessfully exhausted appeals before the U.S. Army Court of Criminal Appeals and the U.S. Court of Appeals of the Armed Forces, and he had completed five years of his sentence before he was granted parole.[2] The pardon received support from the Oklahoma attorney general and from numerous retired military officers.[3]

A photo of Union army soldier Pvt. William Scott taken in 1861. Scott was court-martialed and convicted of having fallen asleep on sentry duty though mitigating witnesses asserted that he had volunteered to take the place of a fellow soldier when he was already exhausted from duty on the previous night. He was subsequently sentenced to death. President Abraham Lincoln, made aware of the circumstances surrounding Scott's case, interceded on his behalf, and Scott's sentence was subsequently commuted by Gen. George McClellan. (Photo courtesy of Wikimedia Commons)

The president's pardon of a former service member was not unprecedented, and media reports suggested that the president was considering additional pardons for former members of the military convicted of combat-related offenses.[4] Not everyone approved of the president's exercise of his pardon power. The actual and continued exercise of the president's pardon authority to former members of the military convicted of similar crimes in Iraq and Afghanistan, however, drew criticism from other members of the military community.[5] On 15 November 2019, the president once again issued full and unconditional pardons

I hereby authorize and direct the Secretary of State to affix the Seal of the United States to a Warrant for the pardon of Daniel Dusky and Jacob Varner,

dated this day, and signed by me: and for so doing this shall be his warrant.

Abraham Lincoln

Washington, 13th June, 1863.

to Army officers for wartime conduct. The president pardoned an officer who had been convicted of several offenses and had served six years of a nineteen-year sentence; additionally, the president pardoned an officer whose Article 118 charge had been referred to a general court-martial but had not yet been tried.[6]

Recently, presidents have pardoned former members of the military for a wide variety of military offenses. To illustrate, in one day, President Bill Clinton pardoned a former sailor for disobeying a lawful general order and negligently hazarding two vessels, a former soldier for stealing mail matter, and a sailor convicted of mutiny during World War II.[7] On 24 November 2008, President George W. Bush pardoned a former airman for the possession and sale of drugs, and on 3 December 2010, President Barack Obama pardoned a former airman who had been convicted of wrongful possession of cocaine and writing checks without sufficient funds.[8]

Throughout history, former members of the military and others seeking to avoid military service have been the recipients of presidential pardons. Further, the military community has participated in legal proceedings and has been the subject of legal opinions, which facilitated development of the body of law in this area.

Constitutional Authority

The president's pardon authority derives from a provision in the U.S. Constitution. Article II, section 2, clause 1, provides that "the President … shall have Power to grant Reprieves and Pardons for Offences against the United States, except in Cases of Impeachment."[9] Offenses against the United States include violations of the Uniform Code of Military Justice (UCMJ), which defines the military justice system and specifies criminal offenses under military law. The president, acting as commander in chief of the Armed Forces, is authorized to write rules and regulations via an executive order known as the *Manual for Courts-Martial*. The *Manual for Courts-Martial* affords a pardoned service member with a handful of enumerated rights. The manual specifically notes that a presidential pardon bars prosecution for the pardoned misconduct, that trial counsel may not introduce evidence of a pardoned conviction during sentencing, and that a pardoned summary court-martial conviction may not be used to challenge a witness's character for truthfulness.[10]

A presidential pardon is rooted in the customary authority of an English monarch, and as the U.S. chief executive, the president may administer a pardon as an act of grace or mercy that forgives criminal misconduct, precludes punishment normally inflicted on a person for committing a crime, and restores the recipient's "basic civil rights such as the right to vote, serve on juries, and the right to work in certain professions."[11] A pardon removes legal disabilities associated with a conviction. For example, "if an individual is prevented under state and federal law from possessing a firearm due to a felony conviction, a full and unconditional pardon for the federal conviction would remove the firearm disability."[12] In other words, a pardon removes the adverse legal consequences associated with the existence of a conviction, such as rendering inapplicable laws that preclude felons from owning firearms, voting, or holding public office.

The president's authority to grant pardons is extremely broad and cannot be restricted by Congress, a point

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Previous page: During the Civil War, President Abraham Lincoln often reviewed military courts-martial convictions of Union soldiers and sometimes considered pardons for Confederate soldiers as well. In 1863, he pardoned Confederate partisan rangers Daniel Dusky and Jacob Varner who had been convicted of an 1862 mail robbery in Ripley, West Virginia. (Photo courtesy of the U.S. Government)

Surrounded by family members of West Point graduate 1st Lt. Henry Ossian Flipper, President William J. Clinton (*center*) signs a document 19 February 1999 pardoning Flipper for an 1881 conviction for conduct "unbecoming an officer and a gentleman." The dishonorable discharge accompanying the conviction had previously been changed to honorable in 1976. (Photo courtesy of the National Archives)

made clear by the U.S. Supreme Court. In *Schick v. Reed,* President Dwight Eisenhower commuted the death sentence of an Army sergeant to life imprisonment but with the restriction that the former soldier be ineligible for parole.[13] Convicted of murder by court-martial, Maurice Schick argued that the president exceeded his authority by imposing a condition on the reduction of his sentence that was not authorized by the UCMJ.

