

# Military Review

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July-August 2024



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2416900



**Cover photo:** Spc. Mark Neil of 1st Battalion, 87th Infantry Regiment, 1st Brigade Combat Team, 10th Mountain Division (LI), watches the soldier ahead of him on 18 September 2023 during Combined Training Exercise Rhodope 23 in Smolyan, Bulgaria. The mountain warfare exercise trains company-level units on tactics and procedures, survivability, mobility, and sustainability in mountainous terrain. Hosted by the 101st Alpine Regiment of the Bulgarian Land Forces, the exercise included soldiers from the U.S. Army, the Italian army, and the army of the Czech Republic. (Photo by Spc. Ubaldo Lechuga, U.S. Army)



# 2024–2025 Dubik Fellows

## Demonstrating the Pen Is Mightier than the Sword

Col. Todd Schmidt, PhD, U.S. Army

Nearly a year ago, with the approval of senior leadership, Army University Press (AUP) began developing a nonresident writing fellowship designed to mirror similar, existing nonresident fellowship opportunities at military service academies, think tanks, and institutes. The original concept of the nonresident fellowship was to create a prestigious program supporting the Harding Project initiative. The Harding Project is a chief of staff of the Army effort, championed by Gen. Gary Brito, commander of the U.S. Army Training and Doctrine Command, to strengthen the Army profession.

The intention of the nonresident fellowship is to deliberately build annual cohorts of Fellows over time, employed across the military and civil society, who are empowered and encouraged to participate and engage in professional military discourse. Opportunities for Fellows include potential participation in projects that include film production in support of professional military education, working with a team at AUP in book editing and production, and, of course, publishing professional articles with AUP's *Military Review* and other similar platforms. Over time, the desired steady state is a growing community and network of dedicated professionals committed to championing writing, sharing, and improving our collective ability to absorb information, think critically, analyze thoughtfully, and communicate effectively.

The fellowship namesake, retired Lt. Gen. James M. Dubik, is the author of several books and countless articles written over the course of his retirement and his



Col. Todd Schmidt, PhD, U.S. Army  
Director, Army University Press

thirty-seven years of active military service. His last assignment in the Army was commanding general of the Multinational Security Transition Command–Iraq and the NATO Training Mission–Iraq, from 2007 to 2008. Currently, he teaches at Georgetown University and has served as a senior Fellow and member of the Institute of Land Warfare, the Institute for the Study of War, and the Council on Foreign Relations. He has completed fellowship and executive programs at the Massachusetts Institute of Technology and Harvard University's John F. Kennedy School of Government. Finally, he is a graduate of the U.S. Army School of Advanced Military Studies and holds a PhD in philosophy from Johns Hopkins University.

### Why the Dubik Fellowship?

One of the most prevalent questions I am asked by skeptics related to the Harding Project is, “What



Lt. Gen. James M. Dubik, U.S. Army, Retired

problem are we trying to solve?” Every time I am asked this question, I pause and take a deep breath. Rather than give a soundbite incorporating a command message, I endeavor to explain something that, to me, is glaringly obvious and imperative. First, military leaders must be able to write effectively to communicate, particularly at the strategic level. Second, as an Army, we have a long way to go to improve our professional writing ability.

To win war in the future, we must be able to outthink the enemy. To outthink an adversary requires training our intellectual selves. It requires developing our cognitive complexity and intellectual curiosity and our ability to receive, synthesize, and incorporate vast amounts of information. Experiential knowledge is a valuable heuristic for solving tactical challenges, but it is not enough to be exceptional at the strategic level. More plainly, we do not want senior leaders that achieve the highest ranks solely because of how they may have performed as a tactical leader at the battalion and brigade levels.

Average leaders often talk about the importance of being physically and mentally tough and the importance of physical and mental resilience. Yet, too often, leaders are unable and unwilling to challenge themselves mentally from an intellectual perspective. Developing our intellect can often be dismissed or disavowed.

Intellectual development can often be like “leg day” at the gym. Most people dread it. For a professional warrior-scholar, however, there is a deeper awareness, not just superficial acknowledgement, that professional reading and writing are the basic building blocks that develop our core ability to outthink our competitors. The Dubik

Fellowship aspires to contribute to this core ability to outthink the enemy.

Whether one agrees or disagrees about the influence and use of hard power, there is an aged truism undergirding the idiom, “The pen is mightier than the sword.” As English author Edward Bulwer-Lytton wrote in 1839,

*Beneath the rule of men entirely great  
The pen is mightier than the sword. Behold  
The arch-enchanters wand! Itself nothing!  
But taking sorcery from the master-hand  
To paralyze the Caesars—and to strike  
The loud earth breathless! Take away the sword  
States can be saved without it!*

Please join me in congratulating our inaugural cohort of scholars, the 2024–2025 class of Dubik Fellows:

Chaveso Cook, PhD  
Ryan Crayne, MBA  
Melissa Czarnogursky  
Noel DeJesus, MA  
Timothy Devine, MPA  
Nicholas DiMichele, MA, MPP  
Josephine Hessert, MD  
Nathan Jennings, PhD  
JohnPaul LeCedre, JD  
Matthew Moellering, MA  
Robert Rose, MPP, MPhil  
Christopher Salerno, MA  
Jared Stefani, MA  
Matthew Tetreau, MA, MS

They have served on the Office of the Secretary of Defense staff, the Army staff, and in operational units across the globe. They have served in a variety of organizations, including the U.S. Navy, the U.S. Army Reserve, multiple infantry divisions, the 75th Ranger Regiment, and the Joint Special Operations Command. They have diverse demographics, including senior non-commissioned officers and officers. All Fellows demonstrate a passion for professional education, writing, and scholarship. To learn more about our fellowship, please visit our Writing Fellows Program page on the AUP website at <https://www.armyupress.army.mil/journals/ltg-james-dubik-writing-fellows-program/>.

Over the course of the next year, this cohort of Fellows will contribute to our professional military discourse and shape the future of the Dubik Fellowship, professional military writing, and, hopefully, the Army. ■



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# **2024 General William E. DePuy Special Topics Writing Competition**

**This year's theme is "The Russia-Ukraine War"**

Russia and Ukraine have been at war since Russia invaded its neighbor on 24 February 2022. The intent of this year's DePuy competition is to encourage close examination of this war and what lessons it has provided for the Army. A list of suggested topics for examination is provided below. However, the list is not exclusive, and manuscripts identifying and analyzing other salient topics are encouraged.

- What lessons have we learned from the Russia-Ukraine war so far?
- How do lessons from this war affect/influence how we approach Field Manual 3-0, *Operations*, and large-scale combat operations?
- Based on lessons learned from this conflict, what needs to change in U.S. Army doctrine?
- What have we learned about the evolution and the future of maneuver warfare (armor, fires, unmanned aircraft, etc.)
- Based on lessons learned from this conflict, what are the impacts of technology on modern warfare (e.g., cell phones, computers, artificial intelligence)?
- How do the Russian and Ukrainian approaches to information operations compare? Psychological operations? Civil-military operations? Who has been more effective? How have social and traditional media affected the war for each side?
- How does this conflict inform the Army of 2030–2040?
- How does this conflict influence U.S. adversaries? What are our adversaries learning?
- What are our allies learning from this conflict? How will it affect U.S. relationships with its allies? With NATO?
- How does this conflict affect/influence the U.S. approach in the Indo-Pacific?
- Based on what we have seen in this conflict, what is the role of the interagency at the operational level?

**Competition opens 1 January 2024 and closes 19 July 2024**

1st Place: \$1,000 and publication in *Military Review*  
2nd Place: \$750 and consideration for publication in *Military Review*  
3rd Place: \$500 and consideration for publication in *Military Review*

Prize money contributed by the Association of the United States Army

For information on how to submit an entry, please visit <https://www.armyupress.army.mil/DePuy-Writing-Competition/>. Articles will be comparatively judged by a panel of senior Army leaders on how well authors have clearly identified discussion topics related to the Russia-Ukraine war relevant to the U.S. Army; how effectively detailed and feasible analysis of the issues identified is presented; and the level of expository skill the author demonstrates in developing a well-organized article using professional standards of grammar, usage, critical thinking, original insights, and evidence of thorough research in the sources provided.



- 9      The NATO Strategic Concept on Its Seventy-Fifth Anniversary**  
Dr. John R. Deni  
Dr. Sten Rynning  
*NATO must define a new containment policy vis-à-vis Russia that clarifies the nature of NATO's commitment to Ukraine's independence and sovereignty, and it must reinforce and continuously adapt its collective defense posture and notably ensure that all of NATO-Europe implements it.*
- 20     Who in NATO Is Ready for War?**  
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- 37     NATO's Most Vulnerable Flank, but Not for the Reasons We Think**  
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Maj. Gustavo F. Ferreira, PhD, U.S. Army Reserve  
Bill Erysian, PhD  
Lynn Williams, PhD  
*Early actions and planning by Baltic states and NATO military leadership and policymakers must be geared toward building resilient regional food systems in the Baltic states so they can withstand a major disruptive event such as a Russian military invasion or a naval blockade.*
- 48     From the Hindu Kush to the Banks of the Dnieper**  
**NATO's Promise and Peril in a New Reality**  
Col. Jerry Landrum, PhD, U.S. Army  
Lt. Col. John Nagl, DPhil, U.S. Army, Retired  
*Since its tumultuous birth seventy-five years ago, NATO's ability to maintain credible deterrence in the face of threats and to adapt in changing times has reinforced its vital importance. NATO now faces its greatest challenge as its most important partner debates again whether it will devote American treasure and armed force to the pursuit of peace.*
- 57     North Atlantic Treaty Organization**  
Col. Maddrey A. Solomon, U.S. Army  
*Published in September 1951, the first article in Military Review exclusively discussing NATO provides readers with a summarized overview of the organization's charter, structure, and administrative operations, and emphasizes that NATO is exclusively defensive in nature.*
- 58     Architects of Training**  
**Assessing How TRADOC Makes Soldiers for the All-Volunteer Force**  
Chaplain (Lt. Col.) Nathan H. White, PhD, U.S. Army Reserve  
Katherine Voyles, PhD  
*Viewing the history of the all-volunteer force through the lens of the development of Training and Doctrine Command reveals that overemphasizing preparation for the tactical level of war may have real consequences for readiness in today's complex operational environment.*
- 72     Marketing Authoritarianism**  
**How Putin and Xi Cultivate Isolationism**  
Kyle Morgan  
*Modern isolationism is the latest weapon in the arsenals of authoritarian regimes. If the international community and policymakers turn a blind eye toward authoritarian expansionism, the oversight will be to the detriment of international security.*
- 81     What's the Big Idea? Major General Fremont and the Foundation of an Operational Approach**  
Col. Christopher Wilbeck, U.S. Army, Retired  
*Formulating a coherent concept of how you will achieve your designated strategic objectives—in other words, having an idea—is a necessary foundation upon which all following aspects of planning are built. Without a central, unifying concept to tie and guide the actions, the plan is likely to be a collection of disjointed, unfocused, ineffective, and possibly counterproductive activities.*



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Maj. Gen. Gregory K. Anderson, U.S. Army

Col. Brian M. Ducote, U.S. Army

Lt. Col. D. Max Ferguson, U.S. Army

Maj. Mark G. Zwirgzdas, U.S. Army

*The U.S. Army will rely on light infantry divisions to fight and win in rugged and inhospitable terrain and in small and potentially isolated formations during large-scale combat operations. U.S. Army infantry must become the lighter, more self-sufficient, and lethal formation that the modern battlefield demands.*

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Adam Fenner

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Maj. Gregory Barry, U.S. Army

*Mountainous and severely restrictive terrain are the province of light infantry formations, and 10th Mountain Division senior leaders recognize the necessity of a versatile, adaptable, and rapidly deployable fighting force that meets the unique challenges posed by diverse mountainous terrains.*

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Col. Thomas Goettke, U.S. Army

Dr. Richard Wittstruck

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Maj. Kyle D. Peatfield, U.S. Army

Chief Warrant Officer 3 Armstrong B. Henri, U.S. Army

Chief Warrant Officer 3 Austin W. Johnson, U.S. Army

Chief Warrant Officer 2 Curt Ault, U.S. Army

Chief Warrant Officer 2 Amber L. Martin, U.S. Army

Master Sgt. Caleb J. Gallagher, U.S. Army

*Pivoting away from the Global War on Terrorism's sustainment structure while gleaning lessons learned from the mountains of Afghanistan to enable operations in alpine terrain remains key to the 10th Mountain Division maintaining its overmatch against its adversaries.*

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The 2022 Brussels summit in Belgium, a meeting of the heads of state and government of NATO, took place 24 March 2022 at NATO's headquarters just one month after the February 2022 Russian invasion of Ukraine. Following the summit, leaders released a joint statement condemning the attacks on civilians and calling on Russia to immediately suspend military operations in Ukraine. (Photo courtesy of NATO)

# The NATO *Strategic Concept* on Its Seventy-Fifth Anniversary

Dr. John R. Deni

Dr. Sten Rynning

**T**he North Atlantic Treaty Organization (NATO) will celebrate its seventy-fifth anniversary at its 2024 summit in Washington,

D.C. NATO's age tells a story of alliance endurance through Cold War tensions, a difficult Global War on Terrorism, and now major war on its doorstep in



Europe and a stubborn alliance search for conditions that enable peace. Remarkably, NATO's founding treaty speaks of no evil.<sup>1</sup> It does not mention or define any threat that NATO must counter. Instead, and setting the alliance on the path of enduring political relevance, the treaty is centered on the allies' determination to "safeguard the freedom, common heritage and civilization of their peoples, founded on the

**Dr. John R. Deni** is

research professor of security studies at the U.S. Army War College's Strategic Studies Institute, a nonresident Senior Fellow at the Atlantic Council, and a nonresident Associate Fellow at the NATO Defense College. Previously, he worked in Europe as a political advisor for senior U.S. military commanders. Before that, Deni spent several years in Washington, D.C., as a consultant for the Pentagon, the State Department, and the Department of Energy. Deni has a bachelor's degree from the College of William and Mary, a master's from American University, and a doctoral degree from George Washington University. He is the author of three books on European security and the editor or coeditor of several others. He's also authored peer-reviewed monographs and journal articles, and his essays have appeared in the *Wall Street Journal*, *Washington Post*, *Los Angeles Times*, *Foreign Policy*, *Politico*, and *War on the Rocks*.

principles of democracy, individual liberty and the rule of law."<sup>2</sup>

Naturally, as a political-military alliance, NATO regularly assesses threats and challenges. Its framework document in this regard is the alliance's *Strategic Concept*, which sets NATO's political compass and guides the alliance's detailed military planning. Strategic concepts in an alliance of thirty-two member states are tedious to negotiate, so allies aim for a document and framework that endures. However, all recognized that the last *Strategic Concept* from 2010 was, and certainly

**Dr. Sten Rynning** is a

professor of war studies and the author of *NATO: From Cold War to Ukraine, A History of the World's Most Powerful Alliance* (Yale University Press, 2024). In 2021, he was knighted by Queen Margrethe II of Denmark, and in 2023, he became the director of the Danish Institute for Advanced Study, University of Southern Denmark.

by 2022, extraordinarily outdated given the major war Russia had unleashed on Ukraine and the changes to the Euro-Atlantic security order.<sup>3</sup>

The question is how well the 2022 *Strategic Concept* has stood up over the last two years of war in Ukraine and other aspects of the evolving security environment.<sup>4</sup> The war broke out in February 2022, giving the alliance some four months to adjust its compass before signing off on the *Strategic Concept*. But in a strategic environment, four months are like the blink of an eye. We assert that Russia's war in Ukraine enabled NATO to set a clearer strategic course and to assess its security environment in bold terms. However, we argue that Russia's appetite for geopolitical revision and its resilience during the war are proving so strong and significant that NATO must critically review the political-military foundations of its *Strategic Concept* and specifically address the challenge that Russia could succeed in cleaving the alliance's political will from its military means.

Moving forward, NATO must do more to rethink the ends, ways, and means of the Euro-Atlantic area. NATO must define a new containment policy vis-à-vis Russia that clarifies the nature of NATO's commitment to Ukraine's independence and sovereignty, and it must reinforce and continuously adapt its collective defense posture and notably ensure that all of NATO-Europe implements it.

## The Ukraine War and NATO's Evolving Security Environment

The 2022 *Strategic Concept* was finalized at a critical time—just as Europe's largest, bloodiest conflict since World War II was unfolding. Gauging whether it is truly fit for purpose now and looking forward requires assessing the security environment the new *Strategic Concept* has landed amid. From a strategic perspective, five war takeaways have emerged over the last two years. First, Russia is as unpredictable and threatening as newer alliance members have long warned. Moscow did not need to unleash a devastating invasion and war to achieve what many have long presumed were its strategic imperatives vis-à-vis Ukraine—namely, to maintain influence over its politics and its economy and to keep it out of Western intergovernmental institutions like the European Union and NATO. Ubiquitous Ukrainian corruption—tied inextricably



to Russian corruption—and the occupation of Crimea and most of the Donbas had effectively put Ukrainian integration with the West on ice.<sup>5</sup> Yet Vladimir Putin invaded anyway. The Kremlin's incomprehensible risk tolerance and seeming irrationality must now factor into NATO's outlook over the next decade, particularly given Putin's reelection in March 2024.

Second, arms control regimes, norms, and laws of warfare have lulled the West into a false sense of security and have become irrelevant when they are needed most. Although the Conventional Armed Forces in Europe Treaty has long been moribund, the entire architecture of formal and informal restraints erected in Europe over the last fifty years has been shown nearly useless in the face of Russian aggression.<sup>6</sup> Attacks on civilian infrastructure and massacres of civilians in places like Bucha—while stunning in their brutality and inhumanity—look no different from what our grandparents witnessed in World War II. In the end, assuming Russia would be shamed from its aggressive path because it regularly violated the Vienna Documents in the run-up to the war or that it would be restrained by fears of war crime accusations amount to not much more than hope.<sup>7</sup>

Third, the private sector has come to play a vital role in modern warfare. The most obvious examples include Elon Musk's Starlink internet service in Ukraine or the use of civilian infrastructure to move materiel and supplies across Europe and into Ukraine. Obviously, the private sector has long played a role in modern, industrialized warfare. Today, though, the degree of privatization or semiprivatization of things like transportation infrastructure makes collaboration between governments and commercial actors critical.

Fourth, China has clearly sided with Russia, a country with which it purportedly shares a "limitless" partnership.<sup>8</sup> However, it has yet to assume the role of the "arsenal of authoritarianism," providing Moscow with the massive quantities of ammunition and equipment necessary to overwhelm Ukraine.<sup>9</sup> Instead, China is providing Moscow with all the precursors and raw materials necessary to rebuild its shattered ground forces.<sup>10</sup> Meanwhile, North Korea and Iran are each doing their part to ensure Russia's success, but one can imagine a Kremlin victory would come far sooner if China opened the military materiel spigots. The most obvious reason why this has not occurred yet is the Chinese Communist Party continues to perceive domestic



NATO 2022 *Strategic Concept*, available online at [https://www.nato.int/cps/en/natohq/photos\\_213903.htm](https://www.nato.int/cps/en/natohq/photos_213903.htm).

control—and hence domestic economic prosperity—as its most important interest. Raising the ire of China's most important, wealthiest customers in North America and Europe through a more robust posture of arming Russia could fundamentally worsen the immense structural challenges confronting Beijing.<sup>11</sup>

Finally, the war has shown that the West's universal values—including seemingly fundamental concepts like state sovereignty and human rights—are not universally shared. Most of the so-called Global South views the war and Russia's role in it with benign neglect. Certainly, the UN General Assembly condemned Moscow's invasion.<sup>12</sup> Yet actually *doing* something beyond the rhetorical—like joining in sanctions against Russia—remains a bridge too far for most of the globe.

## The Painful Birth of NATO's 2022 Strategic Concept

Well before Russia's second invasion of Ukraine though, there was a pervasive sense that NATO's former 2010 *Strategic Concept* was dated. Russia had illegally annexed Crimea in 2014, and China was aggressively challenging the international order by the mid-2010s.<sup>13</sup> But allies were divided on what to do. Was partnership still possible with Russia? Was China

mostly an economic rival or a geopolitical challenge, and relatedly, was NATO the right place to address China? The transatlantic politics involved in the Trump presidency (2017–2021) proved so intense that the alliance could not move forward. Thus, at the Leaders Meeting in December 2019, NATO leaders decided to kickstart a reflection process that could lead to a new strategic concept and then also decided that they would not meet again in 2020.<sup>14</sup> In short, they wanted to await the U.S. presidential elections of November 2020 and in the meantime reflect and prepare.

Alliance officials and diplomats know how to exploit time to gain consensus. They thus organized a Reflection Group, which by late 2020 had produced a catalog of new ideas, and they had Secretary General Jens Stoltenberg run a parallel track of policy preparations.<sup>15</sup> By the summer of 2021, the allies agreed on a set of broad priorities for what they knew would become a new strategic concept by 2022. They continued to disagree on the implications of “strategic competition,” but that is where Russia’s choice of war in 2022 clarified matters.<sup>16</sup> The top priority was now unmistakably Russia and collective defense, and it was clear that China somehow was in bed with Russia.

Even though allies realized that they needed to collectively address a new age of strategic competition, they also knew that NATO does not have the luxury of doing just one thing, given the disparity of interests among its members. By implication, strategic competition meant different things to different allies. More specifically, the remaining questions were how tough to go on Russia, how to fit China into the framework, and how to placate southern European members more concerned with instability, insecurity, and underdevelopment in the Middle East and Africa.

Following intense debate, allies ultimately clarified some matters and obscured others. Among the items clarified, the 2022 *Strategic Concept* refers to Russia as the “most significant and direct threat.”<sup>17</sup> It lists some of Russia’s key modalities, including coercion, subversion, aggression, and annexation. Considering all this, it says, “We cannot consider the Russian Federation to be our partner”—in effect, annulling the “true strategic partnership” that NATO held out in its 2010 *Strategic Concept*.<sup>18</sup> NATO had sought partnership, but Russia had chosen enmity and war, and NATO would now have to adapt accordingly.

The *Strategic Concept* also identifies terrorism as the most “direct asymmetric threat to the security of our citizens and to international peace and prosperity.”<sup>19</sup> There is a caveat built into this assessment in the sense that the threat concerns the citizens, not the member states as such, and that the threat is wide and international. In other words, NATO is taking the threat seriously but may not always be well poised to *do* something about it. Domestic policing and intelligence agencies may be better suited for the task, as may be the case for international development and conciliation agencies.

For NATO, though, including this threat was necessary to placate the southern tier of allies who are most affected by the regional turbulence spilling over from Africa and the Middle East. In the *Strategic Concept*, terrorism is thus followed by an assessment of “conflict, fragility, and instability” in NATO’s southern neighborhood.<sup>20</sup> Even though the alliance has a poor history of imposing stability abroad (see Afghanistan and Libya), inclusion of this issue was necessary to satisfy the concerns of several non-Eastern allies and to create at least the appearance of balance in geographical priorities.

China earned a particularly important place in the *Strategic Concept*, specifically, the People’s Republic of China’s “stated ambitions and coercive policies” are seen as a “challenge” to NATO interests, security, and values.<sup>21</sup> This mention of China is simultaneously noteworthy and inadequate. It is noteworthy because it marks the first time the People’s Republic has ever been mentioned in a strategy for the security of the North Atlantic region. It is noteworthy also because of the multiple critical references to China’s desire to “project power,” to remain “opaque” about its strategy and intentions, to run “malicious” hybrid and cyber operations, and to “subvert” the current international order.<sup>22</sup> China may be a mere “challenge”—which in NATO’s hierarchy of priorities places it beneath Russia and terrorism “threats”—but it is clearly also a geopolitical factor of growing NATO concern.

Yet, the *Strategic Concept* seems inadequate given the role that China plays today in influence operations against European government, cyberattacks against European institutions, intellectual property theft of dual-use technology, and even sabotage of critical European infrastructure in coordination with Russia.<sup>23</sup> “The threats we face are global and interconnected,” which is how NATO prefaced its *Strategic Concept* assessment





At the 2023 Vilnius summit in Lithuania, heads of state and government, including (from left to right) Turkish President Recep Tayyip Erdoğan, British Prime Minister Rishi Sunak, and U.S. President Joe Biden, welcome Ukrainian President Volodymyr Zelenskyy to the first NATO-Ukraine Council meeting on 12 July 2023. The purpose of the NATO-Ukraine Council is to “support Ukraine’s further integration with NATO.” (Photo courtesy of NATO)

of the strategic environment.<sup>24</sup> Nonetheless, NATO’s political ability to put straight words to the interconnect- edness of Russia and China and China’s strategic agility across operational domains is less than impressive.

## How Russia’s War Continues to Challenge NATO

With the *Strategic Concept*—the alliance’s ends— now approved, the continuing challenge for allies is to ensure its means and ways measure up to the dynamic policies of Russia and China and ensure the alliance’s political will remains integrated with its military posture. The war in Ukraine already offers several key operational takeaways that will impact NATO and provide the basis for at least a preliminary assessment of whether alliance means and ways are meeting the moment. First, and most obviously, among those take- aways is that large-scale warfare is back. NATO allies concluded this was probably the case following Russia’s first invasion of Ukraine in 2014, but the reality was

hammered home by the scale of the second invasion starting in February 2022.

Second, ubiquitous battlefield intelligence, surveil- lance, and reconnaissance have long been expected, giv- en the proliferation of unmanned aircraft around the world over the last two decades.<sup>25</sup> However, seeing this phenomenon play out in an era of large-scale warfare between two developed European countries has had an amplifying effect.

Third, and related to the strategic observation above on the commercial sector, the war in Ukraine has shown the importance of large-scale logistics under- written by a robust, flexible defense industrial capacity. In an era of potential large-scale conflict between stra- tegic competitors or their proxies, the ability to pro- duce, move, store, maintain, and sustain at scale is vital.

Finally, the conduct of the war also reminds us of the difficulty of trying to teach old dogs new tricks. Defense reform defined broadly remains elusive in much of eastern Europe, despite, in some cases, decades

of exposure to Western concepts, doctrine, tactics, techniques, and procedures.<sup>26</sup> This is especially evident today in Ukraine, where Western maneuver warfare has often given way to Soviet-era tactics, contributing to the limited gains on the battlefield during 2023.<sup>27</sup>

Few of these—or other—operational takeaways from the war made it into the 2022 *Strategic Concept*, partly because the document was largely completed by the time the operational lessons began to emerge and partly because the document rightly remains at the strategic level, well above the operational. That said, some strategic takeaways identified above are discernable within the *Strategic Concept*. For example, the *Strategic Concept* notes that authoritarian actors challenge NATO interests, values, and democratic way of life. In principle, such a Manichean view of the world is intuitively appealing—NATO as a democratic community is an easy sell among most allied citizens. But in practice, it flies in the face of authoritarian tendencies among a small number of allies as well as the alliance’s long history of having authoritarian regimes among its members on occasion.

Beyond these operational takeaways, the Ukraine war also challenges NATO in a wider geopolitical sense. The future place of Ukraine in the Euro-Atlantic security architecture remains a political headache, and it is growing more acute as the war continues. The *Strategic Concept* paints with a very broad brush on these issues. It contains four references to Ukraine, which is not an overwhelming level of attention paid to a European country subjected to major armed assault. NATO declares early in the *Strategic Concept* that “a strong, independent Ukraine” is “vital” for the stability of the Euro-Atlantic area. And it later “reaffirms” the 2008 Bucharest decision “with respect to Georgia and Ukraine.”<sup>28</sup>

The *Strategic Concept* thus does not spell out the Bucharest decision—that Ukraine will become a member of NATO—nor does it provide a sketch of a roadmap for achieving it. At NATO’s summit in Lithuania in July 2023, the allies continued to diverge on the concrete implications of the Bucharest decision. They did agree that Ukraine’s path to NATO membership did not need to include the somewhat tortuous Membership Action Plan, but they then detoured the fast track to membership into a new NATO-Ukraine Council, the purpose of which is to “support Ukraine’s further integration with NATO.”<sup>29</sup>

If Ukraine was winning outright on the battlefield, things would be simpler for NATO. The alliance could await victory and then offer membership once the dust settles. But Ukraine continues to struggle, and NATO is being forced into a position where it must consider ways to secure and stabilize Ukraine even as Russian forces occupy considerable portions of the country. Russia’s war on Ukraine thus compels NATO allies to revisit their operational blueprints for effective self-defense and deterrence and their geopolitical design for continental stability, and the 2022 *Strategic Concept* is but a starting point for allied responses.

## Allied Responses—Mapping Means and Ways to Ends

Given the security environment, the related strategic and operational implications, and the framing, or scaffolding, provided by the 2022 *Strategic Concept*, how have the allies responded regarding command and force structure, defense planning, operational planning, posture, or strategic deterrence? Although there is evidence of progress toward fulfilling the vision laid out across all three of the slightly revised core tasks—deterrence and defense, crisis prevention and management, and cooperative security—the weight of activity over the last two years has clearly been aimed at strengthening alliance deterrence and defense.

The most prominent manifestations of this are launching a new force model and related regional defense plans. Recognizing that it needed to better prepare its defenses against Russia, the alliance drafted a series of regional plans. These plans earmark specific allied forces and capabilities for the defense of allied territory. Previously, NATO based its operational planning on somewhat more vague operational typologies without regard for a specific adversary or a particular geography. The new operational plans were approved formally by allied heads of state and government at the Vilnius summit and addressed the requirements to defend the alliance in the north, south, and southeast.

The alliance also launched a new force model at its 2022 Madrid summit to source the forces required for the operational plans. At that time, the secretary general outlined a three-layer force structure consisting of Tier 1 forces ready for deployment in the first ten days of a crisis, Tier 2 forces ready between eleven and 180 days, and Tier 3 forces ready beyond 180 days.<sup>30</sup>





A Swedish marine watches from the gun turret of his CB-90 fast assault boat as the USS *Gunston Hall* approaches near Tovik, Norway, on 1 March 2024, just prior to the beginning of Exercise Nordic Response 24. More than twenty thousand soldiers from thirteen nations, including NATO's newest members, Finland and Sweden, took part in drills that lasted nearly two weeks in the northern regions of Finland, Norway, and Sweden. (Photo courtesy of NATO)

Additionally, the allies created a new Allied Reaction Force (ARF) that functions as the 9-1-1 force, ready to deploy within hours. Multinational and multidomain, the ARF is not tied to any specific geographic region.

The new NATO Force Model and the ARF replace the NATO Response Force and its spearhead unit, the Very High Readiness Joint Task Force.<sup>31</sup> More broadly though, the NATO Force Model was designed to be a more systematic organization of the entire force pool, which is comprised of mostly land formations but includes air, maritime, cyber, and space forces.<sup>32</sup> The NATO Force Model is intended to facilitate geographic specificity required by the new plans and, therefore, to enable the identification of regional expertise requirements across the total alliance force pool. If done correctly, every force element across the alliance should know its place in the plans so that it can train and exercise in preparation for its specific role in collective defense.

At the same time though, the *Strategic Concept* commits the allies to ensuring that they can also deploy and sustain military and civilian crisis management, stabilization, and counterterrorism operations, including at

strategic distance. Given the limitations evident across the alliance in terms of manpower alone, this seems like a tall order when layered atop the requirements of collective defense in Europe.

The alliance's posture to date seems ill-suited to achieving deterrence by denial. Although the *Strategic Concept* does not use this phrase, it does state the alliance will "deter and defend forward," which amounts to the same.<sup>33</sup> In any case, achieving this goal remains on the alliance's "to-do" list, particularly regarding the defense of the Baltic states. The horrors of Bucha, the abduction of Ukrainian children, and the relentless attacks on civilian infrastructure have convinced many in the West that NATO must achieve deterrence by denial, at least in northeastern Europe versus reinforcing allies there after a conflict or crisis begins.<sup>34</sup> However, instead of bulk-ing up the alliance posture in northeastern Europe, the allies have spread the peanut butter a little more thinly, creating Enhanced Forward Presence units—or what are increasingly referred to as forward land forces—in Slovakia, Hungary, Romania, and Bulgaria.<sup>35</sup> Beyond the political symbolism, why allies (Slovakia, Hungary, and



NATO Secretary General Jens Stoltenberg (*second from left*) and Ukrainian President Volodymyr Zelenskyy hold a bilateral meeting 20 April 2023 in Kyiv. This was Stoltenberg's first visit to Ukraine since the invasion began in 2022. (Photo courtesy of NATO)

Bulgaria) with little to fear from Russian land forces or allies (Romania and Bulgaria) facing greater threats from Russian missiles, drones, and submarines would need or want land-centric allied units is a mystery.

Meanwhile, the alliance's approach to nuclear issues remains partly hamstrung by an unwillingness to fully and openly address the imbalance evident when considering Russian and Western capabilities and capacities in the European theater.<sup>36</sup> Russia maintains a formidable mobile nuclear arsenal in Kaliningrad and Belarus, and it has a strong record of issuing nuclear threats.<sup>37</sup> Responding to these challenges and reversing the imbalance is taking time, as many allies still await deliveries of dual-capable F-35s. However, there are reasons to think that even if they acquired them immediately, the alliance's nuclear posture would still be insufficient in quantity and perhaps quality as well.<sup>38</sup>

At a broader geopolitical level, while keenly aware of the stakes involved in the war in Ukraine, the alliance *per se* has been at pains to pull Kyiv closer while simultaneously keeping support for the war at arm's length. The military, financial, and humanitarian aid channeled to Ukraine is at the behest of individual countries acting as such and not as NATO allies or countries acting in

coalition, such as the Ukraine Defense Contact Group. There is no NATO stamp on the lethal aid going to Ukraine's embattled forces. NATO's secretary general, Jens Stoltenberg, also did not visit President Volodymyr Zelenskyy in Kyiv, Ukraine's capital, until April 2023, more than a full year into the war. This reflected NATO's political masters reigning in the presence of the alliance in the war, eager to avoid escalation and fulfillment of Russia's narrative.<sup>39</sup>

For some allies, another key way of avoiding escalation has been to delay Ukraine's membership into the alliance. However, failing to offer Ukraine NATO membership could be seen as succumbing to Russia's balance of power politics. A Ukraine left outside a collective defense umbrella could *de facto* become pulled into Russia's security sphere, meaning Russia would have succeeded in arresting NATO's post-Cold War promise of a Europe "whole and free"—a vision first outlined by President George H. W. Bush in 1989—and in imposing a balance of spheres of interest.<sup>40</sup>

NATO allies have punted this football. Their 2023 summit decision to set up a NATO-Ukraine Council was tantamount to buying time.<sup>41</sup> Whether this, coupled with some advice on meeting conditions for



membership, will satisfy those members of the alliance most supportive of a faster track for Kyiv's candidacy remains doubtful.<sup>42</sup> They may force those who would prefer to avoid this contentious topic at the July 2024 Washington summit to offer more refined political thinking on how to pull NATO through this squeeze between escalation and capitulation.

What seems certain is that Ukraine, in the long run, challenges NATO to deepen its thinking on its political vision. If NATO's goal, as expressed in the 2022 *Strategic Concept*, is a world in which "sovereignty, territorial integrity, human rights and international law are respected and where each country can choose its own path, free from aggression, coercion or subversion," then it needs to consider that there cannot be "border lands"—countries like Ukraine, stuck between the West and Russia.<sup>43</sup> Russian leaders remain bent on conflating their own security with dominance over their neighbors, which, of course, is the opposite of sovereignty.

For this reason, fulfilling its vision must involve a clear-eyed view of not only NATO's long-term Russia strategy but also the path to greater European defense contribution and leadership inside the alliance. This is particularly the case given the debate surrounding comments made by a leading U.S. presidential candidate, which appears to threaten American abandonment of European allies.<sup>44</sup> NATO's thinking on these issues will predictably take time and involve a considerable amount of summitry and day-to-day consultations in NATO headquarters.

## NATO's Washington Summit and Beyond

NATO's 2022 *Strategic Concept* has invigorated the alliance's collective defense commitment. It designates Russia as the alliance's most significant and direct

threat. And it commits allies to developing the force posture for effective defense and deterrence. There is thus a clear ends, ways, and means structure to the 2022 *Strategic Concept* that its 2010 predecessor lacked.

However, as we have argued, NATO political and military authorities must continuously upgrade this structure considering the situation on the battlefield in Ukraine and of wider geopolitical events, not least China's role in supporting Russia's war. Two issues are paramount in NATO's continuing search for an integrated political-military strategy. First, allies need a military force concept that ensures continuous adaptation to commercial sector and battlefield innovations, and they need to ensure that this concept comes to life in European defense enterprises. Inevitably, these allies will have to do a lot of the heavy lifting of forward defense and must adapt. In short, NATO's military rubber needs to meet the road.

Moreover, NATO needs to connect this force concept to its political vision for Ukraine. Eventually, the alliance's forward defense will need to stretch from Finland, down through the Baltics, into Poland, across northern Ukraine, along the Donbas, and down to Odessa. If NATO plays a longer game, it will still have to consider how members' national forces in various formats can meaningfully assist Ukraine while defending and deterring aggression against what is likely to be a significant enlargement—geopolitically and operationally—of NATO territory.

NATO's new *Strategic Concept* is a prescription for thorough, top-to-bottom political-military dialogue for the purpose of strategy. Events on Ukraine's battlefield show that NATO can still improve in this classical art. ■

*The views expressed are the authors' own, and do not necessarily reflect those of their respective employers or governments.*

## Notes

1. North Atlantic Treaty, 4 April 1949, 63 Stat. 2241, 34 U.N.T.S. 243, [https://www.nato.int/cps/en/natohq/official\\_texts\\_17120.htm](https://www.nato.int/cps/en/natohq/official_texts_17120.htm).

2. *Ibid.*, 244.

3. NATO, *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization* (Brussels: NATO, 19 November

2010), [https://www.nato.int/cps/en/natohq/official\\_texts\\_68580.htm](https://www.nato.int/cps/en/natohq/official_texts_68580.htm) [hereinafter cited as 2010 *Strategic Concept*].

4. NATO, *NATO 2022 Strategic Concept* (Brussels: NATO, 29 June 2022), [https://www.nato.int/cps/en/natohq/topics\\_210907.htm](https://www.nato.int/cps/en/natohq/topics_210907.htm).

5. Vladimir Isachenkov, "Ukraine's Integration into West Dashed by War and Corruption," Associated Press, 26 March 2019, <https://apnews.com/article/b3391176601149a88a08d7849e8a509f>; Anders Åslund, "The Maidan and Beyond: Oligarchs,

Corruption, and European Integration," *Journal of Democracy* 25, no. 3 (July 2014): 64–73, <https://doi.org/10.1353/jod.2014.0055>; Gustav Gressel, "Keeping up Appearances: How Europe Is Supporting Ukraine's Transformation" (Berlin: European Council on Foreign Relations, 5 October 2016), <https://ecfr.eu/publication/keeping-up-appearances-how-europe-is-supporting-ukraines-transformation/>.

6. "The Conventional Armed Forces in Europe (CFE) Treaty and the Adapted CFE Treaty at a Glance," Arms Control Association, last reviewed November 2023, accessed 7 March 2024, <https://www.armscontrol.org/factsheet/cfe>.

7. "The Vienna Document," Arms Control Association, last reviewed February 2023, accessed 7 March 2024, <https://www.armscontrol.org/factsheets/ViennaDoc99>.

8. Chao Deng et al., "Putin, Xi Aim Russia-China Partnership against U.S.," *Wall Street Journal* (website), 4 February 2022, <https://www.wsj.com/articles/russias-vladimir-putin-meets-with-chinese-leader-xi-jinping-in-beijing-11643966743>.

9. Kyle Mizokami, "China May Give 'Lethal Support' to Russia. Here's What Those Weapons Might Be," *Popular Mechanics* (website), 23 February 2023, <https://www.popularmechanics.com/military/weapons/a43028499/china-may-give-weapons-to-russia/>.

10. Michael R. Gordon, Warren P. Strobel, and Alan Cullison, "China Has Helped Russia Boost Arms Production, U.S. Says," *Wall Street Journal* (website), 12 April 2024, <https://www.wsj.com/politics/national-security/china-russia-arms-production-help-c098c08b>.

11. Stella Yifan Xie, "China's Economy Faces Deepening Troubles in Years Ahead," *Wall Street Journal* (website), 18 October 2023, <https://www.wsj.com/world/china/chinas-economy-faces-deepening-troubles-in-years-ahead-6359b3e9>.

12. "UN General Assembly Calls for Immediate End to War in Ukraine," United Nations (UN) News, 23 February 2023, <https://news.un.org/en/story/2023/02/1133847>.

13. "China Island Tracker," Asia Maritime Transparency Initiative, Center for Strategic and International Studies, accessed 27 February 2024, <https://amti.csis.org/island-tracker/china/>.

14. NATO, "London Declaration: Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council," press release (2019) 115, 4 December 2019, [https://www.nato.int/cps/en/natohq/official\\_texts\\_171584.htm](https://www.nato.int/cps/en/natohq/official_texts_171584.htm).

15. Reflection Group Appointed by the NATO Secretary General, *NATO 2030: United for a New Era* (Brussels: NATO, 25 November 2020), [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf).

16. NATO, 2022 *Strategic Concept*, 1.

17. Ibid., 4.

18. Ibid.; NATO, 2010 *Strategic Concept*, 29.

19. NATO, 2022 *Strategic Concept*, 4.

20. Ibid.

21. Ibid., 5.

22. Ibid.

23. Claudia Chiappa and Pierre Emmanuel Ngendakumana, "Everything Indicates' Chinese Ship Damaged Baltic Pipeline on Purpose, Finland Says," Politico, 1 December 2023, <https://www.politico.eu/article/balticconnector-damage-likely-to-be-intentional-finnish-minister-says-china-estonia/>; John R. Deni et al., *China, Europe, and the Pandemic Recession: Beijing's Investments and Transatlantic Security* (Carlisle, PA: U.S. Army War College Press, 2022), <https://press.armywarcollege.edu/monographs/949/>; Stuart Lau and Paul de Villepin, "China Targeted European Lawmakers

with Cyberattacks, Washington Says," Politico, 27 March 2024, <https://www.politico.eu/article/china-targeted-european-lawmakers-cyberattacks-washington-says/>.

24. NATO, 2022 *Strategic Concept*, 3.

25. Yaroslav Trofimov, "Drones Everywhere: How the Technological Revolution on Ukraine Battlefields Is Reshaping Modern Warfare," *Wall Street Journal* (website), 28 September 2023, <https://www.wsj.com/world/drones-everywhere-how-the-technological-revolution-on-ukraine-battlefields-is-reshaping-modern-warfare-bf5d531b>.

26. Thomas-Durell Young, *Anatomy of Post-Communist European Defense Institutions: The Mirage of Military Modernity* (New York: Bloomsbury Academic, 2017).

27. Sam Skove, "Some Ukrainian Troops Are Still Using Soviet Methods, Despite US Training," *Defense One*, 7 April 2023, <https://www.defenseone.com/threats/2023/04/some-ukrainian-troops-are-still-using-soviet-methods-despite-us-training/384967/>.

28. NATO, "Bucharest Summit Declaration: Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council," press release (2008) 049, 3 April 2008, [https://www.nato.int/cps/en/natolive/official\\_texts\\_8443.htm](https://www.nato.int/cps/en/natolive/official_texts_8443.htm).

29. NATO, "Vilnius Summit Communiqué: Issued by NATO Heads of State and Government Participating in the Meeting of the North Atlantic Council," press release (2023) 001, 11 July 2023, [https://www.nato.int/cps/en/natohq/official\\_texts\\_217320.htm](https://www.nato.int/cps/en/natohq/official_texts_217320.htm).

30. "New NATO Force Model," NATO, accessed 7 March 2024, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2022/6/pdf/220629-infographic-new-nato-force-model.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/220629-infographic-new-nato-force-model.pdf).

31. "NATO Response Force, NATO, 27 July 2023, [https://www.nato.int/cps/en/natolive/topics\\_49755.htm](https://www.nato.int/cps/en/natolive/topics_49755.htm).

32. John R. Deni, *The New NATO Force Model: Ready for Launch?* (Rome: NATO Defense College, May 2024), <https://www.ndc.nato.int/download/downloads.php?icode=819>.

33. NATO, 2022 *Strategic Concept*, 6.

34. "Ukraine: Russian Forces' Trail of Death in Bucha," Human Rights Watch, 21 April 2022, <https://www.hrw.org/news/2022/04/21/ukraine-russian-forces-trail-death-bucha>; Edith M. Lederer, "UN: Russia Intensifies Attacks on Ukraine's Energy Facilities, Worsening Humanitarian Conditions," Associated Press, 6 December 2023, <https://apnews.com/article/russia-ukraine-un-humanitarian-winter-energy-attacks-4b7b9f5e4e07bce4f5abd183ce984618>; UN, "Deportation, Treatment of Ukraine's Children by Russian Federation Take Centre Stage by Many Delegates at Security Council Briefing," UN Meetings Coverage SC/15395, 24 August 2023, <https://press.un.org/en/2023/sc15395.doc.htm>.

35. "NATO to Set Up Units in Slovakia, Romania, Bulgaria, Hungary," Reuters, 24 March 2022, <https://www.reuters.com/world/nato-set-up-units-slovakia-romania-bulgaria-hungary-biden-2022-03-24/>.

36. Joe Gould, "NATO Members Set to Say They Won't Deploy Land-Based Nukes in Europe," *Defense News*, 12 June 2021, <https://www.defensenews.com/global/europe/2021/06/12/nato-is-preparing-to-ban-land-based-nukes-in-europe/>; Manuel Lafont Rapnouil, Tara Varma, and Nick Witney, "Eyes Tight Shut: European Attitudes towards Nuclear Deterrence," European Council on Foreign Relations, 9 December 2018, <https://ecfr.eu/special/eyes-tight-shut-european-attitudes-towards-nuclear-deterrence/>.

37. Jonathan Masters and Will Meroow, "Nuclear Weapons in Europe: Mapping U.S. and Russian Deployments," Council on Foreign Relations, 30 March 2023, <https://www.cfr.org/in-brief/nuclear-weapons-europe-mapping-us-and-russian-deployments>.



38. Frank Kuhn, "Making Nuclear Sharing Credible Again: What the F-35A Means for NATO," *War on the Rocks*, 14 September 2023, <https://warontherocks.com/2023/09/making-nuclear-sharing-credible-again-what-the-f-35a-means-for-nato/>; Gregory Weaver, "The Urgent Imperative to Maintain NATO's Nuclear Deterrence," *NATO Review*, 29 September 2023, <https://www.nato.int/docu/review/articles/2023/09/29/the-urgent-imperative-to-maintain-natos-nuclear-deterrence/index.html>.

39. Aitor Hernández-Morales, "Putin Accuses NATO of Participating in Ukraine Conflict," *Politico*, 26 February 2023, <https://www.politico.eu/article/vladimir-putin-accuse-nato-participate-ukraine-conflict-war-russia/>.

40. George H. W. Bush, "A Europe Whole and Free" (remarks to the citizens in Mainz, Federal Republic of Germany, 31 May 1989), <https://usa.usembassy.de/etexts/ga6-890531.htm>.

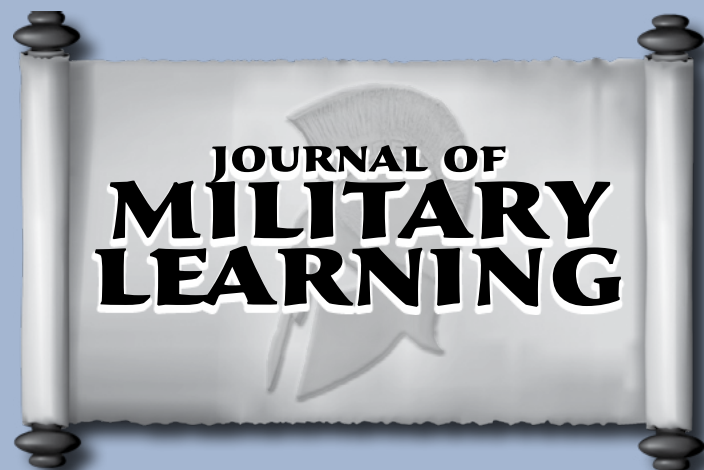
41. David Vergun, "NATO-Ukraine Defense Council to Be Established," U.S. Department of Defense News, 16 June 2023, <https://www.defense.gov/News/News-Stories/Article/Article/3431305/nato-ukraine-defense-council-to-be-established/>.

42. John Vandiver, "Ukraine Makes Its Pitch for Future NATO Membership at High-Level Talks," *Stars and Stripes* (website), 29 November 2023, <https://www.stripes.com/theaters/europe/2023-11-29/nato-ukraine-membership-blinken-12202282.html>.

43. NATO, *2022 Strategic Concept*, 2.

44. Michael Gold, "Trump Says He Gave NATO Allies Warning: Pay in or He'd Urge Russian Aggression," *New York Times* (website), 10 February 2024, <https://www.nytimes.com/2024/02/10/us/politics/trump-nato-russia.html>.

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Finnish army special operations soldiers with Utti Jaeger Regiment posture on a helicopter landing zone alongside U.S. Army Green Berets with 10th Special Forces Group (Airborne) in Lapland, Finland, 15 March 2023. The Utti Jaeger Regiment hosted Exercise Talvikotka 23 from 12 to 16 March 2023 inside the Arctic Circle to enhance and exchange winter warfare tactics and techniques. (Photo by Staff Sgt. Anthony Bryant, U.S. Army; this photo has been altered for security purposes)

# Who in NATO Is Ready for War?

Curtis L. Fox

**O**n 24 February 2022, large numbers of Russian ground forces invaded Ukraine. The mass assault included almost two hundred thousand soldiers and constituted the bulk of Russia's military expeditionary potential. A shockwave rolled through Europe as nations began

to grapple with their own capacities to resist such overwhelming military force. The traditional great powers of Europe (France, the UK, and Germany) and regional powers like Poland all realized that they could not put equivalent forces in the field of any potential future battle.



Europe has been under joint Anglo-American protection since 1941. Franklin Roosevelt and Winston Churchill convened a council of war as the United States geared up for its entry into World War II. They negotiated the creation of the Combined Chiefs of Staff, which was a joint Anglo-American high command that would write grand strategy, negotiate implementation, and manage day-to-day operations in all theaters of war.<sup>1</sup> The Americans benefited from hard-won British combat experience and know-how, while the British benefited from American resources and manpower. The Combined Chiefs of Staff demonstrated to both Washington and London that they were better together and often checked each other's excesses and incompetence. The successful D-Day invasion of 6 June 1944 further proved the efficacy of an Anglo-American invasion of Europe from the sea, establishing the framework for how the Americans would understand their role in European security for the next ninety years.

Following World War II, American and British leaders watched with alarm as the Soviet Union established socialist puppet governments across the Eastern Bloc. On 4 April 1949, the North Atlantic Treaty Organization (NATO) was founded to check Soviet-Communist expansion in Europe. Amongst the founding members were the United States, the United Kingdom, France, Belgium, Canada, Denmark, Iceland, Italy, Luxembourg, Netherlands, Norway, and Portugal. Additionally, three of the four occupation zones of postwar Germany were administered by the United States, the United Kingdom, and France.<sup>2</sup> In May 1949, these western occupation zones were combined, founding the Federal Republic of Germany (West Germany).

The United States has always occupied a pre-eminent position in NATO due to its vast military and financial resources (the table provides a useful comparison). Apart from the United States, the bulk of NATO combat power was historically provided by the United Kingdom, France, and Germany. But much has changed in recent decades. Are Germany, France, and the United Kingdom capable of deploying heavy ground forces in a timely response to the eruption of a major military confrontation with Russia? Are there other important hard power contributors to NATO?<sup>3</sup>

## Germany

Germany is a unique country in many regards. Its geography, climate, inland waterways, and industrious population ensure Germany will always be a powerhouse economy.<sup>4</sup> Unfortunately, the *Bundeswehr* (the German armed forces) is in moribund condition. The *Deutsche Heer* (German army) is not ready for a real fight—certainly not against a more than two hundred thousand-strong invading army.

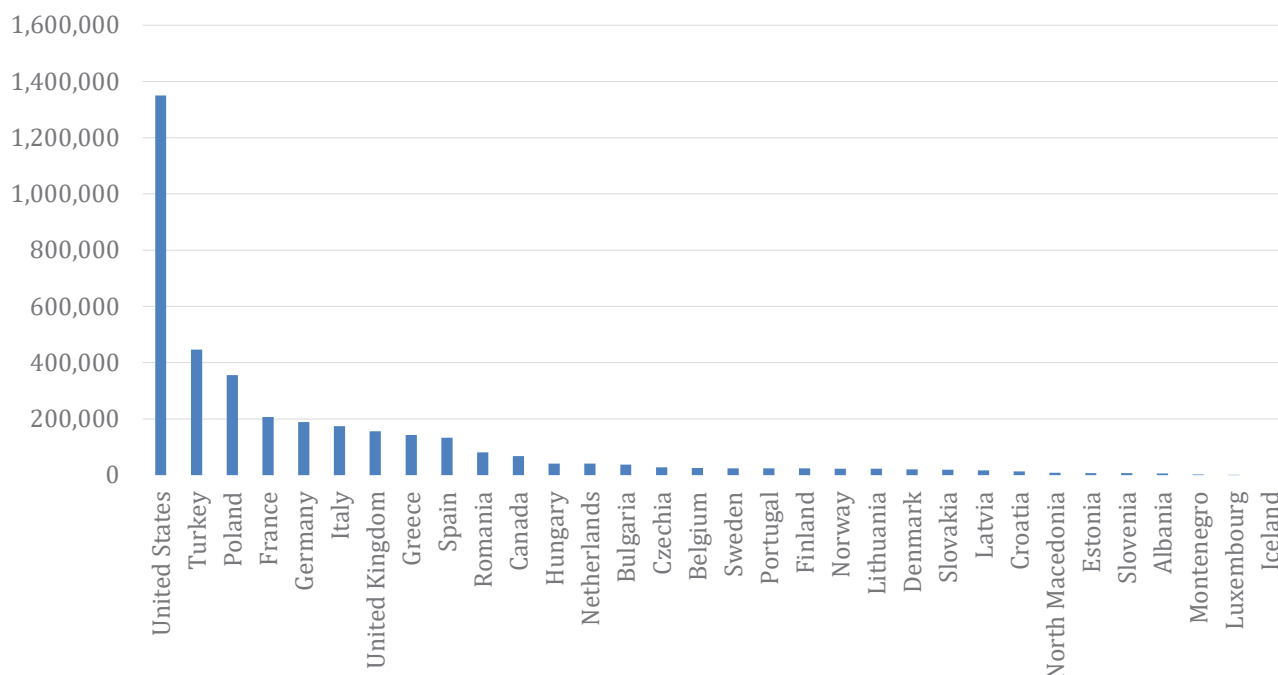
The Heer began transitioning from a force of more than 100,000 conscripts into a volunteer force in 2011.<sup>5</sup> By 2022 the Heer had shrunk to a total of about 60,000 soldiers. Its combat forces are organized into the 1st and 10th Panzer Divisions, the Rapid Forces Division (light deployable forces), and assorted smaller specialist and support units. German forces measure combat strength in battalions of approximately 1,000 soldiers (twice the size of American battalions), which maneuver as a part of a brigade.<sup>6</sup>

The Heer maintains a goal of having 10,000 deployable soldiers with the ability to sustain 4,000 soldiers (essentially a brigade) in the field indefinitely and the ability to provide 1,000 soldiers for crisis response or as a German contribution to the NATO Very High Readiness Joint Task Force (VJTF).<sup>7</sup> It's doubtful that the Heer can meet these minimal requirements—requirements that collectively fall far short of its NATO spending obligations.

On paper, Germany has six armored battalions. Five of these battalions are equipped with forty-four Leopard II main battle tanks each. A single combined German/Dutch armored battalion is equipped with forty-eight Leopard IIs. Of Germany's twelve mechanized infantry battalions, ten are equipped with forty-four Puma infantry fighting vehicles each.

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**Table. Total Army Personnel (Active Duty, Reserves)**



Total military personnel for countries within NATO. Of note, only the United States, Türkiye (Turkey), Poland, France, United Kingdom, Germany, Italy, Greece, and Spain have forces larger than one hundred thousand personnel (active duty and reserve forces). The following nations have armies below twenty-five thousand personnel: Belgium, Sweden, Portugal, Finland, Norway, Lithuania, Denmark, Slovakia, Latvia, Croatia, North Macedonia, Estonia, Slovenia, Albania, Montenegro, Luxembourg, and Iceland. (Table by author)

Two combined German/Dutch battalions are equipped with CV90 infantry fighting vehicles.<sup>8</sup>

In a 2015 interview, a former parliamentary commissioner of the German armed forces, Hans-Peter Bartels, revealed that despite each German artillery battalion having twenty-four howitzers on paper, in most batteries, only a small proportion of the artillery pieces were actually operational.<sup>9</sup> Bartels further elaborated that only two battalions in the Heer had what could be considered fully “modern” combat equipment on hand.<sup>10</sup> Antiquated and undermaintained equipment plague German forces.

The *Division Schnelle Kräfte* (Rapid Forces Division) is meant to be Germany’s contribution to the VJTF, but it is constituted of light infantry and special operations forces. The VJTF is a medium-weight mechanized infantry and artillery formation. In a fight against heavy Russian ground forces, Germany’s Rapid Forces Division contribution to the VJTF would likely be shattered.<sup>11</sup>

The 9th *Panzerlehr* Brigade of the 1st Panzer Division has a reputation as Germany’s premier heavy

combat formation and offers combined arms capability through organic panzer battalions (Leopard II), mechanized infantry battalions, and artillery batteries.<sup>12</sup> The 9th Panzerlehr Brigade is often used as a showpiece for German and NATO dignitaries and a training ground for junior leaders. It’s unclear how well the brigade would perform off the parade field.

Germany would require approximately ten days to deploy a single medium-weight battalion to combat within German borders but over a month to deploy a brigade.<sup>13</sup> The 9th Panzerlehr Brigade would most likely be the first heavy combat unit to respond in the outbreak of a real war, but it would likely need to parasitically subsume combat equipment and replacement parts from the rest of the 1st Panzer Division to be fully combat ready.

Three days after the Russian invasion of Ukraine, Chancellor Olaf Scholz gave his famous *Zeitenwende* speech. He declared that Vladimir Putin had committed Russia to war, ushering in a new era for Europe, and Scholz committed Germany to a €100 billion military modernization program to confront the threat.<sup>14</sup> Germany has made little progress in modernization





The lead man protects the group with a flexible shield during training for the French counterterrorism and hostage release group of the 1st Marine Infantry Parachute Regiment. The training occurred from 9 to 16 May 2019 in Bayonne, France. The unit's mission of freeing hostages in hostile zones requires extraordinary daily training so their actions are reflexive. (Photo courtesy of France's Ministry for Armed Forces)

and rearmament since February 2022, and it's likely that despite the €100 billion commitment, Berlin will not meet its NATO defense spending requirements (2 percent of GDP—equivalent to approximately \$85 billion annually) until 2025.<sup>15</sup>

To get ready for a real fight, the new defense minister, Boris Pistorius, would need to straighten out Germany's fraught politics with defense industry partners, fix byzantine procurement processes, retrain the force in basic combat skills, and restore munitions stockpiles. But the German people are acutely aware of their history. Germany will likely remain reluctant to build a real military expeditionary capability. Berlin is much more comfortable in managing the Bundeswehr with a degree of intentional incompetence.

## France

The French *Armée de Terre* (land army) is in many ways the good news story of European defense. The *Armée de Terre* is 105,000 strong, and it has proven

that, unlike the Heer, it has a true expeditionary capability.<sup>16</sup> Following the 2015 Paris terrorist attacks, Paris ordered *Opération Sentinelle*, and 10,000 French soldiers were deployed to patrol within France itself. From 2015 to the present, these troops have guarded special infrastructure, synagogues, Jewish schools, and restaurants from terrorist attacks. In 2016, France was simultaneously able to deploy 3,500 troops (roughly a brigade) to the Sahel in *Opération Barkhane* while deploying an additional several hundred troops to the Central African Republic under *Opération Sangaris*. Other former French colonies like Senegal and Gabon garrison thousands of additional French troops.<sup>17</sup>

Paris maintains a high readiness "immediate reaction joint force" that is tasked to deploy within seven days to meet a crisis. This force is based on 2,300 soldiers (1,500 of whom are ground forces), drawn from a national emergency retainer of five thousand high-readiness troops.<sup>18</sup> In practice, this means that the French have a heavy battalion task force and a light



A Hunter unmanned aerial vehicle captured a target unmanned aircraft with a net during Counter-Unmanned Aircraft Systems Technical Interoperability Exercise 23, which brought together civilian and military specialists and over sixty industry participants 12–22 September 2023 in the Netherlands to test counterdrone technologies and validate communication and interoperability among different systems. (Photo courtesy of NATO)

battalion task force (known as a combined arms tactical group or *groupements tactiques interarmes* [GTIA]) ready to deploy within a week. As a combined arms formation, a French GTIA may include a combination of infantry, armor, or artillery—similar to a U.S. Marine expeditionary unit.

Following *Opération Sentinelle*, the French surprised many analysts by reviving the much larger and more expensive division-level combat formation.<sup>19</sup> Paris has created two expeditionary divisions that are each made up of smaller line brigades. These two divisions are supported by several combat support and combat sustainment support regiments that were reorganized into four functional support brigades (intelligence, logistics, etc.).

France's 1st Division has four line brigades, including the 7th Armored Brigade (equipped with fifty-two Leclerc main battle tanks), 9th Marine Brigade (light infantry), 27th Mountain Infantry Brigade (light infantry), and the combined Franco-German Brigade

(mechanized infantry). The 3rd Division has three brigades, including the 2nd Armored Brigade (equipped with fifty-two Leclerc main battle tanks), 6th Light Armored Brigade, and the 11th Parachute Brigade.<sup>20</sup> Each of France's five infantry regiments (subordinate to the brigade echelon) are equipped with sixty-four infantry fighting vehicles.

