

Military Review

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MARK F. AVERILL

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Cover photo: A paratrooper with 1st Squadron, 40th Cavalry Regiment, awaits transportation after a successful airborne operation and follow-on mission in Deadhorse, Alaska, 22 February 2017. The training simulated the recovery of a downed satellite and tested the unit's contingency operations ability. (Photo by Staff Sgt. Daniel Love, U.S. Army)



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The beginning of each year provides opportunity for reflection as well as a look forward. As we think about the experiences, accomplishments, and lessons of the past year, we have a blank slate to set goals for the coming year in every aspect of our personal and professional lives. Questions that may be routinely asked are, “What professional accomplishments do I want to achieve in 2024?” or, as I would challenge, “What intellectual investments do I want to make in the Army Profession in 2024?”

At Army University Press (AUP), we have been working hard to ensure 2024 brings the profession a lineup of intellectually stimulating products and productions that can augment your professional military education and development. Foremost, with the chief of staff of the Army’s (CSA) priority on reinvigorating professional military writing and discourse, AUP is excited to host the “CSA’s Recommended Articles” page on the AUP website. Whether you are an aspiring author or a practiced writer and regular contributor, we hope to see your article recommended for reading across the Army community. Just as importantly, we look forward to implementing the guidance and instruction from the CSA to incentivize professional writing and ensure ease of accessibility to our professional scholarship.

Additionally, over the past year, we have been diligently working with leaders, units, and professional communities of interest to publish and produce some truly exceptional scholarship and films in the coming year. First, working with divisional units, you will see special sections featured in *Military Review* throughout 2024, starting with the Arctic Angels of the 11th



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

Airborne Division in this January-February edition. Army University Films will also be producing a film featuring the 11th Airborne Division and the militarization of the Arctic through collaboration with divisional leadership and the Ted Stevens Center for Arctic Security Studies. If you think your division and unit should be featured in a special section, contact us!

Second, we are excited to publish at least three special editions of *Military Review* in 2024. We will feature a special edition on space and missile defense with a foreword by Gen. Charles Flynn, U.S. Army Pacific commanding general. This edition will feature scholarship by thought-leaders of this community, both in the United States and from our allies and partners in NATO. As space is increasingly militarized and contested, readers will have the opportunity to learn about and explore some of the challenges and opportunities that lay ahead in this critical warfighting domain.

A second special edition currently being developed will be dedicated to commemorating the seventy-fifth anniversary of NATO and the eightieth anniversary of D-Day. If you are interested in writing on either topic, please contact us at your earliest convenience.

Third, there is a heated intellectual debate surrounding the twenty-first century doctrinal role and definition of special and irregular warfare occurring at the strategic level of the military. AUP is excited to publish and produce a special edition on special warfare and will feature a number of articles that explore conventional and unconventional thinking on this important topic. With special operations forces potentially reduced in the coming years, what are the arguments, logic, and rationale for such reductions, given lessons learned in the past several years of observing conflict in Ukraine, Israel, Syria, Iraq, and Afghanistan? What are the counterpoints to these arguments? We will feature these scholarly debates in upcoming editions of *Military Review*, as well as produce films on irregular warfare, the evolution of the Security Force Assistance Command, and the roles both play across the spectrum of conflict and large-scale combat operations.

Fourth, additional films and articles scheduled for release in 2024 will feature a commemoration of the 10th Mountain Division's eightieth anniversary and the role of light infantry in future warfare. Two forthcoming films will focus on the challenges and threats of North Korea, one focused on the first year of the Korean War and one focused on the current and future regional threat of North Korea. A third film will focus on national security strategy and policy process, diplomatic and interagency operations, and U.S. embassy planning, featuring a growing exercise called the Peace Game. In collaboration with the Fires Center of Excellence and Maneuver Center of Excellence, AUP will produce and release films on the evolution of fires over the past thirty years, a history of the Battle of Hue, and the Battle of Hill 66.

This is just a short list of the many products and productions to expect from AUP in 2024. A new and exciting nonresident fellowship will be launched. New books will be published. New staff rides from the Combat Studies Institute are under development. *Military Review* will begin featuring leading commentary and thought-provoking opinion pieces to accompany our traditional journal articles. The NCO Journal will be featuring incredible podcasts and articles by the "backbone of the Army." AUP will continue to support the Leavenworth National Security Consortium by encouraging and facilitating collaboration with our civilian and military partners and academic institutions. Our website will continue to improve and provide greater support and resources to visitors. Our social media accounts will help bring awareness and announcements of all our latest and greatest products and productions in a timely manner. And there is even more to come.

Most importantly, however, what will be YOUR contribution and intellectual investment to the Army Profession in 2024? We invite you to review a book, write an article, submit a manuscript, contact us with your ideas for improving our products and productions, and let us know how we can better augment professional military education. If you have not already, we encourage you to join, follow, like, and subscribe to our social media and, especially, our Army University Press YouTube channel!

As you reflect on 2023 and look forward to 2024, we hope you will join us in making important investments in our Army Profession. Make your mark. Help bring about positive change. Share lessons. Share ideas. Share your opinion. Join the professional discussion and help improve and advance our military discourse. If this letter inspired you or provoked an idea, do not hesitate to contact us and discuss how we can work together. Happy New Year from the Army University Press! ■

Military Review

BOOK REVIEW PROGRAM

The *Military Review* book review program allows reviewers to read books of interest to military professionals—often before book publication—and then present their thoughts on the Army University Press website. The reviewer then retains the book. Read our latest book reviews at <http://www.armyupress.army.mil/Journals/Military-Review/MR-Book-Reviews/>.

Books for review are available only through the *Military Review* book review editor. If you are interested in becoming a reviewer, see our Book Review Submission Guide at <http://www.armyupress.army.mil/Journals/Military-Review/MR-Book-Review-Submission-Guide/>.



Write for Military Review

Suggested Writing Themes and Topics—2024

- From the U.S. military perspective, what are the greatest external threats to the United States? Why, and how?
- Are there nations that consider themselves to be at war with the United States? If so, how are they conducting war, and what would increase the probabilities of their success?
- Is there a new “Cold War”? If so, who make up the new confederated blocs (i.e., the new “Axis” powers) aligned against the United States, and how do they cooperate with each other? What types of treaties or agreements do they have that outline relationships they share to reinforce each other?
- Who best synchronizes DIME (diplomacy, information, military, and economic) elements of power to achieve strategic goals? Contrast and compare employment of DIME by China, Russia, Iran, and the United States. How should the United States defend itself against foreign DIME?
- Does China have an “Achilles’ heel”? What is its center of gravity? If it has one, how can it best be attacked/exploited?
- What does China view as the United States’ “Achilles’ heel” or center of gravity? (e.g., Trade relations? Resource shortages? Diminishing technological manufacturing base? Societal instability and factionalism?) How specifically is it exploiting these?
- How should the United States respond to Chinese aggression toward Taiwan?
- What lessons are we learning from Russia’s war with Ukraine? What should be the next steps for the United States? What should be the desired end state from a U.S. perspective?
- What is the impact of irregular immigration on the security of the United States?
- What is the status of security force assistance brigades (SFAB)? What is the future for SFABs?
- What is the role now of the U.S. Armed Forces in Africa? Far East? Middle East?
- What logistical challenges will the U.S. military face in large-scale combat operations?
- What does the future hold for nanoweapons? Electromagnetic warfare? Artificial intelligence? Information warfare? How is the Army planning to mitigate effects?

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

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.

*Due to a change in policy, *Military Review* is no longer able to provide monetary awards to contest winners.



Virginia Army National Guard soldiers assigned to Bravo Troop, 2nd Squadron, 183rd Cavalry Regiment, 116th Infantry Brigade Combat Team, stand guard 11 January 2021 in Washington, D.C. Following the 6 January 2021 rioting at the U.S. Capitol, National Guard soldiers and airmen from several states traveled to Washington to provide support to federal and district authorities leading up to the fifty-ninth presidential inauguration. (Photo by Staff Sgt. Bryan Myhr, U.S. Army)

Brittle and Brutal

An Avoidable 2024 Civil-Military Relations Forecast

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

The historically high public confidence of the American public in the U.S. military has steadily dropped over the past few decades, trending toward the all-time lows of the 1970s and

early 1980s.¹ To help explain the dynamics of this trend, in his 2023 book, *Thanks for Your Service*, Dr. Peter Feaver provides a central finding that the military's historically high approval numbers are brittle.

High public opinion of the military is propped up, influenced by feckless political partisanship and a flimsy social desirability bias, meaning approval for the military is currently the socially acceptable attitude to hold. Feaver's warning to the military is twofold. First, senior leaders must understand that confidence in the military is tenuous and superficial. Second, if the military wants to retain the confidence of the American public, it must earn it the "old-fashioned" way by demonstrating competence and unwaveringly high professional ethics.²

In parallel, political campaigns, particularly at the national level, have seemingly become more brutal. Events surrounding the 2020 presidential election, the 6 January 2021 rioting at the U.S. Capitol, and the national turmoil experienced during the COVID pandemic created in the minds of an increasing number of Americans the justifiability of violence against the government. As reported by National Public Radio, one in four Americans believe that violence against the government is justifiable sometimes, while one in ten Americans believe violence is justifiable "right now."³

The 2024 presidential election season is here. Although the military aspires to be apolitical and non-partisan as an institution, oftentimes individuals act in contravention of this aspiration. Possibly in correlation with these contraventions, in recent years, public opinion of the military has fallen significantly below historic highs while the military's ability to recruit has become increasingly challenged.⁴ The 2024 presidential election campaign season could, at best, see a flatline of no significant change in public approval of the military. However, at worst, active military service members and, particularly, retirees could succumb to political emotion, actively involving themselves in polarizing, partisan behaviors.

It is important for all military service members, active and retired, to understand the dynamics in play as it relates to civil-military relations. At a minimum, the military should adopt a "do no harm" approach. In other words, the military institution and individual military service members should realize the aspirations of being apolitical and nonpartisan. This is no easy task. At a maximum, prudent leaders may want to treat politicization of the military in the upcoming campaign season as a viral threat and take a proactive approach, implementing updated policy, regulations, and measures early to help prevent or lessen the impacts of the upcoming political season.

This opinion essay provides a potential, yet avoidable, forecast of what 2024 political season might bring in the context of civil-military relations and the U.S. presidential election. If past is prologue (hint: it is), the U.S. military may be heading toward a political hurricane season as the United States enters the intense prime campaigning period of the 2024 presidential election. However, there are considerations and actions that might be taken by leaders at all levels to avoid political storm damage.

Considerations

First, I encourage senior leaders interested or concerned with civil-military relations to read the book *Dangerous Instrument* by Dr. Michael Robinson.⁵ In this book, the author explains how politicization of the military occurs, many times involuntarily. Using a "parallax model," Robinson describes how partisan political actors, observers, and the military interact in ways that can affect the lens or perspective by which the military is viewed, making the institution appear to be partisan or politically captured when it is not.

For example, political parties may be pulled to the left or right by the extremes of either party. Likewise, civilians may be pulled to the left or right on the political spectrum. A result of this sort of shift changes political perspective. From one perspective, the military may be viewed as more right leaning and conservative. From an opposing perspective, the military may be viewed as more left leaning and "woke."⁶

Perspective of military politicization, partisanship, or political capture will be dependent on how left or right of center each voter finds themselves. Or, in a worst-case scenario, the military may be the shifting variable. This occurs when retired and active-duty military service members actively and purposefully exhibit partisan behavior that conflicts with U.S. military values and norms.⁷

Second, retired military service members will, sadly, continue to willingly endorse partisan political candidates

Col. Todd Schmidt, PhD, U.S. Army, is director of Army University Press at Fort Leavenworth, Kansas; a nonresident Fellow with the U.S. Military Academy's Simon Center for the Professional Military Ethic; and an AUSA Leadership Fellow. He is the author of the book *Silent Coup of the Guardians: The Influence of U.S. Military Elites on National Security*.



Sgt. Hubert D. Delany (*right*), a public affairs mass communication specialist assigned to the 3rd Psychological Operations Battalion (Airborne) (Dissemination), helps a fellow soldier register to vote 13 October 2020 through the Federal Voting Assistance Program as part of a voting registration drive at Fort Bragg (now Fort Liberty), North Carolina. While service members are encouraged to vote, there are strict rules related to military service member involvement in political activities. (Photo by Sgt. Liem Huynh, U.S. Army)

as they have for the past six presidential campaigns. In rare cases, they may agree to take the stage at political conventions, or worse, engage in raucous partisan behavior. And, although retired military political endorsements “do not provide a statistically significant boost in overall support for candidates,” the more significant impact is continued decay in trust of the military and increased perceptions of the military as a politically partisan institution.⁸ Despite the damage these actions taken by a growing number of military retirees may have on public opinion and trust in the military, both major political parties will continue to relentlessly seek, solicit, and superscribe the names of all the retired military senior officers they can muster to endorse their presidential candidate. Going further, political candidates will look for every opportunity to be seen with military service members in uniform, endeavoring

to signal their favor within the military and basking in the regard the public has for the military, even while their actions undermine it.

Third, national security missteps, mistakes, and decisions made by some major candidates will be called out and relitigated. Fingers pointing blame at civilian leaders will be inevitable. Currently serving military leaders will stay prudently and pragmatically silent during these political salvos. The military may allow blame and responsibility for military stumbles that should be shared with civilian counterparts to be parried and absorbed by elected leaders. No one will remember this after the election is over, but it will be (and has been) noted by observant journalists and our best and brightest civil-military relations scholars.⁹

For example, Dr. Risa Brooks suggests that the U.S. military’s ineffectiveness in Afghanistan was related

to serious, unresolved, and continuing institutional shortcomings and flaws. Brooks details contradicting priorities and application of military resources toward training efforts versus fighting an insurgency—decisions that reside with senior military commanders—as one potential cause of strategic failure. Brooks also identifies the U.S. military’s neglect of consideration for the nuanced interplay between politics and military activities, whether in Afghanistan or in the United States, as an ironic flaw, considering the military’s historic emphasis on Carl von Clausewitz’s teachings. Finally, Brooks suggests that the military failed to integrate its focus on tactical and operational actions with strategic objectives. “These faults in military effectiveness cannot simply be blamed ... on the failings of politicians,” Brooks warns.¹⁰ Leaving these issues unacknowledged, unstudied, and unresolved may only ensure that they resurface in future conflicts.

Fourth, a growing proportion of military service members, increasingly identified as a “warrior caste,” will continue to take to social media to politically self-identify with their party of choice, although it is not clear whether they know and understand what political conservatism or liberalism really mean.¹¹ This relatively new warrior caste will be caught up in their emotions and political beliefs, thinking that because they are placed on a superficial societal pedestal as “secular saints,” they are entitled to voice their political opinions, regardless of clear constraints outlined in a uniformed code of military justice.¹² Although America’s military is often found to be increasingly isolated from the society it serves, it may be beginning to—for better or worse—reflect the values of the society it serves.

Mitigating Actions

So, what must be done? Curriculum addressing civil-military relations in professional military education

(PME) should be required—not elective—throughout a leader’s career. It should not be summarily addressed at the highest levels of PME. In her “Guide to Instilling the Non-Partisan Ethic,” Georgetown University’s Dr. Heidi Urben suggests that improving PME to better instill the fundamental principles of civil-military relations is exceptionally important and necessary, but insufficient. Trying to solve current challenges through mere changes in PME “reinforces the fallacy that PME can and should solve ... professional deficiencies.”¹³

According to Urben’s expert opinion, the Department of Defense needs to urgently review rules and regulations regarding political activities. Department of Defense Directive 1344.10 needs to be reviewed and updated with greater frequency to provide greater clarity and context related to the “why” of the rules related to military service member involvement in political activity.¹⁴ Secondly, Article 88 of the Uniform Code of Military Justice must also be reviewed and updated. It should address all ranks of military service (not just commissioned officers), as well as clearly defining its application to all categories of retired service members “subject to its provisions.”¹⁵

American politics are brutal, and American support for the military is brittle. If the military wants to maintain the high regard, confidence, and honor in which the American public continues to hold it, U.S. service members must earn it—every day. Senior leaders, particularly influential military retirees, must reinforce the apolitical, nonpartisan role of the military institution and those that serve in uniform. Being complicit in the continued erosion of America’s confidence and trust in the military by actively participating in politically partisan behavior must be addressed by the military institution, services, and leadership. There must be real consequences for offenders. Failure to do so will have dramatic impact on our ability to fight, prosecute, and win future wars. ■

Notes

1. Mohamed Younis, “Confidence in U.S. Military Lowest in Over Two Decades,” Gallup, 31 July 2023, <https://news.gallup.com/poll/509189/confidence-military-lowest-two-decades.aspx>.

2. Peter D. Feaver, *Thanks for Your Service: The Causes and Consequences of Public Confidence in the US Military* (New York: Oxford University Press, 2023), 1.

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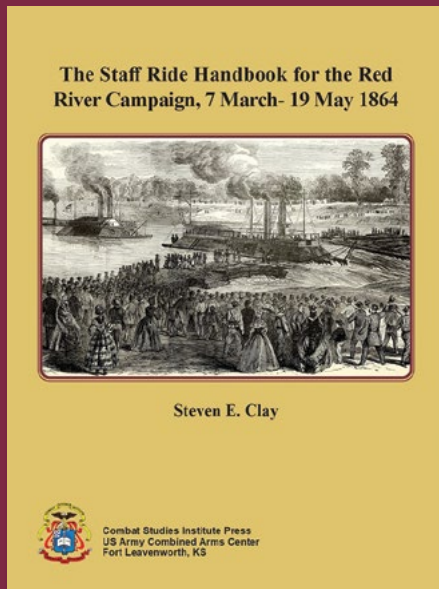
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Military Review Recommends

The Staff Ride Handbook for the Red River Campaign, 7 March-19 May 1864

Steven E. Clay

The Red River Campaign of 1864 is an effective vehicle for a staff ride. It raises a variety of teaching points at the strategic, operational, and tactical levels of war, that are relevant to today's officer. In this long-anticipated staff ride handbook, author Steven E. Clay reveals how a study of the Red River Campaign offers insights on a wide variety of combat support and combat service support activities, most notably military engineering and logistics. The campaign also featured prominent participation by the U.S. Navy, offering staff ride participants to examine joint operations on the landscape that shaped how decisions were made. To read this handbook online, visit https://www.armyupress.armymil/Portals/7/Research%20and%20Books/2023/SRHB_Red_River_WEB_READY.pdf



SPOTLIGHT: CHINA

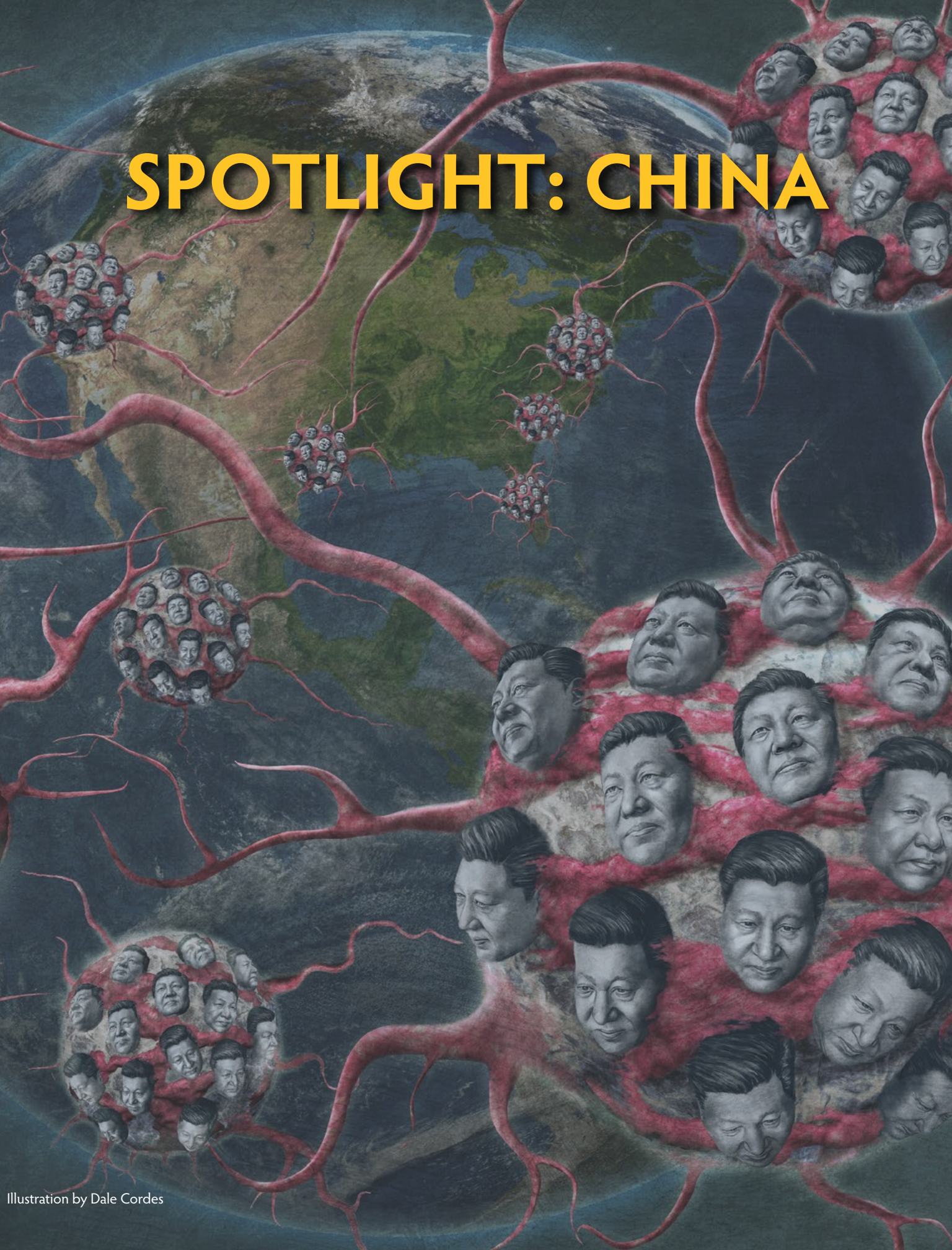


Illustration by Dale Cordes



The Department of Defense released declassified images and video 17 October 2023 that capture a People's Liberation Army (PLA) fighter jet conducting a coercive and risky intercept against a lawfully operating U.S. asset over the South China Sea. The jet approached to a distance of just forty feet before repeatedly flying above and below the U.S. aircraft and flashing its weapons. After the U.S. operator radioed the PLA fighter jet, the pilot responded using explicit language. (Photo courtesy of the Department of Defense)

Three Dates, Three Windows, and All of DOTMLPF-P

How the People's Liberation Army Poses an All-of-Army Challenge

Ian M. Sullivan

Starting in 2015, China's People's Liberation Army (PLA) embarked upon the most ambitious, extensive, and far-reaching reform and modernization program in its history. This effort was intended to radically transform the PLA from a large, bloated force focused largely on territorial defense into a highly modern military capable of securing the Chinese Communist Party's (CCP) security objectives internally, within the region, and across the global commons. This effort would require a whole new PLA, capable of, in the words of General Secretary Xi Jinping, fighting and winning a modern, joint, multidomain war against what the CCP terms "the strong enemy"—a euphemism for the United States.¹ Much of the attention on this effort has focused on the rapid development of capabilities that China has produced and even integrated into the PLA. The progress has been stunning and demonstrates a true technological challenge to a U.S. joint force that has been accustomed to enjoying a significant edge in capabilities over its adversaries dating back to the Cold War. Many observers look to China's modernization efforts and see a dizzying array of new systems and capabilities coming online within the PLA and focus on them as the problem that our modernization must solve.

Focusing only on the capabilities the PLA is developing, however, misses the point of what the CCP and PLA are trying to accomplish with this modernization. It is about more than materiel. It is instead about creating an armed capability to defeat the strong enemy regionally and eventually globally. China's military modernization covers every part of what the U.S. military calls DOTMLPF-P (doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy). It specifically is trying to overcome its own shortfalls enshrined in the mid-2010s catchphrases as "the two inabilities," "the two big gaps," and the "five incapables," which nicely capture the overall intent of this effort.² The CCP and PLA understood that they needed a rapid influx of new capabilities, but at their core, these internal critiques get after the ability of the PLA as an institution, and especially through the abilities of its leaders to fight and win a modern war against its potential adversaries. It is not designed for mere technological overmatch. It is instead designed to challenge the U.S. Army and joint force across the three areas that have underpinned U.S. military dominance

in the post-Desert Storm period: dominance in materiel, dominance in soldiers and leaders, and dominance in approach to warfare.³

Three Dates

The PLA modernization challenge does not exist in a vacuum. It is part of a broader plan by the CCP to create "the great rejuvenation of the Chinese nation" by 2049, which is the centennial of the foundation of the People's Republic of China.⁴ It is part of a broad party-led effort to secure for China "a leading place" in the world. To get there, the party will work to generate and employ all elements of national power to defend its sovereignty, maintain internal stability, and protect its growing interests regionally and globally to allow for its economic development.⁵ China has been engaged in a broad, whole-of-nation effort to achieve these goals, including such efforts as the Belt and Road Initiative, its "three warfares" construct for great-power competition, leadership in international organizations, and a renewed focus on diplomacy (its role in BRICS [a Brazil, Russia, India, China, South Africa alliance], its work to restore relations between Saudi Arabia and Iran, and even its political engagement to resolve the Russia-Ukraine War). But it is a modernized PLA capable of asserting itself both regionally and globally that is a

Ian M. Sullivan is the deputy chief of staff, G-2 for the U.S. Army Training and Doctrine Command (TRADOC). He holds a BA from Canisius University in Buffalo, New York, and an MA from Georgetown University's BMW Center for German and European Studies in Washington, D.C., and he was a Fulbright Fellow at the Universität Potsdam in Potsdam, Germany. A career civilian intelligence officer, Sullivan has served with the Office of Naval Intelligence; Headquarters, U.S. Army Europe and Seventh Army; the Office of the Director of National Intelligence (ODNI) at the National Counterterrorism Center; the Central Intelligence Agency; and TRADOC. He is a member of the Defense Intelligence Senior Executive Service and was first promoted to the senior civilian ranks in 2013 as a member of the ODNI's Senior National Intelligence Service.



The People's Liberation Army intends to complete its transformation into an "intelligentized" force by 2035—integrating new technologies, like artificial intelligence, machine learning, and quantum computing into its command, control, communications, computers, cyber, intelligence, surveillance, and reconnaissance (C5ISR) weapons systems and its military decision-making processes. (Composite graphic by TRADOC G-2; base photo courtesy of Defense Intelligence Agency's *China Military Power* [2019])

necessary backbone to this entire revitalization of a CCP-led Chinese state.

CCP leadership has not been shy in talking about PLA military modernization, particularly in terms of laying out its ambitious timelines. Initially, there were two dates that mattered—2035 and 2049—but a third, 2027, has recently come to the forefront in terms of where China is going. These dates need to be addressed in reverse order, starting with 2049.

2049. The year 2049 is a big one for Beijing and the CCP, as discussed above. But it has more concrete meaning for the PLA, too. The 19th Party Congress, which was held in October 2017, presented both the rationale and the objective of the PLA's military modernization program. It is intended to create a force that is inextricably linked to the CCP that can manage crises, deter its adversaries, and win wars. It also notes that the overall intent of the program is to transform the PLA by 2049 into a "world-class" military.⁶ While not specifically defined, this very likely means developing a military that is at least equivalent to the United States and some of its Western partners. In terms of

capabilities, the PLA of 2049 should be expected to be able to deploy forces across all domains globally to protect Chinese interests.⁷

2035. If a world-class military is the goal by 2049, a waypoint on the journey is 2035, where the PLA will complete its initial transformation into an "intelligentized" force. First making its appearance in China's landmark 2019 defense white paper, "China's National Defense in the New Era," the term intelligentized warfare offers something of a transition from its previous "local wars under informationized conditions."⁸ The white paper notes that "war is evolving in form towards informationized warfare, and intelligentized warfare is on the horizon."⁹ Subsequent Chinese defense writing has demonstrated deeper meaning, noting that the object of intelligentized warfare is to directly control the enemy's will.¹⁰ In practice, this would mean integrating new technologies, like artificial intelligence, machine learning, and quantum computing into the PLA's command, control, communications, computers, cyber, intelligence, surveillance, and reconnaissance; its weapons systems; and throughout the military decision-making process. It also

means completing critical modernization efforts across DOTMLPF-P so that the PLA is capable of fighting and winning against its strong enemy.¹¹ The PLA's plan is to be fully intelligitized by 2035.

2027. Keeping in mind Mike Tyson's dictum on strategy, it was Xi himself who provided this plan with the proverbial punch in the mouth by offering a third date of relevance: 2027. The relevance of 2027—the centennial of the founding of the PLA—came to the forefront of the seminal 20th Party Congress, which occurred in October 2022. The 20th Party Congress represented not only the codification of Xi's authority, arguably making him the most powerful and relevant Chinese leader since Mao, but also a demonstration of a shift in thinking in terms of China's security situation. It specifically referenced “drastic changes in the international landscape,” which was a departure from the 19th Party Congress's focus on economic development and stability. The military ramifications of the 20th Party Congress demonstrate a sense of urgency on the part of the CCP that is rarely seen. It called for speeding up the modernization effort across the board. It instructed the PLA to regularly deploy its forces, establish a strong deterrent, increase “new domain forces” (cyber and space), increase the use of unmanned systems, and rapidly complete its modernization effort.¹² The 2027 date could be seen as a new modernization benchmark, potentially replacing 2035 as a target.

Xi has continued to double down on this sense of urgency and has been very vocal in communicating to the PLA his wishes on speeding things up. In April, Xi visited the PLA Navy (PLAN) facility Zhanjiang, part of the key Southern Theater Command, where he called for “accelerating” modernization on all fronts. He stressed strengthening training and combat readiness, noting a need to increase realism in military exercises as well as the need to develop the PLA's human capital and to intensify the study of warfare.¹³ He completed a similar visit in July, this time inspecting a PLA Air Force (PLAAF) facility in the Western Theater Command. He repeated his theme of speeding up modernization and expanding realism in combat training and pointed to the need to continue fielding new equipment and integrating it into the force. Xi concluded by speaking on the imperative of increasing military preparedness and readiness.¹⁴

This newfound sense of urgency to speed up modernization took on new meaning with statements from U.S. officials on what it could mean. CIA Director William Burns publicly affirmed that the United States knew “as a matter of intelligence” that Xi has ordered the PLA to be ready by 2027 to conduct an invasion of Taiwan to complete Beijing's long-standing ambition of reunification.¹⁵ Burns goes on to say that this does not mean that Xi has decided to go war with Taiwan in 2027, but that it stands as a “reminder of the seriousness of his focus and ambition.”¹⁶ Then chairman of the Joint Chiefs of Staff Gen. Mark Milley also indicated that the PLA has been told to prepare for 2027, but that Xi likely has not made a decision to go to war. He added, however, that some Chinese political and military leaders may have concluded that war with the United States is inevitable.¹⁷ Whether or not Xi has decided, his sense of urgency on military modernization has real-world implications for the U.S. Army and the joint force.

Three Windows

The three dates create three windows of vulnerability for the Army and the joint force. The first is a “fight tonight” reality, where regional tensions could boil over, an accidental close approach of a PLA asset to U.S. or allied forces could lead to an exchange of fire, or some third-party action could lead to a rapid conflict between China and the United States. This period runs from the present out two years to 2025. The second is a “fight in the near-term” window, starting in 2025 and ending in 2030. It is a period focused on Xi's new 2027 proclamation of being ready to fight in Taiwan. It also is a particularly dangerous period for the U.S. Army, as a fight occurring before 2030 will be inside the Army's key modernization benchmark of delivering the Army of 2030. In such a scenario, China's modernization program and drive to intelligitization would be ahead of the Army's and the joint force's drive to Joint All-Domain Command and Control, which is the Department of Defense's new vision and approach to identifying, organizing, and delivering improve joint force command and control capabilities that account for the modernization efforts of peer competitors like China.¹⁸ Finally, the threat window after 2030—the “fight in the future”—would see a modernized U.S. Army capable of waging



Soldiers of the “hard-boned Sixth Company” of the People’s Liberation Army 74th Army Group participate in a battle drill in a coastal area of Guangdong Province, China, on 1 June 2020. (Photo courtesy of Xinhua)

multidomain operations with its own 2030 modernization benchmark complete. It would also be a time where the PLA and the U.S. Army (and the joint force) are locked in a continuous struggle to garner material advantage through China’s 2049 benchmark.

The “fight tonight” window is dominated by current events. Tensions between China and the United States have been increasing for some time, but they have intensified since Congresswoman Nancy Pelosi’s visit to Taiwan in August 2022. Likely viewing it through the lens of continual U.S. interference in China’s rise, Beijing expressed extreme displeasure with the visit. Chinese Foreign Minister Wang Yi called the United States the “biggest destroyer of peace across the Taiwan Strait and for regional stability,” and added “China will definitely take all necessary measures to resolutely safeguard its sovereignty and territorial integrity in response to the [then] U.S. Speaker’s visit.”¹⁹ In the days following the visit, the PLA’s Eastern Theater Command stepped up ongoing exercises to include the deployment of more than two hundred aircraft

and fifty warships in and around Taiwan.²⁰ They also fired eleven ballistic missiles off Taiwan’s northeast and southwest coasts.²¹ In the year that followed Pelosi’s visit, PLAAF aircraft conducted hundreds of violations of Taiwanese airspace, including more than 140 across the Taiwan Strait centerline involving about one thousand aircraft. Between 2020 and the visit in 2022, although the PLAAF violated Taiwanese airspace frequently, there were only two instances of centerline violations.²² Between April and September, the PLA has conducted a series of exercises involving elements of all its services off Taiwan.

China has not limited its activities to exercises off Taiwan. There have been several highly dangerous “close encounters” between PLAN and U.S. warships, as well as unprofessional intercepts of U.S. aircraft in international waters and airspace. The most dramatic encounter was between a PLAN Luyang-III-class guided missile destroyer and the USS *Chung-Hoon*, an Arleigh Burke-class destroyer, in which the Chinese destroyer closed to within 150 yards and forced *Chung-Hoon* to



U.S. Speaker of the House of Representatives Nancy Pelosi (*left*) and Taiwan President Tsai Ing-wen hold a press conference 3 August 2022 during a meeting at the Presidential Office in Taipei. (Photo courtesy of Chien Chih-Hung/Office of the President of Taiwan)

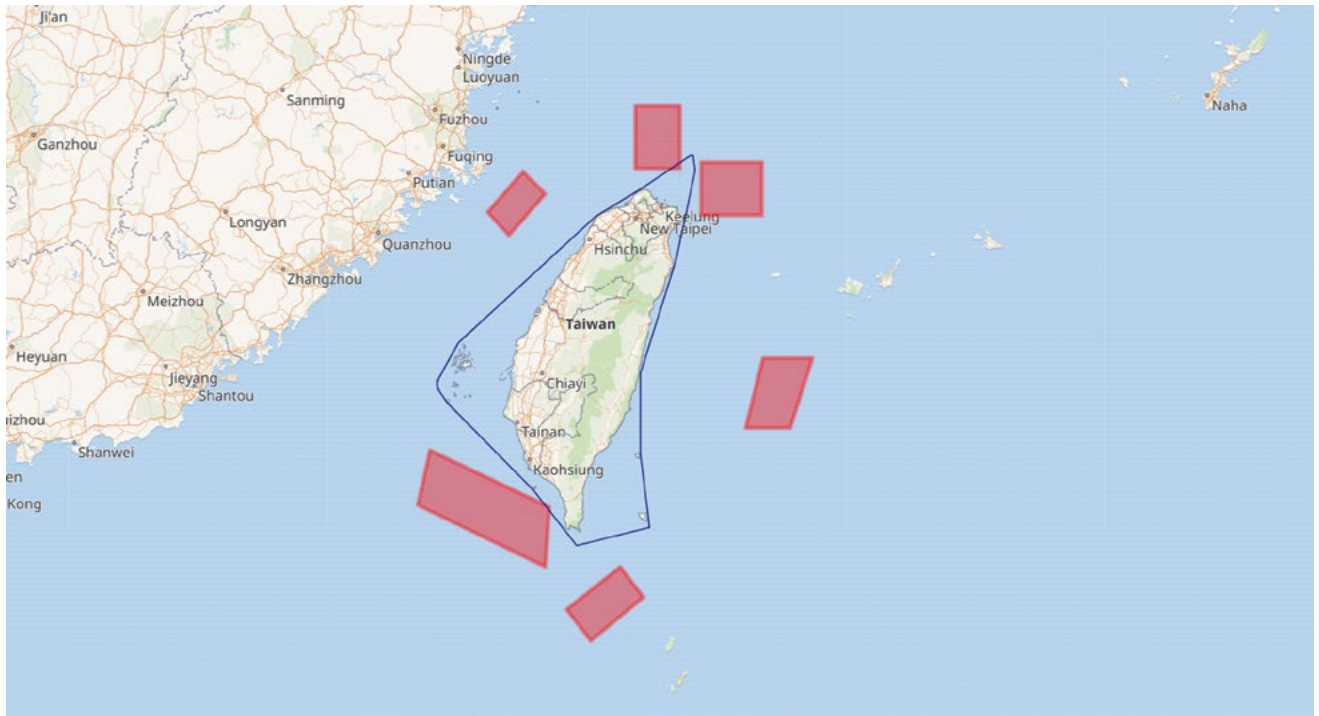
veer away.²³ Just days before, a PLAAF J-16 fighter flew directly in front of the nose of a U.S. Air Force RC-135 Rivet Joint reconnaissance aircraft flying in international airspace over the South China Sea, forcing the U.S. aircraft to fly through dangerous turbulence.²⁴

Finally, China's ambitions in the South China Sea have led to a very dangerous situation in which the Chinese Coast Guard and Maritime Militia have worked to thwart efforts by the Philippines to resupply its outpost—a rusted, grounded ship—in the Second Thomas Shoal in the disputed Spratly Islands. Although well within Manila's exclusive economic zone, China claims the Second Thomas Shoal, and its Coast Guard and Maritime Militia have worked to deny three efforts by the Philippine Coast Guard to resupply the beleaguered station. Chinese actions have included dangerous close encounters and even the use of water cannon against Philippine resupply ships.²⁵

Taken together, these actions demonstrate increased PLA activity in the region aimed at Taiwan, the United States, and its allies and partners that could potentially

spiral and create an armed escalation leading to a conflict. These types of activities are examples of broader Chinese efforts across the region that could lead to a crisis, and even conflict, if not managed carefully. It demonstrates how quickly the “fight tonight” threat window could ignite.

The “fight in the near-term” window is a bit more complex but revolves around Xi's shift to 2027 as the date for the PLA to complete parts of modernization and to be ready for Taiwan. Despite his wishes, it is unlikely that the PLA will fully and completely implement its modernization efforts within the next four years. It will, however, complete significant pieces of it, and when taken together with what it already has achieved, could create a near-term advantage for the PLA in terms of modernization over the U.S. Army, whose own modernization efforts do not completely crystalize until 2030. The newly salient 2027 waypoint between the already completed 2020 goal of “informationized warfare” and “mechanization” and the 2035 “intelligentization” becomes critical, particularly when



The People's Liberation Army conducted military exercises 4–7 August 2022 at six locations (*in red*) surrounding Taiwan. China established an exercise air space boundary (*in blue*) around the country that violated Taiwan's internationally recognized airspace. The exercises included live-fire drills, air sorties, naval deployments, and ballistic missile launches. (Map courtesy of Wikimedia Commons)

taken with Xi's guidance to the PLA to be ready to take Taiwan by the same year.

The focus of 2027 would not necessarily be on new capabilities—though new systems will continue to roll out and deploy across the PLA between now and 2030—but instead will be on force structure reforms and professionalization, which are critical if the PLA is to become a force capable of waging intelligitized warfare.²⁶ It will, however, take advantage of new systems that already have come online, and what has come online thus far has been impressive. The PLA army by 2022 has revamped its formations, and now 70 percent of its main battle tanks can be considered “modern,” while 60 percent of its heavy and medium combined arms brigades are now equipped with modern tracked or wheeled infantry fighting vehicles.²⁷ The PLAN is now the world's largest navy, and its rapid deployment of new warships means its fleet is largely modern and capable. As of 2023, it fields 340 ships in its battle force (and another 85 missile-armed patrol combatants). By 2025 this number will surge to 395 and will then increase again to 435 by 2030.²⁸ The PLAAF has standardized its fighter force around three aircraft—the J-10, the J-16,

and the fifth-generation J-20. It now fields over six hundred aircraft in nineteen brigades and has doubled the production of the J-10 and J-16 over the last three years. More than 150 J-20s are now in service. They have fielded new capable air-to-air missiles like the PL-15 and PL-16, and increased the fielding of Y-20 transport aircraft, which are similar in function to the U.S. C-17.²⁹ The PLA Rocket Force (PLARF) has seen a variety of new systems come on line, including the DF-21 (which includes an antiship variant designed to target U.S. aircraft carriers), the DF-26 (known as the “Guam Killer”), the DF-17 hypersonic missile, and two new intercontinental ballistic missiles—the DF-31 and DF-41. The PLARF also is expanding its nuclear arsenal, which is expected to have seven hundred warheads by 2027 and one thousand by 2030. This even includes a fractional orbital bombardment system capability that was revealed in 2021.³⁰

As noted, however, the 2027 threat window is about more than materiel. It is about people, readiness, and organizational change. In terms of people, China is working to modernize its approach. Beijing's 2019 defense white paper stated that “military training in real combat conditions across the armed forces is in

full swing.”³¹ The PLA has come to the realization that modern warfare will unfold across domains, and by necessity, will be inherently joint.

To successfully undertake this approach to war, which is covered under its drive toward intelligentization, the PLA recognized that it required more capable personnel and leaders. The PLA has been working to

to the profession of arms), adaptivity, and having intangible leadership traits (e.g., charisma, flexibility, institutional leadership).³⁵ But developing these leaders will be no easy task, as they will need to overcome some very critical and difficult challenges, some of which have no easy fix. First, they must reconcile developing the type of innovative leader they believe they need but

“ The PLA has been working to improve its training and professional military education (PME) since the mid-1980s, but never with the focus and intensity that we have seen with this current 2017 modernization effort. ”

improve its training and professional military education (PME) since the mid-1980s, but never with the focus and intensity that we have seen with this current 2017 modernization effort. Starting as early as 2015, the PLA began speaking of the “Triad New Military Talent Education System of Systems,” which it worked to implement between 2017 and 2020. The Triad comprised three separate legs: military academies, unit training, and PME, and brings along with it a host of improvements to what had been a stilted system that was largely incapable of producing effective human capital.³² This effort has included transforming its academy system to promote critical thinking and innovation, offer advanced degrees and joint warfare certification, make training more realistic at the unit level, and create deeper PME opportunities using state-of-the-art Western educational concepts.³³

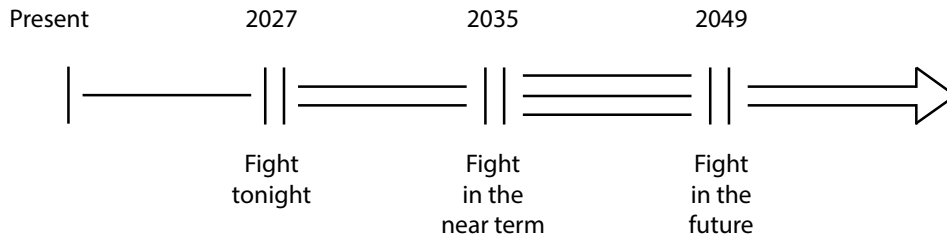
These efforts are designed to lay a foundation for an improved PLA, but they will take time to bear fruit. The PLA already is facing key structural problems as it works to make these changes, including from designing curricula, controlling corruption, and modernizing pay and benefits to attract and retain faculty.³⁴ But they have made a start. For example, using the model of the Five Incapables, the PLA knows what it is looking for in terms of developing the leadership traits it wishes to reinforce through its PME and training for its officers. These include political loyalty to the CCP, strategic awareness, skill at military affairs (able to lead and command military operations), adherence to military culture (what the U.S. Army might call commitment

within the all-encompassing leadership mechanism of the CCP, of which the PLA is a part. Second, they must overcome the endemic corruption that has dominated PLA affairs for generations. Third, they must implement what they think they need without having a reservoir of broad experiences upon which to draw. PLA officers have a relatively narrow base of experience; there are few broadening assignments available to them.³⁶ They also, of course, lack a reservoir of combat experience. While Xi has focused heavily on rooting out corruption within the PLA, the other two are more difficult to address.