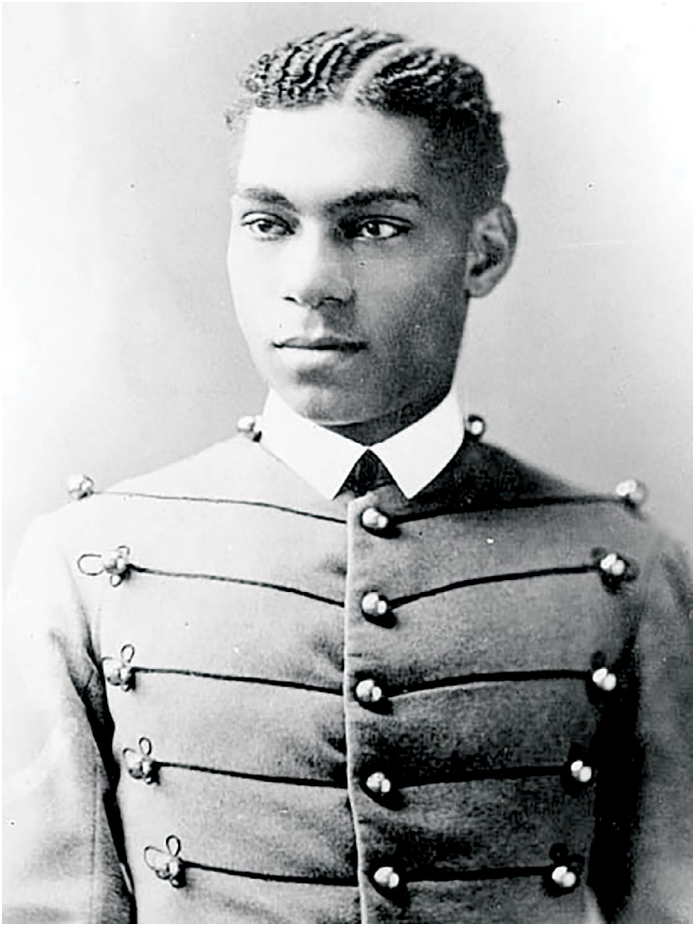
The court rejected the argument, determining that the president's "power flows from the Constitution alone, not from any legislative enactments, and that it cannot be modified, abridged, or diminished by Congress."[14] If there are any limitations on the president's pardon power, they "must be found in the Constitution itself."[15] Further, the president's pardon power is multifaceted. The Constitution gives the president authority "to 'forgive' the convicted person in part or entirely, to reduce a penalty in terms of a specified number of years, or to alter it with conditions which are in themselves constitutionally unobjectionable."[16]

The Scope of the President's Authority

The normal procedure for requesting a pardon is to submit an application to the Department of Justice's Office of the Pardon Attorney, pursuant to 28 C.F.R. §§ 1.1–1.11 for nonmilitary crimes, and to the service secretary who had original jurisdiction over the case for court-martial convictions.[17] Although most pardons are issued following a recommendation from the attorney general based on material prepared by the Office of the Pardon Attorney, the president's exercise of pardon power is not dependent upon a recommendation from the service secretaries or from the pardon office.[18] For example, on his last day in office, Clinton

granted pardons to two individuals who had submitted petitions directly to the White House with no prior notice to the pardon attorney.[19]

Further, the president is the only official authorized to grant a pardon; that authority cannot be delegated. To illustrate, in *United States v. Batchelor*, a soldier convicted of misconduct while a prisoner of Chinese forces during the Korean War argued on appeal that broadcasted comments made by an Army major, which were designed to encourage the accused and others to accept repatriation to U.S. control following the armistice, constituted "an offer of general amnesty or pardon on behalf of the Executive."[20] Rejecting the argument, the U.S. Court of Military Appeals noted that "the Constitution grants a general pardon power to the President and no one else," and that "this pardon power is nondelegable and cannot be shared with another person or official when the power is granted in terms similar to those used in our Constitution."[21]



An 1877 class photo of Cadet Henry Ossian Flipper, the first African American to graduate from the U.S. Military Academy at West Point, New York. Flipper reportedly "served with competency and distinction" but was court-martialed and discharged from the military under suspect circumstances for conduct "unbecoming an officer and gentleman." (Photo courtesy of the U.S. Military Academy)

Preconviction

The president can pardon criminal misconduct once it has been committed but "before any criminal proceeding against the pardon recipient has been initiated."[22] A proposal to prohibit preconviction pardons was rejected at the Constitutional Convention.[23] One of the most famous examples of the exercise of this power was President Gerald Ford's unconditional pardon of former President Richard Nixon "for all offenses against the United States which he, Richard Nixon, has committed or may have committed" during his presidency, prior to any charges actually being brought against Nixon.[24] As one court noted, "The fact that Mr. Nixon had been neither indicted nor convicted of an offense against the United States does not affect the validity of the pardon."[25]

Posthumous Pardons

As a general policy, the Office of the Pardon Attorney does not process applications for posthumous pardons, preferring to devote its limited resources to the applications of the living.[26] As late as 1977, however, the authority of a president to issue a posthumous pardon remained unresolved with only one inadvertent posthumous pardon issued. The Department of Justice's Office of Legal Counsel (OLC) considered the issue in the wake of efforts by the widow of Pvt. Eddie Slovik to correct his military records so that she would be eligible to collect on his National Service Life Insurance policy. Following his court-martial conviction for desertion, the Army panel sentenced Slovik to death. The sentence was approved by Slovik's division commander and by then Gen. Eisenhower. Of the 142 American servicemen executed during World War II, Slovik was the only one executed for desertion.[27]

The relevant statutory authority for the insurance, 38 U.S.C. § 1911, provided that "no insurance shall be payable for death inflicted as a lawful punishment for crime or for military … offense. …"[28] Slovik was executed in 1945 following his court-martial conviction. Unclear as to the president's authority to issue a posthumous pardon, the OLC opined that assuming the president had authority, any such pardon would not remove the statutory limitation on Mrs. Slovik's eligibility for insurance proceeds.[29]

Since the OLC considered the issue in 1977, three presidents have issued posthumous pardons. Trump pardoned Jack Johnson, the first African American heavyweight boxing champion, who was convicted in 1913 of violating the Mann Act, which prohibited transporting a person across state lines for immoral purposes. In addition, Trump pardoned Zay Jeffries, whose prosecution for engaging in anticompetitive conduct under the Sherman Act was deferred from 1941 until 1947 so he could work on the Manhattan Project and develop armor-piercing artillery shells. George W. Bush pardoned Charles Winters, who helped smuggle B-17 bombers into Israel in 1948 in violation of the Neutrality Act. Clinton pardoned former Army officer Henry Ossian Flipper, who was West Point's first African American graduate and the first African American to receive a regular Army commission.[30] Flipper was court-martialed at Fort Davis, Texas, in 1881 for embezzling funds from the post commissary and for conduct unbecoming an officer. Acquitted of embezzling, but convicted of conduct unbecoming, Flipper was dismissed from the Army. In 1976, the Army upgraded his discharge to honorable, but Clinton believed that a "stain of dishonor remained," and to correct an injustice, granted Flipper a full pardon.[31]

Mass Pardons

In *Ex Parte Grossman*, the Supreme Court noted that the president's pardon authority extended to "classes" of individuals and historically presidents have authorized mass pardons.[32] Some of the largest mass pardons have occurred in the military context. To illustrate, in an 1892 Attorney General Opinion, the solicitor general of the United States determined that the president could issue a general pardon to a large class of persons, without naming them individually, citing in support President Andrew Johnson's pardon of all those from the Confederate States of America who took part in the rebellion and President Ulysses Grant's pardon of all Union army deserters.[33]