France's legendary Foreign Legion allows foreign-born men to enlist for a term of military service to France in exchange for a salary and citizenship. It has gained renown in numerous conflicts as an elite force. The 1st Foreign Regiment is the Foreign Legion's headquarters unit and includes three companies that administrate the Legion. However, in the modern era, *Légionnaire* combat units operate as a part of larger formations in the *Armée de Terre*.<sup>21</sup>

*Légionnaire* units in the *Armée de Terre* include the 1st Foreign Cavalry Regiment, 1st Foreign Engineer Regiment, and 2nd Foreign Infantry Regiment of the 6th Light Armored Brigade, as well





T-38C Talon jet trainers break away during a training flight at the Euro-NATO Joint Jet Pilot Training Program on 29 March 2023, which hosts students and instructors from fourteen NATO allies at Sheppard Air Force Base, Texas. (Photo courtesy of NATO)

as the 2nd Foreign Parachute Regiment of the 11th Parachute Brigade, and the 2nd Foreign Engineer Regiment of the 27th Mountain Brigade.<sup>22</sup> There are also smaller assorted Légionnaire garrison units stationed both in France and abroad.

The trouble with French combat power is that it is threadbare. French forces have been deploying to the Sahel and other hot combat zones across Africa for over a decade. Paris has had to make cuts in painful places like training and maintenance to meet budget austerity requirements while sustaining combat troops in the field.<sup>23</sup> Many French combat vehicles are overused and past their expected service life, and outside of France's premiere combat units, soldiers are behind in training on basic combat skills.

In a real war against a near-peer adversary, the French could reliably field up to two combined arms battalions (GTIA) within a week, followed by a full heavy brigade within a month. However, Paris would have difficulty retrieving combat equipment

and vehicles from the myriad sites where French troops have been deployed for the last decade.<sup>24</sup> But despite any deployment challenges, France's recent engagements in Africa have demonstrated a sophisticated and deadly combat capability in the Armée de Terre.

## United Kingdom

The United Kingdom has been forced to make serious cuts to the British army over the last decade, and much of the force was tuned for the Global War on Terrorism, emphasizing light infantry and special operations forces.<sup>25</sup> As of 1 July 2023, the British army comprises 76,000 regular full-time personnel and 4,150 Royal Gurkhas.<sup>26</sup>

While the British army has been repeatedly downsized over the last decade, it maintains a high state of readiness, its equipment is mission-ready, and it has sufficient munitions stockpiles for a real fight. Constituent units within British divisions are organized into self-supporting and maneuverable brigade combat





1K2  
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teams (following the American model). British brigade combat teams typically include four infantry line battalions, an artillery regiment, light cavalry, combat engineers, signals and communications battalion, a medical regiment, and a wide array of logistics and support assets.<sup>27</sup>

Under the *Future Soldier* integrated defense review in 2021, the British army was reorganized to increase lethality and agility as an expeditionary force.<sup>28</sup> The goal was to ensure that the British army could operate in the “gray zone”—political conflicts that resemble undeclared wars. The 1st Division was redesignated as an adaptable light infantry division. It now includes the 4th Light Brigade Combat Team, 7th Light Mechanized Brigade Combat Team, 11th Security Force Assistance Brigade, and 16th Air Assault Brigade Combat Team.<sup>29</sup>

The 16th Air Assault Brigade Combat Team is Britain’s vanguard rapid response formation.<sup>30</sup> Its principal combat power includes three airborne infantry battalions, one air assault battalion, one light recce strike infantry battalion, and an artillery regiment. The aviation element of the brigade includes three regiments of Apache and Wildcat attack helicopters, Chinook and Puma support helicopters, and Merlin support helicopters. This gives the brigade both high operational mobility and a powerful counterpunch to enemy armored formations. The 16th Air Assault Brigade Combat Team is the largest brigade in the British army and maintains the highest state of readiness in the British army. Its constituent battalions form the backbone of an “air assault task force.”

The 3rd Division now comprises Britain’s heavy combat formations. It includes the 12th and 20th Armored Brigade Combat Teams and the 1st Deep Recce Strike Brigade Combat Team.<sup>31</sup> Each armored infantry brigade includes an armored regiment (equipped with fifty-six Challenger II main battle tanks), an armored cavalry regiment, two armored infantry battalions (equipped with Warrior infantry fighting vehicles), and one light infantry battalion (equipped with the Mastiff infantry fighting vehicle).<sup>32</sup>

British policy is to keep the 3rd Division’s constituent brigades ready to respond to near-peer threats. The

British can rapidly deploy one or two combined arms infantry battalions complimented with a wide array of armored vehicles (tanks, infantry fighting vehicles, and armored personnel carriers). This formation would likely include a squadron of the formidable Apache helicopter, which is designed to wreak havoc on large tank formations. Studies indicate that the first few infantry echelons of this armored task force can deploy within a few days, but the whole formation would take approximately thirty days. Deploying a full armored brigade would take two or three months.<sup>33</sup>

The British 6th Division is a specialist force. It includes the 77th Brigade and the Army Special Operations Brigade. The 77th Brigade is responsible for operations in the information environment. The Army Special Operations Brigade was formed in 2021 as a British equivalent to the U.S. Army Special Forces (the famous Green Berets) and is responsible for training, organizing, and leading indigenous personnel to conduct offensive actions in hostile or denied environments.<sup>34</sup> The Army Special Operations Brigade is planned to achieve full strength by 2030, and it will include four special operations capable line battalions and two Royal Gurkha light infantry companies to provide additional firepower.

The United Kingdom is the only European power that retains its own heavy lift air transport capabilities. The British have a fleet of American C-17 heavy transport planes. Each C-17 can transport 170,000 pounds. Weight and space capacities allow the C-17 to transport main battle tanks, multiple infantry fighting vehicles, or even an entire infantry company. This means that unlike France or Germany, once a UK Brigade Combat Team is in the field, the UK has the capacity to sustain it indefinitely.

## Poland

Though Poland was formerly part of the Soviet-led Warsaw Pact (an Eastern Bloc military alliance meant to counterbalance NATO), Poland is quickly emerging as a regional leader in military spending to counter Russian aggression. The Polish national identity first emerged in the tenth century when Mieszko I, ruler of the Polans tribe, united several neighboring tribes

**Previous page:** A team of Norwegian special forces accesses the upper levels of a building in the city of Daugavpils, Latvia, during Exercise Flaming Sword, 28 May 2015. (Photo courtesy of NATO)

in the basins of the Vistula and Oder River basins. The Poles have fought numerous wars with their neighbors throughout history, but following Germany's attempt to exterminate them in World War II, and then fifty years of slavery under Soviet communism, the Poles place extraordinary value on their national identity—especially in comparison to their globalist-internationalist European peers. They will never allow themselves to be dominated by Berlin or Moscow again. Polish defense modernization was already underway in 2019, well before Russia's invasion of Ukraine; however, Moscow's regional aggression was the impetus of an even wider expansion of Polish military capacity.

Prior to 2022, Polish land forces included 150,000 soldiers and four primary combat divisions: 12th Mechanized Division, 16th Mechanized Division, 18th Mechanized Division, and the 11th Armored Cavalry Division. Polish land forces' offensive capability also included the 6th Airborne Brigade (light infantry) and three reconnaissance regiments.<sup>35</sup>

Since the Russian invasion of Ukraine, National Defence Minister Mariusz Blaszczak announced a plan to expand the land forces to 250,000 professional soldiers. Warsaw has ordered 180 Korean K2 Black Panther main battle tanks in a package to be delivered through 2025.<sup>36</sup> Poland will have a contractual option to build up to 820 additional K2s under domestic license from 2026 onward. Poland also ordered 116 used American M1A1FEP Abrams main battle tanks and ordered 250 new M1A2 SEPv3 Abrams.<sup>37</sup>

Artillery and rocket artillery is also a very high priority for Poland. Over the summer of 2022, Poland ordered 212 Korean K9 self-propelled howitzers, and in February 2023, Poland reached an agreement for eighteen American HIMARS as well as 218 Korean K239 Chunmoo multiple launch rocket systems. Other procurements include modern infantry fighting vehicles (IFVs), helicopters, and air defense artillery systems to phase out Poland's remaining Soviet-era inventory.<sup>38</sup>

The 11th Armored Cavalry Division is equipped with German Leopard II main battle tanks. The 12th Mechanized Division includes two mechanized brigades and an artillery regiment, mostly equipped with Soviet-era hardware. Although the 16th Mechanized Division already includes two mechanized brigades, an armored cavalry brigade, and an artillery regiment, the division is being enlarged—most likely

with new air defense and antitank capabilities. The 18th Mechanized Division was re-created in 2018 (equipped with the Leopard II), but now it will be further strengthened by the addition of the 19th Mechanized Brigade.<sup>39</sup>

Poland is also creating two entirely new divisions, bringing land forces' total to six heavy divisions equipped for high-intensity combat.<sup>40</sup> 1st Infantry Division will consist of four mechanized brigades, each complete with three mechanized battalions, an artillery battalion, and other support assets. These mechanized brigades will be equipped with the Korean K2 Black Panther and American M1A2 Abrams. There are no available details regarding the other new division, but it's safe to assume that it will be a heavy division designed to stand up to a Russian tank army.<sup>41</sup>

There are two big differences between the Polish approach to military organization and the other major NATO players. First, Poland is not investing in indirect influence capabilities like security force assistance, civil affairs, or psychological operations brigades. Second, Poland doesn't have to concern itself with projecting power across Europe. Poland is geographically located adjacent to Ukraine, Belarus, and the Baltic states—where a potential front with Russia would likely form. This simplifies Polish logistics and supply. Each Polish division has its own organic logistics regiment.<sup>42</sup> For a country that is not trying to project power beyond its own borders, this is sufficient. It is likely that Poland will rely heavily on NATO allies for intelligence support and soft power projection.

Polish land forces are still under modernization, but Warsaw is emerging as the heavy hitter of Europe. Unfortunately, Poland does have an Achilles' heel. The Polish economy is much smaller than those of France, UK, or Germany, and habitual spending of 3–4 percent of GDP on the military places a great strain on Warsaw's tax base and finances.<sup>43</sup> Despite Warsaw's intention to continue high rates of military spending over the next decade, it is unclear whether these expenditures are sustainable.

## Türkiye

Türkiye has the second largest army in NATO (after the United States), and it is well-trained, sophisticated, and capable of joint operations. Turkish land forces include 402,000 active-duty soldiers,



British Army soldiers train Ukrainian recruits 24 March 2023 on AS-90 self-propelled artillery guns, which were donated to Ukraine. The United Kingdom also ran a thirty-five-day training course for Ukrainian volunteer fighters, which taught them survival skills in a hostile environment. The instructors were from NATO allies, including Canada, Denmark, Finland, Lithuania, the Netherlands, and Norway; NATO invitee Sweden; and partner countries Australia and New Zealand. (Photo courtesy of NATO)

with another 260,000 in reserve. Türkiye began reducing its use of the division as a unit of maneuver in the early 1990s and reorganized the force's primary combat power to be based on the brigade. In the land forces' current structure, several brigades are managed under a corps headquarters. The land forces have one armored division (consisting of three armored regiments) and seven armored brigades. Each armored brigade includes two armored battalions (forty-one tanks each), two mechanized infantry battalions, and two self-propelled artillery battalions. The land forces have two mechanized divisions (each consisting of three mechanized regiments) and fourteen mechanized brigades. Each mechanized brigade includes one armored battalion (forty-one tanks), two mechanized battalions, and one artillery battalion. The land forces have one infantry division consisting of three infantry regiments, and another seven infantry brigades that each include four infantry battalions and one artillery battalion.<sup>44</sup>

On paper, Turkish land forces has approximately 3,000 tanks. The German Leopard IIA4 is Türkiye's most modern tank with 339 pieces in inventory. Türkiye also has another 392 German Leopard I tanks in various states of modernization, 1,200 antiquated American M60 tanks, and 1,200 obsolete American M48 Patton tanks (which entered service in 1953).<sup>45</sup> Turkish land forces has 1,100 self-propelled artillery pieces and another 1,800 towed artillery pieces. Türkiye has more than 293 pieces of American M-155 Firtina II and Firtina I self-propelled artillery systems, which are the most advanced in inventory and use the NATO-common 155 mm round. It also has 362 pieces of the M52 and M44 self-propelled artillery systems, both of which use 155 mm rounds as well.

Internal assessments reveal that Turkish leaders believe they could potentially deploy 50,000 soldiers in response to four simultaneous peacekeeping crises.<sup>46</sup> Türkiye has shown that it can project power through special operations forces and military assistance



missions far from home in places like Libya or Azerbaijan, but it is unclear how easily Türkiye could move heavy ground forces across the Bosphorus Strait, through Bulgaria, Romania, Moldova, or Ukraine (presently under occupation by heavy Russian ground forces). However, Türkiye is certainly capable of moving heavy ground forces into the Caucasus region (Georgia, Armenia, and Azerbaijan).

## Italy

The Italian army is one of Europe's most sophisticated and has the third most troops abroad for peace-keeping operations (after the United States and United Kingdom). The Italian army's ground combat power is organized under three division-level commands. Beneath these commands, Italy has ten operational brigades: three light infantry brigades, one cavalry brigade, four mechanized brigades, and two tank brigades.<sup>47</sup>

The Alpine Troops Command manages the Alpine Brigades "Taurinense" and "Julia." They both contain three light infantry battalions (which the Italians call regiments), one reconnaissance/scout battalion, one antitank battalion based on the Centauro tank-destroyer IFV, and one artillery battalion.<sup>48</sup>

Under the Northern Operations Command are the Cavalry Brigade "Pozzuolo del Friuli," 132nd Armored Brigade "Ariete," and Paratroopers Brigade "Folgore." The Cavalry Brigade "Pozzuolo del Friuli" includes a cavalry battalion equipped with Centauro tank destroyer, one amphibious infantry battalion, and one artillery battalion. The 132nd Armored Brigade "Ariete" includes one cavalry battalion with Centauro tank-destroyers, two tank battalions with Ariete main battle tanks, one mechanized infantry battalion, and one field artillery battalion with self-propelled howitzers. The Paratroopers Brigade "Folgore" includes three light infantry battalions, one cavalry battalion with Centauro tank destroyers, and one light artillery battalion equipped with 120 mm mortars.<sup>49</sup>

Under the Southern Operational Command are the Mechanized Brigade "Granatieri di Sardegna," Mechanized Brigade "Aosta," Mechanized Brigade "Pinerolo," Mechanized Brigade "Sassari," and Bersaglieri Brigade "Garibaldi." The Mechanized Brigade "Granatieri di Sardegna" includes one cavalry battalion with Centauro tank destroyers, one mechanized infantry battalion, and one light infantry

battalion. The Mechanized Brigade "Aosta" and Mechanized Brigade "Pinerolo" both include one cavalry battalion with Centauro tank destroyers, three light infantry battalions, and one field artillery battalion with towed howitzers.<sup>50</sup> The Mechanized Brigade "Sassari" includes one cavalry battalion with Centauro tank destroyers and three light infantry battalions. The Bersaglieri Brigade "Garibaldi" includes one cavalry battalion with Centauro tank destroyers, one tank battalion with Ariete main battle tanks, two mechanized infantry battalions, and one field artillery battalion with self-propelled howitzers.<sup>51</sup>

In the aftermath of the Russian invasion of Ukraine, Italy has held a strong internal debate on military updates and modernizations. "The 2023 budget includes a total of €19.56 billion in spending by the Defence Ministry, up from the €18 billion spent in 2022."<sup>52</sup> This is a €6.1 billion increase from 2022—a massive increase for Italy. In 2023, Italy approved a budget plan for new procurements that will include twenty-one high mobility artillery rocket systems and 133 Leopard IIA8 tanks. Italy will also spend €5.23 billion over fourteen years on a program for a new IFV to replace the aging Dardo IFV. It is unclear how long it would take for Italy to deploy significant ground forces to a front in eastern Europe, or how long it would take for those forces to assemble and move. Italy's Airmobile Brigade maintains a high state of readiness. It's reasonable to assume that Italy is capable of deploying an infantry regiment (equivalent to a battalion) within a week and a mechanized brigade within a month, similar to France or the UK.

## NATO's Smaller Members

Most of the NATO alliance's smaller members can contribute light battalion-sized formations. Countries like Portugal, Montenegro, Iceland, Belgium, Croatia, Czechia, the Netherlands, Denmark, Albania, North Macedonia, Slovakia, Hungary, Greece, and Slovenia either have no real military expeditionary capacity to contribute regarding heavy ground forces, or they are too far from the front of a potential conflict in eastern Europe to matter. Whatever these countries could contribute in ground forces, they also certainly could not be first responders, and they would have to leverage NATO's common infrastructure, transport, logistics, and support functions which are sustained by the larger members.

As it is not only very small, but it also borders Russia, Estonia assumes that Russian ground forces will engulf the nation before sufficient forces can be mustered to repel the invasion.<sup>53</sup> Estonia plans to resist an invasion through insurgency and its army is organized accordingly. Latvian land forces consist of a signal mechanized infantry brigade, composed of three

to get combat power to the front. Romania is close to completing an eighteen-year long restructuring of its armed forces to meet NATO standards. This includes the recent procurement of the TR-85M1 “Bizon” main battle tank, the MLI-84M “Jder” IFV, the Piranha III IFV, and other systems to phase out antiquated Soviet-era platforms.<sup>57</sup>

“Sweden is NATO’s newest member. Sweden long claimed neutrality both during and after the Cold War, but Russia’s invasion of Ukraine precipitated a change in its strategic planning. Realizing the Moscow would prey on weaker neighbors, both Sweden and its Nordic neighbor Finland decided to abandon neutrality and embrace NATO.”

mechanized infantry battalions. In a crisis, Latvia can call up an additional four light infantry brigades, but like Estonia, their national defense strategy is based on an insurgency.<sup>54</sup> Lithuanian land forces include two mechanized infantry brigades, which each consist of three mechanized infantry battalions and one artillery battalion. Lithuania also has a third reserve infantry brigade and locally based national guard units.<sup>55</sup>

Despite its small economic heft, Romania’s land forces feature two division level combat commands. The 2nd Division includes the 2nd Mountain Hunter Brigade (consisting of three light infantry battalions), the 9th Mechanized Brigade (consisting of two tank battalions, two infantry battalions, and an artillery battalion), and the 282nd Armored Brigade (consisting of three mechanized battalions and one tank battalion). The 4th Division includes the 15th Mechanized Brigade (consisting of two tank battalions, two infantry battalions, and an artillery battalion), the 61st Mountain Hunter Brigade (consisting of three light infantry battalions and one artillery battalion), and the 81st Mechanized Brigade (consisting of four infantry battalions and one artillery battalion). While Romania does not have a significant expeditionary capability, it shares a border with Ukraine, Belarus, and Poland.<sup>56</sup>

Similar to Poland, Romania would not have to significantly stretch existing military logistics capabilities

## The Scandinavian NATO Members

The Norwegian army has always been very small. Given that Norway is a mountainous country in the Arctic, and it has excellent relations with its neighbors Sweden and Finland, Norway does not face many land-based threats. Brigade Nord (Northern Brigade) is the Norwegian army’s only major combat formation. The brigade includes the armored battalion (equipped with the Leopard II main battle tank and CV90 IFV), the Telemark Mechanized Infantry Battalion (also equipped with the Leopard II main battle tank and CV90 IFV), 2nd Light Infantry Battalion (equipped with the CV9030N IFV/APC), and one artillery battalion (equipped with the Korean K9 self-propelled howitzer).<sup>58</sup> The Norwegian army is presently undergoing a small reconfiguration into a heavier force. The 2nd Light Infantry Battalion is transforming into a mechanized battalion, and there are plans to procure new main battle tanks. The German Leopard IIA7 is the leading contender for the contract and Norway is targeting a procurement of at least seventy-two new tanks.<sup>59</sup>

Sweden is NATO’s newest member. Sweden long claimed neutrality both during and after the Cold War, but Russia’s invasion of Ukraine precipitated a change in its strategic planning. Realizing the Moscow would prey on weaker neighbors, both Sweden and its Nordic neighbor Finland decided to abandon neutrality and



Soldiers assigned to the 9th Brigade Engineer Battalion, 2nd Armored Brigade Combat Team, 3rd Infantry Division, supporting NATO's enhanced Forward Presence Battle Group Poland, join troops from Albania, Canada, Czech Republic, Germany, Italy, Latvia, Lithuania, Poland, Spain, and the United Kingdom for Exercise Verboom in Adazi, Latvia, 28 October 2023. (Photo courtesy of the U.S. Army)

embrace NATO. Swedish land forces bring to the table approximately fifty thousand soldiers (of which only approximately seven thousand are full-time active duty) organized into a principal combat power of eight regiments. Sweden is still undergoing a process of reorganization from a mass conscription model used during the Cold War to a professional force.<sup>60</sup>

The Life Guards Regiment bring to the fight a single mechanized infantry battalion, as well as intelligence, security, and military police battalions. The Life Regiment Hussars is essentially a light infantry and reconnaissance unit that features both military intelligence capabilities and one Ranger light infantry battalion. The Norrland Dragoon Regiment is an arctic warfare specialist light infantry and special operations unit. The Skaraborg Regiment is a heavy combat unit that consists of two armored battalions (each with two tank companies and two mechanized infantry companies). The South Scanian Regiment features one mechanized infantry battalion and one armored battalion (two tank

companies equipped with the Stridsvagn 122 main battle tank and two companies equipped with the CV90 IFV). The Dalarna Regiment consists of two motorized infantry battalions, and the Gotland Regiment consists of one armored battalion. The Norrbotten Regiment consists of two armored battalions. The Västernorrland Regiment is a special light infantry unit based on the Jämtland Ranger Corps, which is essentially a light infantry battalion.<sup>61</sup>

Sweden's military has much to contribute to NATO, but at present the heavy combat power of its land forces is not on par with other members of similar economic size (like Poland). Like the United Kingdom, Sweden is also separated from most potential European battlefields by water. Potential conflicts involving Sweden will rely on NATO infrastructure, especially heavy lift transport aircraft, to deploy significant combat power to a crisis.

Finland has an 832-mile border with Russia that has always been a cause for concern with Moscow. Joseph



Stalin actually attempted to conquer Finland in the failed Winter War (1939–1940), and Finns were largely able to resist overwhelming Soviet numerical superiority through mastery of arctic warfare techniques, mobility, and light infantry tactics. Finland draws from these successes in how its army is structured today.<sup>62</sup>

Finland has an active duty army of eighteen thousand conscripted soldiers that can be scaled to a force of 180,000 if the country is invaded. Finland's six combat brigades utilize subordinate regional offices to form provincial local battalions in time of war and answer to the regional brigade headquarters. Finland maintains three high readiness brigades that are each essentially one mechanized infantry battalion with a supporting artillery regiment and combat engineering battalion.<sup>63</sup>

The United States and other leading NATO members all recognize Finnish prowess in arctic warfare, and they frequently send troops to train at Finnish combat schools to develop tactics, techniques, and procedures. However, the Finnish army is designed to defend Finland's borders. In its current configuration, the Finnish army is not capable of projecting power abroad.

No matter what contributions NATO's lesser members can make, it's unclear how long it would take for these small formations to assemble and deploy. However, most battalion-sized multinational formations are designed to attach to larger American, British, French, and German brigades or divisions. Regardless, Europe is sorely lacking in heavy ground forces.<sup>64</sup>

## The Combat Power of Russian Ground Forces

In comparison, Russian ground forces present NATO an enormous challenge in sheer size, mass, and firepower. The Russian expeditionary force that invaded Ukraine in February 2022 was over 200,000 soldiers. The force included battalion tactical groups of the 2nd, 25th, and 41st Combined Arms Armies from the Central Military District; 5th, 29th, 35th, 36th Combined Arms Armies, and 68th Army Corps from the Eastern Military District; 1st Guards Tanks Army, 6th and 20th Guards Combined Arms Armies, and 3rd, 11th, and 14th Army Corps from the Western Military District; and 8th, 49th, and 58th Combined Arms Armies from the Southern Military District.<sup>65</sup> A closer examination of the 41st Combined Arms Army alone puts the size and

firepower of Russian ground forces into context. The 41st Combined Arms Army includes three motorized infantry brigades, one tank division (three tank regiments, one motorized infantry regiment, and one artillery regiment), one rocket brigade, one rocket artillery brigade, and assorted command and control and support formations. On paper, the Russians were able to deploy twelve combined arms armies of similar configuration, one tank army, and four independent corps (which are functionally smaller armies).<sup>66</sup>

On 1 April 2023, the Russian armed services went on a hard recruiting drive to sign 400,000 new recruits to the army.<sup>67</sup> Recruiters met 85 percent of their target recruitment goals. The Russian ground forces in Ukraine began 2023 as a highly disorganized force of 360,000 soldiers (still significantly larger than the initial invasion force). By June 2023, numbers had risen to 410,000 and organization was significantly improving. By January 2024, Russian ground forces in Ukraine and occupied territories included 470,000 soldiers.

Organization in the Russian ground forces has reverted to the traditional Soviet order of battle of regiment to division to combined arms army. However, the Russians appear to have dispensed with the battalion tactical group as a unit of maneuver. Instead, battalions are increasingly broken up into company level formations, often with attached combined arms assets (artillery, tanks, multiple launch rocket systems, etc.) from regiment. Many of the officers leading these companies were promoted from the ranks for bravery or competence. Russia lost over two hundred colonels (and their respective command staffs) in 2022. The promotion of junior officers from the ranks and the utilization of the company as a unit of maneuver reflects not only adaptation to the changing battlefield but also a dearth of officers who have the requisite training to successfully maneuver a larger formation (battalion, regiment, brigade, etc.).<sup>68</sup>

Russian commanders are using these smaller formations to conduct smaller harassing attacks against the Ukrainian armed forces all along the line of contact. This strategy creates attrition for Ukrainian armed forces, is not very resource intensive to execute, and does not require sophisticated command and control measures or trained military leadership to plan and oversee. When Russian units have taken approximately 30 percent casualties, they are rotated out of the line,

retrained, and plussed up with replacement soldiers. These are great examples of Russia's remarkable practicality to "make it work."<sup>69</sup>

To achieve strategic parity, NATO is relying on qualitative advantages in its ground force components, especially in technological superiority of NATO combat platforms, training regimes, education, military drill, and discipline. NATO can of course also rely on far more sophisticated air power to mitigate Russian numbers. The Russians have also demonstrated very poor operational planning and logistics management in Ukraine, which calls into question the readiness of Russian forces to truly challenge NATO. Nevertheless, the enormous firepower of Russia's ground forces should give Europe pause.

Germany, France, the UK, and Italy are each capable of putting a single brigade in the field (nominally eastern Europe) within a month or two.<sup>70</sup> Poland is capable of putting a few divisions in the field, provided they are deployed close to Polish borders. Türkiye is capable of dominating the Caucasus region, but it's unclear whether Turkish land forces could reenforce European allies. Europe's lesser NATO members will be able to contribute forces in small numbers to the fight, but their size, combat readiness, limited logistics

capabilities, and lack of military transport almost ensure they would be late arrivals to a crisis.

Ultimately, Putin's national security cadre is pursuing a grand strategy that has its origins in the old Russian Empire. Russia exists on the vast Eurasian steppe, with no natural barriers and hard geographic boundaries to anchor their borders. Luminaries like Peter the Great, Catherine the Great, and even Vladimir Lenin all sought to expand Russia's borders until they could anchor against hard geographic barriers like the Black Sea, the Baltic Sea, the Carpathian Mountains, or the Caucasus Mountains. Stalin reached the apogee of this grand strategy in 1945 when Soviet tank armies were able to forward stage in East Germany. Since the Soviet collapse, Russian leadership has been forced to grapple with how to regain some degree of this defense in-depth.<sup>71</sup> That puts Estonia, Latvia, Lithuania, Poland, Germany, Romania, Hungary, Moldova, and Ukraine on Russia's path. Russia's conquest of Ukraine was largely inhibited by its own failure to gather intelligence, plan, and manage logistics for an extended campaign—mistakes that Moscow is working to remedy.<sup>72</sup>

Without American strategic sponsorship, Europe does not have sufficient combat power to protect itself. ■

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## Notes

1. David Roll, *George Marshall: Defender of the Republic* (New York: Dutton Caliber, 2019), 197–99; "Operations and Deployments," British Army, accessed 25 April 2024, <https://www.army.mod.uk/deployments/>.

2. "Latest News," North Atlantic Treaty Organization, accessed 1 July 2024 <https://www.nato.int/nato-welcome/>.

3. D. Clark, "Number of Active Military Personnel in NATO Countries 2024," 10 April 2024, <https://www.statista.com/statistics/584286/number-of-military-personnel-in-nato-countries/#statisticContainer>.

4. Peter Zeihan, "I Think They Get It Now, Part Drei: Germany," Zeihan on Politics, 13 June 2018, <https://zeihan.com/i-think-they-get-it-now-part-drei-germany/>.

5. "Heer-German Army: Order of Battle," GlobalSecurity.org, 30 June 2021, <https://www.globalsecurity.org/military/world/europe/de-army.htm>.

6. "Organization," German Army, accessed 25 April 2024, <https://www.bundeswehr.de/en/organization/army/organization>.

7. Richard Fuchs, "21st Century Military," Deutsche Welle, 16 May 2013, <https://www.dw.com/en/germany-prepares-its-military-for-the-21st-century/a-16816623>.

8. Michael Shurkin, *The Abilities of the British, French, and German Armies to Generate and Sustain Armored Brigades in the Baltics* (Santa Monica, CA: RAND Corporation, 12 April 2017), 7–8.

9. Ibid.

10. Ibid.

11. Ibid.

12. GlobalSecurity.org, "Heer-German Army."

13. Shurkin, *Abilities of the British, French, and German Armies*, 7–9.

14. Peter Zeihan, "Germany Becomes (Terrifyingly) Normal," Zeihan on Politics, 22 December 2023, <https://zeihan.com/germany-becomes-terrifyingly-normal/>.

15. Daniel DePetris and Rajan Menon, "Germany's Military 'Zeitenwende' Is Off to a Slow Start," Defense News, 3 March 2023, <https://www.defensenews.com/opinion/commentary/2023/03/03/germanys-military-zeitenwende-is-off-to-a-slow-start/>.

16. "Notre Organisation [in French]," Armée de Terre [French land army], <https://www.defense.gouv.fr/terre/mieux-nous-connaître/notre-organisation>.

17. Shurkin, *Abilities of the British, French, and German Armies*, 5–6.

18. Ibid.

19. Stew Magnuson, "France Plots Long-Term Army Modernization Plans," *National Defense* (website), 19 August 2022, <https://www.nationaldefensemagazine.org/articles/2022/8/19/france-plots-long-term-army-modernization-plans>.



20. French Defense Attaché Office, "French Armed Forces Update: April 2020" (Washington, DC: French Defense Attaché Office, April 2020), [https://franceintheus.org/IMG/pdf/FAFU/FAFU\\_003.pdf](https://franceintheus.org/IMG/pdf/FAFU/FAFU_003.pdf).
21. Shurkin, *Abilities of the British, French, and German Armies*, 5–6.
22. "French Foreign Legion Units," French Foreign Legion Information, accessed 25 April 2024, <http://foreignlegion.info/units/>.
23. Stephanie Pezard, Michael Shurkin, and David Ochmanek, *A Strong Ally Stretched Thin* (Santa Monica, CA: RAND Corporation, 2021), 10, 33–38, [https://www.rand.org/pubs/research\\_reports/RRA231-1.html](https://www.rand.org/pubs/research_reports/RRA231-1.html).
24. Ibid.
25. Edward Scott, "Size of the Army: Numbers, Tech and the Latest on the Integrated Review," House of Lords Library, 16 May 2023, <https://lordslibrary.parliament.uk/size-of-the-army-numbers-tech-and-the-latest-on-the-integrated-review/>.
26. British Army, "Operations and Deployments."
27. Shurkin, *Abilities of the British, French, and German Armies*, 3–5.
28. British Army, *Future Soldier Guide* (Marlborough Lines, UK: British Army, 2021), [https://assets.publishing.service.gov.uk/media/61a782a68fa8f50379269dfc/ADR010310-FutureSoldier-Guide\\_30Nov.pdf](https://assets.publishing.service.gov.uk/media/61a782a68fa8f50379269dfc/ADR010310-FutureSoldier-Guide_30Nov.pdf).
29. Ibid.
30. Shurkin, *Abilities of the British, French, and German Armies*, 3–5.
31. British Army, *Future Soldier Guide*.
32. Shurkin, *Abilities of the British, French, and German Armies*, 3–5.
33. Ibid.
34. British Army, *Future Soldier Guide*.
35. Diana Lepp, "Northern European and Transatlantic Security: Poland's Military Capability 2020," Swedish Defence Research Agency Memo 7597, accessed 25 April 2024, <https://www.foi.se/rest-api/report/FOI%20Memo%207597>.
36. Ibid.
37. Matthew Karnitschnig and Wojciech Kosci, "Meet Europe's Coming Military Superpower," Politico (European edition), 21 November 2022, <https://www.politico.eu/article/europe-military-superpower-poland-army/>; Robert Czulda, "Poland's Military Modernization: Still Many Challenges Ahead," Casimir Pulaski Foundation, 6 March 2023, <https://pulaski.pl/en/pulaski-policy-paper-polands-military-modernisation-still-many-challenges-ahead-robert-czulda-2/>.
38. Czulda, "Poland's Military Modernization."
39. Michał Jarocki, "The Future of Polish Land Forces and MBT Fleet," European Security & Defence, 19 September 2019, <https://euro-sd.com/2019/09/articles/14458/the-future-of-polish-land-forces-and-mbt-fleet/>.
40. "Kiedy powstanie szósta dywizja WP? Błaszczak: Rozpocniemy formowanie w 2023 roku" ["When will the sixth Polish Army division be established? Błaszczak: We will start formation in 2023"], *Rzeczpospolita* (website), 1 September 2023, <https://www.rp.pl/polityka/art39041121-kiedy-powstanie-szosta-dywizja-wp-blaszczak-rozpocniemy-formowanie-w-2023-roku>.
41. Czulda, "Poland's Military Modernization."
42. Lepp, "Poland's Military Capability 2020."
43. Czulda, "Poland's Military Modernization."
44. "Turkish Land Forces," GlobalSecurity.org, 20 November 2016, <https://www.globalsecurity.org/military/world/europe/tu-army.htm>.
45. David.B. "90mm Gun Tank M48 Patton III," Tanks Encyclopedia, 18 November 2014, [https://tanks-encyclopedia.com/cold-war/us/m48\\_patton.php](https://tanks-encyclopedia.com/cold-war/us/m48_patton.php).
46. GlobalSecurity.org, "Turkish Land Forces."
47. "Esercito: Organization," Italian Army, accessed 1 July 2024, <https://www.esercito.difesa.it/en/organization/Pagine/default.aspx>.
48. Ibid.
49. Ibid.
50. Ibid.
51. Ibid.
52. Tom Kingston, "Italy Unveils Weapons Wish List Forecasts Defense Spending," Defense News, 13 October 2023, <https://www.defensenews.com/global/europe/2023/10/18/italy-unveils-weapons-wish-list-forecasts-defense-spending/>.
53. Chris Woolf, "Tiny Estonia Trains Its People for Guerilla War against Russia," The World, 2 November 2016, <https://theworld.org/stories/2016-11-02/tiny-estonia-trains-its-people-guerilla-war-against-russia>.
54. "Military Capabilities," Ministry of Defence Republic of Latvia, accessed 1 July 2024, <https://www.mod.gov.lv/en/nozares-politika/comprehensive-state-defence/military-capabilities>.
55. "Land Force," Lithuanian Armed Forces, accessed 1 July 2024, <https://kariuomene.lt/en/structure/land-force/23583>.
56. Romanian Ministry of National Defense, *Military Strategy of Romania* (Bucharest: Romanian Ministry of National Defense, 2021), [https://english.mapn.ro/about\\_mond/documents/STRATEGIA\\_MILITARA\\_A\\_ROMANIEI\\_ENG.pdf](https://english.mapn.ro/about_mond/documents/STRATEGIA_MILITARA_A_ROMANIEI_ENG.pdf).
57. Cornel Pavel, "Romanian Armed Forces Transformation," (Carlisle Barracks, PA: U.S. Army War College, 9 April 2002), 15, <https://apps.dtic.mil/sti/tr/pdf/ADA404257.pdf>.
58. "The Norwegian Army," Norwegian Armed Forces, last updated 19 August 2022, <https://www.forsvaret.no/en/organisation/army>.
59. "Norway Is Buying New Leopard Tanks—They Will Have a Unique Designation," Technology.org, 10 September 2023, <https://www.technology.org/2023/09/10/norway-is-buying-new-leopard-tanks-they-will-have-a-unique-designation/>.
60. Charlie Duxbury, "Sweden Scrambles to Project Military Strength Ahead of NATO Bid," Politico (European edition), 18 May 2023, <https://www.politico.eu/article/sweden-scrambles-project-military-strength-nato-bid/>.
61. "The Army: A Fast and Effective Ground Force," Swedish Armed Forces, accessed 1 July 2024, <https://www.forsvarsmakten.se/en/about/organisation/the-army/>.
62. "A Short History of the 'Winter War,'" Imperial War Museums, accessed 1 July 2024, <https://www.iwm.org.uk/history/a-short-history-of-the-winter-war>.
63. Heljä Ossa and Tommi Koivula, "What Would Finland Bring to the Table for NATO?," War On the Rocks, 9 May 2022, <https://warontherocks.com/2022/05/what-would-finland-bring-to-the-table-for-nato/>.
64. "Army to Train Nearly 20,000 Soldiers This Spring," Finnish Defence Forces, Army press release, accessed 9 May 2024, <https://maavoimat.fi/en/-/army-to-train-nearly-20-000-soldiers-this-spring>; Scott Boston et al., *Assessing the Conventional Force Imbalance in Europe: Implications for Countering Russian Local Superiority* (Santa Monica, CA: RAND Corporation, 2018), 7.
65. Center for Preventative Action, "War in Ukraine," Council on Foreign Relations, last updated 11 April 2024, <https://www.cfr.org/global-conflict-tracker/conflict/conflict-ukraine>.

66. Ibid.

67. Ukrayinska Pravda, "Russian Army to be Replenished with 400,000 New Contract Service Personnel," Yahoo, 14 March 2023, <https://news.yahoo.com/russian-army-replenished-400-000-032206330.html>.

68. Jack Watling and Nick Reynolds, *Russian Military Objectives and Capacity in Ukraine through 2024* (London: Royal United Services Institute for Defence and Security Studies, 13 February 2024), <https://www.rusi.org/explore-our-research/publications/commentary/russian-military-objectives-and-capacity-ukraine-through-2024>.

69. Ibid.

70. Shurkin, *Abilities of the British, French, and German Armies*, 1.

71. "The Truth Behind the Russia vs Ukraine War: Peter Zeihan," posted by "Anthony Pompliano," YouTube video, 2:54, 21 March 2022, [https://www.youtube.com/watch?v=5-r7z0IM5\\_k](https://www.youtube.com/watch?v=5-r7z0IM5_k).

72. Curtis Fox, *Hybrid Warfare: The Russian Approach to Strategic Competition and Conventional Military Conflict* (n.p.: 30 Press Publishing, 15 December 2023), 392–400.



# Normandy Virtual Staff Ride



Normandy virtual staff ride products are available for download from the Army University Press website. This study focuses on the American side of the invasion to include the airborne assault, Omaha and Utah Beaches, Pointe du Hoc, and a study on sustainment and the artificial harbors. Materials include instructor notes, participant read aheads, and the virtual terrain. These products will enable organizations with access to Virtual Battlespace 3 to conduct their own virtual staff ride or to conduct their own professional development sessions without the terrain.



Omaha Beach



German Defenses



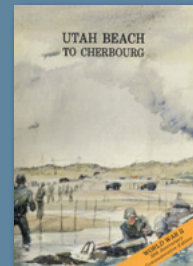
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# NATO's Most Vulnerable Flank, but Not for the Reasons We Think

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For centuries, maintaining the food supply was a critical requirement for military success. The campaigns of the Roman legions and Napoleon's army required large amounts of food and fodder. This requirement forced military leaders to plan for and develop logistical networks that fed troops and animals as the area of operations expanded by hundreds or even thousands of miles, as in the case of the Roman Empire or Napoleon's invasion of Russia.<sup>1</sup> While still important, food security became a less pressing consideration in the planning of modern military operations because of rapid improvements in food production, food preservation technologies, and global transportation infrastructure.

Nevertheless, the COVID-19 pandemic and the Russian invasion of Ukraine in 2022 revived concerns about global food security and highlighted the need for countries to build resiliencies across different parts of the civil society. In that context, NATO encourages its member nations to build societies resilient enough to cope with major shocks. It is codified in NATO's Article 3 and includes improving seven baseline requirements for civil preparedness.<sup>2</sup> The current study focuses on the

need for NATO members to ensure that their food and water resources are resilient to disruptions.

As the war in Ukraine heightened concerns over possible spillovers of violence and instability into neighboring nations, this study identifies and analyzes a major vulnerability amongst three NATO's members—Estonia, Latvia, and Lithuania (hereinafter the Baltic states). In 2022 and 2023, food prices surged across all members of the European Union (EU) due to market disruptions from the COVID-19 pandemic and the Russian invasion of Ukraine. These impacts were partially offset by the EU's self-sufficiency in many agricultural products; however, food inflation was noticeably higher in the Baltic states. This was because these nations are small open economies, vulnerable to volatile global commodity markets, and more dependent on imports of food products and fertilizers from Russia, Belarus, and Ukraine.<sup>3</sup> A possible conflict with Russia, ranging from full-scale military operations to low-level hybrid warfare, could severely threaten food security in the Baltic states. Such concerns are warranted because of their vulnerable



Fruits and vegetables at a city market in Riga, Latvia. Much of the Baltic states' population living in rural areas rely partially or entirely on homegrown foods such as these, and families with access to land are better poised to maintain food security even during times of economic stress. (Photo by Adobe Stock)

geographic location, which is almost surrounded by Russia, Belarus, and the Baltic Sea.

This study is based on the premise that the Russian military could turn the Baltic Sea into a contested area and severely or completely disrupt maritime traffic there. Concurrently, Russian armed forces could attempt to occupy the Suwalki Gap, which is a sixty-to-one-hundred-kilometer strip of land along the Polish-Lithuanian border that stands between the Russian Kaliningrad Oblast and Belarus.<sup>4</sup> Both moves would cut off the Baltic states from the rest of Europe and make any resupply operations in the region (including transportation of key food products) extremely challenging.<sup>5</sup> Moreover, trade weaponization is not a new phenomenon in the Baltic region. For example, Lithuania faced a *de facto* Soviet trade embargo shortly after the country declared independence.<sup>6</sup> In addition, and similar to what it has been doing in Ukraine, the Russian military could engage in a systematic destruction of agricultural infrastructure and

farmland, and theft of agricultural equipment across the Baltic states.<sup>7</sup> It is important to understand that small disruptions in one specific section in modern and interdependent food systems can result in significant ripple effects across the rest of the supply chain. For instance, the regional livestock sector (and, therefore, meat and dairy production) would face significant challenges if the Baltic states are no longer able to import critical feed grains such as corn. Lastly, a large presence of Russian and NATO troops conducting military operations in this relatively small geographic region would likely put significant stress on local food systems. Those pressures would be further exacerbated by the movements of hundreds of thousands of refugees and internally displaced populations (IDPs) across the region as they try to escape the conflict.

To our knowledge, no study has assessed the resiliency of the Baltic states' food systems against a possible Russian military aggression. The present study fills the



literature gap by first presenting an overview of food production and trade in the region. Then, it identifies the strengths and weaknesses of these food systems under various scenarios and proposes possible solutions to strengthen food resiliency in the region. The findings from this study identify the need for early actions and planning by Baltic states and NATO military leadership and policymakers. This includes actions geared toward building resilient regional food systems so they can withstand a major disruptive event such as a Russian military invasion or a naval blockade that cuts off the Baltic states from the rest of Europe.

## Overview of Agricultural Sectors in the Baltic States

Historically, agriculture has contributed significantly to the economies of the Baltic states; however, important socioeconomic events shaped and transformed this sector. For centuries, food production in the region was under a feudal system dominated by Polish and German landlords, which was later replaced by a collectivization of agriculture imposed by the Soviet Union. During

this period, the Baltic states were leading suppliers of meat and dairy products to the Soviet Union.<sup>8</sup> Furthermore, much of the Baltic states' population living in rural areas relied partially or entirely on homegrown foods such as vegetables. This reliance was stronger in Lithuania, and it highlights how families with access to land are better poised to maintain food security even during times of economic stress.

Following the collapse of the Soviet Union, the Baltic states transitioned to a market economy and designed their own farmland redistribution policies. During this transition period, these countries experienced economic setbacks, and local food production and food security levels declined. With the EU accession in 2004, the agricultural sector in these countries fell under the EU's common agricultural policy. Since then, the region's agriculture has been through a modernization process, and food production has steadily improved.<sup>9</sup> Nevertheless, because of its northern climate, this region can only produce a limited range of crops (e.g., certain grains and potatoes) and must import food products such as fruits and vegetables from more temperate latitudes.

**Latvia.** The food and beverage sector is Latvia's second-largest industrial

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Her Danish Majesty's Ship *Esbern Snare*, the standing NATO Maritime Group 1 flagship at the time, and Japan Maritime Self-Defense Force training squadron ships (JMSDF cadet training vessel *JS Kashima* and destroyer *JS Makinamiin*) sail in the Baltic Sea during a passing exercise 21 August 2018. A conflict with Russia could turn the Baltic Sea into a contested area, significantly affecting the food supply chain of the Baltic states. (Photo courtesy of NATO)

sector and accounts for 23 percent of the nation's total manufacturing output.<sup>10</sup> Grains and dairy are the leading agricultural sectors and account for 42 percent and 21 percent of Latvia's agricultural output in 2022, respectively.<sup>11</sup> In addition, grain production accounted for much of Latvia's sown agricultural area and the bulk of domestic agricultural operations, which are normally large- or medium-sized farms. Vegetables, fruits, and berries account for a much smaller share of the country's agricultural output. The main livestock products in Latvia include raw milk, eggs, and meat for slaughter. Latvia's main agricultural exports include dairy products, canned fish, fruit and berry preserves, meat products, grains, confectionery goods, and alcoholic and nonalcoholic beverages.<sup>12</sup>

While the production of livestock products is dispersed across Latvia's six regions, there is also a significant degree of geographical concentration in the central regions of Pierīga, Vidzeme, and Zemgale—84 percent for meat in slaughter, 63 percent for raw milk, and 98

percent for eggs. The regions of Zemgale and Kurzeme account for the largest share of overall grain production; however, the geographic distribution varies across different grains.<sup>13</sup>

**Lithuania.** Agriculture and the overall agri-food sector are significant contributors to Lithuania's economy. Combined, agricultural area and forests cover 85 percent of the country's territory, and most Lithuanian farms are medium to large and family owned.<sup>14</sup> Over half of the Lithuanian agricultural operations are focused on crop production, while 10 percent are strictly focused on animal production. Like Latvia, cereals and milk production are the leading agricultural activities, followed by livestock and poultry. With a robust dairy sector, Lithuania exports half of its milk and dairy production (mostly in the form of cheese). Furthermore, this country is self-sufficient in beef and poultry meats, eggs, and most grains. Most of the crop production (e.g., grains, oilseeds, and vegetables) occurs in the north central counties of Siauliai, Panevezys, and Kaunas.<sup>15</sup>



The location of Lithuania's livestock production varies across different species. Cattle and dairy operations are mostly concentrated in the northwestern part of the country (e.g., Taurage, Siauliai, and Panevezys Counties). The bulk of Lithuania's poultry industry is in the southeastern counties of Vilnius and Kauna, whereas Panevezys and Marijampole Counties are where most pig farms are located.<sup>16</sup>

**Estonia.** The economic importance of Estonia's agricultural sector is in line with the two other Baltic states and above the EU's average. Forests cover 50 percent of Estonia's territory, while agricultural land accounts for almost 25 percent. Like its neighbors, crops account for the largest share of Estonia's agricultural total output (50 percent), followed by the animal sector (40 percent) with dairy being the main contributor.<sup>17</sup> Estonia is a net food exporter with dairy products, meat, and fish amongst its main agricultural exports; however, it relies on imported horticulture products, feed grains, and certain processed foods products.<sup>18</sup>

## Assessing Resiliency of Food Systems in the Baltic States

This section analyzes the resiliency of the food systems in the Baltic states against a potential military conflict with Russia. This is done by presenting strengths, weaknesses, and recommendations. While these countries boast highly productive agricultural sectors and food security due to modern infrastructure and the EU's Common Agricultural Policy, a closer look reveals vulnerabilities that could be exploited in a conflict scenario. By addressing these vulnerabilities and building resilience, the Baltic states can better withstand potential disruptions to their food systems and protect their populations in the event of a conflict.

## Strengths of Food Systems in the Baltic States

**Cyber capabilities against cyber security threats to the agricultural sector.** As a result of years of government policies and incentives, the Baltic states became a hotspot for technology-focused entrepreneurs and have achieved a leading global role in financial technology.<sup>19</sup> For example, Estonia is well known for its thriving high-tech industry and for having much of its government's functions now digitalized. However, becoming such tech-savvy societies also created new

vulnerabilities to external cyber threats. In the case of an increasingly digitalized agricultural sector, operational improvements such as fully automated grain elevators and milking systems are also vulnerable to cyberattacks during time-sensitive activities (e.g., milk storage or grain harvesting). Cyberattacks could also be aimed at infrastructure that directly or indirectly supports the production and movement of food products (e.g., sea-ports and railways), irrigation channels, or power plants necessary for optimal agricultural production.

Nevertheless, these countries have enhanced their cybersecurity capabilities as a response to a series of extensive cyberattacks by Russian hackers in 2007 and 2022.<sup>20</sup> As a result, the region's critical agricultural infrastructure is likely to be resilient against state-sponsored cyber threats prior to and during a conflict with Russia.

**Organic farming.** Following the Russian invasion of Ukraine, global prices of chemical fertilizer surged as major producers such as Russia, Belarus, and China restricted exports. This contributed to food inflation worldwide and forced countries to find alternative fertilizer suppliers. The Baltic states were no exception as they have traditionally depended on imports of chemical inputs from Russia and Belarus. However, despite being geographically small, the Baltic states are global leaders in organic farming. The percent of organic farmland as a share of the total agricultural land in 2021 was 23 percent in Estonia, 15 percent in Latvia, and 9 percent in Lithuania—for comparison, the global average is 1 percent.<sup>21</sup> Certain agricultural products have larger shares of organic production than others. This represents resiliency because organic farming forbids the use of chemical inputs. Hence, a significant share of food production in the Baltic states would not be impacted by disruptions in the availability of chemical fertilizers or pesticides.

## Well-Developed Food Processing Industry

The Baltic states' food processing industries offer a systematic built-in resiliency. Such capacity to process a portion of domestic agricultural production gives these countries an advantage when compared with other nations that need to import most of their processed food requirements. In the event of a conflict, the food processing industry could be repurposed within the Baltic states as part of a war effort. More specifically,



Sunset in Latvian farmland. A conflict with Russia could severely threaten food security in Latvia and the other Baltic states. (Photo by Adobe Stock)

food processing technologies could be applied to extend the shelf life of food products and stocks that would be critical in a context of disrupted regional trade. As an example, much of the fresh milk production (a key agricultural product in these countries) could be processed into less perishable food products such as cheese.

## Vulnerabilities of Food Systems in the Baltic States

**Geography.** Following the invasion of Ukraine by Russia, global commodity traders were pessimistic about the former's ability to continue to export its grain production. However, while negatively impacted by the war, this supply chain proved to be quite resilient. Larger than expected volumes of grains continued to flow out of Ukraine via the Black Sea and the alternative land routes at the western border—including the Solidarity Lanes set up by the EU. Such successes were possible thanks to intense diplomatic efforts and close coordination among

Ukrainian farmers, various governments, and transportation networks.<sup>22</sup>

Nevertheless, it would be challenging to replicate the Ukrainian success story in the Baltic states because of geographic differences. The Baltic states are surrounded by either Belarus or Russia except for the Suwalki Gap, where Lithuania borders Poland. If Russian forces occupy the Suwalki Gap, movement of goods in and out of the Baltic states would have to be entirely conducted through seaports such as Klaipeda (Lithuania), Riga (Latvia), or Tallin (Estonia).<sup>23</sup> However, that trade could be severely restricted as the Baltic Sea becomes contested or if kinetic attacks, cyberattacks, or sabotage operations disrupt seaport operations.

**Agricultural infrastructure.** As previously discussed, it is plausible to assume that Russia would attempt to disrupt agricultural production and trade across the Baltic states prior to and during the kinetic phase of the conflict. This could happen through targeted cyberattacks, sabotage actions, and direct



attacks aimed at damaging agricultural equipment, food storage and processing facilities, agricultural input plants (e.g., fertilizers and seeds), seaports, etc. This is a warranted concern because Russia has inflicted direct damages to Ukraine's agricultural sector, estimated at \$8.7 billion as well as \$40.3 billion in losses associated with the decrease in production, lower prices, and higher operational costs.<sup>24</sup> Another significant development was the placement of a very large number of landmines

**Similarity of crop production and interregional trade.** Due to their geographic proximity, all three Baltic states have similar crop calendars. For example, wheat, barley, and rye are key crops produced in all three countries, and their planting and harvest seasons fall between April and October. The level of impact of Russian military aggression on the Baltic states' food systems will vary across different stages of agricultural seasons. As an illustrative example, disruptions

“Disruptions happening immediately before harvest season would catch these countries' crop inventories at their lowest levels—commodity stocks are normally consumed throughout the season and then replenished with the following harvest.”

in agricultural fields and forests and the threat posed by thousands of unexploded ordnances. To put it in perspective, Ukraine became, in 2023, the most heavily mined country in the world. As a result, it is estimated that five million hectares (or approximately 15.2 percent) of Ukraine's total farmland are unsuitable for agricultural use due to the presence of landmines or explosive ordnances or for being too close to the front.<sup>25</sup> An added complexity is the cost of demining—more than \$5,000 per hectare. Despite Ukraine government providing subsidies, demining remains too costly for many farmers and 170 have been killed while trying to do it themselves.<sup>26</sup>

Despite all these adversities, Ukraine's food systems displayed great resiliency and managed to continue to produce and export significant volumes of grains and oilseeds.<sup>27</sup> However, the negative impacts from these types of disruptions to local food production in the Baltic states would be magnified by a Russian naval blockade and/or by the occupation of the Suwalki Gap. Furthermore, road and rail infrastructure within the Baltic states is already limited. An occupational force, whether friend or foe, would compete for the access and use of that infrastructure. In that context, Baltic governments will be challenged to deliver the existing stocks of food products at a set frequency to meet the ever-increasing demands of their citizens caused by gaps in the food supply chain.

happening immediately before harvest season would catch these countries' crop inventories at their lowest levels—commodity stocks are normally consumed throughout the season and then replenished with the following harvest.

Despite regional similarities in agriculture production, there is also significant agricultural trade amongst the Baltic states. For example, even though the Baltic states are typically net grain exporters, much of this trade occurs among the three countries. This represents a vulnerability because in the event of a conflict with Russia, this intraregional trade would certainly stop as the Baltic states focus on meeting their own domestic needs. For example, Latvia is a wheat net exporter, but it also imports significant volumes of wheat from Estonia and Lithuania. As another example, in 2022, Russia, Belarus, and the two other Baltic states accounted for 38 percent of the value of Estonia's food and live animal imports.<sup>28</sup>

**Dependency on food imports.** All three Baltic states have an advanced and productive agricultural sector and have achieved self-sufficiency in many food products such as wheat or dairy products. However, the region's climate is not suitable to produce certain agricultural products such as corn or specific fruits and vegetables. Thus, the region must import those products to meet its domestic demand; the EU is a major supplier. This section identifies the main

**Table. Food Products Where Baltic States Depend on Imports to Meet Their Domestic Demand**

| Baltic States | Grains and Oilseeds                   | Animal Products                | Fruits and Vegetables                       |
|---------------|---------------------------------------|--------------------------------|---|
| Lithuania     | Corn, rye, and sunflower seed         | Poultry and pork meat          | Potatoes, vegetables, and fruits in general |
| Latvia        | Corn                                  | Poultry and pork meat          | N/A   |
| Estonia       | Corn, durum wheat, and sunflower seed | Eggs, honey, pork, and poultry | Potatoes, vegetables, and fruits in general |

(Table by authors; supply balances published by three Baltic states' statistical agencies: Central Statistics Bureau of Latvia; Lithuania Official Statistics Portal, Ministry of Agriculture of the Republic of Lithuania, Agriculture and Food Sector; and Statistics Estonia)

imported food products that would be impacted by disruptions in trade into each of the Baltic states. This was achieved through an analysis of available supply balance sheets published by each Baltic state's national statistics agencies. The dependency on imports was determined each time domestic production was below domestic use of that specific food product. For example, in 2022, Latvia produced 38.7 thousand tons of pork but also consumed 84.0 thousand tons of pork and meat products.<sup>29</sup> Thus, it is determined that Latvia relies on imports to meet its domestic consumption of pork.

It must be noted that this formula does not account for the timing of the usage, only the net usage at year end close. Furthermore, the list of products shown in the table is an underrepresentation of the true universe of imported food products by the Baltic states because supply balance data was not consistent across the three countries. More specifically, data was either limited to main food product categories or simply not available—as the case of fruits and vegetables in Latvia. Nevertheless, results reveal that in the event of a conflict with Russia, all three Baltic states would deal with shortages of certain grains and oilseeds, specific animal proteins, as well as fresh fruits and vegetables.

Data also shows that in Lithuania, some of these imported products are also among the nation's most consumed food products.<sup>30</sup> In a domino effect fashion, the unavailability of these foodstuffs would lead to a greater consumption rate and faster depletion of other available food products (e.g., beef or dairy products). Another important consideration is that during a conflict, the Baltic states' fishing fleet would not be able to operate in the Baltic Sea. Because fish

is an important part of the region's diet, this would only add to food insecurity in the area.

In summary, a prolonged disruption to food imports will inevitably lead to malnutrition amongst large segments of the population in the region. According to the United Nations Food and Agriculture Organization, in 2022, the average per capita daily dietary energy requirement for the Baltic states was around 2,500 kcal, whereas the minimum requirement was nearly 1,900 kcal. Based on these metrics, disruptions to local food supplies that reduce average population's current calory intake by more than 23 percent would cause the region's population to go undernourished.<sup>31</sup> What is more concerning, if the situation deteriorates into a humanitarian crisis, both government and nongovernment organizations (local and non-Baltic) would not be able to access conflict areas to deliver food assistance.

**Large presence of military forces, refugees, and internally displaced populations.** It is estimated that, in 2023, the combined population of the Baltic states was just over 5.6 million people.<sup>32</sup> A large and prolonged presence of NATO and Russian militaries in this region would exert a significant pressure on local food systems. As an illustrative example, the presence of just one NATO corps in the region would require feeding near forty-five thousand additional people in an area that may be already experiencing food insecurity.<sup>33</sup> As evidenced by the conflict in Ukraine, Russian forces themselves may be less food secure than the countries they invade. This is because the existing Russian logistical systems are not well prepared to sustain large military operations.<sup>34</sup> Thus, it is plausible to have Russian military forces resorting to local food resources that are already damaged or weakened by earlier Russian military actions.



So far, the war in Ukraine resulted in 3.7 million IDPs and 6.5 million refugees.<sup>35</sup> A similar scenario should be anticipated in the Baltic states. Hundreds of thousands of civilians would move across the region as they escape the conflict. This, in turn, would put enormous pressure on local food systems and trigger humanitarian crises. Unlike what happened in Ukraine, it is unclear whether EU's assistance and other humanitarian organizations (e.g., United Nations High Commissioner for Refugees) would be able access the region to deliver food aid. Lastly, large flows of civilian populations would compete for and congest the same transportation infrastructure used by NATO and Russian military forces.

**Lack of strategic food stockpiles and loss of local food production systems.** To our knowledge, there is no evidence that the Baltic states have strategic food stockpiles that would allow them to absorb large shocks to their food systems such as a naval embargo by the Russian navy or the occupation of the Suwalki Gap. One may draw comparisons to China and Taiwan to highlight the importance of this shortcoming. As the military tensions between these two countries increase, these nations are concerned about the resiliency of their own food systems. As a result, their governments maintain food stockpiles large enough to feed their populations in the event of a major shock—for up to six months in the case of Taiwan and up to two years in the case of China.<sup>36</sup> When comparing geographical advantages and disadvantages, Russia with friendly land borders and a large land mass, most closely matches China. The Baltics, on the other hand, potentially cut off by a contested Baltic Sea and surrounded by enemy forces, more closely match the island of Taiwan.

A RAND Corporation study recommended the establishment of decentralized stockpiles and caches of key commodities that would support resistance activities in the Baltic states. These supplies would include food stocks and water purification systems, amongst other essential goods.<sup>37</sup> A geographic dispersion of reserve food stockpiles would make it harder for Russian forces to detect and neutralize them. Moreover, the destruction of decentralized stockpiles would not have cascading effects across a more integrated food storage system. Nevertheless, this strategy would only help military resistance in the Baltic states to remain

operational for a longer period but would not be sufficient to feed the greater civilian population.

The buildup of strategic food stockpiles would require large storage facilities (e.g., grain silos or cold storage warehouses), which are costly to build and maintain. Second, these facilities normally have a large footprint and would be vulnerable to attacks like those we witnessed in Ukraine. Hence, with the assistance of NATO, the Baltic states should develop defensive capabilities focused on protecting food storage facilities and key agricultural infrastructure against Russian kinetic aggression and cyberattacks. This could be achieved through centralized government programs of public-private partnerships.