A more difficult problem involves the development of a capable and competent cadre of noncommissioned officers (NCOs). NCOs are traditionally the backbone of Western militaries, but the PLA has struggled to develop them. Their current modernization efforts recognize the need to focus on NCO development, but thus far, it appears to have taken a back seat to officer development. Nevertheless, the PLA has made some progress. In March 2022, the PLA issued its “Interim Regulations for Sergeants,” which revealed some of the steps the PLA is taking to improve its NCO corps. The first is that the PLA has two different types of NCOs, management and skilled. The first deal with traditional NCO leadership tasks, while the second are technical experts. Furthermore, these regulations delved deeper into how the PLA is working to recruit its NCO corps to develop these NCOs. There are three paths PLA soldiers can take into the NCO corps. The first is the traditional model, where NCOs are selected from the

pool of conscripts who completed their two years of service and then volunteered to extend their time in the military. These personnel generally gravitate to the management NCO. The second involves the recruitment of an “NCO-cadet” who is recruited directly from high school due to technical aptitude. They receive three years of training; two-and-one-half years

warfare, and they will start to see an improved form of human capital in the ranks of the PLA, although certainly not yet on par with the United States or its key allies. It is in this window where the human dimension will be the U.S. Army and joint force’s critical advantage, and it is imperative that we maintain this edge and prepare this force through focused training and PME.



(Diagram by Michael Lopez, *Military Review*)

The Three Windows

of technical training and then half a year of military field training before serving another three years as an NCO, generally in a technical area. The third is a direct recruit NCO who is a civilian with a bachelor’s degree who joins immediately as a corporal. For the latter two types of NCOs, the PLA is looking largely for individuals with engineering, information technology, and data science experience.³⁷

But there are still key obstacles that that PLA must overcome here; the most significant is a lack of experience and the general lack of quality training and education systems for the NCO corps. While this certainly creates an institutional weakness, the PLA’s general approach to system-of-systems warfare may be less reliant on high-quality NCOs, namely because it is focused heavily on the use of long-range fires to target the systems that allow its adversaries’ military mechanism to function.³⁸ However, the steps that the PLA has taken thus far have put it on the path to creating a more effective NCO, particularly in terms of technical expertise.³⁹

When taken as a whole, the “fight in the near-term” window creates a significant challenge for the U.S. joint force. It may represent the most dangerous of the three windows in which our potential adversary’s modernization effort is inside of our own, they will have made progress on their journey toward intelligitized

The third threat window is “fight in the future.” This admittedly is the most difficult to understand, as it focuses on that critical area between 2030 and 2050. If China’s plans hold, it is when the PLA becomes the world’s leading military and China itself enjoys its broad national rejuvenation. In this phase, the PLA will more fully integrate and develop advanced technologies to multiply its combat capabilities and to effectively collapse an adversary’s ability to wage warfare by targeting the reinforcing systems—command and control; fires; intelligence, surveillance, and reconnaissance; and logistics. The technologies that China will develop and the PLA will employ in this window will create a synergistic effect that the PLA describes as “1 + 1 > 2.”⁴⁰ We have already discussed intelligitized warfare, but in this threat window, we see the threat transforming into a broad strategic struggle between the United States and its allies and China to harness advanced technologies, particularly those related to artificial intelligence, which China increasingly sees as the true focus of future great power competition. The 2019 defense white paper stated, “International military competition is undergoing historic changes. New and high-tech military technologies based on IT are developing rapidly. There is a prevailing trend to develop long-range precision, intelligence, stealthy,

or unmanned weaponry and equipment.”⁴¹ When combined with the system-of-systems warfare concept that underpins Chinese military thinking, it is easy to understand the gravity of this threat.

A Way Ahead

The United States is not defenseless here. The Army of 2030 will receive an influx of new equipment and capabilities designed to conduct multidomain operations, while the joint force will implement Joint All-Domain Command and Control—enabling faster decision-making and dramatically increasing the pace and scale of U.S. joint operations. Additionally, Army Futures Command is already working on a new operating concept for 2040 that will consider dramatic changes in technology and introduce new DOTMLPF-P capabilities designed to prevail on a battlefield where the adversary is waging intelligitized warfare.⁴²

The technological competition between the United States and China will represent a strategic threat to the Nation, and the “fight in the future” window will require the Army and the joint force to establish solutions across DOTMLPF-P if we are to stay ahead of PLA. While there certainly are challenges to overcome, the Army is off to a good start. The establishment of multidomain operations as new Army doctrine in Field Manual 3-0, *Operations*, provides a strong foundation.⁴³ New equipment is on the way. New organizations are joining the force, like the security force assistance brigades and the multidomain task forces. Changes to training and leader development are ongoing, including a renewed focus on the China threat within Training and Doctrine Command schools. The Army War College is establishing a new China Studies program. Training within the Army is focusing on large-scale combat operations and the Indo-Pacific threat, which even includes the establishment of the new Joint Pacific Multinational Readiness Center in Hawaii and Alaska. There is new thinking and whole campaigns of learning focusing on this threat. For example, Maj. Gen. J. B. Vowell and Maj. Kevin Joyce wrote on the forward-deployed U.S.



Each of the Army's institutional commands—Forces Command, Materiel Command, Training and Doctrine Command, and Futures Command—has a role to play in countering the People's Liberation Army's modernization efforts. (Composite graphic by TRADOC G-2)

Army Pacific (USARPAC) as a “contact layer” designed to survive an initial strike in the Indo-Pacific and then fracture the enemy's antiaccess/area denial network.⁴⁴ Furthermore, USARPAC's Operation Pathways—which includes more than forty joint exercises across the Indo-Pacific theater—demonstrates readiness and commitment to the region and keeps combat-credible Army forces forward on a near-constant basis serving as a critical deterrent to Beijing's potential ambitions.⁴⁵ Additionally, the Unified Pacific wargame series serves as a rigorous strategic and operational wargame to derive insights into USARPAC's contribution to joint warfighting in the Indo-Pacific theater.⁴⁶ These activities taken together demonstrate a whole-of-Army response to the challenge posed by the PLA.

The PLA's modernization effort represents a significant challenge to the Army and joint force of a type that is rarely seen; a true peer threat that manifests across time and across DOTMLPF. Beijing and the CCP's focus on the three dates of 2027, 2035, and 2049 roll out three critical threat windows that require an answer across DOTMLPF-P to solve. For the Army, it represents a threat to the fielded, forward-deployed force in the Indo-Pacific but also to the institutional side of the Army. Each of the Army's institutional commands—Forces Command, Army Materiel Command, Training and Doctrine Command, and Army Futures Command—have a major role to play in solving this dilemma. History is useful to a degree here, and echoes of the Army's response to the Cold War Soviet threat bear some

relevance, but the nature of the threat, the advent of new technologies, a more complex operational environment (at home and abroad), and the changing character of

warfare will require a concerted effort, renewed commitment, and broad collaboration within the Army and the joint force, and with our allies and partners to solve. ■

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Army University Press Films



Vietnam: Training ARVN examines U.S. foreign internal defense doctrine through the early years of the Army of the Republic of Vietnam (ARVN). The ARVN came to look like a mirror image of the U.S. Army of the 1960s. Under American advisement, South Vietnam developed its abilities in its war against North Vietnam and the National Liberation Front. Yet ARVN's deficiencies contributed to the United States' decision to introduce American combat forces in 1965.

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Shanghai Cooperation Organization logo and member flags (Photo courtesy of the Russian Embassy in India)

The Shanghai Cooperation Organization

Edward A. Lynch, PhD

Susanna Helms

In 1996, the first meeting of a group calling itself the “Shanghai Five” convened in that city. Its stated purpose was to settle border disputes among

nations in Central Asia.¹ Since then, the Shanghai Five has evolved into the Shanghai Cooperation Organization (SCO), an international organization

that has grown in membership and ambition since its founding. Its members include China, Russia, five Central Asian ex-Soviet republics (Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan, known as CARs), India, and Iran. Given the growth in power and ambition of China under Xi Jinping and Russia under Vladimir Putin, the union of these nations in the same organization has aroused concern, even outright fear, in Western security agencies.

The membership of the SCO encompasses 60 percent of Eurasia's total land area and nearly two billion people, about 25 percent of the world's population. The combined gross domestic products (GDP) of its member states make up 15 percent of the world's GDP.² The organization could be considered a political, diplomatic, and economic threat to the United States even if its members were ostensibly friendly to America. The organization's leading members are America's two most powerful adversaries. Iran, another U.S. adversary, recently received full membership. The true nature and potential of the SCO is required knowledge for those charged with analyzing possible security threats to the Western world.

It is even more urgent to understand the intentions of the SCO given the resources enclosed within its borders. Large percentages of the world's remaining untapped oil and gas reserves exist under the soil of SCO members. China possesses a troublingly high percentage of rare earth minerals, such as lithium, that are vital to the transition from fossil fuels to batteries. When the resources of the other member states of the SCO are added, the possibility of serious economic rivalry with the United States looms large. Given the concern in Western foreign policy circles for the protection of human rights, the suppression of China's Uyghur population, centered in Xinjiang Province (which borders three CARs), must occupy a significant place in Western foreign policy discussions.³

Yet the perceived threat of concerted anti-American action by the SCO may be overblown. A strong argument exists that the organization has produced more promises, claims, potentialities, and plans than concrete successes. The following analysis of the establishment of the SCO, the motivations of its member states, its activities, and its prospects will permit a cool-headed assessment of just how threatening the SCO might be to U.S. interests in Asia and throughout the world.

Regional Organizations and Central Asia

Many analysts wonder why the CARs have not formed their own regional organization. Latin America, Southeast Asia, North America, and Pacific Rim nations have all maintained reasonably effective regional economic groupings. When the Soviet Union collapsed in 1991, Central Asian leaders had high hopes for the prospect of regional cooperation.⁴ The five "stans" are geographically proximate, share moderate Islam as a common religion, share a number of economic assets, speak a common second language (Russian), and have a common history as part of the Soviet Union.

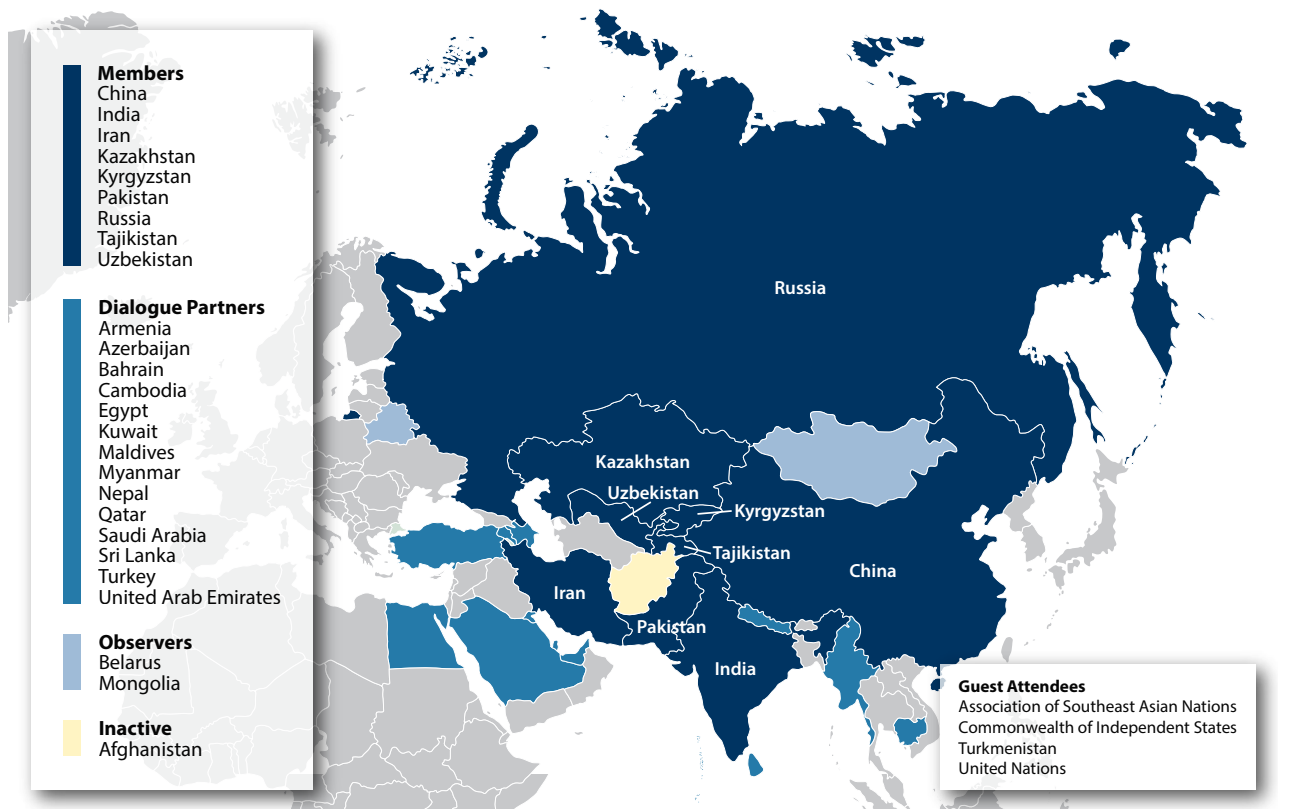
Yet economic integration has been fleeting at best. Even basic areas of cooperation such as water regulation, roadbuilding, and currency transfer have failed to develop despite all the joint communiqués and promises. In 1994, Kazakhstan, Kyrgyzstan, and Uzbekistan formed a Central Asian Union and added a coordinating council and a Central Asian Bank for Reconstruction and Development. However, Tajikistan and Turkmenistan were not included, with the former experiencing civil war at the time and the latter having determinedly isolationist leadership.⁵ At the same time, Kazakhstan's president moved to create a "Eurasian Union" consisting of Russia, Belarus, and Kazakhstan. Although Tajikistan joined in 1998, and the group was renamed the Eurasian Economic Union, it is also all but moribund. A later version of the Central Asian Union, the Central Asian Cooperation Organization, existed only from 2001 to 2005.

Thus, Central Asia is a seemingly fruitful area for regional integration, but it is hampered by regional conflicts, weak and dependent economies, and governments focused on sovereignty.⁶ Initiatives for regional integration among the CARs have largely come from

outside the region. The best example of such externally imposed integration is the SCO.

Edward A. Lynch is professor of political science and chair of Global Politics and Societies at Hollins University. He is the author of *The Arab Spring: The Failure of the Obama Doctrine* and *Isolating Qatar: The Gulf Rift, 2017–2021*.

Susanna Helms is an international studies major in the class of 2024 at Hollins University.



(Map by Beth Warrington, *Military Review*)

Shanghai Cooperation Organization Members and Dialogue Partners in 2023

Establishment of the SCO

The formal creation of the SCO was preceded by five years of experimentation. As noted, the first summit of the Shanghai Five took place in that city in April 1996. The dissolution of the USSR was accompanied by a need to delineate the new nations' borders, especially borders with China. Before the agreements on the borders could be made, however, there had to be a gesture to build confidence in peaceful cooperation. As a result, the first and forming document of the Shanghai Five was written: *The Treaty on Deepening Military Trust in Border Regions*.⁷

The treaty regulated member state military movements, limited the size of military exercises, and required states to repudiate aspirations of military superiority. Moreover, the treaty emphasized communication between national armies regarding large-scale troop movements; voluntary reciprocal official visits by military leaders to respective headquarters; information exchange on troop training activity; reports on member state military exercises; and yearly accounts of the precise number of weapons, equipment, and troops on both sides of each border.⁸

Although the treaty was technically binding, any of the five had the right to terminate it by quitting the SCO or insisting the entire document was no longer valid or binding for all parties. This provision highlights the nature of the Shanghai Five relationship and the accompanying "Shanghai spirit." The agreement's success is predominantly dependent on nations' confidence in one another. Nonetheless, the treaty was a productive measure toward border resolution. Only three months after the founding treaty, an agreement clarifying part of the Kyrgyz-China border was signed.⁹

The second Shanghai Five summit took place in Moscow in 1997. The nations reiterated the importance of demilitarization and expanded upon it via the Agreement on Mutual Reductions of Armed Forces in the Border Area.¹⁰ The Moscow Agreement, very similar to the treaty preceding it, committed member states to reduce their respective military presence near border areas. Signatories agreed that military force along borders would not go beyond their individual need for defense. Russia agreed to reduce the force on its border with China by 15 percent.¹¹ However, such a reduction



Leaders of (from left) India (Prime Minister Narendra Modi), Kazakhstan (President Kassym-Jomart Tokayev), Kyrgyzstan (President Sadyr Japarov), China (General Secretary Xi Jinping), Uzbekistan (President Shavkat Mirziyoyev), Russia (President Vladimir Putin), Tajikistan (President Emomali Rahmon), and Pakistan (Prime Minister Shehbaz Sharif) at the 22nd Meeting of the Council of Heads of State of the Shanghai Cooperation Organization, in Samarkand, Uzbekistan, on 16 September 2022. (Photo courtesy of Prime Minister's Office of India)

was likely already planned since Russia's post-USSR, postsuperpower status required curtailment of forces along the Sino-Russian border.¹²

More ominously, one month after the summit, China and Russia officially endorsed the “multi-polarization of the world and the establishment of a new international order.”¹³ The joint declaration noted that the Cold War is over, and there is no longer a need for the bipolar system of international relations. Additionally, it highlights the importance of nations respecting the sovereignty of one another as well as their noninterference in domestic affairs. The joint declaration also references the Shanghai Five's confidence-building demilitarization measures and the Moscow Agreement as a “model for the achievement of regional peace, security, and stability in the post-Cold War era.”¹⁴

The third summit in 1998 marked three major shifts in the power dynamics of the organization. First, the summit was in Almaty, Kazakhstan, a nation that has a more dominant presence in Central Asia than Kyrgyzstan or Tajikistan, but glaringly less than previous summit hosts China and Russia. Second, conversations undertaken at the Almaty summit took on a multilateral approach in stark contrast to the first two, when China

and Russia could dictate outcomes. There was significantly more intercommunication among all parties.¹⁵ Third, conversations went beyond the immediate goal of secure border resolutions. Regional security threats were discussed for the first time, including weapon smuggling, drug trafficking, extremism, and terrorism. Also discussed was the potential of economic cooperation as a vehicle for peaceful stability. The consequent Almaty declaration acknowledged the expanding scope of concerns by including a statement of intent to combat all threats to regional security. The Almaty summit was also influential on the foundation of the SCO via the new emphasis on combating the so-called three evils: separatism, fundamentalism, and terrorism.¹⁶

The fourth Shanghai Five summit was in Bishkek, Kyrgyzstan, in August 1999. In the final communiqué, leaders reaffirmed their commitment to their original goals and willingness to coordinate a regional response to fundamentalism, separatism, and terrorism. Following the summit, China and Kyrgyzstan signed their final border settlement agreement, resolving the disputed area. Still, concrete progress was slow and uncertain. Tajikistan signed a border-demarcation agreement in 1999, but it was not fully ratified by the Tajik

parliament until 2011 because of domestic opposition to the Chinese demand for disputed territory potentially rich in rare minerals and water resources.¹⁷

The fifth summit, held in Dushanbe, Tajikistan, in 2000, was the first to include Uzbekistan, which attended as an observer state. The topics discussed among leaders continued to expand. Key items discussed included China's right to Taiwan, rising tensions in the Xinjiang Uyghur Province, Russia's claim to Chechnya,

with their giant and powerful neighbors. The combined population of the CARs is fifty-five million, with a total GDP of less than \$100 billion, requiring the multiplier effect for a more equitable relationship with a stronger power or two.²¹ Moreover, the CARs, on the one hand, cannot address even such basic problems as a lack of usable infrastructure. On the other hand, energy and rare earth resources give the CARs leverage in diplomatic negotiations they are eager to employ.

“Uzbek National Security Service shot and killed at least two hundred protesters, although some witnesses claim this number exceeds one thousand.”

and the possible ramifications of Afghan instability in the region.¹⁸ At this summit, then Chinese President Jiang Zemin proposed a more institutionalized organization among the existing five members. Uzbekistan, which does not share a border with China, was also offered membership to underscore the shift from border resolutions to region-wide issues.

Uzbekistan was formally admitted to the organization in June 2001, and the six members signed the Declaration of the Shanghai Cooperation Organization in June 2002.¹⁹ At the time, Western diplomats called the SCO a “stillborn” organization and an alliance made irrelevant by the significant U.S. presence in Central Asia.²⁰ Since 2004, the SCO has also added several observer states and dialogue partners, primarily Middle Eastern and Southeast Asian nations. The Commonwealth of Independent States, the United Nations, the Association of Southeast Asian Nations, and Turkmenistan were guest attendees to the SCO summits. In 2017, India and Pakistan became full members, and as noted, Iran joined in 2023. Belarus also hopes to join, having applied for membership in 2022.

Why Do Member States Support the SCO?

For the CARs, SCO membership brings security, regime stability, legitimacy, and opportunities for economic growth. CARs may also be motivated by the knowledge that they have little choice but to cooperate

Because of the emphasis on security and stability, deterring revolutionary activities is a high priority for CARs. In the early 2000s, so-called “color revolutions” took place in several Eurasian nations and were characterized by large protests brought about by a desire for further democratization. Only one “color revolution” took place in a SCO member state, Kyrgyzstan, but the concept of government protest is not foreign to the region nor overlooked.²²

The incentive of regime stability and legitimacy is further demonstrated by the rift between Uzbekistan and the United States in 2005 following the Andijan massacre when Uzbeks protested inequality, a rise in authoritarianism, and government corruption. The primary methods of protest were nonviolent demonstrations and civil disobedience, although conflicting reports claim there may also have been rioting. In response, the Uzbek National Security Service shot and killed at least two hundred protesters, although some witnesses claim this number exceeds one thousand.²³ The Uzbek government blamed the events on the Islamic Movement of Uzbekistan (IMU), but that claim remains widely disputed.²⁴ The decision to respond violently to the protests was quickly condemned by many nations in the West, including the United States, which had previously had a friendly relationship with Uzbekistan. Russia and China, for their part, sent messages of public support for the Uzbek government and reiterated the claim of IMU involvement.

In a state visit to China following the massacre, then Uzbekistan President Islam Karimov was greeted with a twenty-one-gun salute in the infamous Tiananmen Square and was told by then Chinese President Hu Jintao that he “honor[ed]” Uzbekistan’s “efforts to protect its national independence, sovereignty, and territorial integrity.”²⁵ Additionally, the pair signed an oil deal reportedly worth \$600 million.²⁶

At the SCO summit for heads of state five months

SCO as an instrument for maintaining some semblance of stability near China’s western frontier.

To emphasize its fear of instability, China made a point to suppress opposition in the Xinjiang Uyghur Autonomous Region (XUAR) of western China. The XUAR is home to roughly eleven million Uyghurs, an ethnic group of primarily Turkic-speaking Muslims.³⁰ In the late 1990s, China adopted strict rhetoric regarding the XUAR with its “One China” policy. This termi-

“ Serious human rights violations have been committed in XUAR in the context of the Government’s application of counter-terrorism and counter-‘extremism’ strategies. ”

later, members unanimously supported the Uzbek government’s response to the event and the claim that the IMU was to blame. At that same summit in Astana, Kazakhstan, leaders signed seven agreements targeting the three evils.²⁷ The SCO presented the protests in Andijan as the result of extremists rather than peaceful protesters, thus, legitimizing the violent Uzbek response.

By contrast, the U.S. government strongly criticized the massacre. To retaliate, Uzbekistan gave the Americans six months to vacate the Karshi-Khanabad air base, then a logistics center for Operation Enduring Freedom in nearby Afghanistan. Russia also benefited from this realignment in Uzbek foreign policy. In the wake of the United States leaving Karshi-Khanabad, Russian troops were granted access to an air base in Navoi and, consequently, a stronger foothold in the region.²⁸ In this way, Russia’s participation in the SCO serves two critical aspects of Russian foreign policy in Central Asia: limiting American influence in the region and preserving pro-Moscow regimes in the CARs.²⁹

The motivating factors for China to remain in the SCO have changed since the early 2000s. Then, it seemed that Russian influence in the region following the end of the USSR was permanently declining. The demise of the Soviet Union seemed to open a power vacuum China was eager to fill. Following the terrorist attacks of 11 September 2001 and the subsequent U.S. presence in Afghanistan, China had a stronger motivation to assert its presence in the region. In addition, China sees the

nology continues to be a cornerstone of China’s activity in the XUAR and the SCO as a whole.

China rejected the notion that violence in the XUAR came from ethnic conflict or opposition to Chinese governance. Instead, China blamed all unrest on the three evils. One specific organization named by China during this time was the East Turkestan Islamic Movement. In January 2001, the Chinese government reported that East Turkestan forces were responsible for over two hundred “terrorist incidents” in the 1990s.³¹ It is important to note that the numbers provided in the report are unsubstantiated and that there is an apparent conflation between organized terrorism in the region and standard criminal activity.³² Nonetheless, the report successfully inflated the terrorist presence in Western China. In fact, China’s branding of any opposition movement in the XUAR as a product of the three evils was so effective that the United States placed the East Turkestan Islamic Movement on the list of terrorist organizations at China’s insistence in 2002.³³

China has used the rhetoric of the three evils to demonize genuine grassroots opposition movements in the XUAR. Uyghurs continue to be oppressed by the Chinese government, with one 2022 human rights report by the United Nations stating, “Serious human rights violations have been committed in XUAR in the context of the Government’s application of counter-terrorism and counter-‘extremism’ strategies. The implementation of these strategies, and associated policies in

XUAR has led to interlocking patterns of severe and undue restrictions on a wide range of human rights.³⁴

In the context of the SCO, the three evils rhetoric is extremely appealing. Following the Tajikistan Civil War in the late 1990s and the color revolutions of the 2000s, SCO member states are eager to squash opposition movements. As the SCO has adopted the rhetoric of the three evils, CARs have been able to count on Chinese and Russian support for their repressive actions.

Activities of the SCO

One of the more consistent realities of the SCO is its penchant for grand announcements followed by considerably less impressive achievements. The heads of state of the SCO nations hold a yearly summit, rotating the meeting among the national capitals. Each summit produces a final communiqué and often a set of commitments to advance the SCO's core goals of opposing the three evils, facilitating trade, and ensuring that no outside power (like the United States) effectively competes with the SCO for leadership in Central Asia. Implementation of such agreements is spotty at best.

One of the few concrete results of any SCO summit came from the 2004 meeting held in Tashkent, Uzbekistan. The members agreed to form the Regional Anti-Terrorist Structure (RATS), with its headquarters in Tashkent, the Uzbek capital.³⁵ Even this venture into genuine action seemed somewhat hedged and uncertain. The term antiterrorist structure, as opposed to "agency," "commission," or even "office" suggests that RATS is just the outline of a policy, with the SCO leadership giving itself plenty of opportunity to redefine or repurpose the "structure."

More typical of the group are the statements from summits in 2009 and 2010. An accord signed by the members in 2009 defined "information war," partly as an effort by a state to undermine another's "political, economic, and social systems."³⁶ It would be a year later, at the 2010 summit, before the SCO clearly opposed cyberwarfare, saying that the dissemination of information "harmful to the spiritual, moral and cultural spheres of other states" should be considered a "security threat."³⁷

The SCO has had more success in staging joint military maneuvers. While committing themselves to intelligence sharing, military cooperation, and counterterrorist activities, the members simultaneously insisted the SCO was not a military alliance. Formal

alliance or not, SCO militaries have spent a good deal of time wargaming together since 2003. In that year, the organization oversaw its first joint maneuvers, first in Kazakhstan and later in China. Since 2005, China and Russia have regularly staged joint exercises they call the Peace Mission war games. Peace Mission 2010, conducted at Kazakhstan's Matybulak training area, saw over five thousand personnel from China, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan conduct joint planning and operational maneuvers.³⁸ Following the successful completion of the war games, Russian officials began speaking of India joining such exercises in the future and the SCO taking on a military role.

Economic cooperation has also veered between grand promises and less-grand realities. The SCO began its efforts in this area at the 2003 summit, at which members signed a framework agreement to enhance economic cooperation. A far more ambitious goal was put forward by Chinese Premier Wen Jiabao, who suggested an SCO-wide free trade agreement. He followed up with smaller but more immediate steps to remove barriers to the flow of goods in the region. The SCO agreed to one hundred steps toward a regional economic group one year later. Few steps have actually been taken, however. The following year, the SCO leadership met in Moscow and focused on energy projects. Russian officials called for the creation of an SCO "energy club." Almost two years later, Russian officials were still unsuccessfully trying to get commitments to join the energy club.

The 2005 Moscow summit also saw the creation of the SCO Interbank Consortium. Its stated purpose was to fund future joint projects. Almost six months later, the first meeting of the SCO Interbank Association was held in Beijing. On paper, the consortium exists to provide bank services for investment projects sponsored by the SCO member states.³⁹ Its activity level can be judged from the fact that its directors meet only once a year. In 2009, China announced a \$10 billion loan to SCO members still reeling from the 2008 global financial crisis.⁴⁰ Other than Chian's unilateral (and largely self-serving) action, the SCO has produced little more than promises for future cooperation and demands for more money from the International Monetary Fund.⁴¹

U.S. Perceptions and Reactions

Since the disastrous withdrawal of U.S. troops from Afghanistan in 2021, Central Asia has ceased to be an area



More than four thousand military personnel took part in Peace Mission 2021, the Shanghai Cooperation Organization's joint military anti-terrorist command and staff exercise held 11–25 September 2021 at the Donguz training ground in Russia. (Photo courtesy of the Russian Ministry of Defense)

of vital interest to the United States. Official statements from the U.S. State Department and other agencies regarding the SCO have been anodyne. Few official statements provide evidence of a strong focus on the region by policymakers.

Current U.S. interests center around three concerns. First, the area is relatively well-endowed with energy resources. Since oil and gas are likely to be important commodities for the foreseeable future, and since battery power relies on minerals and other resources of which China has a virtual global monopoly, and since America no longer has the energy independence it enjoyed in 2021, Americans cannot afford to take their eyes off Central Asia.⁴²

Second, the SCO's tolerance for political repression means the region will continue to feature human rights violations that will become part of diplomatic discussions between the United States and regional officials. Uzbekistan's expulsion of the Americans from Karshi-Khanabad over U.S. officials' condemnation of the Andijan massacre clearly shows

that human rights concerns can have an outsized impact on U.S. strategic interests.

Finally, Americans are understandably wary of Chinese-Russian collusion in any region, no matter how far removed from vital U.S. interests. Any organization led by America's two most powerful global adversaries warrants close attention from Washington. Both the rhetoric and the actions of the SCO, and especially of the Chinese leadership, leave little room to doubt that supplanting U.S. influence in the region is a central goal of the SCO. The SCO is sometimes referred to as an "Asian NATO" with the United States playing the role of the former Soviet Union.⁴³ With a substantial U.S. military presence in the region and near-constant attention from U.S. officials, CAR leaders could fend off pressure from China and Russia to definitively enter their orbit. Since 2021, however, that counterweight has disappeared.

With Afghanistan back in the hands of the Taliban and rumors already circulating that the Taliban is planning to offer haven to anti-Western terrorist organizations, the possibility that the United States might wish

to intervene in the region again is not far-fetched. The Taliban arguably has more motive to attack American interests after twenty years of fighting American forces than the movement had in 2001. After the 9/11 attacks, all five CARs offered assistance to the United States, with three offering military base rights. If the SCO leadership successfully develops an anti-American slant to the organization, a direct response to some future terrorist attack on the United States may be out of the question.⁴⁴ At the same time, U.S. officials cannot help but be wary that Iran's newly approved membership in the SCO will only assist Russia and China in their efforts to help the Islamic Republic evade Western sanctions.⁴⁵

Even without such an eventuality, the United States has no interest in seeing a rival diplomatic behemoth rise anywhere in the world, including Central Asia. This is especially true if the behemoth is likely to be unfriendly. Beijing's use of the SCO apparatus to call for a "new security concept" and a more "just and fair" multipolar international order is a strong signal that China hopes to reduce U.S. influence in Central Asia as part of China's broader effort to present its foreign and security policy as a preferable alternative to the U.S.-led security order.⁴⁶

In sum, American perceptions and interactions with the SCO members will shift over time, depending on a particular administration's perception of the larger relationship between the United States and Russia and between the United States and China. Under President Donald J. Trump, the U.S. government regarded China as an adversary, and wariness about the intentions of the SCO grew during his administration. At the same time, Trump's efforts to increase U.S. gas and oil production and his stated determination to end the "endless war" in Afghanistan allowed the United States to adopt a more detached attitude toward the region.

Since 2021, the Biden administration has sought to downplay the dangers of China but has adopted a more belligerent attitude toward Russia, even before the latter's invasion of Ukraine. Thus far, Biden's hostility to Russia has not meant any particular hostility toward the SCO. A survey of State Department statements that refer to the SCO shows that virtually all such statements are simply notations that certain nations belong to the organization.⁴⁷ There is little evidence of a strong U.S. government effort to use soft power to bolster the American position with SCO members. There is no open-source evidence that

Biden tried to persuade Indian Prime Minister Narendra Modi that there was any disadvantage to SCO membership during the latter's state visit to Washington in June 2023. Indeed, the two leaders' joint statement did not mention the SCO or the People's Republic of China.⁴⁸

Conclusion: Prospects of the SCO

In 2015, the European Parliamentary Research Service published a study of the SCO. The researchers concluded, "The SCO's main achievement thus far is to have offered its members a cooperative forum to balance their conflicting interests and to ease bilateral tensions. It has built up joint capabilities and has agreed on common approaches in the fight against terrorism, separatism, and extremism. However, major shortcomings, such as institutional weaknesses, a lack of common financial funds for the implementation of joint projects, and conflicting national interests have prevented the SCO from achieving a higher level of regional cooperation in other areas."⁴⁹

Other than a symbol of unity, it is hard to point to specific SCO achievements. No fewer than twenty specialized bodies supposedly promote economic cooperation, but these bodies are "more declared than real."⁵⁰

Yet, U.S. policymakers would be mistaken in dismissing the SCO. The founding document of the SCO defines as a core institutional objective the promotion of "multipolarity," a code word for the supplanting of the United States as the world's sole (or even dominant) superpower.⁵¹ An early SCO summit opposed a U.S. plan to build a missile defense system in the Asia-Pacific.⁵² American influence in the region is also hampered by the wholly legitimate concerns American diplomats express about human rights violations by the CARs. Chinese and Russian diplomats make it clear that they are not interested in human rights violations in the CARs so long as the superpowers' economic interests are protected and, in the case of China, the relative stability in Xinjiang is maintained.⁵³

Although Central Asia is not at the forefront of U.S. foreign policy, authoritarian governments, a breadth of salient resources, and proximity to Russia, Afghanistan, and China mean the region must not be overlooked. The SCO has grown from five nations solely based on border resolutions to nine nations with a widening focus on symbolic unity, regime stability, and economic growth. Although the SCO is far from realizing its potential, its

capacity and expanding membership make it a worthy subject of ongoing analysis. ■

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Notes

1. For this article, Central Asia refers to the five former Soviet republics of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, and their immediate neighbors (China, Russia, Iran, Afghanistan, and Pakistan). Central Asian Republics (CARs) refers only to the former Soviet republics.
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Chinese audiences wait in the lobby of a Beijing cinema 4 October 2021 to watch the movie *The Battle at Lake Changjin*. Released in 2021, the war movie commissioned by the Central Propaganda Department of the Chinese Communist Party was a cornerstone component of the party's one hundred-year anniversary celebration. It depicts combined North Korean and Chinese People's Volunteer Army forcing U.S. forces to retreat in a retelling of the Battle of Chosin Reservoir fought during the Korean War. With a budget of \$200 million, the movie is the most expensive film ever produced in China. The film had remarkable national and global financial success, becoming the second-highest grossing film worldwide in 2021, earning \$913 million, and the highest-grossing Chinese film produced on record. The film ends with the caption, "The great spirit of the War to Resist U.S. Aggression and Aid (North) Korea will eternally be renewed! Eternal glory to the great martyrs of the People's Volunteer Army!" (Photo by Lou-Foto, Alamy)

Chinese Propaganda

The Hollywood Effect

Cori E. Dauber, PhD

Professor Mark D. Robinson

D. Alexander Jones

Jolie Koonce

Steven A. Meeks III

Zane Mehta

Concerns about covert Chinese influence campaigns increased over the last several years, according to both the popular and academic presses as well as government reports.¹ The concern is valid, and the general tone of urgency entirely warranted. Our concern is that while we focus on covert Chinese efforts to manipulate the United States, their attempts to do so overtly should not be ignored. For thirty years, the People's Republic of China (PRC) has slowly, consciously, and purposefully expended enormous effort to build an indigenous film industry. The effort is now paying off in terms of the quality of Chinese propaganda appearing on mainstream media-sharing platforms. We consider the motivations behind this effort, the value China perceives it is getting from the effort, how we might analyze these videos, and what motivates it to do this now.

The Department of Defense defines propaganda as “any form of communication misleading in nature

designed to influence the opinions, emotions, attitudes, or behavior of any group to benefit the sponsor.”² Given that definition, attention needs to be paid to all the propaganda efforts of the PRC. As the Department of State's Global Engagement Center stated in 2023,

Cori E. Dauber is a professor of communication at the University of North Carolina at Chapel Hill (UNC-Chapel Hill). She holds a PhD from Northwestern University, an MA from UNC-Chapel Hill, and a BS from Northwestern, all in communication. She previously served as visiting research professor at the Strategic Studies Institute, U.S. Army War College. She is the author of *YouTube War: Fighting in a World of Cameras in Every Cell Phone and Photoshop on Every Computer* (U.S. Army War College Press, 2010) and coeditor of *Visual Propaganda and Extremism in the Online Space* (U.S. Army War College Press, 2014).

Mark D. Robinson is the director of the Media Arts Space at UNC-Chapel Hill. He holds an MA and a BFA from Chapel Hill. He has presented his work to the Carter Center and the National Defense University and published in venues (with Cori E. Dauber) such as *Jihadology.net*, *Studies in Conflict and Terrorism*, and *Perspectives on Terrorism*.

Every country should have the ability to tell its story to the world. However, a nation's narrative should be based on facts and rise and fall on its own merits. The PRC employs a variety of deceptive and coercive methods as it attempts to influence the international information environment. Beijing's information manipulation spans the use of propaganda, disinformation, and censorship. Unchecked, the PRC's efforts will reshape the global information landscape, creating biases and gaps that could even lead nations to make decisions that subordinate their economic and security interests to Beijing's.³

The PRC may only be a “competitor,” but in the propaganda domain, it acts as if it is an enemy of the United States and its allies, even an enemy at war.

Understanding the PRC's propaganda methods and how they function should receive a high priority, for not only America's general population but also for the U.S. Army specifically. Much of the propaganda the PRC produces and attempts to distribute to Western populations focuses on its military power relative to ours. Furthermore, a large percentage of the propaganda videos it releases are sourced to and produced by (at least, claimed publicly to be a product of) the People's Liberation Army (PLA).

Modern Media

The value of propaganda in wartime has been established back to the classical period: the Greeks used propaganda, as did the Romans. Sun Tzu, the ancient Chinese authority on warfare (still taught in their service academies today), emphasized its value, as did Mao Zedong, still the ultimate and unassailable source.⁴

The use of propaganda truly escalated in the West during the two world wars when all major combatants had vast propaganda organizations to facilitate the production of materials for internal and external audiences. During World War I, for example, the U.S. government engaged in an aggressive censorship program

D. Alexander Jones is a member of the class of 2025 of UNC-Chapel Hill, majoring in economics.

Jolie Koonce is a 2023 graduate of UNC-Chapel Hill who majored in philosophy and peace, war, and defense.

(ostensibly to avoid any possible risk to public morale). The war was presented as an American effort to save “civilization” from the depredations of the “Hun”—as in those who had marauded across the world alongside Attila. This was a heavily racialized framework and an odd one given that the Germans were a largely white, Christian nation. World War II, of course, saw the introduction of more modern forms of mass media harnessed for the use of propagandists. Radio and especially film were used by the Allied and the Axis powers in new and powerful ways.⁵

Part of the reason for the intensity of propaganda and the extensive efforts of the main World War II combatants was that media and media technology had evolved to a critical point, where the propagandists could—and *did*—capitalize on the power of the visual image. Research from communication, mass communication and journalism, psychology, advertising, and public relations all support the power of the visual image relative to the word alone. As powerful as the visual image generally is, moving images can be even more powerful. This is true for several reasons. First, we are hardwired to follow motion. Images may appeal to and successfully grab our attention, but moving images hold our attention.⁶

Second, visual propaganda—and, again, moving images in particular—creates a number of benefits for the propagandist that are not available through words alone. Images, for example, make it possible to reach the illiterate, whether that means the very young, a segment of the population who is illiterate, or a population who may not read the dominant language⁷ or even the language spoken in the video at all.⁸

And, of course, in film or video, images may be accompanied by sound: dialogue, musical soundtrack, sound effects, or sound that makers present as the supposedly contemporaneous sound accompanying the action unfolding on the screen. Audio makes possible an entirely separate channel of emotional appeal working in concert with the visual. Sound creates cognitive and emotional linkage between the audience and the image, as the sound reaches out from the 2-D image into and through the 3-D reality of the audience.⁹

China's Propaganda Efforts

It is especially important to focus on China's recent visual propaganda efforts. The quality of the

propaganda is astonishing, certainly when compared to that of subnational extremist or terrorist groups and even to material coming from Hollywood itself. Yet the speed with which China moved from relatively modest efforts to its current output makes this especially noteworthy: the learning curve is unprecedented. The change was notable enough and rapid enough to prompt the question, “How did they do that?”

To answer that question, it requires one to go back thirty-plus years, back to when the Chinese seemingly decided that if they were going to compete in “soft power” in earnest, they would need a film industry that could compete with the United States.¹⁰ They understood achieving this goal would require a commitment of billions of dollars over many years, yet nonetheless began to implement that exact strategy. The Chinese Communist Party (CCP) also realized it would be impossible to achieve the target on their own: Hollywood's cooperation would be required. Over that time span, China has brilliantly leveraged its market power to do just that. The CCP financed Hollywood films, coproduced films with Hollywood studios, and used the production of those films as opportunities for its people to learn everything they needed from Hollywood to render Hollywood itself obsolete, at least within China (and in some foreign markets).¹¹ At this point, films imported to the PRC (e.g., American-made films) are no longer needed to fill Chinese movie theaters, because Chinese audiences prefer Chinese-made films about Chinese stories when they are of comparable technical quality.¹²

When examining Chinese propaganda materials, specifically videos, one immediately notices their quality and high-production value, which is the net result of China making these investments; equipment, training, everything involved in building out an indigenous film industry over a period of years. They look like nothing so much as very short, high-production-value movies. That is evidence that there is a good chance these videos were produced by people trained in a system

Zane Mehta is a member of the class of 2025 at UNC-Chapel Hill, majoring in political science and peace, war, and defense.