The post-Vietnam era provides more modern examples. On 16 September 1974, as part of a "national commitment to justice and mercy," Ford announced a conditional clemency program aimed at Vietnam War draft evaders and deserters.[34] The program terminated on 31 March 1975. Unconvicted draft evaders who completed a period of public service (no more than two years) and pledged allegiance in writing to the United States would not be subject to prosecution. Unconvicted military deserters could receive an undesirable discharge, or after completing a period of alternative service, receive the newly created "clemency discharge." Convicted draft evaders and deserters were eligible for presidential pardons after completing alternative service, or in some circumstances, unconditional pardons accompanied by a clemency discharge for ex-service members. The comptroller general estimated 113,000 to 300,000 individuals were eligible to participate in the program but only 21,700 did so, with 6,052 receiving pardons.[35]

In a subsequent effort to heal the Nation in the wake of Vietnam, on 21 January 1977, President Jimmy Carter granted an unconditional pardon to Vietnam War draft evaders who violated the Military Selective Service Act (50 U.S.C. § 462) between 4 August 1964 and 28 March 1973 but excluded from the pardon any violations of the act involving violence as well as any violations committed by employees of the Military Selective Service System. In addition, the pardon applied only to civilians and did not extend to members of the Armed Forces who had been convicted of offenses under the UCMJ, including desertion.[36] Although pardon certificates were not required to effectuate the pardon, at least thirty-six individuals applied for certificates. Further, the FBI closed 625 active investigations and the Department of Justice dismissed approximately 2,400 indictments of individuals having violated the act.[37]

Limitations

Although the president's pardon authority is extremely broad, it is not without limitation. The plain language of the Constitution limits the scope of the president's power to "offenses against the United States," which precludes its application to "state criminal or civil proceedings," or "Cases of Impeachment," which fall within Congress's authority.[38]

Further, the Constitution itself may limit the exercise of the president's powers. One such limitation is the

Appropriations Clause, which provides that "no Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law. …"[39] In short, the president's pardon authority cannot override congressional power of the purse. To illustrate, a former CIA employee who was indicted as a result of the Iran-Contra independent counsel investigation, but who was subsequently pardoned by President George H. W. Bush, sought reimbursement for $1,297,950 in attorney's fees pursuant to 28 U.S.C. § 593(f)(1).[40] This statute authorized reimbursement of attorney's fees related to the investigation if the claimant were not indicted. The U.S. Court of Appeals for the District of Columbia, in *In re North*, cited post-Civil War language from the Supreme Court providing that the president's pardon power "cannot touch moneys in the treasury of the United States, except expressly authorized by act of Congress."[41] Rejecting the request for reimbursement of attorney's fees, the court determined that the plain language of section 593(f)(1) prohibited payment to someone who had been indicted and the presidential pardon did not "annul, expunge, or otherwise nullify [the] indictment."[42]

Further, as made clear by the Supreme Court in *Burdick v. United States*, a pardon is only effective if accepted; the intended recipient may refuse it.[43] In an effort to force a newspaper editor to testify, President Woodrow Wilson issued a pardon to the editor, George Burdick, who had invoked his right against self-incrimination before a grand jury when questioned about the sources of information for various articles published in the newspaper. The editor refused the pardon and continued to refuse to answer any questions concerning the sources of his information. The Supreme Court upheld Burdick's refusal to accept the pardon and to continue to refuse to testify. The court's analysis also provided another reason why an intended recipient may elect to reject a pardon: it "carries an imputation of guilt; acceptance a confession of it."[44]

As the *North* case indicates, a pardon does not provide its recipient with a completely clean slate. The U.S. Supreme Court characterized a pardon as "[a]n executive action that mitigates or sets aside *punishment* for a crime," but it does not overturn "a judgment of conviction by some other tribunal."[45] In other words, a pardon eliminates any legal punishment for the pardoned offense and precludes any further disqualifications from the fact of a conviction itself, but it neither precludes consideration of the underlying conduct nor prohibits further consequences from the pardoned conviction.[46] Similarly, the OLC has opined that a presidential pardon removes "the punitive legal consequences that would otherwise flow from conviction for the pardoned offense," but it "does not erase the conviction as a historical fact or justify the fiction that the pardoned individual did not engage in criminal conduct" and "does not by its own force expunge judicial or administrative records of the conviction or underlying offense."[47] Because of the limited effect of a pardon, it does not expunge the recipient's criminal record. Accordingly, a background check will reveal both the record of conviction and the fact that the individual had been pardoned.[48]

> "A pardon eliminates any legal punishment for the pardoned offense and precludes any further disqualifications from the fact of a conviction itself, but it neither precludes consideration of the underlying conduct nor prohibits further consequences from the pardoned conviction."

Specific to the military, a presidential pardon for a violation of the UCMJ does not automatically result in a change to the character of the former service member's discharge.[49] That a presidential pardon does not, by itself, change the characterization of a service member's discharge is a long-standing legal principle. To illustrate, a 1957 legal article written by a Navy judge advocate cited both a 1937 opinion of the Navy judge advocate general and a 1909 opinion of the attorney general in support of his position that "it is now well settled that a Presidential pardon is not effective to change a dishonorable discharge

Marine Corps Gen. James Cartwright looks on as President Barack Obama speaks 4 May 2011 before kicking off the Wounded Warrior Project's Soldier Ride on the South Lawn of the White House in Washington, D.C. Cartwright enjoyed a distinguished career, serving as the eighth vice chairman of the Joint Chiefs of Staff from 31 August 2007 to 3 August 2011. Following his retirement, Cartwright was investigated for providing classified information to reporters, including one reporter who allegedly included the information in a book. Cartwright voluntarily agreed to be interviewed by the FBI without a lawyer present. The government never charged Cartwright with leaking any classified information to the reporters. However, he was subsequently investigated for purportedly providing inaccurate information to the interviewing FBI agents regarding the time and place of his interactions with the reporters. Subsequently, Cartwright pleaded guilty to one count of providing false statements to the FBI pursuant to an official investigation. Before Cartwright was sentenced, Obama pardoned him on 17 January 2017 and Cartwright's security clearance was restored. (Photo by Roger L. Wollenberg, United Press International/Alamy photo)

into an honorable discharge, or to restore rights which are based upon receipt of an honorable discharge."[50]