Lastly, based on evidence from Ukraine, it is important that the Baltic states sustain and strengthen localized food systems that may be more resilient against major disturbances. This is because small family farms and rural households rely less on external resources and complex supply chains to secure their farm inputs—they employ household/local labor, apply organic fertilizers, and use local seed varieties. Furthermore, these small-scale farms tend to process parts of their own food and trade their production on local markets and via informal networks.<sup>38</sup>

It was also observed that many IDPs in Ukraine relocated to rural areas where they became involved in subsistence farming and assisted local farmers.<sup>39</sup> Following the accession to the EU, the transition toward fewer and larger commercial farms gained momentum in the Baltic states. This transformation has happened at the expense of smaller family farming operations.<sup>40</sup> This loss of more resilient local food systems represents a threat to food security in rural areas in the event of a conflict with Russia.

## Conclusion

The Baltic states all have highly productive agricultural systems comprised of a robust private agribusiness sector and supported by modern infrastructure and the EU's Common Agricultural Policy. As a result, the countries have a dependable food supply and high levels of food security. However, a military conflict with Russia would put these food systems under great stress and reveal serious cracks within them. Following NATO's resilience and civil preparedness framework codified in Article 3, this study assesses the resiliency of

the Baltic states' food systems against major shocks. For that, several strengths and vulnerabilities were identified and discussed in detail.

While the region has some important built-in resiliencies, the inability to import foods and the lack of strategic food stockpiles would pose a serious threat to regional food security. While these nations have achieved self-sufficiency in specific food categories (e.g., grains, dairy, and meat products), they remain dependent on imports of food products that cannot be locally produced due to the region's climate (e.g., feed grains, certain fruits, and vegetables). Food production and food security in the Baltic states could also be negatively impacted by Russian attacks on local agricultural infrastructure, a large presence of military forces, and influxes of refugees and IDPs.

It is critical that the Baltic states address the vulnerabilities identified in this study to strengthen the resilience of their agricultural and food sectors

against Russian military aggression. Such steps would be vital to the resilience of NATO's northeastern flank and would reduce Russia's ability to catch this region off guard. For example, a minimum level supply and communication lanes through the Baltic Sea must be maintained to avoid Russia putting the region in a chokehold and isolated from the other NATO neighbors. Furthermore, government policies and public-private partnerships should be developed to protect privately owned agricultural infrastructure against cyber threats, acts of sabotage, or kinetic attacks. Moreover, if properly protected, strategic food stockpiles could buy the Baltic states and NATO more time to liberate the region from Russian occupation while avoiding a widespread humanitarian crisis. Lastly, the Baltic states should preserve local and decentralized food systems (e.g., small-scale farming operations, local farmers markets and food processing, etc.), which tend to be more resilient to disruptions. ■

## Notes

1. Tom Standage, *An Edible History of Humanity* (New York: Walker, 2009), 151–58; Scott Reynolds Nelson, *Oceans of Grain: How American Wheat Remade the World* (New York: Basic Books, 2022), 187–90.

2. North Atlantic Treaty art. 3, 4 April 1949, 63 Stat. 2241, 34 U.N.T.S. 243, [https://www.nato.int/cps/en/natohq/official\\_texts\\_17120.htm](https://www.nato.int/cps/en/natohq/official_texts_17120.htm); "Resilience, Civil Preparedness, and Article 3," NATO, last updated 2 August 2023, [https://www.nato.int/cps/en/natohq/topics\\_132722.htm](https://www.nato.int/cps/en/natohq/topics_132722.htm).

3. Katalin Bodnár and Tobias Schuler, "The Surge in Euro Area Food Inflation and the Impact of the Russia-Ukraine War," European Central Bank, accessed 8 April 2024, [https://www.ecb.europa.eu/press/economic-bulletin/focus/2022/html/ecb.ebbox-202204\\_06~4e32074619.en.html](https://www.ecb.europa.eu/press/economic-bulletin/focus/2022/html/ecb.ebbox-202204_06~4e32074619.en.html).

4. Cindy Regnier, "Is the Suwałki Gap the Most Dangerous Place on Earth?," European Consortium for Political Research, accessed 8 April 2024, <https://theloop.ecpr.eu/is-the-suwalki-corridor-the-most-dangerous-place-on-earth/>.

5. Matthew Thomas, "Maritime Security Issues in the Baltic Sea Region," Foreign Policy Research Institute, 22 July 2020, <https://www.fpri.org/article/2020/07/maritime-security-issues-in-the-baltic-sea-region/>.

6. Martin Šebeňa, Thomas Chan, and Matej Šimalčík, "Trade Weaponization: Vulnerabilities in the Baltic Exports to China," Central European Institute of Asian Studies, 19 June 2023, <https://ceias.eu/trade-weaponization-vulnerabilities-in-the-baltic-exports-to-china>.

7. Kyiv School of Economics, *Report on Damages and Losses to Infrastructure from the Destruction Caused by Russia's Military Aggression against Ukraine as of June 2023* (Kyiv, UA: Kyiv School of Economics, July 2023), [https://kse.ua/wp-content/uploads/2023/09/June\\_Damages\\_ENG\\_Report.pdf](https://kse.ua/wp-content/uploads/2023/09/June_Damages_ENG_Report.pdf).

8. Sionegael Ikeme and Doo Bong Han, "The Impacts of the EU Integration on Food Production in Baltic Countries" (paper, Agricultural and Applied Economics Association Annual Meeting, Austin, TX, 1–3 August 2021), 313989, <https://ideas.repec.org/p/ags/aaea21/313989.html>.

9. Anu Mai Köll, "Baltic Agriculture: The Political Economy of Extremes," EuropeNow, 5 September 2018, <https://www.europenowjournal.org/2018/09/04/baltic-agriculture-the-political-economy-of-extremes/>.

10. "The Food System at the Heart of Latvia's Economy," EIT Food, 2023, <https://www.eitfood.eu/in-your-area/latvia>.

11. Central Statistics Bureau of Latvia, *Agriculture of Latvia 2023* (Riga, LV: Central Statistics Bureau of Latvia, 20 June 2023), <https://stat.gov.lv/en/statistics-themes/business-sectors/fishery-and-aquaculture/publications-and-infographics/15214?themeCode=LA>.

12. Ibid.

13. Ibid., 70.

14. Ministry of Agriculture of the Republic of Lithuania, *Lithuanian Agrifood Sector* (Vilnius, LT: Ministry of Agriculture of the Republic of Lithuania, n.d.), accessed 18 April 2024, <https://zum.lrv.lt/en/information/agriculture-and-food-sector-in-lithuania/>.

15. Ibid.

16. "Indicators Database [in Lithuanian]," Lithuania Official Statistics Portal, accessed 18 April 2024, <https://osp.stat.gov.lt/statistiniu-rodikliu-analize/>.

17. "At a Glance: Estonia's CAP Strategic Plan," European Commission, accessed 8 April 2024, [https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans/estonia\\_en](https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans/estonia_en).

18. "Estonia – Country Commercial Guide/Agricultural Sector," International Trade Administration, last updated 15



March 2024, <https://www.trade.gov/country-commercial-guides/estonia-agricultural-sector>.

19. "Are Baltic Countries a Tech Hotspot?" The Baltic Times, 5 January 2023, <https://www.baltictimes.com/are-baltic-countries-a-tech-hotspot/>.

20. Antoaneta Roussi, "Estonia Fends Off 'Extensive' Cyber-attack Following Soviet Monument Removal," Politico, 18 August 2022, <https://www.politico.eu/article/estonia-extensive-cyber-attack-following-soviet-war-monument-removal/>.

21. Ibid.; Helga Willer et al., *The World of Organic Agriculture: Statistics & Emerging Trends 2021* (Frick, CH: Research Institute of Organic Agriculture FiBL; Bonn, DE: IFOAM—Organics International, 2021), <https://www.fibl.org/fileadmin/documents/shop/1150-organic-world-2021.pdf>.

22. Iuliia Tetteh, Joana Colussi, and Nick Paulson, "The Second Harvest Under Missiles: Update on the Situation in Ukraine," *Farmdoc Daily*, no. 13 (11 October 2023): 186, <https://farmdocdaily.illinois.edu/2023/10/the-second-harvest-under-missiles-update-on-the-situation-in-ukraine.html>.

23. Zahra Ahmed, "10 Major Ports in The Baltic Sea," Marine Insight, 12 June 2023, <https://www.marineinsight.com/know-more/major-ports-in-the-baltic-sea/>.

24. Kyiv School of Economics, *Report on Damages and Losses to Infrastructure*.

25. Iuliia Osmolovska, *Walking on Fire: Demining in Ukraine* (Bratislava, SK: GLOBSEC, 26 April 2023), <https://www.globsec.org/what-we-do/publications/walking-fire-demining-ukraine>; Caitlin Welsh et al., *From the Ground Up: Demining Farmland and Improving Access to Fertilizer to Restore Ukraine's Agricultural Production* (Washington, DC: Center for Strategic and International Studies, 11 December 2023), <https://www.csis.org/analysis/ground-demining-farmland-and-improving-access-fertilizer-restore-ukraines-agricultural>; "VKK34: Exports and Imports of Goods by Commodity (SITC) and Country 2004–2022," Statistics Estonia, accessed 8 April 2024, [https://andmed.stat.ee/en/statsql/majandus\\_valiskaubandus\\_kaupade\\_vk/VKK34](https://andmed.stat.ee/en/statsql/majandus_valiskaubandus_kaupade_vk/VKK34).

26. "DIY Landmine-Clearing Is Putting Ukrainian Farmers in Danger," *Economist* (website), 8 April 2024, <https://www.economist.com/europe/2024/04/08/diy-landmine-clearing-is-putting-ukrainian-farmers-in-danger>.

27. Ibid.

28. "VKK34: Exports and Imports of Goods by Commodity (SITC) and Country 2004–2022," Statistics Estonia,

accessed 8 April 2024, [https://andmed.stat.ee/en/statsql/majandus\\_valiskaubandus\\_kaupade\\_vk/VKK34](https://andmed.stat.ee/en/statsql/majandus_valiskaubandus_kaupade_vk/VKK34).

29. Ibid.

30. "Foodstuff Consumption Per Capita [in Lithuanian]," Lithuania Official Statistics Portal, accessed 8 April 2024, [https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S9R104#](https://osp.stat.gov.lt/statistiniu-rodikliu-analize?indicator=S9R104#/).

31. "FAOSTAT," Food and Agriculture Organization of the United Nations (FAO), accessed 8 April 2024, <https://www.fao.org/faostat/en/#data/FS>.

32. "The World Factbook: Explore All Countries," Central Intelligence Agency, accessed 8 April 2024, <https://www.cia.gov/the-world-factbook/countries/>.

33. "Corps," U.S. Department of Defense, accessed 8 April 2024, <https://www.defense.gov/Multimedia/Experience/Military-Units/army/#army>.

34. Marta Kepe, *Logistics and Sustainment in the Russian Armed Forces* (Santa Monica, CA: RAND Corporation, 2023), [https://www.rand.org/pubs/research\\_reports/RRA2523-1.html](https://www.rand.org/pubs/research_reports/RRA2523-1.html).

35. "Ukraine Emergency," USA for UNHCR, the UN Refugee Agency, accessed 18 April 2024, <https://www.unrefugees.org/emergencies/ukraine/>.

36. Gustavo Ferreira and Jamie Critelli, "Does China Have Enough Food to Go to War? Practical Indicators for U.S. Military and Policy Makers," *Military Review* 102, no. 4 (July-August 2022): 84–96, <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/July-August-2022/Critelli/>; Ferreira and Critelli, "Taiwan's Food Resiliency—or Not—in a Conflict with China," *Parameters* 53, no. 2 (2023): 39–60, <https://press.armywar-college.edu/parameters/vol53/iss2/10/>.

37. Stephen J. Flanagan et al., *Deterring Russian Aggression in the Baltic States through Resilience and Resistance* (Santa Monica, CA: RAND Corporation, 15 April 2019), [https://www.rand.org/pubs/research\\_reports/RR2779.html](https://www.rand.org/pubs/research_reports/RR2779.html).

38. FAO, *Ukraine: Impact of the War on Agricultural Enterprises* (Rome: FAO, 2023), <https://doi.org/10.4060/cc5755en>.

39. Natalia Mamonova, Susanne Wengle, and Vitalii Dank-evych, "Queen of the Fields in Wartime: What Can Ukrainian Corn Tell Us About the Resilience of the Global Food System," *The Journal of Peasant Studies* 50, no. 7 (2023): 2513–38, <https://doi.org/10.1080/03066150.2023.2255568>.

40. Ibid.



President Harry S. Truman (*seated*) signs a proclamation declaring the twelve-nation North Atlantic Pact into effect 24 August 1949 in the White House's Oval Office, Washington, D.C. Witnessing the signing are (*from left to right*) Sir Frederic Hoyer-Millar of the United Kingdom, Ambassador Henrik de Kauffmann of Denmark, Canadian Embassy Counselor W. D. Matthews, Secretary of Defense Louis Johnson, Ambassador Wilhelm Munthe de Morgenstjerne of Norway, Ambassador Henri Bonnet of France, Ambassador Baron Robert Silvercruys of Belgium, Ambassador Pedro Pereira of Portugal (partly obscured by Acheson), Secretary of State Dean Acheson, Netherlands Minister Jonkheer Otto Reuchlin, and Italian Embassy Counselor Mario Lucielli. (Photo courtesy of the Harry S. Truman Presidential Library and Museum)

# From the Hindu Kush to the Banks of the Dnieper

## NATO's Promise and Peril in a New Reality

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The most successful alliance in world history began three-quarters of a century ago in the wake of the most significant conflict the world had ever seen. The Western powers that defeated fascism in Italy and Nazi Germany came together not to fight a war but to deter the country that had borne the brunt of Adolf Hitler's aggression, Soviet Russia. After absorbing some 80 percent of the casualties, and in the wake of a devastating war in Europe, Soviet Russia dropped an "Iron Curtain" over Eastern Europe, in the words of the always quotable Winston Churchill.<sup>1</sup>

Western concern over the Soviet Union long predated the North Atlantic Treaty Organization's (NATO) formation, of course, but that antipathy flipped when Hitler's legions invaded the Soviet Union in 1941. Underlining the change, Churchill joked to his secretary after the initiation of Operation Barbarossa, "If Hitler invaded Hell, I would at least make a favorable reference to the Devil in the House of Commons."<sup>2</sup> Postwar Soviet intentions toward Europe were primarily an American and British concern, even as the USSR broke the back of the Nazi juggernaut. Hitler had only five days to live by the time Soviet and American troops linked up at the Elbe River in Germany on 25 April 1945, eventually leading to separate Russian and Western visions emerging for postwar Europe.

NATO's establishment to confront Soviet aggression was never a foregone conclusion. There was resistance in Europe and America, as old ways of thinking gave way to the ideas of reconstruction and integration as the best hopes for obtaining peace and security. However, since its tumultuous birth, NATO's ability to maintain credible deterrence in the face of threats and to adapt in changing times has reinforced its vital importance. Founded to "Keep the Americans in, the Soviets out, and the Germans down," as the wag put it, the Western Alliance now faces both opportunity and peril.<sup>3</sup> Western states are confronting an old threat from the East, and new countries, such as Finland, Sweden, and Ukraine, have actively sought membership. Even some in America, the founding and indispensable pillar of NATO, question its commitment to the cause for the first time in five generations.

## Toward Integration, Peace, and Security

Competing visions for postwar Europe collided at the Potsdam Conference in July 1945.<sup>4</sup> Continuing Franklin Roosevelt's foreign policy, Harry Truman came to the conference to preserve the wartime alliance between the United States and Great Britain and to gain cooperation from the USSR to manage European peace and security. The ever-pragmatic Churchill was concerned that the Soviets would consider Germany's demise an opportunity to establish dominance over the European continent. As usual, he was right.

Joseph Stalin, citing the enormous Soviet sacrifices during the war, demanded basing on the Bosphorus Strait, German war reparations, and refused to endorse democratic elections in Eastern Europe. Subsequent meetings of foreign ministers in 1945 and 1946 only confirmed the emerging reality of two spheres of influence. As Churchill correctly anticipated, the Soviets consolidated gains in their sphere. They expanded their influence outside it through political intrigue and military pressure in the case of Czechoslovakia, Greece, and Türkiye.

Soviet aggression forced Western leaders to lay aside ancient rivalries and unite voluntarily for the first time in history. After much debate in Congress, the United States pursued

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the Economic Recovery Plan, better known as the Marshall Plan, as the best approach for confronting Soviet expansion and suppressing subversive communist movements in Western Europe. The Committee of European Economic Cooperation, established in

the United States.<sup>8</sup> That proposal gained strength after the Soviets engineered the ouster of Czechoslovakian President Edvard Beneš a month later. Belgium, France, Luxembourg, the Netherlands, and the United Kingdom signed the Treaty of Brussels on 17 March

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1947, distributed Economic Recovery Plan funds and demonstrated the benefits of U.S.-European economic cooperation.<sup>5</sup> Deeper integration occurred in 1951 with the establishment of the European Coal and Steel Community—a precursor to the European Union.<sup>6</sup>

The idea behind reconstruction and integration was straightforward. Instead of competing over limited territory and resources, Western Europe would develop institutions to foster cooperation and manage interstate affairs peacefully. Norms and rules would dictate the settlement of disputes instead of war. Unfortunately, building peace and security solely through economic integration was impossible with the Soviet threat looming. Security was essential to allow economic integration—or, given the danger, capitalism. To this end, British Foreign Minister Ernest Bevin and French Foreign Minister Georges Bidault started a diplomatic process that eventually led to the birth of NATO.

NATO's origins date back to the Treaty of Dunkirk in March 1947, when Britain and France signed a mutual defense pact that grew to include the Benelux countries.<sup>7</sup> Bevin and Bidault wrote a treaty that committed member countries to defend each other from a revanchist Germany as strategic misdirection; in fact, Germany was less of a concern than the Soviet Union. While the treaty alleviated French concerns about another war with Germany, it also served an essential function in coalescing Western European security concerns around the Soviet threat.

In January 1948, Bevin took the idea of integration further through a speech to the British Parliament urging the organization of the “kindred souls of Europe” in a union that would eventually require the support of

1948, forming the Western Union.<sup>9</sup>

However, without American support, the Western Union could not mount a credible defense against Soviet arms. The Truman administration supported an alliance with the newly unified Europeans but confronted difficulties convincing Congress of the need for U.S. involvement in European security—a problem again rearing its nativist head today. U.S. resistance to joining this alliance came from both political parties but was most acute among Republicans. Conservative isolationists like Sen. Robert A. Taft argued that America should avoid entangling European alliances.<sup>10</sup> Truman made Republican resistance a campaign talking point in 1948. “The communists know the Republican record,” he proclaimed in a Harlem speech, “even if the Republicans hope that the rest of us do not ... The communists want us to get out of Europe and Asia ... They know that they cannot get what they want as long as the Democratic Party controls [the presidency].”<sup>11</sup> Whatever the merits of Truman's claim that the communists preferred a Republican victory, his reelection secured a more direct American commitment to the security of Europe. On 4 April 1949, the Western Union nations signed the North Atlantic Treaty with the United States, Canada, Portugal, Italy, Norway, Denmark, and Iceland, signaling a broad effort to achieve peace and security through institutional integration. NATO's first supreme commander was Gen. Dwight Eisenhower; his election to the presidency in 1952 quelled the isolationist influence in America for some time and established an extraordinary bipartisan American

consensus on the near sanctity of American commitment to NATO for the next four generations.<sup>12</sup>

## Seventy-Five Years of Success

From 1949 to 1991, the Cold War remained cold in Europe because NATO maintained a credible deterrent to Soviet conventional and nuclear attacks. Credibility came from several factors. First, the United States stationed large numbers of troops on the continent, linking U.S. and European security interests. Thus, alliance members aggregated conventional capabilities to confront a potential Soviet attack. Second, the strategy of flexible response credibly integrated conventional and nuclear deterrence.<sup>13</sup> The strategy of flexible response reinforced conventional forces with tactical and strategic nuclear weapons, which provided political leaders with a more comprehensive range of options in conflict. This strategy eliminated, in theory, the unpalatable dilemma of capitulation to the Soviets or strategic nuclear exchange. The success of this strategy stemmed from the cohesion created by the U.S. commitment to NATO.

Given that alliance cohesion is a critical capability, the Kremlin devoted much time and effort during the Cold War to propaganda activities meant to divide the Western Alliance. As early as April 1949, less than a month after NATO's founding, the Soviets published an article in the *New York Times* claiming the new organization was offensive, undermined the United Nations, excluded the Soviet Union, and categorically eroded commitments made at Potsdam.<sup>14</sup> Stalin's famous "Peace Note on Germany" in 1952, calling for the reunification of Germany as neutral, attempted to present the USSR as peaceful and the United States as the source of the Cold War confrontation.<sup>15</sup> Henry Kissinger noted that the tactic failed because Western leaders understood that negotiations ran the "risk of a collapse of all that had been built in the Atlantic Alliance."<sup>16</sup> In 1955, the Federal Republic of Germany (FRG) joined NATO with equal status and became one of its most influential members. In the late 1960s, German Chancellor Willy Brandt embraced *Ostpolitik* (Eastern Policy) with the German Democratic Republic in the East, which implied normalizing relations with the Soviets. Still, despite some political pressure to do so, Brandt did not allow his policies to undermine West German security commitments to

NATO.<sup>17</sup> He understood well that the alliance was the security institution that provided the necessary peace and security that enabled overarching European integration.

Perhaps the greatest threat to the unity of NATO in the Cold War occurred during the early 1980s after the Soviets deployed SS-20 intermediate-range ballistic missiles in the late 1970s. The decision to deploy these missiles was viewed as a betrayal of Kissinger's détente policy and caused much debate in the West on how to respond. Ronald Reagan won the presidency in 1980 with an assertive policy of confronting the Soviets. He committed to deploying Pershing II missiles to Germany to counter the SS-20 threat and bolster the alliance's flexible response options. This support caused outrage in certain political blocs inside the FRG. To attack this fissure, the Soviets used organizations such as the World Peace Council (WPC), a communist front organization, to portray U.S. policy as recklessly escalatory. According to declassified CIA reports, the Soviets used the WPC to "generate political pressure at the national level [in Europe] to oblige non-communist governments to support or, at a minimum, to acquiesce before Soviet demands and preconditions."<sup>18</sup> The activities of the WPC had some effect on the FRG within the German Social Democratic Party. Eventually, WPC activities contributed to the establishment of the German Green Party, a splinter from the German Social Democratic Party. The Green Party was anti-NATO, against U.S. participation in European security, and a strong proponent of normalizing relations with the Kremlin.<sup>19</sup> Reagan succeeded in getting the Pershing IIs deployed despite political pressure from these groups. Ultimately, these deployments led to opening dialogue with the Soviets, resulting in the 1987 Intermediate Nuclear Forces Treaty.<sup>20</sup> This treaty removed both the Pershing II and SS-20s from Europe. Thus, NATO's solidarity in the face of Soviet pressure changed the security environment and led to a successful conclusion to the long Cold War. It also forced the alliance to adapt to new international realities.

Alliance formation is a product of the social, political, and security realities of the times. The creation of NATO was rooted in the threat posed when the Soviet Union exploited postwar economic circumstances with leftist political agitation backed by a robust military presence in Eastern Europe. However, Mikhail

Gorbachev's *glasnost* and *perestroika* initiatives created new realities that created questions about the Western Alliance's future. As Michael Howard presciently wrote in 1983, the utility of an alliance must not focus on "only whether the existing solutions are still valid for the problems that evoked them, but whether the problems themselves remain unchanged, and whether attitudes stereotyped in the late 1940s will still be relevant half a century later."<sup>21</sup> Throughout the 1990s, NATO member countries determined that the political character of the Soviet Union may have changed, but the nature of security challenges remained constant. In this fluid security environment, the Western Alliance proved remarkably adept at adapting its structure to new realities.

The Soviet Union's demise from 1990 to 1991 did not change the fact that the nature of European security remained unchanged in three fundamental ways. First, in the Balkans, an ethnoreligious conflict raged as Yugoslavia came apart at the seams and threatened to spread to other parts of the continent. The outcome demonstrated that European peace and security did not only hinge on NATO-Russia relations. Second, European leaders witnessed the benefits of decreased interstate rivalry from "institutional binding" through political organization. While indeed a security organization, NATO was also a political organization that facilitated interstate cooperation and contributed to an unprecedented period of peace and security in Europe. Nobody wanted to go back to the days of European power politics. Finally, while the Soviet Union dissolved as a state, the Russian Federation remained a formidable presence that could threaten smaller countries in the East. It is no accident that President Lech Wałęsa of Poland, Václav Havel of the Czech Republic, and Árpád Göncz of Hungary met with U.S. President Bill Clinton in early 1993, begging admission to NATO to protect their newfound freedom and independence.<sup>22</sup> Their respective histories predated the Soviet Union and underscored the innate expansionist tendencies of the Kremlin. These security realities influenced how NATO adapted after the Cold War.

Intending to reorient its focus from the Soviets to a more politically focused agenda, NATO reformed itself while maintaining an ability to respond militarily to emerging security crises. President George H. W. Bush

and Secretary-General Manfred Wörner started this process as early as 1989, lowering conventional and nuclear force levels while reducing the number of exercises and alerts.<sup>23</sup> In 1990, the NATO Military Committee announced that the Warsaw Pact was no longer a threat and restructured its military forces toward a less threatening multinational orientation. These military reforms, intended to assuage Russian fears of NATO, were reinforced with substantial political reforms that went even further and signaled NATO's new perspective vis-à-vis Russia.

At the 1991 Rome Summit, for example, the Western Alliance announced the creation of the North Atlantic Cooperation Council to facilitate East-West dialogue. The January 1994 Brussels Summit announced the creation of the Partnership for Peace and opened the alliance for deep cooperation with Russia and other Eastern European countries. The Russians only halfheartedly participated in Partnership for Peace because, as Russian ambassador Andrei Kozyrev expressed in 1994, the initiative was acceptable for "small poodles" but insufficient for "an elephant like Russia."<sup>24</sup>

Some of NATO's changes were controversial. For instance, NATO's *Strategic Concept* evolved during the 1990s to incorporate the "Euro-Atlantic area" and "areas on the periphery" of the alliance.<sup>25</sup> Since the alliance expanded with fifteen new members in 1990, the so-called "out of area" jurisdiction vastly increased NATO's operational area and facilitated its commitment to supporting America in Afghanistan. However, it is the Kremlin's recent military adventurism, not NATO strategy or policy, that legitimized the continuation of NATO.

Writing in 1999 to commemorate the fiftieth anniversary of NATO, historian Michael Howard characterized the organization as "an unhappy successful marriage," and the analogy was undoubtedly appropriate.<sup>26</sup> As is the case with any family, feuds periodically erupted on how the members of the Western Alliance should interact on issues such as the proper level of defense outlays of each member's nuclear deterrence strategies and the credibility of U.S. extended deterrence. French President Charles de Gaulle separated the French military from NATO's Integrated Command Structure in 1966 over disagreements related to command and control. Still, France never stopped participating in NATO exercises, and full reintegration into the Integrated Command Structure was reestablished in 2004.<sup>27</sup> The



ability to work through such disagreements is rooted in the West's singular commitment to demonstrate a credible defense against external attack.

NATO is a defensive organization that relies on collective security to deter aggression.<sup>28</sup> The charter's famous Article 5 enshrines the concept "that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all."<sup>29</sup> For the Western Alliance to adequately deter, as Thomas Schelling noted, it must make the potential adversary "believe the threat" of collective response to aggression.<sup>30</sup> Thus, the credibility of response closely connects to the commitment of every alliance member to consistently signal commitment through public pronouncements, exercises, forward stationing of troops, and, when necessary, combat operations.<sup>31</sup> Throughout its seventy-five-year existence, the Western Alliance successfully signaled its commitment, maintained a credible deterrence posture, and contained the Soviet Union. The support to the United States after the 9/11 attacks was arguably the strongest signal of commitment in its history.

Less than twenty-four hours after the deadly 9/11 attacks on the United States, the Western Alliance invoked Article 5 for the first and only time in its history and committed to America's defense. During its twenty-year commitment to Afghanistan, NATO member states from Europe lost 1,144 troops killed in action. They committed over \$49 billion in security investments, mainly from the UK and Germany.<sup>32</sup> To be sure, Allied participation came with domestic political controversy and national caveats, but the investment in blood and treasure is indisputable.<sup>33</sup> The failure in Afghanistan had many fathers, but an absence of NATO support was not one of them. In many ways, NATO's ability to adapt to changing times enabled its extended support in Afghanistan.

## NATO's Future: Beyond the Dnieper

Through its unlawful, unnecessary, and misguided foreign policy since 2008, the Kremlin has validated every concern of those who advocated for NATO's continuation in the 1990s and expansion in the following decades. During this time, Russia illegally occupied Georgian territory, annexed the Crimean Peninsula, invaded Ukraine, and, by extension, threatened Western Europe. These actions reinvigorated NATO's purpose

as an organization whose *raison d'être* is the defense of Western democracies from Russian aggression. Finland and Sweden walked a middle line in East-West rivalry throughout their respective histories. Still, even they have abandoned neutrality in favor of NATO's peace and security assurances in reaction to Russia's invasion of Ukraine.

Their invasion prompted Western Europe to unite in providing bilateral assistance to Ukraine to defend its territorial sovereignty. The Baltic countries offered U.S.-made Javelin antitank weapons to Ukrainian military forces. After the invasion, military aid increased exponentially with the provision of Next Generation Light Anti-tank Weapons from Luxembourg; Bayraktar TB-2 drones from Türkiye; tanks from the Czech Republic; and, after a time but quite significantly, High Mobility Artillery Rocket Systems from the United States.<sup>34</sup> This robust support played a significant role in Ukraine's ability to reverse Russia's advance on Kyiv, at least for the first two years of the war.<sup>35</sup> The aid has not been one-sided; Ukraine has been generous in sharing military lessons learned from the conflict with NATO even as it fights for its national existence. NATO recently published a compendium of lessons for its military forces to implement immediately to enhance deterrence of further Russian aggression. Mobile training teams from the National Defence University of Ukraine visited professional military education institutions in Europe and the United States to pass on battlefield lessons rapidly.<sup>36</sup>

As of September 2023, the United States has invested \$46.6 billion of humanitarian, financial, and military aid to help Ukraine maintain its sovereignty, and the EU has pledged over €400 million for Ukraine's defense.<sup>37</sup> Although the exact numbers are uncertain, U.S. officials estimate that approximately seventy thousand Ukrainian soldiers have been killed or wounded since Russia invaded.<sup>38</sup> Ukraine's willingness to fight and die for independence has opened the way for NATO membership.

In the July 2023 Vilnius Summit, NATO reaffirmed its 2008 commitment to bring Ukraine into the Western Alliance.<sup>39</sup> Opening the door to Ukraine merely acknowledges that sovereign countries have a right to determine their security arrangements. However, Ukraine's entry into NATO and its survival as an independent nation are not foregone conclusions.

Russia is engaged in a pervasive and effective information operations campaign to undermine Western support for Ukraine. Its efforts have slowed the flow of aid and created operational advantages for Russian military forces.

For seventy-five years, NATO has bound Europe

Putin to steal Ukraine's independence and put at risk the freedom of all of Europe? The implications will reverberate around the world.

It is difficult to overstate NATO's success over the past seventy-five years, or how critical American support has been to that success. Just over a century ago, the European

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and the United States together against aggressors from Moscow to the Hindu Kush. The alliance now faces its most difficult challenge since 9/11. To defeat irredentism in Europe again, the West must remain firm in its principles of democracy, peace, and security. Ukraine is the frontline in that battle. Meanwhile, while NATO membership is Ukraine's best hope for a prosperous future, the fate of Europe and the world also hinges on the fate of Ukraine.<sup>40</sup> Ukraine's demise would signal to other dictators that the established order is ineffective and legitimize other revanchist regimes. The repercussions would resound far beyond NATO's boundaries.<sup>41</sup>

If the West fully commits to providing Ukraine with needed military capabilities, it can enable the country's success in its war for independence.<sup>42</sup> Vladimir Putin's theory of victory is a war of attrition, but he knows that Russia's industrial base cannot keep pace with a united Western Alliance backing Ukraine. Thus, Putin has identified Western political will as a critical capability, and Russia's ongoing influence campaign targets this political will.<sup>43</sup>

The next NATO Summit, scheduled for July 2024 in Washington, D.C., will be closely followed by an American presidential election that will be determined in part by the candidates' competing visions for continued American leadership of NATO. These two events will have enormous ramifications for whether NATO is still around to celebrate its centenary in 2049. Will the West stand firm on the principles of democratic integration that enabled NATO's success for generations, preventing the world wars that scarred the continent in the first half of the twentieth century, or will it allow

balance of power became unbalanced because of the rising power of a unified Germany. An interlocking set of alliances designed to contain that power created a delicate balance that toppled into the First World War, the deadliest in world history, killing more than twenty million directly and another twenty million as a result of the great flu that originated in Camp Funston, Kansas, and spread rapidly through populations weakened by war.

America joined that war late, but the latent power of the new world led to Germany's defeat, saving an exhausted France and an England that could no longer provide an offshore balancer to keep the peace in Europe. In the wake of the “War to End All Wars”—since no one could imagine ever doing that again—America decided that it was safe behind its oceans and could afford to ignore the rising tide of fascism on two continents. On 7 December 1941, the folly of an “America First” strategy was exposed on the worst day America experienced for the next sixty years.

America's unflinching commitment to NATO prevented World War III, saving millions of lives. It was the founding security concept for the greatest period of peace and prosperity the world has ever seen. After the horrors of the First and Second World Wars, which killed more than one hundred million people in a little more than a generation, the absence of great power war for the next four generations has been a boon that few could have predicted but from which all peoples worldwide have benefited.

Pulling the plug on NATO when Putin's regime has demonstrated a willingness to lose tens of thousands of soldiers in a mad attempt to restore the Russian empire is beyond folly; it is madness. Without American support,

NATO would collapse. The assumption that European peace and security can endure without NATO is as naïve as the idea that the world would live in harmony after the Great War and generates many dangerous questions. Could Western Europe continue to cooperate on a common security vision without NATO? Recent negotiations between France and Germany suggest that such an agreement is not guaranteed.<sup>44</sup> In the absence of NATO, who would provide nuclear deterrence against Russia? Would the absence of NATO force smaller countries toward nuclear proliferation to defend against Russia's ambition? Poland is eager to participate in NATO's nuclear sharing program, and the absence of NATO might force the country to pursue nuclear weapons independently.<sup>45</sup> Under significant pressure from the United States, the United Kingdom, and Russia, Ukraine voluntarily gave up nuclear weapons in 1994 and undoubtedly regrets the decision. The Putin regime will not stop at Kyiv, and the Kremlin's next move is likely an attack on the Suwalki Gap to create a land bridge to Kaliningrad like ongoing efforts to hold

the one it has established to Crimea; that would mean war with NATO.

A Europe "united and free" is not the birthright of any generation; like democracy itself, it must be created and preserved at enormous cost. The great promise of NATO is that a united and free Europe could be maintained without the blood that was spilled in that effort a century ago. Now, as it celebrates seventy-five years of shared work that has built a better present than its founders could have dreamed of, NATO faces its greatest challenge as its most important partner debates again whether it will devote American treasure and armed force to the pursuit of peace; it is no exaggeration to state that the lives of millions hang in the balance.

Happy seventy-fifth birthday, NATO, and good luck. You're going to need it. ■

*This article represents the views of the authors and not those of the Army War College, the U.S. Army, or the Department of Defense.*

## Notes

1. "Winston Churchill's Iron Curtain Speech—March 5, 1946," National World War II Museum, 5 March 2021, <https://www.nationalww2museum.org/war/articles/winston-churchills-iron-curtain-speech-march-5-1946>.
2. Winston Churchill, quoted in Louis Menand, "Bloc Heads," *The New Yorker*, 4 November 2012.
3. Robert Beisner, "Keeping the Americans In, the Russians Out, and the Germans Down, 1949," chap. 8 in Dean Acheson, *A Life in the Cold War* (Oxford: Oxford University Press, 1 October 2006), 127–50.
4. Tony Judt, *Postwar: A History of Europe since 1945* (New York: Penguin, 2006), 117–20; Henry Kissinger, *Diplomacy* (New York: Simon and Schuster, 1994), 433–47.
5. Lawrence S. Kaplan, *NATO 1948: The Birth of the Transatlantic Alliance* (New York: Rowman and Littlefield, 2007), 8–10.
6. Judt, *Postwar*, 153–60.
7. Kaplan, *NATO 1948*, 11–14.
8. Ernest Bevin, secretary of state for foreign affairs, comments to House of Commons, HC Deb (22 January 1948) (446) cols. 383–517, [https://api.parliament.uk/historic-hansard/commons/1948/jan/22/foreign-affairs#S5CV0446P0\\_19480122\\_HOC\\_280](https://api.parliament.uk/historic-hansard/commons/1948/jan/22/foreign-affairs#S5CV0446P0_19480122_HOC_280).
9. Kaplan, *NATO 1948*, 61.
10. Ibid., 9.
11. "Texts of Speeches by Truman in Harlem, Brooklyn, New York," *New York Times*, 30 October 1948, in New York Times Digital Archive, accessed 20 February 2024, <https://timesmachine.nytimes.com/timesmachine/1948/10/30/87482069.html>.
12. John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War* (Oxford: Oxford University Press, 2005).
13. Richard Smoke, *National Security and the Nuclear Dilemma: An Introduction to the American Experience*, 2nd ed. (New York: Random House, 1987), 90–94; Robert McNamara, *Blundering into Disaster: Surviving the First Century of the Nuclear Age* (New York: Pantheon Book, 1987), 28–36.
14. Harold Fisher, "NATO, Russia, and the Cold War," *Current History* 39, no. 229 (September 1960): 147–50, <https://doi.org/10.1525/curh.1960.39.229.147>.
15. Kissinger, *Diplomacy*, 493–502.
16. Ibid., 506.
17. Judt, *Postwar*, 497–500.
18. Central Intelligence Agency (CIA), *The World Peace Council: A Soviet Sponsored International Communist Front* (Langley, VA: CIA, December 1971), <https://www.cia.gov/read-ingroom/docs/CIA-RDP78-02646R000600220001-7.pdf>.
19. William E. Griffith, "The Security Policies of the Social Democrats and the Greens in the Federal Republic of Germany," in *Security Perspectives of the West German Left: The SPD and the Greens in Opposition* (New York: Pergamon Press, 1988), 3.
20. Judt, *Postwar*, 600.
21. Michael Howard, "Reassurance and Deterrence: Western Defense in the 1980s," *Foreign Affairs* 61, no. 2 (Winter 1982–1983): 315.
22. Strobe Talbott, *The Russia Hand: A Memoir of Presidential Diplomacy* (New York: Random House, 2003), 93–94.
23. Robert B. McCalla, "NATO's Persistence after the Cold War," *International Organization* 50, no. 3 (Summer 1996): 445–75, <https://doi.org/10.1017/S0020818300033440>.
24. Andrei Kozyrev, quoted in Talbott, *The Russia Hand*, 124.



25. North Atlantic Treaty Association (NATO), "The Alliance's Strategic Concept (1999)," press release NAC-S(99) 65, last updated 1 July 2022, [https://www.nato.int/cps/en/natohq/official\\_texts\\_27433.htm](https://www.nato.int/cps/en/natohq/official_texts_27433.htm).
26. Michael Howard, "NATO at Fifty: An Unhappy Successful Marriage: Security Means Knowing What to Expect," *Foreign Affairs* 78, no. 3 (May-June 1999): 163–75.
27. Kissinger, *Diplomacy*, 610–12.
28. Official NATO doctrine places much emphasis on terms related to collective security. During the Cold War, NATO viewed itself as a "collective defense" organization. After the Cold War, the concept evolved into "cooperative security" organization. We use the term "collective security" as a compromise term for the sake of clarity, but the concept of aggregating capabilities to meet security challenges is the underpinning concept of all the terms.
29. North Atlantic Treaty, 4 April 1949, 63 Stat. 2241, 34 U.N.T.S. 243, [https://www.nato.int/cps/en/natohq/official\\_texts\\_17120.htm](https://www.nato.int/cps/en/natohq/official_texts_17120.htm).
30. Thomas Schelling, *Arms and Influence* (New Haven, CT: Yale University Press, 2008), 36–43.
31. Mark J. C. Crescenzi et al., "Reliability, Reputation, and Alliance Formation," *International Studies Quarterly* 56, no. 2 (June 2012): 259–74, <https://doi.org/10.1111/j.1468-2478.2011.00711.x>; James Fearon, "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs," *Journal of Conflict Resolution* 41, no. 1 (February 1997): 68–90, <https://doi.org/10.1177/0022002797041001004>; James Morrow, "Alliances and Asymmetry: An Alternative to the Capability Aggregation Model of Alliances," *American Journal of Political Science* 35, no. 4 (November 1991): 904–33, <https://doi.org/10.2307/2111499>.
32. Reality Check Team, "Afghanistan: What Has the Conflict Cost the US and Its Allies?," BBC, 3 September 2021, <https://www.bbc.com/news/world-47391821>.
33. David P. Auerswald and Stephen Saideman, "NATO at War: In Afghanistan and at Home," in *NATO in Afghanistan: Fighting Together, Fighting Alone* (Princeton, NJ: Princeton University Press, 2014), 1–15.
34. See John Nagl and Dan Rice, "The First Rule of Cluster Munitions: Don't Talk about Cluster Munitions," *Small Wars Journal*, 17 January 2024, <https://smallwarsjournal.com/jrnl/art/first-rule-cluster-munitions-dont-talk-about-cluster-munitions>. The addition of cluster munitions to the Ukrainian arsenal has had dramatic battlefield effects.
35. Emma Nix, Akshat Dhankher, and Nancy Messieh, "Ukraine Aid Tracker: Mapping the West's Support to Counter Russia's Invasion," Atlantic Council, 13 May 2022, <https://www.atlanticcouncil.org/commentary/trackers-and-data-visualizations/ukraine-aid-tracker-mapping-the-wests-support-to-counter-russias-invasion/>.
36. NATO, *Russian War against Ukraine Lessons Learned Curriculum Guide* (Brussels: NATO, 2023), [https://www.nato.int/cps/en/natohq/topics\\_221175.htm](https://www.nato.int/cps/en/natohq/topics_221175.htm); for specific lessons for U.S. forces, see Katie Crombe and John Nagl, "A Call to Action: Lessons from Ukraine for the Future Force," *Parameters* 53, no. 3 (2023): 21–31, <https://press.armywarcollege.edu/cgi/viewcontent.cgi?article=3240&context=parameters>.
37. Jonathan Masters and Will Mellow, "How Much Aid Has the U.S. Sent Ukraine," Council on Foreign Relations, last updated 23 February 2024, <https://www.cfr.org/article/how-much-aid-has-us-sent-ukraine-here-are-six-charts>; "EU Member States Pledge over €400 Million to the EIB's Fund Supporting Ukraine," European Investment Bank, 13 July 2023, <https://www.eib.org/en/press/all/2023-272-eu-member-states-pledge-over-eur400-million-to-the-eib-s-fund-supporting-ukraine>.
38. Jonathan Landay, "U.S. Intelligence Assesses Ukraine War Has Cost Russia 315,000 Casualties," Reuters, 12 December 2023, <https://www.reuters.com/world/us-intelligence-assesses-ukraine-war-has-cost-russia-315000-casualties-source-2023-12-12/>. The exact number of Ukrainian KIA is a disputed topic. Ukrainian President Volodymyr Zelenskyy claims thirty-one thousand, and Russian President Vladimir Putin claims three hundred thousand. The number cited from here is from U.S. estimates. In any case, the cost of the war has been high for the Ukrainian people.
39. "Relations with Ukraine," NATO, 7 March 2024, [https://www.nato.int/cps/en/natolive/topics\\_37750.htm](https://www.nato.int/cps/en/natolive/topics_37750.htm).
40. John R. Deni, "NATO Must Prepare to Defend Its Weakest Point—The Suwalki Corridor," *Foreign Policy* (website), 3 March 2022, <https://foreignpolicy.com/2022/03/03/nato-must-prepare-to-defend-its-weakest-point-the-suwalki-corridor/>.
41. Phelim Kine, "Taiwan's Leadership 'Extremely Worried' US Could Abandon Ukraine," Politico, 23 February 2024, <https://www.politico.com/news/2024/02/23/taiwan-leadership-u-s-ukraine-00143047>.
42. Anders Fogh Rasmussen and Andriy Yermak, "Victory Is Ukraine's Only True Path to Victory," *Foreign Affairs* (website), 11 January 2024, <https://www.foreignaffairs.com/united-states/victory-ukraines-only-true-path-peace>.
43. Ashley Parker, "Russia Looms Over Yet Another Trump Presidential Campaign" *Washington Post* (website), 26 February 2024, <https://www.washingtonpost.com/politics/2024/02/26/trump-russia-putin/>.
44. Steven Erlanger, Roger Cohen, and Erika Solomon, "Macron and Scholz Spar Over Policy Toward Ukraine and Russia," *New York Times* (website), 9 March 2024, <https://www.nytimes.com/2024/03/09/world/europe/macron-scholz-russia-ukraine-aid.html>.
45. Brendan Cole, "NATO General Raises Prospect of New Nuclear Power," *Newsweek* (website), 12 February 2024, <https://www.newsweek.com/poland-general-russia-nuclear-kraszewski-1869036>.

# First NATO Article Published by *Military Review*



## North Atlantic Treaty Organization

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WHEN Supreme Headquarters, Allied Powers Europe (SHAPE), became operational in Paris on 2 April 1951, the North Atlantic Treaty Organization (NATO) became more important than any similar arrangement in history. Here, for the first time, international forces were unified under a single military commander for defense against aggression. Two years of intense effort to organize against communistic imperialism finally had produced tangible results.

### Western Union

Mutual conferences to consider plans for a defense against aggressor nations began in February 1948, when the Communists overthrew the Czechoslovak Government. At this time, the United Kingdom, France, Belgium, the Netherlands, and Luxembourg committed themselves to the Brussels Treaty. Under this arrangement, called Western Union, all the signatories agreed to give "all military and other aid and assistance in their power" should one of them be attacked in Europe. A month later, President Truman requested the people of the United States to support the Brussels Treaty. He also expressed the hope that the determination of free people to defend themselves would be "matched

by an equal determination on our part to help them do so."

### North Atlantic Treaty

In June 1948, Senator Vandenberg led a bipartisan effort which culminated in talks between the United States and the Western Union countries relative to the mutual and collective defense of the North Atlantic area. Out of these discussions came the North Atlantic Treaty, which is commonly known as the Atlantic Pact.

The North Atlantic Treaty is a collective, self-defensive arrangement entered into by the United States, Canada, the United Kingdom, France, Norway, Denmark, Belgium, the Netherlands, Luxembourg, Italy, Portugal, and Iceland. The treaty went into effect on 24 August 1949, when all 12 of the participating nations had deposited their ratification documents in Washington.

In the preamble to the North Atlantic Treaty, the signatories reaffirmed their faith in the purposes and principles of the United Nations. They also pledged themselves to combine their efforts for collective defense and the preservation of peace and security. A summary of the 14 articles of the treaty follows:

**Organized within the framework of the UN to maintain peace and security, NATO is a functioning defensive unit. Its formation is a monumental step forward as free men strive to remain free—with honor**

Read the first NATO article published in *Military Review* at <https://cgsc.contentdm.oclc.org/digital/collection/p124201coll1/id/874/rec/1>. (Images from the Ike Skelton Combined Arms Research Library Digital Library, compilation by Michael Lopez, *Military Review*)

The first article published in *Military Review* exclusively discussing the North Atlantic Treaty Organization (NATO) was published in the September 1951 by Col. Maddrey A. Solomon, an instructor at the Army War College. NATO had become operational on 2 April 1951, and the article is framed as a kind of tutorial that provides readers an overview of the organization's charter, structure, and administrative operations, including a synopsis of the charter articles that would guide the organization's policies. One key point the author emphasizes is that NATO is an organization that is exclusively defensive in nature and does not seek to build capabilities that could be construed as intending aggression against other nations. ■





Spc. Kyle Bickerton (left), assigned to 82nd Combat Aviation Brigade, 82nd Airborne Division, reenlists in the U.S. Army aboard a CH-47 Chinook on 15 March 2024. Bickerton exemplifies the professionalism of the soldiers in the all-volunteer force. (Photo by Sgt. Vincent Levelev, U.S. Army)

# Architects of Training

## Assessing How TRADOC Makes Soldiers for the All-Volunteer Force

Chaplain (Lt. Col.) Nathan H. White, PhD, U.S. Army Reserve  
Katherine Voyles, PhD

**A**n examination of the origins of the U.S. Army's current training system displays a historical incongruity. The Army's approach to training has little conceptual and practical relation to the all-volunteer force (AVF), even though its creation

was simultaneous with the advent of the AVF. This training system was not designed with the new volunteer status of military personnel in mind. From the beginning of these systems, their intersection created a potential mismatch between personnel structure



and training methodology. We draw attention to the legacy of the AVF in relation to Army training systems, particularly the creation of the Army's Training and Doctrine Command (TRADOC).

Differences exist between an AVF and a draftee Army. To get at the substance of these differences, we explore the interaction between an AVF and TRADOC training requirements to identify potential misalignments and highlight some potential consequences of that mismatch. TRADOC came into being on 1 July 1973, in tandem with and partially as a response to the move to an AVF.<sup>1</sup> TRADOC's "train-evaluate-train" methodology, initially institutionalized in the Army Training and Evaluation Program (ARTEP), is the basis for today's training methodology. The training system was based on the need to raise a tactically proficient Army quickly and was designed to rapidly mobilize and train a large number of soldiers.<sup>2</sup>

This training model was part of the contingency plan after adopting the AVF; it was not integral to creating the AVF itself. Civilian leaders who advocated for an AVF paid much attention to numerical considerations (such as numbers of recruits and their pay) but did not give as much consideration to the qualitative differential that may be produced by the move from a draft Army to an AVF. Army leaders also gave little attention to the training models and methodologies appropriate to these two force compositions.

To substantiate our sense of a mismatch between force composition and training methodology, we look closely at the creation of TRADOC and at *The Report of the President's Commission on an All-Volunteer Force*—also known as the Gates Commission Report—on the feasibility of an AVF. Viewing the AVF history through the lens of the development of TRADOC reveals that overemphasizing preparation for the tactical level of war may have real consequences for readiness in today's complex operational environment.

## Forming General DePuy, the Inaugural TRADOC Commander

A retrospective of the AVF at fifty years is an occasion to consider how Gen. William DePuy's vision for the Army and TRADOC has been realized. To accomplish this important task, however, it is crucial to

understand how the vision itself was formed by sketching some biographical details.

DePuy was the progenitor of TRADOC and its inaugural commander, remembered fundamentally as "an architect for and builder of soldiers."<sup>3</sup> "TRADOC was peculiarly his creation, for he was the general staff principal at its birth, and its first commander," reflected Gen. Paul F. Gorman, his deputy chief of staff for training. "[M]ore than any other individual, he established its tone, and set the azimuth upon which it marches to this day."<sup>4</sup> The focus on training provided by DePuy undergirded TRADOC's approach to preparing soldiers for war, especially with respect to the high value placed on the tactical level

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### Katherine Voyles, PhD,

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Sgt. Cooper Hulse, a cavalry scout assigned to the Hawaii Army National Guard representing Region VII, stands at the position of attention while getting his uniform inspected at the 2023 National Guard Best Warrior Competition on 9 July 2023 in Joint Base Elmendorf-Richardson, Alaska. Best warrior competitions across all components of the Army are a product of modern professional training and demonstrate the high quality and professionalism of the soldiers in the all-volunteer force. (Photo by Pfc. Alexandria Higgins, U.S. Army)

of war. This approach continues today in important and fundamental ways.

DePuy served as a battalion commander in the European theater during World War II and as director of special warfare in the Office of the Deputy Chief of Staff for Military Operations, and then as commanding general of the 1st Infantry Division during the Vietnam War. He went on to serve as assistant vice chief of staff of the Army and finally as commanding general of TRADOC from July 1973 to June 1977.

Although he served at many levels of war, DePuy, in his own self-conception, was significantly shaped by his tactical combat experience, particularly from World War II and Vietnam. These experiences formed the tactical genius and down-to-earth practical insight that enabled him to develop TRADOC as an organization with the tactical effectiveness of military formations at

its heart. His influence bled into training models overseen by TRADOC and into the doctrine and policy about how the U.S. Army conducts war. A 2023 *Military Review* article, “Ignoring Failure: General DePuy and the Dangers of Interwar Escapism,” lays out DePuy’s focus on the tactical level of war by contrasting him to the first Combined Arms Center commander, Lt. Gen. John Cushman.<sup>5</sup> DePuy’s TRADOC maintained a focus on the tactical level of war while its subordinate Combined Arms Center, led by Cushman, wanted military education to address a broader scope of development.<sup>6</sup> DePuy himself recognized that his experience had both positive and negative effects. DePuy, commenting on the initial development of Field Manual (FM) 100-5, *Operations*, first published in 1976, later related,

Those of us who wrote 100-5 in ’76 had not been (were not) part of the renaissance of





Nguyen Cao Ky, prime minister of South Vietnam, pins decorations on Maj. Gen. William DePuy (center) and Brig. Gen. James Hollingsworth for their leadership during Operation Attleboro, conducted in November 1966 in Tay Ninh Province, South Vietnam. Although DePuy served at many levels of war, when appointed as the first commander of Training and Doctrine Command, his extensive combat experience in World War II and Vietnam heavily influenced formulation of the Field Manual 100-5, *Operations*, that redesigned how U.S. forces would fight in the event of a major military conflict. (Photo courtesy of the Douglas Pike Photograph Collection, The Vietnam Center and Archive, Texas Tech University)

“operational art.” It was not part of our lexicon and not part of our thinking process. It was a deficiency of which we were simply not aware. Ironically Active Defense was in some ways driven by operational considerations but they were German not ours. “Forward Defense” is an operational consideration tactically executed. But of course we did not say so because the operational level was not part of our consciousness. We were tactical guys by self definition and preference. We thought the problem facing the Army was “tactical performance” we [sic] were only half right.<sup>7</sup>

DePuy reflected on the historical realities that gave rise to this tactical focus:

[O]ur 100-5 (the 1976 version) suffered from one fatal, in my opinion, fatal flaw ... It was

that the manual itself was a tactical as opposed to an operational manual ... I just simply admit that we did not explicitly address the operational level of war. Now it was a cultural thing at that time. My generation either took it for granted, which is the nicest thing you can say about it, or didn't think much about it. And we were wrong. And it showed up in Vietnam. I mean we made operational errors in Vietnam because my generation was tactical ... My generation was a tactical generation, because almost all of us who then were at the higher levels in the Army in the '70's ... last half of the '60's and the first half of the '70's and so on. We were World War II Battalion and Regimental Commanders ... we were tactical thinkers. I'm admitting now



our mentality was tactically based on our past experience.<sup>8</sup>

DePuy's comments about FM 100-5 display his mindset during the advent of the AVF, the formation of TRADOC, and the development of the basis for the Army training model that is still used today.<sup>9</sup> By DePuy's own admission, there was little inclusion of the operational domain, nor by way of inference, the strategic.

DePuy candidly related that deficiencies in operational thinking, even at the highest levels of military leadership, had severe effects in Vietnam:

I'm not being critical of Westy [General Westmoreland]. I think that he and I and all the rest of us, in retrospect, were not professionally acute enough to realize that operationally, as opposed to tactically, we had not solved the problem of North Vietnamese direction and support of the war in the South ... Now I don't think that any of us, we professional soldiers who were supposed to be experts in all that, made that as clear as it should have been. And that is my regret in retrospect. I was a very small cog in a big machine, but my regret is that I didn't urge that more strongly on my superiors in Vietnam and back in Pentagon. That I characterize as "the" only major military failure in Vietnam. We had virtually no tactical failures. It was an operational failure and we didn't perceive it early enough and didn't insist on it strongly enough.<sup>10</sup>

DePuy's influence would have lasting effects. At DePuy's military retirement ceremony in 1977, chief of staff of the Army Gen. Bernard Rogers said, "No soldier in the past quarter century has made a greater contribution to our Army, and through that Army to our nation."<sup>11</sup> It would be hard to overstate DePuy's significance, especially considering his continued legacy, through TRADOC and the continuance of the approach to training that he pioneered and institutionalized.

## The Gates Commission

A commission, staffed by economists and chaired by former secretary of defense Thomas Gates, was formed to evaluate the feasibility of an AVF, largely based on the numbers of personnel needed and the economic costs associated with maintaining it.<sup>12</sup> Published in

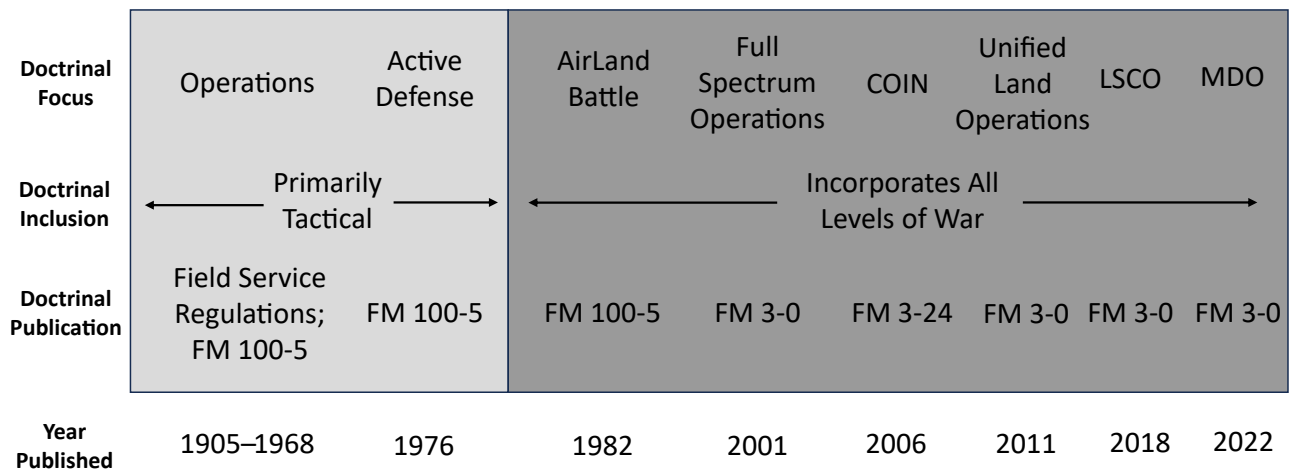
1970, the Gates report was a presidentially mandated assessment of the viability of an AVF. The report focused on the economic feasibility of an AVF, though it also attended to issues around whether and how an AVF would fundamentally alter how to use instruments of national power.<sup>13</sup> The report did not carefully examine the issues of training that may follow on from a move to an AVF.

The Gates Commission was most interested in the size of the force and the different forms of costs associated with the AVF over and against the draft. Their analysis projected that slightly more than half of the AVF would be comprised of first-term recruits.<sup>14</sup> The commission evaluated what it called the "quality" of the recruits but not their subsequent training or development.<sup>15</sup> The main metric of quality was IQ as measured by the Armed Forces Qualification Test. The commission nods to moral and physical standards but quickly dismisses their importance.<sup>16</sup> Because these standards were largely gauged by a test before entrance into the Army, there was not pressure on the Army itself to develop soldiers across multiple domains— affective, psychomotor, and cognitive—over the soldier's life cycle.<sup>17</sup>

Gates and colleagues seemed to envision a combination of short-term and career volunteer soldiers. Their analysis focused on the viability of such an at-that-time theoretical force; they did not yet have categories for the modes of preparation necessary to create and maintain a force that was fundamentally comprised of a different kind of soldier than the draftees of Vietnam or previous conflicts. The commission failed to seriously consider intrinsic and extrinsic sources of motivation, beyond monetary incentives, that would attract and keep a high-quality volunteer force of long-term service soldiers. The commission wanted to right size the force but had a narrow view concerning its quality. The Gates Commission began to consider military training in relation to its proposal for a new AVF Army; in the end it reverted to assumptions grounded in the draft Army.

## The TRADOC Training Model in Context

The antecedents of TRADOC's training model provide necessary context for evaluating points of continuity and discontinuity with the Army of the early- and mid-twentieth century.<sup>18</sup> Although prevailing societal



(Figure by authors)

**Figure 1. Modern Army Warfighting Doctrine Development and Levels of War**

trends, funding, and guidance from senior leaders are all potential drivers of educational change, we aim to highlight a continuity across these changes. This continuity focuses on training soldiers, whether conscripts or volunteers, for the tactical level of war without an equally strong focus on the operational and strategic levels of war, as depicted in figure 1.