Steven A. Meeks III is a member of the class of 2024 at UNC-Chapel Hill, majoring in psychology and peace, war, and defense.



Official movie poster for *The Battle at Lake Changjin* (2021) (Photo courtesy of Wikimedia Commons)



modeled on Hollywood, or even potentially by individuals trained by Hollywood professionals.

Why is this happening now? Particularly within its region, China invested substantially in various soft power measures and received measurable returns for its investment: multiple polls showed, over a period of years, that the public in these countries had demonstrably more positive attitudes toward the PRC than before the investments were made. The problem from China's perspective: the positive attitudes were not permanent, nor did their investment insulate them against negative attitudes forming in those countries, which, based on the PRC's later actions, created disgruntled publics.¹³

Over the last twenty years or so, as the PRC has behaved more aggressively in the region across various domains, changes in PRC policies often directly and negatively impacted average people. Attitudes toward the Chinese were—almost inevitably—impacted. Cultural exchanges and college scholarships aside, when the Chinese fishing fleet repeatedly and aggressively invaded their neighbors' exclusive economic zones, threatening smaller vessels (therefore, their livelihoods), polling results in the region were at some point going to reflect those aggressive acts. In Laos, the Chinese “Belt

and Road Initiative” bought fabulous new infrastructure the Laotians could never have afforded on their own. However, the resulting debt load is crushing the Laotian economy despite the government paying at least some of the debt off by yielding control over some of these new projects to the Chinese, who now effectively own them. Laos sacrificed its economy for fabulous infrastructure projects, which Laos no longer controls. Unsurprisingly, the political result of the Chinese efforts resulted in the Laotian public slowly but surely registering more positive feelings toward the United States—the country that, in living memory, bombed Laos—rather than toward the Chinese who built its infrastructure.¹⁴

Analyzing Chinese Propaganda

When analyzing any communicative text, the first step is to determine the audience for which the text



Actor Wu Jing portraying Wu Qianli, the rough and ready commander of the Revolution's 7th Company in the 2021 film *The Battle at Lake Changjin*. (Screenshot courtesy of YouTube)

was intended. Determining efficacy requires first assessing the persuasiveness of the communication, which of course begs the question: Persuasive to whom? Depending on who the maker is and what the text is, making that determination can often become extremely complicated.

Working with Chinese media, the analyst has an immediate advantage. Materials intended for an internal Chinese audience will be posted to Weibo, a social media platform meant expressly for the Chinese population. We can confidently say this because it will be behind the “Great Firewall.”¹⁵ It is possible, but unlikely, that anyone other than citizens of the PRC will be on that platform. At the very least, Weibo is certainly not the mechanism Chinese authorities would choose as a vehicle for persuading a non-Chinese population. When materials are intended for external

audiences, on the other hand, whether produced by the CCP or the PLA, the responsible institution will post the material to mainstream Western platforms such as Facebook, YouTube, or TikTok (owned by Beijing but intended for external audiences). These platform determinations simplify the question of who the audience for any given item is (at least at a first pass). As Bethany Allen wrote,

It's not unusual for foreign governments in a variety of countries to hand the management of their social media accounts to outside firms. What's unusual about the China case, however, is that these foreign social media platforms are blocked domestically. The rise of Chinese

government agencies officially building their presence on Twitter, Facebook, YouTube, and Instagram underscores the asymmetrical messaging—viewing the platforms as tools to project propaganda and other official rhetoric internationally while preventing information from flowing back home.¹⁶

The analyst only needs to look at where a given item was posted. It is also the case that the Chinese have content-sharing arrangements with media outlets in other countries. In other words, some of the material our team has examined may have appeared on various news outlets worldwide and may have appeared without any attribution suggesting it was sourced from Beijing.¹⁷ (Our interest is exclusively in the short propaganda videos posted to social media. Chinese cinematic films are, no doubt, propagandistic vehicles and marketable outside China, thanks to their decades-long partnerships with Hollywood studios. But those films are beyond the scope of this analysis.)

To make a precise argument about the relative quality of video-based propaganda requires a defensible metric for the evaluation. Quality is not simply a subjective measure of “how one feels” about a visual product, nor is it simply a statement that a given video is “good” or “bad.” A usable metric that can serve as a basis for comparison between videos must be grounded in technical standards of *quality* and *craft*.

The University of North Carolina (UNC) team initially developed an assessment tool for evaluating Islamic State (IS) video propaganda.¹⁸ Because the tool must be matched to the specifics of the materials, the tool was modified for a subsequent study of video game motifs in jihadist materials.¹⁹ An additional modification for use in the study of right-wing materials is underway but not yet complete.²⁰

Our team modified the tool to reflect the substantial jump in the quality of materials between the highest-end products of terrorist groups and those produced by Chinese state entities post the influence of Hollywood. The evaluative model forms a grid where the x axis provides a scale in percentages to grade the elements of production value from 0 to 100 percent. Production value is a measure of craft, of the skill necessary to maintain a story’s believability, specifically marked by an absence of breaks in continuity. A high evaluation or percentage reflects a project in

which high-end Hollywood materials exemplify the standards. The y axis is comprised of evaluative points of media production and audio and visual communication: essentially, this is a list of the elements of video production that can be graded in terms of quality (see tables 1 and 2).

The vertical axis provides the opportunity to grade a video’s technical quality on characteristics that are arranged into themes or topics. The production elements convey how effectively a video will appeal to its target audience and, more specifically, how the work engages with the efficacy of content (e.g., with the quality of graphics or camera focus that might appear), with the message (e.g., the way symbols are employed), specific technical questions (compression, framing), aesthetic choices made in the video, aesthetic choices made in the audio, and aesthetic choices that were culturally informed.

For example, the UNC team analyzed the video posted in 2022, *To the Blue Sea*.²¹ It tells the story of a day in the life of a Chinese aircraft carrier evidently on station, out in the ocean. One reason Chinese propaganda is compelling is that it isn’t *just* technically sophisticated it is technical sophistication in service to a *story*. The difference between IS and al-Qaida videos wasn’t just that IS materials were far more technically sophisticated (they certainly were), it was that IS had figured out the importance of telling a story. Almost all their videos tell a story, while very few al-Qaida videos do. *To the Blue Sea* starts with an officer arriving to observe aircraft to be launched in the morning, an excuse for multiple overhead shots of the carrier in the middle of the ocean (emphasizing that China is now operating a blue water navy), and it ends with planes recovered at night. Multiple shots in that opening sequence are too reminiscent of the film *Top Gun* to be a coincidence, and they shoot around the inconvenient fact that they’re working with a “ski slope” deck. (It is shown later.)

But after that opening sequence, the real power of the video lies in the fact that the story speaks through different characters. Characters, of course, make a story relatable. The way the makers of this video shift from one character’s perspective to another’s reveals the intent of the makers—their thoughtfulness throughout the production process is apparent. The opening sequence ends with a shot of an officer who had just arrived by helicopter, signaling his importance, on the

bridge, looking out over the deck, and beyond him, in the distance, several deckhands make their way to a hatch. There is no attempt to highlight them beyond the fact that they are in the shot. But the focus of the video then immediately shifts to the deckhands, a subject “hand-off” reminiscent of the opening scene of *The Conversation*, a seminal U.S. film.²²

Similar shifts occur throughout. This kind of move demonstrates preproduction planning, narrative strength, character development, framing, postproduction including color correction, and all the elements or markers of intention-filled high value production work. For example, the audience initially follows a senior enlisted man in that group visible over the officer’s shoulder. He moves down various ladders, deeper and deeper below decks, while a vignette demonstrates his mentoring of a very young sailor. There is another shift to show us the scene from the perspective of what appears to be a birthday cake, as a group of young sailors join the senior man in a celebration for the youngest. As they all smile, the story no longer addresses professionalism and discipline, so much as themes of teamwork and camaraderie.

Eventually, the audience follows a diminutive female deckhand who is responsible for securing the planes above and below deck. Scenes following her carrying the obviously heavy chains and securing the planes are intercut with her difficult workouts, assuring the audience of her physical capacity to carry out her duties to the best of her ability. Her character demonstrates the

enthusiasm and complete commitment of the carrier’s crew, apart from the pilots, who are very much *not* the stars of this film.

Throughout, the audience is shown, through exciting camera angles and the use of constant, unpredictable edits, the carrier’s capacity as a tool for Chinese power projection. Multiple jets can protect the carrier or attack other targets. The jets are shown as sleek, modern, powerful, and able to operate as a unit, multiplying their power. (They are even shown engaged in midair refueling.) The rest of the carrier group make “cameo” appearances after these short character sequences—surface ships launching cruise missiles, even submarines. The quality and success of the video are only called into question with the final visual and historic medley of the development of Chinese carrier naval power. This “tack on” sequence is common to other PLA videos, signifying a separate control mechanism as if two hands are at work here.

Another video, *China’s PLA Army Enlists Rap-Style Music Video to Recruit Young Soldiers*, focuses not on the navy but on the combined arms team, aimed specifically at a younger demographic. This judgment is possible because the soundtrack is a rap song, a strong callout to a younger demographic.²³ And, second, rapid cuts drive forward the video edits—the pace of the edits often accelerates. This kind of rapid “MTV edit” is often associated with younger makers attempting to attract younger viewers. Ironically, research suggests that depending on how the material is edited, it may well work



A screenshot from *To the Blue Sea*, a video promoting the Chinese navy published 22 April 2022. (Screenshot by authors)



A screenshot from *China's PLA Army Enlists Rap-Style Music Video to Recruit Young Soldiers*. The first ten seconds of this video appear to be an imitation of earlier versions of recruiting ads for the U.S. Marines. (Screenshot by authors)

against the audience forming strong memories of what they have viewed.²⁴

The video does not start as a rap video. In fact, the first ten seconds appear to be an imitation of earlier versions of recruiting ads for the U.S. Marines. A young man in full dress uniform slowly and carefully pulls on his perfect white gloves, which he uses to wipe off the metal on his shoulder boards. He stands against a dark background, never revealing his face. We never see all of him—the camera focuses very tightly on the parts of him relevant to each shot in sequence. First, the gloves, then the shoulders, then (from behind) the torso as we watch him carefully put on his hat. The shots merge into a scene characterized by swelling orchestral music.

A narration begins as a graphic plays for a few seconds. We watch very young soldiers run as a group while carrying apparently very heavy packs. The audience, via a jib objective camera angle, observes a small group of tankers who, at the direction of a team leader, run synchronously to jump into the hatches of their tanks. The choreography is impressive, both how carefully timed the men must be to synchronize their actions, and how perfectly still their comrades, already waiting for them in the

tanks, have to be in order to create perfect stillness, which signifies intense discipline.

Except, upon careful inspection, the men rush to join crew members waiting in the tanks, who are so perfectly still because they are, in fact, dummies. No disrespect to their IQ, the maker of the video has literally deployed mannequins dressed in uniform rather than risk deploying fallible human beings who are, after all, capable of sneezing, moving, looking in the wrong direction, or doing any of a thousand things extras have done over the years to spoil a director's elaborate setup. Significantly, from this scene, the makers demonstrate a high level of preparedness and planning, of what is referred to as preproduction. The shot reflects planning an order of magnitude greater than what the investigators observed in any IS video. The planning assures that any image and sound will be captured at a high-production level, and the video will accurately reflect the intended message: one of a careful, disciplined, synchronous team where tanker and tanks become one.

Subsequently, images of soldiers training are intercut rapidly but not so rapidly as to be off-putting. Rather, when it's combined with music, whose tempo continues to increase, it's broadcasting a message of



A screenshot from *China's PLA Army Enlists Rap-Style Music Video to Recruit Young Soldiers*. Soldiers can be seen rushing to join crew members waiting in tanks, who happen to be mannequins dressed in uniform. (Screenshot by authors)

responsiveness (to unseen events presumably to an overarching environment).

The rap song begins at marker 0:41, and the quick staccato pacing drives the action forward, reflected in the images. The Air Force and the Navy make appearances (someone has to fire all those missiles after all) starting at 1:00, and the Marines and what appear to be Chinese SEALs show up just before 1:25. They appear first in dress uniform, then training—wriggling through the mud, even engaging in the Chinese version of Basic Underwater Demolition/SEAL (BUD/S) training, followed by scenes of many missiles fired.

Toward the final third of the video, images of Chinese satellites appear, a view of Earth from space, a command center reminiscent of NASA's from years of both news and cinematic depictions of spacecraft launches from Houston. Images (animated) of satellites above Earth are interspersed with those of the Chinese military, and space power technology hangs above the planet, serenely looping Earth in orbits with no other country's equipment visible, conveying Chinese global dominance and control of the skies.

For all the frenetic activity (and editing), perhaps the most interesting thing about this video is how

uneven it is in quality throughout. At even the most basic level, the question of how crisp and clear the image is varies widely across slightly more than three minutes. The product informs the audience that the project was created by multiple media teams, using more than one set of equipment and guidelines or objectives.

These two videos, in aggregate, are roughly comparable in quality as expressed via the UNC grids in tables 1 and 2. At the end of the day, both communicate hostile intent to the West (and its allies), clearly and well. The vision in both videos is unified, clear, and purposeful, designed by a purposeful hand with a clear goal for the messaging strategy these videos represent. The intensity of the underlying hostility toward the Western audience is evident. After all, the point of visual communication and the use of high-production-value product is that it accomplishes what lower quality materials fail to do: clear quality leaves the audience little doubt about the message and intent.

Why This Matters

Deterrence is most simply expressed as a relationship between capability and will. The U.S. military capability relative to the PRC has decreased in recent

years, which is hardly a state secret. On purely quantitative measures, the Chinese military has edged closer to that of the United States in recent years and certainly could pose a threat in certain Pacific scenarios. The qualitative difference among the forces continues to give the United States the edge in most scenarios.²⁵ Yet not so long ago, the United States was required as a matter of doctrine to have the capacity to win a major regional conflict in the Pacific. That was intended to be a Korean scenario, not a war with China, but the doctrine still set a force requirement for a Pacific military engagement that has since lapsed. For U.S. deterrence of China to be assured, there needs to be no doubt that the United States would be able to not only defeat China in a potential military conflict but defeat them overwhelmingly—and quickly. Anything less, anything that can leave doubt as to the outcome of what such a war might be or providing a victory only after a prolonged and costly war puts deterrence in doubt. The ability to deter falls into doubt because deterrence rests on will alone.²⁶

Deterrence, remember, is an equation: *Deterrence = f(x) where x is a relationship between capability and will.* Altering one side of the equation requires an equal operation to the other. Once the United States' military capability relative to China's is perceived to be reduced, its ability to deter us becomes a possibility. Our ability to deter them therefore shifts. No longer capable of deterring them by the simple fact of our overwhelming military capacity, we must have the ability to signal we are not deterred, which hangs on the question of will—which had not been as central when our military capability was obviously overwhelming. A balanced outcome hangs on whether the United States possesses the will—and can communicate that will in advance of the fact—to defend Taiwan if need be.²⁷ Only if we can persuasively communicate the will to fight can we avoid the need to actually do so.

There are two problems. The first, of course, is that will is an ineffable quality—it is invisible—unlike capability that is easily communicated since it rests fundamentally on hardware, which can easily be seen and therefore counted and measured. Deterrence, in other words, rests less on a nation's actual will than on its adversary's perception of that will, which may or may not be accurate. The accuracy of the assessment rests on the measurement of signs that are, by definition,

always going to be probabilistic. Allowing an adversary to misjudge one's will, underestimating that will, for example, can be destabilizing and dangerous. On the other hand, crafting circumstances so that an adversary misjudges one's will as stronger than it is in reality can be stabilizing since the misperception will tend to convince the assessors that the risks of initiating conflict are too costly to justify the effort. But, again, that begs the question, "How does one communicate will?"

The second problem is that the challenge faced by the Chinese in communicating will is far simpler than that faced by the United States. The asymmetry is stark: for the United States, if an American president chose to present a determined commitment to defend Taiwan, that communication could be undermined if the White House staff disagreed (as has already happened several times to President Joseph Biden), or if public opinion polls suggest American public opinion would not support a long-term commitment to a Taiwan at war, or if a division persists in Congress over what our policy should be. For China, will comes down in practice to the will of a single man: if Xi Jinping says they are committed to "reunification" by force, if necessary, then no one doubts that is what China's policy will be, period.

Yet current U.S. actions have made the level and the certainty of its commitments to allies unclear: the debacle of the pull-out from Afghanistan, characterized by the thousands upon thousands of allies left behind despite the commitments made to them; the political polarization and general dysfunction in Congress, leaving our political leaders seemingly paralyzed and the increased (and increasingly public) questioning of support for the Ukrainians, culminating in a last-minute funding deal to avoid a government shutdown characterized by the removal of all funding for Ukraine, despite explicit claims that the United States would provide support for them to the end—and which was enough to bring down the speaker of the house who negotiated that deal. The combination of these issues means that our will regarding a possible Chinese attack on Taiwan cannot be taken for granted. The CCP will not merely be questioning our will: once it sees our will as a possible weak point, China will work to erode it, by whatever means are at its disposal, certainly including the use of propaganda.

While the Western allies currently believe that they are in a state of "peace," Chinese

security planners have quite a different perception. They believe that China is already engaged in an intense struggle that they often describe as a form of warfare—political warfare. The primary instruments used have been activist diplomacy, propaganda, media manipulation, information campaigns, intense cyber operations, subversion, political corruption, economic coercion, facilitated trade in fentanyl and other opioids to the U.S. and the West, and the preemptive occupation and militarization of contested territories.²⁸

Arguments regarding China's weakness in a plausible scenario for them taking Taiwan militarily in fact prove the risk inherent to the moment. Given Xi's apparent commitment to the unification of the island with the PRC, by force if necessary, and given the Chinese have the same capability to assess the weakness of their position that we do and may believe that the longer they wait, the worse their position will become, the window of opportunity for a Chinese military takeover is closing in their perception. Some analysts argue that China's economic contraction is not going to be reversed, and data reflects that their demographic decline certainly will not be.²⁹

Therefore, the best bet for the Chinese is to deter us from becoming involved, to convince us that in the event they do move on Taiwan, the United States should simply stay out of it—not because we would lose necessarily—but because of the questions they want us to ask: Is

this our fight? Is it worth what it would cost us in blood and treasure? No one believes we could defend Taiwan at this point without serious expenditures in casualties, military equipment, and money, perhaps extended over years. Simultaneously, the Chinese attempt to persuade the Taiwanese not to fight—again, because resistance simply is not worth the effort, the cost in lives, and the inevitable damage to so much of Taiwanese society.

The videos the PRC is posting to mainstream American sites about the strength (and capacities) of its military should be read through this lens as attempts to deter both American and Taiwanese responses to a PRC move on Taiwan. Many of these videos, if posted to sites intended for internal consumption, could easily be read as part of recruitment drives for the Chinese armed forces or as attempts to raise support and morale for such a war, whatever the costs, hardships, or losses a conflict might require.

But when posted to social media sites unavailable to the average Chinese citizen, the same material must be read differently. Posted to YouTube and thus unavailable to young Chinese men, the videos are hardly going to serve as effective components of a recruitment drive but instead as signs of capacity and will. ■

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26. See Mark F. Cancian, Matthew Cancian, and Eric Heginbotham, *The First Battle of the Next War: Wargaming a Chinese Invasion of Taiwan* (Washington, DC: Center for Strategic and International Studies, January 2023), <https://www.csis.org/analysis/first-battle-next-war-wargaming-chinese-invasion-taiwan>.

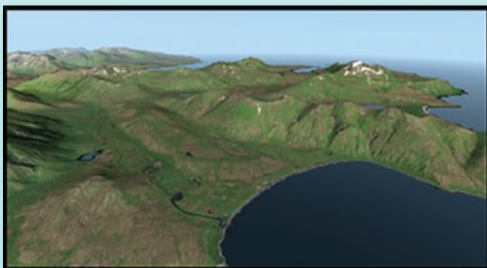
27. Julian E. Barnes and Edward Wong, "In Risky Hunt for Secrets, U.S. and China Expand Global Spy Operations," *New York Times* (website), 17 September 2023, <https://www.nytimes.com/2023/09/17/us/politics/us-china-global-spy-operations.html>. That is why Chinese intelligence gathering seems to be currently laser focused on answering exactly that question.

28. Ross Babbage, *The Next Major War: Can the US and Its Allies Win against China?* (Amherst, NY: Cambria Press, 2023): 15.

29. *Ibid.*, 1–11. Babbage argues that from the Chinese point of view, the fear is that their own strategic power may have peaked, and therefore it's possible that their window of opportunity is closing. Regarding the demographic constraints, see page 42.



New Virtual Staff Ride



Screen shot of Attu terrain in development. The VSR technician is replicating the rivers and lakes as they appeared in 1943.

The Battle of Attu (May 1943)

Combat Studies Institute is currently developing a virtual staff ride (VSR) for the Battle of Attu, part of the campaign in the Aleutian Islands against the Japanese in World War Two. The VSR is set for release in 2024, and it will provide insights into fighting on difficult terrain that includes the tundra-like surface known as muskeg as well as a challenging climate. The study will also offer relevant insights into numerous aspects of warfare to include offensive and defensive operations, joint operations, and mission command. This staff ride will demonstrate how the 7th Division battled and defeated nature's obstacles as well as the Japanese.

The Battle of Attu uses simulated 3D terrain presented in front of the audience to help immerse participants in the terrain. It serves as an excellent training event for units interested in fighting on difficult terrain and in a tough climate, and also units that want to become better acquainted with the Northern Pacific region.

To learn more about virtual staff rides, visit <https://www.armyupress.army.mil/Educational-Services/Staff-Ride-Team-Offerings/>



Table 1. Rap Style

"Rap Style"	CRITERION	SCORE										NOTES	
		1	2	3	4	5	6	7	8	9	10		
MESSAGING													
AUDIENCE													
	Explicit Target Audience												
	Appeal												
	Target Delivery Success												
	Marketing												
CONTENT													
	CHARACTER: Continuity (PLA One=All)												
	CHARACTER: Identifiable, Empathy, Quality of Acting												
	Content Organization												
	Narratives and Implication												
	SYMBOLOLOGY: Confucist												
	SYMBOLOLOGY: Marxist												
	SYMBOLOLOGY: Nationalist												
	Visual/Artistic Sophistication												
MESSAGE													
	Focused Valence of Message												
	Graphics												
	Intention												
	Media Element Delivery												
	Metadata												
	Scale of Message -- local, regional, national, or international												
	Specific Message Success												
MEDIA PRODUCTION													
OVERALL TECHNICAL IMPACT													
	Cinematography												
	Delivery Technique - Compression												
	DRC-A												
	DRC-V												
	Editing Craft Enhances Video/Story												
	Evidence of Pre-Production												
	Evidence of Production												
	Evidence of Post-Production												
	Image Framing (Scale: flattened to 3D or intention)												
	Resolution: audio/video												
	Set: Quality and Location												
	SOPHISTICATION OF AESTHETIC CHOICES: A trained eye/hand exerts standardized industry stylists												

Table 1. Rap Style (continued)

CULTURALLY SPECIFIC AESTHETICS (category name tentative???)															
CRAFT EDITS: reinforces spontaneity and impatience informed by the democratization of digital media															
CRAFT EDITS: youth style (MTV aesthetic) comprised of rapid edits, flickering, flash edits, reverse, slow motion															
Culturally Informed Aesthetic - a Trained Eye/Hand Exerts Standardized, Historic Cultural Stylistics															
Poetic - Characterized by the removal of -- Shift from strict Chinese access points to more universal															
Reflects the entertainment maker is most familiar with, given languages world appeal and propogation over movie marketing and filtering															
Timing -- reflects target demographic typical/pop forms (games as example)															

(Table by authors)

Table 2. To the Blue Sea

"Rap Style"	CRITERION	SCORE										NOTES	
		1	2	3	4	5	6	7	8	9	10		
MESSAGING													
AUDIENCE													
	Explicit Target Audience												Generally sophisticated but delivery image comp, weak, not tremendous - lower than others in series - appeared
	Appeal												
	Target Delivery Success												
	Marketing												
CONTENT													
	CHARACTER: Continuity (PLA One=All)												
	CHARACTER: Identifiable, Empathy, Quality of Acting												
	Content Organization												
	Narratives and Implication												
	SYMBOLOLOGY: Confucist												
	SYMBOLOLOGY: Marxist												
	SYMBOLOLOGY: Nationalist												
	Visual/Artistic Sophistication												
MESSAGE													
	Focused Valence of Message												
	Graphics												
	Intention												
	Media Element Delivery												
	Metadata												
	Scale of Message -- local, regional, national, or international												
	Specific Message Success												
MEDIA PRODUCTION													
OVERALL TECHNICAL IMPACT													
	Cinematography												
	Delivery Technique - Compression												
	DRC-A												
	DRC-V												
	Editing Craft Enhances Video/Story												
	Evidence of Pre-Production												
	Evidence of Production												
	Evidence of Post-Production												
	Image Framing (Scale: flattened to 3D or intention)												
	Resolution: audio/video												
	Set: Quality and Location												

Table 2. To the Blue Sea (continued)

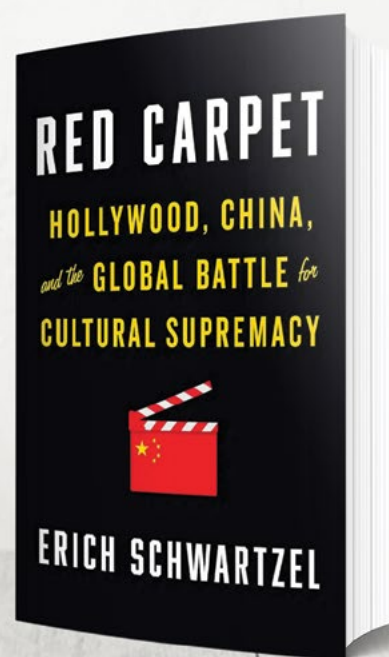
CULTURALLY SPECIFIC AESTHETICS (category name tentative???)													
CRAFT EDITS: reinforces spontaneity and impatience informed by the democratization of digital media								■					
CRAFT EDITS: youth style (MTV aesthetic) comprised of rapid edits, flickering, flash edits, reverse, slow motion													
Culturally Informed Aesthetic - a Trained Eye/Hand Exerts Standardized, Historic Cultural Stylistics													
Poetic - Characterized by the removal of -- Shift from strict Chinese access points to more universal													
Reflects the entertainment maker is most familiar with, given languages world appeal and propogation over movie marketing and filtering									■				
Timing -- reflects target demographic typical/pop forms (games as example)								■					

(Table by authors)

Red Carpet

Hollywood, China, and the Global Battle for Cultural Supremacy

Erich Schwartzel, Penguin Press,
New York, 2022, 400 pages



Dr. Barry M. Stentiford

Erich Schwartzel's *Red Carpet: Hollywood, China, and the Global Battle for Cultural Supremacy* provides a detailed exploration of the overt and covert infiltration of the Chinese government into the American motion picture industry. Schwartzel exposes how China uses its influence in Hollywood and its own movie industry to control the image of China globally.¹ The result is a deeply unsettling look at the penetration by the Chinese government and Chinese Communist Party (CCP) into an industry that has been key to the projection of American soft power. The influence of China in Hollywood serves as a case study of the process that has occurred in many American industries. However, because of the overt propaganda capabilities of the film industry, that influence presents an especially troubling example of the lengths the Chinese government will go to control the narrative of China in the United States and to the entire world.

Schwartzel arrived in Hollywood in 2013 as a reporter covering the movie industry for the *Wall Street Journal*. Before that, he had been an award-winning reporter covering energy issues and the environment for *The Pittsburgh Post-Gazette*. He is neither a political scientist nor a film historian, but his journalistic background and instincts as an investigative reporter soon

alerted him to the increasing role of the Chinese government in the American movie industry. Schwartzel delves into the financing of major motion pictures and the growing need for profitability in China to make an American film viable. He places these developments in context, exploring the history of Hollywood and its long entanglement with foreign governments and their political sensitivities. As Schwartzel points out, much of what China has been doing in Hollywood—including dictating film changes—follows a pattern set by Nazi Germany in the 1930s. Hollywood's efforts in the 1930s to avoid offending Nazi Germany with its films set a precedent for the readiness of Hollywood to kowtow to the Chinese government beginning in the late 1990s. In both cases, Hollywood agreed to cancel, edit, or alter films for showing not only in Germany in the 1930s and China today but also globally so as not to offend the parties in power in Germany then and China now.

The story of Hollywood and the People's Republic of China (PRC) began in the 1990s, but the larger issues have deep roots. In the middle decades of the nineteenth century, American business leaders discovered China. With perhaps one-fifth of the world's population, China represented an enormous potential

market for goods that could be produced by America's burgeoning industries. If only one-in-ten of the people in China bought some product, profits would be enormous. This seemingly simple idea has driven American business interests in China ever since. U.S. policy regarding China in the nineteenth century sought to prevent the European powers from carving up China into their colonies as they had in Africa and instead advocated an "Open Door Policy" in which all nations could trade. American territorial acquisitions in the Pacific following the Spanish-American War (1898)—notably the Philippines and Guam, along with the annexation of Hawai'i the following year—provided handy stepping stones for steamships as well as warships crossing the expanse of the Pacific Ocean, while the harbor at Manila provided an excellent staging point for future trade with China. That lucrative trade has always seemed to be on the cusp of being realized but never quite there.

World War II followed by the seizure of most of China by Mao Zedong's communists and the proclamation of the PRC in 1949 only delayed that dream of the great China market. When President Richard Nixon began the normalization of relations between the PRC and the United States in 1972, American business leaders again began to speculate on the potential of Chinese consumers. In the 1990s, when China began to seek entrance into the World Trade Organization, a goal reached in 2001, that dream again seemed about to be realized. One American industry in particular, the American movie industry based in Hollywood, California, was especially eager to start exporting its products to the vast potential market that awaited it in China. But like so many other Western industries, Hollywood would learn that access to that Chinese market came at a high price, one it was quite ready to pay. It later realized, perhaps too late, that China planned to learn all it could about how Hollywood functioned and then replicate that formula in China and supplant Hollywood as the world's dominant creator and exporter of movies. In the long-term view of China, Hollywood would simply become an obedient subsidiary of the Chinese movie industry and, by extension, of the Chinese government.

The common assumption from Western political and business leaders in the 1990s was that China wanted to join the world economic system and that open

markets would lead inevitably to democratic reforms. They were wrong. China sought foreign involvement for its own purposes and to create its own industries. China did not seek to join the existing international order but to replace it with one centered on China. The CCP was quite willing to use Western technologies to increase its hold on the country and then reshape the world to its liking. China understood the role American movies played in ushering in the "American century" by exporting a glossy and attractive image of America that resonated in much of the world. To usher in the long dream of "Chinese century" (or millennium), China would use movies—made in China and in Hollywood—to export its own vision of the Chinese Dream to the world.² Its domination of Hollywood, while simultaneously creating its own domestic version of Hollywood near the city of Qingdao, was only part of a much larger effort, but it was a key part. Movies are the ultimate in soft power.

In its conquest of the American film industry, China followed a two-pronged attack, sending Chinese film industry leaders to Hollywood to study the system so it could be replicated in China and, at the same time, ensuring films made in Hollywood followed the CCP line. In 1994, China allowed Hollywood to show ten movies a year, reaping a smaller percentage of the low-ticket price than in any other market.³ China also limited the amount of time most American films could remain on the screens, sometimes pulling popular American films to replace them with Chinese-made movies, often blatant propaganda films. But Hollywood saw

Dr. Barry M. Stentiford

holds a BS in history from the College of Great Falls, an MA in American history from the University of Montana, a Master of Strategic Studies from the U.S. Army War College, and a PhD in military history from the University of Alabama. He is a graduate of the Air War College Distance Learning Program and the U.S. Army Command and General Staff College. Stentiford was a professor at a civilian university for eleven years before joining the faculty of the School of Advanced Military Studies at Fort Leavenworth, Kansas, in 2009. His academic focus is on non-Regular U.S. forces. He served in the U.S. Air Force, Army National Guard, and Army Reserve, retiring with the rank of colonel.

the inevitable expansion of the Chinese market as part of a long-term (in Hollywood's eyes) strategy. Slowly the number of American films allowed onto Chinese screens increased, as did the percentage of ticket prices Hollywood reaped. By the 2000s, the Chinese market for American films had grown to account for a sizable amount of the profits each movie made, and studios became loath to put anything in a film that would offend Chinese government officials. Aside from a handful of pro-Tibet and human rights activists such as Richard Gere, most industry members started taking great pains to avoid antagonizing China, for those who do pay a heavy price. Chinese officials began demanding changes to scripts, locations, and ensuring the inclusion of favored Chinese actors in American-made films. Hollywood responded by not only acquiescing to Chinese demands but by also preemptively removing any elements that might cause issues later. The most obvious example was when the flag of the Republic of China—the flag of Taiwan—and the Japanese flag were removed from the leather jacket Tom Cruise wore in posters for the sequel *Top Gun: Maverick* in 2019. Apparently, no one in China ordered their removal—Paramount removed them to avoid any potential trouble with China. Under the new rules, Tibet and Tiananmen Square will not be mentioned at all, while sexuality and violence will be no greater than what would pass for PG-13 in the United States.⁴ Even subjects as seemingly benign as ghosts and time travel are off limits if a film is to have the approval of the Chinese government. China had reached the level of influence where it had to do little directly; the fear of offending the CCP, not any direct pressure, increasingly drove Hollywood decisions. Hollywood willingly shows only an idealized version of Chinese people and of China—no Chinese character will appear weak or evil, and China itself can only be shown as a fully modern and prosperous nation. The image of China to the world through Hollywood is a place of nothing but prosperous people in ultramodern megacities.

China can exert its will by denying all sorts of economic agreements if just one film from a studio has elements of which the Chinese government disapproves, but it seldom has to openly wield its power over the American film industry. Instead, through the threat of cutting off access to Chinese markets not only for movies, but the whole host of products connected to a

conglomerate, Hollywood has largely been brought to bay. The issue of studios owned by larger corporations with myriad business interests spreads the potential for China to punish offending studios by targeting their larger cooperate owners. Sony profusely apologized to China regarding the Brad Pitt vehicle *Seven Years in Tibet* in 1997 from fears that China would retaliate and hurt sales of Sony products in China, and even more so threaten its manufacturing in that country that allowed Sony to market products worldwide at a relatively low cost.

Sony was hardly alone. Seagram, a Canada-based corporation that made and distributed alcoholic beverages, bought Universal Studios in 1995, shortly before Martin Scorsese began work on *Kundun* (1997), about the Dalai Lama as a child. Potential profits for American movies in the Chinese market were low at that time, but Seagram did not want to risk the Chinese market for its main products. As a result, the film entered limbo, until it was finally released under Disney, one of the last films released under the Disney name that dared to incur the displeasure of China. Disney was perhaps the most vulnerable movie studio, as many of the products it sold with Disney characters on them were produced in Chinese factories. While Chinese consumers bought little Disney merchandise, the company hoped to change that dynamic, first by creating demand through the introduction of the Disney Channel onto Chinese cable systems, as had worked in other markets. The Disney Channel would pave the way for Disney to attract audiences to its films in China, which would lead to the opening of a new theme park. China balked at allowing the Disney Channel into China, forcing Disney to adopt a new model to build familiarity with its stable of characters to create a consumer base for the park it eventually opened. Instead of television, Disney opened a chain of English-language schools that used Disney characters in its lessons. Disney was an American company creative enough to break into the Chinese market, provided it was willing to continue to pay the price of including nothing in its movies that would offend the Chinese government.

In modern Hollywood, negative images of China are simply not allowed. After angry editorials in China in 2010 alerted MGM to Chinese ire over early reports of the plot to a remake of 1984's *Red Dawn*, this time with China invading the United States, the studio caved immediately.⁵ The studio quietly hired a



A patriotic painting of Chinese movie stars. The Chinese government goes to great lengths to control the narrative of China in the United States and to the entire world. (Photo by Philip Jägensted via Flickr)

company to change all the Chinese insignia, flags, and other such props from Chinese to North Korean frame by frame, along with simultaneously moving the plot from the unlikely to the absurd, not that the finished product would even be shown in China. Despite the power of the Chinese government to prevent any negative images of China coming from an American movie studio, the reverse is not true: Chinese films are more than allowed to show the United States and Americans as weak, corrupt, or in other ways in a negative light. Films insulting the United States are produced in China with full government support. The Chinese eventually were able to create movies in its own industry that had broad appeal in China, such as *Wolf Warrior 2* in 2017, about a Chinese hero saving an African country from criminals, specifically portraying the U.S. Marines as unable to help. However, despite a concerted effort to interest Africans in the film, it did poorly outside China, with many Africans offended by their own depiction in the film. Perhaps more indicative of the problems of China's attempts to sell a glossy image of China to the world results from the intrusion

of the CCP and the government of Xi Jinping to become involved in every aspect of movie production, from the location, dialogue, who or what gets to be the hero (normally, officials of the state, such as the police), and the lives of the stars, which often makes Chinese plots dull and predictable.

A saying in China holds that one kills a chicken to frighten the monkeys. China comes down hard on select companies and individuals that earn its wrath to send a warning to others to fall in line. One Chinese actor who served as the chicken was Fan Bingbing. Fan was one of the top film stars of not only China but also the world, starring in a string of hits from 2003 until 2017. In 2014, she was in *X-Men: Days of Future Past*, followed by a major role in the Chinese film *Sky Hunter* in 2017. She was the face for many of the new, cosmopolitan China, relishing in wealth and fame. But Fan ran afoul of the Chinese government in 2018 after a media company in China released images of two different contracts she had apparently signed for a film in the works called *Cell Phone 2*. The contracts showed a marked discrepancy in the amount she was paid for



The Hollywood sign in Los Angeles on 11 September 2015. The story between Hollywood and China began in the 1990s. After China joined the World Trade Organization in 2001, Hollywood was eager to explore the Chinese market, but it came at a price: "Hollywood would simply become an obedient subsidiary of the Chinese movie industry and, by extension, of the Chinese government." (Photo by Thomas Wolf via Wikimedia Commons)

her work, with the implication that she was paid more than five times the amount she reported to the Chinese tax authorities. From July to October 2018, she was not seen or heard from by the public. Since her reappearance, she apologized and paid some US\$127.4 million in taxes, but her career never recovered.

After Hollywood and some actors received the wrath of China for films such as Brad Pitt for *Seven Years in Tibet* (1997) and Richard Gere for *Red Corner* (1997), Hollywood began to avoid offending China and instead to praise it. DreamWorks's 2008 animated film *Kung Fu Panda* took great pains to please Chinese audiences and government officials, yet its very success in using Chinese cultural icons to make a commercially successful film invoked resentment from some officials in China, fortunately directed at the Chinese film industry for not being able to make a film of that quality. In the film *2012* (2009), several modern arks built by China save humanity. The star, the American John Cusack, upon seeing the arks, expresses his wide-eyed

and open-mouthed wonderment that there is nothing that the Chinese cannot do.

Even more blatant was a scene near the end of the 2014 film *Transformers: Age of Extinction*. As the robots fight their epic battle in Hong Kong, officials of the city can only exclaim, "We've got to call on the central government for help!"⁶ In Beijing, the order is given to protect Hong Kong "at all costs" and high-tech jet fighters are dispatched immediately to save the embattled city. Given the recent pro-democracy unrest in Hong Kong the message of the film is clear—Hong Kong is an integral part of China, and it is to Beijing that Hong Kong must turn for its salvation. But the 2016 movie *Great Wall* showed the limits of trying to please all audiences. The movie was filmed in China, with a Chinese and American crew, and starred Matt Damon alongside Chinese actors. Although extremely expensive to make, it failed to interest audiences in North America or China, although for different reasons. Chinese moviegoers found the plot forced, and the

inclusion of Damon more distracting, while Americans found its heavy use of CGI off-putting, to say nothing of the “white savior” elements of the plot. Still, for the Chinese movie industry, the film using American crews and techniques was a veritable school for learning just how to make an epic high-tech film.

Catering to the Chinese market presents dilemmas for Hollywood quite apart from prohibitions on mentioning taboo topics such as Tibet, the Dalai Lama, or the status of Taiwan. The Chinese government will block movies from screens if they include overt homosexual characters. Any reference to a non-heterosexual person or relationship must be made so obtuse as to be almost unrecognizable. Equally problematic is the Chinese aversion to seeing African Americans in films. Advertisements in China for American movies that include Black actors often diminish or eliminate the image of Black characters. While some of this racial bigotry could be blamed on the Chinese government, the poor showing of Disney’s 2023 live-action remake of *The Little Mermaid*, which featured a young African American woman in the titular role, suggests a deeper cultural bias. Here, Hollywood finds itself with a clash of two of its own values—the desire to be more inclusive regarding race and sexual orientation, and, at the same time, its need for continued access to Chinese screens to keep many films profitable.

For the Chinese film industry, when selecting topics and scripts to make into the films, “[w]inning over audiences in foreign countries took a back seat to rallying the faithful at home.”⁷ Sometimes both can be done, as shown in the 2002 film *Hero*, which Schwartzel does not include in his discussion of Chinese films but was one of the most successful Chinese films on many levels. The film received glowing reviews around the world. *Hero* was the second in a trilogy of films dealing with the late Warring States Period, roughly between the fall of the Zhou Dynasty 447 BCE and the consolidation of central control by the Qin in 221 BCE. The trilogy began with one of China’s first successful exports to North America, *Crouching Tiger, Hidden Dragon* (2000) and was concluded by *House of Flying Daggers* (2004). All three films were visually stunning, while the martial arts scenes, which included almost supernatural elements, were quite familiar to Chinese audiences. They were, however, something

new in the West. *Hero* brought the visual aspects to new heights. The cinematography was a great artistic feat—it is a gorgeous film. The plot takes place during the latter years of the Warring States when various smaller kingdoms fought for control of all China. The titular hero of the film, played by Jet Li, is an assassin with the mission to kill the king of the Qin. Through a complex story of deceit and apparent double crossing the assassin gains the king’s trust enough to be allowed to sit ever closer to him. But in the end, the assassin understands that China must be unified, and he must subordinate his desire to glorify his home kingdom, seeing that a unified China under the Qin is preferable to the continuation of a divided China, even at the cost of his own life. The movie underscored a key theme of the CCP: a unified China under a strong, central government is the correct model for China. The underlying message could not be clearer. Its message to Macao, Hong Kong, Tibet, and especially Taiwan and perhaps Mongolia is blatant—subordinate provincial interests to the greater glory of a unified China.

Red Carpet brings a nuanced understanding of how Hollywood works and, more importantly, the sometimes subtle, sometimes blunt workings of the Chinese government. As part of his research, Schwartzel interviewed film industry executives and American directors, some of whom found new fame and respect in China after one too many flops in the United States, to give the book a real insider’s feel. While the book is largely a deep dive into the evolving relationship between Hollywood and China, Schwartzel takes the reader into some surprising yet linked backwaters—or frontiers, depending on one’s point of view—such as China spending millions to distribute satellite television dish systems from a Beijing-based company called StarTimes across Kenya, bringing four hundred channels to places that previously had perhaps one channel. Programming had some shows dubbed in Swahili, some in English. The satellite television service was free for six months, after which recipients were required to pay a small fee to continue the service. Similar satellite TV systems were distributed in many parts of Africa, bringing an image of China that works in conjunction with the Belt and Road Initiative, such as the railroad being built across

Kenya, a hard example of soft power that reinforces the image of China as the new dominant economy and culture on earth.