In the 1908 Attorney General Opinion, "Pardon–Removal of Disabilities–Pension," an officer assigned to the 14th Regiment Kansas Volunteer Cavalry was court-martialed, convicted, and dismissed from the Army in 1865.[51] The officer received a pardon in 1866 that included an offer to the governor of Kansas to recommission the officer should the governor so desire. Since the Civil War had ended, the officer did not desire a commission. After Congress passed legislation in 1907 providing for a pension to members of the Army and Navy honorably discharged from those services, the former officer applied for a pension. The attorney general determined that he was ineligible for a pension, reasoning,

> His separation from the Army in 1865 was not an honorable discharge therefrom, and when the pardon came, ten months later, he was not in the Army, and therefore the pardon, however full and complete, could not, constructively or

> otherwise, operate as an honorable discharge from an army to which he did not belong. A pardon can not change existing or accomplished facts, although it may remove or prevent their consequences; and in this case the pardon can not change the fact that this officer has never been honorably discharged from the Army.[52]

The fact that a pardon does not change the character of a discharge will have a significant effect on a former service member's entitlement to veterans' benefits. To qualify for benefits, a former service member must be a "veteran," which is defined as "a person who served in the active military, naval, or air service, *and who was discharged or released therefrom under conditions other than dishonorable* [emphasis added by author]."[53] Generally, a dishonorable discharge serves as a bar to benefits.[54]

In addition, 38 U.S.C. § 6105(a) provides that an individual convicted of certain enumerated military (e.g., mutiny, aiding the enemy, spying) and federal (e.g., disclosing classified information, using a weapon of mass destruction, treason) offenses—referred to as "subversive activities"—"shall … have no right to gratuitous benefits (including the right to burial in a national cemetery) under laws administered by the Secretary based on periods of military, naval, or air service commencing before the date of the commission of such offense and no other person shall be entitled to such benefits on account of such individual."[55] This statutory termination of benefits applies even when the service member has completed a prior period of military service that has been terminated under honorable conditions. The ban may only be lifted, and benefits restored, following a presidential pardon.[56]

Further, a presidential pardon does not authorize an individual to enlist in the Armed Forces or authorize a service member to reenlist. Absent an exception authorized by the relevant service secretary, 10 U.S.C. § 504 states that "no person who is insane, intoxicated, or a deserter from an armed force, or who has been convicted of a felony, may be enlisted in any armed force."[57] "In Effect of Pardon on Statute Making Persons Convicted of Felonies ineligible for Enlistment in the Army," the OLC determined that a felon remains ineligible for enlistment even if pardoned because the relevant statute merely established qualifications for enlistment, rather than imposed punishment for the pardoned offense.[58] Similarly, 10 U.S.C. § 508(a) provides that "no person whose term of enlistment was not honest and faithful may be reenlisted in an armed force."[59] Interpreting similar language, the OLC determined that a pardon does not afford a pardoned deserter the right to reenlist because his prior term of enlistment had not been honest and faithful. The OLC reasoned, "Whilst the President's power restores the criminal to his legal rights and fully relieves him of disabilities legal attaching to his conviction, it does not destroy an existing fact, viz, that his service was not honest and faithful."[60]

Given the president's almost unfettered authority to grant pardons and the entirely subjective nature of his or her exercise of that discretion, even highly controversial pardon decisions will be extremely difficult to legally challenge. The president cannot issue a pardon, however, when the circumstances surrounding the pardon are themselves illegal.[61] Were a president to criminally abuse the pardon authority, the prevailing legal view is that an incumbent president could not be indicted or criminally prosecuted, because such actions "would unduly interfere with the ability of the executive branch to perform its constitutionally assigned duties, and would thus violate the constitutional separation of powers."[62] Any prosecution would have to wait until the president was no longer in office. Recognizing a president's broad pardon authority, the OLC nonetheless offered, "Of course, the intensely subjective nature of a pardon decision does not mean that the President could choose, in his discretion, to grant pardons, for example, in exchange for cash payments. The remedy for such a misuse of power would be removal from office after impeachment and conviction for treason, bribery, or other high crimes and misdemeanors."[63]

It remains unclear whether a president possesses the authority to pardon himself. The issue was never raised at the Constitutional Convention, and because no president has attempted to pardon himself, the issue has not been presented to the courts. Shortly before Nixon's resignation, the OLC opined that a president lacked such authority, but various commentators have argued both for and against such authority.[64]

Sentence Commutation

As noted earlier, in addition to granting a full or partial, absolute or conditional pardon, the president may commute (reduce) an individual's sentence with or without conditions. Commutation of a sentence may include reduction in a period of incarceration, or remission of the unpaid portion of a fine, forfeiture, or restitution

order. As the United States Court of Appeals for the Sixth Circuit explained in *Dennis v. Terris,* "a prisoner who receives a presidential commutation continues to be bound by a judicial sentence … [t]he commutation changes only how the sentence is carried out by switching out a greater punishment for a lesser one."[65] As the Office of the Pardon Attorney notes, "It does not change the fact of conviction, imply innocence, or remove civil disabilities that apply to the convicted person as a result of the criminal conviction."[66]

A common form of commutation is a reduction in the period of incarceration. Obama was particularly generous with sentence commutations, reducing 1,715 sentences. This level of commutation was the highest of any president since President William Taft's 1,727 commutations and more than the prior thirteen presidents combined.[67]

The primary limitation on the president's ability to commute a sentence conditionally is that the condition may not be "illegal, immoral, or impossible of performance."[68] If the recipient of a sentence commutation violates the presidential condition, then the original sentence is reinstated. Further, unlike an unconditional pardon that can be refused by its recipient, no consent is required for a sentence commutation.[69]

Conclusion

The pardon authority is vested exclusively in the president, whose exercise of such authority is extremely broad and unfettered by any defined rules or criteria. The president's pardon prerogative may be full, conditional, or simply limited to commuting the sentence. It may not offend other portions of the Constitution, but it is generally immune from congressional constraints. As originally envisioned by the architects of the U.S. Constitution, a presidential pardon is an act of mercy or grace that forgives a particular criminal offense or offenses, precludes further legal punishment, and restores certain rights. It is not necessarily an endorsement of the recipient, the underlying misconduct, or an affront to the law originally violated.