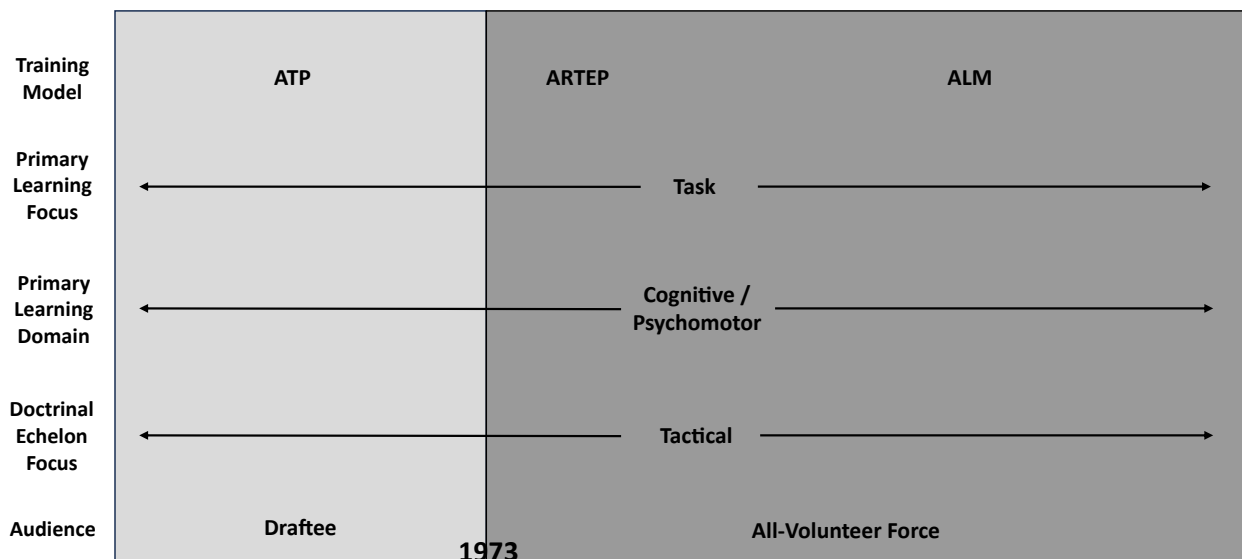
Once President Richard Nixon created the AVF, it was up to the newly formed TRADOC and its commander to develop a plan for implementing the AVF vision through recruiting, training, and retention. Admittedly, “The secretary of the Army was concerned more with the personnel aspects of the new volunteer force than with organizing and preparing it for combat.”<sup>19</sup> This task, then, was left to DePuy.

Figure 2 depicts continuity and difference in U.S. Army training across various changes during the twentieth and twenty-first centuries. The Army Training Program (ATP) was the legacy program that the Army used to train its personnel before the creation of TRADOC. An “uneven approach to training management” during the previous era left more to be desired.<sup>20</sup> The World War I-era program was tied (historically and conceptually) to a draft model of accessions that prepared new recruits for the rigors of combat. DePuy describes the ATP as “a mobilization training program” designed to make many recruits combat-ready in a short amount of time.<sup>21</sup> Its goal was to create combat-ready divisions, not to develop a standing Army.

The ATP model had a type of cohesion across training modality, doctrine, and strategic end state.

A mismatch among ends, doctrine, and training methodology began to emerge with the creation of TRADOC in the wake of the AVF. TRADOC’s initial ARTEP training model was designed with presuppositions based on the last major war (World War II) for an Army (the draft Army) that no longer existed.<sup>22</sup> This sentiment was reflected from the comments of Lt. Col. Donald Vought in a 1973 letter to the editors of *Military Review* where he “suspect[ed] that we may not be preparing to fight the next war in the style of the last one but in the style of the one before the last [World War II].”<sup>23</sup>

Although the actual training model, the ATP, was replaced by TRADOC in 1973, the mindset relating to the audience of the training and the goal of the training remained the same. TRADOC’s new training paradigm was still designed to prepare the maximum number of new recruits for combat in a short time-frame. The major difference between the ATP and training methodologies implemented by TRADOC was that progress toward this end was now more clearly able to be specified and tracked—what DePuy described as “a new concept of performance-oriented training, which was a systematic way to go about the setting of training objectives through the tasks, conditions and standards technique.”<sup>24</sup> Further permutations of TRADOC training models kept the same



(Figure by authors)

**Figure 2. Training Model Continuity and Discontinuity over Time**

focus on tactical proficiency. All through this shift there seemed to be little conscious reflection on the training and education needs of an AVF, as opposed to conscripts.

At the time TRADOC was being stood up, the U.S. Army was preparing to meet and defeat the Russians in Europe; victory would depend on tactical prowess with the clearly stated limited goal to “above all else, *prepare to win the first battle of the next war*.”<sup>25</sup> DePuy reflected on these realities in an interview with Michael Pearlman:

P[earlman]: There were no Principles of War in the 1976 doctrine and that made it unusual. Could you speak to that?

D[ePuy]: Well, Paul Gorman and I decided because it was a tactical manual, we would take them out. We wanted to change the whole tone of the manual to what I would almost call, an operator’s manual for the division level and below. How to operate a division against a big Russian attack.<sup>26</sup>

The chairman of the Joint Chiefs of Staff’s official history from 1973 further situates understanding of broader national policy at the time of this tactical focus.<sup>27</sup> Army warfighting doctrine focused on tactical competencies, and the Army’s training schema complemented this.

The Yom Kippur War in 1973 brought a new urgency for the U.S. military to consider its tactics

and training in light of new technological realities—what DePuy called the “lethality [of modern precision weapons] in the 1973 Arab-Israeli War.”<sup>28</sup> The Army’s role in this matter was given additional immediacy because the national policy focused on land warfare in Europe.<sup>29</sup> The Army sought ways to best prepare its personnel for this potential war. DePuy viewed the move to an AVF as a strategic decision on the part of U.S. civilian leaders. He saw the U.S. military’s immediate need as rapidly fielding high-functioning formations—whether draftee or volunteer; soldiers had to be prepared to win the first tactical battle of the next war.<sup>30</sup> Under DePuy’s leadership, Army doctrine did not immediately move beyond a tactical focus. FM 100-5, *Operations*, retained and refined this focus, and it was only with its 1982 revision that Army doctrine first formally adopted the operational and strategic domains of war.<sup>31</sup> The creation of the AVF highlighted, even unwittingly, the growing mismatch that its training regime, in practice, was a holdover from the tactical focus of the draft era. In this new era of the AVF, no longer would America’s Army overwhelmingly consist of first-term draftees who needed to be quickly trained to meet the needs of a single (potentially cataclysmic) event. Instead, in the language of today’s AVF, the standing Army of an AVF would require deep training and education to prepare soldiers “to think





Israeli artillery pounds Syrian forces near the Valley of Tears in the Golan Heights on Yom Kippur, 6 October 1973. The Yom Kippur War in 1973 brought a new urgency for the U.S. military to consider its tactics and training in light of new technological realities—what then TRADOC commander Gen. William E. DePuy called the “lethality [of modern precision weapons] in the 1973 Arab-Israeli War.” (Photo courtesy of the Israel Defense Forces and Defense Establishment Archive)

critically and creatively” in the face of such an event and its second- and third-order effects.<sup>32</sup>

The AVF Army needs an operationally and strategically capable, as well as tactically proficient, force. The problem is that, although Army doctrine eventually caught up to this reality, Army training methodology has not to the same extent.<sup>33</sup> The Army’s training model continues today to operate as if, by and large, specified tactical (observable, measurable) tasks matter most.<sup>34</sup> Army learning systems acknowledge education and nontask-based training, but there is comparatively little emphasis on these areas; systems such as TRADOC’s Training Development Capability, for example, do not equally support these efforts.<sup>35</sup> The Army has not primarily adjusted the trajectory of its training methodology, only its ability to measure waypoints along this

tactical trajectory. The main difference between the ATP model of the First and Second World War armies and the training model of today’s Army—a change inaugurated by the founding of TRADOC—is the ability to assess training effectiveness better and more quickly through specifying how tasks are identified, quantified, and assessed. The formation of TRADOC marked a shift in Army training systems, but the changes may not have gone deep enough. The Army’s overall training approach seems to consider the nature of personnel—draftee or volunteer—as immaterial, or at least tends toward supporting basic draftee competency. Bound up in these realities is an implicit tactical focus. This history has serious implications; a progression from tactical to operational to strategic development is devalued in favor of the tactical.



Soldiers assigned to the 101st Airborne Division's Company A, 3rd Battalion, 502nd Infantry Regiment, take part in an urban warfare training exercise in an abandoned town in Saudi Arabia 4 January 1992 during Operation Desert Shield. Subsequent to the establishment of TRADOC, the Army's training focus on professionalizing tactical proficiency in the all-volunteer force had a wide reaching salutary effect among all components of the Army and contributed to the United States' overwhelming victory against Iraq during Operation Desert Storm. (Photo courtesy of the U.S. Army)

## A Mismatch Emerges: Training, Doctrine, and Policy

As we've already seen, late in life, DePuy identified significant gaps associated with the Army's overemphasis on tactical effectiveness; whether the Army and TRADOC in particular were listening is another thing altogether. The creation of a skilled tactician, while crucial, is a very different matter than the development of a fully rounded professional who can also operate at operational and strategic levels. The Army's training focus on the tactical, when it intersects with the AVF, would have profound impacts. A non-AVF training model can cut against the formation of fully rounded professionals. In its hurry to train and certify minimally acceptable proficiency, such training does

not place as high a value on professional development across the lifespan.

**A narrow focus with continuing effects.** Today, well-documented recruiting and retention crises threaten the viability of an AVF.<sup>36</sup> We want to think about the role of training in this crisis: Is the Army's current approach to training capable of addressing the unique demands of developing an AVF that is proficient at the tactical, operational, and strategic levels of war? On the fiftieth anniversary of America's AVF, Secretary of Defense Lloyd J. Austin III commented, "Today, America's All-Volunteer Force is the strongest military in human history, and it sets the global standard for military professionalism."<sup>37</sup> This is a high bar to meet and to sustain. Issues about how to recruit and



retain talent for a standing Army are inherent to the training of this volunteer fighting force.

The connection between task competency and tactical success is foundational to the TRADOC training model and has proven remarkably effective in battle, from Desert Storm/Desert Shield onward. A tactical training model accords with a draftee Army because of the shorter timespans involved—both on the front end of quickly training up new recruits, and on the back end of assuming that most of these recruits will have a short (and tactically focused) career in the Army. There is less need to consider personnel development over the life cycle because there are fewer who will rise to higher levels of responsibility at the operational/strategic levels. The operational and strategic levels of war center more on affective and cognitive competencies, such as leadership, critical thinking, and creativity. Yet the development of a professional Army whose competency goes well beyond tactical proficiency is essential to the AVF. This includes the development of “intangible” soft skills that prove so important for forming leaders of healthy organizations that maintain *esprit de corps*.<sup>38</sup> A tactically focused model also has less need to consider retention, how training and education may support this effort, or that intrinsic motivation (such as that afforded by gaining education/certification) could be a recruiting/retention tool.

Soldiers must be developed to adjust to changing operational environments (OEs) and to make decisions at the lowest levels—a reality clearly displayed by the Army’s recent mission command doctrine.<sup>39</sup> Such development takes time and professional investment; it also takes organizational structures that support this complex professional development.

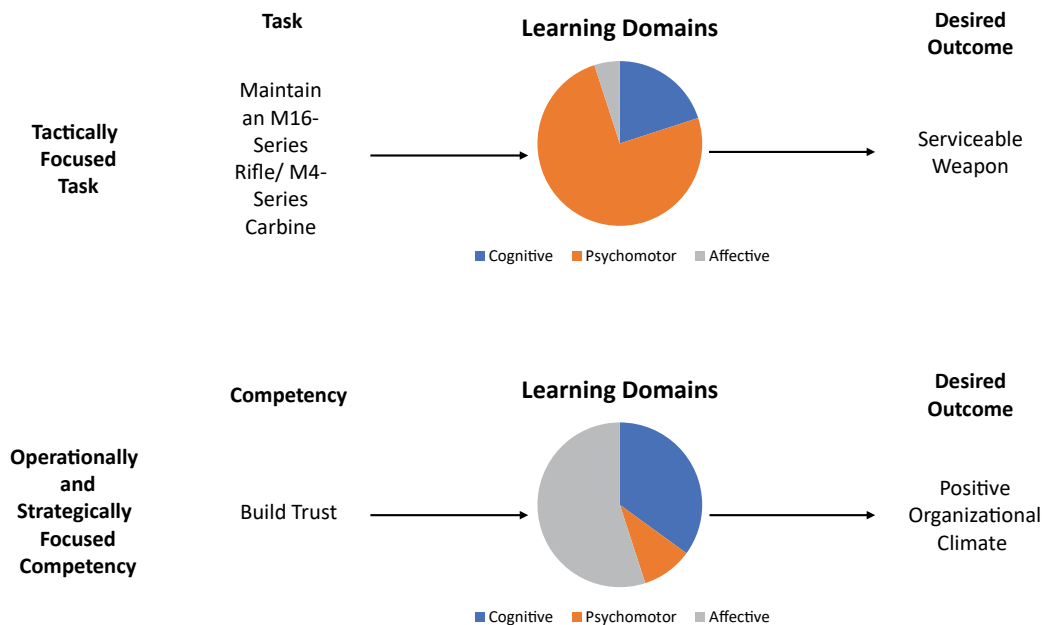
**Tailored to mass production.** Professional competency requires, at a minimum, determining where, when, why, and how to complete a task. Such considered judgment cannot be mass produced, but the Army must train and educate for it. As the military OE has become more complex, so too have the developmental needs of soldiers. Specialist professionals developed over the course of a long-term career are necessary to the AVF, and all-the-more so in a multidomain operations environment.<sup>40</sup>

Senior leaders have changed Department of Defense (DOD) policy to reflect this reality more clearly. DOD Instruction (DODI) 1322.35, *Military Education*:

*Program Management and Administration*, requires a turn to outcomes-based military education (OBME) and necessarily away from training and education driven by specific tasks.<sup>41</sup> OBME focuses on the outcomes produced by military members’ actions, not on the tasks they perform. This shift may seem subtle, but it is tectonic. Training a task is relatively straightforward; creating a professional who can achieve desired outcomes is massively complex. A shift in training focus from task completion to competency across levels of war is also in keeping with realities on the ground. The commander is concerned with outcomes; the tasks that go into creating this outcome are only one part of the whole picture. The DODI itself speaks directly of the need to match education to mission requirements at echelon. Military education “encompasses those educational opportunities specific to creating and sustaining the intellectual capacity essential to the profession of arms, ensuring DOD personnel are adequately prepared to practice their profession commensurate with their levels of responsibility and mission requirements.”<sup>42</sup> The effective training and education of soldiers must equip them to blend together cognitive, psychomotor, and affective competence to achieve necessary results at all levels of war. The particular composition of knowledges, skills, and behaviors required of soldiers will tend to require broadly similar constellations for like levels of war. Although Army training doctrine recognizes three learning domains, growth in the affective domain becomes increasingly important as a soldier moves through their career, without losing the vital nature of other domains, as figure 3 shows.

A training model developed for a non-AVF is, of necessity, tailored to optimize mass-production of draftee enlistees. Today’s training model is largely indebted to the realities of a draft. By assessing externally observed and easily verifiable factors, this training model ensures that critical tasks can be appropriately completed at scale and en masse. This emphasis on tasks clearly comes into focus with the task-condition-standard model of assessment that lays out the action, context, and goal of training a given task.<sup>43</sup> Implicit within this model, and explicit within TRADOC regulations, is that the task, and the degree of task completion, must be externally observable and verifiable.<sup>44</sup> Such a model makes a lot of sense for tasks like constructing a fighting position or cleaning a weapon, but it obscures





These figures represent the authors' analysis of the associated task and ADP 6-22 competency (para. 5-44–5-47).

(Figure by authors)

**Figure 3. Differences in Learning Domain Development**

the complex reality of other military requirements like troop leadership and the ethical use of force.

What is at stake here for an AVF is not simply meeting and defeating the enemy in battle—as the initial TRADOC vision had a tactically focused Army meeting the Russians in mind; instead, an AVF must maintain a standing Army capable not only of this contingency but also of many others across a range of professional military functionalities, contexts, and potential enemies. Army learning systems should be revised to better align with DOD guidance on OBME and to support the broad range of soldier competencies required across all levels of war.

**Culture of immediacy.** Trainees can sense a culture of training that is focused on the immediacy of tactical effectiveness and may feel a lack of being “invested in” or valued. They may feel as if they are treated more like “cogs” in a machine than as persons with worth to the organization beyond the tasks that they can perform.<sup>45</sup> Volunteers for Army service may not feel they are being professionally developed over the life cycle, but rather they are training to become tactically proficient warfighting machines—in itself an interesting take on

one conception of the professional as a honed means of achieving desired outcomes.

Such a culture can lead to low morale, difficulty with recruiting, and poor retention.<sup>46</sup> When soldiers inhabit systems that neither support their development across all levels of war nor seem to value them as a whole person, we should not be surprised when they act in keeping with a lack of human worth—most notably through harmful behaviors. What if soldiers felt invested in and valued as professionals? How might this change some of the difficulties the AVF is currently facing?

Part of the examination of underlying training architecture involves considering the root causes of problems currently facing the AVF—ranging from difficulties in recruiting adequate numbers of soldiers to increasing instances of harmful behaviors, including extremism, sexual assault, and sexual harassment among soldiers.<sup>47</sup> We must consider the possibility that portions of these issues could stem from the way training and education have been handled in the Army since 1973: not as value-added development for volunteer soldiers, but as mass-production commodification of warfighting assets. These are points for further consideration, not conclusions;

substantiating the nature of the relationship between the issues the AVF currently faces and the Army's training methodology will take a variety of assessments. Such assessments should consider that fundamental changes to Army learning systems—including to the “task, condition, standard” model of training—may be warranted for an Army that has gone through many iterations of warfighting doctrine while maintaining largely the same training methodology.

## Conclusion

A 1977 RAND report on the AVF remarks, “The advent of the All-Volunteer Force (AVF) ... marks the beginning of one of the largest and most important experiments of its type ever conducted.” It further notes that “the implications of the volunteer force ... touch ... on virtually all aspects of the defense effort ... Dealing effectively with th[e] legacy [of the draft] will be one of the most formidable obstacles that the Department of Defense and the Congress must face during the next decade.”<sup>48</sup> The AVF has passed the test of time in the sense that the United States has continued to use this force composition model; whether the Army has fully addressed how to train volunteers for all levels of war is a separate but crucially important matter. Has the current model failed in training an AVF? The U.S. military's tactical successes over the last fifty years show the value of training for this level of war. The model, however, may not have fully succeeded either; it may limit military effectiveness within the complex contemporary OE.<sup>49</sup> Tactical proficiency goes a long way in winning wars—especially wars against opponents with inferior tactics and weaponry. Tactical proficiency alone, however, may not be enough in a war against a near-peer competitor, nor to sustain an AVF. The Army should continue to develop tactical prowess in greater measure, but this should not come at the expense of operational and strategic competency. This is not an either/or dilemma. The problem is that current Army learning systems do not support each equally. Advances in Army doctrine and policy, such as the inclusion of operational and strategic

levels of war beginning in the 1980s, have shored up some deficiencies. But as long as the Army's training model remains mismatched with force structure, doctrine, and the realities of the OE, the very recruits who volunteer for the AVF will be shaped in ways that push against the success of the AVF in fighting and winning our Nation's wars.

The current difficulties that the AVF is facing suggest that changes may be necessary. In 1973, Capt. James Thomas suggested that the move to the AVF might be an ideal time to make “changes in our training procedures ... designed to prepare our soldiers psychologically and morally for the next limited engagement.”<sup>50</sup> It seems his call may have gone mostly unheeded, even as the Army has moved into and through new challenges. A large-scale combat, near-peer, multidomain operational environment will put unforeseen stressors on TRADOC's training model. These difficulties coincide with current significant underlaps in recruiting, which will only be exacerbated by training requirements on a scale not-yet-seen in the AVF era, should a near-peer war begin. This is to say nothing of the second- and third-order effects of degraded professional development over two decades of persistent war that are beginning to show—seen in effects as diverse as the rise in harmful behaviors and difficulties in recruiting and retaining quality volunteers.

What is clear is that there must be a match among force composition, doctrine, and training needs. Will the United States continue using an AVF? The question must be partly answered by addressing the training model used to develop and sustain volunteer soldiers. Either the Army keeps heading down the current path, hoping for the best, or it must make the necessary changes to prepare for the contingencies of the future. ■

*The views expressed here are the authors' own and do not reflect the official position of the U.S. Army or the U.S. Department of Defense.*

## Notes

1. William R. King, “The All-Volunteer Armed Forces: Status, Prospects and Alternatives,” *Military Review* 55, no. 9 (1977): 3–4. The recession of the draft was the culmination of a herculean effort

wherein “President Nixon and Secretary Laird engineered a drastic change in the sources of military manpower.” Walter S. Poole, *The Joint Chiefs of Staff and National Policy, 1969–1972* (Washington,

DC: Office of Joint History, Office of the Chairman of the Joint Chiefs of Staff, 2013), 50, [https://www.jcs.mil/Portals/36/Documents/History/Policy/Policy\\_V010.pdf](https://www.jcs.mil/Portals/36/Documents/History/Policy/Policy_V010.pdf); see also Robert K. Griffith Jr., *The U.S. Army's Transition to the All-Volunteer Force, 1968–1974* (Washington, DC: U.S. Army Center of Military History, 1997), [https://history.army.mil/html/books/030/30-18-1/cmhPub\\_30-18-1.pdf](https://history.army.mil/html/books/030/30-18-1/cmhPub_30-18-1.pdf).

2. TRADOC Military History Office, *Transforming the Army: TRADOC's First Thirty Years, 1973–2003* (Fort Monroe, VA: U.S. Army Training and Doctrine Command [TRADOC], 2003), chap. V, <https://apps.dtic.mil/sti/citations/ADA434030>; Paul H. Herbert, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations*, Leavenworth Papers no. 16 (Fort Leavenworth, KS: Combat Studies Institute, 1988), 38–39, <https://www.armyupress.army.mil/Portals/7/combat-studies-institute/csi-books/herbert.pdf>.

3. Bernard Rogers, "Retirement Ceremony, General William E. DePuy," 30 June 1977, transcript, p. 4, box 12, folder 10, William E. DePuy Papers, U.S. Army Heritage and Education Center Archives and Special Collections, Carlisle, PA (hereinafter cited as DePuy Papers).

4. Paul F. Gorman, "General William E. DePuy Eulogy," 16 September 1992, transcript, p. 4, box 2, DePuy Papers.

5. Eric Michael Burke, "Ignoring Failure: General DePuy and the Dangers of Interwar Escapism," *Military Review* 101, no. 1 (2023): 53–54, <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/January-February-2023/Burke/>.

6. Herbert, *Deciding What Has to Be Done*, 53–56; Burke, "Ignoring Failure," 53.

7. Gen. William DePuy, handwritten note attached to interview by Michael Pearlman, 16 May 1987, transcript, pp. 14, 16–17, 19, DePuy Papers. This was a considered reflection. These comments are from a hand-written note that DePuy added to the transcript of his interview with Pearlman. The note begins: "Please substitute this explanation on page 19.—Pearlman won't mind and I think it is a clarification that needs to be made."

8. *Ibid.*, 24–25; DePuy, interview by Michael Pearlman, 23 September 1986, transcript, pp. 7–8, DePuy Papers. This reality is made even more clear in DePuy's further comments:

"D[ePuy]: ... I fully admit that we were deficient. I was deficient at the next level up—the operational level. It wasn't there. I wasn't thinking that way in Vietnam also and we paid the price for that. I paid the price, too. But I think if I went to Vietnam again with all the thinking I've done in the 23 years since I went to Vietnam, I like to think that I would have been smarter.

"P[earlman]: Today's Army formal education system states there is an 'operational level of war' that never was recognized in your generation?

"D[ePuy]: That's right. We were the workers in the trenches. Up to the time and thru the time you had stars on your shoulders. The move to add the 'operational level' to our intellectual and professional inventory is correct and just in time because we will need it in places like the Persian Gulf."

9. Burke, "Ignoring Failure," 56.

10. DePuy, interview, 16 May 1987, 14, 16–17.

11. Rogers, "Retirement Ceremony," 5.

12. Joshua J. Daily, "The All-Volunteer Force: LSCO, Cost, and a New Implicit Tax on Reserve Forces" (master's thesis, U.S. Army Command and General Staff College, 2019), <https://apps.dtic.mil/sti/citations/AD1083235>.

13. Bernard Rostker, *I Want You!: The Evolution of the All-Volunteer Force* (Santa Monica, CA: RAND, 2006), 77, [https://www.rand.org/content/dam/rand/pubs/monographs/2007/RAND\\_MG265.pdf](https://www.rand.org/content/dam/rand/pubs/monographs/2007/RAND_MG265.pdf).

Rostker's history of the all-volunteer force (AVF) for RAND provides valuable insight into studies into the feasibility of the AVF that predate the Gates Commission. We focus most on the work of the Gates Commission because it was stood up by the president and had his ear in particular ways. Rostker even notes that the first meeting of the commission took place in the Roosevelt Room of the White House. Richard V. L. Cooper, *Military Manpower and the All-Volunteer Force*, R-1450-ARPA (Santa Monica, CA: RAND, 1977), viii–ix, <https://www.rand.org/pubs/reports/R1450.html>. Early analysis suggested, "The removal of the draft has ... altered the entire philosophy under which the military must manage its human resources ... it is essential to address the major areas in need of reform: ... and military training." Fundamental changes to training based on this kind of analysis did not take place.

14. Thomas Gates et al., *The Report of the President's Commission on an All-Volunteer Armed Force* (Washington, DC: U.S. Government Printing Office, 1970), 133, <https://www.nixon-foundation.org/wp-content/uploads/2012/01/The-Report-Of-The-Presidents-Commission-On-An-All-Volunteer-Armed-Force.pdf>.

15. Rostker, *I Want You!*, 5, 35; Cooper, *Military Manpower and the All-Volunteer Force*, vi.

16. Thomas Gates et al., *The Report of the President's Commission*, 44–45.

17. TRADOC Regulation (TR) 350-70, *Army Learning Policy and Systems* (Washington, DC: U.S. Government Publishing Office [GPO], 2017), para. 3-2b(1).

18. John A. Bonin and James D. Scudieri, "Change and Innovation in the Institutional Army from 1860-2020," *Parameters* 53, no. 2 (2023): 95–120, <https://press.armywarcollege.edu/parameters/vol53/iss2/13/>.

19. Herbert, *Deciding What Has to Be Done*, 25; Burke, "Ignoring Failure," 53–54.

20. Conrad C. Crane et al., *Learning the Lessons of Lethality: The Army's Cycle of Basic Combat Training, 1918–2019* (Carlisle, PA: U.S. Army Heritage and Education Center, 2019), 49.

21. U.S. Army Military History Institute, "Senior Officers Debriefing Program: Conversations between General William E. DePuy and Lieutenant Colonel Bill Muller and Lieutenant Colonel Les Brownlee," 19 March 1979, transcript, section I, p. 14, DePuy Papers.

22. Herbert notes, "All DePuy's ideas were grounded in his experiences in World War II. They were the ideas around which he would try to rally the entire United States Army." Herbert, *Deciding What Has to Be Done*, 21.

23. Donald Vought, "Letter to the Editor," *Military Review* 53, no. 5 (May 1973): 2–3.

24. U.S. Army Military History Institute, "Senior Officers Debriefing Program," 19 March 1979, section VII, pp. 34–35, DePuy Papers.

25. Field Manual 100-5, *Operations* (Washington, DC: U.S. Government Printing Office, 1976), 1-1 (emphasis in original); see also TRADOC Military History and Heritage Office Staff, *Victory Starts Here: A Short 50-Year History of the US Training and Doctrine Command* (Fort Leavenworth, KS: Combat Studies Institute Press, 2023), 53, <https://www.armyupress.army.mil/Portals/7/Research%20and%20Books/2023/TRADOC-50yr-Book-Final.pdf>; Burke, "Ignoring Failure," 53–54; Bonin and Scudieri, "Change and Innovation," 111.

26. DePuy, interview, 16 May 1987, 23.



27. Walter S. Poole, *The Joint Chiefs of Staff and National Policy, 1973–1976* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 2015), [https://www.jcs.mil/Portals/36/Documents/History/Policy/Policy\\_V011.pdf](https://www.jcs.mil/Portals/36/Documents/History/Policy/Policy_V011.pdf).
28. DePuy, interview, 23 September 1986, 1; TRADOC Military History and Heritage Office Staff, *Victory Starts Here*, 7, 53–54; Burke, “Ignoring Failure,” 53.
29. Poole, *Joint Chiefs of Staff and National Policy*.
30. Herbert, *Deciding What Has to Be Done*, 26; DePuy, interview, 16 May 1987, 23.
31. L. D. Holder, “A New Day for Operational Art,” *Army* (March 1985): 22–28, 32. Holder was a principal author of the 1982 version of Field Manual 100-5, *Operations*.
32. Military education is supposed to “develop strategic-thinking warfighters who leverage diverse experiences, backgrounds and perspectives to think critically and creatively about using military power to inform national strategy, conduct globally integrated operations, and fight under conditions of disruptive change.” DOD Instruction (DODI) 1322.35, *Military Education Program Management and Administration*, vol. 1 (Washington, DC: Department of Defense [DOD], 26 April 2022), 3, [https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/132235\\_vol1.PDF](https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/132235_vol1.PDF).
33. See Robert A. Doughty, *The Evolution of US Army Tactical Doctrine, 1946–76*, Leavenworth Papers no. 1 (Fort Leavenworth, KS: Combat Studies Institute, 1979); John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973–1982* (Fort Monroe, VA: TRADOC, 1984). Recent positive developments, such as the use of the learner-centric Army learning model are steps in the right direction. See TRADOC Pamphlet (TP) 350-70-7, *Army Educational Processes* (Fort Eustis, VA: TRADOC, 2018), 39. The Army is still constrained by an overall model, including the processes and systems that are bound up in and perpetuate it, that is set in 1973—with a tactical, non-AVF focus.
34. TR 350-70, *Army Learning Policy and Systems*, para. 3-14b(1).
35. TP 350-70-14, *Training and Educational Development in Support of the Institutional Domain* (Fort Eustis, VA: TRADOC, 2021), 107; Nathan H. White, “Strengthening Army Systems to Support Learning in the Affective Domain,” *Journal of Military Learning* 6, no. 2 (2022), <https://www.armyupress.army.mil/Journals/Journal-of-Military-Learning/Journal-of-Military-Learning-Archives/October-2022/Affective-Domain/>.
36. “Recruiting Facts,” U.S. Army Recruiting Public Affairs Office, accessed 28 March 2024, [https://recruiting.army.mil/paof/facts\\_figures/](https://recruiting.army.mil/paof/facts_figures/); Government Accountability Office (GAO)-23-106551, *National Security Snapshot: DOD Active-Duty Recruitment and Retention Challenges* (Washington, DC: U.S. GAO, 28 March 2023), <https://www.gao.gov/products/gao-23-106551>; Beth J. Asch, “Addressing the Recruiting Crisis in the Armed Services: Insights from Research,” RAND, 11 May 2023, <https://www.rand.org/pubs/testimonies/CTA2740-1.html>.
37. Lloyd J. Austin III, “Statement of Secretary of Defense Lloyd J. Austin III on the 50th Anniversary of America’s All-Volunteer Force,” DOD News, 30 June 2023, <https://www.defense.gov/News/Releases/Release/Article/3445604/statement-by-secretary-of-defense-lloyd-j-austin-iii-on-the-50th-anniversary-of->
38. Army Doctrine Publication (ADP) 6-22, *Army Leadership and the Profession* (Washington, DC: U.S. GPO, 2019), para. 2-23, 3-10, 4-13, 5-9, 5-44, 6-20.
39. ADP 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: U.S. GPO, 2019).
40. James C. McConville, *Army Multi-Domain Transformation: Ready to Win in Competition and Conflict*, Chief of Staff Paper #1 (Washington, DC: Headquarters, Department of the Army, March 2021), [https://armypubs.army.mil/epubs/DR\\_pubs/DR\\_a/ARN32547-SD\\_01\\_CSA\\_PAPER-01-000-WEB-1.pdf](https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN32547-SD_01_CSA_PAPER-01-000-WEB-1.pdf).
41. DODI 1322.35, *Military Education*.
42. *Ibid.*, para. 1-3a.
43. TR 350-70, *Army Learning Policy and Systems*, para. 3-14b(2); TP 350-70-7, *Army Educational Processes*, para. 5-5c.
44. TR 350-70, *Army Learning Policy and Systems*, para. 3-14b(1).
45. Josef Danczuk, “Engaging Soldiers: Leveraging Employee Engagement Strategies to Increase Soldier Productivity, Independence, and Retention,” *NCO Journal*, 30 November 2018, <https://www.armyupress.army.mil/Journals/NCO-Journal/Archives/2018/November/Engaging-Soldiers/>. Sometimes satire can hit close to home, see Carl Owen, “Recruiting Woes Leads Army to Revamp 80’s Slogan,” Duffel Blog, 1 September 2023, <https://www.duffel-blog.com/p/army-revamped-80-s-recruiting-slogan-to-be-all-we-tell-you-to-be>.
46. Davis Winkie, “Exclusive: The Inside Story of How the Army Rethought Recruiting,” *Army Times*, 9 October 2023, <https://www.armytimes.com/news/your-army/2023/10/09/exclusive-the-inside-story-of-how-the-army-rethought-recruiting/>; Deyanira Garcia Zea, Sarayu Sankar, and Nuzulul Isna, “The Impact of Emotional Intelligence in the Military Workplace,” *Human Resource Development International* 26, no. 1 (2023): 85–101, <https://doi.org/10.1080/013678868.2019.1708157>.
47. DOD Sexual Assault Prevention and Response Office (SA-PRO), *Department of Defense Annual Report on Sexual Assault in the Military, Fiscal Year 2022* (Alexandria, VA: DOD SAPRO, 2023), [https://www.sapro.mil/sites/default/files/public/docs/reports/AR\\_FY22/DOD\\_Annual\\_Report\\_on\\_Sexual\\_Assault\\_in\\_the\\_Military\\_FY2022.pdf](https://www.sapro.mil/sites/default/files/public/docs/reports/AR_FY22/DOD_Annual_Report_on_Sexual_Assault_in_the_Military_FY2022.pdf); DOD Inspector General, *Annual Report to Congress Regarding DoD’s Progress on Implementing Fiscal Year 2021 National Defense Authorization Act Section 554 Requirements*, Report No. DODIG-2023-034 (Alexandria, VA: DOD Inspector General, 2022), <https://media.defense.gov/2022/Dec/01/2003123744/-1/-1/1/DODIG-2023-034.PDF>; Davis Winkie, “Pentagon Watchdog Investigating Army Harassment Response After Audit,” *Army Times*, 7 August 2023, <https://www.armytimes.com/news/your-army/2023/08/07/pentagon-watchdog-investigating-army-harassment-response-after-audit/>; Jeffrey A. Lieberman, “Solving the Mystery of Military Mental Health: A Call to Action,” *Psychiatric Times* 35, no. 12 (2018), <https://www.psychiatrictimes.com/view/solving-mystery-military-mental-health-call-action>.
48. Cooper, *Military Manpower and the All-Volunteer Force*, iii, v, viii.
49. Louis G. Yuengert, “America’s All Volunteer Force: A Success?,” *Parameters* 45, no. 4 (2015), <https://press.armywarcollege.edu/parameters/vol45/iss4/7/>.
50. James A. Thomas, “Limited War: The Theory and the Practice,” *Military Review* 53, no. 2 (February 1973): 75–81.

# Marketing Authoritarianism

## How Putin and Xi Cultivate Isolationism

Kyle Morgan

As I headed to the office, I sipped my first coffee and attempted to break through the groggy cloud that seemed to hang over my head. My commute was a unique, seven-minute walk from where I was living. The morning was cool and calm. The cool air forced a small ribbon of smoke low to the ground. As I walked, I watched this ribbon of smoke drift from a local home over a large concrete blast wall commonly called a “T” wall. I watched the ribbon of smoke disappear behind a set of Afghan barracks. I gave a small group of Afghan soldiers a friendly wave, and they reciprocated with cordial nods and waves. I was a U.S. Army psychological operations officer nearly halfway through a deployment to Afghanistan.

When I arrived at the office, the night shift was still busy. They recounted how a Tweet surfaced the previous night claiming that a U.S. unit had rampaged through an Afghan village and set a car ablaze. It even claimed to provide a photo of the burning vehicle. I gave them a slight grin. I had explained on countless occasions that Afghans living in Afghanistan rarely Tweet. At that moment, I was confident the Tweet was just another ruse: an addition to the growing list of deceptive media encountered during that deployment.

It was determined that the Tweet’s claim was unsubstantiated. The image of the burning car originated from a Russian online periodical. It became evident to my team that most Afghan-related Twitter content

originated outside of Afghanistan. Often, the content was created by adversaries to the United States who were attempting to delegitimize U.S. efforts to support the government of the Islamic Republic of Afghanistan.

Our teams regularly collected propaganda that originated from various violent extremist organizations like the Taliban, al-Qaida, and the so-called Islamic State. Interestingly, we uncovered a steady stream of anti-West content of a style different than typical violent extremist organization propaganda. Foreign meddling was evident, and the global implications of U.S. involvement in Afghanistan became very real to me. I became aware of the extent to which adversaries were willing to go to oppose Western influence.

On 6 April 2023, comedian and social commentator Russell Brand tweeted, “Join the conversation as we discuss Finland joining NATO & escalating tensions with Russia,” in preparation for his *Stay Free* podcast in which he regularly lambasts Western foreign policy as unnecessarily inflammatory against an unstable Vladimir Putin.<sup>1</sup> What is particularly disturbing about this growing sentiment is that it aligns with authoritarian objectives. Isolationists like Brand, who—despite his recent scandal—maintains a following of 6.71 million subscribers on YouTube alone, are peddling an idea that empowers authoritarians.<sup>2</sup> Such avoidance is naïve. Isolationists ignore the fact that authoritarians can behave within the geopolitical space in ways of their choosing, regardless of Western

policy. Russia's foreign policy created an environment in which Finland was able to join NATO, a change that was much less likely before Russia invaded Georgia.<sup>3</sup> As I discovered in Afghanistan, the authoritarian regimes of the world are leveraging every means available to influence Western policy. Modern isolationism is the latest weapon in the arsenals of authoritarians. If the international community and policymakers turn a blind eye toward authoritarian expansionism, the oversight will be to the detriment of international security.

Imagine how much propaganda is directed at Western citizens when significant effort is directed at a remote village in Afghanistan. How can these malign efforts be opposed in a cost-effective manner while preserving democratic values? In short, the answers are

education and irregular warfare. Citizens of Western governments must be made aware of these malign efforts. This can be accomplished by studying the nature of our new information environment. Finally, Western responses to authoritarian military activity are unavoidable, but appropriately scaled military responses are required for their efficacy and lower impact on Western citizens. Domestically, authoritarian influence can be combated via active civil dialogue and academic research; internationally, it can be combated via small-scale military operations.

## Kukolniks and Kuileishis

The Russian and Chinese governments propagate their authoritarianism styles through distinct and shared methods. Understanding these methods is an important first step toward understanding the role that authoritarian propaganda has in spreading isolationist narratives. The Russian government leverages socially charged content to instigate conflict within Western communities.<sup>4</sup> These socially charged narratives inject

deliberate bigotry into every aspect of Western life, from popular political conversations to niche fan discussions about science fiction films.<sup>5</sup> In his social media analysis of commentary on the film *The Last Jedi*, Dr. Morten Bay found, "Overall, 50.9% of those tweeting negatively [were] likely politically motivated or not even human."<sup>6</sup> He found that a



Vladimir Putin and Xi Jinping (AI image by Michael Lopez, *Military Review*)

portion of the negative online commentary related to the film, including rants from apparent bigots, was in fact orchestrated.<sup>7</sup> Russian agents manufacture sexist and racist dialogue to portray Western society negatively. These narratives give the Russian government the opportunity to encourage foreign governments and populations to form closer ties to Russian society and its government instead of Western governments. The objective is to highlight the perceived fall of Western society and to make Putin's Russia more attractive to some audiences.



The People's Republic of China (PRC) takes a more nuanced approach. Instead of the overwhelming negativity of Russian propaganda, the PRC leverages Confucius's teachings and promises of economic development to make PRC policies more palatable to international audiences.<sup>8</sup> PRC-influenced Confucianism, taught in China and Western countries, provides the Chinese government the ability to influence strategically beneficial behaviors. Communities living simple lifestyles, encouraged to find harmony with the world around them, are ideal for an authoritarian who does not want to be challenged.<sup>9</sup> Prior to their forced closures on 21 June 2022, 118 PRC-backed Confucius Institutes existed within the United States alone. Now they are attempting to exist under other names.<sup>10</sup> For instance, one day after its closure, the Confucius Institute at the College of William and Mary was renamed the W&M-BNU Collaborative Partnership with Beijing Normal University.<sup>11</sup> Chinese economic propaganda, most famously its Belt and Road Initiative, attempts to influence foreign audiences, even foreign children, to accept Chinese economic expansion as mutually beneficial.<sup>12</sup> Belt and Road propaganda includes music videos for children hosted by popular social media platforms.<sup>13</sup> The music video "The Belt and Road Is How" is sung by "children from participating nations" and states that "the future is coming now" and "the Belt and Road is how." Since its 2017 release on YouTube, the video has been viewed 195,000 times.<sup>14</sup> These narratives enable the Communist Party to conceal its social and economic failings. Behind this seemingly innocent propaganda, the PRC can conceal the fact that the party enslaves ethnic minorities and maintains complete control of every aspect of its sponsored economic programs.<sup>15</sup>

Along with the tactics previously mentioned, both countries propagate anti-West conspiracies domestically and internationally to delegitimize Western governments and their allies. These conspiracies generally support both Russian and Chinese objectives by discrediting Western activities. The Russian government has done this in a frightening way. It is covertly supporting the spread of modern neo-Nazi groups throughout the Western world to demonize Western society.<sup>16</sup> Putin overtly paints the Russian military as liberators fighting against the spread of modern Nazism. Covertly, he has cozied up to these extremist

groups. Before their fall, Russia's Wagner mercenary organization took its name from a popular Russian special operations officer known as "Wagner" due to his neo-Nazi ties and the name's significance within neo-Nazi lore.<sup>17</sup> Putin's managed nationalism policy enables his regime to provide shadowy support to extremist groups. Pro-Russian propaganda often features and is featured by white nationalist propaganda. The extremist groups also receive direct political support from pro-Putin political figures throughout Russia and Putin-friendly states. In return, those groups bully, attack, and even kill individuals who threaten Putin's power.<sup>18</sup> The "Russia versus Nazism" narrative has been played out throughout Putin's invasion of Ukraine. In reality, the Kremlin propagates modern Nazism internationally while hypocritically claiming in the public eye that it is engaged in a conflict against European-backed Nazis in Ukraine.

A common anti-West conspiracy formulated by the Chinese government hinges on the idea of Chinese exceptionalism. According to the PRC, the Chinese government provides economic stability and security unparalleled by Western governments.<sup>19</sup> For example, PRC propaganda champions Chinese military superiority over that of its adversaries. Xi Jinping famously stated, "The Chinese people will never allow any foreign forces to bully, oppress or enslave us. Anyone who dares try to do that will have their heads bashed bloody against a Great Wall of steel forged by over 1.4 billion Chinese people."<sup>20</sup> Chinese military superiority is a false narrative designed for the PRC's benefit. In comparison, the U.S. military is superior or reaches levels of "approximate parity" in most military aspects.<sup>21</sup> Only when considering military capability in regions immediately surrounding Mainland China does the Chinese military gain some advantage.<sup>22</sup>

Unopposed, authoritarian tactics and narratives spread distaste for Western society and bolster authoritarian activities. Victims of authoritarian influence become puppets for larger schemes. At relatively low cost, authoritarian governments can weaponize specific target audiences. From the creation of zealous soldiers to the creation of a less competitive economic environment, Putin and Xi benefit immensely from their propaganda machines and Western society is negatively affected by the first- and second-order effects. To avoid opposition, the Putin and Xi regimes are leveraging

these propaganda tactics and social media platforms to encourage the international community to turn a blind eye toward their aggressive activities.

## Propaganda by the Numbers

Propaganda has reached the zenith of its spread thanks to social media. A dive into isolationist social media content highlights a correlation between accounts that host isolationist content and content consistent with other authoritarian narratives. Modern isolationists use the term “warmonger” as their rallying cry to delegitimize Western involvement in international conflicts. Authoritarian propagandists use the same term.

To illustrate this fact, I collected a random sample of ninety-six Twitter posts from unique accounts using the term “warmonger” on 4 March 2023, before the re-branding of Twitter to X.<sup>23</sup> The sample highlighted how accounts with authoritarian propensities also attempted to influence their audiences to adopt isolationist ideology. This is not surprising considering the threat Western policy poses to authoritarianism. If Putin and Xi can popularize Western isolationism, they could achieve a huge strategic success.

Authoritarians leverage automated “bots” and even personnel who manage multiple accounts, like Russia’s famed “troll factory,” to increase their influential impact.<sup>24</sup> To identify bots within the sample, each Twitter account was evaluated using Indiana University’s Botometer.<sup>25</sup> The accounts were assigned a Botometer score of zero to five to indicate the likelihood that each account was a bot. A score of zero indicated that an individual likely maintained the account, and a score of five indicated that it was likely automated (see figure 1). According to the Botometer’s most conservative assessment, a quarter of the sampled accounts had a higher than 70 percent chance of being bots. This is important as it indicates that covert actors have the deliberate intent to encourage isolationist narratives.

The presence of political actors in this sample was not limited to bots. Accounts were also likely managed by political agents. Two of the sampled accounts claimed to be owned by an Afghan and an Afghan human rights organization.<sup>26</sup> The account pages appeared different, but upon further inspection, the imagery associated with each account was almost identical. The posts themselves were the same and even occurred within minutes of each other. This is a

social media agent’s smoking gun. The red flags were indicative of an actor who intends to spread a narrative to as many readers as possible via fictitious personas. Despite their poor quality, the accounts did not receive high Botometer scores, 0.7 and 1.4, respectively. This suggests that of the roughly 25 percent of sampled accounts that were likely bots, additional accounts were also likely operated by political or governmental actors.

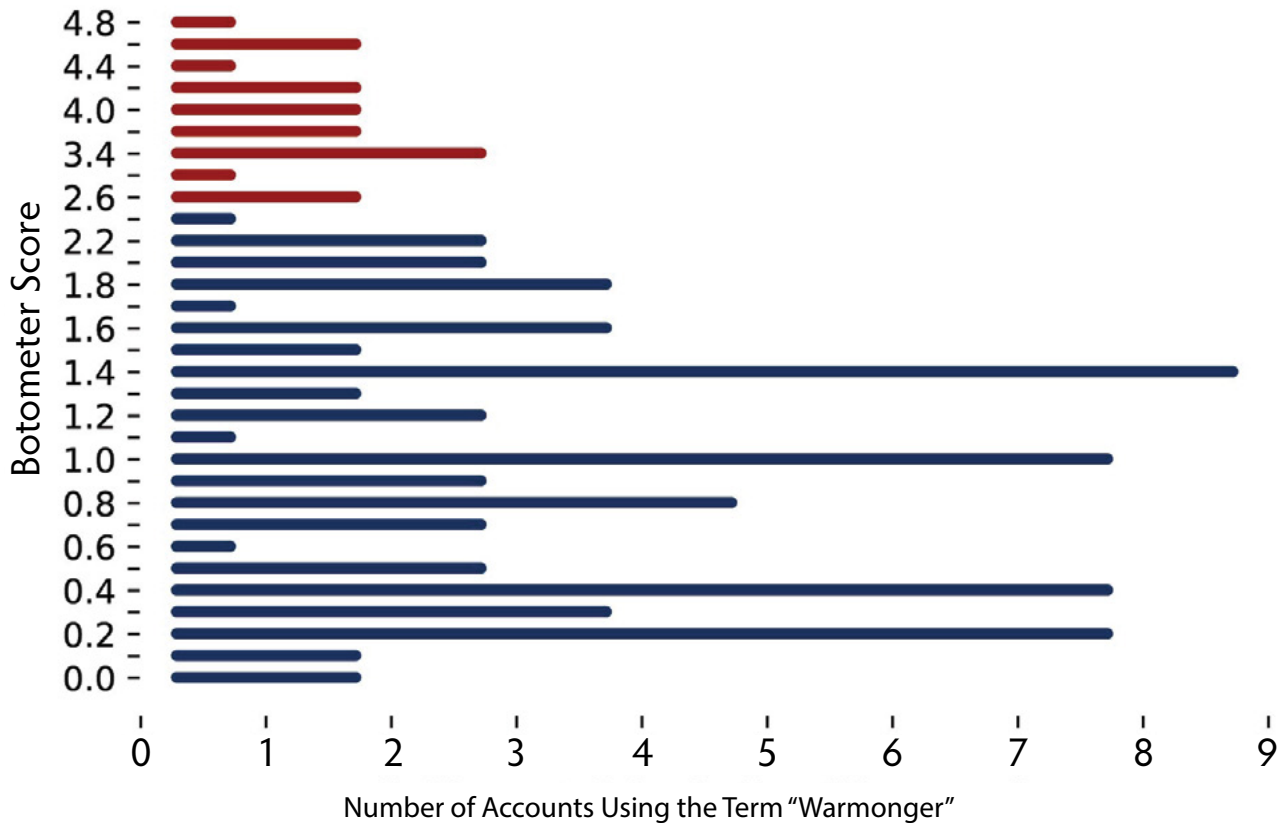
To identify additional fabricated accounts, I categorized the sentiment of each Tweet. Eleven different sentiment categories were identified. Out of these categories, five contained authoritarian sentiments. These five categories excluded the “anti-War” and “anti-Democratic Party” categories to avoid subjective analysis, though these categories also likely included fabricated users. I found that 37.5 percent of the sample contained narratives consistent with authoritarian propaganda (see figure 2). If these results are extrapolated over multiple months across multiple social media platforms, it becomes easier to see how authoritarians can popularize isolationism.

A machine learning algorithm was used to identify additional evidence within the sample.<sup>27</sup>

It used the number of Russian government narratives identified in each of the accounts to predict whether an authoritarian regime wrote each post. Chinese government narratives were omitted for simplification. If a correlation existed between the number of Russian narratives and posts with authoritarian sentiment, this would have suggested with more likelihood that Russian propaganda was focused on bolstering isolationist ideology (see figure 3). Conversely, a lack of correlation would have suggested

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## Distribution of Botometer Scores



(Figure by author)

**Figure 1. Distribution of Botometer Scores**

that the posts using the term “warmonger” were in fact organic. Unsurprisingly, the latter was not the case.

With an accuracy of 75 percent, a trendline showed that as the number of Russian narratives increased per account, so too did the number of posts that contained authoritarian sentiment. This finding suggests that the sampled posts correlated with isolationist themes and accounts controlled by the Russian government. Authoritarian efforts like these must be thrust into the realm of public scrutiny. Voters with the power to influence Western policy must be made aware of the intent to influence indifference among their ranks.

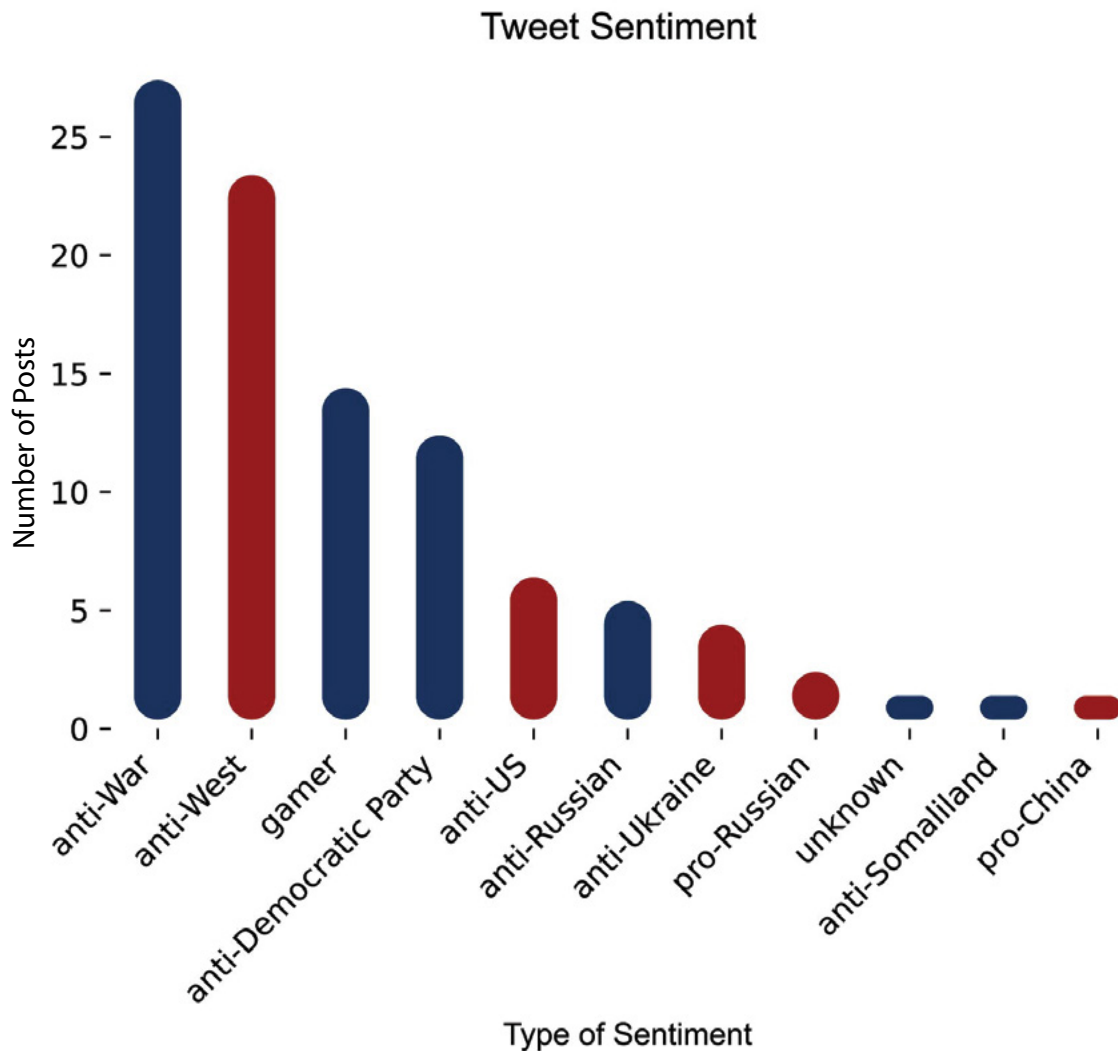
### Paving the Road for Authoritarianism

Indifference only serves to provide avenues by which authoritarians can grow their power at the

expense of others. If altruism is not enough motivation for international communities to oppose authoritarian activities, then their negative impact should. Unopposed, authoritarian regimes will expand their influence to the detriment of international security.

Russia’s invasion of Ukraine placed undue financial strain on the West. Putin’s desire for military conquest put European politicians in difficult positions. Were they to maintain access to low-cost natural gas, petroleum, food, and metals from Russia, or stop fueling Putin’s military-industrial complex?<sup>28</sup> The invasion even exacerbated the humanitarian crisis along the U.S. southern border. Refugees traveling to the United States to escape violence and poverty in Central and South America due to existing economic troubles were forced to also endure war-induced inflation. Russia’s invasion disrupted cheap international trade, including food and petroleum





(Figure by author)

**Figure 2. Tweet Sentiment**

that were once shipped directly from Ukraine to Central and South America.<sup>29</sup> These added economic struggles further incentivized northern immigration to the United States.

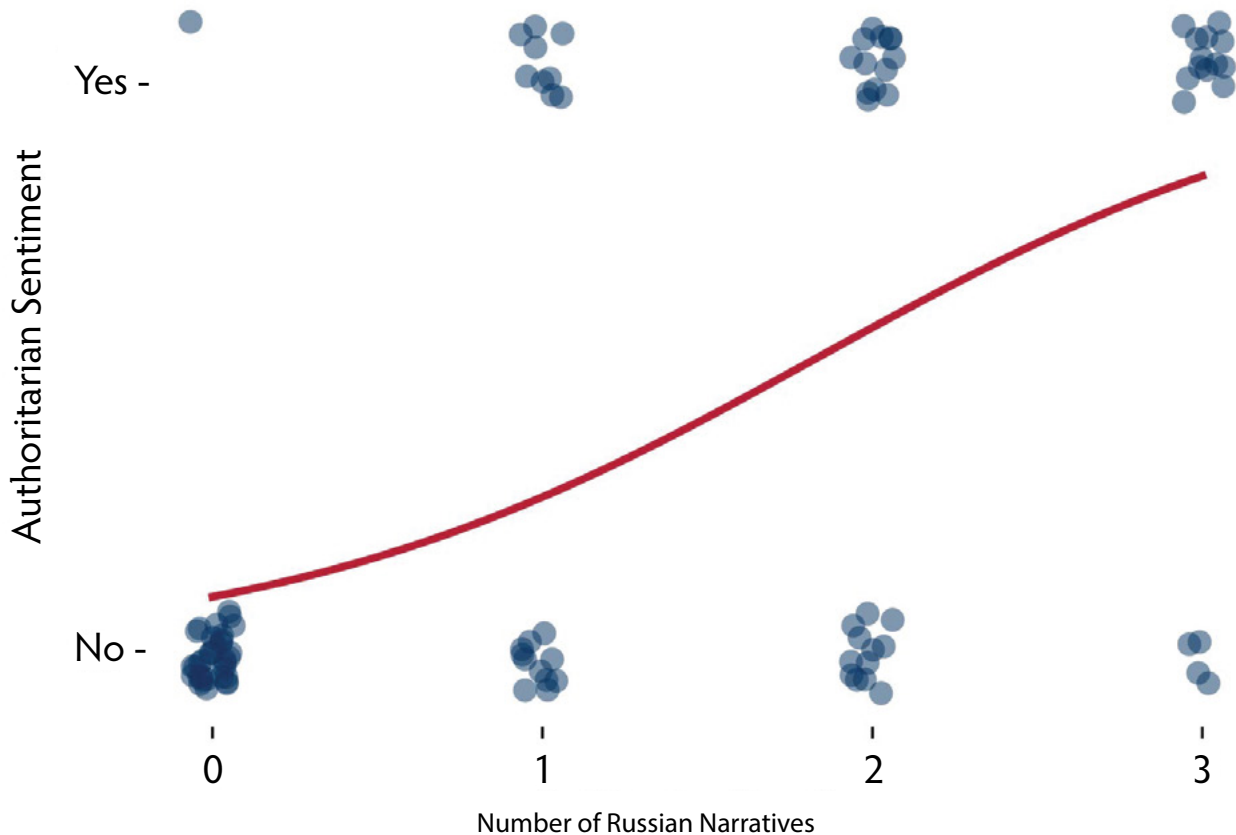
Chinese efforts have had similar impacts. The PRC's unlawful expansion in the South China Sea places the regime in a position to disrupt international trade routes that facilitate over \$5 trillion in annual trade. Of that \$5 trillion, a little over \$1 trillion in goods travel to and from the United States.<sup>30</sup> In comparison, about \$76.8 billion in U.S. aid was sent to Ukraine from 2022 to 2023.<sup>31</sup> These figures illuminate how costly it can be if Russia's invasion of Ukraine becomes protracted or how costly it can be if the PRC is permitted to permanently control the flow of trade

in the South China Sea. Subversive Sino-Russo activities threaten security and sovereign markets worldwide. These types of authoritarian activities must be opposed but in an effective manner.

### **Napoleonic-Era Strategy to Machine Learning**

Critiquing the number of Western resources consumed to oppose authoritarianism is valid. It has become a costly endeavor. The validity of this critique does not justify inaction though. Western society cannot afford inaction. Authoritarian actions create numerous costly implications for the world. The trick for the international community is to oppose authoritarians in a cost-effective way.

## Sentiment vs. Number of Narratives



(Figure by author)

**Figure 3. Sentiment versus Number of Narratives**

The machine-learning model used in the previous analysis shows how Putin has achieved an advantage developed during the Napoleonic Wars. Unbound by morals, Putin uses inexpensive social media tactics to influence behaviors internationally. This offers Putin what the famed Prussian military strategist Carl von Clausewitz called “economy of force.”<sup>32</sup>

Economy of force is the application of the minimum required resources needed to accomplish a military goal.<sup>33</sup> This is a critically important condition of warfare, especially when considering another Clausewitzian insight. He famously postulated that warfare is inextricably linked to politics. He stated, “War is nothing but a continuation of political intercourse, with a mixture of other means.”<sup>34</sup> With this in mind, authoritarian regimes can avoid opposition if the cost of opposition is perceived to be too steep by the international community. Where authoritarian regimes can lie, cheat, and steal to receive

the resources required to achieve military goals, most nonauthoritarian governments must ethically source military might.

This can first be achieved by shedding light on authoritarian propaganda. Public awareness will delegitimize this authoritarian advantage. Public awareness can be achieved via governmental public affairs campaigns aimed at informing audiences about the latest propaganda tactics in their information environment. Also, governmental support of propaganda research and analysis of its social impact will further enhance awareness. Media discourse and academic analysis will increase public awareness while preserving the right to free speech. Where other efforts toe the line of violating this fundamental right, education directly attacks the legitimacy of propaganda while preserving free speech. A second important step can be taken by fully embracing irregular warfare. These steps will help Western

governments push the bulk of military advantage toward Western control.

Despite a little over \$2.3 trillion in resources, U.S. involvement in Afghanistan failed to establish the Islamic Republic of Afghanistan government.<sup>35</sup> This failure was due to a lingering Petraeus-era strategy. Gen. David Petraeus famously enacted the failed U.S. counterinsurgency strategy that deployed large numbers of conventional units to regions where they were expected to stabilize highly complex cultural conflicts.<sup>36</sup> This strategy fueled insurgent ideology that thrived off the perceived threat of invading forces. Additionally, conventional units did not recruit nor train service members capable of dealing with these complexities. The full might of the West's military-industrial complex was never the proper tool for involvement in Afghanistan.