Much of the well-deserved praise heaped on *Red Carpet*, the author's first book, focused on the entertainment value of reading it—it is, after all, well written and a page-turner. But the book is also at once depressing and alarming. The Chinese bought interests in well-known American companies and real estate suspiciously close to U.S. military installations, as well as building a strangely placed casino on Saipan. The spread of the Confucius Institutes on college campuses likewise gives China a tight grip on Chinese citizens in the West, inroads into Chinese American communities, and others who naively seek to learn about China, the Mandarin language, or Confucianism. Unlike in China, where laws prohibit foreign ownership of land or majority ownership of companies, the openness of the American economy allows Chinese penetration to continue with few checks.

What happened to Hollywood was only part of a much larger problem in which American and Western political, media, and industry leaders became blinded by the potential of China for new markets and sources of cheap labor. Only companies that do little business in China are largely immune to the pressure China can bring to bear. In Hollywood, a few studios such as Netflix, which does not do business in China, can remain aloof for now, but any actor in a Netflix film must seriously weigh the risks to their career if they appear in something that offends China. *Red Carpet* was published under the Penguin Books imprint of Penguin Random House, which is itself owned by the German publishing giant Bertelsmann. The publisher deserves credit for having the courage to publish a work so critical of China and the CCP. Bertelsmann must not sell many books in China or else such an offering would cause serious issues in the continued distribution of its wares. The publisher and even more so Erich Schwartzel himself can be assumed to be on lists in China.

The prognosis at the end of the book is gloomy—China has its tentacles in almost all aspects of the American economy. As Schwartzel points out, “Books similar to this one could be written about numerous sectors—from fashion to cars to telecom—and opportunities identified and concessions made by executives who want to woo Chinese shoppers and authorities.”⁸

He briefly includes a series of comparable incidents involving Delta and American Airlines, the Marriott hotel chain, and the German car company Daimler. He is right. China, as an example, penetrated and then replaced much of the United States domestic bicycle industry, first by offering low-cost manufacturing for American brands, learning all it could about American bicycle manufacturing techniques and design methods, and then using that knowledge to produce quality bicycles at low cost and sell them directly in the American market, putting most domestic manufacturers out of business. But the story Schwartzel tells is more troubling. Entertainment is the main industry that tells both Americans and the world what America is.

Still, all is not perfect in the real world for China. While not explicit, Schwartzel suggests that much of the image China projects of itself is a sort of Potemkin Village. The China the world sees in movies is a glossy version without any of the problems that plague the real China. The vast outlays of capital China has spent on the Belt and Road Initiative might come back to haunt it when nations see the debt trap they have fallen into, and populations physically rebel against the Chinese. Perhaps a more chronic problem China is creating for itself will be the image presented by these infrastructure projects such as railroads that are not used and fallen into disrepair, harbors that sit empty, and airports that do not bring in the air traffic. When nations default on the loans from China to build the facilities, as many will inevitably do, China might find itself the owner of much crumbling and worthless infrastructure. Controlling the narrative on those white elephants around the world might prove more problematic than papering over problems within China itself.

A perhaps greater long-term danger to China is the demographic cliff the nation is going over. The population disaster that China is approaching, not only a male-to-female sex ratio without precedent in world history, but more so the imbalance between older retired Chinese and working adults, represents an inevitable crisis for China in the near future. The demographic trends that slowed and eventually stopped Japan's phenomenal growth in the 1990s, leading to what was first called the lost decade and now the lost generation, are all stronger in China. This problem is even more difficult for China than it was for Japan, for

China never reached the level of per capita income of most prosperous states, stalling out in the middle ranks. If China has in fact succeeded in its use of movies and television to convince much of the developing world that China is the land of opportunity, the land of wealth, the land of gleaming cities, of a government that cares, and prosperity, the PRC might soon have to make some hard choices between welcoming the nonethnic Chinese who flock to China in search of a better life, or maintaining their current sense of identity where some 91.1 percent of the population identifies as Han Chinese.⁹ A China with a large immigrant working class might survive the demographic cliff, but the result will not be the China that Mao Zedong, Deng Xiaoping, and Xi Jinping sought.

Despite American movie industry production codes and local ordinances over what can be shown in some towns, the American movie industry had a largely free hand in what movies to make, and what message they presented, a trend that became more pronounced since the late 1960s. China is reversing that trend, using a variety of methods to ensure that not only films made in China but also films made in the United States adhere to Chinese government values and support the

party line. Schwartzel's *Red Carpet* rises above the mass of books on the penetration of the American economy by China. This is not a "wave-top" look meant to raise alarms but a deep dive into the history, methods, and results of Chinese involvement in one industry. That industry, the American movie industry based in Hollywood has implications beyond what China did in other industries. *Red Carpet* is a stark exposé of the lengths the Chinese government will go to reshape the world, and the dangers for Western industries and institutions that still cling to the fantasy of the great Chinese market.

Hollywood thought it was opening up China, conquering Chinese movie screens in return for ever greater profits. But instead, Hollywood got swallowed by China. The book will change how readers watch movies, as the Chinese influences begin to stand out. The CCP from its earliest days under Mao understood the utility of movies to spread its influence and control the masses in China and around the world. Under Mao's successors, his vision is now the reality as the movie industry sells a stylized and perfected image of China under a benevolent and farsighted government, all with the assistance of Hollywood. ■

Notes

1. Erich Schwartzel, *Red Carpet: Hollywood, China, and the Global Battle for Cultural Supremacy* (New York: Penguin Press, 2022).

2. *Ibid.*, xv–xvi, 42–44, 131–32; Stanley Rosen, "The Chinese Dream in Popular Culture: China as a Producer and Consumer of Films at Home and Abroad," in *China's Global Engagement: Cooperation, Competition, and Influence in the 21st Century*, ed. Jacques deLisle and Avery Goldstein (Washington, DC: Brookings Institution Press, 2017), 361.

3. Schwartzel, *Red Carpet*, xiii, 54.

4. *Ibid.*, 105.

5. *Ibid.*, 133–37.

6. *Ibid.*, 274.

7. *Ibid.*, 330.

8. *Ibid.*, 327.

9. "China: People and Society," CIA World Factbook, last updated 26 September 2023, <https://www.cia.gov/the-world-factbook/countries/china/#people-and-society>.

Your Bitter Lessons

Dr. Mahir J. Ibrahimov

A funeral of martyrs was held after Black January, which resulted in nearly 150 deaths, in Azerbaijan's capital Baku in January 1990. Soviet leader Michael Gorbachev attempted to suppress the Azerbaijani independence movement then roiling in Baku by ordering a Soviet invasion that entailed much destruction and loss of life. However, the invasion only accelerated the popularity of the movement, culminating in the final establishment of Azerbaijan as a new, independent nation 21 September 1991. A native Azerbaijani and former soldier in the Soviet army, the author was present during the events as they transpired. After independence was achieved, he was assigned to help to open the first embassy of Azerbaijan in Washington, D.C., and served there as a senior diplomat for three years. The author wrote this poem originally in Russian before translating it into English. (Photo courtesy of the Embassy of Azerbaijan)

Azerbaijan, the land of fires
Embattled by grief and misery.
They trampled your children's honor.
They shot our mothers
without a shadow of compassion

Bloody January! Forever and ever
will remain in the hearts of the people.
My soul cries out, what
have you done?! O wise guardian,
master of the race!

O my pain! O my land!
The sons have closed their eyelids.
They've closed their eyelids, their
sons ... To eternal freedom, the
voluptuous.

But these sacrifices are not in vain,
Though the agony of your suffering
soul of your suffering soul.

The people live and will live
with hope and faith.
To serve the ideas of good and
happiness. Not drowning in
the mire of evil.

And the wisdom of life
♪ Without crossing the threshold ♪
Of hardness,
He must only learn a lesson
That he will learn from the
past from past mistakes
repetition.

(March 1990)

FEATURED ARTICLES



U.S. Army soldiers with the Wichita Recruiting Company hosted a recruitment booth during the Kansas State Fair at Hutchinson 9 September 2023. The soldiers hosted the booth to interact with and inform the public about enlistment opportunities and benefits. (Photo by Pfc. Aiden Griffitts, U.S. Army)



This image originally appeared in the Bolling Air Force Base (BAFB) newspaper, *Bolling Beam*, on 14 November 1969. The accompanying story said, "The Department of Defense is studying the possibilities and feasibilities of instituting an all-volunteer force for the military services. This study is being made at the behest of President Nixon in an attempt to better military life and eliminate the need for the induction of manpower into the armed forces." BAFB is one of three military properties that now constitute Joint Base Anacostia-Bolling. (Photo courtesy of the Department of Defense)

Committing to the All-Volunteer Force

The Role of Economics in Its Adoption and Implementation

Maj. Vincent Shaw, U.S. Army

Capt. Theodore MacDonald, U.S. Army

*The soldier no less than the rest of us is worth his hire ...
One of the great gains in the progress of civilization was
the elimination of the power of the noble or the sovereign to
exact compulsory servitude.*

—Milton Friedman, May 1967

While rose-colored thoughts of patriots “springing up in defense of the nation during its hour of need” are pleasant, why then has the country ever needed a draft, let alone debated it to the point of compromising common defense?¹ Empirically, the U.S. military has, at times, contained too many “summer soldiers and sunshine patriots” and required conscripts to fill shortfalls.² The truth is that patriotism is one of many determinants

that influence military service, and a draft is a brute-force method to solve a problem that creates many others. A draft also largely ignores another key determinant that may seem incongruent with service but is equally effective: compensation.

Current recruiting shortfalls are likely symptoms of underlying systemic issues. Considering the growing challenges from our rivals and a hyperconnected and politicized society, it may seem compelling to revert to the panacea of a draft and invoke the facade of “universal service” to force our problems away. However, calls for a draft outside of a crisis moment of clear national defense lacks awareness of previous recruiting challenges or why, in 1973, the draft reverted to its historical “standby” status in favor of an all-volunteer force (AVF). It is critical to remember the economic principles that illuminate the hidden costs of a draft and the major transformation the services completed to create the highly professional and effective force we have today. A product of America’s path dependency, conscription outside of crisis moments incurs significant implicit costs on a minority of the population and negatively impacts all of society. A draft also creates incentives that shape decisions in ways that run against our modern values. Economic thought and the critical decisions made during the turbulent period of the AVF’s first decade, 1973–1983, can better inform how to approach temporary, recurring, and systemic accessions issues in the military today.

The Draft Is Not the Historical Default

For over two and a half centuries, the existing status quo, exogenous shocks, and cultural norms largely determined consensus views on conscription at a given time. The occurrence, duration, and severity of wars; and the scale and length of a draft before, during, and after conflict shaped entire generational views. The United States formally ended the draft during the waning years of the Vietnam War. This seminal moment and its context serve as the only inflection point that many reference today, but it is important to understand the history and legality of conscription in America as it was not the historical default and often despised as an un-American overreach of governmental power.

Before America’s independence, the colonies determined their own methods to maintain militias largely

for self-defense with varying connotations of universal conscription. During the American Revolution, the Continental Congress could not impose national conscription. The Continental Army relied solely on volunteers, while the colonies maintained and provided their militias. After the Battle of Yorktown, the standing army numbered eighty men, and it could not even maintain domestic tranquility during Shay’s Rebellion.³

With the ratification of the Constitution, the legislative branch assumed key enumerated powers: to declare war, to raise and support armies, and to provide and maintain a navy. Throughout the rest of the eighteenth and nineteenth centuries, a federal draft only occurred once, during the Civil War. In 1790, Congress quickly rejected then Secretary of War Henry Knox’s conscription proposal. In 1812, Congress could not reach consensus as some states refused to send troops but offered financial support—viewing both resources interchangeably as a tax for common defense. Washington, D.C., burned, and the war ended before the log-jammed legislature could enact a draft. With the scale and length of the Mexican War and War with Spain, a draft never became a significant issue.

Only during the Civil War did porous attempts at conscription occur. When the Union finally utilized a draft two years into the war in 1863, riots nearly burned New York City to the ground. With substitutes and exemption purchases, only forty-six thousand nonsubstitute soldiers fulfilled their draft notices, 1.7 percent of the total Union manpower over the course of the war (conscripts filled an estimated 14 percent of the Confederate army).⁴

Maj. Vincent Shaw, U.S. Army, is an infantry officer serving as an instructor of economics at the U.S. Military Academy. He holds a BS from the U.S. Military Academy and an MBA from the University of Minnesota’s Carlson School of Management. He has served in the 101st Airborne Division (Air Assault) and the 4th Infantry Division.

Capt. Theodore MacDonald, U.S. Army, is an infantry officer serving as an instructor of economics and finance at the U.S. Military Academy. He holds a BS from the U.S. Military Academy and an MBA from Duke University’s Fuqua School of Business. He has served in the 82nd Airborne Division and the 25th Infantry Division.

It was during the Civil War that the Pennsylvania Supreme Court established precedent upholding federal draft authority as constitutional in *Kneedler v. Lane*.⁵ The U.S. Supreme Court repeated this in the 1918 *Selective Draft Law Cases* during the First World War.⁶ Today, the constitutionality of Congress' power to conscript remains, largely considered a form of taxation to raise an army covered by those reinforcing enumerated powers.

The growing size and lethality of warfare in the twentieth century compelled Congress' use of the draft, and the two world wars formally ingrained its use. A draft was enacted nearly simultaneously with the declaration of war in 1917, like the Civil War draft, it was terminated with the end of hostilities. With war tearing across Europe in September 1940, Congress for the first time instituted a draft *ex ante* with the passage of the Selective Service and Training Act.⁷ When challenged, the Supreme Court again upheld this expansion of the draft without a formal declaration of war as constitutional. The World War II draft regime remains the most significant, both in scale and precedence. Out of over sixteen million Americans who served, ten million (60.6 percent) were draftees.⁸ However, in another unprecedented decision concerning security policy, the draft continued postbellum. The Selective Service System, the mechanism of local draft boards that classified registrants by their eligibility for service, remained in effect.

Following the Korean War and subsequent draw down in force strength, yearly draft calls remained low while the military-aged male population expanded.⁹ The proportion of yearly procurement required to be drafted decreased from 33 percent in 1954 to 9 percent in 1961.¹⁰ Draft calls affected a smaller percentage of the youth population and deferment categories, legally accepted reasons to postpone service, increased to include fatherhood, men over twenty-six, and additional occupations (by 1963 the law included all married men).¹¹ Of the 76,000 called to service in 1962, another 430,000 had educational or occupational deferments and 1.3 million deferred for paternity.¹² A persistent draft was new to our Nation's history, but complicit support remained so long as it only affected a small proportion of society. Despite historical precedent, a draft was no longer the exception to the status quo, but became it—even in peacetime.

The Draft's Inequity Becomes Increasingly Apparent in American Society

The Selective Service Act faced expiration in 1967 toward the end of President Lyndon Johnson's term in office and as the Vietnam War grew protracted. Criticism of the draft grew as the war doubled the needed monthly service inductees, and deferments were sought after by those who could attain them. Of the seventeen million young men in the potential draft pool, more than two-thirds would be ineligible or seek deferments.¹³ Of concern were deferments for college enrollment that were easily extended into a complete exemption through graduate school, fatherhood, or age.¹⁴ The president directed the Marshall Commission to meet at the University of Chicago, renowned for its expertise and influence in the field of economics, to study the problems of the system and recommend improvements before the act was renewed.¹⁵ At the time, a growing number of economists wrote against the draft as a costly, inequitable, and inefficient way to supply the military with its needed manpower. To them, military recruitment was a labor supply problem, and their arguments placed light on hidden costs of the draft that were benign to many policymakers. Although the commission's findings acknowledged the ills of the draft, it concluded with its necessity to promote a flexible system capable of providing manpower in a crisis.¹⁶ Policymakers did not initiate fundamental changes, and the selective service remained in effect.

Opposition to the Vietnam War became increasingly salient in the 1968 presidential election. Supposedly due to personal conviction and the persuasive arguments given by one of his policy advisors, economist Martin Anderson, Richard Nixon risked crossing party lines and added the all-volunteer force to his platform.¹⁷ Nixon sought to balance two principles in tension with one another, not wanting "an army of mercenaries" while acknowledging that "we have lived with the draft so long, that many of us accept it as normal and necessary."¹⁸

With social sentiment growing against the war, supporting analysis from economists, and Nixon in the White House, the wheels were in motion for change. However, change was not without risk—not only regarding national security but also with opposition from entrenched politicians and leaders across society. The

pro-AVF coalition had to assuage many skeptics and overcome “the tyranny of the status quo.”¹⁹

The Army, and by extension the military establishment, was fearful of removing the draft. Recruit quality was of utmost importance for unit morale and discipline, and it was believed that only through a draft could a cross section of society be called to serve.²⁰ The special relationship between the armed forces and society placed service members as performing a “vital social function and recognized and awarded an appropriate status by the society.”²¹ It was believed a professional force incentivized by pay would undermine this relationship, hurt unit morale and discipline, and fail to encourage courageous acts and grit for prolonged hardship.

Shortly after his inauguration in March 1969, Nixon created the President’s Commission on an All-Volunteer Armed Force to utilize “the best efforts of our military establishment and the best advice we can obtain from eminent citizens and experts ... to develop a comprehensive plan for eliminating conscription and moving toward an all-volunteer armed force.”²² In these words, the president overtly insinuated that the draft was no longer the default option. Instead, Nixon empowered the commission to overcome status quo bias toward the stated goal of an AVF.

What became known as the Gates Commission, after its chair Thomas Gates who served as secretary of defense under Dwight Eisenhower, comprised a broad coalition of leaders from various disciplines carefully chosen to provide diversity of thought and credibility to its findings. Economists and business leaders were paramount; notably, these included Milton Friedman and future Chair of the Federal Reserve Alan Greenspan.²³ Policy experts included current and future cabinet secretaries, diplomats, and a congressman; social leaders included Roy Wilkins, who led the NAACP, and Father Theodore Hesburgh from the University of Notre Dame and chair of the U.S. Civil Rights Commission. Lastly, two former supreme allied commanders from the military were present.

The Economic Case for the All-Volunteer Force

Methods. The Gates Commission presented a case for an AVF after nine months of deliberation utilizing both positive and normative analyses based largely on economic principles and social consensus. It represented a monumental effort drawing upon the greatest minds,

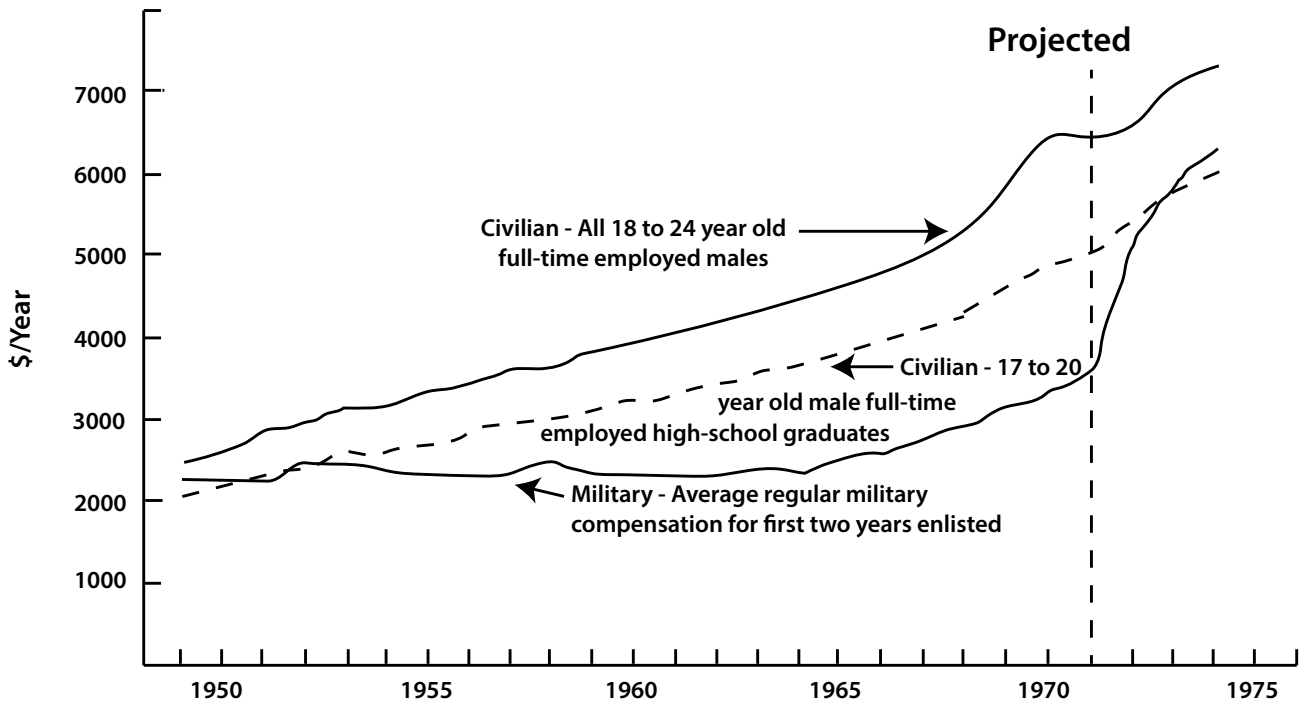
diversity of perspectives, and thoughtfulness in consideration of the issues at hand. Although quantitative methods and economic theory were critical toward establishing its positive analysis, the commission also drew extensively on noneconomists amongst its diverse board to provide consensus on what ought to be.

To assess the feasibility of an AVF, the commission thought hard about the “determinants of volunteerism,” which included patriotism and values; compensation; labor market conditions and competition for talent; public sentiment; and a combination of conflict severity, personal danger, and threats to the homeland. The commission turned to labor economics and the U.S. labor market to determine how these determinants could lead to desired force levels comprised completely of volunteers. Projections of future labor market conditions informed its recommendations, such as total population growth, total and qualified male population, and enlistment shortfalls within the current lottery system. Historical data and previous studies informed the commission on the price elasticity of labor supply (i.e., the change in voluntary enlistment as wages increased). This left pay, length of enlistment, turnover in personnel, and allocation of resources to recruitment as the main variables to analyze.

Findings supported by economic theory. The Gates Commission unequivocally and unanimously stated, “The nation’s interests will be better served by an AVF, supported by an effective standby draft, than by a mixed force of volunteers and conscripts.”²⁴ It is important to note the trade-off implied, as neither option was perfect nor without costs, but represented a comparison of which provided more value to society.

The commission advised that the pay for first-term service members was too low, roughly 65 percent of comparable civilian employment, and only by increasing total compensation could the AVF work (see figure 1).²⁵ Although higher wages would mean increased cost of wages borne onto taxpayers, society and the military would incur lower hidden costs and benefit more from an AVF. In economic terms, the commission consistently distinguished between explicit (accounting) costs, such as wages that clearly reflect on a defense budget, and implicit (opportunity) costs, such as the foregone ability to receive higher pay working as a civilian.

Key to the commission’s report was the finding that an AVF is not more expensive on society than a draft,



(Figure from Richard Cooper, *Military Manpower and the All-Volunteer Force*)

Figure 1. Military and Civilian Wages for 18–24 Year Olds from 1948 to 1976

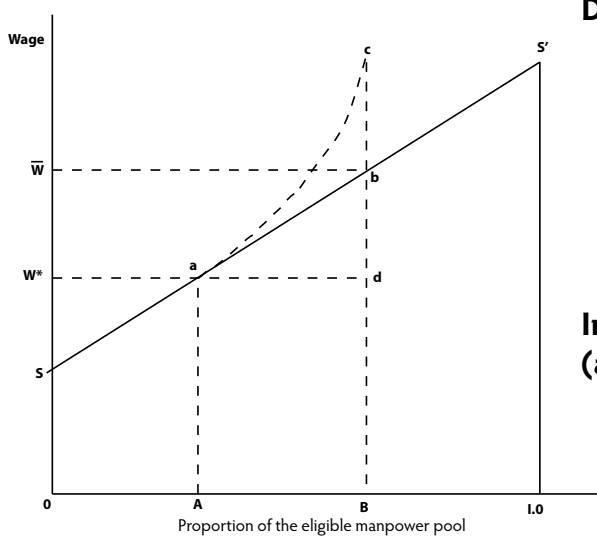
but makes the hidden implicit costs visible, which allows for proper decision-making. While the explicit cost of the mixed force (meaning conscripts plus volunteers) was lower due to low wages, the implicit costs were very high. This implicit cost was caused by the same low wages, below what someone would have accepted as payment to volunteer. As a lottery draft selected individuals without regard to their willingness to serve, or their “supply price,” it would inevitably and inefficiently choose those most opposed to service who would only willingly do so at a very high wage. Forced service below one’s supply price is an implicit cost on that individual because they unwillingly forgo other opportunities to make a higher wage. This cost of service, or “tax burden,” fell disproportionately on a small subset of the population while subsidizing society (see figure 2).²⁶ Higher wages, on the other hand, would provide the incentive for more volunteers who do not incur implicit costs because they freely choose to serve at that wage (because of patriotism, values, best opportunity, etc.). All an AVF would do is exchange the implicit cost of draft service with the explicit cost of higher wages needed to encourage volunteers (see figure 3). This

effectively shifted the tax burden from a few draftees to all of society in the form of higher defense spending. The commission claimed that “taking these hidden and neglected costs into account, the actual cost to the nation of an AVF will be lower than the cost of the present force.”²⁷

To make the AVF feasible, volunteers had to fill the hole left by draftees. In a competitive labor market, wages are the principal determinant of supply (i.e., what pay will workers accept to perform a certain job), and firms compete with one another in the market for talented workers. Given the nature of military service and reinforced by historical data, the country could only rely on altruism to a certain point. To address recruiting challenges, the government had to ensure that the total benefit of volunteering for military service not only outweighed its costs, but that the net value was also greater or equal to other opportunities in civilian life (see figure 4).

Wages are also a key cost driver for firms. The commission acknowledged this and provided projected additions to defense appropriations due to the requisite higher wages, recruiting expenses, and ROTC scholarships

Wages, Labor Supply, and Draft Burden



Determined by who is selected

0 - A: volunteers at wage of w^*

A - B: draftees at wage of w^*

0 - B: volunteers at wage of \bar{w}

Implicit Cost to the Individual (at wage of w^*):

Lowest Supply Price Drafted First (abd)

VS

Lottery Draft (adc)

(Figure adapted from Richard Cooper, *Military Manpower and the All-Volunteer Force*)

Figure 2. Changes to Labor Supply and Tax Burden with Wage Increases

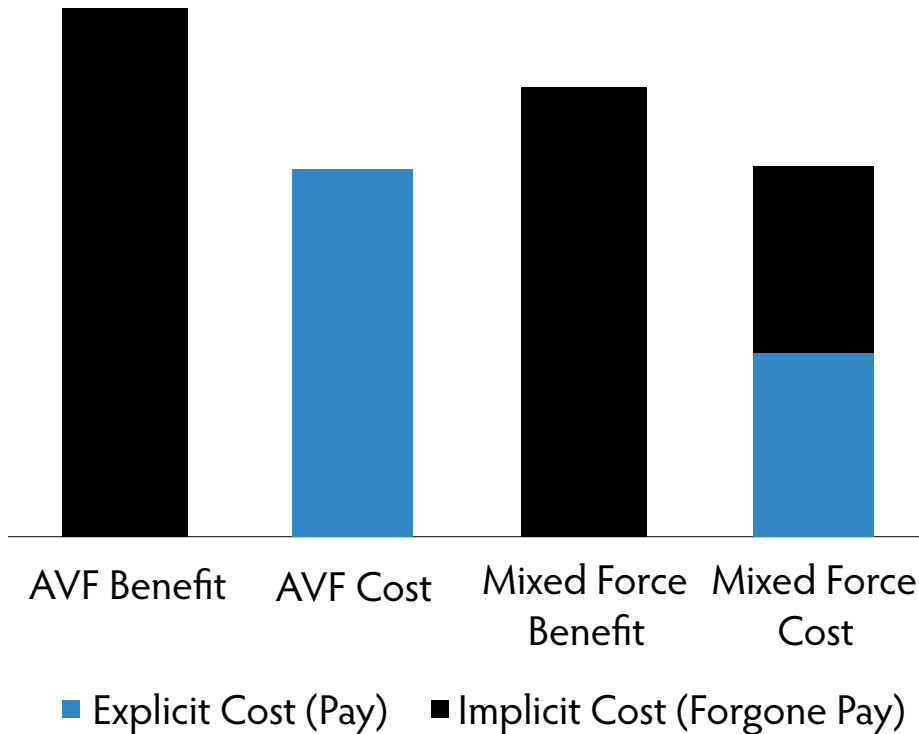
(\$1.47 billion for a force of 2 million, \$2.12 billion for a force of 2.5 million, and \$4.55 billion for a force of 3 million—showing increasing marginal costs of labor supply).²⁸ They acknowledged that society would internalize these explicit costs (meaning they would be real, tangible costs) immediately in the form of a high defense budget, with delayed future benefit harder to quantify and grasp. The commission's normative arguments did much to try to communicate the value of these future benefits.

The report clearly articulated the flaws of the draft. First, service members suffered from depressed wages and incurred the opportunity cost of what they could make in civilian life. As the tax burden fell on such a narrow subset of the population, the commission estimated that draftees bore three times their share of what the cost would be on a member of society in an AVF.²⁹ Lower first-term wages affected all service members, draftee and volunteer, who also incurred lower lifetime earnings.

Next, this analysis led to a broader characterization of the mixed force, that it was largely inefficient.

Many of the challenges the military faced were self-imposed due to artificially low starting wages and a rigid, discrete pay system based on rank and time in service that made wage negotiations impossible. A vicious cycle remained ongoing—the draft enabled Congress to keep military pay low, which disincentivized volunteerism and perpetuated the need for a draft. However, a higher wage would increase the addressable market and, by extension, recruit quality. While incurring a higher explicit labor cost, this would increase the number of volunteers, decrease both the amount and implicit costs on draftees, and shift the defense tax burden back to society—a much wider base.

This would also begin a virtuous cycle. As increased pay drove higher rates of volunteerism, morale and job satisfaction increased, and turnover decreased. Data supported this, as volunteers comprised only around half of first-term service members from 1965 to 1967 but comprised approximately two-thirds of the total force, indicating that those that remained in the total force began as volunteers.³⁰



(Figure by Capt. Theodore MacDonald, U.S. Army)

Figure 3. Theoretical Representation of Benefits by Force and Explicit and Implicit Costs

With less churn, the services required fewer initial entry recruits every year and enjoyed synergistic effects. With fewer recruits, a smaller proportion of the current force had to train them and could remain in their primary function, reducing the overall required end strength of each service. As the services could be equally as productive with fewer total people (less trainers devoted to training high amounts of new

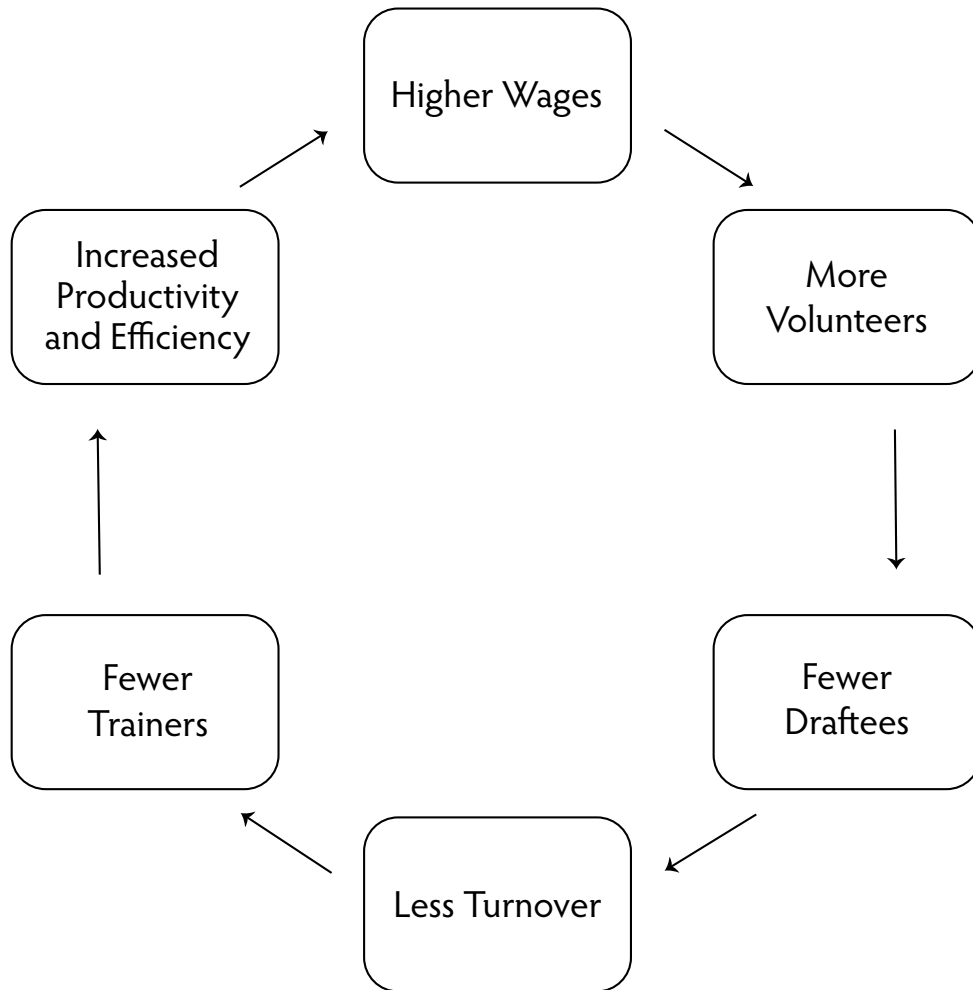
recruits), the explicit cost of the AVF would not be as high as feared (see figure 5).

Last, adding to the characterization of the mixed force as inefficient, the commission demonstrated how the draft imposed costs on society through a misallocation of resources. Artificially low wages in the military caused distorted incentives, with young men seeking higher education, essential work, or marriage out of

- (a) $W_m^i + T_m^i > W_c^i + T_c^i$
- (b) $W_x^i = \text{Wages to individual from military or civilian work}$
- (c) $T_x^i = \text{Total nonpay benefits - nonpay costs to individual from military or civilian work}$

(Figure by Col. Carl Wojtaszek, U.S. Army)

Figure 4. Military versus Civilian Compensation Equation



(Figure by Capt. Theodore MacDonald, U.S. Army)

Figure 5. Virtuous Cycle of Increased Pay and Efficiencies

draft avoidance when they otherwise would not.³¹ Conscripted captured “misfits and maladjustment” in the ranks of the military, along with other adverse selection problems as the most capable would seek deferments. Lastly, services cannibalized one another for recruits, especially as the reserves received higher quality applicants for those seeking to avoid active service.

With an abundant supply of cheap labor, the draft inadvertently allowed the military to over-rely on manpower, as subsidies (when buyers do not pay the true cost) can result in overdemand. The commission estimated the overdemand for draftees (i.e., cheap labor) contributed to the inequitable implicit costs imposed on them (\$1.54 billion per year).³² Years of the draft allowed the military to ignore modernizing its manpower management practices as new recruits

were always abundant. It did not need to understand how to retain talent in the right places or what composition of force was most efficient with taxpayer dollars. Cheap labor meant that decisions in its use did not account for its true cost, and there was less incentive to find alternatives. In such an arrangement, the military was quick to use soldiers for a variety of tasks, many of which did not pertain to warfighting, because it seemed inexpensive to do so. Similar mismanagement practices that undervalue soldiers’ time still exist today in the form of area beautification, lifeguard duty, or orders to be extraordinarily early to formation. Concerning the hidden cost of subsidized labor, Friedman quipped, “The construction of the great pyramids with slave labor were, by this argument, a cheap project.”³³

While not perfect, an AVF would make the military and the wider labor market more efficient, lower unnecessary costs, and increase productivity across sectors. Studies found price elasticity of labor supply to be 1.25 for first termers, and 2.0–4.5 for second.³⁴ This meant that the amount of people willing to serve increased at a greater rate than increases in wages—increased appropriations for pay would get a higher return than many perceived. Additionally, with less turnover, there would be fewer veterans and therefore a lesser liability for their care and benefits in the future.

Recommendations. The Gates Commission made many recommendations that collectively sought to ensure the feasibility of the AVF and mitigate concerns, even beyond the scope of an AVF. It is apparent today that Congress and the executive branch (military) implemented the core package critical for an AVF, but not all the recommendations. Specifically, proposals to decentralize personnel management in the services and improve efficiency, such as flexible pay scales, largely remain left on the table.

The Military Reacts to Its Exposure to the Labor Market

At the time of the formal release of the Gates Commission report in March 1970, the Department of Defense (DOD) had concluded the feasibility of an AVF and presented its recommendations to the president. Key to its success was the ability of the forces to recruit volunteers through adequate compensation. Almost immediately, the DOD requested a 20 percent pay increase for first-term enlistees; additional funds for recruiting, housing, and quality-of-life programs; and an expansion of ROTC scholarships.³⁵ With the understanding that the last draftee could be as early as 1972, the services studied the implications the AVF had on their force generation requirements. Results of these studies indicated the need for fundamental changes to the services beyond higher compensation to increase the benefit and reduce the cost of service.

As the Army was the biggest customer of the draft, it faced significant changes with an AVF. Gen. William Westmoreland, chief of staff of the Army, read the writing on the wall. If the Army was going to compete for labor, then it had to enact initiatives to improve the lives of soldiers to make itself more attractive. The Army

sought to improve and professionalize itself to make service “more enjoyable, more professionally rewarding, and less burdensome in its impact to our people and their families.”³⁶ Along with quality-of-life improvements that allowed weekends off, the Army hired civilians to replace soldiers for kitchen duty and groundskeeping work. Exposing the Army to the competitive labor market forced it to improve itself and conform to society despite institutional reluctance to change. For the first time, the Army shifted its thinking on how it used its recruits, how to provide for their self-fulfillment, and most importantly, how to attract the Nation’s youth and fill its ranks as it competed in the labor market.

The New All-Volunteer Force Was Challenged as It Adjusts to Compete

Competition for labor did not come easily for the military. By the end of the 1970s, senior leaders in the government still questioned the feasibility of the AVF, and many doubted it could survive, let alone stand up to the test of conflict. It was at this time of the AVF’s infancy when it was most vulnerable, as questions surrounding cost, quality, and ability to recruit abounded. The realization that the military was an “all-recruited” force that required its leaders to think hard about the motivations of potential recruits and take daring steps to reform the institution, allowed the AVF to succeed into the twenty-first century.

The Gates Commission noted that a successful AVF required a commitment to maintain total compensation that was commensurate with civilian sectors of the economy. However, policymakers were reluctant to appropriate for increased pay, recruiting resources, and other incentives. Instead of increased wages, a pay cap was introduced in 1975 and renewed in 1978. Elimination of the G.I. Bill of Rights in 1976 combined with the expansion of federally sponsored scholarship programs made service less attractive.³⁷ The same year saw a substantial reduction in recruiting budget, while accessions requirements in 1978 grew without appropriate increases in funds.³⁸ Despite high unemployment levels among young people, recruiting fell 6 percent short of its goal during the last quarter of 1976.³⁹ Although recruiting goals were met between 1977 and 1978 (arguably with reduced quality), the military’s ability to do so into the 1980s was under question when the Army missed its goal by 11 percent in 1979.⁴⁰

Table. Distribution of Male Enlisted Accessions by Educational Attainment (In Percent)

	Draft (fiscal year 1960–72)	AVF (fiscal year 1973–76)
College graduate	3	1
Some college	13	5
High school diploma graduate	54	58
GED*		3
Some high school	26	32
Grade school	4	1

*Unavailable before fiscal year 1971. Reported here with some high school totals.

(Table from *Defense Manpower and the All-Volunteer Force*)

Skeptics also questioned the quality of the force. The proportion of college graduates in the AVF was less than during the draft, while percentages of high school graduates barely kept pace with the total population (see table).⁴¹ The ratio of inductees scoring well on the Armed Forces Qualification Test, a key indicator of recruit quality, declined with more recruits designated category IIIB (just slightly better than category IV, which is capped by mandate).⁴² Attrition was higher than the drafted force, with 36 percent of service members not completing their initial enlistments.⁴³ It was believed some of these problems originated from the perception of military service as “just another job” whose appeal was based on compensation instead of a “higher calling to society,” and that such incentives appealed to those less qualified.⁴⁴ Lastly, the force appeared less representative, with disproportionate levels of African Americans portraying the military as unfairly targeting the economically disadvantaged.

As early as 1977, Sen. Sam Nunn, chairman of the Senate Armed Services Subcommittee on Manpower and Personnel, held hearings with members of the DOD to get a full grasp of the AVF’s cost to society considering its perceived decreasing quality. With the mind that the AVF was a political move created at an opportune time for Nixon, committee members quickly dismissed the fundamental economic approaches of the Gates Commission. Nunn charged the assumptions used by the commission about

the feasibility of the AVF as erroneous, leading to problems in force generation, the military’s ability to mobilize in the event of an emergency, and its discipline and attrition rate.⁴⁵ He tasked the General Accounting Office (now the Government Accountability Office) to conduct a study on the cost of transitioning to the AVF, which concluded its total cost was \$15.1 billion, a yearly cost 21 percent greater than estimated by the commission.⁴⁶ Additionally, manpower comprised approximately 57 percent of total defense spending, a measure that competed with outlays in other critical areas (e.g., strategic arms) during the Cold War.⁴⁷

Then Secretary of Defense Harold Brown and his team of RAND researchers (Dr. John White, assistant secretary of defense for manpower, reserve affairs, and logistics; and Richard Cooper) aggressively supported the findings of the Gates Commission in testimony before Congress. Cooper argued the higher costs were due to the increased first-term pay in 1971, a measure based on the recommendation by the commission and instituted before the advent of the AVF; such increases in spending were expected as the previously hidden tax burden was shifted off draftees and directed toward the public as an explicit cost.

More importantly however, was the realization that the AVF was not operating as an organization competing for, and retaining, the best in America. In a statement made to the House Budget Office, Cooper explained how the cost savings from a decreased turnover

rate, as assumed by the Gates Commission, had not yet materialized due to inadequate personnel management and incongruent compensation and retirement policies. The expected “professional force” remained unrealized “not because of a flaw in theory but in its implementation,” the result of flawed, or only partial, reform of personnel policies that had continued since the draft.⁴⁸ Reducing the reliance on first-term draftees by retaining the experienced would reduce accession requirements and cost, but the Army needed to overhaul its patchwork of compensation policies and pay scales that did not incentivize career soldiers.

Soldiers were no longer a “free good,” and the military was still implementing changes to be more efficient in its use of manpower. There were unrealized cost savings through lower accession requirements facilitated by augmenting soldiers with physical capital and civilian workers.⁴⁹ These changes would allow the force to be less first-term rich, as it was currently a 60:40 ratio in first term-to-careerist personnel. Considering future recruiting issues, discussions expanded to include the question of allowing more females to serve.⁵⁰

The AVF had much to improve, but White and Cooper believed in the soundness of its principles. Their efforts contained the critical voices in Congress and bought time for the AVF until its budget and personnel management could adapt more appropriately to its role as an effective competitor in the labor market.

The All-Volunteer Force Overcomes Its First Crisis

It was not until Congress and the DOD fully embraced the budget and mechanisms necessary to compete in the labor market that the concerns over quality, recruitment, and readiness of the AVF subsided. After three years of congressional hearings, debate, and studies on the efficacy of the AVF, by 1979, the need for action was imminent. The DOD communicated the necessity of increased compensation, considering high inflation, quality-of-life concerns, and quality recruitment amongst the services.