While the authority of the president to pardon, either unconditionally, conditionally, or to commute a sentence is almost unfettered, the legal effect of a pardon is much more limited. A pardon is not a declaration of innocence, and it will not expunge all records of the original conviction. Further, a significant limitation on the effect of a pardon is that the pardon does not change a punitive discharge into an honorable one, which will adversely impact a former service member's eligibility for veterans' benefits. ■

The opinions in this article are those of the author and do not reflect the position of U.S. Immigration and Customs Enforcement, the Department of Homeland Security, or any other federal agency.

Notes

1. Donald J. Trump, "Executive Grant of Clemency, Michael Chase Behenna," Department of Justice, 6 May 2019, accessed 27 December 2019, https://www.justice.gov/pardon/page/file/1160801/download. The sentence was reduced to twenty years.

2. *United States v. Behenna*, 71 M.J. 228 (C.A.A.F. 2012); Mihir Zaveri, "Trump Pardons Ex-Soldier Convicted in Iraqi Man's Murder," *New York Times*, 7 May 2019, A16.

3. Reis Thebault, "Ex-Soldier Who Killed Detainee is Pardoned," *Washington Post*, 7 May 2019, A3.

4. Dave Phillips, "President May Be Preparing Pardons for High-Profile War Crimes," *New York Times*, 19 May 2019, 18.

5. See, e.g., Waltman W. Beorn, "To Prevent War Crimes, Stop Praising War Criminals," *Washington Post*, 12 May 2019, B4; Barry McCaffrey, "Trump's War-Crime Pardons Would Dishonor Our Forces," *Washington Post*, 26 May 2019, A23.

6. Donald J. Trump, "Executive Grant of Clemency, Clint A. Lorance and Mathew Golsteyn," Department of Justice, 15 November 2019, accessed 27 December 2019, https://www.justice.gov/pardon/pardons-granted-president-donald-trump#Nov152019.

7. "Pardons Granted by President Clinton," Department of Justice, 23 December 1999, accessed 6 January 2020, https://www.justice.gov/archive/opa/pr/1999/December/610civ.html.

8. "President George W. Bush Granted Pardons," Department of Justice, 28 September 2005, accessed 6 January 2020, http://www.usdoj.gov/opa/pr/2005/September/05_opa_509.html; "President Barack Obama Grants Pardons," Department of Justice, 3 December 2010, accessed 6 January 2020, http://www.justice.gov/opa/pr/2010/December/10-opa-1383.html.

9. U.S. Const. art. II, § 2, cl. 1.

10. *Manual for Courts-Martial United States* (Washington, DC: Joint Service Committee on Military Justice, 2019), II-114 (R.C.M. 907[b][2][D][i]), II-141 (R.C.M. 1001[b][3][A]), III-41 (M.R.E. 609[c]).

11. Richard M. Thompson II, *The President's Pardon Power and Legal Effects on Collateral Consequences*, Congressional Research Service (CRS) No. R44571 (Washington, DC: CRS, 26 July 2016), 1, 7.

12. Ibid., 10.

13. *Schick v. Reed,* 419 U.S. 256 (1974).

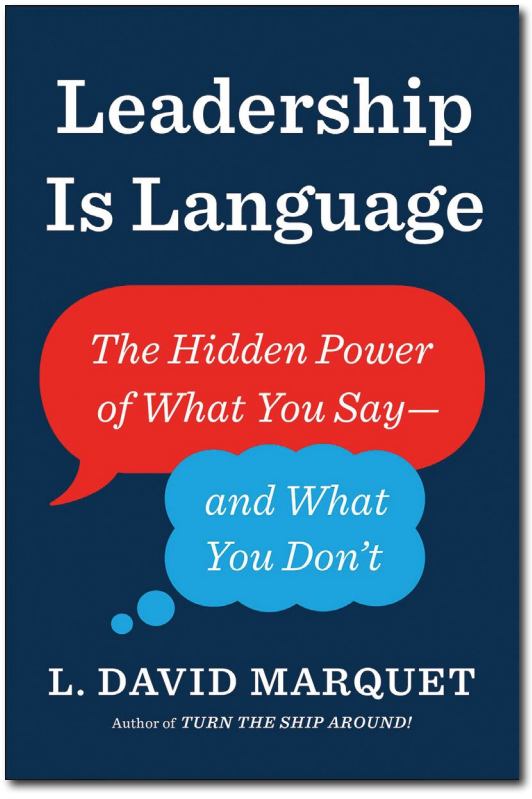
14. Ibid., 266.