The use of large units did not incentivize the establishment of a self-sufficient Afghan government. In contrast, modern special operations utilize small, specially trained units to influence, support, and train indigenous forces and governments. With the support of special operations units specialized in irregular warfare, partner governments receive the support they require while maintaining the required incentive to defend their sovereignty. A competent force of psychological operations (PSYOP) soldiers is a key component

of successful irregular warfare. Unfortunately, current PSYOP units lack a few key strengths. Adding collegiate courses in marketing strategy, brand management, and marketing analytics into the PSYOP Qualification Course would mend this issue. All of this can be accomplished at a lower cost than what Western governments spent under the counterinsurgency strategies of Iraq and Afghanistan. Western strategists have forgotten Clausewitz's "economy of force" and its political importance. Large-scale combat operations are not required to effectively control Putin and Xi. A combination of civic dialogue and traditional irregular warfare are the appropriate responses.

Western governments must walk a fine line. They cannot fall into Afghanistan-like quagmires, but they also cannot turn a blind eye to authoritarian activities. Authoritarian regimes actively attempt to influence Western citizens to push their political leaders to do the latter. International peace cannot be built on a foundation of inaction. Understanding authoritarian propaganda and low-resource military options are critical steps Western governments should take to walk that fine line. ■

*The views expressed in this article are the author's and not those of his employer, the U.S. Department of Defense, or its subordinate commands.*

## Notes

1. Russell Brand (@rustyrocks), "Join the conversation as we discuss Finland joining NATO & escalating tensions with Russia; the unhealthy influence of wall street on the housing market AND journalist @aaronjmate joins me to talk disinformation & the Ukraine war," X (formerly Twitter), 6 April 2023, 9:42 a.m., <https://twitter.com/rustyrocks/status/1643987456252088321>.

2. Russell Brand (@RussellBrand), YouTube, accessed 22 October 2023, [https://www.youtube.com/channel/UCswH8ovgUp5Bdg-0\\_JTYFNw](https://www.youtube.com/channel/UCswH8ovgUp5Bdg-0_JTYFNw).

3. Peter Dickinson, "The 2008 Russo-Georgian War: Putin's Green Light," *UkraineAlert* (blog), Atlantic Council, 7 August 2021, <https://www.atlanticcouncil.org/blogs/ukrainealert/the-2008-russo-georgian-war-putins-green-light/>; Encyclopedia Princetoniensis, s.v. "Georgia: Abkhazia and South Ossetia," by Stefan Wolff, accessed 1 February 2024, <https://pesd.princeton.edu/node/706>; "South Ossetia Profile," BBC News, 28 August 2023, <https://www.bbc.com/news/world-europe-18269210>.

4. William J. Aceves, "Virtual Hatred: How Russia Tried to Start a Race War in the United States," *Michigan Journal of Race and Law* 24, no. 2 (2019): 177–250, <https://doi.org/10.36643/mjrl.24.2.virtual>.

5. Morten Bay, "Weaponizing the Haters: *The Last Jedi* and the Strategic Politicization of Pop Culture through Social Media

Manipulation," *First Monday* 23, no. 11 (2018): 1–36, <https://doi.org/10.5210/fm.v23i11.9388>.

6. Ibid., 17.

7. Ibid.

8. John Dotson, *The Confucian Revival in the Propaganda Narratives of the Chinese Government* (Washington, DC: U.S.-China Economic and Security Review Commission, 20 July 2011), [https://www.uscc.gov/sites/default/files/Research/Confucian\\_Re-vival\\_Paper.pdf](https://www.uscc.gov/sites/default/files/Research/Confucian_Re-vival_Paper.pdf); Kevin Lui, "According to Chinese Propaganda, Children around the World Just Love Beijing's Trade Policies," *Time* (website), 10 May 2017, <https://time.com/4771874/china-propaganda-video-children-trade-belt-road/>.

9. Dotson, *Confucian Revival*.

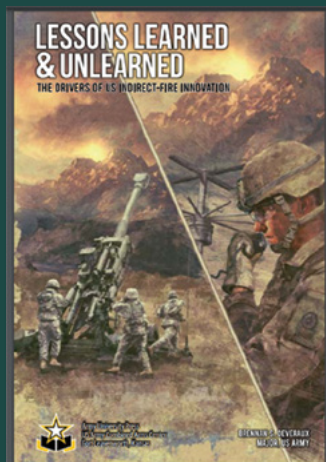
10. Lin Yang, "Controversial Confucius Institutes Returning to U.S. Schools Under New Name," *Voice of America*, 27 June 2022, <https://www.voanews.com/a/controversial-confucius-institutes-returning-to-u-s-schools-under-new-name/6635906.html>.

11. Lin Yang, "Confucius Institutes Returning to US Schools under New Name," *Voice of America*, 9 July 2022, <https://learningenglish.voanews.com/a/confucius-institutes-returning-to-us-schools-under-new-name/6638037.html>.

12. Lui, "Chinese Propaganda."



13. *Music Video: The Belt and Road Is How, You* YouTube video, posted by "New China TV," 10 May 2017, <https://www.youtube.com/watch?v=M0Jjc3PMNlg>.
14. Ibid.
15. Alice Su and David Rennie, "The Cage-Part One," 6 June 2023, in *Drum Tower*, podcast, <https://shows.acast.com/drumtower/episodes/drum-tower-the-cagepart-one>; Lesley Stahl, "The Rollback of Free Market Policies in China," 60 Minutes, 5 December 2021, <https://www.cbsnews.com/news/xi-jinping-china-capitalism-60-minutes-2021-12-05/>.
16. "Shadow Men: Inside Prigozhin's Wagner, Russia's Secret War Company," *Wall Street Journal* (website), video, 8 June 2023, <https://www.wsj.com/video/series/shadow-men/shadow-men-inside-wagner-russias-secret-war-company/29735C37-0B4E-4E70-8E8C-C46F-B711370C>.
17. Ibid., 8:58–9:33; Brian Castner, "The White Power Mercenaries Fighting for the Lost Cause around the World," *Time* (website), 1 June 2022, <https://time.com/6180611/white-power-mercenaries-fighting-the-lost-cause/>.
18. "Putin's Secret Neo-Nazi Armies," in *Decade of Hate*, Vice News, video, 22 August 2022, [https://video.vice.com/en\\_us/video/putins-secret-neo-nazi-armies/62f3d1b6e7ea5f6f67548ef1](https://video.vice.com/en_us/video/putins-secret-neo-nazi-armies/62f3d1b6e7ea5f6f67548ef1).
19. David Crawshaw, "'Heads Bashed Bloody': China's Xi Marks Communist Party Centenary with Strong Words for Adversaries," *Washington Post* (website), 1 July 2021, [https://www.washingtonpost.com/world/asia\\_pacific/china-party-heads-bashed-xi/2021/07/01/277c8f0c-da3f-11eb-8c87-ad6f27918c78\\_story.html](https://www.washingtonpost.com/world/asia_pacific/china-party-heads-bashed-xi/2021/07/01/277c8f0c-da3f-11eb-8c87-ad6f27918c78_story.html).
20. Ibid.
21. Eric Heginbotham et al., *An Interactive Look at the U.S.-China Military Scorecard* (Santa Monica, CA: RAND Corporation, 2015), <https://www.rand.org/paf/projects/us-china-scorecard.html>.
22. Ibid.
23. Michael W. Kearney et al., "rtweet: Collecting and Analyzing Twitter Data," *Journal of Open Source Software* 4, no. 42 (2019): 1829, <https://cran.r-project.org/web/packages/rtweet/index.html>.
24. "Media—(Dis)Information—Security: Troll Factories," Defence Education Enhancement Programme (DEEP), accessed 5 June 2023, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/5/pdf/2005-deeportal2-troll-factories.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/5/pdf/2005-deeportal2-troll-factories.pdf).
25. Botometer, version 4 (adopted September 2020), Indiana University Observatory on Social Media, accessed 1 February 2024, <https://botometer.osome.iu.edu/>.
26. Mohammad N Asif (@MohammadAsif\_1), X, accessed 2 February 2024, [https://twitter.com/MohammadAsif\\_1](https://twitter.com/MohammadAsif_1); Afghan Human Rights Foundation (@AfghanHRF), X, accessed 2 February 2024, <https://twitter.com/AfghanHRF>.
27. Fabian Pedregosa et al., "Sikit-Learn: Machine Learning in Python," *Journal of Machine Learning Research* 12 (2011): 2825–30, [https://scikit-learn.org/stable/modules/generated/sklearn.linear\\_model.LogisticRegression.html](https://scikit-learn.org/stable/modules/generated/sklearn.linear_model.LogisticRegression.html).
28. Brian Michael Jenkins, "Consequences of the War in Ukraine: The Economic Fallout," *The RAND Blog*, RAND Corporation, 7 March 2023, <https://www.rand.org/blog/2023/03/consequences-of-the-war-in-ukraine-the-economic-fallout.html>.
29. Alfred Kammer et al., "How War in Ukraine Is Reverberating across World's Regions," *IMF Blog*, International Monetary Fund, 15 March 2022, <https://www.imf.org/en/Blogs/Articles/2022/03/15/blog-how-war-in-ukraine-is-reverberating-across-worlds-regions-031522>.
30. Todd Moulton, "Preventing War in the South China Sea," *Journal of Indo-Pacific Affairs* 5, no. 4 (July-August 2022): 204–9, <https://www.airuniversity.af.edu/JIPA/Display/Article/3111133/preventing-war-in-the-south-china-sea/>.
31. Jonathan Masters and Will Mellow, "How Much Aid Has the U.S. Sent Ukraine? Here Are Six Charts," Council on Foreign Relations, last updated 8 December 2023, <https://www.cfr.org/article/how-much-aid-has-us-sent-ukraine-here-are-six-charts>.
32. Carl von Clausewitz, *On War*, trans. J. J. Graham, bk. 3 (London, 1873), chap. 14, accessed 2 February 2024, <https://clausewitz.com/readings/OnWar1873/BK3ch14.html#a>.
33. Charles T. Brandon III, "Applying the Principle of War to Business Transformation," Army, 9 July 2021, [https://www.army.mil/article/248339/applying\\_the\\_principles\\_of\\_war\\_to\\_business\\_transformation](https://www.army.mil/article/248339/applying_the_principles_of_war_to_business_transformation).
34. Clausewitz, *On War*, bk. 8, chap. 6, sec. B.
35. "Human and Budgetary Costs to Date of the U.S. War in Afghanistan, 2001–2002," Costs of War, Watson Institute International and Public Affairs, accessed 2 February 2024, <https://watson.brown.edu/costsofwar/figures/2021/human-and-budgetary-costs-date-us-war-afghanistan-2001-2022>.
36. Field Manual 3-24/Marine Corps Warfighting Publication 3-33.5, *Insurgencies and Countering Insurgencies* (Washington, DC: U.S. Government Publishing Office, 13 May 2014), 1-4, 6-15–6-21, [https://armypubs.army.mil/epubs/DR\\_pubs/DR\\_a/NOCASE-FM\\_3-24-001-WEB-5.pdf](https://armypubs.army.mil/epubs/DR_pubs/DR_a/NOCASE-FM_3-24-001-WEB-5.pdf).



## New Release from Army University Press Research and Books

Understanding military innovation requires answering a fundamental question: What adaptive pressure (or pressures) creates change? *Lessons Learned & Unlearned: The Drivers of US Indirect-Fire Innovation* by Maj. Brennan S. Deveraux, U.S. Army, explores this question as it pertains to military indirect fires. It begins with the emergence of the initial concept of artillery, traced back to the days of catapults and trebuchets, and discusses the subsequent development of indirect fire technologies and employment stemming from adaptations to the evolving characteristics of war in various eras up to the modern age. This new edition can be found online at <https://www.armyupress.army.mil/Portals/7/Research%20and%20Books/2024/Feb/Deveraux-Lessons-Learned-2024.pdf>.



*Battle of Wilson's Creek, 1893. Chromolithograph by Louis Kurz and Alexander Allison, Chicago. This chromolithograph depicts the Battle of Wilson's Creek, fought on 10 August 1861, as part of the larger struggle over control of the state of Missouri. Gen. Nathaniel Lyon leads the men of the First Iowa out of a forest to engage the Confederate army in a clearing. At center, Lyon's horse rears as Lyon falls back mortally wounded from a gunshot to the heart. (Photo courtesy of Harry T. Peters "America on Stone" Lithography Collection, Smithsonian)*

# What's the Big Idea?

## Major General Fremont and the Foundation of an Operational Approach

Col. Christopher Wilbeck, U.S. Army, Retired

In his centenary trilogy on the Civil War, Bruce Catton describes Maj. Gen. John C. Fremont's thinking in 1861 for defending Missouri and preparing for a Mississippi River offensive as having "an idea, rather than a plan."<sup>1</sup> This critique may be harsh, but at this point in the war, Union (Federal) and Confederate leadership alike were probing for ideas, much less plans. Catton's assessment overlooks how important, fundamental, and difficult having "an idea" is for creating a plan. Formulating a coherent concept of how you will achieve your designated strategic objectives—in other words, having an idea—is a necessary foundation upon which all following aspects

of planning are built. An idea provides the unifying thread that informs the development of the operational approach, the commander's broad description of how to solve the military problem at hand, which can then be translated into an executable plan. To evaluate Fremont's thinking in 1861, we must first understand the differences between an idea, an operational approach, and a plan.

Planning underpins almost everything that the military does. Planning normally, and optimally, results in a plan. As Catton observed, however, an idea is not a plan. A plan, and more specifically a military plan, arrays forces geographically and provides authority and direction to





A painting of Maj. Gen. John C. Fremont. (Image courtesy of the Library of Congress)

those forces through subordinate headquarters. It includes things like command relationships, task organization, key tasks to be accomplished, objectives to be attained, and timing for all the activities. A plan outlines who is doing what, when they are doing it, where they are doing it, and why it is being done. A plan is the final transformation of an idea into something that can be executed.

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This is hardly insightful and is likely seen by most to be obvious. What is often lost is the point that a plan is the translation of an *idea*. An idea precedes, or should precede, a plan. An idea allows all subsequent aspects of planning to be coherent and consistent. One can theoretically have a plan without an idea, but without a central, unifying concept to tie and guide the actions, the plan is likely to be a

collection of disjointed, unfocused, ineffective, and possibly counterproductive activities.

After reading joint doctrine, one may infer that an operational approach is the idea that precedes a plan. However, an operational approach is not necessarily an idea. Doctrinally, an operational approach is the “commander’s description of the broad actions the force can take to achieve an objective.”<sup>2</sup> An operational approach is normally built using multiple elements of operational design (see figure 1).<sup>3</sup> The elements of operational design are doctrinal tools meant to help the commander understand the environment, define the problem, and to ultimately describe the broad actions the force can take to achieve its objective.

What is the operational approach describing? Doctrinally, it describes the broad actions the force can take. How does one determine what actions need to be described? What informs the overall description, and how does one identify the specific actions? What guides the description and selection of actions? An idea is, or should be, the foundation upon which an operational approach is built and should therefore be the basis of the description. It also serves as the guiding concept that informs what broad actions are included in the operational approach. Optimally then, the operational approach is the *manifestation* of an idea—more specifically, an operational idea. Operational artists must have a sense of *what* you are trying to describe before beginning to develop an operational approach. With an operational idea as the foundation upon which to build the operational approach, one should easily be able to answer the question, “What needs to be done and why?” and the more important question, “Why will this work?”

New practitioners of operational design and novice operational artists often view things differently. This is probably because of the uncertainty associated with tackling novel, difficult problems as well as their unfamiliarity with doctrine in general and with planning doctrine specifically. To deal with the uncertainty and unfamiliarity, they often seek a reproducible formula that is simple and easily followed. The formula sought is found in the nine steps of operational design methodology outlined in the current Joint Publication 5-0, *Joint Planning* (see figure 2).<sup>4</sup> New practitioners follow joint doctrine by identifying various selected elements of operational design during the initial steps of



## Elements of Operational Design

- Objectives
- Military End State
- Center of Gravity
- Effects
- Culmination
- Lines of Operation
- Lines of Effort
- Decisive Points
- Direct and Indirect Approach
- Operational Reach
- Arranging Operations
- Anticipation
- Forces and Functions

(Figure from Joint Publication 5-0, *Joint Planning*)

### Figure 1. Elements of Operational Design

operational design methodology and then arrange the elements together to develop an operational approach in step 6. By strictly adhering to the steps, they normally give little thought to developing or articulating a unifying idea prior to labeling lines of operation/lines of effort and linking these lines to decisive points, objectives, and centers of gravity, etc. An operational approach done in this way tends to be superficial, disjointed, and difficult to explain because it lacks a unifying idea, resulting in a random conglomeration of various elements of operational design. A unifying operational idea may emerge after the operational approach is complete, but its presence would be serendipitous instead of deliberate.

Since an operational approach is an operational artist's work of art, the art world can provide an analogy to illustrate why an operational idea that informs the development of an operational approach increases coherency. There are many different painting styles and movements; however, the majority use representational forms. In other words, the painting *represents* objects or events in the real world, and it is therefore easy to recognize what the artist is trying to convey. In these painting styles, it is likely that the artist has an *idea* of what they want to paint before beginning to paint, and that idea is transformed into a work of art. If the painter is even an average artist, it is also likely that what that artist is trying to depict can then be easily discerned by viewing the completed painting. Just

as a painting represents an artist's idea, an operational approach should represent an operational artist's idea.

Several art styles, including abstract art, use nonrepresentational forms, shapes, and colors. These art styles purposely do not represent the physical environment. There are multiple ways to view or interpret abstract art, including intentionalism, anti-intentionalism, and hypothetical intentionalism. As their names imply, they all involve weighing the artist's *intention* in interpreting

- (1) Understand the strategic direction and guidance
- (2) Understand the strategic environment (e.g., policies, diplomacy, and politics) and the related contested environments
- (3) Understand the operational environment and relevant contested environments
- (4) Define the problem (create shared understanding; planning with uncertainty)
- (5) Identify assumptions needed to continue planning (strategic and operational assumptions)
- (6) Develop options (the operational approach)
- (7) Identify decisions and decision points (external to the organization)
- (8) Refine the operational approach(es)
- (9) Develop planning and assessment guidance

(Figure by author, adapted from Joint Planning 5-0, *Joint Planning*)

### Figure 2. Operational Design Methodology



Example of Neoclassical art: *Napoleon Crossing the Alps*, Jacques-Louis David, 1801, oil on canvas, 261 x 221 cm, Château de Malmaison, Rueil-Malmaison. (Painting courtesy of Wikimedia Commons)

the work of art. Because abstract art is open to interpretation, it is incumbent upon the viewer to give the piece of art meaning. This requires viewers to retrospectively attempt to discern what the artist was endeavoring to

convey or portray in the work of art. Similarly, identifying a unifying idea retroactively by viewing a completed operational approach is like viewing abstract art. One is left to interpret the approach to ascertain the underlying



or hidden unifying operational idea behind it. Like some abstract art, the operational artist might even have difficulty in explaining the completed work of art or operational approach. An operational approach without an underlying operational idea and a piece of abstract art may both be masterpieces, but it would be challenging to explain why (apologies to abstract art and artists). An operational idea allows an operational artist to create an operational approach that is a representation of that idea. Just as important, it allows others to appreciate (understand) that operational approach and judge whether it is a masterpiece or not.

Realizing its importance, what exactly is an operational idea in the context of military planning? The current Joint Publication 5-0 includes the word “idea” only a handful of times, most notably in defining strategy as “a prudent idea or set of ideas.”<sup>5</sup> A nonmilitary, albeit useful, definition of “idea” is “a formulated thought.”<sup>6</sup> The word “formulated” implies a systematic expression of the thought versus a simple statement. At its essence then, an idea is an argument for how available military assets can effectively achieve the directed strategic objectives. An argument should be logical and coherent. It is an explanation of how you will accomplish your objectives along with the supporting rationale of why it will work. Because it is future oriented, it is a hypothesis of “what will work” that may be tested through wargaming but is ultimately tested in actual conflict. It is a logical explanation of how a campaign or major operation—or distributed, simultaneous and sequential campaigns or major operations—will succeed in achieving national strategic objectives. As a rational argument, an operational idea informs the



Example of abstract art: *Painting with Green Center*, Wassily Kandinsky, 1913, oil on canvas, 108.9 x 118.4 cm, Art Institute of Chicago. (Painting courtesy of Wikimedia Commons)

development of an operational approach by providing an intellectual foundation.

How do you generate an operational idea? Put simply, it involves thinking, not just mechanistically following steps in a process or methodology. The Joint Chiefs of Staff vision for professional military education calls for joint warfighters with the cognitive capacities to conceive and design strategies and campaigns to defeat competitors in contests we have not yet imagined.<sup>7</sup> A basic requirement to meet this guidance is the ability to think through a military challenge and develop an operational idea that is intended to achieve all objectives.

Developing an idea requires critical and creative thinking and a holistic understanding of all aspects of the operational environment, like the geographic area of operations, infrastructure, friendly and enemy force structure, capabilities, dispositions, strategic guidance, etc. In joint doctrine, operational design is the methodology that provides for



this holistic understanding. After developing a good understanding of the strategic direction and guidance (step 1) and the strategic and operational environments (steps 2 and 3), defining the problem (step 4), and identifying assumptions (step 5), operational artists will benefit greatly by taking some time to simply brainstorm how to achieve the strategic objectives. This should be done prior to developing the operational approach (step 6).<sup>8</sup> Continue the discourse and dialogue, which is necessary and important in developing a level of understanding about the environment and the problem, to develop draft operational ideas of how the military problem might be addressed. Take time for a competition of ideas to play out, where some ideas will be expanded, others will be discarded, and possibly a combination of ideas will emerge to ultimately become the central, unifying hypothesis that outlines a logical argument for how forces and assets can be used to achieve the strategic objective.

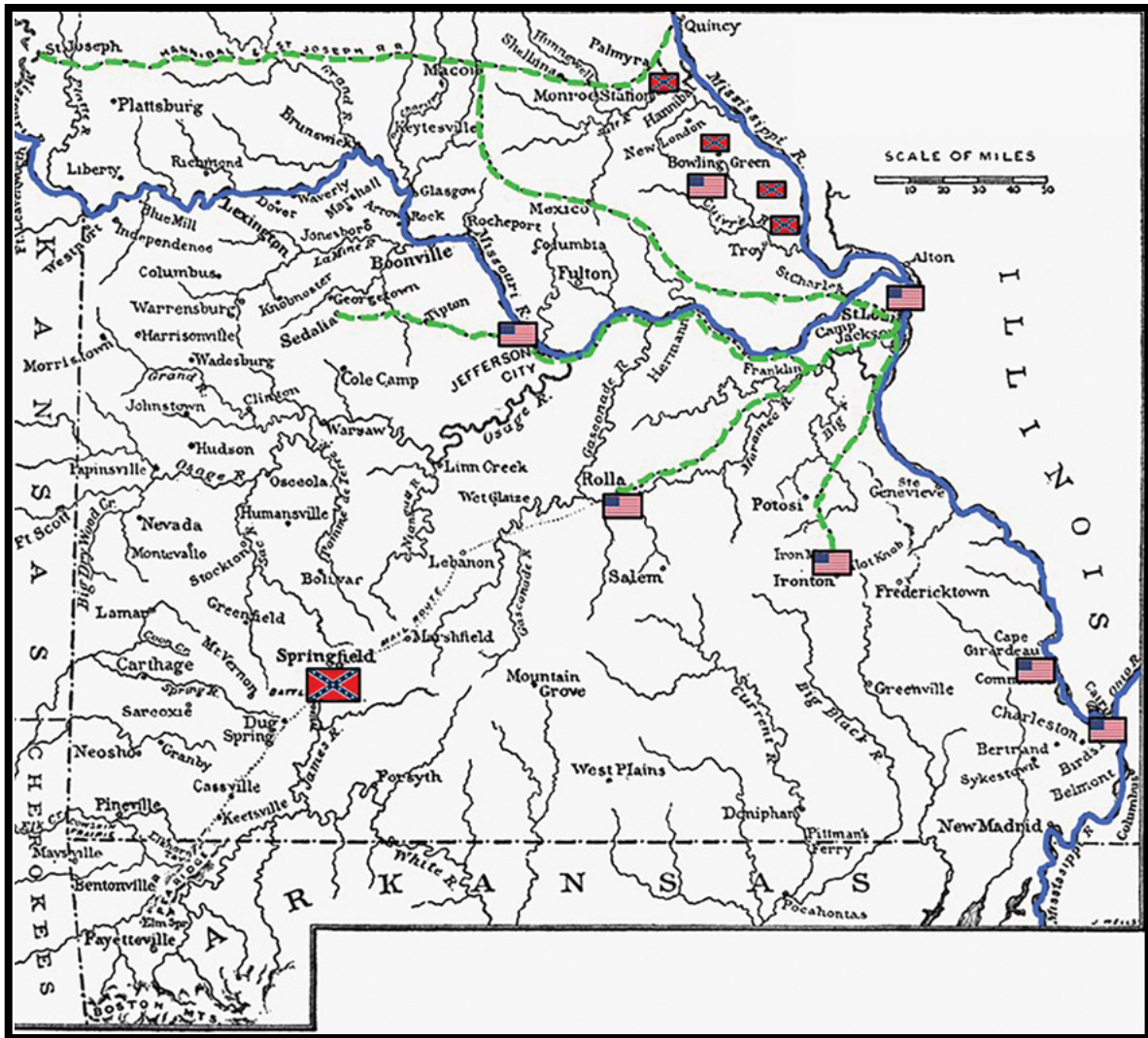
To better understand the distinction between an operational idea and an operational approach, let us return to John Fremont in the summer of 1861 to see what his idea was and how he may have formulated his argument. In terms of strategic direction and guidance (step 1), he was tasked with securing the border state of Missouri, ensuring that it did not fall into the hands of the Confederates. He was also tasked with seizing the Mississippi River from the Confederates, thus breaking the Confederacy in two and reopening the river to Northern commerce. A broad paraphrasing of his understanding of the strategic and operational environment would be as follows:

- There aren't enough trained Union forces to do everything. (Step 3. Understand the OE)
- During the time it will take to organize, train, and equip more units, something can and should be done to defend Missouri and take action that will ultimately lead to the defeat of the Confederacy. (Step 1. Understand the strategic direction and guidance; Step 2. Understand the strategic environment)
- Although there are secessionist sentiments throughout the state, the primary threats to the security of Missouri in the summer of 1861 are
  - a Confederate army operating in the southwest portion of the state,

- large Confederate guerilla bands operating in the northeast portion of the state (along the Mississippi River),
- and a segment of the population in Saint Louis, which is sympathetic to the Confederate cause. (Step 3. Understand the OE)
- In terms of geography and infrastructure, the Missouri and Mississippi Rivers, as well as the four main railroad lines in the state, serve as key lines of communication, both militarily and for civil commerce. (Step 3. Understand the OE)
- The Missouri/Mississippi Rivers and the four rail lines converge at or near Saint Louis, making this city key, and possibly even decisive, terrain. (Step 3. Understand the OE)
- Any serious Confederate threat to control the Mississippi and the Missouri Rivers would come from the South. (Step 2. Understand the strategic environment; Step 3. Understand the OE)<sup>9</sup>

This basic understanding of the strategic guidance/direction and the strategic/operational environment led him to develop the following operational idea:

- While additional forces are generated, Union forces should do something. What that "something" is should be the most important and impactful activities.
- Due to its geographic importance and because there is a portion of the population with Confederate sympathies, Union forces must secure Saint Louis.
- Defending the rail lines and the rivers will allow Union forces to retain the most important aspects of the state of Missouri.
- There aren't enough Union troops available to defend all the rail lines and rivers in Missouri.
- Positioning Union forces at the terminus for each rail line will secure the entire rail line and will deny their use by Confederate forces. Therefore, Jefferson City (western rail line), Rolla (southwestern rail line), and Ironton (southern rail line) need to be secured by Union forces.
- Retention of the Mississippi and Missouri Rivers can be accomplished by controlling key terrain along the river. Therefore, Union forces need to be positioned at Cape Girardeau and need to be strengthened at Cairo, Illinois.
- In order to protect the Mississippi River north of Saint Louis, the few mobile Union forces need to



Map of Missouri with Fremont's Vision of Union Force Disposition, 1861 (Map by author)

suppress the Confederate guerillas in the northeast portion of the state.

- While all of these security measures are undertaken, an army of maneuver can be formed (recruited, equipped, trained) in order to conduct subsequent operations along the Mississippi River deeper into the South.

This may appear similar in form to a logical argument or syllogism—multiple premises that lead to a conclusion—and for good reason. Like a good argument, his operational idea organized his thoughts in a clear and ordered way. Like a logical argument, an operational idea should be sound and valid. If any of Fremont's assertions (premises) were untrue, for example, the assertion that retention of the rivers can be accomplished by controlling key terrain, then

his idea would have been unsound. If his operational idea did not ultimately address achieving the directed objective of securing the state against falling into the hands of the Confederacy, then it would also be a bad idea, or invalid.

Building upon Fremont's operational idea to develop an operational approach should be relatively easy. The strategic objectives were given to him: secure the border state of Missouri and seize the entire Mississippi River from Confederate forces. Decisive points would include the terminus for each railroad, Cape Girardeau, Cairo, and of course, Saint Louis. The effect of securing those decisive points was that the Confederate forces would be unable to use the railroads or rivers in any way. It also allowed Union forces to operate on interior lines, with Saint Louis as

the central point. Lines of operation would emanate from Saint Louis along the railroads and Missouri/Mississippi Rivers. Lines of effort would include suppressing Confederate guerillas in northeast Missouri and forming an Army of maneuver. Fremont's idea included arranging operations by sequencing the security of Missouri first and starting an offensive down the Mississippi River after he had the forces available to do so. By sequencing operations, the operational reach of Union forces would be maintained initially by securing the railroads and rivers and would be extended subsequently after additional forces had been built up by attacking down the Mississippi River. Denying the use of the railroads in Missouri ensured that the Confederate army in the southwestern portion of the state had a limited operational reach and that any Confederate offensive toward Saint Louis would culminate because it would not be able to use the railroad to support and sustain that army. The operational approach attacked both Confederate forces and functions by suppressing the guerillas in the northeast (forces) and denied Confederate forces the ability to sustain themselves and conduct movement and maneuver (functions) along any railroad or waterway. Although not mentioned in the previous discussion of Fremont's idea, the center of gravity recognized in 1861 Missouri was legitimacy. The side that physically retained most of the state and the key infrastructure had a decided advantage in maintaining and sustaining its legitimacy. This, in a broad outline,

would be Fremont's operational approach, although additional details could easily be added to make the description much richer.

Maj. Gen. John Fremont had a good idea in 1861. It was a logical hypothesis, or argument, of how he could use the assets available and build the assets necessary to accomplish the stated national strategic objectives. It's important to recognize how fundamental it is to think through a military problem to create an operational idea prior to developing an operational approach. This basic observation is often overlooked, resulting in an unfocused, disjointed, and oftentimes indecipherable operational approach. The point when an operational approach is completed and detailed planning is underway should not be the first time that you think about the rationale for all the actions and activities included in the operational approach. This would be like creating a work of abstract art where both the artist and the audience struggle to interpret the work of art. Since an idea is a necessary foundation upon which all following aspects of planning are built, don't allow future historians to say worse things than Catton wrote of Fremont—that you, as a joint warfighter, didn't even have an idea, much less a plan. ■

*The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of the U.S. Air Force, the Department of Defense, or the U.S. government.*

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## Notes

1. Bruce Catton, *Terrible Swift Sword* (Garden City, NJ: Doubleday, 1963), 28.

2. Joint Publication (JP) 5-0, *Joint Planning* (Washington, DC: U.S. Government Publishing Office, 1 December 2020 [CAC required]), IV-14.

3. *Ibid.*, III-75. For an overview and discussion on the elements of operational design, see IV-18–IV-44.

4. *Ibid.*, IV-2–IV-3.

5. *Ibid.*, I-3.

6. *Merriam-Webster's Collegiate Dictionary*, 11th ed. (2014), s.v. "idea."

7. The Joint Chiefs of Staff vision for professional military education states, "There is more to sustaining a competitive advantage than acquiring hardware; we must gain and sustain an intellectual overmatch as well. The agility and lethality of the force must be applied appropriately to deter, fight, and win against adversaries who have studied our methods and prepared

themselves to offset our longstanding military superiority. This cannot be achieved without substantially enhancing the cognitive capacities of joint warfighters to conceive, design, and implement strategies and campaigns to integrate our capabilities globally, defeat competitors in contests we have not yet imagined, and respond to activity short of armed conflict in domains already being contested." Joint Chiefs of Staff, *Developing Today's Joint Officers for Tomorrow's Ways of War: The Joint Chiefs of Staff Vision and Guidance for Professional Military Education & Talent Management* (Washington, DC: Joint Chiefs of Staff, 2020), 2, [https://www.jcs.mil/Portals/36/Documents/Doctrine/education/jcs\\_pme\\_tm\\_vision.pdf](https://www.jcs.mil/Portals/36/Documents/Doctrine/education/jcs_pme_tm_vision.pdf).

8. JP 5-0, *Joint Planning*, IV-2–IV-3.

9. For his description of thinking and events surrounding Maj. Gen. John C. Fremont in Missouri of 1861, see Catton, *Terrible Swift Sword*, 10–32.



# Special Section

# 10th Mountain Division



1st Lt. Torrey Crossman, student, 41st Engineer Battalion, 10th Mountain Division, climbs the mountain at Smugglers' Notch in Jeffersonville, Vermont, 18 February 2016. The Mountain Walk is a culminating event for basic and advanced mountain warfare students to use the skills taught at the Mountain Warfare School. (Photo courtesy of the U.S. Army)





Pfc. Jordon Kirby (left), an M249 light machine gunner, and Spc. Isaiah Fernandez, a team leader, both with 1st Battalion, 506th Infantry Regiment "Red Currahee," 1st Infantry Brigade Combat Team, 101st Airborne Division (Air Assault), supporting 3rd Infantry Division, hold their position during a force-on-force situational training exercise with Latvian and Polish armed forces at Camp Adazi, Latvia, 16 September 2023. (Photo by Staff Sgt. Oscar Gollaz, U.S. Army)

# The Queen of Battle

## A Case for True Light Infantry Capability

Maj. Gen. Gregory K. Anderson, U.S. Army

Col. Brian M. Ducote, U.S. Army

Lt. Col. D. Max Ferguson, U.S. Army

Maj. Mark G. Zwirgzdas, U.S. Army

*Light infantry units become the masters of their environment. Light infantrymen do not fight, fear, or resist the environment; they embrace it as shelter, protection, provider, and home. They learn to be comfortable and secure in any terrain and climate, be it jungle, mountain, desert, swamp, or arctic tundra. Exceptionally adaptable, light infantry units dominate terrain in which they operate and use it to their advantage against their enemies.*

—Scott McMichael,  
*A Historical Perspective on Light Infantry*

**T**his article calls to action the reawakening for true light infantry, the “Queen of Battle,” for all eventualities of war.<sup>1</sup> The U.S. Army will rely on light infantry divisions to fight and win in rugged and inhospitable terrain and in small and potentially isolated formations during large-scale combat operations (LSCO). This article is designed to generate dialogue within the force to understand the origins of true light infantry and articulate a need to rediscover its inherent advantages. Additionally, this article presents considerations for how to operationalize emerging doctrine and transform the light infantry within the Army’s modernization priorities into the lighter, more self-sufficient and lethal formation that the modern battlefield demands.

The infantry is as old as warfare. Whether you call them grunts, foot soldiers,

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riflemen, or dismounts, they are the close-combat force. The infantry is the Queen of Battle because, like the queen in chess, infantry go anywhere they are required. Mountains, jungles, arctic plains, or rubble cities.

There are certainly tradeoffs and limitations to light infantry forces. Living and fighting out of your rucksack makes you agile and responsive. But once delivered to the battlefield, dismounted elements will be limited to the ground they can cover by foot or reliant on external air and ground lift assets for repositioning. Heavier forces will be able to organically cover more ground, exploit penetrations, and add a level of lethality that light infantry will not match on their own.

Therefore, light infantry serves as an essential—but just complementary—element of the combined arms team. When properly led, trained, and equipped, they become the most versatile piece on the chessboard, especially in restrictive, austere, and isolated environments.

The future need for light infantry awaits in alpine regions, urban landscapes, contested islands in the Pacific, and across arctic plains. This article is a call to reinvigorate or perhaps rediscover one crucial part of our combined arms maneuver arsenal in our next war: true light infantry forces.

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The U.S. Army claims to have entire *light* infantry divisions, but those original designations diminished over the years. Mission requirements just short of conflict and fielding initiatives slowly but steadily eroded the essence of light infantry's identity and made our light infantry divisions heavy with armored vehicles and metric tons of excess equipment. The light infantry has digressed from its true purpose and become anchored to logistical tails, ground lines of communication, and Tricon shipping containers full of gear. Fleets of vehicles and trailers still crowd their motor pools, even after the recent reduction of motorized infantry formations under the "Army Force Structure Transformation" announcement in February 2024.<sup>2</sup> Stacks of mission command equipment clutter command posts. Individual soldier loads cresting triple digits on the scale have eroded what used to be light infantry formations.

The physical architecture for light infantry already exists in the form of incredible infantry units like the 10th Mountain Division, the 11th Infantry Division, the 25th Infantry Division, the 82nd Airborne Division, and 101st Airborne Division. These divisions have a storied history from World War II, Korea, Vietnam, and modern conflicts in Iraq and Afghanistan. They are among the best infantry divisions in the world. However, none of them are truly *light* infantry divisions as originally intended. No one is necessarily at fault, we just lost the meaning of what a veritable light infantry division represents, what makes light infantry *truly* light, and what the role of light infantry has always been and will be in future conflicts.

To appreciate the case for true light infantry capabilities in LSCO, we must first understand what it means to be light infantry and how that distinct style of infantry came about in the U.S. Army. This article begins by looking at the light infantry in retrospect, starting with the establishment of light infantry in the 1980s. Then, we follow the roots of the infantry's core characteristics back from the American Revolution to the infantrymen of World War II. After tracing the characteristics that make American light infantry unique, we look in prospect at the future of the light infantry given observations from contemporary conflicts to potentially inform the U.S. Army's doctrinal transition toward multidomain operations. Lastly, this article examines how the U.S. Army's six modernization priorities can help enable the Queen of Battle to amplify and enable true light infantry

capability that the joint force will undoubtedly need in LSCO.

## A Modern Distinction Separating Regular and Light Infantry

The universal idea of light infantry is not new. The U.S. Army certainly did not invent it. However, the modern concept of a light infantry division as a distinct organization from mechanized and regular infantry forces only emerged in the U.S. Army around 1984.<sup>3</sup>

The process started when the U.S. Army took stock of what the infantry had become in the decade after Vietnam. Gen. John Wickham was the chief of staff of the Army at the time. The Soviet Union remained the pacing threat as the main Cold War rival, and U.S. maneuver forces were built around defending against anticipated Warsaw Pact armored advances across the Fulda Gap. The infantry was prepared to fight large-scale battles alongside or in support of large-scale tank engagements. For this reason, the Army replaced many of the armored personnel carriers in mechanized infantry units with the new Bradley Fighting Vehicle, and the infantry trained for a supporting dismounted fight, focusing on killing tanks, breaching fortified strongholds, and occupying and holding key terrain. These mission-essential tasks made even standard infantry units reliant on vehicles to "carry the array of heavy equipment it need[ed] to do its job."<sup>4</sup> So, like dragoons of the sixteenth century, the weighed-down infantryman of the early 1980s trained to ride into battle, dismount, and fight the enemy on foot.

But leaders like Wickham recognized a concerning capability gap: *the Queen of Battle could no longer go anywhere it wanted*. The infantry had become too heavy and cumbersome. Regular infantry had become fixed to its own logistical needs, which undermined one of the infantry's greatest attributes: its *versatility*. The U.S. Army relies and will continue to rely on light infantry formations to infiltrate, raid, attack, and ambush the enemy despite the most unforgiving terrain, weather, and circumstances.

## What Is Light Infantry?

The essence of the light infantry transcends how they are equipped, what they are required to do, and even where they are asked to operate. The Combat Studies Institute published an extensive research survey in 1987 by Maj. Scott McMichael examining the historical



25th Infantry Division Lightning Academy air assault instructors conducted a rooftop insertion during a Fast Rope Insertion/Extraction System and Special Patrol Insertion/Extraction System (FRIES/SPIES) Master Course on 5 November 2020 at Schofield Barracks, Hawaii. (Photo by Spc. Jessica Scott, U.S. Army)

perspectives of what it meant to be light infantry. McMichael concluded, “Light infantry is, first of all, a state of mind, and secondarily, a product of organization.”<sup>5</sup> This state of mind is best characterized as an attitude of self-reliance and junior leader initiative. Free from the tethers of roadways and mountains of logistics, light infantry learn to live out of their rucksacks. Their proverbial fuel tanks are their stomachs. And whenever feasible, they refill their canteens with water from creeks and surrounding snow.

The men and women of the light infantry embody a “strong confidence that they will survive and succeed in whatever situations they are found. They are undaunted by unfavorable conditions (such as being cut off or outnumbered) ... [and] devise schemes to accomplish their missions, no matter how difficult the tasks.”<sup>6</sup>

Col. Huba Wass de Czege, one of the principal architects of AirLand Battle doctrine, defined light infantry in 1985 as a force “specialized for rapid air transportability, clandestine insertion, very rugged terrain, night operations, infiltration, raids, and ambushes; it lives off only

small tactical signatures.”<sup>7</sup> Wass de Czege recognized that light infantry fight where heavy forces cannot, defending “areas of rugged terrain so that they can become the fulcrum for defensive maneuver and counterattack.”<sup>8</sup> He describes the balance as “*lightly but potently equipped*” and *nimble*.<sup>9</sup> Light infantry forces buried in restricted terrain become hard to detect and harder to dislodge. Light infantry was meant to pose unsettling dilemmas for mounted opponents. Tanker crews learned in World War II that one of the greatest threats to armor was light infantrymen off the roads, buried somewhere among the hillsides, with shoulder-fired antitank systems.

Wass de Czege’s definition suggests we now have a fundamental misunderstanding of light infantry in its true form, which led to equipment-saturated light infantry formations and widespread misunderstanding of their original mission and intent. Anecdotally, the 10th Mountain Division has become a motorized infantry unit with excess equipment from years of fighting a counterinsurgency. The last twenty years conditioned “light” infantry units to become reliant on trucks to





Spc. Bradley Porter (*left*) and Spc. Ceaton Cooper, both paratroopers with 3rd Platoon, Company D, 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, clear the upper floor of an abandoned building during a bilateral training event with the Polish 6th Airborne Battalion, 16th Airborne Brigade (*not pictured*), in an urban operations training facility in Wędrzy, Poland, 21 November 2016. (Photo by Sgt. William Tanner, U.S. Army)

move personnel, deliver supplies, and power mission command equipment. Motor pool fleets required upward of 32 percent of a battalion to move their vehicles.<sup>10</sup> Once one-third of the battalion buckled into seatbelts just to operate its organic equipment, it was no longer light. It became motorized. These *de facto* motorized units became conditioned to remain tied to ground lines of communication; not the hills or swamps or mountains but rather the roads, which are easily targetable. Our “light” formations have lost the true essence of the light infantry required to fight and win during LSCO. The stubborn attitude of self-reliance and unusual versatility is only gained through constant physical and mental conditioning. Fighting out of a rucksack requires more than individual discipline—it requires organizational culture.

The next war will be vicious and unforgiving. If light infantry formations do not align their order of battle and missions toward LSCO requirements, we will suffer costly losses on the battlefield. We potentially risk

unnecessary sacrifice and relearning lessons the Nation already knows if cannot reestablish, doctrinally codify, and modernize the true light infantry. The good news is the essence of the light infantry is already well-coded into the DNA of the ethos of the American warfighter mentality and the American way of war, so getting it back is entirely within the realm of the possible.

What we need is American light infantry unencumbered by bulky gear and led by junior leaders who own operations, solve tactical problems, and display the cunning, guile, and toughness to fight in small units while isolated. They fight in terrain that can only be accessed on foot, not by wheels, to complement the joint force. American light infantry fight in small elements not tied to lines of communication. They get into the rear of the enemy formations to create disruption and fear. True light infantry units not only thrive in rugged terrain, harsh conditions, and at night, they leverage their





Soldiers from Company A, 2nd Battalion, 22nd Infantry Regiment, 10th Mountain Division, quickly march to the ramp of the CH-47 Chinook that will return to Kandahar Army Air Field on 4 September 2003. The soldiers were searching in Daychopan District, Afghanistan, for Taliban fighters and illegal weapons caches. (Photo by Staff Sgt. Kyle Davis, U.S. Army)

advantages within the environment to help them destroy the enemy.

Ultimately, *there are two ways to make a fighting element nimble*: you can shed weight to make soldiers lighter, and you can allow competent leaders to exercise disciplined initiative, because nimbleness also comes from allowing junior leaders to take prudent risks. Leaders operating in remote corners of the battlefield can realize priceless dividends by making timely decisions in an LSCO fight based on their judgment and understanding of the broader mission. This is when the U.S. Army is at its best.

## American Light Infantry

Tough training and lighter equipment make any good light infantry unit more lethal. What makes American light infantry distinct is the disciplined initiative and

mutual trust fostered among U.S. Army infantryman and their junior leaders. The noncommissioned officers (NCO) in the U.S. Army infantry are remarkable. Our junior leaders make the U.S. Army's light infantry unique. American light infantry fight as decentralized formations in restrictive terrain equipped with their weapons, rucksacks, some shared understanding, the commander's intent, and mission orders.

Americans have long been masters at using light infantry soldiers to bypass enemy strengths and advantages so they can attack critical vulnerabilities at times of their choosing. The American light infantry, leveraging the principles of patrolling, ambushes, and raids, draws its lineage from Robert Rogers, who introduced in the concept of *ranging* in the 1700s against the French and Indians.<sup>11</sup> As a teenager on the American frontier in the 1740s, Rogers spent much of his childhood with



The 11th Airborne Division was transferred to the Pacific theater of operations in June 1944. It saw its first action on the island of Leyte (Philippines) in a traditional infantry role. In January 1945, the division took part in the invasion of Luzon. The two glider infantry regiments again operated as conventional infantry, securing a beachhead before fighting their way inland. It later participated in the liberation of Manila. Of particular note, two companies of divisional paratroopers conducted an audacious raid on the Los Baños Internment Camp, liberating two thousand civilians. Its last combat operation of World War II was north of Luzon around Aparri, in aid of combined American and Philippine forces who were battling to subdue the remaining Japanese resistance on the island. (Photo courtesy of the National Archives)

Native American traders and adjoining tribesmen from the Mohawk and Penacook tribes.<sup>12</sup> Native Americans helped Rogers become self-sufficient in the wild New England forests and taught him ways to survive brutal winters on the frontier.<sup>13</sup> Most importantly, Native Americans taught Rogers “not only good hunting practices but how to think about warfare.”<sup>14</sup>

Other American light infantry pioneers include Francis Marion, known as the “Swamp Fox,” and Thomas Sumter, who both plagued the British with their light infantry attacks throughout the American Revolutionary War.<sup>15</sup>

You can trace the roots of the American light infantry back to the Revolutionary War, where the British and other European nations did not fully appreciate the lethality that American light infantryman could

unleash in rugged terrain. In his *Army History* article “The Influence of Warfare in Colonial America: On the Development of British Light Infantry,” Jack E. Owen Jr. highlights how the British failed to appreciate this unique facet of the American way of war:

They neither reduced their emphasis on rigid discipline nor abandoned regular line of battle tactics, even in the American backwoods. They adapted and modified their military tactics and techniques to the French and Indian enemy and to the forested terrain, but this response to the uniqueness of warfare in America constituted neither the British Army’s conversion to light infantry tactics nor an acceptance of independent action on the battlefield by small groups of soldiers.<sup>16</sup>



The American light infantry mentality was also evident throughout World War II in a wide range of activities from Rudder's Rangers at Pointe du Hoc to the forces that seized the beaches of Normandy by land, sea, and air. From the enemy's perspective, the formidable American light infantry mentality led to several Axis miscalculations. For example, during Operation Cobra, the Allied breakout from Normandy, the Germans attempted to stymie Allied success with an aggressive armored counterattack at the town of Mortain that was unexpectedly parried by American light infantry.<sup>17</sup>

For six days, 2nd Battalion, 120th Infantry Regiment, held its positions atop Hill 314 overlooking a key German avenue of approach of five German Panzer and *Schutzstaffel* (SS) divisions.<sup>18</sup> The infantry battalion became isolated from the rest of its regiment on the first day. They fought on. By day three, they were out of water, food, ammunition, and medical supplies. They fought on. A German officer from the SS approached their lines under a white flag with an offer to accept their surrender. The American infantry chose instead to fight more. One airdrop managed to deliver precious ammunition, food, and batteries. Medical supplies, including bandages, dressings, and morphine were shot (unsuccessfully) to the cutoff battalion by artillery in emptied smoke canisters.<sup>19</sup> The 120th Infantry Regiment never abandoned Hill 314 and was eventually relieved by other American infantry units. "Their brilliant defense blunted the Panzer drive and allowed a major triumph for the allies."<sup>20</sup> The 120th Infantry, fighting as a dismounted battalion across Hill 314, proved too difficult to defeat for the German mechanized and armored divisions. The Germans did not fully account for the combat power of light infantry in restricted terrain, backed up by indirect fires, and experts at their craft. In the words of Gen. Omar Bradley, the German decision to attack "was to cost the enemy an Army and gain us France."<sup>21</sup>

During World War II, American light infantrymen of the 10th Mountain Division broke the Gothic Line, which had stymied the 5th Army in Italy for nearly six months. Light mountain troops ascended the fifteen-hundred-foot cliffs of Riva Ridge on fixed ropes at night in the snow and fog of winter and infiltrated one thousand troops to the top undetected by the German defenders. It was their first operation of the war, and it unraveled the Germans, who did not think a maneuver of this type was possible. Following Riva Ridge, the 10th

Mountain continued relentless pressure across tough terrain and beat the Germans at Mount Gorgolesco, Mount Belvedere, and Mount della Torraccia. The story of this great offensive is a story of sergeants and lieutenants and physically and mentally tough formations that the Germans had no answer for.

Fighting isolated and cut off for extended periods of time has since become the true essence of the American light infantry mentality. The "Little Groups of Paratroopers" of the 82nd and 101st Airborne Divisions in World War II demonstrated the power of American light infantry units that infiltrate deep into enemy territory, guided only by mission orders and intent.<sup>22</sup> The 506th Infantry Regiment at the Battle of Bastogne verified the tenacity of light infantry forces even when isolated and minimally supplied in the most unrelenting conditions. Cut off and surrounded, the American commander captured the spirit of the American light infantry in a single word when the Germans asked for their surrender. He simply replied, "NUTS!" The Americans then clarified to the German negotiators, "If you continue this foolish attack, your losses will be tremendous."<sup>23</sup> It was no bluff.

But the strength of a light infantry force is more than just a strong sense of self-reliance and determination. It must be able to fight as small units in complex environments against a technologically advanced enemy. The empowerment of junior leaders through the principles of mission command is what makes American light infantry unlike any other nation's light infantry force.<sup>24</sup> Today, the U.S. Army trains its warfighters to excel under adversity with only mission orders and intent.

The critical facet of the American light infantry culture is perhaps the most evident in the U.S. Army NCO corps and junior leader formation. Highly skilled soldiers and junior leaders will remain the U.S. Army's strength in upcoming conflicts. Gen. James Rainey and Lt. Gen. Laura Potter wrote about the Army of 2030, stating, "The most important factor to winning on the future battlefield is not a new piece of equipment or concept, but our people."<sup>25</sup> The future fight will rely on junior leaders, and the principles of mission command will be essential. Small American light infantry units *with little more than their weapons, rucksacks, and some disciplined initiative*, will "identify opportunities and act independently to achieve the overall intent without specific orders."<sup>26</sup> If that is what the future fight will require, then truly



light formations will be essential to meet the joint force's needs in LSCO. We can leverage this unique aspect of the American way of war by using existing knowledge to update our doctrine and modernizing accordingly to ultimately build a light infantry capability.

## Transforming the Light Infantry for the Modern Battlefield

The U.S. Army formalized the operational concept of multidomain operations (MDO) into doctrine in 2022.<sup>27</sup> The transition to MDO, at least for light infantry, is an evolution—not a revolution. As the Army's role evolves in support the joint force under MDO, the light infantry should adapt with it. Lessons learned from contemporary conflicts, including the war in Ukraine, “have and continue to shape our transformational war fighting concept of multidomain operations.”<sup>28</sup> These conflicts offer many useful insights for how to evolve doctrine and transform the light infantry to fight in LSCO as well.

A Royal United Services Institute (RUSI) study on the war in Ukraine concluded, “There is no sanctuary in modern warfare. The enemy can strike throughout operational depth. Survivability depends on dispersing ammunitions stocks, command and control, maintenance areas and aircraft.”<sup>29</sup> Dispersion and unencumbered forces were key to survivability. “Ukraine successfully evaded Russia's initial wave of strikes by dispersing its arsenals, aircraft and air defenses. Conversely, the Russians succeeded in engaging 75% of static defense sites in the first 48 hours of the war.”<sup>30</sup>

Light infantry units will gain distinct advantages by avoiding detection and targeting on a modern battlefield. Light infantry is uniquely suited for dispersion and maintaining a reduced signature. RUSI's study on Ukraine noted that “survivability is often afforded by being sufficiently dispersed to become an uneconomical target, by moving quickly enough to disrupt the enemy's kill chain and thereby evade engagement, or by entering hardened structures.”<sup>31</sup> Concealment and camouflage take on new considerations in the modern battlefield. As combat units contend with hiding within the electromagnetic spectrum and masking easily detectable thermal, acoustic, and seismic signatures, the light infantry will gain the advantage for the joint force.

Small light infantry units in Ukraine have found success in frustrating the enemy through their ability to disperse, conceal, and then strike on command. One

study noted, “Roving bands of marauding light infantry act in a similar manner to German U-boat operations during the Battle of the Atlantic.”<sup>32</sup> The author described them “as land-based wolfpacks” that could melt among the countryside only “to concentrate to exploit identified opportunities before dispersing once again.”<sup>33</sup>

The war in Ukraine also highlights how light infantry can also serve a critical role as first lines of contact to defend against enemy unmanned aircraft systems (UAS). Light infantry units excel in distributed environments that allow them to operate in densities and mass small enough to diminish the likelihood of targeting.<sup>34</sup> The use of man-portable stinger missile systems has played a decisive role in defending Ukrainian critical assets from attacks by Russian close air support.<sup>35</sup> Man-portable air defense systems will become especially effective against enemy close air support and drones once the U.S. Army develops man-portable air defense systems that can integrate into mobile radars.<sup>36</sup>

Light infantry thrives in severely restricted terrain, and the modern battlefield is likely to be dominated by cities or among mountains and jungles. Even muddy farm fields can plague mounted operations, as the Russians discovered during the early invasion of Ukraine. Motorized Russian forces quickly found themselves bottlenecked on roads following the thaw in February 2022 as farm fields thawed in Ukraine's *Rasputitsa* (mud season).<sup>37</sup> Tracked vehicles equally struggled across the inundated fields of Europe. Consequently, on the outskirts of battlefields like Bakhmut, one can find where enemy “armored vehicles hurtled along a single, narrow access road, [and passed by] ... hulks of blown-up and burned trucks that didn't make it.”<sup>38</sup> Russia's challenges with mobility serve as a cautionary tale for U.S. Army infantry units that have become too reliant and beholden to their motorized fleets. Transitioning back to light infantry will best prepare them to fight in restrictive terrain.

One of the most interesting observations to come out of the Ukraine conflict is the dichotomy between Russian and Ukrainian logistics and sustainment systems. RUSI's study assessed, “Ukrainian war stocks survived because they could be rapidly displaced and dispersed. Russian materiel has remained highly vulnerable to long-range fires.”<sup>39</sup> The lighter the unit, the less logistics required at the operational level to sustain that fighting element. The study concluded, “The reduction in

the logistical tail and therefore reduced vulnerability of precision systems is perhaps as important as their effect in terms of their superiority to non-precision fires.<sup>40</sup>

Ukraine's reliance on disaggregated lighter units has shown promise for light infantry sustainment being an important factor in future conflict.<sup>41</sup>

As the Army transforms for LSCO and doctrinally codifies roles, the light infantry will offer a combination of the subordinate forms of the attack (ambush, counterattack, demonstration, feint, raid, and spoiling attack) in the defense and offense to generate a discontinuous battlefield favorable for subsequent friendly actions.<sup>42</sup> By frustrating enemy tactical activity and creating multiple dilemmas for the adversary, the light infantry can force the enemy to fight piecemealed and in multiple directions, preventing unity of effort and mass against friendly forces. As the Army further operationalizes MDO to fight and win in LSCO, we can leverage the distinct advantages true light infantry offer given the emerging operational environment.

## A Holistic Approach to Light Infantry Modernization

The modernization efforts for long-range precision fires, next-generation combat vehicles, future vertical lift, network, and air and missile defense draw the most attention from scholarly articles and academic dialogue on what will matter for survival and victory on the future battlefield. In this last section, we offer some recommendations for how to take a holistic approach to transforming the light infantry under the Army's six modernization priorities.<sup>43</sup>

Of the six categories, "soldier lethality" suggests an emphasis on the criticality of light infantry. According to retired Maj. Gen. Bob Scales, the light infantry "receives less than one percent of the total defense department budget allocated to pay for equipment and small unit training."<sup>44</sup> The modernization priorities can be viewed holistically with light infantry as a critical component to combined arms maneuver in any restrictive and technologically saturated future battlefield. For the light infantry, modernization efforts are cost effective means to amplify inherent capabilities as opposed to separate ends. Therefore, with relatively low cost, the light infantry can provide the joint force with a high return on investment.

Unburdening light infantry tactical formations, redundancy, and simplicity should be part of the Army's

mantra for network modernization efforts. By pulling complexity up to higher echelons of command with more advanced electronic warfare and protection mechanisms, the light infantry can utilize more simple systems to blend in and maintain a low electronic signature in a vulnerable environment. It should continue exploring how to modernize the network based on low-earth-orbit satellite constellations, 5G cellular networks, and small apertures for light infantry formations.

The network should provide intuitive and light-weight soldier-portable radio solutions that are capable of crossbanding. Light infantry should have radios that talk to other formations and coalition partners; bespoke waveforms patented by corporations that deny the light infantry the ability to talk to units outside of their direct command will lead to significant inflexibility.

A widely discontinuous battlefield will require a renewed emphasis on lift capabilities to resupplying light infantry forward or to enable forces to fight while isolated for longer periods of time. Additionally, light infantry casualty evacuation will rely on modernized lift using drone systems because evacuation is anticipated to be more challenging in LSCO while casualty numbers are expected to rise. Without further attention, medical evacuations will become an all-consuming deliberate operation that will prevent light infantry formations from effectively fighting in rugged terrain.

Soldier lethality priorities are generally aligned with light infantry requirements for dismounted capabilities and associated soldier loads. This includes efforts to develop more capable small arms weapons and advancements in the Integrated Visual Augmentation System. However, important exceptions are notably lagging with respect to the U.S. Army's investment in dismounted antiarmor and counter-UAS missile systems for light infantry soldiers.

Current conflicts in Ukraine, Iraq, Syria, the Balkans, and Israel demonstrate modernizing air and missile defense will be paramount for LSCO, especially in anticipation of *offensive* maneuver fights by our ground forces. Currently, the modernization focus remains on defeating larger UAS being employed as one-way attack mechanisms. "Shooting down manned aircraft and large UAVs [unmanned aerial vehicles] is relatively simple, as the Ukrainians have demonstrated. Small and micro-UAVs are a different challenge."<sup>45</sup> Stingers are not the answer for counter-UAS. We must find ways to integrate small,



A 10th Mountain Division soldier descends an ice-covered cliff at Smugglers' Notch in Jeffersonville, Vermont, 28 January 2017. Soldiers enhanced their mountaineering skills in ice climbing, rappelling, and skiing as part of their annual winter training. (Photo by Tech. Sgt. Sarah Mattison, U.S. Air Force)

dismounted drone interceptor missile systems with the joint force's radars systems for infantrymen to carry at the edge of battle to help protect the rest of the force.

But there is a balance between protection and lethality, and adding equipment often comes at a cost of stalling tempo. U.S. Special Advisory Group-Ukraine

advisors caution against the temptation to weigh down infantry soldiers with too many antidrone and small unmanned aircraft assets on top of their basic gear. The Russian army in Ukraine has made up for stalled tempo by sending mass waves of expendable troops. Small teams of American light infantry forces must preserve tempo by remaining agile and lethal, operating in synchronization with one another against the enemy across the battlefield.

While the U.S. Army doesn't exclusively own the night right now, it still has a distinct advantage. Russians and Ukrainians are generally not fighting during hours of limited visibility. While there are likely a host of reasons for this, one can reasonably conclude that there is a lack of familiarity and possibly availability of night vision equipment. In stark contrast, the U.S. Army promotes a culture of fighting under limited visibility to train, certify, and validate forces. The U.S. Army's distinct ability to fight at night will remain a competitive advantage against its opponents. Fighting and maneuvering at night will enable American light infantry to mass and create a tempo advantage.

The Army's modernization efforts can help find ways to enable, protect, and amplify the effects of light infantry forces in close combat given LSCO realities. These priorities are not *ends* but rather *means* to unleash the full potential of light in-

fantry and what this force can achieve in LSCO. The ability of light infantry moving great distances to seize and strong-point key terrain, conduct ambushes, execute other forms of the attack, and conduct dispersed defensive operations will determine the outcome of a LSCO fight.





California Army National Guard soldiers with Bravo Company, 1st Battalion, 185th Armor Regiment, 81st Brigade Combat Team, 40th Infantry Division, prepare to move into the home of suspected insurgents living near Anaconda, Balad Air Base, Salah Ad Din Province, Iraq, 20 August 2004. (Photo by Tech. Sgt. Steve Faulisi, U.S. Air Force)

## Conclusion

To prepare for an impending LSCO fight, the Nation and U.S. Army will rely on light infantry to fight in restrictive, austere, and isolated terrain. In preparation, we should first affirm the true meaning of the light infantry and then reframe accordingly on emerging doctrinal and modernization priorities. At the core of the American warfighter ethos is the essence of light infantry. Contemporary conflicts and history reveal the criticality of the light infantry, and current senior leaders understand this better than most.