Although a staunch critic of the increasing costs of the military, Nunn conceded that the AVF was not going away and fully endorsed an amendment to the FY81 budget that would increase military compensation. In his opening address to the Subcommittee on Manpower and Personnel, he explained, “Despite the

large increases in manpower costs, the military faces severe problems in the recruiting and retention of sufficient numbers and quality of active-duty people and reserve personnel.”⁵¹ The Nunn-Warner Amendment was pushed through Congress and on 2 July 1980, the Senate voted in an 11.7 percent pay raise for service members. Increases in educational and other benefits quickly followed the pay raises. The Veterans Educational Assistance Program was improved, only to be replaced by a reincarnated G.I. Bill in 1984, providing the tools necessary to target high-quality recruits in select occupations. Shorter contracts and increased bonuses further incentivized enlistment.⁵²

However, higher compensation alone was not sufficient to improve recruiting. At an opportune time, Maj. Gen. Maxwell Thurman assumed command of the U.S. Army Recruiting Command (USAREC) and directed its modernization to effectively compete in the labor market. A bold and data-minded visionary, he understood the crux of the Army’s problem—to improve its public image and attract quality recruits. Thurman standardized recruiting practices, advocated strongly for greater enlistment incentives, and targeted marketing toward quality recruits by introducing the “Be All You Can Be” campaign.

Thurman placed numerical analysis and research as critical toward understanding the labor market and established a research cell to determine the relative market potential for recruits around the country.⁵³ Such information influenced region-specific goals on recruit quality and aligned recruiting efforts with the marketing campaign. Data-centric market research and econometric analysis informed USAREC of how and where to correctly message the Army’s value to attract educated young people.⁵⁴ Service was now inextricably linked to a college education, and that bond strongly resonated with American families.⁵⁵ This innovative transformation of USAREC to be more responsive of the labor market, partnered with an effective marketing campaign and funds from Congress, combined to save the AVF at its most critical time.

By 1983, the DOD exceeded recruiting requirements with quality recruits, and Secretary of Defense Caspar Weinberger announced the AVF experiment over.⁵⁶ Category IV Armed Forces Qualification Test scores declined to levels comparable to the best years of the pre-Vietnam era, and enlistment in higher categories

steadily increased through the decade.⁵⁷ The Army's public image greatly improved as well as soldier retention, fulfilling the forecast of the Gates Commission.

However, recruiting and retention success in the 1980s allowed the military to ignore the more dramatic changes to manpower management as recommended by Cooper. Recommendations to remove draft-era personnel policies such as standard career patterns, frequent duty station moves, up-or-out promotion policies, and rigid pay scales that rewarded time-in-service over merit or occupation were unmet. Such policies, designed to promote equity when other forms of compensation were unavailable, were made at the expense of cost efficiency and flexibility.⁵⁸ Transforming the services to be more adaptive to the labor market would lower the implicit cost, or increase the nonpay benefit, of service for individuals. The military has already acknowledged this requirement, but there is more to be done. Recent initiatives to reform talent management practices and lengthen parental leave are necessary. The military, as with many organizations within a free market society, is better off because of it.

Adaption to Labor Market Conditions Is Never Complete

The decision to end the draft was more than political opportunism given the unpopularity of the Vietnam War. Informed by economic thought, policymakers realized the true cost of conscription and selected a better—though not perfect—alternative. A draft for anything less than a national crisis subsidizes society while hiding the true costs. Drafts that are smaller in

scope may be appealing due to perceptions that they only affect a small portion of society, but the low bar for deferment results in many perverse outcomes. Outsized burdens are shifted on to conscripts, and small subsets of the population endure greater inequities. All of society, as well as the force itself, incur labor market inefficiencies with a draft. The AVF offered the trade-off of absolving many of the hidden costs by making implicit costs explicit. Most notably, the experience of the Global War on Terrorism has proved its ability to withstand sustained conflict. Reverting to the “last known point” of a draft in times of recruiting challenges foregoes the lessons learned of why it was, and is, a standby option for times of national mobilization.

The challenges of moving toward an AVF were profound, but the military was willing to make drastic institutional changes to appropriately fit the “all-recruited” model. However, the transformation is incomplete, and many personnel management practices adopted under the draft system remain. Such holdovers, or bias of the status quo, prevent the AVF from fully embracing the principles of a flexible, competitive employer as envisioned by the Gates Commission fifty years ago. Many implicit costs to service still exist and remain a barrier for many Americans to consider service as a beneficial occupation, and they negatively affect retention. The services must constantly respond to the ever-changing nature of the labor market. The Gates Commission and visionary leaders that molded the services through the 1970s proved that thoughtful analysis could make the AVF work. There is no reason to believe such thinking would be less impactful today. ■

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Sgt. Nicholas Bostic (*left*), a petroleum supply specialist, reenlists for four more years of service in Adazi, Latvia, 21 March 2022. (Photo courtesy of the Department of Defense)

America's Call to Duty

Col. Dianna L. Carson, U.S. Army, Retired

Deseret Crane

Jack Dutton

Sven Karabegovic

Leah C. Mickelsen

America faces a national security crisis in fielding a sustainable, formidable military force. This was foreseeable at the inception of the all-volunteer force (AVF) and requires swift action. Over the fifty years since America abandoned conscription, the military has become increasingly isolated from the public it serves, and Americans have lost their sense of responsibility for how the United States fills the ranks of its Armed Forces, how those service members are used, and what hardships they experience. America must come together through a model like the White House Conference on Small Business.¹ Together, Americans can address this crisis and ensure the vitality, strength, and viability of its Armed Forces and U.S. national defense.

In the annals of the AVF, one finds many courageous acts, considerable fortitude, marked determination, and grit. These brave Americans have fought tenaciously through the final years of the Cold War, the Kosovo War, the Gulf War, the conflict in Iraq, the war in Afghanistan, and other hot spots around the world. The AVF has carried out its missions consistent with the finest traditions of the brave soldiers, sailors, airmen, and marines who preceded them.

In the last fifty years, American service members have left a profound legacy, but it has come at a price—their isolation from the public they serve. That insularity, in time, has meant that the struggles and burdens of the AVF are borne virtually alone by the military, typically out of sight of the American people. This distancing of the

military from its public belies key democratic American values of fundamental fairness, equity, and patriotism. Furthermore, it places at risk the national security of this Nation. Modifications to the AVF model, done in collaboration with the American public, is the best way to ensure a military model that is based on American values and a reliable security posture for another fifty years.

Foreshadowing

The harsh realities confronting Americans and their AVF today were, in some ways, foreseen at the inception of the AVF. In March 1969, as America faced one of the most unpopular wars in its history, and President Richard Nixon's advisors championed libertarian economic theory; he made good on a campaign promise to end the draft.² To do so, he established the Commission on an All-Volunteer Armed Forces and placed former Secretary of Defense Thomas Gates at its helm.³ The president tasked this group, which came to be known as the Gates Commission, with "develop(ing) a comprehensive plan for eliminating conscription and moving toward an all-volunteer armed force."⁴

As the commission finalized its work and issued recommendations in late 1969, it anticipated skepticism and concern from both military and political leaders. To address this opposition, the Gates Commission included in its final report a list of specific objections to the AVF, the plans to maintain it, and a rebuttal to each point.

Among the objections mentioned that are concerns today are the following:

- "An all-volunteer force will be very costly—so costly the Nation cannot afford it."⁵
 - "An all-volunteer force will undermine patriotism by weakening the traditional belief that each citizen has a moral obligation to serve his country."⁶
 - "An all-volunteer force would stimulate foreign military adventures, foster an irresponsible foreign policy, and lessen civilian concern about the use of military forces."⁷

Col. Dianna Carson, U.S.

Army, retired, is the chief of staff for the American College of National Security Leaders. She is a retired Army colonel, has a doctorate in behavioral health (management) from Arizona State University, a master's in security studies from the Army War College, and a master's in public affairs from the University of Oregon.

Deseret Crane is a University of Utah prelaw student, majoring in environmental and sustainability studies and peace and conflict studies. In addition to her internship as a Hinckley Institute scholar supporting the American College of National Security Leaders, she has worked for immigration attorneys and advocates.

Jack Dutton is a prelaw major in the Honors College at the University of Utah. In addition to his internship as a Hinckley Institute scholar supporting the American College of National Security Leaders, he is part of the University of Utah's LEAP program and has excellent scholarly credentials.

- “A voluntary force will be less effective because not enough highly qualified youths will be likely to enlist and pursue military careers. As the quality of servicemen declines, the prestige and dignity of the services will also decline and further intensify recruiting problems.”⁸

The Current State of the AVF

Media accounts are replete with news about the current recruiting woes of the military services. A common thread of these accounts is the assertion that the military needs to solve its recruiting problem. This mindset places responsibility on the Armed Forces, not the public that provides the manpower and the framework for service. America has a recruiting problem.

Costliness. The Gates Commission examined several potential concerns about whether an AVF could be viable. Some centered around military pay rates. While drafted military personnel can be paid relatively little, an AVF must, to some extent, receive compensation competitive with the civilian market.⁹

Dating back to 1967, federal law required the Department of Defense (DOD) to provide Congress with a report every four years on military compensation.¹⁰ With the advent of the AVF, the quadrennial pay review became of pronounced importance.¹¹ Consistent with previous reviews, one of the things the 2002 *Ninth Quadrennial Review of Military Compensation* looked at was how to set the compensation level to continue attracting recruits. The report found the following:

*Pay [including basic pay, basic allowance for housing, basic allowance for subsistence, and the benefit of these allowances not being taxed] at around the 70th percentile of comparably educated civilians has been necessary to enable the military to recruit and retain the quantity and quality of personnel it requires.*¹²

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As predicted at the birth of the AVF, military pay has risen substantially over the past few decades and, in 2017, was well above the 70th percentile for those with high school diplomas, some college, and associate degrees.¹³ Nevertheless, recruiting has become more and more difficult. Despite current pay levels, in September 2023, the Army is projected to miss its recruiting goal for the second year in a row.¹⁴ While pay increases certainly draw more recruits, this 70th percentile metric no longer seems to be effective.

Thus, the military has continued to raise its pay and offer bonuses over the past decade.¹⁵ These incentives clearly increase recruiting numbers, but they are also extraordinarily expensive.¹⁶ In 2020, the DOD spent about 25 percent of its base budget (approximately \$157 billion) on pay and benefits for service members.¹⁷

Attracting quality. Despite the continuous rise of military pay, attracting quality recruits has remained difficult. Studies show that less than 30 percent of Americans aged seventeen to twenty-four are qualified to serve in the military without a waiver—with the others disqualified largely due to their health, physical fitness, education, and criminal history.¹⁸ Furthermore, the military generally aims to pursue “high-quality recruits,” that is, high school graduates who score in the 50th percentile or above on the Armed Forces Qualification Test.¹⁹

(This group can be further broken down into Category I, II, and IIIa recruits.²⁰ In contrast, Category IV recruits are high school

Sven Karabegovic is an honors political science and international studies major at the University of Utah. In addition to his internship as a Hinckley Institute scholar supporting the American College of National Security Leaders, he is the director of the Freshman Ambassador Board at the Union Programming Council, a resident advisor for Housing and Residential Education, and a member of the Honors Student Advisory Council at the University of Utah.

Leah Mickelsen is a business administration and international studies student at the University of Utah. In addition to her internship as a Hinckley Institute scholar supporting the American College of National Security Leaders, she has worked frequently with the Young Life program.



**WHAT SOME OF THE MOST
SUCCESSFUL WOMEN
ARE WEARING THIS YEAR.**

ARMY. BE ALL YOU CAN BE.

Army recruiting poster circa 1990. (Photo courtesy of the Department of Defense)

graduates who score between the 10th and 30th percentile.)

Studies have shown that individuals with higher Armed Forces Qualification Test scores make far more effective and efficient service members and perform better in problem-solving scenarios, and they are also more accurate tank gunners and operators of Patriot missiles.²¹ But, as the Armed Forces struggle today to meet its recruiting goals, less qualified individuals are accepted. As an example, for fiscal year 2023, the Navy announced it would allow for up to 20 percent of new recruits to be Category IV.²² Similarly, in 2023, the Army announced it will allow those who test at Category IV (with scores 21 to 30) to enroll in its

Future Soldier Preparatory Course; others who had enrolled in the course had typically improved their scores by eighteen points.²³ This, of course, completely ignores the fact that one's aptitude does not improve by eighteen points, so these individuals are probably still at the Category IV aptitude level.

Who bears the burden of service? As the services turn to the less qualified to meet end-strength goals, it is noteworthy that military service is not evenly distributed across income levels. Americans from the middle three income quintiles are overrepresented, while those from households in the highest income quintile make up only 17 percent of recruits.²⁴ This underscores a growing divide between the wealthiest Americans—arguably the ones who benefit the most from the successes of the Armed Forces—and the military that protects them. This divide may have several wide-reaching, though intangible, effects.

Those in places of power may be less likely to understand the military and the experiences and needs of our troops. Those

who may be in a position to hire veterans may not understand the skill sets one learns in the military. Gravely concerning is that those who decide to send troops into harm's way may themselves have no firsthand understanding of what they are asking our soldiers, sailors, marines, and airmen to do. While the wealthy were able to find ways to exempt themselves from service during previous wars in American history, the wealthy of today are automatically exempt—and, given the small number from their income level who serve, appear to feel very little obligation to serve their country.²⁵

Today's military is threatened by an unprecedented recruiting crisis, in no small part because the Nation has changed. The United States has become more diverse, and its population is older. The American



A soldier assigned to the 3rd Division Combat Aviation Brigade, 3rd Infantry Division, greets his family at Hunter Army Airfield, Georgia, 5 November 2023, after spending several months in Europe. Prolonged absences due to deployments add to the stress on military families. (Photo by Pfc. Elisha Hall, U.S. Army)

birthrate is declining, and U.S. citizens have become increasingly obese and less healthy.²⁶ Following the Base Realignment and Closure process carried out through the 1990s and 2005, military recruits have come from a smaller number of states, chiefly those with a military or contractor presence.²⁷

Unlike the pre-1973 drafted military of people from all walks of life, different parts of the country, varied educational backgrounds, diverse social experiences, and different political and religious beliefs, today's military is from a very small sliver of American society.²⁸ The current force does not experience the "melting pot" effect that was a microcosm of the American experience that historically made our Nation strong and resilient. The U.S. military has been stronger because of its diversity. As America develops an enhanced approach to manning its military, it must adopt and maintain policies of equal opportunities based on ability and without discrimination or discouragement toward any person based upon gender,

gender identification, sexual orientation, race, color, ethnicity, national origin, or religion.

Today, the American military is increasingly struggling to fill its ranks with qualified recruits, and the cost of doing so continues to rise. At the same time, the brunt of the weight of military service falls largely on the middle class and the poor; by and large, the wealthy remain alienated from our service members.²⁹ Many Americans feel no obligation to serve in the Armed Forces, and many of those who do serve are faced with immense difficulties—both financial and familial.

Stress on the force and family struggles. Certainly, it is difficult for the Armed Forces to fill its ranks. Qualified young people, especially those with higher-paying job opportunities and those from higher-income families, largely seem uninterested in military service. Unfortunately, considering the problems that so many members of the military face today, their decision isn't unreasonable.

Despite growing pay, bonuses, and other incentives, a shocking number of military families struggle to meet even their most basic needs. The RAND Corporation found that, in 2018, 25.8 percent of service members experienced food insecurity, including 30 percent of those living on post. Moreover, 40 percent of these people (10.4 percent of the American military) were qualified as having “very low food security.”³⁰ While the reasons for such struggles remain somewhat unclear, it is known that members of the military who report food insecurity are far more likely than their food-secure colleagues to report personal finance issues, relation-

- only 70 percent described their financial condition as “comfortable”;
- 21 percent reported having relationship problems with their partner because of finances; and
- 17 percent reported that they were in counseling. The majority were seeking help with marital issues, mental health concerns, and couples’ communication issues.³⁴

Finally, these problems may become generational. The children of deployed parents have reported noticing increased levels of stress and anger in their other parent and are more likely to exhibit emotional and

“ Not only do these families experience disruptions in income, but they also can experience delays in transition when licensing challenges arise at the new location or living overseas presents difficulties in obtaining new employment. ”

ship difficulties stemming from finance issues, and to have paid overdraft fees or fallen behind on bills.³¹

While many military families struggle to find adequate food, many others have seen their families face deeply negative effects from their service. One of the greatest issues is domestic violence. A 2021 report to Congress by the Government Accountability Office found that 8,055 cases of domestic violence had been reported to military family advocacy programs in 2019.³² As domestic violence is often unreported, the real number is almost certainly higher. Nevertheless, active-duty personnel and veterans report domestic violence perpetration at over twice the rate of the civilian population, and victimization at over four times the rate.³³ These issues can be aggravated by both post-traumatic stress and alcohol abuse, problems that also plague some military personnel. Furthermore, military families are likely to face a number of other issues arising from the unique stress they experience. According to a 2019 DOD survey,

- 54 percent of active-duty military spouses reported experiencing more stress than usual (at the time the survey was taken);
- 39 percent reported feeling “down, depressed, or hopeless” within the previous two weeks;

behavioral health issues, including aggressive behaviors and anxious/depressive symptoms.³⁵

The nature of military families has changed since the early days of the AVF. Traditionally, military spouses did not participate in the labor market. Today, two-income households are the norm, and military spouses struggle to transition from employer to employer when their service member is transferred to new assignments in new locations. Not only do these families experience disruptions in income, but they also can experience delays in transition when licensing challenges arise at the new location or living overseas presents difficulties in obtaining new employment. These licenses often come with substantial fees, as well. This places stress on the family, is a distraction to the service member, and creates dissatisfaction for the spouse.³⁶ These can all contribute to pressures to leave the service or military parents dissuading offspring from going into the military. Collaboration with employers and engagement with state leaders through the White House Conference’s model can help the Nation arrive at mechanisms supportive of these spouses and what they contribute to their families, their service member, and the Nation.



Navy Lt. Jade Reaves, officer in charge of Talent Acquisition Onboarding Center Syracuse, administers the oath of enlistment to twenty-three future sailors at an Elmira Enforcers hockey game in Elmira, New York, 27 February 2020. (Photo courtesy of the Department of Defense)

The AVE, Iraq, and Afghanistan. When the Gates Commission recommended the AVE, it never intended for it to be the exclusive means of military manpower during a war. It projected out manpower for only ten years, knowing the available manpower would decline after that. So, when the commission planned for war, it felt the country would rely on the National Guard and Reserve to round out military manpower requirements and would use a standby draft capability if needed.³⁷

Yet, when America responded to the attacks on 9/11, despite the remarkably high volume of Selective Service System registrations that ensued, the United States elected to engage in two wars simultaneously using only the AVE.³⁸ To achieve this, DOD lowered enlistment standards, granted record moral waivers, instituted personnel policies like stop-loss, paid out sizable enlistment and reenlistment bonuses, and expanded the use of military contractors. Paired with this, DOD drew upon Reserve Component (RC) service members for repeated deployments, in some

cases for a full two years at a time, placing stress on the force, employers, and RC families. Because the size of the military was small in comparison to the mission requirements of fighting two wars simultaneously, repeated deployments were common. Few American families experienced these hardships, and most were unaware of them.³⁹

This reliance on a small number of citizens to respond to an attack on the homeland has serious implications for American democracy. Is it consistent with democratic ideals to send a small group of service members on repeated deployments while the rest of the U.S. population stays at home and goes about life as normal? Is this consistent with American values? Will the United States, then, address the accompanying impacts these deployments will have on service members and their families?

Just as behavior patterns that conflict with one's moral perspectives can lead to psychological hardships for individuals, society can be adversely affected when it engages in a form of exploitation by which it

burdens a small part of its population with the moral responsibilities and liabilities of war instead of sharing the burden.⁴⁰ Moreover, this type of exploitation can heighten the effects of the service member's moral injuries and can create isolation of those burdened or guilt on the part of those who asked them to carry the burden.⁴¹ Michael Robillard and Bradley Strawser argue this scenario can create the awkward dynamics at play when the public says "thank you for your service" or puts yellow ribbons on their cars and the service members feel uncomfortable and misunderstood by these expressions.⁴²

The Gates Commission dismissed the assertion that the AVF would make it too easy to go to war. They said that, whether employing a draft or the AVF, the same institutions, laws, and policies remained in place that would determine America's involvement in conflicts.⁴³ In 2017, though, following Iraq and Afghanistan, Adm. Mike Mullen and Gen. Colin Powell asserted at a U.S. Naval Institute conference that, under the AVF model, it had become too easy to go to war.⁴⁴ Over time, Mullen has continued to make this case.⁴⁵

Ramifications. While some will debate whether veterans' and their families' hardships from service in Iraq and Afghanistan affect today's recruiting difficulties, one cannot ignore what those veterans and their families endured. The characteristics of their cohort are systemic indicators that an improved approach to manning American forces is needed, especially during wartime.

There is no intent to cast veterans as victims, but one cannot ignore some of the effects in the population who served in those wars. What one sees are higher rates of suicide, homelessness, drug and alcohol abuse, posttraumatic stress, traumatic brain injury, and other health issues than rest of the population. The Center for Deployment Psychology at the Uniformed Services University notes that there is a compounding nature to some of these issues:

Relationship problems, administrative/legal issues and workplace difficulties, traumatic brain injury (TBI), chronic pain, and sleep disorders are all reasons for suicide within the military.⁴⁶

All these factors led suicide to become the second leading cause of death within the military.⁴⁷

Veterans represent about 8.5 percent of the U.S. population but account for 18 percent of all adult

suicides in the United States, and veteran suicide has been increasing for twenty years.⁴⁸ The VA often reports a decline from twenty-one veteran suicides a day down to seventeen a day, but that figure, once one factors in Guardsmen and Reservists and adjusts for age and sex, is actually 27.5 per 100,000. That means the suicide rate is 1.5 times worse than it was in 2005, and for those eighteen to thirty-four, the increase has been by 76 percent since that date. Additionally, one study found that the suicide rates were especially high for post-9/11 veterans.⁴⁹

The operational tempo following 9/11 is among the highest experienced by our service members and their families.⁵⁰ This has affected spouses and other family members including their soldiers, sailors, airmen, and marines. The stress experienced during deployments has been linked to the increased likelihood that spouses will consume alcohol at higher rates than other women their age, experience mental health struggles, and have relationship issues.⁵¹ U.S. studies found multiple deployments were associated with a higher level of depressive and posttraumatic symptoms in spouses and increased adjustment problems in children.⁵²

Reconnecting Americans and Their Military

Nordic countries provide a good example of total defense. While those nations are much smaller than the United States, they bring together the public, employers, industries, communities, political leaders, and the military to address their national defense. The concept of total defense relies on the mobilization and involvement of the public in national defense efforts. Unlike traditional defense policies, total defense takes a whole-of-society approach to protecting the Nation. This means there is institutionalized coordination between a wide range of stakeholders, including the government, the general public, the private sector, and civic organizations.

The involvement of all levels of society in total defense is based on two concepts. The first, improving the resilience of the state, is "the ability of individuals, communities, society and nation to withstand the pressures arising from crisis situations and to recover from their impacts."⁵³ The second, improving the state's resistance or "the readiness to defend a country in case of military threat."⁵⁴

Historically, nonaligned nations implemented total defense during the Cold War as a form of territorial defense and a way to prepare the country and its citizens in case of an emergency.⁵⁵ Today, total defense principles are also used by NATO member states in response to increasing Russian aggression. These policies can be found in several countries that border Russia or face existential threats, including Sweden, Switzerland,

strategy is managed by the Security Committee, a part of the Ministry of Defense, and follows a preparedness cooperation model in which all the vital functions of society are looked at through a joint effort between the authorities, businesses, organizations, and citizens.

Sweden accomplishes this in several ways. First, Sweden has long maintained a variety of independent volunteer organizations to support civil and mili-

“ World War II led to the creation of a permanent government agency responsible for peacetime planning and fortification of reserve stocks for socially important raw materials. ”

Norway, Estonia, Lithuania, and Latvia.

For example, Norway describes its total defense policy as a framework that “enables relevant civilian assets to support the national and allied defense efforts during peacetime, crisis, and armed conflict. If necessary, all national resources can be mobilized in the defense of Norway.”⁵⁶ In doing so, military defense becomes inextricably connected to the will of the public and an established part of the interest of all members of society. This approach to national security strengthens the connection between the state and the public by incorporating them into national security processes.

The application of total defense policies varies significantly between states. Even the concept of total defense has changed over time to accommodate both conventional and hybrid threats. Consequently, applying total defense policies in the United States will mean learning from its application in other countries and creating an open dialogue about how to best integrate these practices in every level of society. In doing so, a more comprehensive approach can be applied to improving national security.

In Sweden, total defense was reintroduced in 2015, which included the reactivation of conscription in 2017. Swedish total defense strategy identified several national interests as guidelines for its security policy, including the safety, security, and health of the population, the functionality of societal critical functions, promoting stability and security in the nearby region, and the upholding of values such as democracy, rule of law, and individual rights. This

strategy is managed by the Security Committee, a part of the Ministry of Defense, and follows a preparedness cooperation model in which all the vital functions of society are looked at through a joint effort between the authorities, businesses, organizations, and citizens.

Sweden accomplishes this in several ways. First, Sweden has long maintained a variety of independent volunteer organizations to support civil and military defense. They are nonprofit, independent of the armed forces, and regularly recruit and train citizens for defense duties.⁵⁷ Second, Sweden has long involved industry in creating a comprehensive total defense. A temporary commission for war preparedness in World War II led to the creation of a permanent government agency responsible for peacetime planning and fortification of reserve stocks for socially important raw materials. These plans were developed through close collaboration between private and public companies under a lead agency. Companies considered important for defense and crisis were allowed to “operate as usual on the private market during normal times but were, in the event of a crisis or war, bound by contract to supply goods and service.”⁵⁸ While Sweden’s situation has changed significantly since World War II, it still has laws governing how it should function in a state of emergency and how businesses should participate in total defense planning. Recent legislation in Sweden has also defined “ten readiness sectors with ten state agencies responsible for sector readiness, including the contributions of businesses.”⁵⁹ Even in a changing defense environment, Sweden has found ways to make industry a part of the national security conversation.

On a community level, Norway has applied the total defense concept by educating and communicating directly with the public. To involve communities, leaflets were sent out to all households to prepare the nation for the loss of essential services due to emergencies, such as natural disasters or war. Furthermore,

their reference manual includes preparation in both peacetime and war, emphasizing that total defense is “intended to ensure best utilization of society’s limited resources when it comes to prevention, contingency planning and consequence management across the entire spectrum of crises.”⁶⁰ Norway’s total defense approach has led to significant public support of the military, with recent opinion polls suggesting that

In the United States, however, no national security framework exists to include the private sector and general public in defense efforts. Typically, threats in the United States are approached through a lead agency with particular jurisdictions such as the FBI for counterterrorism or the DHS for border security. According to Jeffrey V. Gardner, “None of the homeland defense or homeland security functions

“None of the homeland defense or homeland security functions could run effectively by any one agency alone ... A number of experts and practitioners have called this interagency approach a ‘badly broken’ way to conduct national security.”

less than 14 percent supported armed resistance in response to an attack and 66 percent supported defending Nordic neighbors.⁶¹ This underscores the effectiveness of community involvement in creating a sustainable military force.

In response to Russian aggression in Ukraine in 2014, Lithuania has taken decisive steps to transition to a total defense posture. This has included modernization and creation of new military infrastructure, reintroducing military conscription, and developing a new lead agency to consolidate all government efforts. In addition, Lithuania has coordinated closely with the public to combat information threats and improve cybersecurity. In an article regarding Lithuania’s total defense efforts, the following was reported:

Such tools as TV programs, internet articles on debunking unfriendly propaganda narratives, improvement of media literacy, and other related topics are initiated both by the governmental institutions and public initiative. There are also a considerable number of seminars and presentations for public officials and different groups of society (school pupils, pensioners, different regions of Lithuania, and so on).⁶²

These efforts from the civilian sector are internationally acclaimed and have been crucial to combating misinformation and improving cybersecurity efforts in Lithuania.

could run effectively by any one agency alone ... A number of experts and practitioners have called this interagency approach a ‘badly broken’ way to conduct national security.”⁶³ This model typically doesn’t allow room for private sector or citizen involvement. A true “total defense” must integrate all facets of the nation. Regarding ways to improve civil defense in Sweden, Karl Lallerstedt said,

A group of senior civil servants, business leaders, and politicians, with support of several staff, should be commissioned to develop an overall total defense concept and set goals for what the future total defense structure should achieve. Once the overall ambition is set, the government commissions can work out the details of implementation.⁶⁴

By adopting a more inclusive approach, such as the total defense model, the United States can bridge the gap between its military and the rest of society, thus establishing a comprehensive and collaborative national security framework.

How Can America and Its Military Be Reconnected?

Americans love their military. Their support of the end to conscription was never intended to burden a small sliver of society with fighting its wars and experiencing the attendant consequences. Expressions

of admiration and respect for the AVF and its accomplishments are well-intentioned and truthful. However, good intentions and well wishes are not enough to bridge the chasm between the military and the public. More concrete action is necessary.

America launched its AVF based on the work of the Gates Commission and those in the Pentagon who strove to see it to fruition. A new commission is now needed to address how America will field its future force. Congress should establish a commission like the commission used for the White House Conference on Small Business. The White House Conference engaged the small business community in every state through a series of conferences and arrived at policy and legislative recommendations.⁶⁵ Similarly, a commission could be established to engage with the public, employers, industries, community leaders, service members, and service member families through a series of state, regional, and national conferences to address how to ensure a dependable, formidable, and capable national defense for next fifty years. In short, through such conferences, the public can grapple with the difficulties facing the U.S. military and commit to an American form of total defense.

As Robillard and Strawser concluded, However, it is abundantly clear by now that some sort of cultural shift is needed and needed soon. For if no shift whatsoever begins to occur within American society, within America's present civil-military relationship, and within America's soul, then this state of affairs as we head further into the twenty-first century will show itself to be not only imprudent, or unsustainable, or unfair, or unjust; indeed, it will show itself to be positively absurd.⁶⁶

Americans can do better for themselves, their children, their service members and their families, and veterans by ensuring an improved way to decide who serves and how is consistent with American democratic values. Americans must come together to address their national security crisis. They need to reconnect with the military that serves them, feel responsible for how the United States fills its military ranks, address how troops are used, and grapple with what their soldiers, sailors, airmen, guardians, and marines experience. Creating a new commission that uses the White House Conference model is the best way to reconnect Americans so that the United States continues to field the finest professional national defense force in the world. ■

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An Overlooked Ally

Observations and Lessons Learned from the First Persistent U.S. Artillery Forces Stationed in Estonia

Lt. Col. Andrew Underwood, U.S. Army

Maj. Scott Clark, U.S. Army

Capt. Dylan Karnedy, U.S. Army

Kes otsib, see leiab. [The one who seeks shall find.]

—Estonian proverb

An unexpected deployment to the Baltic State of Estonia provided unique lessons for a U.S. Army artillery battalion. Those lessons serve as a groundwork for other American units that will come to Estonia. To better understand Estonia, U.S. service members can improve American-Estonian military preparedness and develop U.S. capability with a dynamic and clever ally. Among the members of NATO, Estonia may be an often overlooked ally. The Republic of Estonia is a small nation of approximately 1.3 million people, slightly less than the population of the state of Maine. Roughly one-fifth of Estonians speak Russian. Its surface area is just over 43,000 km, making Estonia roughly a third larger than its National Guard State Partnership Program counterpart's state, Maryland.¹ Estonia's GDP is the third smallest in the European Union, greater than only Cyprus and Malta.² By these metrics, Estonia is easy to overlook.

There is more to the story than these metrics, however. Geography matters. Until Finland's recent

admission to NATO, Estonia was the northern anchor of NATO's eastern flank. Estonia now serves at the center among the Nordic and Baltic States, situated just 160 km from Saint Petersburg, Russia. Estonian Defence Forces (EDF) protect a 296 km border with Russia, and the Estonian Navy patrols Estonia's 2,200 islands dispersed throughout the Gulf of Finland and the Baltic Sea.

This article focuses on the experiences and perspectives garnered from Task Force (TF) Võit (the Estonian word for victory) in Tapa, Estonia, and from the U.S. Embassy's Office of Defense Cooperation (ODC) in Tallinn, Estonia. 1st Battalion, 14th Field Artillery Regiment (1-14 FAR) established TF Võit in December 2022 during its no-notice deployment from Oklahoma to Europe in support of Operation European Assure, Deter, and Reinforce, which was decisively enabled through the ODC. The creation of TF Võit exposed the power of persistent force projection when given the goals to build multinational interoperability and intercultural understanding, and to refine U.S. techniques and procedures for long-range precision fires (LRPF) in a new environment. TF Võit and the ODC's close cooperation simultaneously enabled an ally to develop operational



Soldiers from the 1st Battalion, 14th Field Artillery Regiment, 75th Field Artillery Brigade, march past Estonian President Alar Karis (center, white hat) and Estonian chief of defense Gen. Martin Herem during the Estonian Independence Day parade 24 February 2023 in the country's capital, Tallinn, to promote the strong bilateral relationship between the United States and Estonia. (Photo by Staff Sgt. Ondirax Abdullah-Robinson, U.S. Army)

capability for a future system years before its fielding, in the vein of the Department of Defense's recommendations to improve foreign military sales (FMS) cases.³

The Estonian Military: A Small but Burgeoning Capability

In stark contrast to its former Soviet occupation, Estonia is now firmly entrenched in the European Union and NATO. Estonia's small territory and modest population and territory belie its growing military and robust economy. The EDF supports approximately four thousand active-duty soldiers, a newly formed division headquarters established in 2023, one active-duty infantry brigade in the northeast at Tapa, and a reserve brigade in the southeastern Estonian military base of Võru. Conscripts augment regular forces through biannual indoctrination, and the Estonian Defence League provides a well-organized

and trained national guard of nearly seventeen thousand volunteers.

Estonia is frequently grouped in Washington, D.C., with its Baltic neighbors Latvia and Lithuania for political and military projects (referred to as the 3Bs). Sometimes this includes Poland as well, which more often serves as the focal point of American military interests, as Poland recently embarked on a rearmament drive to field the largest land force among the European armies.⁴ Finland's recent admission to NATO now expands prospects for Baltic integration into NATO's new northern flank. There may be a thought that Estonia is an identical one-third partner among the 3Bs, or a miniature Finland. However, U.S. military officers serving in Estonia are quick to realize that the many nuances, unique capabilities, and distinct differences of operations in Estonia merit deeper understanding and attention.

Estonia, like its Baltic counterparts, recognized the persistent threat from Russia since regaining its independence from the Soviet Union in 1991. As part of its effort to safeguard independence, Estonia proactively sought a coordinated procurement of the High Mobility Artillery Rocket System (HIMARS). Estonia was the first among the Baltic States to pursue an advanced LRPF capability, submitting for an FMS case in December 2021. The procurement, solidified in December 2022, represents Estonia's largest to date, with the total proposed cost for six HIMARS and a plethora of munitions at over \$500 million in U.S. dollars.⁵ It is Estonia's most expensive and complex LRPF program ever.

U.S. Force Posture in Estonia

Estonian pursuit of serious deterrence and credible combat capabilities caught U.S. attention as the first of the Baltic nations to action the LRPF capability gap menacing NATO's eastern flank. As a result of U.S. and allied commitments at the Madrid Summit, the U.S. Army's V Corps in Europe ordered Operation Victory Vigilance to provide a persistent rotational force structure of U.S. infantry units in Võru and a platoon-sized U.S. element of four HIMARS in Tapa that would precede the fielding of Estonian HIMARS.⁶ The

Lt. Col. Andrew

Underwood is currently the chief of the Office of Defense Cooperation in Tallinn, Estonia. He holds a BS from the U.S. Military Academy at West Point and an MA from Harvard University. His prior assignments include the Joint Staff, U.S. Embassy and Consulate in Poland, 1st Special Forces Group, and the 173rd Airborne Brigade Combat Team.

Maj. Scott A. Clark, U.S.

Army, is the executive officer for the 75th Field Artillery Brigade at Fort Sill, Oklahoma. He holds a BS from the U.S. Military Academy; an MS in national security from Jagiellonian University, Poland (Olmsted Scholar); and an MA in operational studies from the Command and General Staff College, Fort Leavenworth, Kansas. His assignments include the 173rd Airborne Brigade Combat Team in Italy with two deployments to Afghanistan, 2nd Infantry Division in Korea, faculty at the U.S. Military Academy, and led Task Force Võit in Estonia during Operation European Assure, Deter, and Reinforce.

premise of the additional forward U.S. presence is to enable (and not simply defend) Estonia and to improve technical, procedural, and human interoperability between U.S. and Estonian forces. This is particularly significant for Estonia's development of HIMARS capability given the transformational role of HIMARS in Russia's war in Ukraine.

The 1-14 FAR HIMARS battalion deployed a mixture of capabilities to Estonia to provide LRPF in support of both V Corps and the new Estonian division's deep fight. To provide this capability, five different units stationed throughout Europe deployed specialized elements to enable continuous operations in Tapa Camp as the first semi-enduring U.S. force in Estonia. As of 2023, a mission command cell, a security forces infantry platoon, a HIMARS platoon (four HIMARS with a fire direction center), a battery headquarters, a Q-53 radar section, a platoon of HIMARS resupply vehicles, and a maintenance support team comprise TF Võit. Additionally, two Estonian liaison officers, a mayoral cell from the Army's regional support group, and

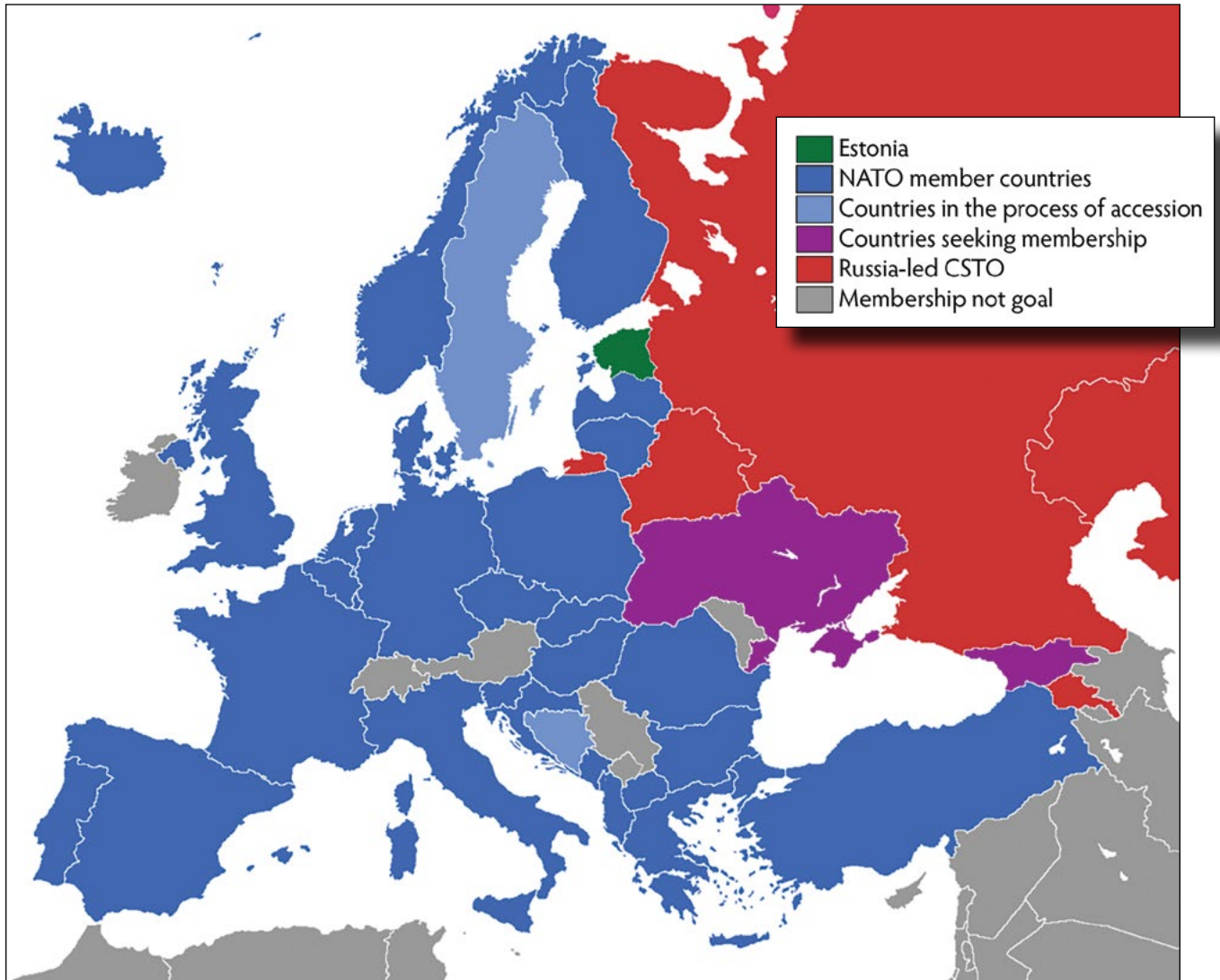
Capt. Dylan S. Karnedy,

U.S. Army, is the battery commander of Bravo Battery, 1st Battalion, 14th Field Artillery Regiment at Fort Sill, Oklahoma. He holds a BA from Indiana University and an MA in leadership and management from Webster University. His assignments include enlisted service with the Indiana National Guard, 1st Stryker Brigade Combat Team, 4th Infantry Division, with one deployment to Afghanistan, and recently returned from a rotation to Germany and Estonia as a HIMARS battery commander in support of Operations Victory Vigilance and European Assure, Deter, and Reinforce.

an Army post office team support TF Võit under one U.S. senior responsible officer due to a lack of a unified command structure among the composite forces. In this capacity, the senior responsible officer routinely engaged ODC and EDF's division-level officers, and the HIMARS battery garnered unique insight into tactical EDF-U.S. operations.

Lessons Learned in Procedural Interoperability

While many TF Võit leaders were experienced in combat tours in the Middle East, operational tours in Europe, permanent overseas assignments in Poland, or myriad U.S. annual training exercises



(Map by Starfire25 via Wikimedia Commons)

Estonia in Relation to NATO and Collective Security Treaty Organization (CSTO)

throughout the Baltics, their experiences often created a false sense of understanding of Estonia's professional military culture, operations and training, and the important business rules for persistent U.S. operations within Estonia.

It is not an uncommon misconception for U.S. military personnel to presume that Estonia is a third world fragile state or a helpless former Soviet satellite. Estonia's present economic and military disposition are more akin to Western than Eastern Europe. Visitors to Estonian military bases will note robust force protection, new facilities, and high-quality physical and technical infrastructure. For example, secure hard-stand facilities housing rotational U.S. forces at

Tapa Camp offer free Wi-Fi, fresh linen, free laundry, stable climate control, contracted cleaning services, and abundant bunks with new mattresses. In contrast, facilities of allies perceived as more mature partners like Germany or Poland that accommodate rotational U.S. forces do not always provide comparable life support services. Estonians are deservedly proud of their overlooked investment to welcome an increased U.S. presence.