15. Ibid.
16. Ibid.
17. Thompson, *The President's Pardon Power and Legal Effects on Collateral Consequences*; Office of the Pardon Attorney, "Frequently Asked Questions," Department of Justice, 9, accessed 6 January 2020, https://www.justice.gov/pardon/frequently-asked-questions. Requests for sentence reductions by service members convicted by court martial are also processed by the relevant military branch, rather than by the Office of the Pardon Attorney.
18. "Frequently Asked Questions," 1.
19. *In re Grand Jury Subpoenas Dated March 9, 2001*, 179 F. Supp. 2d 270, 273 (S.D.N.Y. 2001).
20. *United States v. Batchelor*, 7 U.S.C.M.A. 354, 365, 22 C.M.R. 144, 155 (1956).
21. Ibid.
22. "Legal Sidebar: Presidential Pardons: Frequently Asked Questions," CRS Reports and Analysis, 28 August 2017, 1.
23. Ibid.
24. Proclamation No. 4311, 39 Fed. Reg. 32601-02 (10 September 1974).
25. *Murphy v. Ford*, 390 F. Supp. 1372, 1374 (W.D. Mich. 1975).
26. Office of the Pardon Attorney, "Policy on Posthumous Pardon Applications," Department of Justice, accessed 27 December 2019, https://www.justice.gov/pardon/policies.
27. Fred L. Borch III, "Shot By Firing Squad: The Trial and Execution of Pvt. Eddie Slovik," *Army Lawyer*, Department of the Army Pamphlet 27-50-466 (March 2012): 5–6.
28. 38 U.S.C. § 1911 (1991).
29. Summarized from Presidential Authority-Slovik Case-Constitutional Law-Posthumous Pardons-Review of Sentence (10 U.S.C. § 1552), 2 Op. O.L.C. 370 (9 September 1977).
30. "Policy On Posthumous Pardon Applications"; see also Jacob Bogage, "Trump Pardons Boxer Johnson," *Washington Post*, 25 May 2018, D2; Dan Eggen, "Bush Forgives Man Convicted for 1948 Aid to Israel," *Washington Post*, 24 December 2008, A3; "Statement from the Press Secretary Regarding Pardon of Zay Jeffries," The White House, 10 October 2019, accessed 27 December 2019, https://www.whitehouse.gov/briefings-statements/statement-press-secretary-regarding-pardon-zay-jeffries/.
31. "Remarks by the President at Ceremony in Honor of Lt. Henry O. Flipper," The White House, 19 February 1999, accessed 27 December 2019, https://clintonwhitehouse6.archives.gov/1999/02/1999-02-19-remarks-by-president-at-ceremony-to-honor-lt-flipper.html.
32. *Ex Parte Grossman*, 267 U.S. 87, 120 (1925).
33. Amnesty – Power of the President, 20 Op. Att'y Gen. 330, 334-35 (9 March 1892).
34. Proclamation No. 4313, 50 U.S.C. app. 451, 10 U.S.C. 801 et seq. (1974).
35. *Report to Congress by the Comptroller General of the United States, The Clemency Program of 1974, Before the House and Senate Committees on Armed Services*, B-183498 (7 January 1977) (Statement by Elmer B. Staats, Comptroller General).
36. Proclamation No. 4483, 42 Fed. Reg. 4391 (1977); "Vietnam War Era Pardon Instructions," Department of Justice, accessed 27 December 2019, https://www.justice.gov/pardon/vietnam-war-era-pardon-instructions.
37. Victor L. Lowe to John T. Myers, "President's Amnesty Program and Subsequent Department of Justice Actions," GGD-78-39. B-171019 (13 January 1978), 2.
38. Thompson, *The President's Pardon Power and Legal Effects on Collateral Consequences*, 1.
39. U.S. Const. art. 1, § 9, cl. 7.
40. Proclamation No. 6518, 57 Fed. Reg. 62145-47 (30 December 1992).
41. *In re North*, 62 F.3d 1434, 1436 (D.C. Cir. 1994).
42. Ibid.
43. *Burdick v. United States*, 236 U.S. 79, 94 (1915).
44. Ibid.
45. *Nixon v. United States*, 506 U.S. 224, 232 (1993) (emphasis in original).
46. *Hirschberg v. Commodity Futures Trading Commission*, 414 F.3d 679, 682 (7th Cir. 2005); *In re Abrams*, 689 A.2d 6, 11 (D.C. 1997).
47. Whether A Presidential Pardon Expunges Judicial and Executive Branch Records of a Crime, 30 Op. O.L.C. 104 (11 August 2006).
48. Thompson, *The President's Pardon Power and Legal Effects on Collateral Consequences*, 12.
49. "Frequently Asked Questions," 9.
50. James F. Chapman, "Presidential Pardons," *JAG Journal* 1, no. 3 (1957): 7–10 (citing Opinion of the Judge Advocate General of the Navy, 1937: File: MM, Reinhardt, Wm. S/P 19-1 [370416] 28 April 1937).
51. Pardon–Removal of Disabilities–Pension, 27 Op. Att'y Gen. 178 (17 February 1909).
52. Ibid., 183.
53. 38 U.S.C. § 101(2) (1988).
54. 38 C.F.R. § 3.12(c)(2) (1997).
55. 38 U.S.C. § 6105(a) (2003).
56. Ibid.
57. 10 U.S.C. § 504(a) (2018).
58. In Effect of Pardon on Statute Making Persons Convicted of Felonies Ineligible for Enlistment in the Army, 39 Op. Att'y Gen. 132, 135 (23 February 1938).
59. 10 U.S.C. § 508(a) (1968).
60. 39 Op. Att'y Gen. 132, 133.
61. *Ex Parte Wells,* 59 U.S. 307, 312 (1855) ("unlawful in itself … against the public good as to be indictable at common law").
62. A Sitting President's Amenability to Indictment and Criminal Prosecution, 24 Op. O.L.C. 222, 260 (16 October 2000).
63. Whether the President May Have Access to Grand Jury Material in the Course of Exercising his Discretion to Grant Pardons, 24 Op. Att'y Gen. 366, 371n6 (22 December 2000).
64. "Legal Sidebar," 2 ("unsettled constitutional question"); see Thompson, *The President's Pardon Power and Legal Effects on Collateral Consequences*, 2n11. ("Some observers have suggested that the President's pardoning power is so expansive as to allow self-pardons").
65. *Dennis v. Terris,* 927 F.3d 955, 958 (6th Cir. 2019).
66. "Frequently Asked Questions," 3.
67. Office of the Pardon Attorney, "Clemency Statistics: Barack Obama," Department of Justice, accessed 27 December 2019, https://www.justice.gov/pardon/clemency-statistics.
68. Pardoning Power of the President, 41 Op. Att'y Gen. 251 (11 August 1955) (permissible conditions include that an alien-prisoner be deported, that a prisoner "remain law-abiding," and that a prisoner "abstain from the use of intoxicating liquor").
69. *Biddle v. Perovich*, 274 U.S. 480 (1927).

REVIEW ESSAY

Leadership Is Language

The Hidden Power of What You Say—and What You Don't



L. David Marquet, Penguin Books, New York, 2020, 352 pages

Lt. Col. Michael Bundt, U.S. Army

Author of *Leadership is Language: The Hidden Power of What You Say and What You Don't* and *Turn the Ship Around! A True Story of Turning Followers into Leaders*, L. David Marquet served in the U.S. submarine force; his career culminated in the command of the USS *Santa Fe*. When Marquet took command, the submarine was rated last in operational readiness and retention. By the end of Marquet's command, the USS *Santa Fe* was not only ranked first in both categories but had also achieved the best evaluations ever recorded within the U.S. submarine fleet. More importantly, the submarine's success continued long after he left, and his subordinates were promoted and commanded at much higher rates.

In *Leadership is Language*, Marquet explains how to implement intent-based leadership (IBL), which is a concept he developed while commanding the USS *Santa Fe* and introduced in *Turn the Ship Around!* Using several historical examples, his own experience, and the foundational research of others, Marquet argues that today's leaders are products of the industrial age. Because of the influence of the industrial age on American culture, leaders tend to naturally focus on deadlines, the separation of workers and management, and execution rather than thinking.

He defines leadership as "[e]mbedding the capacity for greatness in the people and the practices of an organization and decoupling it from the personality of the leader."[1] Marquet defines IBL as "a system of leadership that pushes authority to those with the information. The goal of IBL is to create an organization where people are healthier and happier because they have control over their lives."[2]

Marquet would have readers believe that these concepts are a clear departure from the current

leadership ideas and systems. Arguably, the above definitions closely resemble the U.S. Army's concept of mission command, the idea of psychological safety, and a learning organization. Marquet merely offers one way to achieve IBL. Minus the book's introduction and conclusion, the chapters align with six new plays or techniques that, if used consistently and in conjunction with each other, will help leaders enact IBL.