Gen. Randy A. George, the chief of staff of the Army (CSA), has outlined his four priorities for the force: *warfighting, delivering ready combat formations, continuous transformation, and strengthening the profession.*<sup>46</sup> Light infantry is inherently suited to adjust to meet the Army's priorities and must remain a key component to the U.S. Army's operational design. But the role of light infantry should be reimagined for LSCO. Our doctrine and equipment should transform to enable the dismounted

soldiers fighting in the next war—the small units infiltrating through swamps and climbing up ridgelines. The ones that will bedevil a larger enemy force and hold key terrain, no matter the conditions. Embracing the importance and versatility of *American* light infantry operationalizes the CSA's vision.

*Warfighting* is to prepare the force for the LSCO fight in any terrain. The light infantry trains for both the operational environments the U.S. Army will inevitably face and ones that cannot be foreseen. As this article has outlined, the essence of the American warfighter mentality is the tenacity, ingenuity, and disciplined initiative that have long been the hallmarks of our light infantry formations. For the joint force, these light infantry formations become the rapidly deployable forces able to guard key weapon systems, protect critical infrastructure, and secure support zones. For the Army's combined arms team, light infantry will go where other formations cannot go. American light infantry will fight through extreme weather, in the most rugged terrain, and isolated

from their logistics. Warfighting means leveraging the strengths of the Nation's light infantry on the battlefields of the next major conflict.

*Delivering ready combat formations* means training light infantry for the fight we will have in the future as opposed to the one we had in the past. Light infantry formations must train for the realities of close combat against near-peer adversaries and project, enable, and sustain their forces in LSCO. Delivering ready combat formations is a twofold objective for the light infantry. First, readiness means the light infantry can effectively employ modern technology to achieve its traditional purpose on a modern battlefield. Second, readiness implies true light infantry are prepared to operate in austere environments, on a discontinuous battlefield, and away from traditional lines of communication. Light infantry soldiers must do more than survive in complex terrain; they must be ready to thrive in it and master the terrain for their advantage.

*Continuous transformation* means finding ways to modernize the Army's ability to maneuver dismounted through rugged and inhospitable terrain. Each modernization objective cannot become an independent end in and of itself or exist to address discreet symptoms or challenges posed by LSCO. Continuous transformation also means aligning emerging doctrine and operationalizing MDO in a manner that leverages true light infantry in a manner that enables the force to fight and win in LSCO.

*Strengthen the profession* includes continued junior leader development, especially our NCOs, to generate

competent, clever, and cunning American light infantry. Empowered and trusted junior leaders build cohesive, autonomous, and lethal formations. Unlike any other army in the world, the NCOs and junior leaders of the U.S. Army drive American light infantry to be capable of operating with only mission orders and intent. The American light infantry mentality creates effective cohesion through shared hardships in training and in combat when units operate independently and isolated.

American light infantry must continue to empower and trust junior leaders to train for radical autonomy. Small formations become highly lethal, disciplined, and aggressive because of the ownership, autonomy, and dominance of the NCOs that lead them. These NCOs are experts in the technical and tactical application of violence. Furthermore, NCOs train the fit, tough, and cohesive teams modern warfighting requires. These teams are driven by the precept that light infantry isn't just a force structure but a foundational mentality that has assured the Nation's victories throughout history.

Preparing light infantry in the context of the CSA's guidance is not just about each priority in isolation. Rather, it is about providing a pathway to address much of what the U.S. Army wants for the force writ large. Inculcating a true light infantry mentality, foundational to the essence of the American warfighter, will poise the Queen of Battle to support the joint force under all conditions, across any terrain. Most importantly, a true light infantry will be an irreplaceable component to the Army's combined arms team that will fight and win the next major war. ■

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## Notes

**Epigraph.** Scott McMichael, *A Historical Perspective on Light Infantry*, Research Survey No. 6 (Fort Leavenworth, KS: Combat Studies Institute, 1987), 220, <https://www.armyupress.army.mil/Portals/7/combat-studies-institute/csi-books/Historical-Perspective-Light-Infantry.pdf>.

1. "The Infantryman's Creed," Fort Moore, accessed 13 May 2024, <https://www.moore.army.mil/infantry/199th/ibolc/content/PDF/The%20Infantryman's%20Creed.pdf>.

2. "Army Force Structure Transformation," Army. mil, accessed 10 May 2024, <https://api.army.mil/e2/c/downloads/2024/02/27/091989c9/army-white-paper-army-force-structure-transformation.pdf>. Total Army Analysis 25-29 force structure changes (announced 27 February 2024) included the elimination of cavalry squadrons in infantry brigade

combat teams as well as reducing the heavy weapons companies in each infantry battalion to a single platoon.

3. John Wickam, *White Paper 1984: Light Infantry Divisions* (Washington, DC: Department of the Army, 25 May 1984).

4. Huba Wass de Czege, "Three Kinds of Infantry," *Infantry* 75, no 4 (July-August 1985): 11-13.

5. McMichael, *A Historical Perspective on Light Infantry*, xii.

6. *Ibid.*, 219.

7. Wass de Czege, "Three Kinds of Infantry."

8. *Ibid.*

9. *Ibid.*

10. Percentage based on fiscal year 2023 MTOE for 1st Battalion, 87th Infantry Regiment (WAP2AA and WD82H0) from U.S. Army G3/5/7, FMSWeb [CAC required], accessed 10 May 2024, <https://fmsweb.fms.army.mil/unprotected/splash/welcome.aspx>.



11. John F. Ross, *War on the Run: The Epic Story of Robert Rogers and the Conquest of America's First Frontier* (New York: Bantam Books, 2011), 43.
12. Ibid., 24–33.
13. Ibid.
14. Ibid., 30.
15. Heather Arnett, "The Influence of Partisan Guerilla Warfare on the American Revolution in the South," Loyola University New Orleans, 5, accessed 24 May 2024, <http://cas.loyno.edu/sites/chn.loyno.edu/files/The%20Influence%20of%20Partisan%20Guerilla%20Warfare%20on%20the%20American%20Revolution%20in%20the%20South.pdf>.
16. Jack E. Owen Jr., "The Influence of Warfare in Colonial America on the Development of British Light Infantry," *Army History* 36 (Winter 1996): 24.
17. Ralph A. Kerley, *Operations of the 2d Battalion, 120th Infantry Regiment (30th Infantry Division) at Mortain, France, 6-12 August 1944 (Northern France Campaign) (Personal Experience of a Company Commander)* (monograph, Fort Benning, GA: Advanced Infantry Officer Course, 1949-1950), 15, <https://mcoecbamco-epwprdr01.blob.core.usgovcloudapi.net/library/DonovanPapers/wwii/STUP2/G-L/KerleyRalphA%20%20MAJ.pdf>; Mark J. Reardon, *Victory at Mortain: Stopping Hitler's Panzer Counteroffensive* (Lawrence: University Press of Kansas, 2002).
18. Kerley, *Operations of the 2d Battalion*, 16–17.
19. Ibid., 7–18.
20. J. Keith Kellogg, *On Light Infantry* (monograph, Carlisle Barracks, PA: U.S. Army War College, 1987), 11, <https://apps.dtic.mil/sti/tr/pdf/ADA182832.pdf>.
21. Omar N. Bradley, *A Soldier's Story* (New York: Henry Holt, 1951), 371–72.
22. Logan Nye, "How the 'Little Groups of Paratroopers' Became Airborne Legends," *We Are the Mighty*, 2 April 2019, <https://www.wearethemighty.com/articles/how-the-little-groups-of-paratroopers-became-airborne-legends/>.
23. Kenneth J. McAuliffe Jr., "The Story of the NUTS! Reply," *Army.mil*, 8 December 2013, [https://www.army.mil/article/92856/the\\_story\\_of\\_the\\_nuts\\_reply](https://www.army.mil/article/92856/the_story_of_the_nuts_reply).
24. Army Doctrine Publication 6-0, *Mission Command: Command and Control of Army Forces* (Washington, DC: U.S. Government Publishing Office [GPO], July 2019), 1-7. The principles of mission command include competence, mutual trust, shared understanding, commander's intent, mission orders, disciplined initiative, and risk acceptance.
25. James Rainey and Laura Potter, "Delivering the Army of 2030," *War on the Rocks*, 6 August 2023, <https://warontherocks.com/2023/08/delivering-the-army-of-2030/>.
26. Ibid.
27. Field Manual 3-0, *Operations* (Washington, DC: U.S. GPO, October 2022), ix. The new emphasis of multidomain operations is toward the "integration of Army and joint capabilities from all domains to defeat the enemy's integrated fires complexes and air defense systems so that maneuver forces can exploit the resulting freedom of action."
28. Ibid., foreword.
29. Mykhaylo Zabrodskiy et al., *Preliminary Lessons in Conventional Warfighting from Russia's Invasion of Ukraine: February–July 2022* (London: Royal United Services Institute for Defence and Security Studies, 30 November 2022), 2, <https://www.rusi.org/explore-our-research/publications/special-resources/preliminary-lessons-conventional-warfighting-russias-invasion-ukraine-february-july-2022>.
30. Ibid.
31. Ibid.
32. Michael G. Anderson, "How Ukraine's Roving Teams of Light Infantry Helped Win the Battle of Sumy: Lessons for the US Army," *Modern War Institute*, 17 August 2022, <https://mwi.westpoint.edu/how-ukraines-roving-teams-of-light-infantry-helped-win-the-battle-of-sumy-lessons-for-the-us-army/>.
33. Ibid.
34. Stephen Biddle, "Back in the Trenches: Why New Technology Hasn't Revolutionized Warfare in Ukraine," *Foreign Affairs*, September/October 2023, 11, <https://www.foreignaffairs.com/ukraine/back-trenches-technology-warfare>.
35. Aleksander Pelicot, "Air Defense: Ukraine Parries as Russia Seeks to Slow Counteroffensive with New Surge of Attacks," *Radio Free Europe/Radio Liberty*, 25 May 2023, <https://www.rferl.org/ukraine-air-defenses-russia-patriot-stinger-invasion-counteroffensive/32427847.html>.
36. Peter Mitchell, "Contested Skies: Air Defense After Ukraine," *Modern War Institute*, 3 November 2022, <https://mwi.westpoint.edu/contested-skies-air-defense-after-ukraine/>.
37. John S. Harrel, *The Russian Invasion of Ukraine, February–December 2022: Destroying the Myth of Russian Invincibility* (Barnsley, UK: Pen and Sword Military, 2024), chap. 3.
38. Andrew Kramer, "The Final Blocks: Inside Ukraine's Bloody Stand for Bakhmut," *New York Times* (website), 12 April 2023, <https://www.nytimes.com/2023/04/12/world/europe/bakhmut-ukraine-russia.html>.
39. Zabrodskiy et al., "Preliminary Lessons in Conventional Warfighting," 54.
40. Ibid.
41. For insight to the challenges that Russia experienced due to their lack of infantry and their overreliance on armored formations, see Michael Kofman and Rob Lee, "Not Built for Purpose: The Russian Military's Ill-Fated Force Design," *War on the Rocks*, 2 June 2022, <https://warontherocks.com/2022/06/not-built-for-purpose-the-russian-militarys-ill-fated-force-design/>.
42. Army Techniques Publication 3-21.10, *Infantry Rifle Company* (Washington, DC: U.S. GPO, May 2018), 2-160–2-187.
43. Army Futures Command, "2019 Army Modernization Strategy," *Army.mil*, 17 October 2019, <https://www.army.mil/standto/archive/2019/10/17>. The modernization strategy of 2019 articulates how the Army "will transform into a multidomain force by 2035, meet its enduring responsibility as part of the Joint Force to provide for the defense of the United States, and retain its position as the globally dominant land power."
44. Bob Scales, "Boots on the Ground: Why America Must Invest in Dominant Infantry Forces," *National Interest* (website), 29 September 2016, <https://nationalinterest.org/blog/the-buzz/boots-the-ground-why-america-must-invest-dominant-infantry-17875>.
45. Mitchell, "Contested Skies."
46. Todd South, "The Army's New Chief Has a Plan and It's All about Warfighting," *Army Times* (website), 9 October 2023, <https://www.armytimes.com/news/your-army/2023/10/09/the-armys-new-chief-has-a-plan-and-its-all-about-warfighting/>.



# Little Spoon

Tired warriors each unpacked,

In a shallow hand-dug hole,  
Not fit for a grave

Afghan soil cold and hard,  
An unfit mattress, a slotted drawer

Evening wind blows sharp,  
Limbs above slices chilled flesh

Cold cut, perhaps protected,  
A thin poncho sheet to ward

Woven Kevlar, stitched ceramic,  
An unfit pillow for the night

Slab of arm nestled between,  
Shivering between hocks of thigh

Will you be my little spoon,  
Don't be weird, bro.

—Adam Fenner, U.S. Marine Corps, Retired



# How the 10th Mountain Division Is Going Back to Its Alpine and Mountain Roots

Maj. Gregory Barry, U.S. Army

**T**he rapidly evolving geopolitical landscape, ongoing global conflicts, and the resurgence of conventional warfare remind the observant student of history of light infantry's critical and historical role in alpine operational environments. As America prepares for potential future large-scale combat operations (LSCO), it is vital to recognize the necessity of a versatile, adaptable, and rapidly deployable fighting force that meets the unique challenges posed by diverse mountainous terrains. Mountainous and severely restrictive terrain are the province of light infantry formations, which are combat units inherently centered around people rather than platforms. Controlling severely restrictive terrain requires small unit survivability, autonomy to exercise disciplined initiative, and the cross-country mobility of both combat units and their associated sustainment.

The potential operational environments of a future large-scale conflict necessitate reevaluating and reaffirming the indispensable role of alpine light infantry. Recognizing emerging capability gaps, several generations of 10th Mountain Division senior leaders have championed the potential impact of highly versatile and adaptable forces in a variety of likely conflict zones.

This article will describe potential employment in Finland, Sweden, Norway, the Caucasus, Taiwan, and Korea. These burgeoning use cases for mountain and alpine forces drive a return to the heritage of the 10th Mountain Division. The ability of properly trained light infantry formations to swiftly maneuver, capture, and defend key terrain, and strike enemy vulnerabilities in rear areas, even under harsh conditions, makes them a vital component of the U.S. Army's strategic capabilities. As such, the 10th Mountain Division advocates for prioritizing and investing in the training, equipping, and development of these forces, ensuring that they are ready to respond to a broad range of potential threats and conflicts. The world is unpredictable; a well-trained and well-equipped light infantry force capable of operating in alpine terrain is a powerful deterrent to potential aggressors. By training and equipping light infantry for the likely operational environment of a LSCO fight, the United States reminds potential adversaries that the Nation remains steadfast in its commitment to defend its allies, regardless of conflict location. In a time of growing uncertainty and persistent challenges, the alpine light infantry's role is relevant and more crucial than ever.





10th Mountain Division soldiers from 1st Battalion, 32nd Infantry Regiment, 1st Brigade Combat Team, complete tasks like movement up steep terrain, camouflage, and shooting moving targets in a Sarmis joint training exercise on 26 September 2023 in the alpine terrain around Brosov, Romania. (Photo by Spc. Mason Nichols, U.S. Army)

Despite historical precedence, the U.S. Army has not prioritized mountain training since the mid-twentieth century, contributing to gaps in capability. Deterrence of the Soviet Union during the Cold War and the subsequent prolonged counterinsurgency focus of the Global War on Terrorism have impacted any ability to field specialized divisions. As conflict in alpine and arctic regions becomes increasingly likely, the United States must invest in capability development and training to field a division of specialized mountain infantry prepared for a potential LSCO conflict in mountainous terrain.

Emerging threats in Finland, Sweden, Norway, the Caucasus, Taiwan, and Korea may all require mountain light infantry forces to achieve a position of advantage relative to the adversary while avoiding canalized ground lines of communication along roads and bridges. Investment in this capability at scale requires creativity and a novel approach. Unlike the formation

of the 10th Mountain Division in World War II, the Army will not draw from a large civilian population of outdoor enthusiasts with the requisite expertise to fill the ranks of mountain soldiers. Instead, the Army must inculcate mountain skills, culture, and leadership traits in today's volunteers and develop methods to track and assign these specialized soldiers where needed.

### **Defending Our Allies: Finland, Sweden, and Norway**

Given the stated objectives of Russia in Ukraine, an escalatory LSCO fight in neighboring Finland, Sweden, or Norway seems more likely than at any time since 1940. As tensions rise, these northern European countries are increasingly becoming the frontlines of deterrence. Inaction by the United States risks demonstrating weakness, potentially emboldening adversaries. A strong, well-trained, and thoroughly prepared American alpine light infantry serves as a strategic





Soldiers from across the 10th Mountain Division trek through the snow dragging Ahkio sleds 19 January 2024 during the D-Series Winter Challenge on Division Hill, Fort Drum, New York. Soldiers participating in D-Series demonstrated mental and physical fortitude by adapting to and overcoming challenges during events like qualification on multiple critical weapons systems under stress and completing several hands-on tests that validated their knowledge of essential alpine survival skills and unit history. (Photo by Spc. Salvador Castro, U.S. Army)

deterrent, reinforcing the commitment to these long-standing partnerships and preserving the balance of power in the region.

The role of light infantry in LSCO is hotly debated as the Army economizes efforts to transition away from a focus on counterinsurgency fought by a revolving door of identical brigade combat teams (BCT). Historically, light infantry has demonstrated its effectiveness in restrictive terrain by achieving mass where mounted formations are incapable of operating effectively because of lengthening supply lines and confinement to road networks. This was exemplified by the Finnish ski troops during the Winter War (1939–1940).<sup>1</sup> The Finnish tactics exposed Soviet reliance on roads and leveraged Finnish all-terrain winter mobility. By targeting long Soviet columns and destroying them piecemeal, the Finnish troops were able to mitigate the numerical advantage of

Soviet forces and turn the tide of the conflict.<sup>2</sup> During World War II, the forefathers of the 10th Mountain Division established their reputation by breaking the Gothic Line through mountain infiltration. The hard-won battles at Riva Ridge, Mount Gorgolesco, Mount Belvedere, and Mount della Torracchia compelled Italian surrender.<sup>3</sup> Other allies engaged in their own mountain conflict during the war. The Battle of Narvik in Norway is commonly known as a naval engagement, but mountain warfare played a crucial role due to the rugged terrain surrounding strategically important port of Narvik. Because the area is characterized by steep mountains, deep fjords, and harsh weather conditions, conventional military operations were impossible. Both German and Allied forces recognized the importance of Narvik and engaged in fierce mountain warfare to gain control of the area.<sup>4</sup> Strategic decisions to withdraw from Norway due to

German attacks into Belgium, the Netherlands, and France in 1940 reduced the strategic importance of Norway's iron ore, and turned an impending allied victory into a withdrawal.<sup>5</sup> Axis powers also engaged in mountain operations during the war. Operation Rentier was a German effort in 1941, following the Winter War of 1940, that aimed to secure critical resources in a mountainous region of Finland.

As America seeks to maintain its longstanding partnerships with Finland, Sweden, and Norway, the need for trained and equipped light infantry in alpine environments becomes paramount. The American Army writ large must prepare for conflict in challenging terrain to press the advantage and maximize enemy vulnerabilities. The demand for specialized mountain infantry capability is not localized to niche locale in Northern Europe.

## The Caucasus

The resource-rich Caucasus region has suffered from great power competition for centuries. Home to familiar warzones in Georgia, Armenia, and Azerbaijan, the region contains a tremendous concentration of strategically important natural resources. Acting as the gateway between Europe and Asia, the region holds vast oil and natural gas reserves. As European nations distance their energy economies

from fossil fuels, regional powers become increasingly important players in the global energy landscape.<sup>6</sup> Oil and gas pipelines from the Caspian Sea to European markets traverse the region. Trade with regional partners reduce U.S. and European dependency on global powers that are more antagonistic to Western interests.

The Caucasus experienced near-continuous warfare during the first half of the twentieth century.

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The Russians and Turks fought a war to control the region continuously in the mountainous Caucasus borderlands leading up to the Great War. In 1917, following the Russian Revolution, the Caucasus region descended into violent conflict among the Georgians, Armenians, Azerbaijanis, and Chechens, all former subjects of the Russian Empire. In 1918, leaders of the Armenian, Georgian, and Azerbaijani regions established the Transcaucasian Democratic Federative Republic, prompting further conflict with Türkiye. Although the Transcaucasian Republic did not survive long, the Turks and Soviets thwarted any bid for autonomy or sovereignty in the Caucasus region. In 1917, the Chechens, Dagestanis, and Ingush people established the sovereign nation of the Mountainous Republic of the Northern Caucasus. By 1921, the Mountainous Republic of the Northern Caucasus was defeated by Soviet forces and absorbed into the USSR as the Mountain Autonomous Soviet Socialist Republic. Although short-lived, the conflicts during the interwar period highlighted the role of mountain light infantry. Years later, Adolf Hitler leveraged the 4th German Mountain Division to seize key terrain during the Battle of the Caucasus in 1942. In August of the same year, German elements from the 1st Mountain Division planted a Nazi flag on top of Mount Elbrus, the highest peak in Europe.<sup>7</sup>

The rugged, mountainous terrain of the region suggests that light infantry forces, enabled by high-angle fires and equipped with the latest man-portable information collection (IC) systems, will prove decisive in outmaneuvering the adversary in numerous challenging environments. In terms of both resources and potential allies, the United States must underscore its commitment to stability in the Caucasus region.

## Competition in the Pacific: Taiwan and Korea

Taiwan and North Korea are increasingly likely flashpoints for a potential LSCO conflict with an increasingly resource-challenged China challenging the balance of power in the South China Sea. A cursory examination of the region's topography reveals the indispensable role mountain light infantry would play in potential conflicts.

Taiwan is the most densely mountainous island on the planet: two-thirds of the island nation is covered

by tightly packed mountainous terrain towering some twelve thousand feet above sea level.<sup>8</sup> The breakaway state has long been a diplomatic challenge in the geopolitical landscape as Chinese rhetoric emphasizes the unification of all ethnic Chinese under the communist regime in Beijing. Recent escalations have intensified the potential for a LSCO fight, particularly as Chinese influence operations in Taiwanese politics have failed to produce favorable results. As China continues to assert territorial claims, the “One China” policy’s validity is challenged by the existence of an independent Taiwan. Strategically located on the doorstep of mainland China, and serving as a hub of technological innovation, Taiwan sits at the epicenter of this complex and volatile situation. The island’s defense is not just a matter of national sovereignty; it has significant implications for the balance of power in the Asia-Pacific region. The United States faces a significant challenge in its commitment to Taiwan’s defense against possible Chinese aggression. Any such conflict could quickly escalate into a large-scale military confrontation across multiple domains. Just getting combat power in a position to defend Taiwan is challenging. Countering potential overt action by China demands a high level of readiness from Taiwanese allies.

While the conflict in Taiwan represents a more deliberate and calculated escalation of great power competition, a resumption of hostilities in the conflict with the Democratic People’s Republic of Korea could have little warning. Relations between the west and North Korea have remained tense since the 1953 armistice. Inadvertent escalation toward a LSCO conflict remains a hazard of persistent tensions between North and South Korea, the ongoing pursuit of nuclear weapons, and the unpredictable behavior of the regime. Any minor conflict or misunderstanding could inadvertently escalate into a full-blown military confrontation, given the high military readiness on both sides of the demilitarized zone. The economic significance of South Korea, a global leader in technology, automotive, and other industries, and its proximity to China and Japan, two of the world’s largest economies, make any potential conflict on the Korean Peninsula a global concern. Conflict in Korea has far-reaching implications for the world economy and international security, and previous battles on the peninsula provoke images in the American mind

of light infantry fighting and surviving at altitude in mountainous terrain under harsh winter conditions.

## Light Infantry: Responsive

Light infantry forces, with their inherent speed and flexibility, will play an indispensable role in a LSCO conflict. Given the dynamic nature of the global geopolitical landscape, conflicts may emerge in multiple regions with little advanced warning. The ability to rapidly project forces to these areas is critical in countering aggression, defending allies, and maintaining international peace and stability.

Light infantry units are highly mobile and capable of operating in diverse environments. The smaller footprint and minimal logistical requirements of light infantry formations allow for rapid deployment, making them a potent instrument for rapid response and power projection. The formations move quickly to seize and hold key terrain, perform reconnaissance missions, and disrupt enemy operations; they also provide combatant commanders critical time for the deployment of additional forces. Given the unpredictable environment of a potential LSCO fight, the speed, flexibility, and the capacity to adapt to an alpine operational environment are vital. Investing in and nurturing mountain light infantry capabilities is, therefore, a strategic necessity.

## A Return to Our Roots: Putting the “Mountain” Back in the 10th Mountain Division

Unlike the outdoor enthusiasts that formed the core of the 10th Mountain Division in World War II, today’s division is not dissimilar to any other division in the Army; it is composed of volunteers of diverse backgrounds and upbringing gathered from across the Nation. No collective knowledge of skiing, snowshoeing, or mountaineering is resident in the formation today. To build a Mountain identity, the 10th Mountain Division has developed an integrated approach through a multiyear campaign. The division will train and maintain combat-ready forces that are focused on light infantry excellence in LSCO, develop soldiers and leaders who embrace the hardship and austerity required to overmatch the enemy in the mountains to win at a moment’s notice, and build formations adept at operating decentralized in any complex operational environment or condition.<sup>9</sup>





Soldiers from the 1st Brigade Combat Team, 10th Mountain Division, compete in the Alpine Skills Competition 1–5 October 2023 in locations throughout upstate New York. On the final day of the competition, soldiers performed a rally race consisting of a roughly two-mile run, a Skedco stretcher drag, and a rappel down the 45th Infantry Division Drive hillside cliffs. (Photo by Spc. Kasimir Jackson, U.S. Army)

Veterans played an integral part in establishing the outdoor recreation industry in the United States following the 10th Mountain Division's return from the European theater of operations in World War II.<sup>10</sup> This reciprocal relationship with the historical legacy of the original division forms a vital partnership with the industry that the division is rekindling today. By leveraging the expertise of the National Ski Patrol, local civilian ski and climbing organizations, and the National Outdoor Leadership School, among others, the division is leveraging existing expertise to train a cadre of NCOs and soldiers who in turn proliferate their own expertise across the formation. The scope and scale of this effort encompasses every echelon from individual to company, troop, and battery level.

No change to divisional competencies will be possible without an investment in educating leaders. The cornerstone of individual education efforts is the 10th Mountain Division 1Lt. John A. McCown

Mountain Training Group, which prepares volunteers to attend rigorous courses offered at the nearby U.S. Army Mountain Warfare School in Jericho, Vermont. The divisional school is named after a plank holder of the original 10th Mountain Division who lost his life in the battle of Mount Belvedere in the Apennines.<sup>11</sup> Soldiers of the 10th Mountain Division demonstrate proficiency at basic mountaineering tasks before attending the Basic Military Mountaineer and Advanced Military Mountaineer courses at the Mountain Warfare School in Vermont. The division is also exploring partnerships with industry to complement Army schools and promote growth and technical expertise at the individual level.

Individual proficiency creates opportunities to build small-unit proficiency and starts to grow wartime capability. The division's investment in training entire units is made possible by leveraging the Marine Corps Mountain Warfare Training Center in California and



exploring partnerships with countries that maintain mountain and arctic expertise. In the past eighteen months, the 10th Mountain Division has conducted training at the platoon and company echelon in Finland, Chile, Bulgaria, and Romania, to name a few. Capturing the resident knowledge of international partners informs efforts to further develop mountaineering techniques and procure the best possible equipment to achieve success.

Ultimately, efforts to create a motivated, trained cadre of expertise in the NCO corps will fail without the ability to stabilize trained leaders and soldiers and achieve the mass required in the division to truly have institutional mountaineering knowledge. To retain the best, 10th Mountain Division Command Sgt. Maj. Nema Mobar has garnered support for divisional efforts from the U.S. Army Human Resources Command. Previously unavailable to active component soldiers, the Army now assigns the “E” special skill identifier to those who successfully complete the Army Mountain Warfare School. Using this code, the division can track and retain trained soldiers to continue to grow capability in the formation. Additionally, by permitting soldiers to voluntarily adjust their year-month available to move date, the command can facilitate longer duration of assignment at Fort Drum, New York, to avoid hemorrhaging talent every movement cycle. In time, the 10th Mountain Division will build a cadre of NCO expertise akin to jumpmasters in the airborne community.

Equally important to building the requisite skill is the *will* to become elite mountain infantry among the nearly eighteen thousand soldiers of the 10th Mountain Division. Senior leaders recognize that fostering interest in mountaineering, sometimes called “catching the bug” by outdoor enthusiasts, is critical to sustained success. Toward this end, soldiers at echelon are encouraged to pursue alpine sports recreation. Additionally, commanders at all levels have tailored perennial training events to integrate mountain skills. There are numerous opportunities to integrate complex terrain and long overland movements in the snow with standard annual training events like live-fire exercises and situational training exercises. Supporting this shift in culture is the recognition of the 10th Mountain Division’s history and distinct identity. Connecting with the past is evident in various activities. In 2022

and 2023, the division hosted a screening of the historical documentary *Mission Mount Mangart* during the annual Mountain Fest event where members of the local civilian community are invited onto Fort Drum to celebrate the history and accomplishments of the 10th Mountain Division. Additionally, events like the challenging annual D-Series squad competition where soldiers and leaders of the division test their mettle over a multi-day alpine skills event, and Vail Legacy Days held in Colorado each winter where select members of the division honor the origins of the 10th Mountain Division, provide an opportunity for to connect with the division’s roots. Ultimately, the 10th Mountain Division understands the importance of esprit de corps in establishing a enduring mountain culture.

Without measurable goals, growth would be impossible. The division’s guideposts for success are described in the *10th Mountain Division Campaign Plan*. In his guidance, Maj. Gen. Gregory K. Anderson described a division comprised of “small-units that demonstrate mental and physical toughness by moving 14km within 9.5 hours over snow-covered Level-2 terrain that includes CL4 and CL5 dismounted mobility classifications.”<sup>12</sup> His vision includes formations that “resist environmental effects to fight in non-contiguous terrain, sustain operations for at least 120 hours in temperatures down to -25 degrees Fahrenheit, at 3-6 thousand feet of elevation, and independent of ground lines of communication.”<sup>13</sup> In support of these formations, the division must create communication architecture capable of “supporting upper-TI [tactical infrastructure] at high altitude, high latitude, and low temperature,” and forge enduring partnerships with allies across the globe.<sup>14</sup> MG Anderson’s goal is for the 10th Mountain Division to “become the proponent for military mountaineering in the U.S. Army and host Mountain and Arctic Warfare symposiums, congresses, and conferences as an internationally recognized hub of the Alpine community.”<sup>15</sup>

Piloting the division’s return to alpine and mountain expertise over the last year have been the warriors of the 1BCT. After partnering with units in Chile, Finland, Bulgaria, and Romania, the brigade conducted the first Warrior Alpine Readiness week in October 2023. Key leaders and soldiers from every unit in the 1BCT, 10th Mountain Division, and available volunteers from 2BCT, received specialized mountain

training. Soldiers dedicated countless hours rappelling; learning rope-assisted climbing techniques; developing mountain medical treatment and evacuation tactics, techniques, and procedures; and conducting overland navigation on New York's Adirondack Mountains. The week concluded with a competition pitting squads from each battalion against one another in a half-day event that showcased their proficiency in the skills trained during Warrior Alpine Readiness week. The benefits of investing in training at scale have been evident as several units at the company, troop, and battery levels conducted platoon-level training and exercises involving the construction of fixed ropes, rope bridges, suspension and traverse, rappelling, and basic mobility skills; all training utilized the high-angle mountaineering kits already on the unit military table of organization and equipment.

The U.S. Army is responsible to deploy, fight, and win our Nation's wars by providing ready, prompt, and sustained land dominance across the full spectrum of conflict as part of the joint force.<sup>16</sup> If great powers clash in large-scale combat, the Army will require well-trained and highly motivated light infantry forces.

Threats to destabilize the world order and influence or disrupt our allies while degrading our Nation's influence are on the rise. We will answer the requirement for a highly trained, rapidly deployable force that can operate in complex terrain and is able to fight anytime, anywhere, against any opponent. To provide the U.S. Army with this essential capability and prepare for the next conflict, the 10th Mountain Division will focus its efforts on becoming a team of offensive-minded, self-reliant, innovative, and critically thinking professionals. We will be masters of our craft, confident in our formation, and disciplined because of our commitment to a greater purpose and belief in one another. As standard bearers for the profession of arms, we will be mentally and physically ready to attack and win any challenge or opportunity tonight.<sup>17</sup> ■

*A special thanks to Maj. Mark Zwirgdsas and Col. Brian Ducote for starting the professional dialogue on mountain light infantry and its place in future conflict and for providing the intellectual spark to tie our distinctive unit history to the current vision of 10th Mountain Division commander Maj. Gen. Gregory Anderson.*

## Notes

1. C. N. Trueman, "The Winter War," History Learning Site, 14 May 2015, <https://www.historylearningsite.co.uk/world-war-two/world-war-two-and-eastern-europe/the-winter-war-1939/the-war/>.

2. David. H. Lippman, "The Winter War's Classic Victory," Warfare History Network, February 2018, <https://warfarehistorynetwork.com/article/the-winter-wars-classic-victory/>.

3. Randy Wyrick, "The Battle of Riva Ridge and the Triumph of the 10th Mountain Division, 75 Years Later," *Vail Daily* (website), 16 February 2020, <https://www.vaildaily.com/news/the-battle-of-riva-ridge-and-the-triumph-of-the-10th-mountain-division-75-years-later/>.

4. T. K. Derry, *The Campaign in Norway* (Sussex, UK: Naval & Military Press, 2004), 90–211.

5. *Ibid.*, 225.

6. "Oil and Natural Gas Production Is Growing in Caspian Sea Region," U.S. Energy Information Administration, 11 September 2013, <https://www.eia.gov/todayinenergy/detail.php?id=12911>.

7. K. Javrishvili, *Battle of Caucasus: Case for Georgian Alpinists*, trans. Michael P. Willis (Seattle: Amazon Digital Services, 3 February 2017), 14.

8. "The World Factbook (2021 Archive)," Central Intelligence Agency, 28 December 2021, <https://www.cia.gov/the-world-factbook/about/archives/2021/countries/taiwan/>.

9. 10th Mountain Division, *10th Mountain Division (Light Infantry) Campaign Plan* (Fort Drum, NY: 10th Mountain Division, 2023), 1.

10. "The History of the Legendary 10th Mountain Division, The Men Who Started USA's Ski Industry," SnowBrains, 10 November 2023, <https://snowbrains.com/10th-mountain-division-history-fire-mountain/>.

11. "10th Mountain Division Light Fighters School," Army.mil, accessed 17 May 2024, <https://home.army.mil/drum/units-tenants/10th-mountain-division-light-fighters-school>.

12. "The History of the Legendary 10th Mountain Division, The Men Who Started USA's Ski Industry."

13. *Ibid.*

14. 10th Mountain Division, *10th Mountain Division (Light Infantry) Campaign Plan*, 1.

15. *Ibid.*

16. "The Army's Vision and Strategy," Army.mil, accessed 17 May 2024, <https://www.army.mil/about/>.

17. 10th Mountain Division, *10th Mountain Division (Light Infantry) Campaign Plan*, 1.



# Hunter Electromagnetic Spectrum

## A Model to Both Train and Advance Modernization Efforts

Col. Thomas Goettke, U.S. Army

Dr. Richard Wittstruck

The twenty-first-century digital age has revitalized military operational doctrine and the Army's concepts of operations as well as its tactics, techniques, and procedures (TTPs). The contemporary operational environment is evolving rapidly. In part, this evolution is happening because technological innovation continues to accelerate via the use of spectrum-efficient systems, emerging radio frequency hardware, and computer architecture systems for size-, weight-, and power-constrained environments. Importantly, these inventions and advances represent approaches that our adversaries, specifically Iran, Syria, and Iraq, are also adopting. Therefore, historic, large institutional systems and processes struggle to remain relevant and adequately prepare soldiers for the threats and demands they will encounter when deployed in competition, crisis, or conflict. Recognizing the need for a doctrine "lift and shift" to support more complex operations, in recent years, the Department of Defense has introduced new doctrine to address the multidomain battlespace of today and tomorrow. Examples include Joint Publication 3-12, *Joint Cyber Operations*; Joint Publication 3-85, *Joint Electromagnetic Spectrum*

*Operations*; Field Manual 3-0, *Operations*; Field Manual 3-12, *Cyber and Electromagnetic Activities*; and Army Doctrine Publication 3-13, *Information*.<sup>1</sup> To actualize such doctrine, the 10th Mountain Division is pioneering multidomain training and representing an operational unit that seeks to understand conditions forward and tailor training paths to relevant operational threats. The multidomain environments of the Ukrainian, Syrian, and Israeli theaters of conflict have amplified the importance of understanding the application of the electromagnetic spectrum (EMS) to twenty-first-century conflict. Adversaries use electromagnetic countermeasures to negate our ability to use sensors and exploit technological advantages. This is in stark contrast to the fights in Iraq and Afghanistan where the electromagnetic spectrum had limited application. Creating and exploiting a relative advantage in the contemporary operational environment is impossible without synchronizing and integrating electromagnetic feedback. However, bridging the gap between rhetoric and reality is a difficult quest. Hunter Electromagnetic Spectrum (HEMS) is a story of how a highly deployed, low modernization priority unit prepared and trained



The AN/TPQ-53 radar is staged for premobilization training 7 July 2021 at the Regional Training Center in Salina, Kansas. (Photo courtesy of the U.S. Army)

with emerging technologies for continuous rotations to theaters of conflict. While circumstantially developed, the HEMS model could be replicated to speed the pace of technological iteration while developing unit competency through training.

## The Human Dimension

As the division artillery (DIVARTY) commander, I started HEMS to enhance radar training. With the intent of incorporating our cyberspace electromagnetic activities (CEMA) and space teammates from throughout the division, the team developed a concept that would sharpen everyone's skill set. Using PR 200 terrestrial-based equipment and spectrum analyzers, the collective team created a scrimmage that competitively pitted radars against electronic signature hunters (a.k.a. a digital opposing force). Essentially, the radars hide, attempt to mask themselves, and use emission control to stay outside of a targetable threshold—in this instance,

using a target location error of three hundred meters. Hunters would analyze terrain and push out dismounted teams to retrieve the radars by acquiring lines of bearing, side lines of bearing, resection, or triangulation. The collective team executed multiple turns per day and the learning curve remained steep through the ability to iterate frequently. Our radar operators understood their vulnerabilities better and refined their TTPs to become harder to kill. Our 17-series soldiers (electronic signature hunters) learned how to employ their equipment better and work as a team to acquire targetable information and input it into the targeting apparatus.

For our soldiers, understanding how someone will hunt them underpins the motivation and intelligently informs means to prevent exposure and better anticipate adversary actions. Additionally, detailed knowledge in TTPs comes from pushing equipment and personal limits in training. When technical and physical thresholds are achieved, soldiers' trust in the process

grows while confidence and morale increases, indicating an advantage in the human domain. Furthermore, the foundation of unit collective training is individual soldier proficiency. Advanced levels of unit proficiency are built on each individual human in the formation.

## The Information Dimension

The information dimension introduces the human to the battlespace around them. The twenty-first-century fight includes sifting through mountains of data to efficiently find actionable information. Exploiting the information dimension requires many iterations at deciphering the wheat—usable (sometimes perishable) information from the chaff—discardable information.

EMS often acts as the first form of contact via radio frequency site survey. Transitioning the knowledge of EMS to other intelligence disciplines remains key to maintaining a faster processing and decision cycle than the adversary. HEMS is a venue where 10th Mountain leaders communicate the importance of seizing, retaining, and exploiting the initiative within a tactical scenario. The pursuit of objectives in the information dimension is twofold. First, soldiers must understand and use all available information to advance the targeting and striking of targets. Second, soldiers must practice the employment of all-source intelligence efforts to confirm target locations (positive identification). These two key takeaways have been an enduring HEMS success story.

## The Physical Dimension

The EMS crosses all domains. The joint force relies upon EMS-enabled communications and weapons systems.<sup>2</sup> EMS plays a key role in the ability to detect enemy forces and to establish an organization's electronic orders of battle. EMS equally acts as a vulnerability because adversaries pursue the identification of friendly emissions. Advantages gained in EMS complement the human and information dimensions in speeding staff processes, mobility, and lethality. The side that can turn information into intelligence, and subsequently strike a target based on that intelligence, maintains a distinct advantage.

Developing the skills to identify EMS emissions quickly and accurately and to hide in the EMS are foundational to HEMS. As HEMS matured, it also grew in complexity. Success in terrestrial hunting

naturally led to the incorporation of a third dimension, significantly reducing a ground hunter's time to acquire and target location error. An MQ-9 from the New York Air National Guard's 174th Attack Wing provided aerial hunting input in the form of full-motion video and synthetic aperture radar. These multiple-intelligence platforms quickly overwhelmed dismounted ground operators and their rudimentary systems. The need for large bandwidth pipes and a central command-and-control node distilled quickly. Future iterations will incorporate this feedback but also expand the scope and complexity of the exercises.

Upstate New York in February provided a perfect opportunity to exercise field craft and equipment. Operating in temperatures as low as 0°F caused cables to crack, connections to degrade, and entire systems to freeze. Again, the practitioner's lessons stemmed from operators' understanding the limitations of their equipment and taking the necessary steps to safeguard, protect, and mitigate disruption.

Cold weather is one important consideration for the alpine division; another is the unique EMS capability that resides on Fort Drum in the form of joint threat emitters (JTE). Originally designed for the combat aviation brigade (CAB) to practice evasive maneuvers, the JTE is one of only two systems on the U.S. East Coast that can replicate up to forty adver-

sary target acquisition threats. These sensors emit powerful signals that all organic electronic signature sensors

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can acquire, and they provide attractive training stimulus for aerial platforms supporting HEMS events.

## **DIVARTY Approach**

The DIVARTY team initially invested in HEMS to sharpen its sensor-to-shooter linkages and develop TTPs to make its sensors harder to kill. Once leadership realized the value of this training for subordinates, technical investments increased and diversified. While building human capital on all fronts, lessons learned from forward-deployed units generated future experimentation ideas and accelerated the incorporation of many division enablers. Every brigade combat team in the 10th Mountain Division is either deployed or has a deployment on the horizon. Therefore, efforts to incorporate emerging technology or replicate the current threat environment must be done in the immediate term—the 10th Mountain Division cannot wait until 2030. With DIVARTY's key assets deployed to the Europe, sensors and enablers from across the division supported HEMS in 2023 by spreading lessons learned and sharing knowledge between formations. 10th Mountain's pursuit of technical capabilities naturally led to industry partners who provide emerging technological solutions to active theaters of conflict.

## **Industry Equities**

Industry partners naturally look for operational partners to pair with their highly educated and technically savvy engineers. The second iteration of HEMS saw the incorporation of a naval sensor that showed great promise when included in the scrimmage. 10th Mountain soldiers appreciated the opportunity to learn and understand the technology behind the system and enjoyed exploiting it to “win the game,” while industry partners realized that with minor modifications, there was a land application to their ready-made maritime product.

Practitioner feedback is invaluable to the industry. HEMS provides senior NCO and warrant officer expert feedback, far exceeding the industry's routine soldier feedback. Furthermore, feedback is part of the training and is not seen as an additional requirement. 10th Mountain units conduct the training regardless of industry involvement. Industry can enhance training, and the interaction between the two parties can be mutually beneficial. The scrimmage-like format of HEMS enables quick iteration, allowing all parties to

fine-tune their approach multiple times in a day. This quick iteration format provides opportunities for robust data collection that industry partners take back to the laboratory and continue improvements. Minor details in coding, software, interfaces, or displays distill quickly and would not otherwise be seen. Industry partners view HEMS as a risk reduction event—essentially a safe place to take their technology and experiment with a group of knowledgeable practitioners before being tested at their next acquisition milestone. Industry representatives experience a high learning curve and participate on their own dime owing to the rich feedback and mutually supportive relationship that has been established.

## **Program Executive Offices**

The Army acquisition program executive offices (PEO) and their down-trace project managers have been overwhelmingly supportive of HEMS training and often act as the connective tissue between operational units and industry partners. Modern technology advances too quickly for our acquisition process to leverage in near real time. Exercises like HEMS may be a new model to accelerate technological development while enhancing unit training and give acquisition an opportunity to adopt or adapt emerging technology in an operationally relevant environment. Over the last twenty-three years, while there have been several attempts to reform the laborious and painstaking modernization process, they have all been top-down driven (see figure 1). HEMS generated from an operational unit and grew from the bottom up using mutual interest as the magnetizing force. To reinforce this point, 10th Mountain Division has paid exactly \$0 to industry partners for their participation; the symbiotic partnership has been done through communication, relationship building, and investing time in crafting experimentation objectives that satisfy unit and industry equities. Finally, the missing link to the established HEMS triad is the Army capability managers (ACMs)—the organization that writes the capabilities requirements derived from the doctrine. Some ACMs have attended HEMS, but a more complete model would prioritize ACMs' participation (see figure 2).

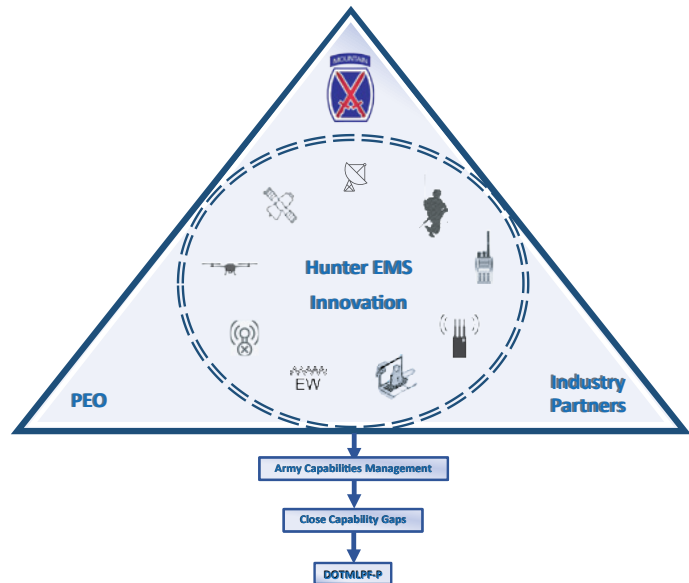
## **Debunking Common Myths**

The act of protecting a unit's training schedule is nearly an hour-by-hour challenge, and I know this because I was a division G-3. Army Forces Command,

corps, and division echelons rightly protect operational units from industry partners who need soldier touchpoints and feedback. This zero-sum game approach focuses on tasking units to provide soldiers with the opportunity to deliver X feedback on Y equipment during a given period. It is a task that must be managed and impacts a unit's training schedule. The industry partner gains while the unit loses soldier availability. The zero-sum game is one of time and where it is spent. HEMS is an example where both soldiers and industry partners benefit from voluntary interaction with each other to pursue aligned objectives. The soldier gains competency, problem context, and technical skill. The industry partner gains soldier feedback from trained and interested parties who will exceed feedback expectations. As HEMS matured, strong relationships developed as each side benefited from the interaction. Soldiers better understood technical components, experienced equipment limitations, and revised their tactical application or adaptation based on emerging capabilities. Industry received feedback from the same NCOs or warrant officers, advancing the depth and technical quality of feedback. Assessment of HEMS progress against objectives was accomplished via soldier hot washes, industry data collection/reduction/analysis, and formal after-action reporting. Collectively, HEMS has completed over 85 percent of its total objectives to date.

## Hunter EMS Training and Experimentation Path

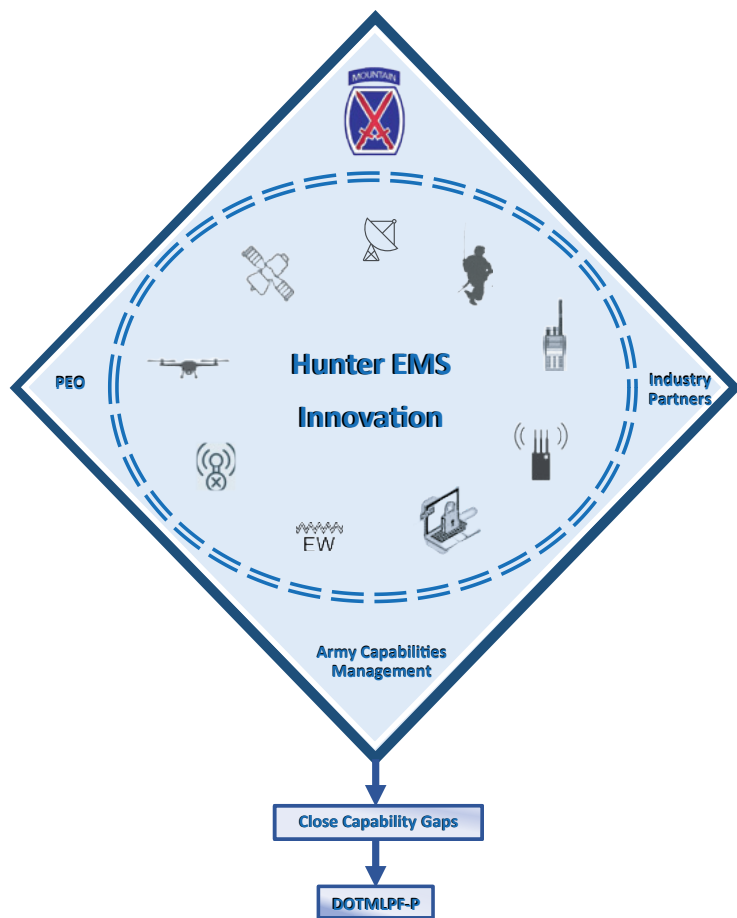
While anchored on organic radars and EMS, the training and experimentation objectives associated with HEMS have taken a circuitous path. Foundationally, operational units inside the 10th Mountain Division identify problem sets or friction points they are struggling to solve, then leaders craft training objectives to pursue solutions to identified problems. Incorporating a mobile all-domain operations center prompted the team to pursue bandwidth solutions for receiving data collected by multiple disparate sensors. Logically, this led to the incorporation



(Figure by authors)

**Figure 1. Current Hunter EMS Innovation Structure**

of mobile broadband kits in the form of Kymeta and Starlink terminals. Once the team received the data, the next step was to make sense of it, leading the HEMS team to find a platform that could consolidate all electronic warfare feeds into a common operational picture. The solution of utilizing the Maven Smart System showed the most promise, and several industry partners expressed interest in assisting with the project. For nearly twelve weeks, software engineers from private industry, 10th Mountain systems integrators, and 10th Mountain communications technicians surged on creating an electronic warfare common operational picture in Maven. Using organic equipment, emerging programs of record such as the electronic warfare planning and management tool, and commercial off-the-shelf technology, the team successfully analyzed the trade-space among many types of messaging formats and cross-domain solutions to create appropriate and realizable paths for data to be displayed in the Maven Smart System (see figure 3). In the end, the collective team successfully built three separate paths using disparate programs of record and commercial off-the-shelf equipment to make a usable common operational picture. The event was HEMS IV, and it showed the incredible potential that resides in the nexus of the operational unit, PEO, and industry.



(Figure by authors)

**Figure 2. Hunter EMS Innovation Way Forward**

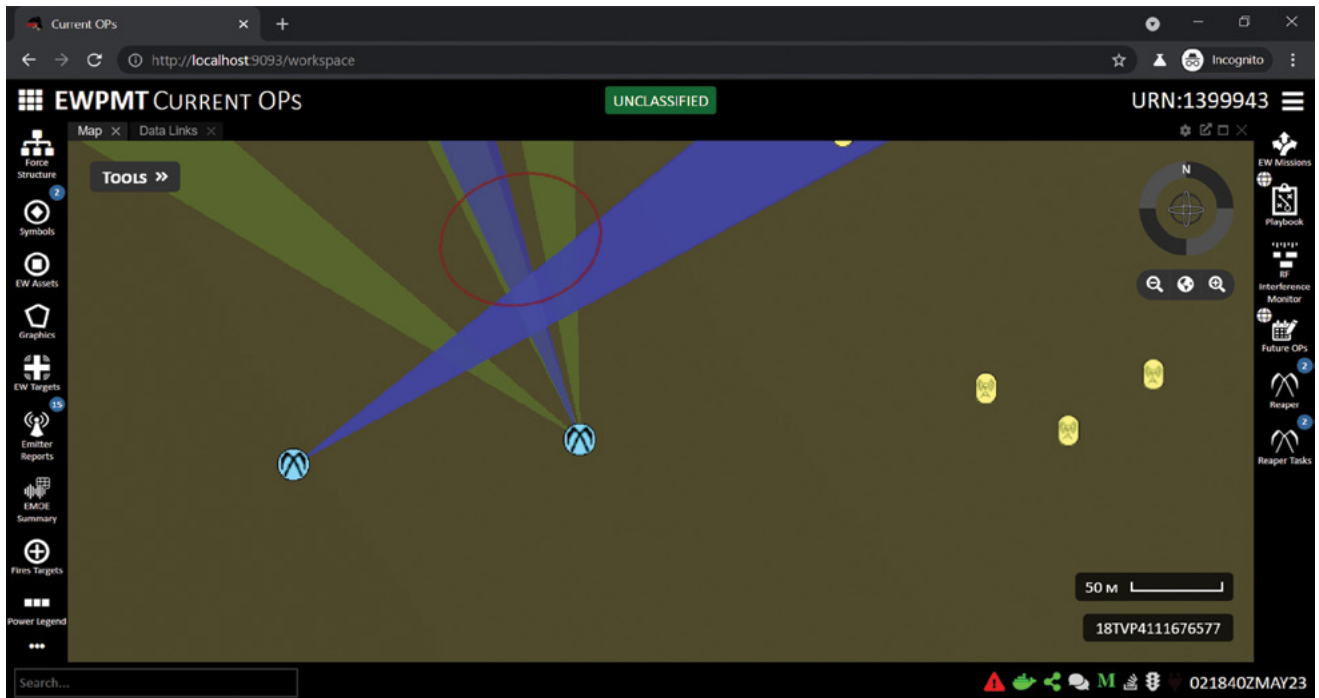
As HEMS matured through 2023, one complementary effort was the consolidation of 17- and 14-series soldiers into an air missile defense and electronic warfare (AMDEW) platoon in DIVARTY. The idea behind consolidation grew from 1st Brigade, 10th Mountain's 2022-2023 Iraq and Syria lessons learned that described how leaders rushed to adequately train their base defense operations centers personnel to combat the evolving threat of one-way unmanned aircraft system (UAS) attacks. The consolidation effort aimed to leverage the experience of the senior NCOs who had just returned from a cutting-edge counter-UAS environment. Again, local industry found value in aligning training objectives for experimentation with the AMDEW platoon. Syracuse Research Corporation, an independent, not-for-profit, research and development corporation chartered by the state of New York, brought several passive and ground-based

radars to enhance AMDEW, CEMA, and DIVARTY training. Syracuse Research Corporation also contributed to advancements in the mobile all domain operations center, leading to more efficient consolidation, processing, and exploitation of acquired information. HEMS V reinforced the idea that operational units and industry could find mutually beneficial training and experimentation objectives that together advanced organizational goals.

Next, the Hunter EMS VI concept heavily relied on the PEO Intelligence, Electronic Warfare, and Sensors team and took about eleven months to prepare. One of the Army's 31+4 modernization efforts is the multifunctional electronic warfare (MFEW) 0 that will provide aerial electronic support and attack capability organic to the division level.<sup>3</sup> 10th Mountain DIVARTY became interested in the MFEW after their participation in Warfighter 22-05 in June 2022, during which exquisite capabilities such as aerial electronic attack needed to be planned and synchronized with detail. The 10th Mountain Division targeting cell led an integrated air defense system work-

ing group in the aftermath of the Warfighter to gain greater knowledge and generate defeat mechanisms for this threat. The MFEW capability neatly aligned with the integrated air defense system working group's outputs. The MFEW brought the opportunity to bring aerial electronic attack to a lower echelon to utilize more frequently as a risk mitigation measure and as nonlethal shaping fires to extend 10th CAB's access to adversary threat systems. By leveraging the JTEs on Fort Drum, the unit orchestrated a division-level live-fire exercise that initiated with aerial electronic attack and followed with an MQ-9 500 lb. bomb, CAB strike, and M777 fire missions. With the assistance of the explosive ordnance detachment, PEO Intelligence, Electronic Warfare and Sensors provided expendable electronic warfare emitters to place on top of targets in the impact area to broaden the scope of the target array. The triad of industry, PEO, and operational





(Figure from Chief Warrant Officer 2 Brett Melnyk, U.S. Army)

### Figure 3. Electronic Warfare Planning and Management Tool Display from a HEMS IV

units converged again to advance the development of one of the Army's key modernization platforms while exercising DIVARTY, CAB, CEMA, and AMDEW essential tasks.

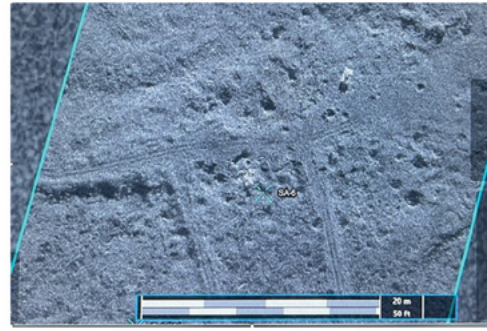
In another application, HEMS VII coincided with an artillery battalion's Table XV battery qualification and AMDEW Table VI certification. HEMS VII proved to be an exercise in multiechelon training management, where one critical event could simultaneously service multiple training objectives. For instance, by adding a Q-50 to a two-gun artillery raid, the team sought to experiment with its effectiveness in a position, navigation, and timing denied environment. Elements from U.S. Army Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center brought UASs to identify howitzers attempting to mask themselves in the woodline while industry partners, currently using equipment in a theater of conflict, identified and tracked those systems in support of AMDEW training objectives. Additionally, emerging technology in the form of non-line-of-sight and line-of-sight extended communication systems validated

FM voice and digital communications from Fort Drum to variable height antennas deep in the Adirondack Mountains and Camp Ethan Allen, Vermont. The line-of-sight communications experiment paired three separate industry partners together to effectively achieve an eighty-seven-mile linkage.

To advance and align with the alpine culture of the 10th Mountain Division, future HEMS iterations will continue EMS and radar experimentation along with position, navigation, and timing denial and navigation warfare in the Adirondacks. The incorporation of Navy and Air Force joint platforms is on the horizon for the second and third quarters of fiscal year 2024 along with other modernization efforts in various stages of development. As the HEMS concept continues to gain traction, PEOs and industry partner collaboration contribute to the pool of experimentation ideas—which are proving to be the incubator of innovation and improving overall soldier competency. 10th Mountain leaders will take the ideas and narrow the scope of training to the right mutually supportive triad nexus. In the coming months, one measure of effectiveness for HEMS will be how many lessons learned and



MITRE Expendable Emitter on Tank Hull in Fort Drum, New York, impact area



MQ-9 Synthetic Aperture Radar (SAR) capture during Hunter EMS VI



C/s-6 FA Fires in Support of Hunter EMS VI

HEMS VI synchronization. ([clockwise from top left] Photos by Sgt. 1st Class Thomas Zebrowski, U.S. Army; Staff Sgt. Christopher Gunter, U.S. Army; and Spc. Kade M. Bowers, U.S. Army. Composite by Michael Lopez, *Military Review*)

developed concepts the collective team can push to 1st Brigade Combat Team for tactical employment in their training progression and subsequent deployment. HEMS is about training our internal 10th Mountain teams but also transforming how the 10th Mountain Division operates based on the knowledge and skills acquired in HEMS training.

## A Model to Advance Aligning Interests

Air Force Research Laboratory (AFRL) Information Directorate in Rome, New York, has been an important partner with 10th Mountain Division in advancing Hunter EMS initiatives. AFRL orchestrates a recurring experimentation series dubbed Future Flag that is focused on accelerating the development, demonstration, and fielding of innovative capabilities for Joint All-Domain Command and Control and autonomy and artificial intelligence systems. Recently, AFRL has started the Northeast Multi-Domain Operations Alliance (NEMDOA) with the expressed intent to provide an ecosystem for the experimentation

and characterization of emerging multidomain operations technology immersed in a relevant operational environment. The alliance is regionally focused and includes bringing representatives from the Air Force, Army, Navy, Space Force, New York Air National Guard, and other government partners to share training or experimentation opportunities with each other. NEMDOA shows incredible potential to expand training and experimentation opportunities for all its members, echeloning up ideas from its contributing members like 10th Mountain Division and the HEMS series. Government members will lead the NEMDOA to provide convergence opportunities through an ecosystem for the experimentation of multidomain operations technology while serving as a risk reduction series. Members of the alliance are committed to work together to further HEMS, Future Flag, and other alliance-related activities.