In addition to adjusting expectations of what the EDF affords rotational partner forces, U.S. forces should stay vigilant to respect Estonia as the host nation and an accommodating partner. TF Vöit observed mitigatable friction when U.S. headquarters

perceived themselves as “battlespace owners” in Estonia or the Baltics, which led to frequent missteps in U.S. forces presuming unimpeded access to Estonia and its bases. Whereas in the Global War on Terrorism, a battlespace owner could relatively freely reposition forces within Iraq or Afghanistan, such actions in Estonia invited frustration at the least, and delayed movement of U.S. forces at the worst. The battlespace owner mentality, combined with TF Vöit’s reliance on external logistical support, encouraged U.S. forces in Europe to move forces into Estonia to augment U.S. capabilities within their commander’s intent; however, at times they did not first confirm host-nation or base commander permission. Consequently, U.S. forces would arrive unannounced to the Estonian border or an Estonian base with orders from a U.S. division and insist on entrance, having ignored the Aircraft and Personnel Automated Clearance System or country and base access request processes. The familiar business rules of U.S. operations in Germany or Poland do not apply, but this friction is easily alleviated through engagement with the ODC. The ODC mitigated and often prevented unintentional missteps from U.S. forces.

Leveraging the Office of Defense Cooperation to Enable Tactical Operations

On behalf of the U.S. Department of Defense and specifically U.S. European Command (USEUCOM), the ODC works within the U.S. embassy to engage with the Estonian Ministry of Defence and the EDF to expand capability and improve interoperability. U.S. units in allied nations like Estonia are building strategic capabilities as much as they are building tactical ones. When a U.S. unit rotation like TF Vöit enters into a capability procurement process, it enables a level of capability development that would otherwise take years for any nation, no matter its size. Moreover, the ODC can serve as a conduit to transfer the desire of the host nation to leverage the power of a U.S. unit rotation to expedite initial or full operating capability development vis-à-vis emergent and present threats like Russia. The ODC also helped rapidly connect and sustain critical relationships between the EDF and TF Vöit that would have otherwise been impractical due to disparate command relationships. These multinational networks simultaneously give U.S. forces the opportunity to look at the employment of their own systems with fresh



Soldiers assigned to the 1st Battalion, 14th Field Artillery Regiment, 75th Field Artillery Brigade, fire rockets from an M142 High Mobility Artillery Rocket System during a media engagement 7 February 2023 at Tapa Army Base, Estonia. The Estonian Defense Media Team and the Estonian Public Broadcasting witnessed twelve rockets launch at close range and captured in-depth footage of the event. (Photo by Spc. Joshua Zayas, U.S. Army)

eyes. In all these cases, the ODC is an asset to help commanders and soldiers.

For Estonia, TF Vöit's deployment could have been a self-contained projection of U.S. LRPF in support of an ally and the NATO alliance. Instead, it produced much more. It served as a foundation for the development of

military culture. For example, the EDF generally speaks English, which fosters direct interaction at echelon to foster vital partnerships. While trying to nurture these relationships, U.S. forces quickly discovered that Estonians are famously honest before polite and ruthlessly efficient in their interactions. TF Vöit observed that well-devel-

“ The Estonian 1st Infantry Brigade commander warned U.S. forces upon arrival to not errantly boast that Americans deployed to *defend* Estonia but instead Americans *enable and support* Estonian Defence Forces capabilities. ”

Estonia's capabilities. This foundation, while only in the initial stages, may pay off in the further development of Lithuanian and Latvian LRPF.

The bottom line of the ODC's support to TF Vöit is simple: improved deployability and techniques, tactics, and procedures for U.S. forces, and capability development for allies in a way that is meaningful to the alliance. This support extends to any unit operating within Estonia, regardless of duration or scope.

Estonia's commitment to its LRPF development is significant. It is Estonia's largest procurement to date, and Estonian leadership recognizes the LRPF role in the region's defense if war comes. TF Vöit's efforts in building human and technical interoperability enabled Estonia to make concrete decisions about its FMS case for HIMARS. Given that Estonia's HIMARS are slated to arrive in 2025, there is no time to spare in that development. TF Vöit's open and earnest effort to collaborate with Estonia did wonders to develop Estonian capability and is a model for other deployments to the region with other complex capabilities in development. Consequently, TF Vöit's deployment answered U.S. defense recommendations in support of FMS cases “to provide allies and partner nations relevant priority capabilities.”⁷

Lessons Learned in Human Interoperability

While the ODC is deliberately trained and onboarded to navigate unique Estonian idiosyncrasies, TF Vöit and other U.S. forces encountered avoidable friction in human interoperability due to nuances in Estonia's professional

oped personal relationships are critical in Estonia, since the EDF's small size correlates to strong internal networking that can helpfully circumvent bureaucratic gauntlets and even offer access to civilian resources for training. Similarly, the EDF's smaller size means that its leaders are well versed in the training and operations of adjacent units. Consequently, EDF partners were surprised that TF Vöit was ignorant of concurrent U.S. operations in Võru or conversations held at the strategic level, though Estonian directness quickly addressed communication shortfalls.

TF Vöit observed a commander-centric approach to mission command in the EDF. The EDF is less reliant on command sergeants major than the United States, but there is an active effort to mature the role of their senior enlisted advisors. Interestingly, in the Estonian language, only one word, “juhtimine,” conveys “command,” “leadership,” and “management.” This reflects a markedly different mission command approach between EDF and American officers, whereby U.S. leaders treat those three facets of mission command as distinct leadership methods. However, the EDF mitigates this nuance through an adhoc culture among its military staff that supports a goal-oriented approach that deemphasizes rank and prizes innovation.

A final, important aspect of the EDF's professional culture is its sensitivity to the strategic role of non-Estonians in support of Estonian defense. First, it is the EDF's responsibility to defend Estonia and not the responsibility of the United States or any other ally. For instance, at Tapa the Estonian 1st Infantry Brigade commander warned U.S. forces upon arrival to not errantly boast



Capt. Dylan Karnedy, Bravo Battery commander for the 1st Battalion, 14th Field Artillery Regiment, 75th Field Artillery Brigade, stands in front of an M142 High Mobility Artillery Rocket System during a media demonstration 5 February 2023 at Tapa Army Base, Estonia. Karnedy stated, "Today, we are here to showcase the HIMARs to our Estonian partners and other media attending." (Photo by Spc. Joshua Zayas, U.S. Army)

that Americans deployed to *defend* Estonia but instead Americans *enable and support* EDF capabilities. To that end, the EDF wanted the right type of capabilities, like HIMARS and not maneuver forces, at Tapa to positively augment its defense plans. Second, nonethnic Estonians are not overtly discriminated against in their EDF role. Estonia has a sizable ethnic Russian population amongst its citizenry, but that should not imply disloyalty. On the contrary, many of the EDF officers, to include intelligence and commanders, have Eastern Slavic names and may even lack a strong command of the Estonian language as native Russian speakers, yet they are no less patriotic than their ethnic Estonian officer counterparts.

Lessons Learned in Technical Interoperability

As an artillery-centric partnering force, TF Võit expected technical interoperability to serve as the foundation for LRPF mission processing (digital or voice methods) with the EDF. Though technical

interoperability remained top priority, it also proved to be the central challenge to functional cohesion. Digital connectivity from the sensor to the shooter is key in a large-scale combat operation (LSCO) with multiple NATO partners. Digital connectivity enables timely and accurate fires and mitigates the risk of miscommunication due to language barriers. A lack of appetite toward technical interoperability exposed three friction points: capability, connectivity, and clearance.

The United Kingdom and the United States were strategically stationed in Tapa to reinforce the Estonian division LRPF capability in the event of allied contingency operations or LSCO. In Estonia, the United Kingdom positioned M270 Multiple Launch Rocket Systems (MLRS) and the United States provided HIMARS to support LRPF. By comparison, the MLRS carries two pods of six rockets or one missile, while the HIMARS can only carry one pod. MLRS executes most of the fire missions against larger bunkers,

command posts, or logistical hubs due to its larger pod-carrying capacity. Alternatively, HIMARS's reduced ammunition capacity supports prosecution of time-sensitive targets like enemy artillery, air defense, or radar capabilities. Enemy time-sensitive targets typically use survivability moves to reduce acquisition by NATO artillery. This means it is imperative to create efficiencies in fire-mission processing from sensor to shooter to enable timely and accurate fires by reducing reliance on voice communications, both internal and external, at echelon.

To achieve rapid and efficient fire mission processing in Estonia's multinational operational environment, TF Võit used a gated approach. The first gate establishes communications with frequency modulation voice communications using frequency hopping and cipher text methods. The second gate is U.S.-Estonian digital connectivity through an information exchange gateway. V Corps defined true digital interoperability as the ability to digitally transmit targeting data and coordinate instructions between nations. An elusive third gate is true digital connectivity via NATO's artillery interface software, the Artillery Systems Cooperation Activities (ASCA), among the French and UK partners in the enhanced Forward Presence (eFP) Battlegroup at Tapa.

TF Võit achieved the first gate of voice interoperability by teaching the Estonians where to find and how to load NATO keys on the Estonian AN/PRC-148 MBITR radio to connect to a U.S. RT-1523 SINGARS radio. This experience highlighted a few key persistent points of friction in NATO's technical interoperability challenges. First, in the 2000s, the Estonians upgraded their communication systems to radios that will not connect to SINGARS radios, requiring the use of tactical voice bridges. The second point of friction stems from the EDF's reliance on the conscription system, resulting in a limited number of actively certified and qualified soldiers with the clearance to handle secret materials. This inadvertently restricts a majority of the EDF forces from access to materials and systems like communications security or NATO's Mission Partner Environment (MPE) to avoid leaking information. A combination of the lack of easy access to communications security and the difference in radios immediately reduced the Estonian appetite to maintain voice connectivity with its allies.

The second gate, digital connectivity with the Estonians, ran into similar issues of clearance, capability, and connectivity. While MPE is advertised as the premier NATO network to promote digital interoperability, it has many requirements that not all allies meet, to include Estonia. However, limited connectivity between Estonia's TOORU artillery system and the U.S. Advanced Field Artillery Tactical Data System (AFATDS) proved to be an achievable goal with U.S. Cyber Command (USCYBERCOM) and U.S. Army Europe and Africa approval.

TOORU is a unclassified but secure software internally produced with ongoing development by Estonia's proud technology and software industry. The system, as part of the wider Kolt computer software infrastructure, provides the EDF fires enterprise with a confidential fire direction and fire support ability running off preexisting civilian cellular and satellite connections. The EDF attempted to mitigate information-sharing obstacles between software by providing partner forces with an information exchange gateway to enable fire mission processing and deny cross-domain data leaks. Unfortunately, this does not provide an acceptable connection with AFATDS under USCYBERCOM and U.S. Army Europe and Africa policy. This is because TOORU has yet to federate with NATO and is not classified at the same level as MPE.

Additionally, even with USCYBERCOM approval, U.S. forces would not be able to achieve true digital connectivity. The proprietary software within AFATDS at present blocks the passing of coordinating instructions. This could cause issues for operational- or strategic-level commands or fire support elements, as they could not provide necessary coordinating instructions to a fire direction center. To achieve limited interoperability, the United States would need to assume risk within the MPE domain by allowing NATO systems to directly connect to AFATDS, or for software development to pass coordinating instructions between NATO Systems and AFATDS. Currently, there is limited U.S. appetite to assume this risk to the MPE domain.

Estonian challenges to partnered technical interoperability are not unique to the United States. The elusive third gate of connections between ASCA compliant NATO fire direction centers encounter similar challenges. TF Võit was unable to achieve technical interoperability with eFP forces because of French and UK command-support relationships and

technical capabilities. For example, there are French 155 mm CAESAR self-propelled howitzers that are direct support to Estonia's 1st Infantry Brigade, UK 155 mm AS-90 self-propelled howitzers in direct support to the eFP Battlegroup, and UK MLRS and U.S. HIMARS in direct support to the Estonian division under separate bilateral agreements. TF Vöit focused efforts toward achieving digital connectivity via direct ethernet connection with the MLRS battery to enable coordinated and massed fires. This focus was due to the closely aligned command-support relationships among the MLRS, HIMARS, and the Estonian division. Unfortunately, TF Vöit quickly learned about the lack of appetite from the UK due to its long-standing inability to achieve digital connectivity with the NATO fires enterprise in Estonia. Instead, NATO forces Estonia to rely on "swivel chair" fire mission processing via Estonian-provided Kolt computers or human liaison connections. As of 2023, the UK battle group completed approximately eleven "CABRIT" operational deployment rotations to Estonia without obtaining UK Strategic Command approval to attempt an ASCA connection with partner nations. Additionally, the UK-led eFP Battlegroup and its MLRS battery lack the organic capability to provide the UK equivalent of MPE connectivity. This highlights a lack of appetite to achieve ASCA connection with partners and promotes continued reliance on swivel chair interoperability via Estonian provided Kolt computers. The French CAESAR battery does not require approval for an ASCA connection, and the command-support relationship does not align to the HIMARS mission, obfuscating the demand signal to obtain eFP and U.S. compliance. The lack of clearance, capability, and connectivity ultimately inhibited progress toward true digital connectivity amongst NATO partners.

TF Vöit and U.S. forces will continue to face a lack of NATO appetite to achieve technical interoperability due to a lack of capability, connectivity, and clearance. The U.S., Estonian, and UK higher headquarters do not indicate a sincere appetite to seek ASCA connectivity due to cross-domain vulnerabilities required to achieve systemic connectivity. The EDF and eFP at Tapa lack the organic capability for secure satellite communications connectivity to enable long-distance fire mission processing via MPE. Finally, as a conscript-based military, the Estonians lack the widespread clearance to operate on the same classifications as the U.S. and UK partners.

An Improved Understanding toward Continued Progress

Fortunately, the positive experiences and lessons learned in human and procedural interoperability between TF Vöit and the ODC with the EDF provide core conduits for expedited progress in technical interoperability shortcomings. For units deploying to Estonia, or any other nation in the Baltics, the experiences of the first TF Vöit rotation may enable some larger lessons while deployed to support a smaller ally:

- Removing the mindset of battlespace ownership will benefit the mission, respect the sovereignty of the host-nation partner, and discourage a unilateral approach.
- Identification of how an ally implements its mission command will enable a more successful deployment and lessons learned.
- Coordinate and develop localized mission parameters at echelon to develop "business rules" unique to the country.
- U.S. and UK forces will have to assume risk to the MPE domain to enable NATO partner connectivity to achieve true digital connectivity in LSCO.
- The U.S. embassy's military team and the ODC are key to accelerating a deployment's value and optimizing immediate tactical integration.
- There are high demands for LRPF capability, but their effectiveness is hindered by strategic-level command's lack of appetite to assume risk toward full technical interoperability.
- To improve technical interoperability in the U.S. European Command theater, U.S. forces must either assume risk on cross-domain spillage or accept the swivel chair method as a viable alternative to full technical interoperability.
- The ODC served as an accessible enabler and responsive mediator that converted tactical unit intent into suitable, feasible, and acceptable courses of action for U.S. operations in Estonia.

NATO's northern and eastern flanks hide more than an overlooked ally capable of credible deterrence and defense against Russian aggression. Estonia serves as a testament to the possibilities of expanded U.S. partnerships. Most importantly, Estonia eagerly invites U.S. forces to build collective interoperability in an otherwise unfamiliar theater. ■

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Rebalancing the Nation's Center of Gravity

Interagency Challenges in the Wake of Pandemic Restrictions



Maj. Bradley H. Craycraft, U.S. Army

In addition to highlighting the significance of the 2020–2029 decade for shaping global affairs, the 2022 *National Security Strategy* underscores the need to prevent potential conflicts. This need is crucial given China’s and Russia’s concerted efforts to diminish U.S. influence.¹ The U.S. government faces an unprecedented interagency challenge between 2022 and 2033 as pandemic restrictions exacerbate the vulnerabilities of young Americans, creating significant obstacles for military recruitment, potentially unbalancing the Nation’s center of gravity (COG), and affecting the will of future Americans to support the government’s national objectives.

This comprehensive, multidisciplinary research explores the cascading effects of pandemic restrictions, including impacts on the traditional military recruiting base, a projected increase in service disqualifiers among young Americans, and an imbalance in the Nation’s COG. By integrating critical findings with relevant military theory and historical analysis, we can evaluate the potential achievement of national objectives.

A concerted interagency approach is required to address the increasing prevalence of service disqualifiers among young Americans. The military alone lacks the resources to solve the problem. As such, an approach

that engages multiple departments and leverages their combined resources, personnel, and reach is paramount. Central to this effort is identifying and fulfilling information requirements that can inform actions from 2022 to 2033, ultimately paving the way to achieve national objectives.

Primer

Research methodology and approach. This research article investigates the complex issues arising from pandemic restrictions, particularly their unintended consequences on social cohesion, resilience, and the development of young Americans. It proposes an interagency approach to navigate these challenges and support the U.S. government’s national objectives in the future.

The pandemic’s large-scale, rapid transformation of society presented challenges to researchers studying its effects. Initial research was rushed to support decision-making and often utilized remote data collection, potentially leading to biases and other issues. These early studies, however, provide valuable insights into societal attitudes during the onset of restrictions. A significant source of data for many researchers was the reporting from parents, as children spent most of their time at home under restrictions.



Trainees assigned to 95th Adjutant General Battalion, 434th Field Artillery Brigade, are tested for COVID-19 during reception 14 May 2020 on Fort Sill, Oklahoma. (Photo by Sgt. Dustin D. Biven, U.S. Army)

The research process adopted for this article combined quantitative and qualitative data analysis, examining information from the private sector, interagency departments, and scholarly sources. Triangulation methods were used through archival analysis, household surveys, and case studies. It's important to note that firsthand observations from interacting with young Americans ages eighteen to twenty-four in Kansas City, Missouri, and surrounding areas were not incorporated in the article, yet they guided some of the research.

The collected data is piecemeal and rich, spanning various disciplines and archival repositories. It helps researchers to understand the effects of pandemic restrictions on society, the economy, and institutions. The article mainly focuses on how pandemic restrictions impacted the vulnerabilities of Americans ages five to seventeen, undermined their social cohesion and resilience, and how this might affect the Nation's COG.

Context. The federal government's oversight of pandemic policy, initiated in early 2020, ended when the emergency declarations were lifted in May 2023.² The Department of Health and Human Services (HHS) led the federal government's response efforts to coordinate state and local resources in response to the pandemic.³ To control the disease spread, forty-three out of fifty states implemented social restrictions such as stay-at-home orders, business and school closures, and self-isolation guidelines.⁴ The duration of these restrictions varied across states, with Americans enduring an average of fifty-six days under lockdown during the initial phase from March to May 2020 (see table 1).⁵

The duration and intensity of these restrictions varied significantly based on factors such as health conditions within urban and suburban areas. This variance led to geographic disparities in how these restrictions affected people's socioeconomic conditions, educational development, and holistic health. Research suggests

Table 1. Days under Lockdown

Days under Lockdown by State—March to November 2020 (Most to Least Days)									
250	New Mexico	67	Hawaii	52	Vermont	35	Kansas	26	Alabama
161	California	64	Pennsylvania	51	Minnesota	35	Oklahoma	26	Alaska
99	New York	60	Virginia	49	Wisconsin	33	Florida	24	Mississippi
95	Kentucky	59	Maine	46	Maryland	31	Colorado	0	Arkansas
80	New Hampshire	58	Connecticut	45	Arizona	30	Tennessee	0	Iowa
80	New Jersey	57	Ohio	45	Nevada	28	Missouri	0	Nebraska
69	Illinois	57	Oregon	42	West Virginia	28	Montana	0	North Dakota
69	Michigan	55	Massachusetts	41	Rhode Island	28	Texas	0	South Dakota
68	Delaware	53	Louisiana	39	Indiana	27	Georgia	0	Utah
68	Washington	53	North Carolina	35	Idaho	27	South Carolina	0	Wyoming

(Table by author; data from BallotPedia)

that these measures, alongside additional ones implemented by state and local authorities through 2021 and 2022, unintentionally affected the development of young Americans and delayed the return to pre-pandemic conditions.⁶

This impact is visible in the military’s recruiting challenges, as in 2022, the Army fell short of its recruitment goal by fifteen thousand soldiers, and in 2023,

Maj. Bradley H. Craycraft, U.S. Army, is a military intelligence officer and a graduate of U.S. Army Command and General Staff College. He holds a BA in criminal justice from Southern Illinois University at Edwardsville, an MA from Embry Riddle Aeronautical University, and is pursuing a PhD in executive public policy from Liberty University.

the Army, Navy, and Air Force all fell short.⁷ Children who were between the ages of five and seventeen during pandemic lockdowns will begin to become eligible to enter service after 2022, potentially affecting future recruitment. This research article evaluates how pandemic restrictions have affected this group’s eligibility for

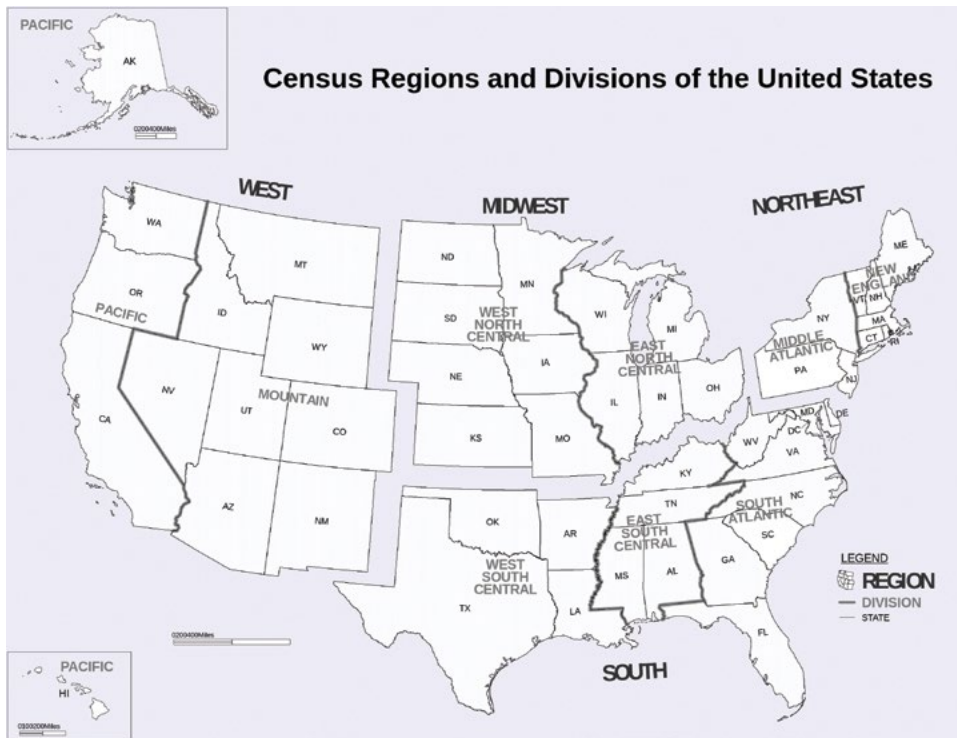
service between 2022 and 2033. Specifically, it assesses how pandemic restrictions affected this cohort by increasing their prevalence for service disqualifiers. While the military is addressing recruitment shortfalls, it does not have the resources to tackle broader social issues stemming from the pandemic. These issues remain unresolved, reflecting the enduring impact of the interagency departments’ policies and oversight during the pandemic.

Research on America’s recruiting base. The all-volunteer force, adopted post-Vietnam War, requires recruiting physically, mentally, and cognitively fit young Americans. U.S. Census Bureau data offer insights into geographic and demographic trends vital for understanding military accessions (see table 2 and figure 1). The all-volunteer force continues to increase in diversity, where in 2019, most recruits came from the southern and western states and lower or middle-income neighborhoods.⁸ Due to resource and other constraints, lower-income families generally have fewer positive outcomes for children and higher susceptibility to service disqualifiers.⁹ The trend of military service passed down in

Table 2. U.S. Census Diversity Index Ranking

U.S. Census Diversity Index Ranking (Most to Least Diverse)									
1	Hawaii	11	Arizona	21	Massachusetts	31	Tennessee	41	North Dakota
2	Nevada	12	Georgia	22	South Carolina	32	Pennsylvania	42	Idaho
3	California	13	Virginia	23	Colorado	33	Minnesota	43	Kentucky
4	Alaska	14	New Mexico	24	Arkansas	34	Nebraska	44	Wyoming
5	New York	15	Illinois	25	Rhode Island	35	Indiana	45	Iowa
6	Maryland	16	Delaware	26	Mississippi	36	Utah	46	Montana
7	New Jersey	17	Washington	27	Alabama	37	Missouri	47	New Hampshire
8	Texas	18	North Carolina	28	Oregon	38	Ohio	48	West Virginia
9	Oklahoma	19	Connecticut	29	Michigan	39	Wisconsin	49	Vermont
10	Florida	20	Louisiana	30	Kansas	40	South Dakota	50	Maine

(Table by author; data from U.S. Census Bureau)



(Figure from U.S. Census Bureau)

Figure 1. Census Regions and Divisions of the United States

Table 3. Generation Diagram

Designation	Years Born	Age Today
Gen X	1965–1980	58–43
Millenials	1981–1996	42–27
Gen Z	1997–2012	26–11
Gen Alpha	2013–2025	10 and below

(Table by author; data from “2022 Generation Names Explained,” CareGivers of America, <https://caregiversofamerica.com/2022-generation-names-explained/>)

families has increased following the adoption of the all-volunteer force.¹⁰

Pandemic restrictions between 2020 and 2021 brought limitations in recruiting populations, generational shifts, and the growth of the independent workforce. Population migrations across the United States influenced recruiters’ access to potential recruits, particularly in suburban and rural areas.¹¹ Changing attitudes toward traditional workplaces and job security, shaped by pandemic experiences, also affected recruitment efforts.

A key focus of this article is young Americans ages five to seventeen, including Generations Z and Alpha, who were significantly shaped by the pandemic and the resulting societal restrictions (see table 3). Their digital engagement, online influences, and growing preference for remote work necessitate a shift in military recruiting strategies, especially considering the potential clash with traditional military culture and working environments.¹²

The pandemic and the resulting socioeconomic shock pushed more young people toward independent work.¹³ This, coupled with the rise in service disqualifiers due to health, education, behavior, fitness, and other issues, has made attracting eligible recruits increasingly challenging.¹⁴ Notably, between 2018 and 2020, service disqualifications increased from 71 percent to 77 percent.¹⁵

The decline of middle-income families and the growing trend of Generation Z children avoiding the traditional labor force could affect the military’s recruiting base.¹⁶ Socioeconomic conditions, lockdown effects, and potential increases in recruitment amongst lower- and middle-income households could risk higher occurrences of service disqualifiers.

Lastly, attrition and retention remain significant issues for the military.¹⁷ While retention success has been noted, first-term attrition rates persist (see figure 2).¹⁸ Understanding the root causes of these issues, particularly increased service disqualifiers in young Americans, is crucial in navigating recruitment challenges between 2022 and 2033.

Pandemic Restrictions and Second-Order Effects

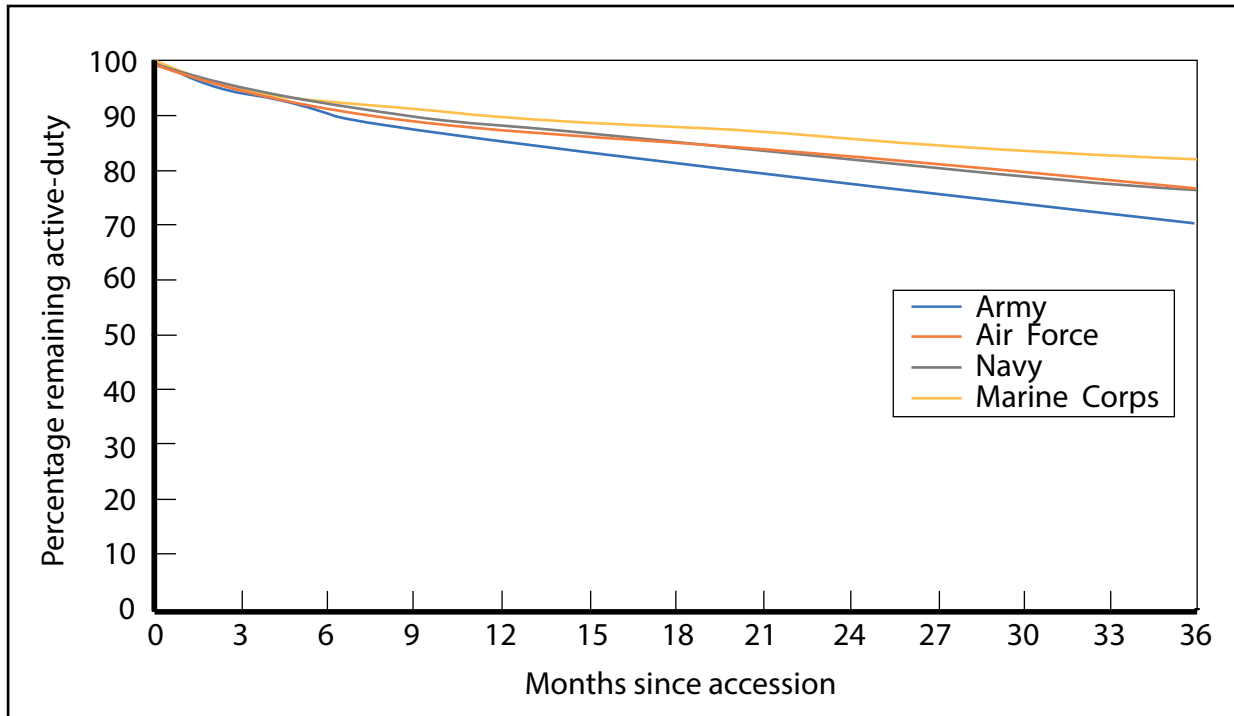
Socioeconomic impacts on service disqualifiers.

The socioeconomic disruptions due to initial national lockdowns in 2020 have significantly affected the development of Americans ages five to seventeen. Prolonged pandemic restrictions increased food insecurity and the cost of living due to inflation. This section analyzes the metrics to explain the surge in service disqualifiers from 2022 to 2033. The correlation among food insecurity, high living costs, and these disqualifications is evaluated.

Food insecurity, particularly in southern and western states, is a pressing issue affecting lower- and middle-income families. Financial policies and nutritional assistance programs such as Supplemental Nutrition Assistance Program somewhat mitigated this scenario.¹⁹ However, with the ending of emergency pandemic allotments, food insecurity may resurface, disrupting grocery supply chains and potentially impeding children’s physical development.²⁰

Due to the lack of access to nutritious food, lower-quality food alternatives might lead to obesity and poor physical health among children.²¹ Decreased physical activities due to pandemic restrictions also hamper children’s musculoskeletal growth.²² Furthermore, food insecurity negatively affects children’s cognitive performance, impacting their academic scores and performance on the Armed Forces Qualification Test (AFQT).²³

States with high living costs and food insecurity, specifically southern and western states, will likely witness increased service disqualifiers between 2022 and



(Figure from James Marrone, *Predicting 36-Month Attrition in the U.S. Military*, RAND Corporation)

Figure 2. Active-Duty Thirty-Six-Month Attrition Rates

2033 due to these health and academic challenges. The potential impact of food insecurity on the cohort ages five to seventeen gradually becoming eligible for service from 2022 through 2033 is also examined. Lastly, the role of interagency decision-makers in addressing these issues for future service-eligible children is imperative.

Educational impacts on service disqualifiers. The COVID-19 pandemic restrictions that began in 2020 have severely affected the education and development of American students ages five to seventeen. While the impact on older students is more readily apparent through disrupted learning and the subsequent increased prevalence of service disqualifications between 2022 and 2033, it's significant to note that even the youngest students, aged five and above, have not been immune to these effects. This research article utilizes interagency metrics to compare educational performance before and after the pandemic and explain the increased prevalence of service disqualifications between 2022 and 2033.

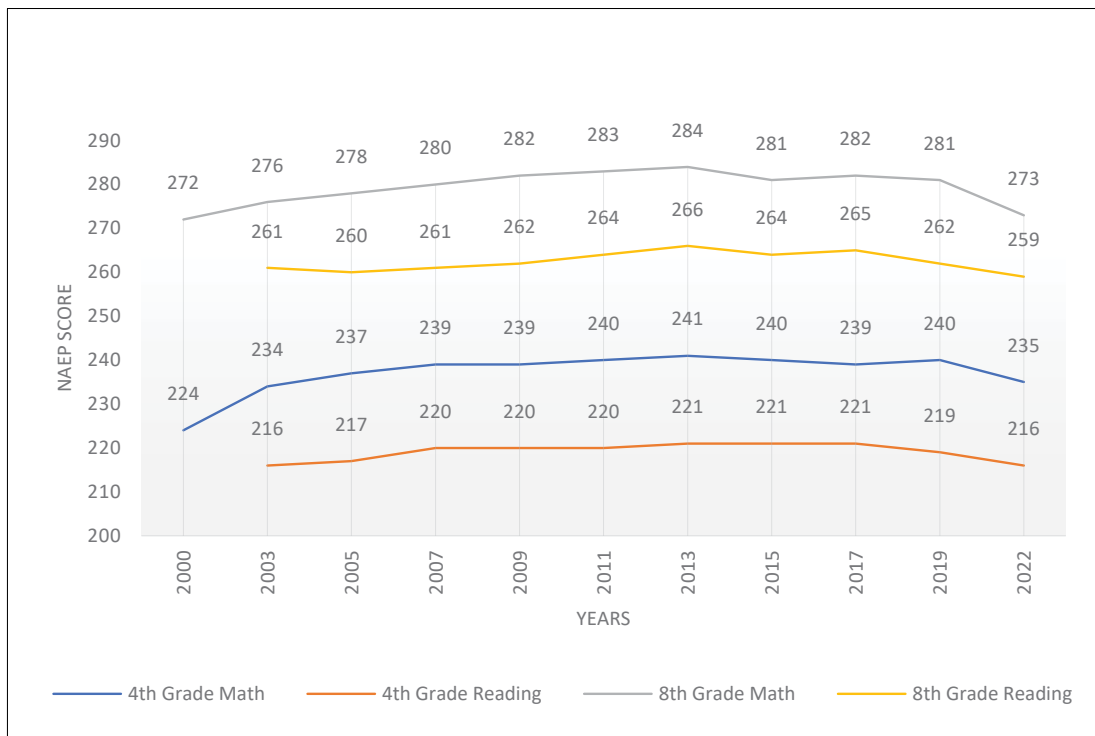
In response to the pandemic, many schools switched to a hybrid model of learning in the fall of 2020, leading to disparities among students of varying income

levels.²⁴ The sudden transition to remote learning revealed a need for more preparedness for online learning, particularly affecting students' academic performance within disadvantaged communities.²⁵

Learning loss was a significant issue, with one study suggesting that students had lost up to three decades of learning in math and reading, setting performance levels back to the 1990s.²⁶ The National Assessment of Educational Progress (NAEP) showed a decline in math and reading scores between 2019 and 2022, indicating a reversion to early 2000s levels of academic achievement (see figure 3).²⁷

High school graduation requirements were also relaxed during the pandemic, and standardized testing participation rates decreased.²⁸ This leads to concerns about the quality of education and the potential for lowered AFQT performance. Students from low- and middle-income, Hispanic, and Black families in states that experienced extensive restrictions were particularly affected, falling months behind in their education.²⁹

The pandemic's impact on education could have long-term consequences, including lower AFQT scores and difficulty filling critical military occupations.



(Figure from "The Nation's Report Card," NAEP Data Explorer)

Figure 3. NAEP Scores in Math and Reading, Grades 4 and 8, 2000–2022

While the military can attempt to address these issues with training programs, including pre-basic training preparation, the societal conditions causing these problems must be addressed by interagency departments.

The pandemic has exposed the educational system's vulnerabilities and created a complex problem requiring short- and long-term solutions. Addressing the disparities and lost learning caused by the pandemic is crucial for students' future success and maintaining a competent military force.

Holistic health impacts on service disqualifiers.

The pandemic and its ensuing restrictions have profoundly influenced the overall health of Americans ages five to seventeen. From an increase in screen time to a decrease in physical activity, along with heightened stress and anxiety, the overall well-being of this age group has been significantly impacted. With state and local leaders shaping policies based on their respective health situations, the environment continually shifted, leading to varying learning experiences and subsequent developmental challenges. These unintended consequences have led to an increase in service disqualifiers from 2022 to 2033.

The pandemic restrictions have disrupted the development of healthy social skills and relationships among children ages five to eleven who have had limited interactions and activities with peers.³⁰ These interactions form a critical foundation for their overall development.³¹ For teenagers ages twelve to seventeen, while their social skills were developed before the pandemic, the restrictive measures have limited their social interactions, resulting in social and emotional development consequences.³² The transition to online learning and socialization has been a significant coping mechanism but has also presented challenges.³³ Children from low-income and minority families have faced the most significant hurdles in this transition, with limited access to necessary resources.³⁴ Researchers and policymakers must address these disparities to ensure that all children and adolescents have equal opportunities for healthy development.

The restrictions have also significantly affected physical health, with many children and teenagers adopting a more sedentary lifestyle.³⁵ The limitations on group physical activities, recess, and neighborhood play have contributed to increased sedentary behaviors

and decreased physical activity.³⁶ If not addressed, these behaviors can increase overweight and obese children, leading to long-term health issues such as diabetes and cardiovascular disease.³⁷ Unhealthy diets and lack of physical activity can increase body mass index, thereby increasing health-related service disqualifiers.³⁸

The pandemic has also intensified the mental health crisis among children and adolescents. As the restrictions limited their social interactions and access to support systems, many children and teenagers have faced heightened stress and anxiety. The closure of schools and loss of jobs in the family has further exacerbated these issues, leading to increased mental, emotional, developmental, or behavioral problems.³⁹ These mental health issues have resulted in increased mental health-related service disqualifiers, a significant concern for military recruitment and readiness.

The increase in service disqualifiers between 2022 and 2033 can be attributed mainly to the pandemic restrictions and their impact on children and adolescents' overall development and well-being. These health issues align with service disqualifiers, including drug use and abuse, obesity, medical, or physical issues, mental health problems, and conduct-related issues. To address these issues, interagency departments must broaden data collection efforts to identify and address developmental setbacks in children. By doing so, interventions can be designed and implemented to mitigate these issues, reducing the potential for service disqualifiers.

The military may also need to consider additional support and resources for recruits such as mental health services within delayed-entry programs to ensure those recruits can complete basic training and the military can retain a pool of candidates and withstand first-term attrition. Policymakers and stakeholders must understand and address these societal challenges to ensure the health and well-being of the Nation's youth and safeguard the future of the Nation's defense force.

Pandemic Restrictions and Third-Order Effects

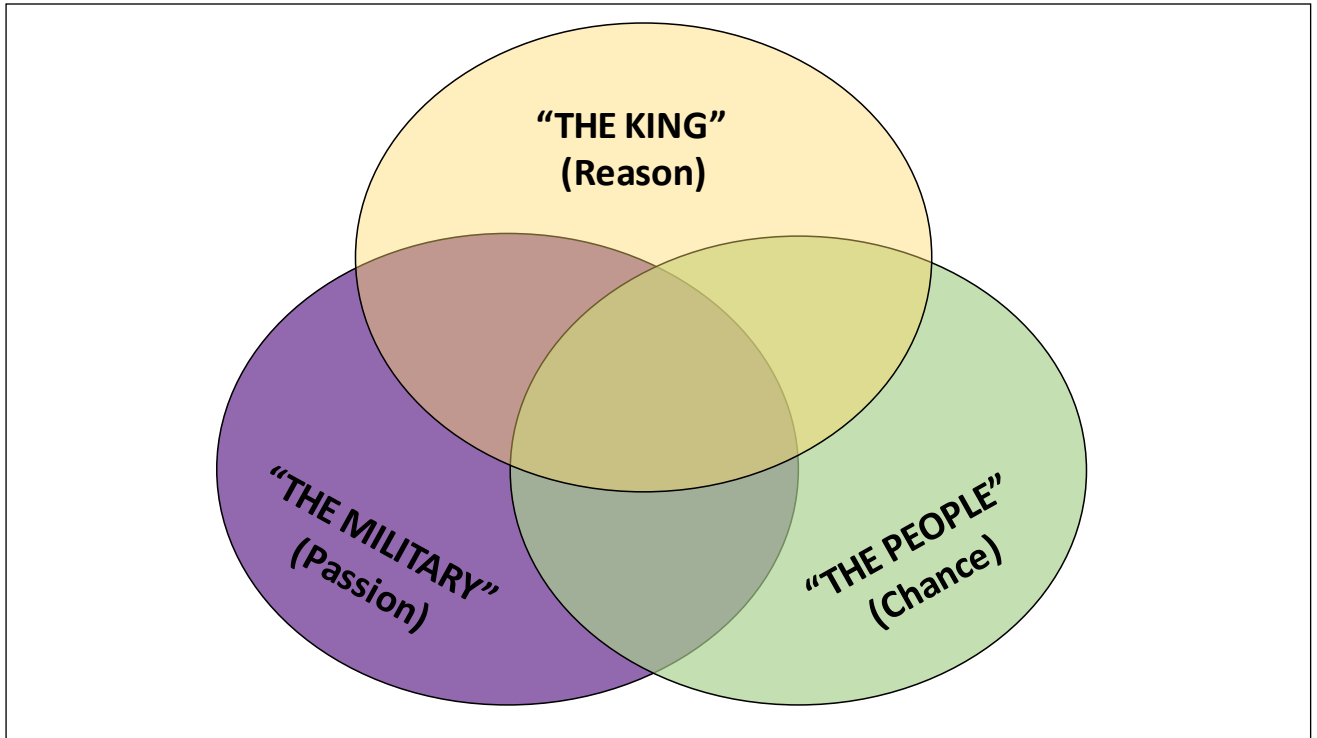
The COVID-19 pandemic underscored vulnerabilities in our younger generation that may affect our Nation's future ability to meet its strategic goals. This article examines the impact of pandemic restrictions on military recruitment, socioeconomic status, education, and the overall health of young Americans. This

section will further delve into these effects and contextualize them within the framework of military theory. Using analogies from historical events, we will foresee how these third-order effects influence our ability to achieve national objectives. We will analyze these effects concerning key military theoretical concepts, such as the paradoxical trinity and the COG. As we prepare for future challenges, understanding how pandemic restrictions have affected societal vulnerabilities and how they might influence our national objectives is essential for interagency departments.

The paradoxical trinity and the COG. Carl von Clausewitz's concept of the paradoxical trinity serves as a framework to understand the interconnectedness of a nation's government, its people, and its military in determining the outcome of a conflict. In the case of the United States, the population constitutes the Nation's relative COG, balancing the tensions between the military and the government to achieve national objectives.⁴⁰ The paradoxical trinity underlines the necessity of a strategy grounded in understanding the interconnected relationship between these three elements: the people, the military, and the government (see figure 4).⁴¹ According to Clausewitz, the interactions and tensions between these elements create a "blind natural force," which, along with "logic" and "reason," shapes outcomes, echoing war's unpredictable and chaotic nature.⁴²

The COG is the "primary source of moral or physical strength, power, and resistance" within the system.⁴³ Identifying a COG may depend on the context or situation and can be physical or nonphysical.⁴⁴ It is also dynamic and can shift as internal and external factors influence it.⁴⁵ For example, in a military context, it could be a radar system linked to an air defense battery. In contrast, it could be the population's support of military action in a political context. Understanding the concept of a relative COG allows observers to adapt to changing situations and focus on influencing an adversary's COG.⁴⁶ Identifying and protecting relative COG while directly or indirectly influencing an adversary's COG is critical to achieving an advantage.⁴⁷ Critical factor analysis plays a vital role in breaking down the components of a system to identify its capabilities, requirements, and vulnerabilities, helping to confirm the proper COG.⁴⁸

Critical factor analysis examines the components of a system to identify critical capabilities,



(Figure adapted by author)

Figure 4. The Paradoxical Trinity

requirements, and vulnerabilities; assess their value; and prioritize their contribution to a relative COG.⁴⁹ Critical capabilities are “primary abilities which merit a COG to be identified as such in the context of a given scenario, situation, or mission.”⁵⁰ For instance, superior morale is an example of a critical military capability, while a strong sense of national identity is a political example. Critical requirements are “essential conditions, resources, and means for a critical capability to be fully operative.”⁵¹ Access to field medical services is an example of a critical military requirement, while access to health care is a political example. Critical vulnerabilities are “critical requirements or components thereof which are either deficient or vulnerable to neutralization, interdiction, or attack (moral/physical harm) in a manner that achieves decisive results.”⁵² A weak national response process to an emergency is an example of a government’s critical vulnerability, while weak resilience to an emergency is a social example. The following section applies critical factor analysis to the United States’ paradoxical trinity to evaluate the effects of pandemic restrictions on the Nation’s relative COG.