Control the clock, not obey the clock. Marquet describes how to implement the observe-orient-decide-act loop process while getting everyone involved. Is the leader the first to talk? When discussing or directing employees/soldiers, who does most of the talking? When an employee stops work to bring an issue to a leader's attention, the first response should be gratitude. The "control the clock" play is confronted with deadlines. Leaders will often say things like, "You're ready, right?" or "Can you be ready by noon?" These questions are closed-ended (yes or no). The question also encourages a yes answer. As a general rule, Marquet wants leaders to ask questions starting with the words "how" or "what." A leader practicing IBL would say, "How ready are we to start the training?" or "What is preventing us from being ready?" The use of the words "how" and "what" conveys that there is time to discuss the operation/issue. The constant use of the words "us" and "we" help create a sense of psychological safety and positive organizational climate.

Collaborate, not coerce. Intent-based leaders must balance mental work with the physical work of their organization. Too much directing leads to action without thought. Too much collaboration and dissent leads to inaction. The right balance of collaboration and dissent will result in a stronger hypothesis with clearly definable metrics to allow positive change while maintaining commitment. How often is the boss given the opportunity to share his or her opening comments in a meeting? When a leader speaks first, it creates a bias, and the entire group is now anchored to the leader's comments.

Simply use the words, "I am curious what you think about X," rather than self-affirming questions like, "Are we all on board?" Intent-based leaders "inoculate themselves against the arrogance of thinking they are right" and allow the psychological safety for the organization members to say that they do not know the answer; because, as leaders, we say it ourselves.

Commit, not comply. Compliance saves time but gives a pass on responsibility. Commitment and motivation are personal and come from within. The key to commitment and motivation with organizational employees is empowerment. Employees need to believe they have the power to provide relevant input or make decisions that will lead to positive change. Leaders need to refrain from making daily operational decisions. If the decision authority is pushed to the lowest level of organizational commitment possible, morale and motivation will increase. Leaders should also detach themselves from decisions. The decision-maker is emotionally tied to the decision. Decision-makers have a hard time evaluating decisions to which they are emotionally tied.

Complete, not continue. The current environment requires most organizations to be adaptive and innovative. The speed of an organization's effective adaptivity is a big part of sustained success. Intent-based leaders do not hold to an "if it isn't broke, don't fix it" mentality. Definable, achievable cycles are established to give the organization the necessary time to pause and reflect on improvements/innovations.

Improve, not prove. Intent-based leaders invite a mental focus that is forward thinking. *How* could this be done better? Employees and leaders focus on the process, not the person. *What* improvements could *we* make in the process? IBLs are also focused on achieving excellence rather than avoiding errors.

Connect, not conform. Empathy is the key to trust. "The connect play is about caring. Instead of judging from a position of power, leaders walk alongside from a position of encouragement."[3] Creating a climate of psychological safety is easier said than done. Marquet describes the seven sins of questioning. Not avoiding the sins creates a hostile working environment

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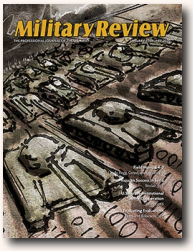

that is not conducive to learning; avoiding the sins speaks truth to power and to decision-making at the lowest possible level.

- **Avoid question stacking.** Avoid asking multiple questions without allowing an answer. Leaders should ask one open-ended question and allow the organizational member to tell his or her story. The leader can then use a follow-up question that demonstrates curiosity by using language that incorporates the words *how, what, we,* and *us*.
- **Avoid leading questions.** Most organizational members perceive a teaching moment as annoying or as a display of arrogance by the leader. Asking questions with known answers simply for affirmation or to test the employee will alienate the employee. The idea that putting people on the spot will inspire them to build their knowledge is outdated. This type of motivation and inspiration manipulates people and will only force compliance rather than commitment and learning.
- **Avoid "why" questions.** "Why" questions put organizational members on the defensive. Instead of saying, "Why did you do that," say "*How* did that work?"
- **Avoid dirty questions.** Dirty questions are leading and imply the organizational member made a mistake. Do you have the courage to continue?
- **Avoid closed-ended questions.**
- **Avoid self-affirming questions.** Intent-based leaders do not want to coerce agreement. Organizational members are always in a position to educate their leaders; leaders just have to give them the chance. Instead of asking, "That was pretty good, right?," say "*How* could we get better?"
- **Avoid aggressive questions.** Aggressive questions such as "What happened here?" puts the organizational member on the defense. Instead, be curious and inviting. "*What* have you observed today," or "*How* do you see it?"

Although Marquet presents an eloquent how-to manual on IBL, it will be helpful if the reader is familiar with the underlining concepts of psychological safety, emotional intelligence, and a culture of learning that are presented in Edgar Schein's book *Organizational Culture and Leadership* and in Daniel Goleman's book *Emotional Intelligence*. This culture of learning will provide the readers with the foundational source knowledge needed to implement Marquet's ideas for postindustrial age leadership. ■

Notes

1. L. David Marquet, *Turn the Ship Around! A True Story of Turning Followers into Leaders* (New York: Portfolio, 2013).
2. L. David Marquet, *Leadership Is Language: The Hidden Power of What You Say—and What You Don't* (New York: Penguin Books, 2020), 318.
3. Ibid.

National Guard Contributes to COVID-19 Fight

Military Review Staff

National Guard soldiers from states across the Nation have mobilized to support local efforts in various capacities—working alongside healthcare professionals to screen, test, and treat patients; helping food banks package and distribute food; building and outfitting alternate care facilities; and sanitizing public safety vehicles, to name just a few of their endeavors. According to the National Guard Bureau, as of 28 April 2020, "nearly forty-five thousand Air and Army National Guard professionals were supporting the COVID-19 response at the direction of their governors."

The National Guard has a long history of responding to public heath crises. Sgt. 1st Class Whitney Hughes provides us with a short history of their efforts in "Guard Has Long Supported Local Officials in Health Emergencies," republished here for the benefit of our readers.

Guard Has Long Supported Local Officials in Health Emergencies

Sgt. 1st Class Whitney Hughes, National Guard Bureau

This article was originally published 18 March 2020 at www.army.mil.