## Conclusion

HEMS is a mission-effective and cost-efficient way to advance and mature technological development while





Industry partners combine a tethered drone, a directional antenna, and a radio to achieve a communications solution (HEMS VIIB) to digitally communicate a distance of eighty-seven miles from Fort Drum to the top of Whiteface Mountain (highest peak in New York State) on 5–8 December 2023. (Photo by Chief Warrant Officer 2 Michael [Brett] Melnyk, U.S. Army)

training an operational unit for the contemporary operating environment they will encounter in a theater of conflict. While initially developed as a training venue for organic systems and personnel, the training objectives and experimentation hypotheses developed for HEMS attracted industry partners and the Army's acquisition enterprise. The mutually beneficial partnership that subsequently developed may serve as a model to bring soldier knowledge and competency in line with

the contemporary threat, increase technological innovation and iteration through expert soldier feedback, and advance acquisition milestone achievement by providing more frequent opportunities. Via the NEMDOA, HEMS can serve as a joint interest risk reduction event for service-level capstone experiments and exercises. ■

*Many thanks to PEOs, industry partners, and HEMS contributors for their inspiration to publish this article.*

## Notes

1. Joint Publication (JP) 3-12, *Joint Cyber Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2022); JP 3-85, *Joint Electromagnetic Spectrum Operations* (Washington, DC: U.S. GPO, 2020); Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. GPO, 2022); FM 3-12, *Cyber and Electromagnetic Activities* (Washington, DC: U.S. GPO, 2021); Army Doctrine Publication 3-13, *Information* (Washington, DC: U.S. GPO, 2023).

2. FM 3-0, *Operations* (Washington, DC: U.S. GPO, 2022), 1-20–1-22.

3. A POD is a detachable/replaceable attachment that fits on the wing of a Class III unmanned aircraft system or on a fixed-wing aircraft.



# Light Infantry Logistics

## Transforming from the Global War on Terrorism

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**M**ountainous terrain has proven to be the ultimate combat and sustainment equalizer, but the U.S. Army's 10th Mountain Division has been "flattening" mountainous and alpine terrain for the U.S. military's ease of access since its inception in 1943 during World War II. During the Global War on Terrorism (GWOT), the 10th Mountain Division executed numerous deployments to Iraq and Afghanistan. Adapting to the nature and environment in both nations, the 10th Mountain Division's logistics and sustainment leaders enabled combat operations through tactics, techniques, and procedures requisite with the requirements of the times. The way sustainment was executed over the last two decades, however, cannot be the way the Army will provide sustainment for today's environment.

Pivoting away from the GWOT's sustainment structure while gleaning lessons learned from the mountains of Afghanistan to enable operations in alpine terrain remains key to the division. The division defines "alpine" as the mountains and highlands spanning from three thousand to six thousand feet in elevation with severely restrictive terrain and reaching subzero temperatures. To overcome the associated challenges and prevent higher-elevation terrain from becoming an inaccessible obstacle, a layered and redundant sustainment approach is required for mission accomplishment.

The 10th Mountain Division seeks opportunity from the challenges this terrain presents. U.S. adversaries like China and Russia believe they can use mountains, alpine, and arctic terrain to render current U.S. technological advantages null and void by leveraging



Representatives from U.S. Army Combat Capabilities Development Command Army Research Lab and the Civil-Military Innovation Institute met with 10th Mountain Division (Light Infantry) soldiers to discuss emerging technologies at the first Innovative Technology Symposium 15 April 2024 at The Peak. The 10th Mountain Division Sustainment Brigade hosted the symposium, which highlighted the division's contributions in field-testing a resupply drone, the Tactical Resupply Vehicle 150, and establishing a new innovation lab on post where soldiers can work with experts to problem-solve and develop real-world solutions. (Photo by Mike Strasser, Fort Drum Garrison Public Affairs)

the environment through their own innovation. Examples are particularly seen after China's own experiences posturing in the mountains along the border with India and Russia's historical lessons learned fighting in Afghanistan.<sup>1</sup> Although not high in altitude but more recently, Russia continues to innovate in the arctic and high north regions to increase strategic global access and area denial.<sup>2</sup> Conversely, the 10th Mountain Division aims to keep the terrain flat for the United States and its partner nations while keeping the mountains impenetrable to its adversary's advances and preserving the U.S. and partner nation's military overmatch capabilities. Reimagining and creating logistical support methods in the alpine fight requires many components of sustainment to adapt. Accordingly, we can increase freedom of action by improving operational reach, prolonging endurance, and adapting systems

and equipment to alpine conditions transitioning from the tactical to the operational levels of warfare. As an automatic consequence, we've learned from recent history in the mountains of Afghanistan. We will innovate sustainment capacity with a renewed vision by focusing on the most demanding environments possible to preserve our overmatch.

## The Requirement for Specialization Drives Adaptation

To survive the security environment of the future, we will be forced to pivot from the sustainment construct introduced and inculcated throughout the last two decades in the GWOT. Recently, Army senior leadership published a leaflet to the force highlighting their vision for the Army and four key focus areas. Of the four areas, our leadership emphasized, "Local





A Tactical Resupply Vehicle 150 with a bundle of Meals, Ready-to-Eat flies above a training area on Fort Drum, New York, 5 March 2024. (Photo by Sgt. 1st Class Neysa Canfield, U.S. Army)

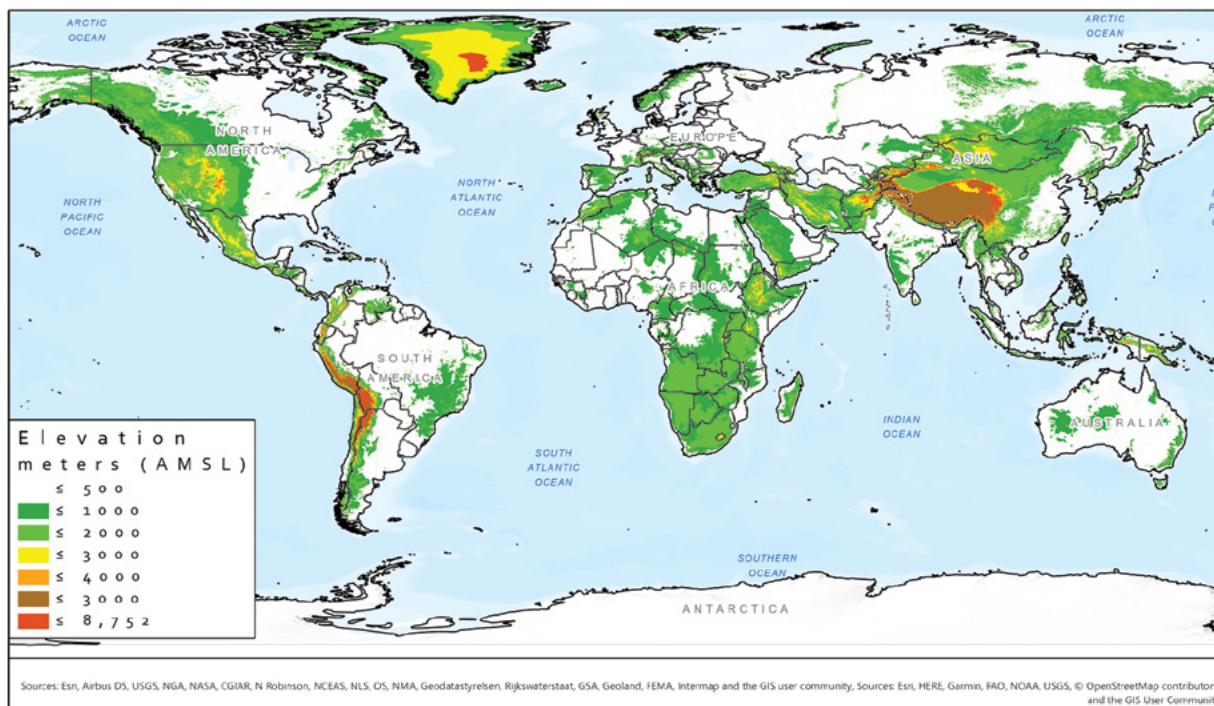
leaders know best how to translate strategic intent into solutions at the local level,” as well as transforming “to become leaner, more mobile, lower signature, and most importantly, more lethal. ... The best ideas often come from the bottom up” and are now being integrated into the 10th Mountain Division by returning to its alpine roots.<sup>3</sup> Of note, the 10th Mountain Division’s commanding general recently emphasized the need for “physically and mentally tough light infantry soldiers to go where the enemy cannot and generate asymmetrical advantages to win the next fight.”<sup>4</sup>

Furthermore, reintegration of specialized combat divisions remains necessary to meet the world’s current operational environment—particularly in alpine terrain. Take note of the terrain highlighted in green and bright green in figure 1.<sup>5</sup> These higher elevation areas cover land masses owned by U.S. adversaries, but more importantly, the entire west coast of the United States. Mastery of sustainment in such terrain becomes

incredibly critical for offensive operations abroad and for the defense of our homeland.

The United States and its allies cannot afford to wait for the next fight to force the requirement to master alpine terrain; history has provided the cost of waiting. Emphasizing history for a focus on predictive readiness, one of the Army’s senior logisticians mentioned in the Spring 2022 edition of *Army Sustainment* magazine, “Enabling readiness across the Total Army ensures the force learns from the past to accomplish today’s requirements and prepare for future ones.”<sup>6</sup> As an example, we can look back to history and the experience of Field Marshall Viscount William Slim, who led the Burma campaign against the Japanese and had to establish a specialized jungle school to train his personnel after they were defeated and pushed back to India.<sup>7</sup> Slim had to innovate during conflict, train his forces, and subsequently retake lost terrain and eventually Burma. Arguments exist that the original defeat would





(Figure from U.S. Geological Survey)

**Figure 1. Mountain Regions of the World**

have been a victory if soldiers and units were already proficient in jungle warfare.

Likewise, when fighting an adversary in large-scale combat operations (LSCO), the wrong time to start focusing on the alpine environment proficiency is certainly when you are expected to fight there. In today's rapid tempo, we are required to be prepared now so there is no defeat before victory—there will only be victory. With that said, our current preparations remain paramount and predict the need to dominate in the mountains. Moreover, there remains significant mountainous and highland terrain features particularly located in and around the United States' competitor nations of China, Russia, and Iran.

Fortunately, the U.S. Army maintains historical and well-established relationships with nations located around our competitors, and with mutual support, it has established allied access to key terrain. Of major note is the newly added NATO ally, Finland—a key relationship for the NATO alliance and the 10th Mountain Division, especially as Russia's illegal war in Ukraine persists. The Army fosters relationships with allies that own the terrain and possess relevant experience and equipment for the environment. We continue

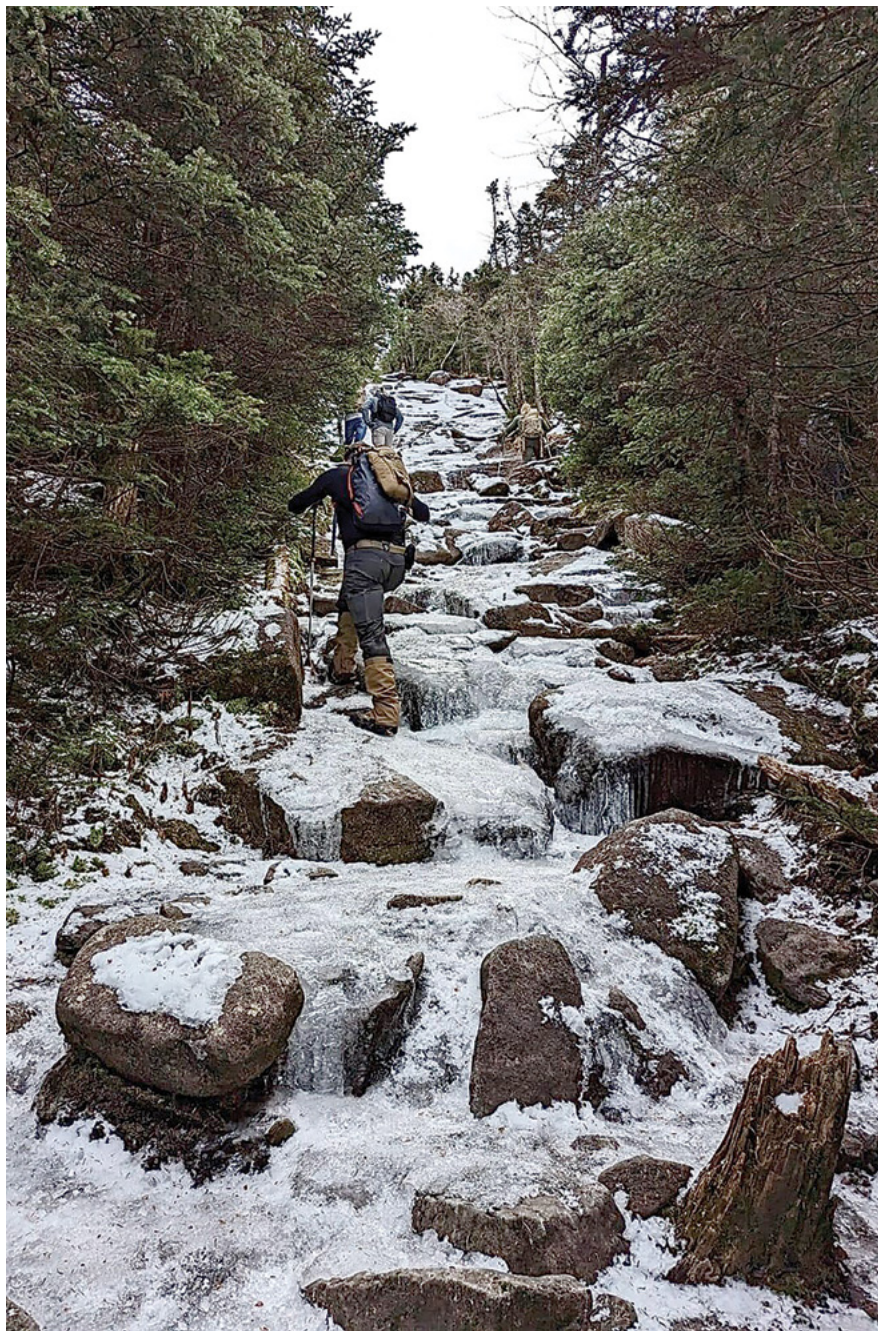
to reminisce with and be inspired by Finland as the roots of the 10th Mountain Division were planted by a seed sown after Finland's success over the Soviets in 1939.<sup>8</sup> We are certainly stronger together, especially on the battlefield.

## The New Vision: Alpine in LSCO

Before we reach the alpine battlefield, we need to predict, visualize, and experience the requirements and requisite solutions to its challenges to be successful. The 10th Mountain Division Sustainment Brigade owns this very sustainment transformation and currently leads the division's sustainment capability development, experimentation, and implementation. To this effect, the brigade collaborates with industry partners while integrating emerging technologies into current operations to set the battlefield.

The brigade recently returned from the Adirondack Mountains having gained an appreciation for the alpine environment and what it means for Army sustainment operations in direct support of a combat division in severely restrictive terrain.<sup>9</sup> The brigade's leaders identified key nuances with alpine operations while overlaying conceptual solutions to bridge perceived capability





Leaders from the 10th Mountain Division Sustainment Brigade, 10th Mountain Division, ascend a frozen creek bed during leader professional development training on 6 November 2023 in the Adirondack Mountains in New York. (Photo by Sgt. Dawn Bartlett U.S. Army)

gaps with the intent to layer logistical redundancy capable of providing prolonged endurance and options.

The need to become lighter in all aspects became apparent as leaders summited five mountains sprawling across New York's high peak region. Throughout the event, the physical demands of the

terrain were high and immediately noticeable. The smallest overlooked details can have negative strategic effects. Forgetting cold weather gear at a lower elevation area might not be the problem at the base; however, when nearing a summit at an alpine elevation, weather conditions transform heavily to the point of rendering an individual combat ineffective while potentially creating a casualty. If all personnel lack the capability, the entire unit can quickly become combat ineffective—creating unintended vulnerabilities or preventing necessary combat action.

Second, the teams recognized the human element and requirement for superior physical fitness to simply survive in this environment and shoulder additional military gear up to the desired elevations. All these demands combine and ultimately add to the time that it takes to accomplish a mission. The team has also discussed opportunities with current technologies to streamline transportation and alleviate intense physical demands while being able to deliver sustainment requirements at the time and location needed for operational success.

Last, teams reflected on the current Army structure with detailed discussion on the forward-most sustainment units and how ineffective they would be with their current equipment set and construct while operating in the alpine environment. We cannot operate with the same GWOT materiel; vehicles and equipment need to become smaller, lighter, and have additional capabilities to leverage for operational redundancy in extreme cold weather and high elevation.

Forces operating in this terrain must account for these demands and variables from the time they step

off from the assembly area. This is not too dissimilar to what many can recall from the mountains of Afghanistan. Undoubtedly, our GWOT experience holds many valuable and relevant lessons, tactics, and procedures. However, we must acknowledge that the next fight will carry special nuances that will force many sustainers away from what they have grown proficient in and accustomed to.

## GWOT Contrasted

This renewed focus and concept for the 10th Mountain Division to specialize and thrive in mountainous, alpine terrain aligns with the Army's pivot from counterinsurgency (COIN) to the multidomain operations framework, which highlights noncontiguous and dispersed operations and requires a fighting force that can be tailored to win in all environments against any adversary. The transition from contiguous to dispersed sustainment introduces a dilemma from recent wars within Iraq and Afghanistan that requires thoughtful reflection and experiential learning to overcome.

For example, during GWOT, the higher-level strategy focused on brigade combat teams as the primary fighting force. This strategy snowballed into a series of sustainment events that stockpiled materiel on forward operating bases. Organizations that come to be centrally located and static often become hyperfocused on amassing commodities and enabling capabilities. This culture enabled operational flexibility and increased efficiency and responsiveness. At the time, these added capabilities and large stockpiles seemed necessary, and they certainly enabled sustainers to fix forward, delineate between a push and a pull resupply, and provide a high level of predictability. But will this employment of sustainment prove feasible within the construct of how we envision our future employment to an alpine environment as a part of the greater LSCO fight?

When light infantry formations conduct offensive or defensive operations in alpine terrain during LSCO, the sustainment unit structure of the light infantry division must change. To prolong operational reach, the overall sustainment structure that remained through the GWOT—centralizing on the brigade combat team—must now be centered at the division level in alpine terrain while sustaining dispersed platoons and squads. During COIN operations, the brigade support

battalions (BSB) were centralized in the brigade support area (BSA) at a forward operating base and distributed supplies and services to combat outposts according to the “hub-and-spoke” method. In LSCO, these BSBs will be aligned under the division sustainment brigade. This realignment to the Army's structure provides the infantry division's senior sustainment commander greater flexibility to tailor and position battalion-level sustainment units where the need is greatest. In essence, if the situation is warranted, the division sustainment brigade commander could surge all the division's sustainment capability in one location, link numerous BSBs together in series to span through lengthy movement corridors or organize the BSBs in parallel to support a wider front.

In addition to this change, forward support companies must become lighter and transition to a scaled and scoped alpine distribution company. This company would primarily be tailored to the specialized battalion that it habitually supports. Additionally, this company would be comfortable conducting operations in severely restrictive terrain while also possessing the materiel to thrive in a noncontiguous sustainment structure. To achieve its mission, the alpine distribution company relies on higher-echelon activities.

## Supply Support Activity

Supply support to the front line is one of the most critical sustainment functions commanders and warfighters heavily depend on as it enables prolonged endurance. Considering the significant time-based challenges the division will face, logistics of supplies must be coordinated and monitored closely from the strategic to the user levels. During GWOT, supply support activities (SSA) would operate in a fixed location for years; however, in LSCO, SSAs are more likely to be displaced with their designated BSA as required to maintain operational reach. In such an environment that involves frequent displacement of the SSA operations, it is logistically ideal to run the SSA operation twofold.

First, the SSA operation and the authorized stockage list (ASL) will move forward with the BSA to maintain a push supply support method. The ASL for Class IX, repair parts and components, are kept in stock, readily able to fill immediate requirements for units as they conduct maintenance forward. In such a format, the SSA operates as the brigade's forward distribution point.



Second, another element from the SSA remains collocated with the division support area (DSA) and other resources to receive inbound shipments of supplies from higher echelons. This small SSA team would be part of a forward logistical element that adopts the pull supply support method. Supplies of clothing and equipment, construction and building materials, and repair parts requested by warfighters and not originating from the forward ASL at the BSA are processed and promptly shipped to the place of need. The second SSA element's critical task is to ensure the ASL replenishments are pushed forward to the SSA team. The push-and-pull method from two different locations is more effective when the sustainment brigade has the authority to position the BSA's SSA where desired.

The unique challenges presented by the alpine environment make supply support a crucial task. Incorporating the push-and-pull supply support concept into alpine operations will be heavily dependent on the availability of conducive locations as well as transport equipment and assets to overcome challenging rocky and mountainous terrain.

## Transportation

GWOT forces primarily experienced established ground lines of communication for sustainment transport. Even in Afghanistan, where mountainous terrain encompassed the country, allied forces primarily used ground transportation routes and methods for transportation despite numerous aerial delivery options. The ability to use the ground lines of communication and the large vehicles for transportation allowed combat outposts to stockpile at least a week's worth of sustainment supply at a time. Although this sustainment construct enabled COIN operations, if overlaid with LSCO, combat forces would take a loss in freedom of action and speed of movement with such a large sustainment tail. We need to lessen our footprint, increase frequency of smaller deliveries to points of need, and foster a culture for being self-sufficient for key periods of time.

From the 10th Mountain Division's alpine perspective, gone are the days of long convoys in Afghanistan traveling down Kabul-Kandahar National Highway 1 from Forward Operating Base Airborne in Wardak Province to the gates of Forward Operating Base Ghazni (see figure 2).<sup>10</sup> Military and civilian vehicles

utilizing ground lines of communication to transport personnel, equipment, and supplies to awaiting troops will no longer be feasible in severely restrictive terrain. While the corps support area and DSA may mirror current operations in the new LSCO environment, 10th Mountain Division soldiers will not be able to rely upon standard throughput or tailgate resupply operations with elevation. Instead, the Army will need to primarily rely upon air assets, innovative equipment, and possibly a larger return to pack mules. Conducting military operations in an alpine environment requires a closer look at all capabilities—both innovative and primitive. With soldiers seeking cover and concealment on the side of a mountain, standard vehicle traffic can often not traverse the terrain to their location. From experience, training in the Adirondack Mountains as a proof of concept, getting the necessary supplies that would be required for the infantry will be no easy task. Moving a case of rations or a couple of ammo cans by foot will prove challenging even for the fittest soldiers.

Due to the nature of the environment and limited traffic in an alpine environment, the Army will have to rethink how best to conduct continuous sustainment operations without using standard vehicles. Depending on maneuverability, moving subsistence and munitions by foot could prove feasible, but the increased weight and rough terrain makes this difficult. Smaller all-terrain vehicles could prove to be a solution, but only if paths exist or are established by engineers.

For example, the first mile of the Adirondack's second-highest peak—Algonquin, at 5,114 ft. in elevation—only allowed for movement on foot. No ground piece of equipment in the Army catalog would be able to maneuver on this trail without significant improvement. Within the second mile, the terrain quickly changed to a creek bed littered with massive stones, making all vehicle movement impossible without clearing and leveling. A challenge like this brings us quickly back to hauling supplies by foot or visiting historical methods by using pack mules. By the third and fourth mile, the terrain became increasingly difficult to navigate with just a small amount of weight, and it was so steep that even mules would have difficulty traversing. Add in inclement weather and ice, and there is no safe way to physically carry the number of supplies required at the speed it is required to conduct any sort of sustainment operations.



(Route imagery from TerraMetrics; map from Google)

**Figure 2. Convoy Route from Forward Operating Base Airborne to Forward Operating Base Ghazni**

Therefore, the Army needs to look more closely at aerial delivery operations to sustain in alpine territory. Current rotary-wing capabilities enable sustainment to drop Low-Cost Low-Altitude and Containerized Delivery System bundles at higher altitude for front-line unit resupply. Fixed-wing aircraft can accomplish the same types of operations as well as drop Containerized Delivery System bundles utilizing Global Positioning Systems if the Joint Precision Airdrop System is available. Even in an air parity environment, innovative technologies like the Tactical Resupply Vehicle (TRV-150) would be able to provide supplies to our soldiers at these altitudes while minimizing risk to aircraft. These types of systems are needed with volume, especially as air superiority remains in question.

These are just some of the systems required in a contested logistics and alpine environment utilizing both ground and air lines of communication to sustain the warfighter while enabling freedom of action.

## Maintenance

Eighty years ago, the U.S. military considered how it could help fight in World War II by crossing the Italian

Alps. The 10th Mountain Division trained for sixteen rigorous months in Colorado, honing their warfighting skills in mountainous terrain. Numerous lessons were learned while the 10th Mountain was in the Rockies, such as “a soldier’s rate of dismounted movement in mountainous terrain slows with the increase of altitude and slope so much that routes in mountainous terrains are measured in time not distance.”<sup>11</sup>

Not only is the movement slower, but the elevation can also affect weapons, vehicles, and soldiers. The elevation can affect how a weapon shoots as well as how trucks start and run. The steeper the climb, the harder it is on vehicle components. We have learned how the weather at higher elevations can become colder quicker, and that extreme cold will make metal and plastic more brittle and easier to break. Because of these limitations, more maintenance iterations for the equipment used at higher elevations will be needed.

The freezing temperatures, winds, and elevation will all play into the performance of equipment. For example, night vision and optical sites will fog more frequently with changes in moisture and will need to

be purged more often. When used, trucks will have to work harder to go up steep terrain and will have to take additional trips to get the same amount of equipment to forward troops than on flat ground. Maximizing carried weight by robotics and unmanned aerial vehicles will increase the wear on components of the equipment while slowing them down during use. This will require the maintainers to ensure the equipment is serviced more frequently and to have the capacity to quickly procure replacement parts through supply systems using tactical-level transportation.

## Field Services

During the GWOT, the Army was accustomed to operating on permanent bases using contracted support to feed the warfighter in the field. The military leveraged contracted support to decrease troop presence and subsequently to do everything from housing troops to rebuilding airfields and standing up dining facilities. The contracting solution was known as the Logistics Civil Augmentation Program, or LOGCAP, a type of umbrella contract the Army had been using to support its military bases overseas.<sup>12</sup> A feeding service that is typically conducted by service members was largely contracted out during the wars in Iraq and Afghanistan. Freeing up Army culinary specialists to perform other wartime duties like performing gunner, entry control point, and guard tower duties.

Unlike the wars in Iraq and Afghanistan, a large-scale ground combat operation against a near-peer adversary will look a lot different. U.S. adversaries are extremely capable with state-of-the-art long-range and short-range missiles, and they are equipped with modern air forces, making staying in one location for any extended period much more dangerous than in the GWOT. The Army's continuous transformation plan and the Army Concept for 2030 reorganizes and reduces equipment, leading to a lighter equipment set for light infantry divisions.<sup>13</sup> However, one thing that will not change with continuous transformation is the requirement to provide calories to the warfighter. Culinary specialists will need to be engaged in their military occupational specialty to ensure that the warfighter has the calories to sustain fighting in LSCO.

Army field feeding operations will look much the same as they do now in the DSA and back. Culinary leaders will establish field kitchens and utilize fixed

facilities that can be acquired to support on an area basis. Forward of the DSA and as maneuver formations move into restrictive and severely restricted terrain, field feeding operations will have to adapt to support the warfighter. Hot food may be transported and carried up mountains using TRV-150 drones. Infantry troops will have to carry Meals, Ready-to-Eat (MREs) or First Strike Rations (FSR) in their rucksacks to ensure they are self-sufficient.

The Joint Culinary Center of Excellence has developed the Unitized Group Ration-Express (UGR-E). The UGR-E is a compact, self-contained module that provides a complete, hot meal for eighteen soldiers and weighs up to forty-five pounds. With the simple pull of a tab, the food is heated in just thirty to forty-five minutes and is served in trays to soldiers like a formally prepared meal. The capability afforded by the UGR-E offers an alternative to individual meals as the sole source of subsistence in austere, remote locations. Mountain soldiers may utilize a combination of MREs and FSRs that are carried with them and transported food mixed with a shipment of UGR-Es to support their caloric needs when operating in restrictive terrain that does not support larger field feeding team equipment.

As the 10th Mountain Division transforms into the Army of 2030 and becomes lighter, restructured, and specialized in alpine environments, it will need to get creative in the way it feeds its soldiers. Through a combination of MREs, FSRs, UGR-Es, and traditional UGRs in conjunction with new and old transportation methods, the 10th Mountain Division will have the fuel it needs.

## Sustainment Communications

During the GWOT, forces maintained a nearly constant ability to interface with higher-level command-and-control sustainment reporting systems through dedicated network connectivity, supporting the sustainment system by maximizing responsiveness to the point of requirement. Having the near-constant ability to be "plugged in" prevented the need for forces to innovate to collect and transmit accurate sustainment information.

Logistically, operations rely on communication and the ability to capture immediate requirements, expenditures, and forecast upcoming needs. Most logistical





A Boeing CH-47 Chinook helicopter from 3rd General Support Aviation Battalion, 10th Aviation Regiment, 10th Combat Aviation Brigade, 10th Mountain Division, drops Meals, Ready-to-Eat bundles on 19 July 2023 over a training area near Fort Drum, New York, as part of low-cost low-altitude training for soldiers of the 10th Mountain Division Sustainment Brigade. (Photo by Sgt. 1st Class Neysa Canfield, U.S. Army)

communication platforms were previously developed to support stationary support activities in a low-threat area. However, robust infrastructure capable of conducting uninterrupted and robust sustainment operations is unlikely in mountainous terrain during LSCO—near-peer adversaries now have the ability to jam, mountains block radar and radio communications, and current equipment presents itself too cumbersome for the alpine fight.

In today's security environment and while preparing for the next fight, Army leaders are actively addressing concerns regarding contested logistics while encouraging innovative activities and developing redundancy in systems that provides the flexibility for forces to continue operations despite potential setbacks.<sup>14</sup> One such concern was cyber and network security. The Sustainment Automation Support Management Office (SASMO) did not initially emphasize cyber security and network security for the Army's life support systems. The devices that were authorized network access were managed at the unit

level. However, 10th Mountain underwent network and security changes to make network access stricter. This inherently took away some administrative rights from the users, but ultimately was a step in the right direction for network and cyber security.

In a paper published by Maj. Gen. Mark T. Simerly, Col. Marchant Callis, and Maj. Ryan J. Legault titled "Transforming Army Sustainment to Contend with a Contested Logistics Environment," the authors emphasized the importance of future sustainment forces and their preparedness to effectively operate in this setting across the land, maritime, air, cyber, and space domains to provide our combat forces with the ability to prevail against a peer threat.<sup>15</sup> The heightened threat landscape in LSCO necessitates the integration of robust cybersecurity measures within SASMO's framework, and SASMO is evolving to implement advanced algorithms for resource allocation to meet the unprecedented demands of large-scale cyber campaigns. Security protocols and risk management become integral components, ensuring



Soldiers from 3rd Special Forces Group (Airborne) conduct training with soldiers from HHB, 3rd Battalion, 6th Field Artillery Regiment, 1st Brigade Combat Team, 10th Mountain Division, 18 May 2023 on Fort Drum, New York. Included in the training was close-quarter battle operations with demonstrations of infantry-style reconnaissance in a simulated combat scenario, and instruction and practical exercises of how to tactically maneuver in a close-quarter environment. The training allowed for a unique opportunity for 10th Mountain soldiers to train with Special Forces. (Photo by Staff Sgt. Elizabeth L. Rundell, U.S. Army)

the protection of critical cyber assets and minimizing vulnerabilities in the sustainment process.

SASMO plays a pivotal role in the logistics and supply chain management of cyber resources. In LSCO, where rapid deployment and flexibility are paramount, SASMO is evolving to embrace agile methodologies. This involves streamlined processes, real-time tracking, and on-demand provisioning of resources to meet the dynamic requirements of operations. The Army needs to look toward cloud computing; lighter, more mobile systems; and newer satellite terminals that have access to higher bandwidths. This will enable access to data and parts and provide the ability to perform supply actions in real time with minimal delay or lag time.

As an example, munition processes require up to three separate logistic information systems for a single ammunition issue (the Munitions History Program, the Total Army Munitions Information System, and the Standard Army Ammunition System). All three

systems operate unconnected from each other and exclusively from their own central servers located in various locations throughout the United States. Current tactical-level accountable officers must connect through a Combat Service Support Very Small Aperture Terminal to gain a connection to the three systems to provide accurate and safe munitions to the warfighter. From the depot level through to the corps support area, this does not present an issue; however, in LSCO, from the DSA forward and into the alpine region, eliminating the use of a Combat Service Support Very Small Aperture Terminal and equipment through the challenging surroundings will be needed. Modernization that keeps accountability but reduces the footprint and can work disconnected until being able to upload data into a server is a necessity. The ability to work disconnected with a small, tactical mobile device that can timestamp and initiate resupply, capture expenditures, and do the singular job of the current three systems in support





Soldiers from the 10th Mountain Division Sustainment Brigade pull a recovered bundle from a Fort Drum training area after it was dropped from a CH-47 Chinook helicopter 2 February 2024. The training was conducted to improve overall understanding of aerial delivery distribution in large-scale combat operation, alpine, and austere environments. (Photo by Sgt. Alexander Kelsall, U.S. Army)

of munitions management will be vital to mission success at the tactical level.

## Munitions

Ammunition support during GWOT was a depot-to-tactical approach. Depots would amass munitions at ports of entry and disperse around 200 percent of the unit's combat load down to a DSA. The DSA was responsible for pushing ammunition to the BSAs, which strived to have a 100 percent combat load plus operational and training munitions on hand for the units supported within its BSA lines of communication (LOC). This was sustainable under the conditions in which support elements maintained static positions throughout their deployments.

In a near-peer environment, the DSA and BSA will be required to relocate in conjunction with the forward line of troops. Requiring a BSB to handle one complete combat load for a light infantry brigade would overburden the transportation assets and require the unit to leave noncritical ammunitions,

supplies, and equipment behind. Transportation challenges will be further exacerbated in Stryker and armor units in which the number of transportation platforms needed for munitions would significantly increase due to the type of munitions distributed.

Key munition factors to consider when conducting logistical operations in an alpine environment are concealment, means of ascending, altitude, weather, and modes of transportation. GWOT was conducted in the Middle East, where LOCs went mostly from one sea-level outpost to the next. And even in Afghanistan's mountainous environment, Army equipment typically conducted combat logistical patrols in heavy vehicles from the supply point to the warfighter. In alpine terrain, we lose the capability to line-haul 66,000 lb. Palletized Load Systems on trailers over greater distances and will need to shorten the LOCs and quantity of munitions.<sup>16</sup> Instead of providing combat loads to battalions, companies, or platoons, the environment and near-peer threat will require squad-sized resupplies broken down from bulk packaging to more manageable loads.





10th Combat Aviation Brigade and 3rd Battalion, 6th Field Artillery Regiment, soldiers conduct a howitzer gun raid on Fort Drum, New York, 6 November 2023. This exercise was conducted to strengthen mountain warfare capabilities. (Photo by Spc. Samuel Bonney, U.S. Army)

The TRV-150 autonomous lift platform being implemented into training and consideration can carry a max load of 150 lb. due to potential autonomous lift capabilities. A crate of 1,680 5.56 mm rounds weighs 66 lb.—16 lb. of that weight is packaging material in wood, metal, and cardboard. By breaking down the packaging and sending the munitions in bandoleer configuration, we can support 5,040 rounds in one shipment.<sup>17</sup> That's enough 5.56 mm to resupply 2.6 infantry squads compared to 2.2 in bulk packaging.

When considering grenadier and squad automatic weapon calibers and munitions, an entire squad can be resupplied by eliminating bulk package compared to two separate shipments or ascensions up a mountain. However, when eliminating the packaging of munitions, you run the risk of its degradation and rendering your ammunition unserviceable. Commanders will have to generate support requirements that assume some risk to be light, tactical, and

lethal. Looking at repackaging munitions into kit flyer bags down to the magazine, certifying infantry leaders on quality assurance and quality control measures, and training on class V preservation to include internal maintenance in austere environments are all measures being taken to overcome that risk.

## Conclusion

To these ends, the 10th Mountain Division Sustainment Brigade aims to innovate and transform from the GWOT structure and mentality while learning from its experiences and pivoting toward providing superior sustainment support to the division in all environments to meet the demands of our Nation's interests with particular emphasis on preparing for the alpine fight. Our preparation and mastery will maximize the division's lethality by delivering increased freedom of action, improving operational reach, and prolonging endurance to continue supporting the climb. ■

## Notes

1. John E. Sray, "Mountain Warfare: The Russian Perspective," Indian Strategic Knowledge Online, March 1994, [https://indianstrategicknowledgeonline.com/web/Mountain\\_warfare.Russian\\_perspective.pdf](https://indianstrategicknowledgeonline.com/web/Mountain_warfare.Russian_perspective.pdf); Kevin McCauley, "Himalayan Impasse: How China Would Fight an Indian Border Conflict," Jamestown Foundation, 20 September 2017, <https://jamestown.org/program/himalayan-impasse-how-china-would-fight-an-indian-border-conflict/>.
2. Nick Paton Walsh and Sarah Dean, "Russia's Militarization of the Arctic Shows No Sign of Slowing Down," CNN, 22 December 2022, <https://www.cnn.com/2022/12/21/europe/russia-arctic-military-intl/index.html>.
3. Michael R. Weimer, Randy A. George, and Christine E. Wurmuth, "Message to the Army Team," Army.mil, 27 October 2023, <https://api.army.mil/e2/c/downloads/2023/10/27/48ce3005/message-to-the-army-team-tri-sign.pdf>; Mike Strasser, "10th Mountain Division Returns to Its Roots: Building Teams, Reclaiming Mountain, Alpine Capabilities," Army.mil, 10 August 2023, [https://www.army.mil/article/268994/10th\\_mountain\\_division\\_returns\\_to\\_its\\_roots\\_building\\_teams\\_reclaiming\\_mountain\\_alpine\\_capabilities](https://www.army.mil/article/268994/10th_mountain_division_returns_to_its_roots_building_teams_reclaiming_mountain_alpine_capabilities).
4. Maj. Gen. Gregory K. Anderson (10th Mountain Division commander), quoted by Lt. Col. Sarah Ray (10th Mountain Division public affairs officer), n.d.
5. "30 Arc-Second GTOPO30 Elevation Model," U.S. Geological Survey, 11 July 2018, <https://www.usgs.gov/centers/eros/science/usgs-eros-archive-digital-elevation-global-30-arc-second-elevation-gtopo30>.
6. Charles R. Hamilton, "Driving Readiness at Echelon Now and for the Future," *Army Sustainment* 54, no. 2 (Spring 2022): 6.
7. William Slim, *Defeat into Victory* (London: Cassell, 1956), 142.
8. The Flagship Staff, "Our History Is Also Epic! U.S. Army's Tenth Mountain Division's Role in WWII and Its Connection to Vail Resorts," The Flagship, 12 October 2023, [https://www.militarynews.com/norfolk-navy-flagship/community/our-history-is-also-epic-u-s-army-s-tenth-mountain-division-s-role-in/article\\_e23d1a94-692d-11ee-af0b-7bc0b67f3f70.html](https://www.militarynews.com/norfolk-navy-flagship/community/our-history-is-also-epic-u-s-army-s-tenth-mountain-division-s-role-in/article_e23d1a94-692d-11ee-af0b-7bc0b67f3f70.html).
9. Neysa Canfield, "Supporting the Climb: 'Muleskinner' Leaders Conquer New Environment to Strengthen Alpine Sustainment Operations," Defense Visual Information Distribution Service (DVIDS), 6 November 2023, <https://www.dvidshub.net/news/457885/supporting-climb-muleskinner-leaders-conquer-new-environment-strengthen-alpine-sustainment-operations>.
10. "Highway 1 is the Afghan Highway to Hell," Dangerous Roads, accessed 14 May 2024, <https://www.dangerousroads.org/asia/afghanistan/117-highway-1-afghanistan.html>.
11. Scott M. Safer, *The Alpini Effect: Why the US Army Should Train for Mountain Warfare* (monograph, Fort Leavenworth, KS: U.S. Army School of Advanced Military Studies, 2014), 23.
12. Sharon Weinberger, "Windfalls of War: KBR, the Government's Concierge," Center for Public Integrity, 30 August 2011, <https://publicintegrity.org/national-security/windfalls-of-war-kbr-the-governments-concierge/>.
13. Andrew Feickert, "The Army's AimPoint and Army 2030 Force Structure Initiatives," Congressional Research Service (CRS) In Focus IF11542 (Washington, DC: CRS, 11 January 2022), <https://crsreports.congress.gov/product/pdf/IF/IF11542>; Christopher Hurd, "Army Futures Command General Lays Out Continuous Transformation Plan," Army.mil, 2 April 2024, [https://www.army.mil/article/275040/army\\_futures\\_command\\_general\\_lays\\_out\\_continuous\\_transformation\\_plan](https://www.army.mil/article/275040/army_futures_command_general_lays_out_continuous_transformation_plan); Caleb Pautz, "Screaming Eagles Lead the Way in Continuous Transformation," DVIDS, 6 May 2024, <https://www.dvidshub.net/video/922200/screaming-eagles-lead-way-continuous-transformation>.
14. Megan Gully, "Army Focuses on Contested Logistics—A Threat to Enemy," Army.mil, 3 April 2023, [https://www.army.mil/article/265428/army\\_focuses\\_on\\_contested\\_logistics\\_a\\_threat\\_to\\_enemy](https://www.army.mil/article/265428/army_focuses_on_contested_logistics_a_threat_to_enemy).
15. Mark T. Simerly, Marchant Callis, and Ryan J. Legault, "Transforming Army Sustainment to Contend with a Contested Logistics Environment," Army.mil, 1 February 2024, [https://www.army.mil/article/272932/transforming\\_army\\_sustainment\\_to\\_contend\\_with\\_a\\_contested\\_logistics\\_environment](https://www.army.mil/article/272932/transforming_army_sustainment_to_contend_with_a_contested_logistics_environment).
16. "PLS A1," Oshkosh Defense, accessed 14 May 2024, <https://oshkoshdefense.com/vehicles/heavy-tactical-vehicles/pls-a1/>.
17. Defense Acquisition University, "The Conventional Ammunition Packaging and Unit Load Data Index," 30 November 2023, <https://www.dau.edu/cop/ammo/documents/capuldi-excel-updated-dac-30-november-2023>.

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The Finnish Army's Pori Brigade fires an M270 multiple launch rocket system 22 May 2023 during start of Lightning Strike 23 at Rovajärvi, Finland. Lightning Strike is a multinational live-fire exercise that includes forces from Finland, Norway, Sweden, the United Kingdom, and the United States. Its purpose is to integrate Finnish fires via the Artillery Systems Cooperation Activities bridge to demonstrate technical interoperability. (Photo courtesy of the Finnish Defence Forces)

# Finnish Joint Air-Ground Integration

## Building Allied Partner Capability

Col. Thomas Goettke, U.S. Army

Lt. Col. Mikko Viren, Finnish Army

**A**t the invitation of the Finnish Army commander, Lt. Gen. Pasi Välimäki, the 10th Mountain Division commander, the division artillery commander, and the division fires enterprise converged on Helsinki in April 2023 to attend a Finnish air ground integration seminar. Preexisting relationships and identified capability gaps naturally brought fires and airspace professionals together to review further growth opportunities, but NATO's newest addition sought a niche function. Throughout the seminar, all contributors emphasized the importance of synchronization and integration at the division level and the means to achieve it. Understanding their new role as allies, the Finnish Army studied how they fought and identified a need for reform, specifically to develop and exercise a more robust air ground integration competency. Furthermore, Välimäki laid out an ambitious timeline to develop initial capability for the Defender Europe exercise series (Nordic Response and Northern Forest) by the end of calendar year 2023. The 10th Mountain Division arrived in the U.S. European Command area of responsibility in March 2023 and brought subject-matter experts with experience in this skill set. The article details how the United States and Finland paired with each other on a training path to build a clearly defined division-level warfighting capability and address an identified allied capability gap.

## Why Does Finland Need Joint Air-Ground Capability?

Finland has a modern army and is adept at the employment of close air support in singular or limited instances. Now part of the NATO alliance, the Finnish Army's airspace purview must expand to account for the realities of coalition warfare. NATO air capabilities are orders of magnitude greater than Finnish national capabilities in scale and remain essential for optimizing resources toward an adversary who exploits the principle of mass. Now part of the NATO alliance, the Finnish Army must display the capability to leverage all resources the alliance brings. The Finnish Army

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identified this gap and sought U.S. assistance in building air-land integration capability.

## Background: U.S. Joint Air-Ground Integration Center

The joint air-ground integration center (JAGIC) is the action arm of the current operations integration cell (COIC) and must be collaborative, appropriately resourced, and properly organized to efficiently accomplish division collective tasks.<sup>1</sup> A combination of Air Force and Army personnel in the JAGIC control airspace, coordinate interdiction, ensure friendly force identification, and control joint fires—it is strictly a current operations function.<sup>2</sup> The JAGIC chief, in constant collaboration with the division current operations chief make informed decisions based on designated priorities on striking targets and integrating joint assets in the division's assigned airspace.<sup>3</sup> The current operations fight necessitates mission command.<sup>4</sup> To operate at the frequency and volume demanded of the JAGIC, the division staff develops high payoff target lists, attack guidance, and target selections standards to enable quick decision making that within the commander's intent but can be executed with mission command.<sup>5</sup>

The JAGIC must rapidly clear airspace and conduct joint fires in complex environments.<sup>6</sup> The JAGIC performs these functions through the organization of existing personnel, specifically the functions of the air support operations center (ASOC), tactical air control party (TACP), and the COIC. The ASOC is a decentralized execution element from the supporting air component and controls joint air assets.<sup>7</sup> "The ASOC may be delegated airspace control responsibilities by the ACA [airspace control authority]."<sup>8</sup>

The JAGIC's collaboration and ability to pass information quickly is its most critical function.<sup>9</sup> Placing JAGIC members next to or near each other when executing complementary functions enables shared understanding, responsiveness, and reduces risk.<sup>10</sup> While the right personnel remain essential components of the JAGIC, consistently training together creates the familiarity and confidence required to execute proper battle drills.<sup>11</sup>

To perform its designated mission, a JAGIC must know, possess, or understand the following:

- All communication capabilities with supporting or supported entities to include (and rehearse)

- primary, alternate, contingency, and emergency methods of communication
- The target synchronization matrix, which includes
  - high-payoff target list
  - attack guidance matrix/target selection standards
  - close air support distribution decisions
  - air tasking order
  - airspace control order
  - delegation of authorities matrix
  - decision support template
  - synchronization matrix
  - current orders and fragmentary orders
- The required scheme of fires and sequence of effects that achieve the commander's end state
- The fires and effects missions that are essential to achieve objectives and which, if not performed, result in mission failure
- The operations synchronization brief, a battle rhythm event during which the future operations plan is handed off to the current operations team (This battle rhythm event normally takes place twenty-four hours prior to execution and includes prioritized planned targets, scheduled fire missions, and missions that the JAGIC must execute or not interfere with.)
- Situational understanding of ongoing operations and a common operational picture
- Allied and partner-nation capabilities and caveats to optimally employ their systems
- Sustainment limitations

## Normal JAGIC Collective Training Plan

With frequent turnover of personnel and constantly evolving training calendars, U.S. units have become accustomed to building JAGIC capability—normally oriented on a series of command-post exercises (CPX) and culminating in a Mission Command Training Program Warfighter exercise. The U.S. Army has been refining the JAGIC concept for more than a decade with the Air Force and formalized it in 2019 with Army Techniques Publication 3-91.1, *The Joint Air Ground Integration Center*.<sup>12</sup> A normal U.S. Army JAGIC training progression would include the following steps:

1. Identify JAGIC members to serve with longevity to build relationships and confidence.
2. Develop procedures for how the center operates and codify in a tactical standing operating procedure.
3. Individual study by each contributing member.
4. Formal education by the echelons above brigade and specialized joint air-ground training team at Hurlburt Field, Florida. The entire team attends this training together after steps 1–3.
5. Training events that focus on integration of systems from all participating staff entities.
6. Training events that externally stimulate JAGIC battle drills and rehearse digital connectivity among all systems.
7. Certifying training event(s).

## Initial Steps

While at the April 2023 Helsinki Conference, 10th Mountain Division leadership invited the Finnish fires personnel and joint terminal attack controllers to their headquarters to observe Saber Guardian 23, one of Defender Europe's foundational exercises. Acting as higher command to the 2nd Romanian Division for Saber Guardian, the 10th Mountain Division exercised the full battle rhythm, developing all outputs for JAGIC execution. Romanian and Finnish leaders witnessed the 10th Mountain Division in full warfighting mode, providing further contextual understanding for the importance of addressing identified gaps. During the exercise, 10th Mountain and Finnish Army Command (ARCOM) leaders developed a plan to achieve initial air-ground capability by the end of the calendar year. While this relatively straightforward task became a division priority, the 10th Mountain Division did not know many of the unique variables associated with guiding their new ally to the desired end state.

## Seek First to Understand

The 10th Mountain Division leaders sought first to understand. The duration of this initiative will extend beyond 10th Mountain's tenure in the U.S. European Command area of responsibility, but the purpose of the effort was to bring a tailored warfighting capability to NATO's newest ally on an abridged timeline. ARCOM cannot simply replicate the U.S. process, it must tailor and scale the effort within the current Finnish force design and joint architecture.<sup>13</sup> 10th Mountain Division leaders attended Finland's Lightning Strike exercise in





Finnish F/A-18 fighter jets take to the Baltic skies with allied aircraft to participate in a 29 March 2023 NATO training exercise. The exercise involved up to twenty allied fighter jets based along NATO's eastern flank, Finnish fighter jets, and German air-to-air refuellers. The training exercise allowed allied and Finnish aircraft to practice air-to-air refuelling capabilities, tactics, and procedures to enhance their ability to operate effectively together in the air domain. (Photo courtesy of NATO)

May 2023 to better understand how the Finnish Army operates in the field and to better inform the effort moving forward. Many cultural, doctrinal, technical, modernization, and relationship-based hurdles remained for the paired allies despite attempts to prepare a logical training path.

## The Catalyst

The Russian invasion of Ukraine on 24 February 2022 changed assumptions across Europe for the first time in over thirty years.<sup>14</sup> The 2022 mass invasion was the largest and most lethal Russian attempt to reunite portions of its diaspora. In Finland, the invasion unsettled peace of mind. Despite worldwide support for Ukraine, Russian aggression reinforced the idea that if you are not treaty-bound, nobody is coming to help. Despite potential tactical gains, one obvious Russian strategic failure was the addition of a new NATO partner that shared a 1,300 km Russian border. With

political conditions aligning for the formal introduction into NATO, the Finnish Army had to greatly expand their capability to fight as a member of a collective security agreement and as an ally.

## The Culture

As 10th Mountain leaders approached potential training solutions, an incomplete understanding of the Finnish culture proved to be an obstacle in early progress. With national defense in mind, the Finnish Army has emphasized self-reliance and maintained large-scale combat capability in the form of light, autonomous, and cold-weather proficiency. Finland's geographically focused training demonstrated credibility in its force and hedged against external assistance should hostilities arise. Inherently distrustful of outsiders, the Finnish Army had to be able to follow through and act on any threat to the homeland.<sup>15</sup> When sharing a 1,300 km border with



A U.S. Air Force F-35A Lightning II assigned to the F-35A Lightning II Demonstration Team practices for an air show 11 January 2023 at Hill Air Force Base, Utah. Prior to its membership, Finland was moving toward NATO interoperability along with Norway and Denmark by investing in procuring F-35 operability within the next five years. (Photo by Staff Sgt. Kaitlyn Ergish, U.S. Air Force)

Russia, any unilateral military action carries political implications.

Traditionally, service in the armed forces is seen as a rite of passage, where citizens support mobilization requirements and the total defense concept. The Finnish Defence Forces can muster 280,000 combatants in minimal time to address external threats, providing them a rich talent pool of readily accessible and exploitable civilian skills.<sup>16</sup> Their ability to rapidly fill identified needs from the private sector stands in stark contrast to some of their larger allies who struggle to meet their recruiting and retention goals. Similar to U.S. units, the Finnish Army has unit-specific cultures, influenced by their regional location, unit legacies, and history. Finnish Defence Forces have only nascent interaction with sister services and possess limited joint capability.

Finally, the Finnish Army approach their role as an existential one. Even their national sport, *Pesäpallo*, a derivation of the word baseball, is grounded in

developing combat skills—the ball is the same weight as a hand grenade.<sup>17</sup> The Finnish cultural approach would bring both advantages and disadvantages to the air-ground integration (AGI) training effort.

## State of Interoperability

The three most common categories of military interoperability are human, procedural, and technical. The Finnish Army is currently focused on human and procedural interoperability; they are confident that they can catch up technically. The Finns have a professional army and know themselves well. Their objective assessment has informed a path forward.

First, Finnish leadership focuses on human interoperability, informed by their emphasis on international experience and service outside Finland. Although viewed equally, promotion rates heavily favor those who have expeditionary experience and foreign international service. The idea that previous experience will grow foundational competencies and enhance future

service is a sound approach upon entry to NATO, but internal personnel structural reform is a noteworthy undertaking to fully contribute to the alliance. Active-duty Finnish Army leaders make up only one out of every ten service members. These leaders are task saturated, performing or reforming processes while instructing, informing, or updating reservists during critical training events. From the onset of discussion, one repeating theme during the training path was the lack of flexibility in the Finnish manning construct. Creating new positions or making permanent moves to match an identified capability gap would take considerable time and require tough institutional decisions. Understanding these limitations, the ARCOM prioritized the right personnel for continued AGI capability development but experienced delays and shortfalls with joint partners throughout 2023. Finally, the Finnish relationship with the United States was the easiest hurdle to overcome—two professional armies discussing the details of building a niche capability against a shared threat naturally brought like-minded organizations together.

The ARCOM encounters a procedural problem in their current force design because multidomain operations demand a large degree of integrated and centralized command and control at scale. Historically, disaggregated squads, platoons, and snipers on skis have won the day and remain a foundational component to Finnish national defense, but managing a volume problem on multiple fronts requires integration and synchronization. Pre-NATO, Finland was well-rehearsed and integrated at the land tactical level. Now, with the full complement of NATO resources in support, the Finnish Defence Forces must develop processes to become jointly integrated. Target prioritization, airspace management, and codifying a battlefield architecture remain critical to maintaining tempo along multiple corridors with finite resources in the joint fight. Additionally, now an ally, Finland must heavily weigh national decision-making against NATO partner support, authorities, and timing. Preparing for both a supporting and supported role changes much of ARCOM's historical human and procedural assumptions.

Technically, the Finns have an army suited and rehearsed for their unique terrain. However, an identified gap is their integration into the joint community. Previously, autonomous operations would enable the use

of singular air platforms in support of brigade and below actions. The volume of air support that can be expected from NATO allies, at a minimum, requires an integrated air picture at echelon. Parallel efforts to technically integrate command-and-control systems are underway but require time for testing and validation. Communications interoperability must occur within the ARCOM at echelon and then to the joint force before branching out to the alliance to integrate a communications architecture in line with NATO standards and expectations.

## Regional Dynamics

A notable advantage for the Finnish Army is its long-established regional relationships. With a common enemy and similar cultures, the Nordic countries share a long history of cooperation. Pre-NATO, there was no emphasis on interoperability; the Finnish Army strictly operated on bilateral relationships. However, Finland has found itself in an advantageous position by accurately forecasting likely outcomes, hedging its bets, and moving toward NATO interoperability prior to 2023. While not deliberately orchestrated, the Nordic countries and regional allies favorably postured themselves with like equipment over time, gaining efficiencies and economies of scale that can be exploited in a crisis. The Finnish, Norwegian, and Danish Air Forces have all invested in procuring F-35 capability over the next five years.<sup>18</sup> Norway, Sweden, Estonia, and Finland possess CV90 infantry fighting vehicles.<sup>19</sup> Norway, Estonia, and Finland all have K9 (South Korean) howitzers.<sup>20</sup> The possession of like equipment sets make tactical interoperability an easier regional problem and mitigates risk in mobilizing regional allies against a threat.

## Training Plan Execution

Building Finnish joint air-ground capability occurred across seven distinct training events (see figure 1). Through the lens of John Kotter's leading change model, Lt. Gen. Pasi Välimäki studied the problem and developed a sense of urgency, gathered a coalition, and communicated his vision at the April 2023 JAGI Conference in Helsinki.<sup>21</sup> In partnership with Maj. Gen. Greg Anderson, 10th Mountain Division commander, both leaders empowered action, looking to exploit quick wins through scheduled training events through the remainder of 2023. The two leaders set the stage by creating an impetus for change, engaging the collective organizations,



### Finnish Army Command AGI Training Progression

■ Indicates Primary Training Focus  
 ■ Training Objective Exercised

|   | FIN AGI Conference | Northern Forest | Saber Guardian | UK AGI Conference | FIN AGI Workshop | Ruska 23 | Combined Resolve 19 | FIN Army CPX | Nordic Response | Northern Forest | Dynamic Response |
|---|--------------------|-----------------|----------------|-------------------|------------------|----------|---------------------|--------------|-----------------|-----------------|------------------|
| Identify JAGIC members to serve with longevity to build relationships and confidence                              | ■                  | ■               | ■              | ■                 | ■                | ■        |                     |              |                 |                 |                  |
| Develop procedures for how the center operations and codify in a tactical standing operating procedure            | ■                  | ■               | ■              | ■                 | ■                | ■        |                     |              |                 |                 |                  |
| Individual study by each contributing member  | ■                  | ■               | ■              | ■                 | ■                | ■        |                     |              |                 |                 |                  |
| Formal education by the echelons above brigade/specialized joint airspace training team at Hurlburt Airfield      |                    |                 |                |                   |                  |          |                     |              |                 |                 |                  |
| Training events that focus on integration of systems from all participating staff entities                        |                    |                 |                |                   | ■                | ■        | ■                   | ■            | ■               | ■               | ■                |
| Training events that externally stimulate JAGIC battle drills and rehearse digital connectivity among all systems |                    |                 |                |                   |                  |          | ■                   | ■            | ■               | ■               | ■                |
| Certifying training event(s)  |                    |                 |                |                   |                  |          |                     |              |                 |                 | ■                |

(Figure by Col. Thomas Goettke)

**Figure 1. Finnish Army Command AGI Training Progression**

and mobilizing efforts to address the identified gap. Again, all parties left the conference with Välimäki's sense of urgency owing to guidance of establishing initial capability by the close of calendar year 2023.

To better understand how the Finnish Army fights and observe the identified AGI gap, a team from 10th Mountain Division fires attended Operation Lightning Strike, an annual Finnish multinational live-fire exercise with Finland, Norway, Sweden, the United Kingdom, and the United States. The exercise's interoperability goal was to integrate Finnish fires via the artillery systems cooperation activities bridge to demonstrate technical interoperability, but 10th Mountain representatives attended to understand the full suite of capabilities and systems resident in the Finnish Army. May's Saber Guardian exercise served as the initial step to solidify Finnish relationships, conduct detailed coordination for future training, and observe the desired AGI competency real time. The largest component required for success of the AGI capability build was the integration of the Finnish Air Force (FAF). In June, the UK hosted an annual Air Land Integration Conference that offered a perfect venue to initiate integration of critical JAGIC roles. The 10th Mountain team brought their senior air director; intelligence, surveillance, and reconnaissance liaison officer; and procedural controller from the 1st Expeditionary Air Support Squadron in Mihail Kogalniceanu Air Base in Romania to amplify the need for air force inclusion. However, the timeline proved too ambitious, and the FAF was unable to attend. This missed opportunity was the first in a series of indicators highlighting how difficult it is to impart institutional change on an accelerated timeline.

Acknowledging a clear joint service gap, the 10th Mountain and Finnish Army headquarters teams met several times during the UK conference to adjust the path forward. With insight on how to gain solidarity for the joint inclusion and buy-in of the FAF, the two parties agreed on a "JAGIC workshop," which would be attended by FAF officers across several commands, all Finnish training components, and all Finnish Corps headquarters. Taking the better part of four months of preparation, this early August 2023 gathering generated much interest among attendees and initiated discussion throughout the Finnish joint community on the necessary capabilities for corps warfighting as a NATO ally.

In late August, the Finnish conducted a wargame of the Finnish defense plan with their Nordic allies and U.S. representatives. In a merger of historical plans and new assumptions, the need for a robust AGI capability that can solve simultaneous discrete tactical airspace actions and handle a large volume of joint air assets became abundantly clear before everyone's eyes. While the FAF participated in the wargame, joint inclusion on AGI development remained in an embryonic stage.

The two allied nations continued to pursue existing training opportunities as a vehicle for AGI capability advancement; ARCOM brought its joint fire support element (JFSE) to Ruska 23, the FAF's largest annual live multinational exercise. This exercise is the primary mechanism for the FAF to train their force with live aircraft. As a result, the training objectives remained air force focused and inflexible. However, ARCOM planners introduced change by offering their JFSE as a training enhancer, with

## JAGIC Functions

Control of Joint Fires  
Airspace Control  
Interdiction Coordination  
Friendly Force Identification  
Information Collection

## JAGIC Operations

Fires  
Close Air Support  
Air Interdiction  
Airspace Control

(Figure by authors; adapted from Army Techniques Publication 3-91.1, *The Joint Air Ground Integration Center*)

### **Figure 2. JAGIC Functions and Operations**

a secondary objective of forcing recognition of the identified AGI gap into the joint environment. The ARCOM elbowed their way into the exercise, understanding they would likely be viewed as a nuisance. The ARCOM JFSE forced the FAF to recognize the reality of joint requirements and communicated the capability gap to the FAF in an experiential manner. As a result, the ARCOM advanced rapidly in procedural and technical interoperability with the FAF, forcing the acknowledgment of joint requirements and communicating the capability gap in an air force exercise. Again, the biggest shortfall of the exercise remained the lack of FAF personnel supporting the Army's JFSE. A single navy joint terminal attack controller supported the JFSE, leaving Finland unable to perform three of the five JAGIC functions and two of the four JAGIC operations as outlined in Army Techniques Publication 3-91.1 (see figure 2). To highlight the nascent level of discussion between the services, the coordinating altitude started at five thousand feet above ground level to accommodate unmanned aircraft, then to twelve thousand feet to accommodate mortars, then eventually to twenty thousand feet to accommodate artillery. The changes

to this metric alone indicate a better shared understanding and a joint approach to airspace management. Both services realized the efficiency and permissiveness associated with these adjustments, but these principled changes did not introduce the requisite complexity or anticipated volume associated with a large-scale, multidomain environment. Many senior leaders observing Ruska 23 saw the tangible AGI gap firsthand and organized efforts to address the personnel gap during November's army CPX. Although successful in many ways, Ruska did not prove an adequate training forum for AGI capabilities.