Interpreting the paradoxical trinity, COG, and critical factor analysis. The will of the people is the nation’s relative COG because the people balance the tensions between the military and the government in achieving national objectives. The people’s critical capability to achieve this is their willingness to support the government’s pursuit of national objectives, including the potential use of military force. To balance the tensions, two critical requirements must be met: resilience and social cohesion. Resilience refers to society and its institutions’ abilities to face adversity and recover from setbacks caused by natural or man-made stressors such as war, natural disasters, economic downturns, and other incidents.⁵³ Social cohesion refers to “the strengths of relationships and solidarity among members of a community.”⁵⁴ Resilience pertains to the people’s ability to endure the costs associated with the government’s pursuit of national objectives, including financial and national reputation, the loss of civilians and military lives, and the costs of destruction in war.⁵⁵ The critical vulnerabilities of this system include the socio-economic conditions, educational development, and holistic health of society, all of which were impacted

by pandemic restrictions. Critical factor analysis is applied to the United States' paradoxical trinity and the relationship between pandemic restrictions and the Nation's relative COG to assess these vulnerabilities.

Impact of pandemic restrictions on the Nation's COG. Pandemic restrictions could destabilize the Nation's relative COG by impacting the vulnerabilities of young Americans, thereby influencing their support for the government's national objectives. As indicated earlier, these restrictions have affected critical vulnerabilities of young Americans, like their socioeconomic status, educational development, and holistic health. Suppose these vulnerabilities are exploited, either directly or indirectly, by adversaries. In that case, it could disrupt the Nation's relative COG, risking the critical requirements of social cohesion and resilience needed to maintain their support.

In future significant conflicts, societal divides, such as those among different income, racial, ethnic groups, and other demographic and geographic differences, may impede the ability of the people to unite for a common cause. This lack of unity can create friction during contingencies, potentially leading to an imbalance among the people, government, and military, destabilizing the relative COG.

Lessons from history (World War II and Vietnam). Historically, the people's support for the government's national objectives has played a crucial role in the success or failure of conflicts. In World War II, the American people united behind the government's objectives following the Pearl Harbor attack, showcasing their resilience and social cohesion.⁵⁶ In contrast, during the Vietnam War, the Tet Offensive caused a shift in public sentiment, leading to decreased support for the government's objectives.⁵⁷ These historical examples underscore the importance of preserving the Nation's relative COG through critical factor analysis.

Adversary exploitation of the paradoxical trinity and the COG. Foreign adversaries aim to directly or indirectly manipulate the United States' paradoxical trinity, thereby undermining the Nation's relative COG to decrease its influence in international relations.⁵⁸ Figure 5 depicts the internal and external influences acting upon the relationships between the American people, the "king" (the government), and the military.⁵⁹ Countries like China and Russia are gaining influence through various means to increase the friction among

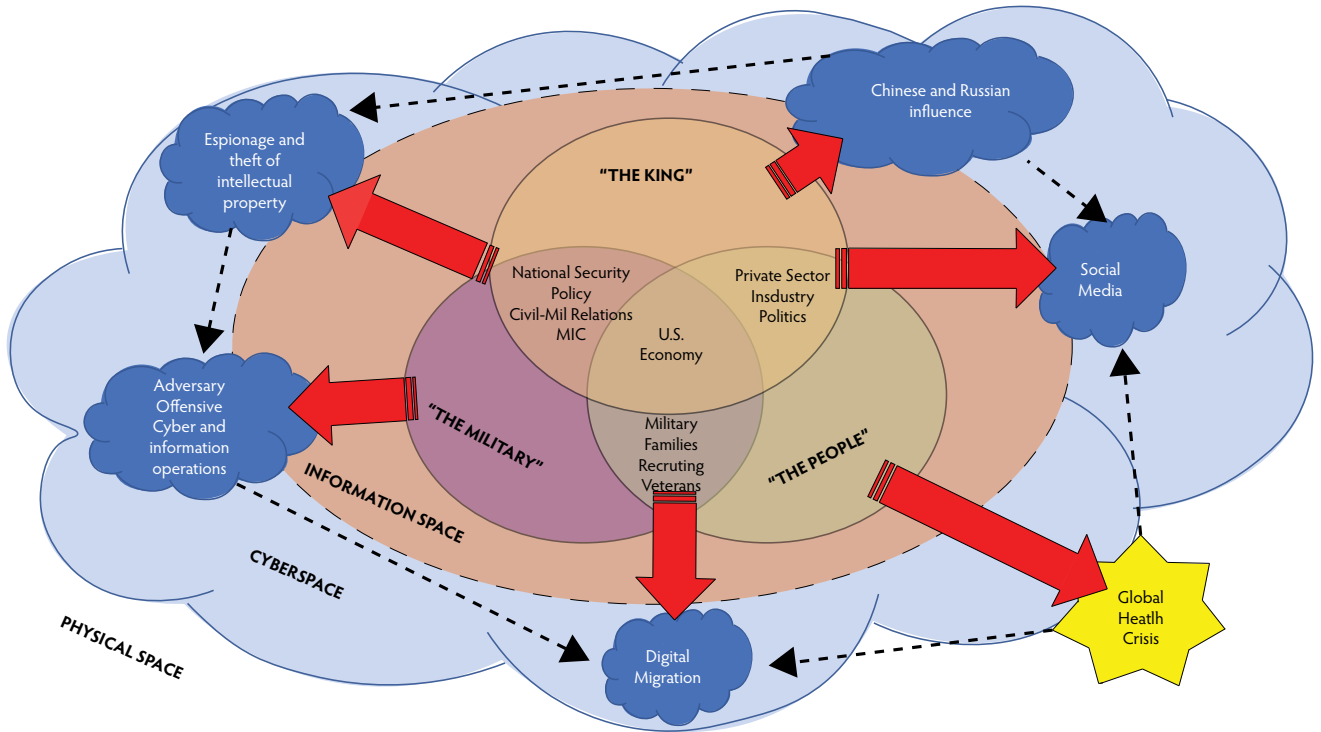
the American people, the military, and the government.⁶⁰ Disparities in the societal experiences of the pandemic and recovery may influence the development of young Americans, shaping their future willingness to support the government's national objectives. As the pandemic accelerates the shift to digital living, foreign adversaries may increasingly leverage the information and cyber spaces to shape young Americans' perspectives, including their views on the government, the military, and the Nation's role in international affairs.

Securing key terrain in information and cyber spaces is critical to maintaining the Nation's relative COG, which can safeguard young Americans' resilience and social cohesion.⁶¹ Interagency departments must address the vulnerabilities exacerbated by the pandemic restrictions to reinforce young Americans' resilience and social cohesion. Effective interagency coordination is essential to protect young Americans from disinformation campaigns and preserve the Nation's relative COG.

Recommendations for the Interagency Departments

The U.S. government is facing an unprecedented interagency challenge between 2022 and 2033, as pandemic restrictions exacerbate the vulnerabilities of young Americans, creating significant obstacles for military recruitment, potentially unbalancing the Nation's COG, and affecting the will of future Americans to support the government's national objectives. So far, this article has highlighted the first-, second-, and third-order effects of pandemic restrictions on military recruiting, young Americans' vulnerabilities, and the Nation's relative COG. This final section generates an interagency recommendation for addressing these complex problems.

This section is divided into five parts. Part 1 reviews the formation of a joint interagency task force (JIATF), its vision statement and objectives, and its roles and responsibilities. Part 2 provides an overview of the information gaps and required capabilities from the interagency, defense, and intelligence communities; state and national organizations; academia; and the private sector and industry. Part 3 applies the joint planning doctrine to develop a broad concept of how the JIATF will accomplish its assigned mission. Part 4 highlights potential challenges and risks the JIATF may encounter. Part 5 reviews the recommendations and highlights key points.



(Figure adapted by author)

Figure 5. The American Paradox Trinity (Direct and Indirect Influences)

Establishment of a joint interagency task force. The government’s response to the challenges induced by pandemic restrictions requires forming a JIATF partnered with external stakeholders to collaborate and leverage their comprehensive resources and capabilities effectively. At the onset of the public health crisis in January 2020, HHS was designated as the lead for the government’s pandemic response and associated policies.⁶² As the government’s Public Health Emergency Declaration ended on 11 May 2023, the pandemic recovery continued emphasizing the goal of returning society’s state toward prepandemic or better conditions. To lead the cause of helping society recover from pandemic restrictions, HHS is recommended as the lead department for supervising a JIATF focused on *youth development and resilience*. Based on the scale and scope of the problem, HHS would be tasked to establish a JIATF due to its preestablished relationships with industry, national organizations, and the military. Additionally, it can maintain focus on young Americans’ health and well-being.⁶³ Figure 6 displays the JIATF’s mission statement, vision, and objectives.

To effectively address the challenges posed by pandemic restrictions on recruitment and the vulnerabilities

of young Americans, HHS must leverage additional expertise, resources, and capabilities. Collaboration with external stakeholders whose capabilities are aligned with these requirements will be critical to this effort. This research article identified five information requirements that the JIATF must collect, analyze, and integrate into their approach. Over time, information across these information requirements allows the JIATF to adjust its approach based on information, assess effectiveness, and apply its capabilities.⁶⁴ These information requirements include cyber resilience, education, force readiness, holistic health, and socioeconomic status (see figure 7).

These information requirements aim to collect information to assist in cross-functional analysis and predict conditions contributing to exacerbating young Americans’ vulnerabilities. For example, predicting the prevalence of service disqualifiers among young Americans based on their academic performance in locations that experienced learning disparities. To this end, several interagency departments and external stakeholders were assessed to determine their suitability and capabilities in supporting these five information requirements (figure 7):

- **Mission:** The Joint-Interagency Task Force (JIATF) is dedicated to promoting the well-being and resilience of young Americans by addressing the challenges posed by pandemic restrictions, with the aim of restoring prepandemic conditions by 2030 and laying the groundwork for continued improvement.
- **Vision:** To build a resilient and cohesive future generation by addressing the challenges and vulnerabilities of young Americans exacerbated by pandemic restrictions.

Objectives:

- Mitigate the negative effects of pandemic restrictions on young Americans' socioeconomic status, educational development, and holistic health.
- Strengthen interagency collaboration to address the Nation's center of gravity challenges.
- Strengthen youth resilience in information and cyber spaces from foreign adversary influence.
- Develop and implement comprehensive strategies to improve military recruitment and retention.
- Foster a sense of unity, purpose, and social cohesion among future generations to support the government's pursuit of national objectives.

(Figure by author)

Figure 6. Youth Development and Resilience JIATF

- **Academia:** Brookings Institution, Harvard, Johns Hopkins, RAND Corporation, Massachusetts Institute of Technology, and Stanford.

Capabilities include their research expertise with specialization in policy, technology, education, health care, social sciences, and policy recommendations.

- **Defense/Intelligence Community:** liaisons from the Army, Air Force, Coast Guard, Marine Corps, Navy, and the National Security Agency.

Capabilities include liaisons from military recruiting and force management and the National Security Agency's relationship with the national signals and cyber intelligence capabilities.

- **Interagency:** Centers for Disease Control and Prevention, Department of Defense, Department of Education, Department of Energy, Department of Justice, Federal Communications Commission, Office of Management and Budget, and Department of Agriculture.⁶⁵

Capabilities include the responsibilities and authorities in their respective fields and their access to interagency and external resources. This includes legal oversight and financial considerations for the JIATF's actions.

- **Industry/Private Sector:** Amazon, Apple, Google, Instagram, Meta, Microsoft, X (formerly Twitter), and YouTube.

Capabilities include logistics, procurement, warehousing, technology and marketing expertise, innovative solutions, digital devices, student resources, machine learning, and data analytics.

- **State/National Organizations:** liaisons from U.S. states and organizations, including the American Medical Association, AmeriCorps, National Association for Mental Illness, National Institute of Health, Red Cross, and the Young Men's Christian Association.

Capabilities include expertise in physical health and fitness, mental health and resilience, community building and services, community outreach and volunteering, and civics.

Information requirements and available capabilities. The JIATF requires effective leadership and talent management to appropriately leverage their capabilities and generate an approach for meeting cyber resilience, education, force readiness, holistic health, and socioeconomic requirements. The interagency and external stakeholders' reputation for expertise, resources, and talents have provided practical and relevant analysis to aid policymakers in decision-making. Where they require assistance is cross-functional analysis to fuse information and generate holistic understanding. Five working groups are generated based on the broad interagency and external stakeholders that align with the five information requirements. Figure 8 displays

JIATF - PIR and Capabilities Crosswalk							
Priority Information Requirements (PIR)	Specific Information Requirements (SIR)	Working groups aligned against requirements (Capabilities)					
		WG 1	WG 2	WG 3	WG 4	WG 5	FUSION
PIR 1 How are educational workforce, curriculum, and resource shortfalls affecting student progression?	How are student grades 5-12 reflecting in NAEP reading and math scores following the pandemic?					T	
	Which states still do not have emergency remote learning or online curriculums prepared for emergencies?					T	C
	Which states are still experiencing teacher hiring and training shortfalls?					T	C
	Which states are still experiencing shortages in daycares and workers?					T	C
	Where/how are colleges and universities opting out of college preparation requirements for admission?					T	C
	Where/how are colleges and states preparing and testing students for college admissions?					T	C
PIR 2 How are socioeconomic conditions affecting children's learning progress?	How are children in states with high food insecurity performing in math and reading?				T		T
	What resources do children in states with high costs of living and property require to close the learning gap?				T		T
	Where/why are high school graduation rates decreasing and drop out rates increasing?				T		T
PIR 3 How are children's increased vulnerabilities affecting future force readiness?	Where/how are military disqualification trends for the adolescent cohort (5-17) between 2022-2033?	T					C
	How effective are pre-basic training programs in providing the skills needed to curb first-term attrition?	T					C
	What service disqualifications are increasing in states that are representative or over representative to active-duty accessories?	T					C
	How are service disqualifications affecting the accessions of critical military occupational specialties?	T					C
	How can military recruiters increase their online presence and engagement to attract talent?	T					C
	What partnerships or work-incentives with industry private sector would improve the talent management and retention for the services?	T					C
	What resource/training gaps are missing in basic and advanced training for reinforcing the resilience of first-term servicemembers?	T	T				
PIR 4 How are holistic health challenges affecting children's social cohesion and resilience?	Where/how did the social skills of children aged 5-17 develop the least during the pandemic?		T				C
	Where/how were children's resilience to adversity affected the most from pandemic restrictions?		T				C
	Where/how are schools experiencing shortfalls in mental health and behavioral counseling for children aged 5-17?		T				
	Which states are not instituting access or physical education curriculum?		T			T	T
	How were children's harmful or risk-behaviors shaped in states with the longest pandemic restrictions?		T			T	T
	Which states are experiencing concerning increases in childhood comorbidities?		T			T	T
	Which states are experiencing concerning increases in childhood obesity?		T			T	T
	How are families supplementing their food needs after the end of pandemic SNAP benefits?				T		C
PIR 5 How can online information spaces be better protected from foreign influences and misinformation?	Where/how are reductions in SNAP benefits affecting needy families and children?		T		T		T
	Which information spaces are adversaries actively leveraging to influence young Americans aged 5-17?			T			C
	How are adversaries influencing young Americans aged 5-17 in information spaces?			T			C

C = Capable T = Tasked R = Requested

(Figure by author)

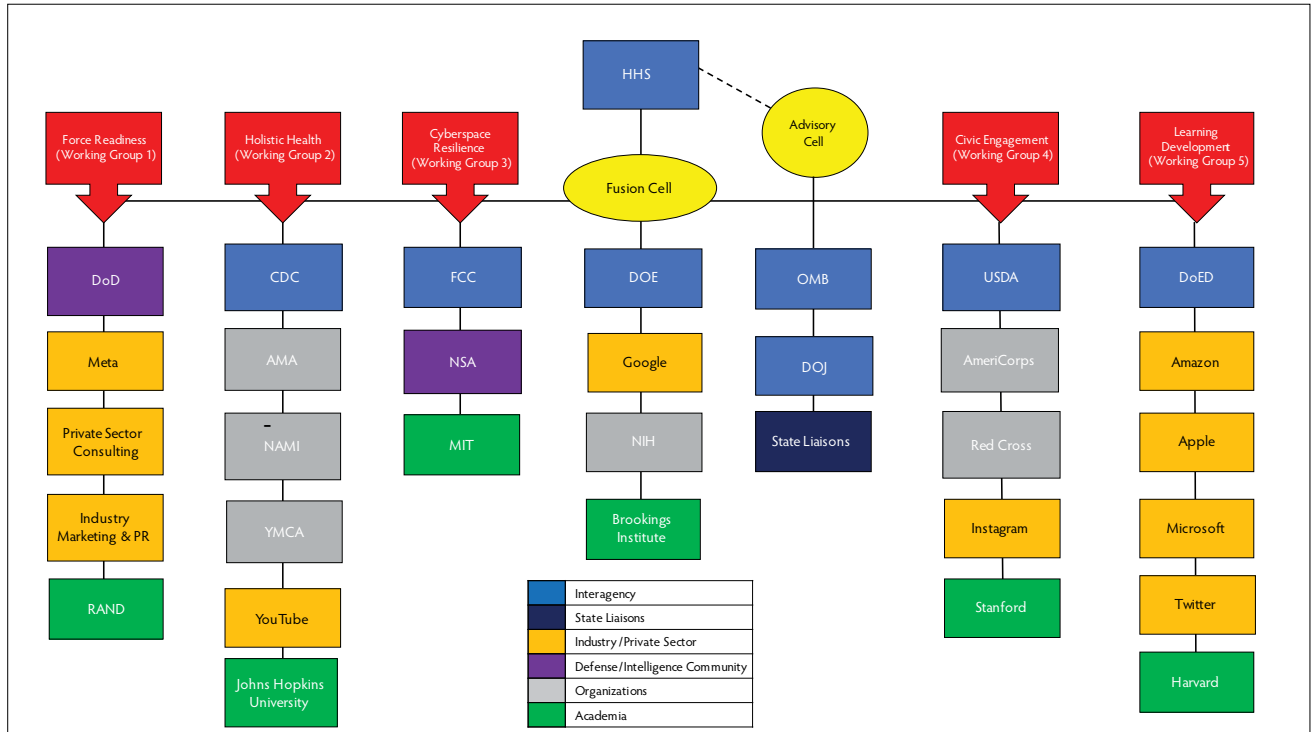
Figure 7. JIATF Priority Information Requirements and Capabilities Crosswalk

the proposed task organization of the JIATF. The diagram represents five working groups, each aligned with a requirement and cross-task organized with representation from external stakeholders. Of note are the Fusion and Advisory Cells, which play critical roles in the JIATF. The Fusion Cell, spearheaded by the Department of Energy, capitalizes on assistance from Google's online data analytics, Brookings Institution's research experience, and the National Institutes of Health's health expertise institute in fusing information from the working groups. The Advisory Cell serves to advise HHS on legal and fiscal considerations for the actions of the JIATF and ensure systems and processes are transparent and compliant with the law. The five working groups are assigned roles and responsibilities (figure 8), including:

- Working Group 1, Force Readiness: The lead is the U.S. Marine Corps based on its reputation and successful recruiting and retention strategies. The group includes liaisons from the primary branches and assistance from Meta, academia, and industry to identify new and effective marketing and

public relations strategies to address shortfalls in recruiting. This also includes analyzing current recruiting trends to assist the JIATF in reassessing its approach.

- Working Group 2, Holistic Health: The lead is the Centers for Disease Control and Prevention based on their comprehensive health knowledge and research conducted during the pandemic. The group includes leading medical and mental health organizations and the YMCA to identify new holistic strategies for increasing physical activity, mental health, and physical health initiatives in schools. This is partnered with YouTube to leverage its data analytics and ability to spread information to broad audiences.
- Working Group 3, Cyberspace Resilience: The lead is the Federal Communications Commission based on their authority over online platforms. This group includes assistance from MIT for their research and analytics focus in technology fields and the National Security Agency, with its authorities over signals and cyber intelligence capabilities, to research new strategies and technologies



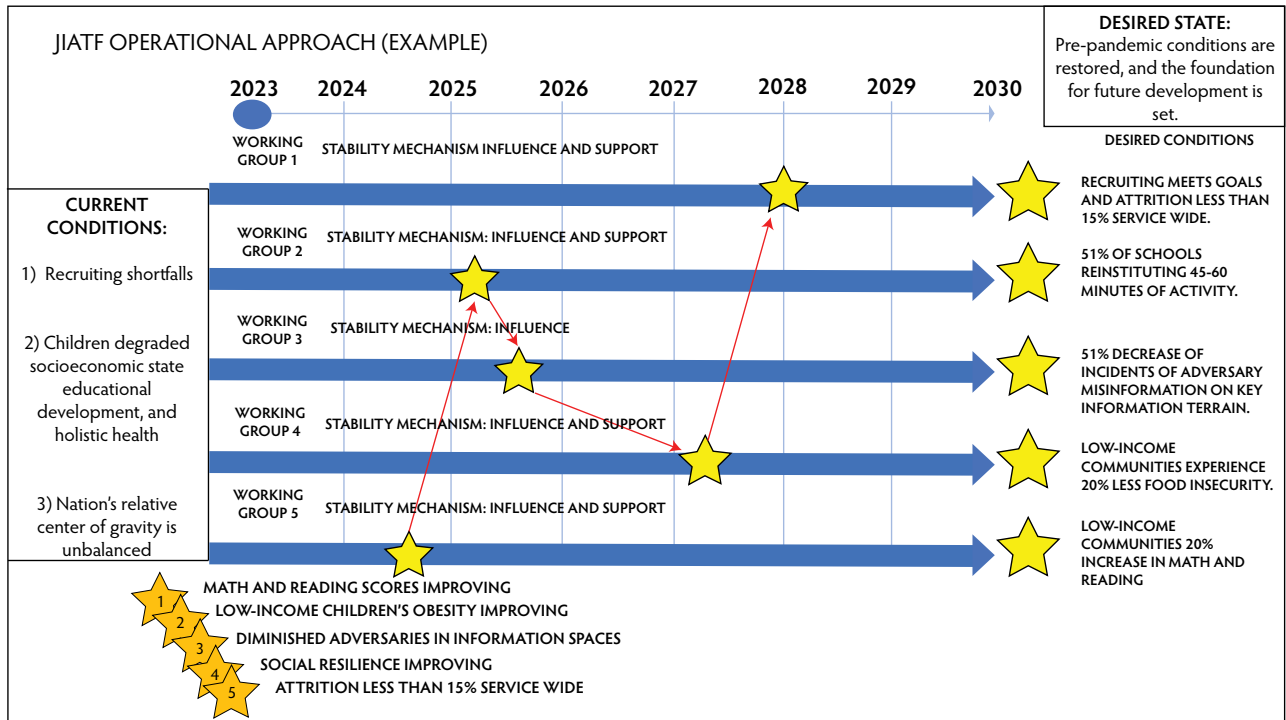
(Figure by author)

Figure 8. JIATF for Youth Resilience and Development

for safeguarding information spaces from foreign adversary influence.

- Working Group 4, Civic Engagement: The lead is the U.S. Department of Agriculture based on their community development and outreach experience and resources. This group includes AmeriCorps and the Red Cross’s vast pool of volunteers and workers, and research analytics from academia to identify new strategies and initiatives for increasing community involvement and resilience planning. This is partnered with Instagram based on their analytics and ability to engage with and appeal to younger audiences.
- Working Group 5, Learning Development: The lead is the Department of Education based on their expertise on students’ educational needs and policy formulation. This group includes Amazon, Microsoft, and Apple to generate a strategy and initiative for solving the educational disparities of low-income and minority families. This includes X (formerly Twitter) and academia data analytics and outreach to engage with the industry for producing and distributing the resources to children.

A broad approach for the JIATF. The JIATF must develop a broad approach to ensure the security and resilience of future generations by addressing the challenges and vulnerabilities of young Americans exacerbated by pandemic restrictions. Keeping the *National Security Strategy’s* guidance in mind, which states that the current decade is decisive toward setting the future tone of conflict and international affairs, allows the JIATF to align its plan with national priorities.⁶⁶ The joint planning process provides a way to develop an approach that allows the JIATF to leverage the five working groups and provides a foundation to backward plan from their desired end state to their current state.⁶⁷ Figure 9 displays an operational approach for the JIATF to achieve its mission and objectives by 2030 and set a foundation to build upon beyond it. Each working group composes a line of effort (LOE) with its desired condition to mutually support the other LOEs and achieve the desired end state.⁶⁸ To highlight one line of effort, the JIATF Force Readiness LOE desires to achieve conditions such as consistently achieving recruiting goals by meeting objectives such as reducing service-wide attrition to less than 15 percent by 2028.



(Figure by author)

Figure 9. Example of a JIATF Operational Approach

This is supported by other LOEs, such as events in the Civic Engagement and Learning Development Working Groups that complement efforts in space and time.

Challenges, risk, and mitigation. The success of the JIATF in achieving its mission depends on its ability to collaborate, communicate, and coordinate its efforts effectively in a challenging environment with competing and emerging requirements. The JIATF faces three primary challenges that risk its success. First, it requires robust systems and processes for sharing information and collaborating digitally. This challenge can be mitigated by integrating cloud capabilities from Google, Meta, and Amazon that allows flexibility in collaboration information. Second, the lack of consistent touchpoints may degrade its effectiveness. This challenge can be mitigated by leveraging remote work capabilities provided by Microsoft and Apple for daily activities and establishing dedicated liaisons from each working group to conduct monthly in-person meetings at the Pentagon to maintain oversight of their activities. Third, information and analysis saturation may impede timely and accurate information analysis to drive decision-making. This challenge can be mitigated by integrating academia into

each working group to manage knowledge of the group's efforts and integrate their analysis into the Fusion Cell's cloud-based repository.

Conclusion

This article has demonstrated the value and need for a coordinated interagency response to address the challenges arising from pandemic restrictions. The U.S. government is facing an unprecedented interagency challenge between 2022 and 2033, as pandemic restrictions exacerbate the vulnerabilities of young Americans, creating significant obstacles for military recruitment, potentially unbalancing the Nation's COG, and affecting the will of future Americans to support the government's national objectives. By leveraging the expertise and capabilities of various interagency, defense, intelligence, national organizations, academia, and private stakeholders, the JIATF can work collaboratively to address information gaps, develop effective strategies, and mitigate potential risks. Forming a joint interagency task force with a clear mission, vision, objectives, and task organization is critical to addressing these challenges. The U.S. government must take decisive action

to ensure future generations' resilience and preparedness of future generations and maintain the Nation's ability to pursue and achieve its national objectives. We can ensure the well-being and future potential of young Americans and the Nation through a comprehensive, cooperative approach. ■

Author's note: *The research in this abbreviated version of the original article highlights critical points for publication, whereas the full version dives into much greater detail of findings. Read the original paper at https://drive.google.com/drive/folders/1B_bfN2HkRt2ISEJCOzh2vjQSi0Yy36F?usp=sharing.*

Notes

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Contacts:

Dr. Gregory Cantwell, gregory.l.cantwell.civ@army.mil or 717-245-3235
Mr. Robert Foster, robert.l.foster1.ctr@army.mil or 717-961-2028





Members of the 442nd Troop Carrier Group plan missions into Europe during World War II. U.S. Army doctrine was focused primarily on the European theater until the transition to multidomain operations codified in Field Manual 3-0, *Operations*. (Photo courtesy of the 442nd Fighter Wing)

FM 3-0

A Step Forward in Approaching Operational Art



Maj. Christopher M. Salerno, U.S. Army

The Army in 2023 finds itself in a unique position. The 2022 *National Defense Strategy* prioritizes China as the number one pacing

threat, with Russia as the number two acute threat.¹ This represents a seismic shift for the Army, which, since the end of World War II, calibrated its doctrine

for the European theater despite the near-constant conflict in other operational environments (OE).² The Army could have used this shift in the *National Defense Strategy's* focus from Europe to the Pacific to justify using an Army Pacific forces multidomain concept as the basis for the newest edition of Field Manual (FM) 3-0, *Operations*. However, Russia's illegal invasion of Ukraine awakened the North Atlantic Treaty Organization to the Russian threat and sparked changes to ensure the alliance could effectively respond.³ The Army recognized that a future joint force commander, whether in Europe or the Pacific, must use similar tools to build their campaign and operations.

The Army's decision to use multidomain operations (MDO) as the conceptual basis for FM 3-0 shifted the Army from tradition. Historically, militaries focused on a single existential operational problem as the basis for their doctrine.⁴ Militaries handle this operational problem by building operational concepts, which are subsequently validated through testing and codified into doctrine.⁵ For example, the Soviets built the concept of deep battle to respond to the threat posed by Germany in the early twentieth century.⁶ The U.S. Army created AirLand Battle during the Cold War to respond to the Soviet threat in Germany.⁷ The U.S. Marine Corps is undergoing Force Design 2030, implementing the concepts of stand-in forces and expeditionary advanced base operation. The Marines intend to be a joint force enabler able to operate inside threat antiaccess/area denial locations within the Pacific.⁸ These concepts attempted to balance the objective with the operational factors of time, space, and force.⁹ These solutions are not easily exportable to other OEs with different operational factors.

In 2023, the U.S. Army operates in multiple distinct OEs against unique threats. Despite some commonalities, each OE requires concepts that appropriately balance the operational

factors. The Army cannot create a single concept that is one-size-fits-all because it poses too much risk. Soviet deep battle would fail if applied to the Pacific, where at least initially, the land forces were a supporting force instead of a supported force. Similarly, the Army could not re-create AirLand Battle because that doctrine was tailored explicitly for a Soviet threat in Germany. The Army, unlike the Marines, cannot only choose to focus on one OE due to different mission sets. FM 3-0 succeeds because it provides commanders with a doctrinal approach to operational art. Unlike operational concepts designed for a single OE, the Army's MDO can and must be tailored by the commanders to succeed in diverse OEs.

Deep Battle

Gen. Georgii Isserson, a Soviet military thinker, wrote about the most pressing operational problem facing the Soviet Union post-World War I, the German mechanized threat in Eastern Europe, and the emergence of extended depth on the battlefield. Isserson contributed to the thinking about the operational level of war and the concept of deep battle. He recognized that if an army does not think about the operational problem, it will ignore how the operational factors evolve over time and only consider the factors as they once were during execution.¹⁰ These mistakes are routinely paid for through stalled progress or defeat and high casualty counts. Isserson attempted to understand the OE and think through how to balance the operational factors and the objective properly. Balancing operational factors prevents disaster and is vitally important.¹¹ The Soviet deep battle doctrine proved successful during World War II, and it balanced time, space, and force: the operational factors of Eastern Europe in the 1930s.

Isserson recognized a time-space-force imbalance that previously did not exist. The flank, primarily due to mechanization, no longer reigned supreme, and instead, depth and the ability to reach deep into the enemy's rear mattered most.¹² The Soviets, with deep battle, faced a singular threat that needed to be dealt with systematically. Soviet planners believed they could apply deep battle during a potential conflict against NATO during the Cold War in West Germany.¹³ However, deep battle is not one-size-fits-all; if the Soviets had attempted to apply deep battle to a Pacific island-hopping campaign, they would not

Maj. Christopher

Salerno, U.S. Army, is a student at the Naval War College Intermediate Course. He holds a BS from Boston College and an MS from Columbus State University. His assignments include Maneuver Captain's Career Course small group leader, observer controller/trainer at the National Training Center. He previously served with the 1st Cavalry Division and the 10th Mountain Division.



U.S. Army M-60 main battle tanks train in the Fulda Gap, West Germany, where the United States and NATO expected Soviet and Warsaw Pact forces to attack first if a “hot war” began during the Cold War in Europe. Concerns over the Soviet threat led to the development of U.S. Army AirLand Battle doctrine. (Photo courtesy of the U.S. Army)

have achieved the same results.¹⁴ It is not one-size-fits-all because the operational factors change based on who, when, and where they choose to fight. Deep battle requires depth and suitable terrain for mechanized warfare; not every OE contains that terrain type. The Soviets did not develop a universal solution. They attempted to solve the problem with an operational concept tailored to their threat, physical space, and time period. MDO avoids the pitfalls of a one-size-fits-all solution and allows commanders to recognize their unique OE.

The U.S. Army, unlike the Soviets, faces multiple OEs, each with distinct operational factors. The U.S. Army must balance the respective operational factors toward the objective for each OE it currently faces.

MDO enables operational commanders because even though it is not built for a single OE, it provides tools for approaching OEs. The Army cannot ignore Russia for China because the Army exists to deal with all peer threats, not individual ones.¹⁵ The Army could not turn a Pacific-oriented operational concept into doctrine and expect it to work for the Army in Europe. Failing to balance the European theater’s operational factors against the objective could result in catastrophe.¹⁶ The Russian invasion of Ukraine only reinforces that the Army cannot ignore the European OE for the Pacific. A concept like deep battle, designed for a specific OE, would fail in other contexts, but MDO provides a framework for approaching an OE and conducting operational art.



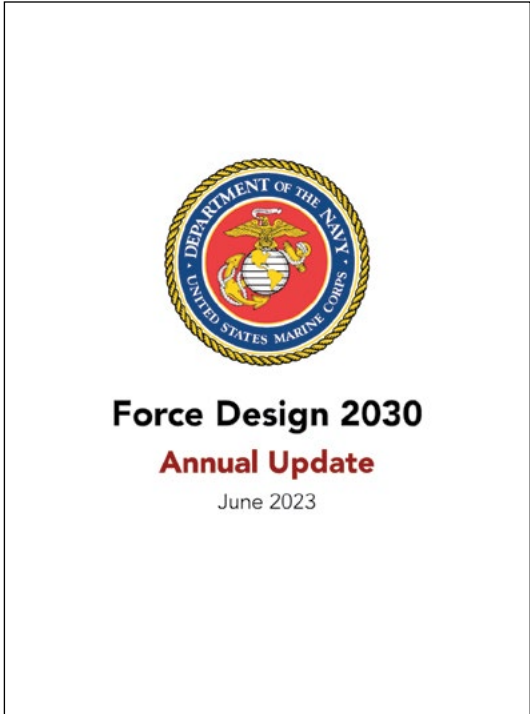
Air Force F-16, F-15C, and F-15E aircraft from the 4th Fighter Wing fly over Kuwaiti oil fires set by the retreating Iraqi army during Operation Desert Storm in 1991. The overwhelming defeat of the Iraqi forces validated U.S. Army AirLand Battle doctrine. (Photo courtesy of the U.S. Air Force)

AirLand Battle

Gen. Donn A. Starry, as the V Corps commander in Europe, faced a similar problem as Isserson in the 1970s. He needed a concept that would work for his singular OE. He understood how the Soviets expected to fight in Germany, and he understood his objective, but he needed to figure out how to balance the operational factors. Starry was deeply concerned about the Soviets' depth of forces and the short time for their employment.¹⁷ These are operational factor concerns because, relative to the USSR, his factors were not balanced. Starry understood that one could overcome the space and time imbalance through superior trained and equipped forces.¹⁸ Starry developed the operational concept, which eventually became AirLand Battle. The unique insight of Starry was how the corps commander could create conditions the Soviets were not expecting by striking across the depth of their offense.¹⁹ AirLand Battle balanced the Army's operational factors and imposed an imbalance for which the Soviets were unprepared. Like deep battle, AirLand

Battle is not a universal solution but was designed for a specific problem at a specific time.

AirLand Battle created a lasting impact on the Army due to its success in the Gulf War. The impact appeared as AirLand Battle transcended a single OE, but AirLand Battle served as a concept for the Cold War context and the Soviet threat.²⁰ Many adversaries, like the Iraqi army in Operation Desert Storm, operated Soviet weapons and used Soviet tactics.²¹ AirLand Battle articulated well how to achieve victory given the specific context of the problem faced.²² AirLand Battle worked well in the Gulf War because the context and mission aligned with the Cold War context. The mission and context for the pacing threat, China, and the acute threat Russia, is too different for a single operating concept. The MDO tenets are not tied to a specific context but instead frame how to develop a concept for an operational problem and balance the operational factors. This "tailoring" requirement is the Army's challenge today, and Army leadership is taking it on similar to Isserson and Starry.



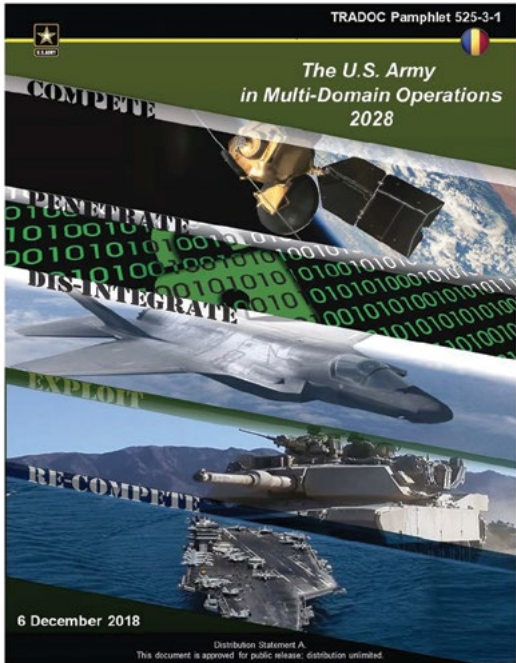
The *Force Design 2030 Annual Update* can be found online at https://www.marines.mil/Portals/1/Docs/Force_Design_2030_Annual_Update_June_2023.pdf.

U.S. Army Pacific commander Gen. Charles A. Flynn and I Corps commander Lt. Gen. Xavier T. Brunson published articles in 2023 describing concepts for fighting as part of a joint force in the Pacific context. Flynn recognized the Army’s supporting role and showed how the Army could aid in convergence by creating opportunities for the Air Force and Navy as opposed to the concept of AirLand Battle, where the Army was the supported force.²³ Brunson’s concept, distributed command-and-control nodes, addresses how to win given I Corps’ mission and context.²⁴ Brunson’s concept embraces all the tenets of MDO, but like Flynn’s concept, it inverts how the Army is comfortable operating. I Corps is not training to fight as a mass of infantry and armor arrayed against an objective. I Corps, as just one example, is prepared to support the creation of those interior lines and support the joint force through its multidomain task forces. Commanders should think outside the box and build operational concepts given their current organization and what might be possible based on what will soon be online.²⁵ In both cases, MDO directly enabled their approach to operational art. Leadership within U.S. Army Europe should also develop and disseminate

unclassified concepts for the Army in Europe using MDO as a framework for operational art. These concepts are better than the Army could achieve with the doctrine based on theater-specific threats.

The Marines and Force Design 2030

The U.S. Marines, unlike the Army, can prioritize a single operating concept for a specific context and mission because the Army complements the Marines in those other contexts. The May 2022 update to Force Design 2030 does not refer to Russia, but states, “The pacing threat for our Force Design, as directed by the current and two previous presidential administrations, is the Armed Forces of the People’s Republic of China (PRC).”²⁶ While not wholly changed, the Marines are undergoing massive formation updates as they prioritize efforts to respond to the pacing threat of China. The Marines are currently testing these new formations and will build supporting doctrine as they advance toward Force Design 2030. One-size-fits-all approaches do not work for the Army, but the Marine Corps could afford to divest its heavy armor, for example, because it understood the Army would provide armor to the joint force as required by a joint force commander.²⁷



The *U.S. Army in Multi-Domain Operations 2028* can be found online at https://www.army.mil/articles/243754/the_u_s_army_in_multi_domain_operations_2028.

The Marine Corps is taking a different approach than the Army. Their prioritization of a singular threat is closer to what the Army accomplished with AirLand Battle against the Soviet threat.

Force Design 2030 complements the Army's efforts to embrace MDO. However, because the Army is positioned to respond effectively to multiple threats, the U.S. Marine Corps can prioritize a singular threat. The context and requirements for the Army in the Pacific will result in a different use of the Army.²⁸ At its core, the Marines do not have this same issue, as they can prioritize a singular threat and write a capstone doctrine supporting that effort. The Marines can balance the priority of a single concept with maintaining a whole world perspective and how to operate across the globe.²⁹ The Marines mitigate the risk posed by prioritizing a single OE by not completely transforming as they still retain the Marine air-ground task force structure for a sizeable portion of the corps. This is similar to how the Army prioritized AirLand Battle but remained capable of responding outside the European theater. The Army requires a flexible doctrine, so operational commanders can account for their specific OE.

Counterargument

The counterarguments are that FM 3-0 is inadequate and impractical as a doctrine. It does not provide a specific answer on how to win in any given context. All doctrine must be tailored to the specific circumstances of a given context and objective. Retired Brig. Gen. Huba Wass de Czege, an infantry officer instrumental in the writing and development of AirLand Battle, wrote a commentary on "The U.S. Army in Multi-Domain Operations 2028," where he critiqued MDO. He claimed that MDO does not outline the problem nor how MDO can successfully address that problem in a way that friend and foe both understand.³⁰ He compares MDO and AirLand Battle, showing how AirLand Battle successfully outlined the problem for the force and could deter a threat.³¹ In this view, MDO fails because it is not a solution.

This is a reasonable observation; however, the comparison is unfair given the different strategic contexts of 1982 and today. Both theaters contain some similarities, but the operational factors are too different. The proper balancing will end with the Army as part of the joint force doing very different things in each scenario.

While suitable for its context, an operating concept like AirLand Battle would struggle in other contexts. Operational commanders would be left with nothing but their thoughts on how to win. Commanders need a guiding framework for approaching operational art, which MDO, through the tenets, addresses. The commander is provided with the tools necessary for building successful campaigns and operations.

One could also argue that all doctrine must be tailored to unique situations. Gen. David Berger, when speaking to congressional defense committees, highlighted that the Marine Corps, even when focused on the pacing threat of China, is still prepared and better suited to respond to many mission sets across the globe.³² The Army should focus on a single concept for winning in a specific context and tailor it as needed for other contexts. This does not recognize that the Marines have entirely different mission sets than the Army. The Marines complement the joint force by remaining focused on expeditionary operations.³³ The Army's focus remains broader focused on both peer threats. These roles look different in execution. Flynn noted that the Army in the Pacific needed to create interior lines that it already possessed in Europe.³⁴ These are not minor changes for a given OE. They are different approaches, but the tenets of MDO inform different approaches.

Conclusions and Recommendations

FM 3-0 succeeds because it provides operational-level commanders with a doctrinal approach to operation art that they can tailor to their diverse OE. These commanders are not given a complete concept that needs minor adjustments on the ground like previous generations were with AirLand Battle because this is no longer possible. These commanders need to address the operational problem within their OE, informed by the tenets of MDO, and develop a concept for winning. Since the publication of FM 3-0, these concepts have been emerging and are nested as part of a joint force. A prefabricated solution, a modern incarnation of deep battle in the twenty-first-century context, cannot correctly balance the operational factors. The interplay of space, force, and time will not be the same, and the objectives for each theater are not the same. Concepts that bind operational-level commanders to a single approach

are potentially dangerous. Commanders need support in approaching their operational problem; that is what FM 3-0 and MDO provide the force. The tenets of MDO are positive traits a commander should seek in operations or campaigns but not the answer to the problem.