While the National Guard is often called out by governors to respond to natural and man-made disasters, Guard members also have a long history of responding to public health emergencies.

Since the Guard's establishment in 1636, members have responded to outbreaks of smallpox, Spanish flu, yellow fever, cholera, hoof-and-mouth disease, and typhus, said Dr. Richard Clark, a historian with the National Guard Bureau.

"You would need a book to describe all the ways that they were employed [during national medical emergencies]," said Clark. "But, the one consistency is that whenever they were employed, they were highly effective."

One of the earliest Guard responses to a public health crisis was in 1792 when members of the Massachusetts National Guard helped inoculate people from smallpox, said Clark. A year later, the Maryland National Guard was called upon to implement quarantine measures in response to a yellow fever outbreak. Guard members in Tennessee, Florida, and Louisiana also responded to yellow fever outbreaks throughout the mid-1800s.

In 1910, the Michigan National Guard supported similar quarantine efforts led by local officials in response to smallpox. Guard members in Georgia responded similarly to an outbreak of the disease in 1800.

Previous page: Florida National Guardsmen from Companies A and C, 53rd Brigade Support Battalion, test residents and staff 24 April 2020 at a rehabilitation facility as part of the COVID-19 response in Palm Beach County, Florida. (Photo by Sgt. Jacob Cherena, Army National Guard) **Above:** Soldiers being treated for the Spanish flu in an emergency hospital at Camp Funston, Fort Riley, Kansas, in 1918. (Photo courtesy of the National Museum of Health and Medicine) **Right:** Medical and quartermaster corpsmen in connection with the U.S. Army Hospital Number 4, wear masks 19 November 1918 while at work around the hospital in Fort Porter, New York. (Photo courtesy of the National Archives)

"Prior to approximately 1920, the National Guard and the organized militia often generally supported [local officials] by enforcing quarantines and providing security," said Clark.

The 1918 outbreak of the Spanish flu, which affected about one-third of the world's population, also led to a change in public health response measures.

"Advances in public health, technology and medicine meant that the epidemics and plagues of the past became fewer and far between," said Clark. "As we better understood the causes of disease, and how diseases are transferred, American public health professionals became proactive more than reactive."

The National Guard also adjusted to respond with those changing approaches, said Clark.

In 1924, the governors of California and Arizona called out the Guard to help contain hoof-and-mouth disease. The Arizona Guard stopped all who arrived in the state by highway, said Clark. Before travelers could continue, they were required to bathe and their clothing and contents of their automobiles were fumigated by Guard members.

Florida National Guard members followed similar protocols in 1930 when they supported local authorities in establishing lines of defense against the Mediterranean fruit fly. Guard members were positioned in forty-two towns in the state to inspect train riders and their baggage. Those on baggage inspection checked more than 9.6 million pieces of luggage, said Clark, and found 19,863 hosts of the infectious flies.

When Hurricane Diane struck the east coast and New England in August 1955, the Connecticut National Guard responded to the immense flooding, and also worked with local health officials to administer thousands of typhus immunizations to flood victims to prevent the disease, said Clark.

"Since the 1920s, the National Guard has been most effective in public health emergencies in supporting first responders and local communities when no one else could help," said Clark.

That's similar to when the Guard is mobilized as part of overseas operations.

"Just as the National Guard augments active [component] forces in wartime and contingency operations, Guard [members] provide the same support to emergency services in the local community," said Clark, adding that the support Guard members provide to local authorities during pandemic responses has continued to evolve.

As of Wednesday morning, approximately 2,000 Guard members in twenty-three states are on duty supporting civil authorities in response to COVID-19, the coronavirus. Rather than enforcing quarantines or stopping travelers, those on duty have been disinfecting public spaces, distributing food, assisting with transportation and logistical support of health officials, and coordinating with state and local health and emergency managers.

Guard members currently on duty are serving under state active duty—a status sourced and paid for by the state—with Guard members remaining under the control of their governor. ■

Military Review salutes the members of the U.S. Army National Guard as they fight on the front lines in the battle against COVID-19. While we cannot show you all the great work National Guard soldiers are doing across our country, we take this opportunity to highlight just a few of their remarkable efforts through photos.

Louisiana Guardsmen with the 205th Engineer Battalion and others help distribute food to local citizens 9 April 2020 for the Great Baton Rouge Food Bank in Walker, Louisiana. (Photo by Master Sgt. Toby M. Valadie, U.S. Air National Guard)

New York Army National Guard Pvt. 1st Class Brittany Flynn and Pvt. Linda Nguyen assemble novel coronavirus (COVID-19) specimen collection test kits 4 April 2020 at the New York State Department of Health's Wadsworth Center in Albany, New York. (Photo by Mike Wren, New York State Department of Health)

North Carolina National Guard soldiers assist volunteers at the Inter-Faith Food Shuttle Farm 30 April 2020 to ensure crops are planted and tended to for future harvests and distribution to the needy in Raleigh, North Carolina. (Photo courtesy of the North Carolina National Guard)

Louisiana National Guard medics from the 256th Infantry Brigade Combat Team administer COVID-19 nasal swab tests 26 March 2020 at a mobile testing site at Burton Coliseum in Lake Charles, Louisiana. (Photo by Master Sgt. Toby M. Valadie, U.S. Air National Guard)

U.S. Army National Guard soldiers from JTF 115th Regional Support Group assemble an antenna for radio communication 9 April 2020 during the COVID-19 humanitarian mission at the Roseville Armory, in Roseville, California. (Photo by Master Sgt. Forest Decker, U.S. Air National Guard)

U.S. Army Spc. Jonathon Hyde (*left*) and Spc. Casymn Harrison from the 1434th Engineer Company, Michigan National Guard, prepare patient rooms 9 April 2020 in advance of receiving COVID-19 patients at the TCF Regional Care Center in Detroit. (Photo by Master Sgt. Scott Thompson, U.S. Air National Guard)

Alabama National Guard Task Force 31 soldiers and airmen disinfect Bill Nichols State Veterans Home 18 April 2020 in Alexander City, Alabama. (Photo by Staff Sgt. William Frye, U.S. Army National Guard)

A Rhode Island National Guardsman assigned to the 56th Quartermaster Rigger Support Team sews face masks 6 April 2020 at Camp Fogarty, East Greenwich, Rhode Island. (Photo by Pvt. 1st Class David Connors, U.S. Army National Guard)

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