Despite the lack of objective AGI advancement, Ruska 23 did provide great clarity for the design of November's Army headquarters CPX. In several forums, the 10th Mountain team and ARCOM leaders concluded that a minimum force of four FAF personnel must be collocated with the JFSE to address the airspace complexity they would encounter. Acknowledging that four personnel was an acceptable and tailored solution, the FAF agreed to fill the key functions of the senior air director, airspace manager, and two procedural controllers. In execution, the four FAF personnel supporting the army CPX immediately saw the joint problem set and the associated airspace complexity across services and at higher echelons. As the CPX progressed, 10th Mountain partners helped work through refinements in battlespace architecture, fire support coordination, unit airspace plans, battle drills, and staff processes. FAF personnel also represented the need for an army entity to support the air force, similar to a battlefield coordination detachment's function. All of the polished slide decks, long-form conversations, and good will associated with previous engagements transitioned to a joint understanding of the problem during the November CPX. The Finnish joint force now understands that a \$200 million aircraft is only as good as the procedures you have to employ it across the spectrum of conflict. While there is much work left, November's army CPX served as an inflection point to joint ownership of the AGI problem set.

## **Conclusion**

Change is not easy or attained quickly; there are always costs and tradeoffs. Furthermore, extensive research supports that changing culture is a difficult

and long-term endeavor. Achieving a manning solution alone for joint AGI took seven months of effort and eight training events. Now that air force capability resides inside the ARCOM COIC, it can serve as a model moving forward for developing a subordinate capability inside the Finnish Army Corps. To build upon the progress of the U.S.–Finnish relationship, the 10th Mountain Division could formalize a reciprocal unit exchange through one of the Finnish Corps. Similar to the National Guard Bureau State Partnership Program, a reciprocal unit exchange provides active-duty units the authority to pursue bilateral opportunities that enhance readiness and warfighting capabilities. Partnered training throughout the course of 2023 established a solid foundation for further growth. Looking forward to calendar year 2024, ARCOM must expand the complexity of its exercises to build on the change

it achieved in 2023 to make the effort stick. While still ambitious, modernization and larger capability expectations for the next three to five years will drive continued AGI emphasis. Leaders from these sister services understand that to experience capability in three to five years, reform is required today. The Finnish solution will be a tailored one and likely executed in a nonsequential way, but the need and reality-based nature of this identified gap requires cultural change on an abridged timeline. ARCOM is up for the task; their approach has been informed and is flexible enough to make adjustments throughout 2024. Ultimately, achieving Finnish AGI capability is the result of two allies achieving shared understanding, jointly working a vision for future training, and ardently working with each other to stay on the established training path while overcoming friction. ■

## Notes

1. Army Techniques Publication 3-91.1/Air Force Tactics, Techniques, and Procedures 3-2.86, *The Joint Air Ground Integration Center* (Washington, DC: U.S. Government Publishing Office, 2019), 1-1, 2-1.

2. Ibid., 1-4.

3. Ibid., 2-1.

4. Ibid., 2-3.

5. Ibid.

6. Ibid., v, 1-2.

7. Ibid., 1-3.

8. Ibid., 1-2.

9. Ibid., 1-6.

10. Ibid.

11. Ibid., 1-17.

12. Ibid.

13. Mikko Viren (lieutenant colonel, Finnish Army), in conversation with Thomas Goettke, n.d.

14. Ibid.

15. Narrative summary provided by Mikko Viren (lieutenant colonel, Finnish Army), n.d.

16. Ibid.

17. Ibid.

18. Kati Pohjanpalo and Niclas Rolander, "Nordic Nations Agree to Jointly Operate Fighter Jet Fleet of 250," Bloomberg, 24 March 2023, <https://www.bloomberg.com/news/articles/2023-03-24/nordic-nations-agree-to-jointly-operate-fighter-jet-fleet-of-250>.

19. Sam Hart, "Insight: Why the CV90 Infantry Fighting Vehicle Is Making a Clean Sweep of Nordic Markets," Shephard, 19 September 2023, <https://www.shephardmedia.com/news/landwarfareintl/insight-why-the-cv90-ifv-is-making-a-clean-sweep-of-the-northern-european-market/>.

20. Defense News January 2024, "Six Countries of K9 Self-Propelled Howitzer User Group Meet in Helsinki," Army Recognition, 23 January 2024, <https://www.armyrecognition.com/news/army-news/2024/six-countries-of-k9-self-propelled-howitzer-user-group-meet-in-helsinki>.

21. "The 8 Steps for Leading Change," Kotter, accessed 30 April 2024, <https://www.kotterinc.com/methodology/8-steps/>. The framework to John Kotter's eight-step model is creating a sense of urgency, building a guiding coalition, forming a strategic vision, enlisting a volunteer army, enabling actions by removing barriers, generating short-term wins, sustaining acceleration, and instituting change.





A10th Mountain Division soldier receives her Mountain tab during a New Soldiers Patching Ceremony 12 March 2024. (Photo courtesy of the U.S. Army)

# Lead Climbers

## Noncommissioned Officers Drive Change in the 10th Mountain Division

Command Sgt. Maj. Alexander D. King, U.S. Army

**I**n the heart of Fort Drum, New York, a ceremony unfolds that is as timeless as it is inspiring. Rows of new soldiers, their faces alight with pride and

anticipation, stand at attention. Each one proudly bears the powder keg patch of the 10th Mountain Division, a symbol of their entry into a lineage steeped in valor and

resilience, a lineage that has been shaped and guarded by the division's seasoned noncommissioned officers (NCO). From platoon sergeants to the command sergeants major and first sergeants, these NCOs have been the architects of the division's past, present, and future. They have sung the 10th Mountain Division song, a powerful anthem that bridges generations and cements a shared commitment to the Nation and to the division's alpine heritage. This moment encapsulates a profound truth: the NCOs of the 10th Mountain Division are not just participants in change but the architects, shaping the division's future with their focus and dedication, empowering and challenging each other under the guidance of their commanders.

The NCOs of the division embody the division's blue-collar, no-complaints ethos and rigorous discipline, ensuring that the legacy of its alpine roots continues to inspire and guide its future. Their investment in the unit's principles, their hand in a grounded and doctrinal approach to training and the mastery of the basics, and their unrelenting care for their soldiers and their families all demonstrate their deep appreciation and value for their comrades. This commitment is not just a duty but a privilege for the NCOs of the 10th Mountain Division, a privilege they uphold with unwavering dedication.

## Purpose Built: Alpine Legacy and NCO Empowerment

The story of the 10th Mountain Division began on the high-altitude battlefields of World War II, where leaders quickly realized that conventional military tactics were inadequate against the formidable European mountains. The U.S. Army's response was the creation of the 10th Mountain Division, a unit conceived by visionary thinkers and composed of individuals uniquely skilled in skiing, climbing, and surviving in harsh environments.<sup>1</sup> This alpine heritage is not just a part of history but the essence of the division's identity and operational philosophy. Upholding this heritage is not just a duty but a privilege for the NCOs of the 10th Mountain Division.

NCOs in the division are not just participants in preserving the alpine heritage, they are its custodians. Entrusted with preserving the specialized skills and hardy spirit that defined the division's early days, they undergo rigorous training in alpine warfare, leading

excursions in challenging terrains across the globe, from the snowy expanses of Chile to the rugged peaks of Bulgaria and Romania. These experiences are about increasing physical endurance and honing leadership skills, tactical acumen, and the ability to make decisive, strategic decisions under pressure. The division command sergeant major (DCSM) monitors and guides these activities in the Quarterly Readiness Brief (QRB).

## The DCSM Quarterly Readiness Brief

The DCSM QRB signifies a pivotal shift in the unit training and management approach, especially at the battalion level and higher within military structures. Unlike the conventional method, where a battalion commander presents the unit's training plan for approval two quarters in advance, the DCSM QRB adopts a more detailed and NCO-centric approach. This approach delves into the intricacies of training execution and management, focusing on the granular aspects of soldier readiness and development.

The traditional setting focuses on broad planning and strategic overview, often at a conceptual level. The DCSM QRB, however, transitions from this high-level overview to a detailed, ground-level perspective. Once the officers exit, NCOs take the forefront, meticulously planning the specifics of training regimens. This analysis includes determining the exact number of repetitions a soldier will perform on a particular weapon or training task and analyzing how these activities will enhance the unit's overall readiness. The brief aims to pinpoint the actions that will most effectively advance the unit's capabilities and positively impact the soldiers and their families.

The QRB also serves as a critical tool for battalion command sergeants major, offering them a clearer understanding of their unit's leader professional development. It nests

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Mountain troopers witness springtime in the Rocky Mountains on 8 May 1943 at thirteen thousand feet near the timberline at Camp Hale, Colorado, where the 10th Mountain Division trained for mountain warfare during World War II. (Photo courtesy of the National Archives)

the leader professional development with the unit's training trajectory in garrison and field environments, ensuring a coherent and effective development strategy that maximally benefits the soldiers. This alignment is crucial for preparing the unit to meet its operational requirements effectively and develop the next generation of NCO leaders.

Moreover, the DCSM QRB empowers the battalion command sergeants major by fostering a sense of ownership and accountability. It equips them with the necessary insights and understanding to guide their battalions with confidence and strategic foresight. By instilling this leadership quality, the DCSM ensures that NCOs can steer their units toward future challenges, preparing them for the complexities of the evolving battlefields.

In summary, the DCSM QRB represents a significant evolution in military training and management methodologies. Focusing on detailed, practical aspects of training and readiness ensures that units are better prepared, more adaptable, and thoroughly equipped to face future challenges. This approach not only enhances the operational effectiveness of the units but also contributes to the overall well-being and development of the soldiers and their families, thereby strengthening the military force as a whole.

Empowering NCOs in the 10th Mountain Division is a deliberate strategy guided by the Army's ethics and values and wedded to its commander's leadership philosophy and vision. These documents serve as a blueprint for NCO development, emphasizing the



importance of continuous learning, leadership, and mastery of technical and tactical skills. By aligning their professional growth with the division's alpine roots, NCOs become exemplars of adaptability and resilience, capable of leading their troops through the most daunting challenges. Essential to the outcome of the division's battles at home and abroad is the "can-do" attitude of the formation, a willingness to carry a heavier load longer and faster than others—its "blue-collar ethos."

## The Blue-Collar Division: More than a Name

The 10th Mountain Division's moniker, "the blue-collar division," is more than a nickname; it's a testament to its pragmatism, resilience, and perseverance.<sup>2</sup> This title captures the spirit of a force known for its dedication, hard work, and a no-nonsense attitude toward getting the job done, qualities that the division's soldiers and, most notably, its NCOs embody to their core.

The "blue-collar" ethos is about making the most of what you have, not what you wish you had. This mindset is crucial in the field, where circumstances change rapidly, and the stakes are high. NCOs in the 10th Mountain Division are the embodiment of this ethos. They are the backbone of the division, translating strategic objectives into actionable tasks and ensuring their soldiers have the skills, motivation, and resources to execute them effectively. These leaders excel in making dynamic assessments of their operational environments, identifying available assets, and devising innovative strategies to accomplish complex missions with what they have on hand. They instill the importance of perseverance, ingenuity, and collective effort in their troops, reinforcing that success is achieved through hard work and determination, not just superior firepower or technology.

The blue-collar ethos also emphasizes the importance of hands-on leadership and direct involvement in accomplishing tasks. The division's NCOs do not just issue orders from a command post; they are on the ground with their soldiers, sharing in every operation's physical and mental challenges. This participatory leadership style boosts morale and ensures that NCOs directly understand their troops' conditions and challenges, allowing for more effective decision-making and problem solving.

Moreover, this approach cultivates a sense of ownership and pride in the work, reinforcing the division's identity and the collective commitment to its success. NCOs lead by example, leveraging their experience and knowledge to foster a culture that values every soldier's contribution, making every task seem vital to the mission's success, no matter how small.

## The NCOs of the 10th Mountain Division: Forward into the Fight

The NCOs of the 10th Mountain Division embody the blue-collar ethos, characterized by their exceptional dedication and proficiency in their roles. This ethos is not merely a slogan but a lived reality, manifesting in their commitment to excellence and distinguishing the division as one of the most competent and respected units in the U.S. Army. The division's status as the most deployed in the Army speaks volumes about its operational importance and adaptability to various missions and theaters.

The 10th Mountain Division's deployment history is extensive and varied, stretching beyond Central Command and European Command to include a spectrum of global engagements. These missions range from contingency operations abroad to consistent support roles at combat training centers, demonstrating the division's integral role in the broader strategic objectives of the U.S. military.

At the heart of the division's success are its NCOs, who play a pivotal role in enhancing the lethality and effectiveness of the individual soldier. They focus on refining the skills of the infantryman, ensuring each member is a finely tuned participant in the division's operational endeavors. Being blue-collar within the division is synonymous with bringing maximal capability and flexibility to the battlefield, emphasizing the individual and collective proficiency of each "light fighter."

To translate this ethos into tangible results, the NCOs of the 10th Mountain Division spearheaded the establishment of the Mountain Training Group. This initiative has been crucial in systematizing a core curriculum, including the Alpine Operations Course that spans Basic and Advanced Military Mountaineering. This training enhances cold weather proficiency, physical endurance, and tactical acumen, equipping soldiers with the technical skills required to navigate and dominate in challenging alpine and mountain terrains.



10th Mountain Division soldiers trek through the snow 19 January 2024 after they were transported to the landing zone at Division Hill during the D-Series XXIV winter challenge on Fort Drum, New York. D-Series builds combat-capable teams at the lowest level by promoting a spirit of healthy competition, unit cohesion, and mastery of alpine tactics, techniques, and procedures. (Photo by Spc. Salvador Castro, U.S. Army)

The NCOs of the division leave no stone unturned, actively collaborating with a gamut of alpinists from world-class athletes, including high-altitude mountaineers and Olympians, to partner nations abroad to enhance their training regimens and ensure a holistic and adaptable approach to remain on the cutting edge of emerging alpine techniques and practices. By partnering with organizations like the National Ski Patrol, they honor their alpine roots and weaponize the best practices of moving over restricted terrain. Additionally, the division's adaptation of the advanced cold-weather survival techniques from Alaska units prepares its soldiers for extreme arctic conditions. Furthermore, they explore innovative rough-terrain evacuation methods with civilian rescue organizations nationwide, capitalizing on gains in a forever-evolving

field. Participation in the Slovenian Mountain Warfare School has allowed light fighters from the division to integrate learned lessons from its partner nations into their operational practices. These initiatives enrich the division's collective tactical knowledge, improving soldiers' speed, endurance, durability, and combat effectiveness in challenging environments.

The 10th Mountain Division's NCOs are central to the division's identity and operational prowess, reflecting a blue-collar ethos prioritizing skill, dedication, and adaptability. Their efforts in maximizing soldier lethality, fostering flexibility in operations, and pioneering specialized training programs like the Mountain Training Group underline the division's commitment to maintaining its edge in military operations. This holistic approach ensures that the

10th Mountain Division remains at the forefront of the U.S. Army's strategic capabilities, ready to tackle the multifaceted challenges of modern warfare. The division consistently achieves excellence at an exceptional operational tempo, showcasing its capabilities and leadership in every mission. A relentless pursuit of improvement in light infantry warfighting and large-scale combat operations drives this operational

division's readiness and effectiveness in facing the challenges of modern warfare.

In summary, the blue-collar ethos of the 10th Mountain Division is not just a slogan; it's a living, breathing aspect of its identity, deeply ingrained in the actions and attitudes of its NCOs. Their ability to maximize available resources and a steadfast, hands-on approach to problem-solving and mission

“The NCOs of the 10th Mountain Division foster robust communication and collaboration with the Marine Corps Mountain Warfare Training Center in Bridgeport, California, and sustain a strong working relationship with the Army's Mountain Warfare School in Camp Ethan Allen, Vermont.”

success. The division actively aligns its light infantry formations with the Army's future trajectory, preparing its soldiers for the complexities of modern warfare. To achieve this, meticulously honing the spear's edge is essential; small-unit tactical mastery forms the foundation of the light infantry's continued victory on the battlefield.

Active engagement and interoperability with other specialized training entities further bolster the division's alpine proficiency. The NCOs of the 10th Mountain Division foster robust communication and collaboration with the Marine Corps Mountain Warfare Training Center in Bridgeport, California, and sustain a strong working relationship with the Army's Mountain Warfare School in Camp Ethan Allen, Vermont. These interactions facilitate rich knowledge exchange and tactics, enhancing the division's operational effectiveness in mountainous terrains.

The 10th Mountain Division's embodiment of the blue-collar ethos, manifested in its NCOs today, is central to its identity and operational success. The division's extensive deployment history, commitment to continuous improvement, innovative approaches, and maintenance of alpine capabilities are critical to its standing as a premier unit in the Army. At the heart of its achievements is the unwavering dedication of its NCOs, whose leadership and engagement ensure the

completion exemplify the division's self-reliant and determined nature, making it a formidable force in any operational environment. Critical to the success of its mission is its mastery of the fundamentals of close combat—skills that are hard-won at the edge of a blade—but skills that can only be realized by capturing the total intellectual and creative capacity of its leaders across every echelon, tempered by an instinctual application of doctrinal practices in training and training philosophy.

### **NCOs Supported by the Training Philosophy of the 10th Mountain Division**

As articulated by the commander, the 10th Mountain Division's training philosophy underscores a structured and holistic approach to enhancing the division's combat readiness and operational capabilities.<sup>3</sup> Central to this philosophy are the three foundational pillars: building solid teams, developing confident and critical-thinking leaders, and mastering basic skills. These elements are not isolated objectives but are interwoven into the fabric of the division's training regimen, reflecting a comprehensive strategy designed to prepare soldiers for the complexities of modern warfare.

Building strong teams is the first pillar, which focuses on nurturing trust, confidence, and cohesion among





More than six hundred soldiers gathered at the Joint Readiness Training Center and Fort Polk, Louisiana, for comprehensive E3B training to earn an Expert Infantryman's Badge, Expert Soldier's Badge, or Expert Field Medical Badge. Soldiers from multiple installations honed their skills in day and night land navigation, field medicine, warrior skills, and communication, to name a few. Testing followed, and soldiers who passed earned their badges May 2022. (Photo courtesy of the *Fort Polk Guardian*)

soldiers. The commanding general emphasizes the significance of training designs that foster these attributes, ensuring that units can operate seamlessly and effectively under the multifaceted challenges of the battlefield. This team-building effort features predictable and progressive training schedules, integrates various units and functions, and cultivates a robust group identity. Such an approach enhances unit resilience and adaptability and ensures that soldiers can rely on each other in adverse conditions, creating a united and formidable fighting force.

The NCOs of the 10th Mountain Division are instrumental in building a culture of unity and cohesion, where lived experiences of soldiers and their leaders are deeply intertwined. Living, training, eating, and facing challenges together, they share the hardships and triumphs of military life, forging a bond that transcends the professional environment. This close-knit interaction is not just about camaraderie; it galvanizes

the units, creating a synergistic effect that enhances operational effectiveness.

The commanding general of the 10th Mountain Division strategically decided to maintain fully manned and equipped small units to enhance operational effectiveness and cohesion. This approach allows for the doctrinal learning of fire and movement at the lowest echelons, empowering NCOs to make critical decisions and experience authentic combat dynamics. Despite significant manning shortages, the decision to maintain minimum squad-level strength was resolute, prioritizing the retention of critical combat power within the principal military occupational specialty of the division, the infantry. The commander consciously assumed risk in other areas, including critical military occupational specialty shortages, by deliberately avoiding the placement of infantry in noninfantry roles. This deliberate choice has increased tactical flexibility, preparedness, and lethality with a notable return on investment.

This strategy underscores the division's commitment to operational excellence and ensures the maintenance of essential combat capabilities in the face of logistical challenges. The resultant well-equipped, cohesive units demonstrate improved performance and readiness, proving the immense value of cohesion in driving through adversity and mastering doctrinal operations.

For every team in the 10th Mountain Division, the everyday interactions—from shared physical training sessions to communal meals and joint problem-solving—foster mutual understanding and trust. Soldiers

interaction. This leadership development is integral to empowering leaders to challenge assumptions, learn rapidly, and execute their roles with conviction and inspiration, thereby driving the overall success of the division. NCOs shape this success in various ways, notably in executing the division's Alpine Lanes.

## The Alpine Lanes

The 10th Mountain Division Alpine Lanes stand out as a significant medium for improvement, deeply embedded in the challenging and historic terrain

“The Alpine Lanes in the rugged and unforgiving landscape of the Adirondacks serve as an intense training ground for NCOs of the 10th Mountain Division, where the natural elements act as stern instructors in resilience, strategy, and adaptability.”

and their NCO leaders develop an intuitive sense of each other's capabilities and tendencies, allowing them to anticipate actions and decisions in battle. This unit cohesion and trust level is crucial for the 10th Mountain Division, ensuring that each team member is a competent individual soldier and a reliable component of a more significant, unified fighting force. Such a comprehensive approach to unit integrity and operational readiness underscores the division's commitment to excellence and the pivotal role of NCOs in achieving it.

The second pillar involves cultivating leaders who are confident in their abilities and possess the acumen for critical thinking. The training philosophy advocates for a regimen that sharpens leaders' decision-making skills, enabling them to assess situations swiftly and act decisively. The commander's vision is to have a leadership cadre that is proactive, insightful, and capable of guiding their formations through the unpredictable terrains of combat.<sup>4</sup> Every step and every interaction between an NCO and a soldier reinforces this relationship and responsibility. For instance, the morning parade and physical training, as the most regular and culturally grounded activities, are rooted in preparation, rehearsal, inspection, and ownership. NCOs program, plan, resource, develop, and execute the edge-sharpening physical training that sets the tone for everyday

of the Adirondack Mountains. This expansive area, stretching through the northern region of New York State, provides an ideal training ground characterized by its daunting rock faces, perilous ascents, and erratic weather conditions. Such an environment offers a perfect arena for leader development, particularly emphasizing the NCO corps.

The Alpine Lanes in the rugged and unforgiving landscape of the Adirondacks serve as an intense training ground for NCOs of the 10th Mountain Division, where the natural elements act as stern instructors in resilience, strategy, and adaptability. Here, unpredictable weather, from blinding snowstorms to sudden clearings, mimics real-world combat's dynamic and often chaotic nature, compelling leaders to make swift and informed decisions under pressure. This harsh environment is a test of physical endurance and a crucible for honing mental understanding and decision-making skills.

In the challenging terrains of the Alpine Lanes, NCOs immerse themselves in scenarios that demand navigation through complex landscapes, efficient management of resources, and leadership of teams under strenuous conditions. This experience transcends mere physical conquest; it is about mastering leadership amid uncertainty. NCOs must plan meticulously and later execute these plans in small teams, often

without direct supervision, mirroring the autonomy and responsibility faced in combat situations. This setting forces them to engage in critical thinking and decisive leadership, pushing them to overcome human limitations, surpass perceived weaknesses, and achieve physical and spiritual endurance synthesis.

Through these rigorous experiences, NCOs gain a deep understanding of their capabilities and limitations, fostering a culture of continuous improvement and adaptability. The Alpine Lanes test their fortitude and instill in them the essence of resilient leadership,

and Expert Field Medical Badge.<sup>6</sup> This comprehensive initiative extends beyond the conventional brigade-level effort, involving the entire division in a concerted endeavor to elevate soldier proficiency and operational readiness. E3B is a three-week event that includes a physical fitness assessment, day and night land navigation course, written test, and lanes that test candidates on thirty warrior tasks and skills. The culminating event is a twelve-mile ruck march, and includes disassembly and reassembly of an M4 carbine.

Each task is timed and graded by NCOs. If a candi-

“ This holistic approach to training ensures that NCOs prepare for the physical demands of their roles and lead with confidence and foresight through the multifaceted challenges of military operations. ”

equipping them with the skills to navigate the complexities of natural and combat environments. This holistic approach to training ensures that NCOs prepare for the physical demands of their roles and lead with confidence and foresight through the multifaceted challenges of military operations. Mastering basic skills forms the third pillar of the training philosophy, emphasizing soldiers' need to perform their tasks instinctively and proficiently. NCOs are highlighted as critical in achieving this goal, as they ensure soldiers reach a high level of expertise in their respective roles. The commander stresses the importance of providing ample preparation time for NCOs to train soldiers, ensuring that foundational competencies are deeply ingrained.<sup>5</sup> This focus on basic skills is paramount for establishing a versatile and competent force capable of executing a wide range of missions effectively and precisely. When it comes to mastery of the basics, there is no activity with a higher payoff than E3B training and testing.

## **E3B Training and Testing: Shattering the Paradigm**

The 10th Mountain Division has revolutionized soldier readiness and skill development by piloting the “E3B” program, which amalgamates the training and testing for the Army’s “big three” expert skill badges: the Expert Infantryman’s Badge, Expert Soldier’s Badge,

date receives two “no-gos” on a task, they are ineligible to earn their badge and must retry at the next opportunity. The E3B program, characterized by its rigorous and detailed approach, necessitates significant investment in planning, resourcing, and synchronization across the division’s various echelons and units, aligning with the expert standards set by the offices of each proponent’s badge. A central facet of the E3B is the primacy of NCO ownership, an initiative driven entirely by the NCOs of the division.

E3B training and testing are events comprehensively orchestrated by NCOs, who manage everything from planning to execution. In their dual roles as trainers and evaluators, NCOs ensure the events are well-resourced and rehearsed, solidifying the individual task readiness crucial for advancing through the training cycles. This hands-on management by NCOs boosts the proficiency of each soldier, offering small-unit leaders precise insights into the overall task readiness of their units. The NCO-driven E3B training and testing process is instrumental in enhancing the combat efficacy and preparedness of the force, epitomizing the significance of NCO leadership in training operations.

The execution of the E3B program represents a strategic investment in the division’s human capital. The intensive training period allows soldiers to refine and master their skills through repeated practice, even



if they do not ultimately earn a badge. This process ensures that every participating soldier, irrespective of the outcome, gains valuable experience and enhanced capabilities that contribute to their overall effectiveness and readiness throughout the training cycle.

Moreover, the division-wide focus on the E3B program fosters a culture of excellence and commitment, with leadership actively engaged in the training processes. This leader involvement is crucial, as it not only motivates soldiers but also reinforces the importance of continuous skill development and readiness. The success of the 10th Mountain Division's E3B initiative has resonated across the Army, with other posts and units adopting this model, recognizing its effectiveness in improving soldier competencies and operational preparedness.<sup>7</sup> The widespread adoption and acknowledgment of the E3B program affirm its significant impact and value to the Army's training and readiness objectives, marking it as a benchmark for excellence in soldier development and performance enhancement. But with all this training, there must be a methodology, and the 10th Mountain Division is firmly nested with the Army's preeminent training methodology, which aligns leaders, resources, and soldiers with process-bound surety—the 8-Step Training Model.<sup>8</sup>

## **The Army's Preeminent Training Method, the 8-Step Training Model**

Within the 8-Step Training Model, the NCO plays a crucial role in driving the success of the unit's training and readiness efforts. These seasoned leaders start by identifying their units' specific training needs, considering both immediate operational requirements and long-term competency development. They then plan and arrange the necessary resources, ensuring that the training environment is conducive to learning and that all materials and equipment are prepared and available.

NCOs lead the execution of the training, guide soldiers through each exercise, and ensure that they meet the objectives precisely and efficiently. Their hands-on approach in conducting and supervising training activities allows them to influence the quality and effectiveness of the training process directly. Throughout this model, NCOs focus on safety and discipline, fostering an environment where soldiers can learn and thrive without undue risk.

The evaluation phase, led by NCOs, is critical for assessing the training's impact and identifying areas for improvement. They analyze the outcomes, gather feedback, and adjust to enhance future training sessions. This continuous cycle of assessment and adjustment ensures that the training remains relevant and aligned with the unit's goals.

In essence, NCOs are the backbone of the 8-Step Training Model, orchestrating each phase to develop well-trained, capable, and mission-ready soldiers. Their leadership and expertise are pivotal in translating training initiatives into operational success and readiness.

In conclusion, the training philosophy of the 10th Mountain Division, as championed by the commander, is a strategic and comprehensive approach to building a combat-ready force.<sup>9</sup> The division maintains its legacy as a robust and agile force by instilling strong team dynamics, nurturing decisive and adaptive leaders, and perfecting basic skills. The integral role of NCOs within the 8-Step Training Model underscores their importance in achieving the division's training objectives, ensuring that the division remains prepared to confront and overcome the challenges of modern warfare. This philosophy enhances the division's operational capabilities and reinforces its commitment to excellence and readiness to fulfill its mission. However, even a ready force, cunning and confident, can be brought low if its leaders fail to know, support, and care for their soldiers. The role and impact of the NCOs, coupled with the division's inception of the Mountain CARES program, offset this risk.

## **NCO Ownership and the Mountain CARES Program**

The Mountain CARES program, a core initiative within the 10th Mountain Division, exemplifies the proactive role of NCOs in their soldiers' personal and professional development, especially in the wake of duress.<sup>10</sup> CARES—Critical Assistance with Resources for Environmental Stressors—is a program designed to support the tactical leader during moments of crisis instead of outsourcing solutions to equities and echelons outside their unit. This program empowers NCOs to engage more deeply with their soldiers, fostering an environment prioritizing everyone's well-being and growth.

At the heart of the Mountain CARES program, NCO ownership and engagement play a central role,

with leaders taking on significant responsibilities to guide and mentor soldiers. They act as advocates, counselors, and leaders who train soldiers in their professional tasks and support their personal development and well-being. NCOs are encouraged to own the problems their soldiers face, challenges like suicidal ideations, stress at home, and financial duress, and importantly, every echelon empowers them with trust. This powerful commitment ensures NCOs get to know their soldiers and address potential corrosives head-on and early, promoting a healthy and supportive unit environment.

The program emphasizes building relationships based on trust, respect, and understanding, especially in adversity. Through regular and meaningful interactions, NCOs get to know their soldiers beyond the surface level, gaining insights into their aspirations, challenges, and personal circumstances. This knowledge enables NCOs to tailor their approach to each soldier's needs, fostering a sense of belonging and investment in the unit's collective success.

The Mountain CARES program within the 10th Mountain Division exemplifies how structured support and resources significantly improve unit cohesion, morale, and problem-solving. This initiative has strengthened the sense of unity and camaraderie among soldiers, countering the strains of the division's high operational tempo. As the most deployed division in the Army, with extensive commitments across global commands, the 10th Mountain Division faces challenges that could potentially impact unit cohesion and soldier well-being.

The success of Mountain CARES in reducing incidents such as petty and violent crimes, domestic abuse, and suicidal ideations highlights its critical role in maintaining the division's operational integrity. This reduction in harmful behavior allows for a greater focus on duty proficiency and cohesion and enhances the quality of life for soldiers and their families. Despite the high demands of diverse and tumultuous missions, the program has continuously decreased corrosive behaviors, sustaining the division's capability to advance its operations.

A key feature of Mountain CARES is its facilitation of informed NCO involvement at early stages, where interventions can be most effective. This proactive engagement addresses issues promptly, maximizes the potential for positive outcomes, and preserves the division's quality of life and operational effectiveness.

By enabling NCOs to act swiftly and knowledgeably, Mountain CARES not only safeguards the well-being of soldiers but also bolsters the overall resilience and readiness of the 10th Mountain Division, proving itself as an essential element in the division's strategy to maintain excellence in the face of continuous operational challenges. The Mountain CARES program has proven to be an asset in enhancing the operational effectiveness of the 10th Mountain Division. The program improves individual and unit performance by empowering NCOs to take active roles in their soldiers' development and reinforces the division's ethos and values. The collective focus on speeding access and providing decision-making tools to vital equities across two geographically disparate posts, Fort Drum, New York, and Fort Johnson, Louisiana, ensures that the 10th Mountain Division remains a cohesive, resilient, and capable force, ready to face the demands of modern military operations.

## **Conclusion: NCOs Are the Architects of Tomorrow's Alpine Division**

The 10th Mountain Division's NCOs are indispensable in upholding the division's esteemed standards and traditions. As the division's backbone, NCOs embody the ethos and values that have long defined this storied unit. Their commitment to excellence and dedication to the welfare and development of their soldiers ensures that the division remains at the forefront of military readiness and effectiveness.

The commander's vision for the 10th Mountain Division emphasizes leadership and transformation, with NCO empowerment as a central tenet. This vision acknowledges the critical influence of NCOs in shaping the division's future, recognizing their ability to inspire, guide, and mentor soldiers. The division fosters a culture of proactive leadership and continuous improvement by entrusting NCOs with greater responsibilities and encouraging active involvement in decision-making processes.

NCOs are instrumental in translating the commander's strategic objectives into actionable outcomes, driving change from the ground up. Their hands-on approach to leadership ensures that training, operations, and soldier development are conducted to the highest standards, reflecting the division's commitment to operational excellence. The Mountain CARES

program and adherence to the 8-Step Training Model further illustrate NCOs' pivotal role in enhancing unit cohesion, morale, and problem-solving capabilities.

In conclusion, the NCOs of the 10th Mountain Division are central to the division's identity and achievements. Their active role in upholding the division's standards and traditions and their commitment

to the commander's vision of empowered leadership and change underscores the division's ongoing dedication to excellence and service. Through their unwavering dedication and proactive leadership, NCOs ensure that the 10th Mountain Division continues to exemplify the highest ideals of the United States Army, ready to meet today's and tomorrow's challenges. ■

## Notes

1. Staff, "Our History Is Also Epic! U.S. Army's Tenth Mountain Division's Role in W/WII and Its Connection to Vail Resorts," *The Flagship* (website), 12 October 2023, [https://www.militarynews.com/norfolk-navy-flagship/community/our-history-is-also-epic-u-s-army-s-tenth-mountain-division-s-role-in/article\\_e23d1a94-692d-11ee-af0b-7bc0b67f3f70.html](https://www.militarynews.com/norfolk-navy-flagship/community/our-history-is-also-epic-u-s-army-s-tenth-mountain-division-s-role-in/article_e23d1a94-692d-11ee-af0b-7bc0b67f3f70.html).

2. Mike Strasser, "Brig. Gen. Beagle Returns to Fort Drum, Assumes Command of 10th Mountain Division," Army.mil, 13 July 2021, [https://www.army.mil/article/248403/brig\\_gen\\_beagle\\_returns\\_to\\_fort\\_drum\\_assumes\\_command\\_of\\_10th\\_mountain\\_division](https://www.army.mil/article/248403/brig_gen_beagle_returns_to_fort_drum_assumes_command_of_10th_mountain_division).

3. Gregory K. Anderson, memorandum for all soldiers and civilians assigned to the 10th Mountain Division, "Command Note #4 – Overarching Training Guidance for the 10th Mountain Division," 30 September 2022, [https://home.army.mil/drum/application/files/2617/0119/5368/Command\\_Note\\_4\\_-\\_Overarching\\_Training\\_Guidance.pdf](https://home.army.mil/drum/application/files/2617/0119/5368/Command_Note_4_-_Overarching_Training_Guidance.pdf).

4. Gregory K. Anderson, memorandum for all soldiers and civilians assigned to the 10th Mountain Division, "Command Note #2 – Vision for the 10th Mountain Division," 9 September 2022, [https://home.army.mil/drum/application/files/7217/0119/5369/Command\\_Note\\_2\\_-\\_Vision\\_for\\_the\\_10th\\_Mountain\\_Division.pdf](https://home.army.mil/drum/application/files/7217/0119/5369/Command_Note_2_-_Vision_for_the_10th_Mountain_Division.pdf).

5. Anderson, Command Note #4.

6. Cierra Clark, "TRADOC Created a More Efficient E3B Program," U.S. Army Training and Doctrine Command, 8 October 2021, <https://www.tradoc.army.mil/2021/10/08/tradoc-created-a-more-efficient-e3b-program/>.

7. Ibid.

8. Field Manual 7-0, *Training* (Washington, DC: U.S. Government Publishing Office, June 2021), 3-9.

9. Anderson, "Command Note #4."

10. "Mountain CARES: Critical Assistance with Resources for Environmental Stressors," Army.mil, accessed 23 May 2024, <https://home.army.mil/drum/my-fort/all-services/CARES>.

# New from Army University Films



Army University Films presents *D-Day: Planning the Impossible*, which examines the planning, strategic analysis, and logistical challenges encountered by Allied planners in preparation for the 6 November 1944 Allied invasion of Normandy, France.

Created in collaboration with the Combined Arms Support Command, the film highlights the legacy impact of the planning and preparation effort on such key Army doctrinal tools as the military decision-making process, intelligence preparation of the battlefield, and the sustainment preparation of the operational environment.

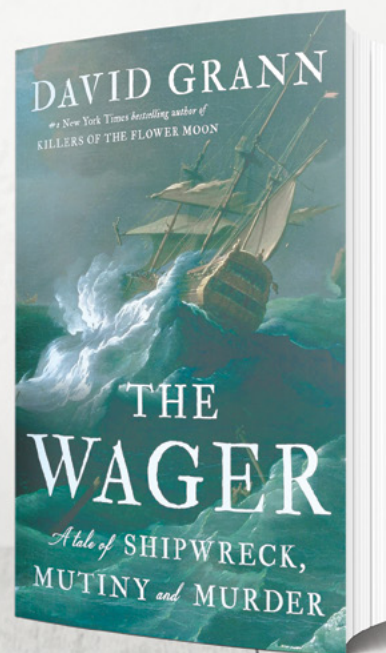
Allied planners spent years analyzing changing tides, perilous terrain, and German fortifications along the Atlantic Wall to identify the best time and place to make an amphibious landing. The documentary goes on to highlight the almost unfathomable complexity and attention to detail required to overcome the challenges associated with planning an invasion that involved transporting, sustaining, and training over a million service members, made more complicated by tensions and personality conflicts among the Allied leadership.

Watch *D-Day: Planning the Impossible* at <https://www.armyupress.army.mil/Films/D-Day-Planning-the-Impossible/>.



# The Wager

## A Tale of Shipwreck, Mutiny and Murder



David Grann, Doubleday, New York, 2023,  
352 pages

Maj. Richard R. G. Brantley, U.S. Army

*The British Navy was known for its ability to coalesce fractious individuals into ... a “band of Brothers.” But the Wager had an unusual number of unwilling and troublesome crewman ... [none] could ... yet know for certain the true nature lurking inside his fellow seamen or even himself: a long, dangerous voyage inexorably exposed one’s hidden soul.*

—David Grann, *The Wager*

Judge advocates, and more broadly, service members, often hyperfocus on contemporary accounts of American soldiers for lessons on leadership. While there is nothing inherently wrong with this approach, this narrow scope has the risk of our leaders missing out on important lessons from the service members who have come before us. The history of other nations and branches of service can hold the key to many leadership lessons from which any leader could benefit. One such book, *The Wager: A Tale of Shipwreck, Mutiny and Murder* by David Grann, provides an illuminating picture of many military challenges described by British naval personnel.<sup>1</sup> *The Wager* tells the story of the doomed expedition of British Commodore George Anson during the War of Jenkins’ Ear (1739–1748), during which their mission was to raid the Spanish

treasure galleon that would set sail every year from Mexico to the Philippines to bring King Philip V’s silver to the Chinese market.<sup>2</sup> Frustrating this critical part of the Spanish trade economy was a key goal of the British government in the opening phases of the war; however, this entire misadventure would set His Majesty’s Ship (HMS) *Wager* on a rendezvous with disaster.<sup>3</sup>

Grann’s account of the struggles suffered at the end of the world by the crew of HMS *Wager* is full of powerful lessons that can inform the actions of the modern military leader. *The Wager* exemplifies the core leadership lessons found in Army Publishing Doctrine (ADP) 6-22, *Army Leadership and the Profession*.<sup>4</sup> The story of the HMS *Wager*’s crew and officers corps can demonstrate how to lead as a paragon, how to use competency-based leadership, and how to best implement these skills at organizational and strategic levels; for these reasons, it is a critical addition to any leader’s bookshelf.<sup>5</sup>

### The Army Leader: Person of Character, Presence, and Intellect

The misadventures of HMS *Wager* can teach service members how to lead as a paragon of leadership ability. Throughout *The Wager*, there are numerous examples of Capt. David Cheap’s crew demonstrating and failing



Capt. David Cheap was in command of HMS *Wager* when it wrecked in May 1741 on the shores of Wager Island in Chilean Patagonia. After the wreck, the already unpopular commander's crew would not follow his instructions. (Artwork courtesy of Wikimedia Commons)

to demonstrate “critical attributes” the Army expects its leaders to embody: good character, presence, and intellect in support of critical missions and objectives.<sup>6</sup>

Many lessons on character are found in the study of opposites presented by Warrant Officer John Bulkeley and Alexander Campbell.<sup>7</sup> The Royal Navy, much like any modern organization, possessed a wide spectrum of unique individuals.<sup>8</sup> While the Royal Navy often relied on impressment, there were also some volunteers; all of these men can show the modern Army leader why their soldiers serve.<sup>9</sup> This insight might even assist the Army with solving some of its current recruitment challenges.

While the Army hopes its soldiers choose to serve their Nation out of selfless service, it is perhaps naïve to think that this is their only motivation.<sup>10</sup> The majority of the *Wager*'s crew had been impressed into service.<sup>11</sup> For these men, Bulkeley's tendency to deeply involve himself in the day-to-day tasks on the ship earned him a stellar reputation, even among the most unwilling conscripts.<sup>12</sup> Bulkeley had mastered “the dark arts of

gunnery ... he knew the precise point on a cresting wave when a crew ... should ... fire. He expertly mixed cartridges and packed grenades with corn powder” alongside his men.<sup>13</sup> Bulkeley was trustworthy enough to command a watch.<sup>14</sup> He epitomized the leader of character who inspires his men through direct example and sharing in their hardships.

In contrast, Campbell's always temperamental, overbearing tyrannical approach was a character failure.<sup>15</sup> Campbell relied on his status as an officer and brute force to ensure compliance with the captain's orders.<sup>16</sup> Campbell may have maintained temporary order, but he was not respected.<sup>17</sup> These two men show that soldiers, conscript or not, need inspirational leadership.<sup>18</sup> “A person's character affects how they lead”—these values guide the leader's conscience and shape unit culture, which is in the leader's keeping.<sup>19</sup> Service members must be able to put their good character into practice by finding moral solutions to a diverse problem set, keeping their soldiers' needs always in mind and never losing sight of the human element.<sup>20</sup> *The Wager* is a great source for lessons in good and bad character.

“The Army expects all Army members to look and act as professionals ... through their presence leaders show what they stand for and how they expect others to carry themselves.”<sup>21</sup> Such patriotic sentiment inspired the men of the *Wager* to great feats. One such example is through the last command of Adm. Horatio Nelson, which was spoken in the arms of his fellow officers as he lay dying from a French sniper fire: “England expects every officer and man to do his duty this day.”<sup>22</sup> Such military presence, even in death, echoes through time immemorial and is embodied in ADP 6-22.

*The Wager* offers numerous examples of service members demonstrating presence in the most troubling circumstances. An early example of a young midshipman, John Byron, being forced to demonstrate their presence to their men occurred when they first heard the call, “Aloft you go!”<sup>23</sup> Every young judge advocate (JA) will benefit from recalling Byron's journey up the

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George Anson, 1st Baron Anson, by Thomas Hudson, before 1748, oil on canvas, 127 x 101.5 cm, National Maritime Museum. Anson is an example of competency-based leadership in practice. He won the loyalty of his men by actively taking part in day-to-day tasks and mastering them. (Artwork courtesy of Wikimedia Commons)

mainmast as they step out into the well during their first court-martial. During such stressful times, coolness under pressure and resilience are the hallmarks of necessary presence that every leader must demonstrate.<sup>24</sup> Leaders demonstrate presence by carrying themselves with confidence and competence, and by setting a positive example for others to emulate.<sup>25</sup>

“Intellect is fundamental to successful leadership ... [and it] consists of one’s brainpower and knowledge,” it enables leaders to think creatively to make sound judgments and solve problems.<sup>26</sup> Woe betide the service members and JAs who forget this pivotal lesson. Grann’s compelling narrative makes a strong case that none of the marooned crew of the *Wager* would have survived the shipwreck without their intellect.<sup>27</sup>

“It is a mistaken notion that any blockhead will make a seamen ... I don’t know one situation in life that requires so accomplished an education as the sea officer,” [one British captain explained] ... he should be a man of

letters and languages, a mathematician, and an accomplished gentleman.<sup>28</sup>

The Judge Advocate General Corps requires nothing less of its officers, as demonstrated by the eight different forms of professional military education and the baseline law degree and bar certification currently included in the “Judge Advocate Schooling Plan.”<sup>29</sup> If Byron hadn’t kept a copy of Sir John Narborough’s chronicle of his journey through Patagonia, none of the men would have escaped, as both parties of survivors relied on it to plot their way back to England.<sup>30</sup> The officers of the *Wager* had the intellectual wherewithal to not only bring available intelligence on the local area with them but also to carefully study it and implement it, demonstrating the importance of the intellect dimension of leadership.<sup>31</sup> Narborough’s chronicle is analogous to the “war stories” that JAs tell each other in their downtime; they have the utility of passing along past successes to the next generation of leaders, becoming a useful tool in the practice of military law.

The attributes of character, presence, and intellect are the critical foundation upon which the leader can develop their leadership philosophy.<sup>32</sup> In the pages of *The Wager*, invaluable lessons on each of these three dimensions can be found.

## Competency-Based Leadership

*The Wager* presents numerous examples of leaders with various degrees of competency that can provide lessons to modern leadership. Army leaders are expected to lead others, develop their subordinates, and accomplish all assigned and implied missions. These core skills together drive what is called competency-based leadership.<sup>33</sup> As quoted within ADP 6-22, Gen. Omar N. Bradley said it best: “The American soldier ... demands professional competence in his leaders. ... [From the sergeants to the officers] the American soldier expects his [leaders] to teach him how to do his job.”<sup>34</sup> Like modern American soldiers, eighteenth-century British sailors also demanded the same competency from their officers.<sup>35</sup>

Grann’s description of the conflict between Cheap and Bulkeley can help modern leaders learn critical lessons about the competency component of leadership. Cheap’s demands for obedience constantly relied upon his authority as a member of the formal chain of command, whereas Bulkeley won over the men’s



## Anson's voyage around the world



The path of the Commodore George Anson's HMS *Centurion* during the War of Jenkins' Ear. Anson's squadron of eight ships, including the HMS *Wager*, were on a mission to raid the Spanish treasure galleon that would set sail annually from Mexico to the Philippines to bring King Philip V's silver to the Chinese market. This adventure would ultimately end in disaster. (Map courtesy of Wikimedia Commons)

loyalty through building influence without the need to invoke his authority as a member of the chain of command.<sup>36</sup> Bulkeley's intelligence and competency, as well as the crew's lingering resentment around how Cheap failed to navigate the *Wager* around the rocks of Wager Island, continuously undermined Cheap's ability to rely purely on the military chain of command to maintain his captaincy.<sup>37</sup> All JAs and service members must note how Cheap's command fell apart. If you have not built informal influence around a shared purpose as Bulkeley did, soldiers may disobey your lawful orders at the decisive moment of crisis.<sup>38</sup> Outside the formal chain of command, it is very important to build networks with your coworkers by engaging in their interests, understanding their diverse cultures and belief systems, and letting them see you work on the mission alongside them.<sup>39</sup> Informal leadership of this sort will support mission accomplishment and meet the objectives of your staff judge advocate.<sup>40</sup>

On the other side of the leadership ledger, Commodore George Anson is a good example of competency-based leadership put into practice. Anson was not held in esteem by English high society, which mocked

his taciturn nature and refusal to carry out a more lively correspondence.<sup>41</sup> However, his lackluster reputation at home was completely overshadowed by the love and loyalty of his men, who regarded him as a commander who "understood that the secret to establishing command was not tyrannizing men, but convincing, sympathizing, and inspiring them."<sup>42</sup> In an office climate, it is not always as important whether your peers think highly of you but rather whether you have the trust of your soldiers. During the HMS *Centurion's* journey around the world, Anson put on a master class in leading by example, "join[ing] in the toil, putting himself, as one of the men recalled it, on the same level as the meanest sailor in his crew."<sup>43</sup> Again, much like Bulkeley, Anson won the loyalty of his men by taking part in their day-to-day tasks and mastering them.<sup>44</sup> If a JA is not actively participating and competent in what they ask their paralegals to do then how can they expect those paralegals to be committed to their lawful orders? Leading by example and doing so competently, as Anson did, is one of the best ways to seek the high ground of leadership and demonstrate the morals and ethics soldiers expect of their leaders and the Nation expects of its officer corps.<sup>45</sup>



Brig. Gen. Maurice Barnett, 10th Army Air and Missile Defense Command commanding general, speaks to air defenders during a mentorship program hosted by 5th Battalion, 7th Air Defense Artillery Regiment, on 11 April 2024 in Baumholder, Germany. Army leaders are expected to lead others, develop their subordinates, and accomplish all assigned and implied missions. Together, these core skills become the framework for competency-based leadership. As Gen. Omar Bradley said, "The American soldier ... demands professional competence in his leaders. ... [From the sergeants to the officers] the American soldier expects his [leaders] to teach him how to do his job." (Photo by Sgt. Yesenia Cadavid, U.S. Army)

When JAs fail to build informal networks and do not lead by example in their practice, they undermine their ability to deliver results for their chain of command and produce inferior results. Cheap's failures are best avoided, and Anson's successes are emulated.<sup>46</sup>

## Leading at Organizational and Strategic Levels

The JA, like any military officer, is not only required to lead at the tactical level, in the courtroom, or the office of a staff judge advocate but also to someday lead at a strategic level.<sup>47</sup> *The Wager* is a useful tool because it provides evidence of leadership at all levels from the shores of Wager Island to Anson's final victory over the Covadogna.<sup>48</sup> Taken together, the critical leadership traits and skills demonstrated in the seas of the Pacific by the men of Anson's squadron convey innumerable leadership lessons on an organizational level that, if implemented, would benefit any office or unit.

"Strategic leadership involves the activities to affect the achievement of a desirable and clearly understood

vision ... [and] thoroughly understand[ing] political-military relationships."<sup>49</sup> Grann's *The Wager* provides glimpses into the foreign policy of the British Empire during the War of Jenkins' Ear, which should remind any service member that they do not exist in a tactical vacuum but as tools to implement political policy objectives; especially in the context of strategic JA operations, national policies are of paramount importance.<sup>50</sup> Anson never lost sight of this; by the time the *Centurion* had reached the Pacific Ocean, over 90 percent of the men he originally set out with had perished to the elements, scurvy, and famine—only 227 remained of the full complement of two thousand.<sup>51</sup> Anson knew that his orders to circumnavigate the globe and frustrate Spain still held despite the suffering his men had endured on their journey.<sup>52</sup> Anson doubtless had determined from his regional reconnaissance that his expedition remained the last and best chance for the Royal Navy to redeem itself in the eyes of the public.<sup>53</sup> Anson demonstrated a keen understanding of his role in contemporary British foreign policy—the stakes couldn't have been higher,

and such an operation indicates strategic leadership.<sup>54</sup> Failure would have been a total disaster for the British government. However, Anson's successful interdiction of the Cavadogna was a public relations coup for the British government, as demonstrated by his Caesarian triumphal parade down the streets of London.<sup>55</sup> Senior JAs and Army leaders need to see the bigger picture and ensure that their efforts are well nested with the priorities of higher headquarters, from the brigade to the combatant command level.<sup>56</sup>

Anson also demonstrated a great aptitude for developing his sailors in the context of strategic leadership; this means "investing in subordinates with a long-term focus. [Creating] the conditions for long term success by ... develop[ing] subordinates who can continue to improve the institution."<sup>57</sup> In a word, it was mentorship. The Judge Advocate General Corps has continuously emphasized the importance of mentorship, Judge Advocate Legal Services Publication 1-1, *Personnel Policies*, mentions it at least four times.<sup>58</sup> JAs need to invest in the next generation of leadership and ensure they leave any organization they belong to better than when they arrived.<sup>59</sup> *The Wager* provides innumerable examples of mentorship that junior and senior leaders can benefit from.<sup>60</sup>

The impending courts-martial the men of the *Wager* faced after their return to England allowed Anson to demonstrate another key facet of developing an institution's future leaders: being a good steward of those future leaders.<sup>61</sup> Anson remained invested in the fate of Cheap throughout the court-martial and conveyed to Cheap through relations that he still had Anson's support.<sup>62</sup> "Faithless is he that says farewell when the road darkens" is a timeless lesson in good friendship and stewardship that Anson certainly remembered in his dealings with

the maligned and persecuted Cheap.<sup>63</sup> In some ways, being a good leader, even at the strategic level, is similar to being a good friend—never forgetting the subordinates you have left behind as you change duty positions and ensuring you have set them up for success.<sup>64</sup>

Strategic leaders think of the big picture, understand where they fit in the sociopolitical structure, and help develop the next generation, who will pick up the mantle when those leaders inevitably leave the organization.<sup>65</sup> *The Wager* teaches the reader powerful lessons on how to take your leadership abilities to the next organizational level, and for that reason, among many, it is a must read.

## Conclusion

The leadership lessons captured by David Grann in the pages of *The Wager* give real-life examples of the application of ADP 6-22 in real combat and survival settings.<sup>66</sup> Our modern Army leaders need to broaden their bookshelves to include such legendary figures as Adm. George Anson, Duke John Churchill of Marlborough, Emperor Napoleon Bonaparte, or any other of the great movers and shakers in the historical record. A good officer and leader should never limit themselves to only the experience of their living and near-living peers. "Tradition is the democracy of the dead," and a leader wholly cut off from the experiences of their forebears will miss out on incredibly valuable insights.<sup>67</sup> Grann, without realizing it, has given U.S. Army leaders a golden arrow in their quiver. When you look past the distance in time between the U.S. Army in 2024 and the Royal Navy in the 1740s, *The Wager* provides a tour de force in leadership for the modern Army officer and is a powerful tool for any JA in the field. *The Wager* has my unabashed recommendation. ■

## Notes

**Epigraph.** David Grann, *The Wager: A Tale of Shipwreck, Mutiny and Murder* (New York: Doubleday, 2023), 32.

1. Ibid.

2. Ibid., 12.

3. Ibid., 13–14.

4. Army Doctrine Publication (ADP) 6-22, *Army Leadership and the Profession* (Washington, DC: U.S. Government Publishing Office, 31 July 2019).

5. Ibid., i–ii.

6. Ibid., para. 2-2, para. 2-4; Grann, *The Wager*, 4–257.

7. Grann, *The Wager*, 41, 46.

8. Ibid.

9. Ibid.

10. ADP 6-22, *Army Leadership and the Profession*, para. 2-9.

11. Grann, *The Wager*, 21–23.

12. Ibid., 45–46, 150–60. Warrant Officer John Bulkeley's ultimate commandeering of Captain Cheap's command after the crew's long residence on Wager Island demonstrates the effectiveness of his leadership style.

13. Ibid.



14. Ibid.
15. Ibid., 41.
16. Ibid.
17. Ibid.
18. Ibid., 41, 45–46, 227. It may then come as no surprise to the reader that Campbell ultimately defected to Spain, abandoning the men he never really had a true connection with.
19. ADP 6-22, *Army Leadership and the Profession*, para. 2-1, para. 2-2.
20. Ibid., para. 2-17, para. 2-23.
21. Ibid., para. 3-1, para. 3-2.
22. "Extract of a Letter from on Board His Majesty's Ship Prince, at Sea October 26, 1805," *Times* (London), 26 December 1805, 3; "The Death of Nelson," Royal Museums Greenwich, accessed 1 April 2024, <https://www.rmg.co.uk/stories/topics/what-were-nelsons-last-words>. The discrepancy in dates between Horatio Nelson's death on 21 October and the arrival in London of the news on the 26th was likely due to the delay in the arrival of the despatches from the front.
23. Grann, *The Wager*, 37–38. In the Royal Navy a midshipman was considered an officer in training.
24. ADP 6-22, *Army Leadership and the Profession*, para. 3-2.
25. Ibid., para. 3-1.
26. Ibid., para. 4-1.
27. For example, see Grann, *The Wager*, 110.
28. Ibid., 34.
29. See, for example, Judge Advocate Legal Services (JALS) Publication 1-1, *Personnel Policies* (Washington, DC: Office of the Judge Advocate General, February 2022), 7-1.
30. Grann, *The Wager*, 150, 192. Both Bulkeley and Cheap, through Byron's knowledge or Sir John Narborough's chronicle, charted a southern and northern escape route out of Wager Island, respectively.
31. Ibid., 101.
32. ADP 6-22, *Army Leadership and the Profession*, para. 2-1.
33. Ibid., para. 5-1.
34. Ibid.
35. Grann, *The Wager*, 110.
36. Ibid., 141, 153; ADP 6-22, *Army Leadership and the Profession*, para. 5-48, para. 5-49.
37. Grann, *The Wager*, 47, 155.
38. Ibid., 141, 153; ADP 6-22, *Army Leadership and the Profession*, para. 5-48, para. 5-49.
39. ADP 6-22, *Army Leadership and the Profession*, para. 5-50–5-51.
40. Ibid.
41. Grann, *The Wager*, 10.
42. Ibid., 58.
43. Ibid., 211.
44. Ibid.
45. Stuart N. Risch, "Court Is Assembled: I'll Meet You on the High Ground," *Army Lawyer*, no. 3 (2022): 2.
46. See text accompanying notes 41–54.
47. See, for example, JALS Publication 1-1, *Personnel Policies*, para. 3-4. The current JA Leadership Development Model demonstrates the transition of leadership phases between the different ranks JAs may attain with colonels being identified for strategic leadership.
48. Grann, *The Wager*, 218–21.
49. ADP 6-22, *Army Leadership and the Profession*, para. 10-1, para. 10-3.
50. Ibid., 10-4; Grann, *The Wager*, 10, 13; see, for example, JALS Publication 1-1, *Personnel Policies*, 3.
51. Grann, *The Wager*, 210.
52. Ibid.
53. Ibid., 242. While Anson's war booty amounted to about £400,000, the war itself cost the British government over £43 million (in contemporary value). Further, Adm. Edward Vernon's failed assault on Cartagena cost the Royal Navy over ten thousand men.
54. ADP 6-22, *Army Leadership and the Profession*, para. 10-7.
55. Grann, *The Wager*, 220–21.
56. ADP 6-22, *Army Leadership and the Profession*, para. 10-45.
57. Ibid., para. 10-30.
58. See, for example, JALS Publication 1-1, *Personnel Policies*, 24, 52–54.
59. ADP 6-22, *Army Leadership and the Profession*, para. 10-30.
60. Grann, *The Wager*, 238. David Cheap, Charles Saunders, Augustus Keppel, Richard Howe, and even John Byron to name a few.
61. Ibid., 220–21.
62. Ibid.
63. J. R. R. Tolkien, *The Lord of the Rings*, 3 vols. (1954; repr., Boston: Mariner Books, 2005), 283; Grann, *The Wager*, 220–21.
64. ADP 6-22, *Army Leadership and the Profession*, para. 10-39.
65. Ibid., para. 10-1–10-15.
66. Grann, *The Wager*, 43–44.
67. G. K. Chesterton, *Orthodoxy* (n.p.: SnowBall Classics, 2015), 29–30.

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# Medal of Honor

## Pfc. John D. Magrath



Pfc. John D. Magrath enlisted on 4 March 1943 and joined the Army's newly formed division of mountain troopers—the 10th Mountain Division. Magrath served as a radio operator during combat operations in Italy and was killed by enemy artillery on 14 April 1945. (Photo courtesy of the U.S. Army)

Pfc. John D. Magrath became the first 10th Mountain Division soldier to receive the Medal of Honor when he was posthumously awarded the Nation's highest military honor for his actions on 14 April 1945 while serving with Company G, 85th Infantry Regiment, 10th Mountain Division, near the town of Castel d'Aiano, Italy. His citation reads,

He displayed conspicuous gallantry and intrepidity above and beyond the call of duty when his company was pinned down by heavy artillery, mortar, and small-arms fire, near Castel d'Aiano, Italy. Volunteering to act as scout, armed with only a rifle, he charged headlong into withering fire, killing two Germans and wounding three in order to capture a machine gun. Carrying this weapon across an open field through heavy fire, he neutralized two more machine-gun nests; he then circled behind four other Germans, killing them with a burst as they were firing on his company. Spotting another dangerous enemy position to his right, he knelt with the machine gun in his arms and exchanged fire with the Germans until he had killed two and wounded three. The enemy now poured increased mortar and artillery fire on the company's newly won position. Pfc. Magrath fearlessly volunteered again to brave the shelling in order to collect a report of casualties. Heroically carrying out this task, he made the supreme sacrifice—a climax to the valor and courage that are in keeping with the highest traditions of the military service.

The medal was awarded on 18 July 1946 and presented to Magrath's family by a First Army officer (White House award ceremonies did not begin until 1980). Monuments were subsequently erected in Magrath's honor at Camp Funston on Fort Riley, Kansas, in 1955 and near Castel d'Aiano, Italy, in 2009.

In 1956, an elementary school in Norwalk, Connecticut, was named in his honor. And, in 1995, Fort Drum renamed its fitness facility the Magrath Sports Complex in his memory. ■



The Magrath Sports Complex has the distinction of bearing the name of the 10th Mountain Division's first soldier to receive the Nation's highest military honor. (Photo by Mike Strasser, Fort Drum Garrison Public Affairs)