Leaders can find MDO uncomfortable because it recognizes the multipolar nature of the world and how old methods may not work in new situations. Still, MDO is the right direction for the Army because it forces all leaders to think deeply about their respective OEs and roles. One should not let service identity become a roadblock or an impediment to change.³⁵ The Army must get comfortable that the capstone doctrine accepts that, at times, the Army will not have primacy within the joint force. The Army needs leaders supported by doctrine who can

develop solutions even when the Army is the supporting force.

FM 3-0 provides the necessary tools to the commander, but describing what winning looks like requires the publication of joint operational concepts. This is key to deterrence and showing the force what victory looks like.³⁶ Unclassified joint operational concepts will assure allies and partners, deter adversaries, and promote common understanding within the joint force. Army concepts must nest within the joint concepts; the context matters. AirLand Battle was an outstanding piece of doctrine that served the Army well in the context of the Cold War with enduring lessons for the modern day, but it was a solution to a specific problem. The Army faces specific global problems, and MDO provides operational-level commanders with the essential doctrine supporting their efforts. ■

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SPOTLIGHT: 11TH AIRBORNE DIVISION



Soldiers survey the surrounding area while acting as opposition forces during Joint Pacific Multinational Readiness Center-Alaska 23-02 at Yukon Training Area, Alaska, 3 April 2023. The training is designed to display soldiers' ability to survive and thrive in the Arctic. (Photo by Department of Defense)



Paratroopers assigned to Battery A, 2nd Battalion, 377th Parachute Field Artillery Regiment, 4th Infantry Brigade Combat Team (Airborne), 25th Infantry Division, descend over Malemute Drop Zone while conducting airborne and live-fire training at Joint Base Elmendorf-Richardson, Alaska, 22 November 2016. (Photo by Alejandro Pena, U.S. Air Force)

From Heaven to Hell

Fires Employment for the 11th Airborne Division “Arctic Angels”

Lt. Col. Chad W. Fitzgerald, U.S. Army

Lt. Col. Dan Graw, U.S. Army

Capt. Hannah Kuegler, U.S. Army

As the global geopolitical landscape undergoes substantial shifts, the U.S. Army has pivoted its strategic focus toward “Arctic dominance”—a concept that gained prominence following the publication of a seminal strategy document, *Regaining Arctic Dominance: The U.S. Army in the Arctic*, in January 2021.¹ The strategy underscores the necessity for a division designed specifically for multidomain operations and optimized for prolonged engagements in extreme cold weather conditions.² Given escalating tensions in both the Arctic and Indo-Pacific regions, it is increasingly evident that contemporary conflict and competition require long-range precision fires, sophisticated fire support (FS) systems, specialized munitions, and rapidly deployable vehicles that adapt to the harsh weather conditions and challenging terrains of the Arctic.³ In future Arctic combat scenarios, it is unlikely that the primary adversary will utilize ground formations to engage in large-scale combat operations on ice. Instead, climate change will likely exacerbate such conflicts and will focus on controlling critical and sea routes essential for global economic commerce. These potential conflicts may also aim to establish or prevent a foothold to secure vital infrastructure or resources that are under threat from adversaries of the United States and its allies.⁴ Airborne and air assault formations provide the operational reach required for the types of Arctic combat scenarios described above. Airborne/air

Lt. Col. Chad Fitzgerald, U.S. Army, commands the 2nd Battalion, 8th Field Artillery Regiment (AUTOMATIC), located at Fort Wainwright, Alaska. He holds a BA from Texas Christian University, an MA from the Fletcher School of Law and Diplomacy at Tufts University, and an MA in military operations from the School of Advanced Military Studies. Fitzgerald's field artillery experience spans a spectrum of cannon formations including light, Stryker, heavy, and division artillery formations in the 25th Infantry Division, 1st Cavalry Division, 7th Infantry Division, 2nd Infantry Division, 4th Infantry Division, and 11th Airborne Division. Fitzgerald is also a former assistant professor in the Department of Social Sciences, United States Military Academy, West Point, New York.

assault forces can move and rapidly concentrate combat power over large distances quicker than land-mobile forces.

Arctic Joint Forcible Entry Operations—Fires Focus

The field artillery (FA) branch and the Fires Warfighting Function provide critical capabilities during joint forcible entry operations (JFEOs). However, an institutional gap remains on how best to employ these critical capabilities in intense and extreme cold weather conditions, exacerbated further by the fact that while there are five airborne infantry brigade combat teams (IBCTs) in the U.S. Army, only one specializes in airborne operations in extreme cold weather.⁵ Reactivated in 2022, the 11th Airborne Division's 1st and 2nd IBCTs and their two FA battalions—2nd Battalion, 377th Parachute Field Artillery Regiment (2-377 PPAR); and 2nd

Battalion, 8th Field Artillery Regiment—are working diligently to assist the U.S. Army in developing and codifying the use of fires and FA in the Arctic, during both airborne and air assault operations.

Lt. Col. Daniel Graw, U.S. Army, commands the 2nd Battalion, 377th Parachute Field Artillery Regiment, located at Joint Base Elmendorf-Richardson, Alaska. He holds a BS in business administration from Susquehanna University, an MBA from Webster University, and an MA in military operations from the School of Advanced Military Studies. Graw has served primarily in light and airborne units within the 11th Airborne Division, 82nd Airborne Division, and 101st Airborne Division. Before command, Graw completed a four-year joint assignment with the U.S. Marine Corps, serving at the 3rd Marine Division in Okinawa, Japan.

Capt. Hannah Kuegler, U.S. Army, commands Avalanche Battery, 2nd Battalion, 8th Field Artillery Regiment (AUTOMATIC), located at Fort Wainwright, Alaska. She holds a BS in athletic training from Boston University. Kuegler previously served in the 2nd Cavalry Regiment. Before command, she served as a fires advisor in the 4th Security Forces Assistance Brigade.



An Alaska Army National Guard UH-60 Black Hawk prepares to lower an M119A2 howitzer to soldiers from Battery A, 2nd Battalion, 377th Parachute Field Artillery Regiment, during an air assault raid in March 2011 at LZ Ranger on Joint Base Elmendorf-Richardson, Alaska. (Photo courtesy of the Department of Defense)

Intense and Extreme Cold Weather Doctrine for Joint Forcible Entry Operations

JFEOs are inherently risky, demanding careful planning and thorough preparation, especially in freezing temperatures. Joint Publication (JP) 3-18, *Joint Forcible Entry Operations*, validated in 2021, discusses the requirement for joint force commanders and subordinate commands to identify and manage the impact of climate and weather. JP 3-18, while reminding staff and commanders that each echelon unit needs to plan for weather, provides no specific guidance regarding operating forces within extreme cold weather areas during JFEOs.⁶ Field Manual (FM) 3-99, *Airborne and Air Assault Operations*, closely mirrors JP 3-18 concerning the identification and management of climate.⁷ It further details some aspects of cold weather impacting aviation assets.⁸ However, it falls short of detailing impacts

on ground formation equipment such as FA weapon systems. Published in January 2011, *Army Tactics, Techniques, and Procedures (ATTP) 3-97.11, Cold Region Operations*, was the first major doctrinal revision to cold region operations in forty-three years, replacing the outdated FM 31-70, *Basic Cold Weather Manual* (April 1968), and FM 31-71, *Northern Operations* (June 1971). In this update, the ATTP devotes six paragraphs on fires warfighting function considerations in the cold, with no mention of JFEO.⁹ Army Techniques Publication (ATP) 3-90.97, *Mountain Warfare and Cold Weather Operations* (April 2016), was a step in the right direction, combining cold region and mountain warfare manuals (previously FM 3-97.6) into one publication. ATP 3-90.97 devotes an entire chapter to FS and FA operations in extreme cold weather.¹⁰ However, it only briefly touches on air movement considerations and provides no doctrinal reference on FA employment

during JFEOs. FA manuals for certification and training do not consider any variance for air assaults and airborne operations conducted in extreme cold weather. Training Circular 3-09.8, *Fire Support and Field Artillery Certifications*, provides time standards that artillery units must meet as part of the certification process. There are certification standards for derigging a howitzer as part of an airborne operation, establishing firing capability on the drop zone, and in-position ready-to-fire times for airborne and air assault operations.¹¹ However, for example, there is no adjustment for a drop zone covered in snow at -20°F.

Artillery Challenges in Extreme Environments

Despite the advancements in modern fires capabilities, the two direct support FA battalions of the 11th Airborne Division face substantial challenges in Arctic operations. Inclement conditions adversely affect the battalions' ability to execute their core functions—shooting, moving, and communicating—with the precision and massing firepower required for modern conflict. The division's artillery enterprise comprises two composite battalions equipped with towed howitzers, including six 155 mm M777A2 and twelve 105 mm M119A3. These units operate independently, without the support of a force field artillery headquarters or division artillery. They are bolstered by joint fires and are required to function in the Arctic, subarctic, and Indo-Pacific theaters.

Recent lessons learned from the Joint Pacific Multinational Readiness Training Center–Alaska 23 (JPRMC–AK 23) reveal some of the many challenges posed by extreme cold conditions and how they substantially compromise the effectiveness of conventional FS and FA equipment that normally operates in more temperate climates. JPRMC–AK 23 witnessed both 11th Airborne brigades (2nd IBCT [Airborne] “Spartan” as the blue force and 1st IBCT “Arctic Wolves” as the opposing force) executing their wartime missions in the extreme cold. The Spartan brigade conducted two sequential airborne operations in March 2023, the first to seize Ladd Army Airfield at Fort Wainwright, Alaska, and the second to seize key terrain in the Yukon Training Area adjacent to Eielson Air Force Base, Alaska.

2-377 PFAF established two separate “team fires elements” due to the geographic separation of the drop

zones by over 30 km. Each fires element possessed 120 mm and 81 mm mortar systems, towed artillery systems with fire direction, and radar under a single command element, typically the FA battalion commander. This task force concept provided responsive fires to the brigade combat team. The challenge to this concept lies in conducting sustained operations in below-freezing weather while geographically separated from the unit's base of operations.

The airborne operation into the Yukon Training Area resulted in the PFAF's paratroopers and equipment being buried in chest-deep snow at temperatures below freezing upon landing and facing a dug-in opposing force that had been on the ground for four days preparing for the fight. Subsequent heavy equipment drops saw howitzers, radar, and prime movers becoming deeply buried in snow, requiring engineer assistance for equipment removal that would take between four and six hours. The PFAF established airspace control plans with redundancy in satellite internet and high-frequency communication that battled through extreme-cold-induced rapid battery discharge.

The challenges posed by extreme cold conditions substantially compromise the effectiveness of conventional FS and FA equipment that normally operates in more temperate climates. For example, extreme cold leads to increased brittleness and breakage of cables, impaired hydraulic performance, and dysfunctional liquid crystal displays in touchscreen interfaces. Focusing on the M777A2 howitzer, this artillery system is particularly vulnerable in extreme cold environments due to its reliance on a hydraulic suspension system, a hydraulically operated breech, and hydropneumatic recoil system mechanism—all components highly sensitive to low temperatures. Moreover, the system employs a digital fire control interface with an LCD screen prone to freezing, consequently forcing the howitzer into a degraded operational mode.

The M119A3 (105 mm howitzer) is the primary FA platform utilized for airborne assaults because of the added mobility by linking its prime mover on a single thirty-two-foot platform. The M777 requires a thirty-two-foot platform simply for the weapon system, and the prime mover is not certified for airdrop, which impacts the ability to move the weapon system on the ground after a heavy drop operation. The minimum temperature the M119A3 can operate in is -25°F. However,



A military helicopter sits immobilized in muskeg, the swampy terrain rendered treacherous by underlying permafrost, November 2006 on Fort Wainwright, Alaska. The image serves as a stark warning of the deceptive challenges posed by partially frozen ground in transitional seasons. (Photo courtesy of the Northern Warfare Training Center)

degradation in performance and reliability quickly deteriorates below-freezing temperatures. The digital fire control system for the M119A3 is rated to operate at -45°F .

As JPRMC-AK 23 continued, heavy snow, combined with the arrival of additional combat power and limited blade assets, prevented PEAR batteries from accessing subsequent position areas for artillery (PAA). Engineering blade support from the 555th Brigade Engineer Battalion was essential but insufficient for the Spartan brigade's needs. Without a persistent effort toward innovation and collaboration on lessons learned, the two FA battalions of the 11th Airborne Division are bound to experience the same challenges year after year.

Towed Artillery Systems and Arctic Mobility

The 11th Airborne Division's FA battalions navigate a harsh landscape that ranges from the muskeg and swampy marshlands to the thick taiga of northern boreal forests in the summer and wrestle with deep snow drifts overlaying permafrost in the winter. They operate under temperature extremes from lows of -60°F to highs of 90°F , although most operations occur

in conditions above -40°F . Currently, Arctic mobility begins with a close partnership with Army aviation.

Looking to the past, artillery units in the Arctic used a combination of helicopter lift techniques and tracked over-the-snow-capable prime movers to drive through fresh snowbanks whereby the friction of the tracks would melt the snow, causing it to refreeze and thereby creating snow roads to access cross-country mobility. The consistency of snow can vary wildly across the Arctic and subarctic regions. Soldiers often encounter hard-packed snow that can be traversed in boots one moment, only to

sink into deep drifts the next, akin to wading through hip-deep sand. Despite the aid of snowshoes and skis, these environmental factors prevent cross-country mobility of wheeled vehicles and can slow the speed of a dismounted tactical formation moving over the snow to a pace of one to three kilometers per hour. The current limitations of wheeled prime movers limit over-snow or cross-country capabilities.

In Alaska's harsh winter environments, establishing PAAs for artillery and mission command elements becomes a formidable challenge in extreme cold weather operations. Even the most seasoned "Redleg" soldiers face significant difficulties in securing tents or embedding howitzer spades in subzero conditions. Conventional basic issue items render the howitzer emplacement process labor intensive and time consuming, compromising artillery fire responsiveness and overall security. Recent analyses and records kept by the battalion master gunners indicate that in collective training exercises, on average, it takes approximately three hours to dig a M777A2 howitzer to an adequate depth in frozen ground and permafrost. To address this inefficiency, Arctic artillery soldiers and their battalions have adopted off-the-shelf solutions,

incorporating tools such as concrete saws, power drills, pneumatic jackhammers, appropriate fuel, and generators. These innovations have dramatically expedited the emplacement process; a well-trained crew can now complete the emplacement of a howitzer in less than fifteen minutes, significantly enhancing operational agility.

In each 11th Airborne FA battalion, legacy towed artillery systems like the M777A2 and M119A3 are often pulled by some of the Army's oldest chassis such as the M1084 and M1083 Family of Medium Tactical Vehicles (FMTV) and the M1097 high mobility multipurpose wheeled vehicles (HMMWV).¹² Specialized Arctic equipment comes from the Common Table of Allowances, including ten-man Arctic tents, ahkio groups, skis, and snowshoes. Most of these items urgently need modernization, having suffered decades of wear and tear. Currently, the only snowplows available for attachment to Joint Light Tactical Vehicles (JLTV), HMMWVs, and FMTVs are designed for clearing roadways after fresh snowfall. No specialized plows exist for clearing deep snow drifts from potential artillery positioning areas. Consequently, wheeled vehicles and the howitzers they tow are confined to roads due to insufficient assets for snow clearance and cross-country mobility, which compromise security as these roads often lead into designated enemy engagement areas and limit subsequent survivability moves.

These scenarios cause FA leadership to consistently consider tradeoffs, balancing the need for fires with the ability to protect crews and equipment from enemy actions. Frigid temperatures require detailed attention from leaders and soldiers to ensure their Arctic-specific equipment operates as expected. This effort includes seasonal cold weather training that ensures an Arctic artillery soldier learns tasks like maintaining an Arctic tent and stove and attaching required tire chains on wheeled prime movers, essential to moving and surviving



Artillery crewmembers from Battery B, 2nd Battalion, 8th Field Artillery Regiment, sling load a howitzer to a CH-47 helicopter from 1-52 General Support Aviation Battalion to support a two-gun raid. It is not uncommon for a hook-up team to experience temperatures below -50°F during hook-up procedures under rotor wash. (Photo courtesy of Spc. Samantha Jensen, U.S. Army)

in extreme cold weather. Arctic maintenance common operational pictures are essential, considering that an inoperable troop heater in the back of an FMTV will prevent that vehicle from becoming troop transport.

The organic direct support FA battalion becomes challenged to move, strike, and protect with organic assets. As a result, 11th Airborne FA leaders have invested in innovation and Arctic-specific tactics, techniques, and procedures (TTPs) to improve the mobility and lethality of towed artillery formations.

Arctic Artillery Specific Innovations and Tactics, Techniques, and Procedures

In Arctic warfare, mobility is protection, yet the challenging environment presents a formidable barrier to movement. The current cold weather FA doctrine underscores these limitations, noting that artillery units can only navigate the sparse roads and trails available. As one contemplates the dynamics of future Arctic conflicts, it becomes clear that brigades are unlikely to deploy as cohesive units prepared for



Soldiers from 2nd Battalion, 8th Field Artillery Regiment, utilizing a jackhammer to break up frozen soil in preparation for an M777A2 howitzer emplacement. Power tools such as this increase the speed of emplacement from three hours to under fifteen minutes. (Photo by Lt. Col. Chad Fitzgerald, U.S. Army)

large-scale combat operations on icy terrain. Instead, envision an Arctic battalion-sized task force given the mission to secure critical infrastructure or blunt an adversary's power projection over a contested line of communication. The following description of FA battery operations consists of TTPs using current equipment in the 11th Airborne Division and equipment available and in use by allied militaries. The scenario represents what could be an Arctic artillery battalion in the future with a full complement of equipment designed for the harsh extreme cold weather environment. It is a way to improve towed artillery's mobility when operating in the extreme cold in the Arctic and subarctic.

To navigate the Arctic's limited roadways and diverse terrain, an Arctic artillery battery often relies on substantial engineering support in the form of bulldozer blades accompanying reconnaissance, selection, and occupation of a position (RSOP) personnel who utilize snow machines to move to the next potential PAA. Before movement begins, the battery commander utilizes an all-weather unmanned aircraft system (UAS)

to scout the next PAA. The aerial view provided by the UAS aids in evaluating approach routes and future security needs by identifying tracks leading to and from the designated PAA.

Additionally, forward observers leverage cost-effective UASs as a primary means for target detection, operating from Arctic observation posts near or within the frontline maneuver units' scouts or from an advantageous terrain-based observation post. Current UASs fielded by the 11th Airborne Division struggle

with flight endurance in the extreme cold. However, 1/11 ABN is purchasing off-the-shelf level 1 (under twenty pounds) Department of Defense approved systems primarily utilized for mapping and surveying but can operate to temperature down to -32°F to enable reconnaissance and target identification. Upon target acquisition, joint fires observers or joint terminal attack controllers request engagement from various FS elements such as Army attack aviation, organic mortars, and direct support howitzers, all while enduring temperatures as low as -30°F .

Drawing from allied insights, the M119A3 battery selects its prime mover based on mission requirements and target considerations. For operations involving snowpacks and off-road terrain, the battery employs an over-the-snow tracked vehicle like a small-unit support vehicle or Cold Weather All-Terrain Vehicle (CATV) and affixes skis to the howitzers. These towed howitzers are equipped with studded tires and spiked snow spades to facilitate movement over icy or hard-packed snow. This configuration also allows for emergency fire missions on hard ground, as the spiked spades provide a stable anchor in the ice. Upon reaching the designated PAA, the battery finds preestablished gun pits prepared by the attached bulldozer team. The howitzer crews then move the gun into its specific position, with crews working diligently to get guns in position ready to fire. The RSOP teams have worked with the engineers to

develop the appropriate dispersion technique based on the enemy threat. Once in position and ready to fire, positions are improved utilizing the ballistic protection of snow and ice. Inside the PAA, the engineers and 13Bs (cannon crewmembers) work to fill HESCO barriers with at least 1.5 meters of snow that provides protection from 5.56, 7.62, and .50 caliber rounds.

The FA battery then coordinates with the engineers to develop a perimeter defense of its PAA, maximizing howitzer dispersion while maintaining mutual support and enabling intersecting fields of fire from crew serve weapon positioning, which is most suited to face an adversary utilizing dismounted maneuver, vertical attack by infantry or UAS loitering munitions. Combat in the Arctic will often present a flankless battlefield, and combined with the vast expanse to be defended, it requires the FA battery to present an all-around defense with its assigned crew-served weapons. This TTP is also true for the gun raid when utilized to increase the brigade's operational reach. Based on the limited manpower of the FA, a mutually beneficial arrangement of an artillery battery in direct support of an infantry battalion in the offense can help protect the PAA and increase the responsiveness of fires via the establishment of a quick-fire radio net. The FA battalion would still provide positioning guidance for the battery to retain the ability to mass the battalion's fires to weight the brigade's main effort.

The task force concept maximizes the infantry-artillery relationship and allows infantry to support the battery's perimeter PAA defense with aggressive patrolling and security operations outside the perimeter. As the task force transitions to the offense, the infantry will move over the snow to find opportunities to attack sustainment or favorable correlation of forces ratios to destroy the enemy. A FA M119A3 battery in direct support and equipped to execute over-the-snow movement can be positioned close to the line of departure to suppress, neutralize, or destroy high-payoff targets or designated objectives. Longer range systems like the M777A2 and general support artillery systems could conduct counterfire and engage deeper targets such as suppression of enemy air defenses. Increasing the FA



Soldiers from 29 Commando Regiment (UK) Royal Artillery attach skis to an artillery piece before it is towed behind a tracked over-the-snow-capable prime mover. This configuration could be used by U.S. Arctic artillery battalions to increase mobility. (Photo courtesy of the 29 Commando Regiment Royal Artillery)

battery's Arctic mobility enables a doctrinally correct application of FS considerations for the offense by enabling responsiveness and the ability to mass fires.

Recommendations for the Future

The scenario described above outlines a towed FA battery designed for enhanced mobility and equipped with specialized tools for operation in the Arctic's challenging frozen terrain. At present, Arctic FA battalions rely on off-the-shelf products and tools to enable artillery system occupation and increased mobility but lack access to spare parts for these commercial systems should they fail. To address this, the Arctic FA battalion should have an Arctic-specific list of authorized supplementary equipment. This list should feature items such as studded tires, detachable snow spades equipped with spikes for ice penetration, jackhammers, power drills, concrete saws, and generators—essential tools for the effective winter occupation of a towed howitzer but can only be obtained through unit purchase.



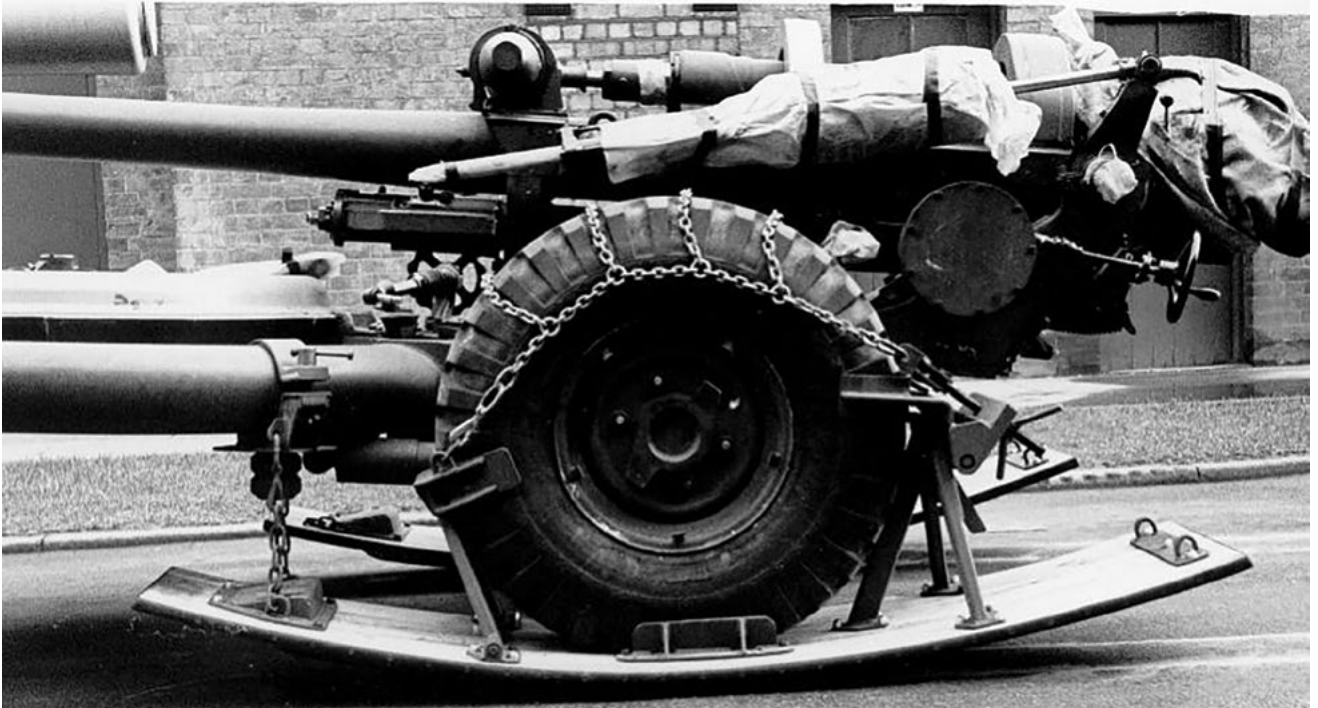
A fire support specialist from the 2nd Battalion, 8th Field Artillery Regiment, tests a Switchblade 300 precision strike unmanned aircraft system in extreme cold weather. The Army should test all equipment designated for future fielding in arctic conditions to validate capabilities and reveal additional requirements. (Photo courtesy of 1st Lt. Sullivan Delaney, U.S. Army)

A perhaps more pressing issue precedes these challenges: neither Army nor Department of Defense program managers are mandated to conduct extreme cold-weather testing for new equipment in Alaska. This oversight leads to the deployment of equipment ill-suited for Arctic conditions. Take, for instance, the planned introduction of JLTV variants intended to function as fire direction vehicles and howitzer prime movers. These variants come with soft-covered crew compartments and lack troop heaters, making them

unsuitable for Arctic operations. In an ideal scenario, Arctic-specific JLTV variants would include such essential features such as hard tops and troop compartment heaters to shield the fire direction center personnel or howitzer crew from the severe cold. Without these adjustments, any future Arctic FA battalion equipped with the current JLTV configuration will find itself unable to move all personnel under extreme cold conditions organically.

Moreover, new equipment should undergo a rigorous engineering verification program as part of the acquisitions process in which it is cold-soaked—operated in temperatures below -20°F for an extended period in the elements. Such a testing regimen would highlight any deficiencies and shed light on the additional requirements necessary for reliability in Arctic operations. The 11th Airborne Division and the Cold Regions Test Center are ideally suited for this type of effort in the future. Furthermore, insights gained from this cold-soak testing could have broader applications. Any modifications or additions to the current modular table of equipment, informed by this specialized testing, could also benefit other Army brigades. This is particularly relevant for units designated for operations in extreme cold or mountainous environments, whether by design or through rotational assignments. Thus, the benefits of implementing a rigorous Arctic-specific verification program would likely extend well beyond the immediate needs of the Arctic FA battalion.

Certainly, existing technology not yet deployed in the Arctic could address current shortcomings. Consider an all-weather, level-one small UAS designed to function at temperatures as low as -32°F and equipped with a light detection and ranging (LiDAR) system that penetrates deep snow drifts to reveal ground composition. LiDAR sends a laser light from a transmitter that is reflected back and detected by a system receiver that utilizes the time of flight to develop a distance map of objects in the area. Such a system could assist FA battalion planners and RSOP personnel in determining not only if a PAA is near an avenue of approach but also if the planned PAA is on permafrost which informs cannon crews the tools needed for emplacement. This could potentially allow units to bypass areas of unstable ground or muskeg. Furthermore, LiDAR technology could gauge the thickness of river ice, offering a more efficient travel



Skis are installed on an artillery piece during a 1987 Cold Regions Test Center Study on arctic mobility. These skis proved laborious to install, were ill-designed, and failed to significantly improve howitzer mobility. (Photo courtesy of the Cold Regions Test Center)

route capable of supporting the weight of both a prime mover and a howitzer, thereby avoiding the challenges of cross-country, over-the-snow movement.

Equipment like this is already available and can be procured through various channels including the Global Combat Support System–Army, GSA purchase card, and military interdepartmental purchase request. However, such purchases would also necessitate a purchase of a stockpile of replacement parts for maintenance and repair. Consequently, the Army should consider incorporating technologies like these into future modified tables of equipment and additional authorized lists. These lists should be tailored for units designated to operate in challenging environments characterized by variable and extreme terrain. Units selected for testing these new concepts should also receive dedicated funding specifically earmarked for testing and evaluation promising programs before new equipment fielding.

It is equally vital to consider lessons from our allies and historical experiences. The Arctic's characteristics, including its military mobility and operations challenges, have been constant even as the geopolitical landscape changes. Historically, dedicated effort and specialized training have been necessary to overcome these

challenges. Cold War literature and doctrine emphasized the need for artillery units to possess mobility comparable to the infantry they support.¹³ During that period, artillery units employed helicopters, specialized over-the-snow vehicles, and even skis for howitzers to adapt to the terrain. Learning from the past, current FA battalions are eager to continue to improve on previous efforts to increase the FA's Arctic mobility.

Today, our Arctic allies employ specialized equipment like cold-resistant tires, spades, and skis designed explicitly for extreme conditions. Acquisition paths for specialized items such as M119A3 skis and studded spades exist through mechanisms like the Foreign Procurement Test Process and the Army Combat Capabilities Development Command's Technical Information Exchange Agreement with countries like the United Kingdom. The FA battalions of the 11th Airborne Division should also explore these procurement avenues as they continue to innovate using existing resources. Doing so will enhance operational mobility and foster greater interoperability with allies. Therefore, moving forward, the Army must embrace cutting-edge technologies and time-tested solutions to meet the unique demands of Arctic warfare.

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This article has endeavored to thoroughly examine the challenges constraining the efficient deployment of artillery in the Arctic's severe conditions. It has evaluated ongoing technological and tactical advancements designed to mitigate these challenges. Moreover, it has put forth forward-looking solutions that have the potential to significantly advance the U.S. Army's capabilities in Arctic operations. Through these contributions, this article aimed to enrich discussions related to the evolving demands of contemporary military operations. ■

Notes

1. James C. McConville, *Regaining Arctic Dominance: The U.S. Army in the Arctic*, Chief of Staff Paper #3 (Washington, DC: Headquarters, Department of the Army, January 2021), https://www.army.mil/e2/downloads/rv7/about/2021_army_arctic_strategy.pdf.
2. *Ibid.*, 26.
3. Throughout this article, observations and performance estimates of equipment are derived from a systemic empirical approach, based on collective training exercises conducted over the past five years by multiple leaders across both field artillery battalions.
4. The commander's vision of the 1st Infantry Brigade, 11th Airborne Division, is to be the "world's premier Arctic Fighting Force, capable of seizing and holding key terrain and critical infrastructure where no one else can while simultaneously conducting theater support operations in the Arctic region and U.S. Indo-Pacific Command area of responsibility."
5. Army Techniques Publication (ATP) 3-90.97, *Mountain Warfare and Cold Weather Operations* (Washington, DC: U.S. Government Publishing Office [GPO], 2016), 1-8. The Army defines intense cold weather as between -5° and -25°F, and extreme cold weather as between -25° and -40°F.
6. "The U.S. Army's First Parachute Combat Assault," U.S. Army Airborne and Special Operations Museum, accessed 28 September 2023, <https://www.asomf.org/the-u-s-armys-first-parachute-combat-assault/>.
7. Joint Publication 3-18, *Joint Forcible Entry Operations* (Washington, DC: U.S. GPO, 2017), I-1.
8. Field Manual (FM) 3-99, *Airborne and Air Assault Operations* (Washington, DC: U.S. GPO, 2015), I-4.
9. Army Tactics and Techniques Publication 3-97.11, *Cold Region Operations* (Washington, DC: U.S. Government Printing Office, 2011), 6-2-6-3.
10. ATP 3-90.97, *Mountain Warfare and Cold Weather Operations* (Washington, DC: U.S. GPO, 2016), 4-1.
11. Training Circular 3-09.8, *Fire Support and Field Artillery Certifications* (Washington, DC: U.S. GPO, 2020).
12. The 2nd Battalion, 8th Field Artillery Regiment, will be the first active duty field artillery battalion to utilize the Joint Light Tactical Vehicle as a prime mover for the M119A3.
13. FM 31-71, *Northern Operations* (Washington, DC: U.S. Government Printing Office, 1971), 81, 97e.



U.S. Army paratroopers assigned to Chaos Troop, 1st Squadron, 40th Cavalry Regiment (Airborne), 4th Infantry Brigade Combat Team (Airborne) (BTC[A]), 25th Infantry Division (ID), prepare to assault their objective while conducting a joint field training exercise for Yudh Abhyas 21 at Joint Base Elmendorf-Richardson, Alaska, 28 October 2021. On 6 June 2022, the 4th Infantry BCT(A), 25th ID, was reflagged as 2nd BCT under the reactivated 11th Airborne Division as part of the U.S. Army's new arctic strategy. (Photo by Alejandro Peña, U.S. Air Force)

Assured Mobility in the Arctic

Lt. Col. Joshua P. Bost, U.S. Army

Lt. Col. Elizabeth A. Knox, U.S. Army

Chief Warrant Officer 2 Jomar R. Perez, U.S. Army

Armies, good or bad, trained or untrained, may find themselves in winter trying to carry on a dragged-out campaign, unwillingly practicing winter warfare.

—George K. Swinzow

With the publication of the *National Strategy for the Arctic Region* and the Army's Arctic strategy—titled *Regaining Arctic Dominance: The U.S. Army in the Arctic*—the 11th

Airborne Division was born with the mission “to not just survive but thrive in [extreme cold weather] and mountainous terrain.”¹ For the past eighteen months, the division has expanded training capacity across the state of Alaska, partnered with more cold region allies and partners, issued new extreme cold weather survivable gear and vehicles, and revamped training with a focus on fighting and winning in the Arctic. But what does that really mean?

The focus of the 11th Airborne Division is on operations in extreme cold weather and mountainous terrain. It is not limited by latitude (the Arctic is limited in scope to the area above the Arctic Circle [N 66°32']) but is rather a focus on operating in extreme conditions. The Army defines cold weather categories as wet cold (39°F to 20°F), dry cold (19°F to -4°F), intense cold (-5°F to -24°F), extreme cold (-25°F to -40°F), and hazardous cold (-40°F and below).² Enduring in sustained temperatures below -25° is the benchmark for the soldiers and leaders of the Army’s only Arctic division. At those temperatures, batteries fail in minutes, door handles snap off, and frostbite can occur within seconds. More importantly, the effects these temperatures

Lt. Col. Joshua P. Bost, U.S. Army, commands the 70th Brigade Engineer Battalion (Kodiaks), 1st Infantry Brigade Combat Team (Arctic), 11th Airborne Division at Fort Wainwright, Alaska. He holds a BA in history from Mississippi State University, an MPA from Webster University, and an MMAS from the Command and General Staff College. His assignments include two tours each to Iraq and Afghanistan, and operational assignments at Fort Wainwright, Alaska; Fort Drum, New York; Joint Base Lewis-McChord, Washington; and Camp H. M. Smith, Hawaii.

have on the development over time on cold regions provides

Lt. Col. Elizabeth A. Knox, U.S. Army, commands the 6th Brigade Engineer Battalion, 2nd Infantry Brigade Combat Team (Airborne), 11th Infantry Division, on Joint Base Elmendorf-Richardson, Alaska. She holds a BS from the U.S. Military Academy and an MA from Columbia University. Her previous assignments include both combat and construction engineer units, with tours to the Middle East in support of Operation Enduring Freedom I and II.

a terrain challenge that few across the Department of Defense have encountered.

Many leaders in the 11th Airborne Division are presented with case studies and leader development exercises centered on the experiences of the Finnish army in the Winter War of 1939. The Finns, undermanned and severely outgunned by the Russian army, managed to win numerous tactical victories against a far superior force using their knowledge of terrain and understanding of the effects of extreme cold weather. They capitalized on a culture of skiing proficiency and cold weather survival techniques to achieve success in both the offense and the defense. As the Army transforms to division-centric formations and multidomain operations, we must learn to apply these lessons from the past with modern capabilities in an expanding and contested subarctic environment.

For many, the ability to operate in extreme cold weather conditions seems outlandish and nearly impossible. Many tout the equipment limitations in these temperature ranges to focus operations only in temperate regions or in ideal temperatures. But the operational artist must be able to also understand

Chief Warrant Officer 2 Jomar R. Perez, U.S. Army, was recently assigned as a construction engineer technician with the 70th Brigade Engineer Battalion, Fort Wainwright, Alaska, where he led several testing and training exercises to validate the strengths and load capacities of snow and ice. He holds an associate degree in construction technology from the Community College of the Air Force. His previous assignments include Nevada, Japan, Korea, North Dakota, and numerous tours in the Middle East.

the opportunities presented by extreme cold weather and mountain terrain. As combat engineers, our focus is first and foremost on assured mobility, “a framework—of processes, actions, and capabilities—that assures the ability of a force to deploy, move, and maneuver where and when desired.”³ This study will focus on the macroeffects of terrain on movement and maneuver in extreme cold weather, the strengths and limitations of snow and ice on operations, and modern usage of airborne and air assault operations in subarctic and arctic environments.



Paratroopers with 6th Brigade Engineer Battalion, 4th Infantry Brigade Combat Team (Airborne) (BTC[A]), 25th Infantry Division (ID), use ground penetrating radar to check the thickness of ice as they prepare to construct a bridge across the Tanana River at Donnelly Training Area, Alaska, 20 January 2021, in preparation for exercise Arctic Warrior 21. On 6 June 2022, the 4th Infantry BCT(A), 25th ID, was reflagged as 2nd BCT under the reactivated 11th Airborne Division as part of the U.S. Army's new arctic strategy. (Photo by Staff Sgt. Alex Skripnichuk, U.S. Army)

Macroeffects of Terrain for Assured Mobility

For many of us, terrain analysis starts with building out the combined obstacle overlay. You lay out your map, place your overlay, and identify restricted and severely restricted terrain. Mountains are impassable, so mark those as severely restricted. Cliffs and steep slopes are undrivable, so mark those as restricted. Rivers, lakes, and other bodies of water clearly cannot support vehicles, so ignore those for now. Then start laying on your mobility corridors. Use roads and highways, some good flat terrain, farm fields, sparsely wooded areas, and the like. You can visualize it and understand the effects of terrain on your operations. As an engineer, you can mark it “Q.E.D.” and start emplacing your enemy forces and obstacles.

In the spring, summer, and fall, all of this might be true. What is green on a map may be green in reality.

Passable terrain may be passable, and restricted terrain likely remains so. But in arctic and subarctic regions, even in summer, the answer is complicated. The tundra is not as conducive to off-road vehicular travel. Muskeg, “a type of bog or wetland found in poorly drained areas underlain with permafrost,” abounds.⁴ A wrong path or a slip off the roadway can sink a joint light tactical vehicle to the frame. Most of the fighting at the front remains dismounted or limited to prepared roads and trails.

In the mountains, snow becomes unstable, but movement for formations of dismounts becomes more sustainable. Temperature swings and high winds can cause havoc for unprepared formations, but well-trained units can capitalize on mountain routes to maintain the element of surprise by moving stealthily below the tree line or over seemingly impassable terrain to sneak up on an unprepared enemy. For the

well-prepared, mountains represent key terrain for any type of operation.

Glaciers present, perhaps, one of the greatest advantages to mountain and cold weather operations. Glaciers are sheets of ice and rock that form over hundreds of years and can serve as a high-speed highway for the truly prepared. Crevasses, moraines, moulins, calving ice walls, and unstable footing present numerous dangers to dismounted troops, but a close study of glaciology along with well-trained troops means swift travel for miles over seemingly impassable terrain.

With the onset of winter, the effects of terrain change dramatically. Snow and ice cover the landscape. Rivers and lakes freeze, and in some of the most northern latitudes, snow builds up for months at a time without a thaw. Formerly passable terrain now becomes problematic. Snowplows, bulldozers, and front-end loaders are needed to open roads and trails. Dismounted movement off-road necessitates the use of skis and snowshoes. The disadvantages of extreme cold weather operations abound, but numerous opportunities present themselves that were not available during the more temperate months.

The 11th Airborne Division has eleven standing orders, and perhaps the hardest learned lesson is number four: "Roads, trails, and cutlines are the enemy's engagement areas; if it is easy, you are walking into a trap; if it is hard, you are winning."⁵ All of the seemingly unpassable terrain from your terrain analysis now becomes passable with just a little more work. Muskeg freezes and becomes more stable for use as an off-road corridor. Construction and clearing of combat roads and trails take significantly less work. Tracked vehicles optimized for movement on snow become workhorses. The small-unit support vehicle and the Army's new cold weather all-terrain vehicle are optimized for these conditions. Lightweight, tracked vehicles can carry personnel or equipment over virtually any snow-covered terrain. Similarly, snow machines (or snowmobiles in the lower forty-eight) provide additional sustainment capability for small units operating in the snow.

Excavating frozen ground in the winter to construct protective positions and antitank ditches is extremely challenging even with the strongest pieces of machinery. Digging below ground takes significant time, and exposes the soldiers to direct and indirect fires. Snow becomes the most readily available material in cold

climates, and with proper reinforcement and compaction, it can substitute for earthen materials to build trenches and berms for both survivability and man-made obstacles.

Rivers and lakes that served as natural obstacles in the summer freeze over and become high-speed avenues of approach in the winter. Alaska itself has more than 40 percent of the Nation's surface water resources including over twelve thousand rivers, three million lakes greater than five acres, and numerous creeks and ponds.⁶ Ice thicknesses as low as two inches provide enough support for an individual on skis, and as cold temperatures continue, ice thicknesses of ten inches and greater provide support for lightweight vehicles.⁷ As winter progresses, ice thicknesses in the interior of Alaska regularly approach thirty inches or more with some bodies of water supporting ice thicknesses above sixty inches.⁸ The load capacity of the ice sheet is primarily dependent on the weather, thickness, and quality. Reconnaissance engineers equipped with only ice augers, measuring tools, and knowledge can determine whether the frozen river or lake can support heavy equipment for military operations.

Strengths and Limitations of Snow and Ice

Over the past two years, the two brigade engineer battalions (BEB) in the 11th Airborne Division have conducted testing with local partners on the utility of snow and ice to military operations. 6th BEB in Joint Base Elmendorf-Richardson as part of 2nd Brigade (Airborne), 11th Airborne Division; and 70th BEB at Fort Wainwright as part of 1st Brigade (Arctic), 11th Airborne Division, have partnered with 1-52 General Support Aviation Battalion, 212th Rescue Squadron, Cold Region Research and Engineering Laboratory researchers, and the U.S. Coast Guard's Ice Rescue Team to capture data points, ensure the safety of operations, and ensure validity of testing.

6th BEB primarily focused their ice testing on standardizing procedures for airborne operations using frozen lakes. The engineers conducted the test by replicating the weight of a paratrooper and multiple resupply cargo drops. Loads were released from a hovering HH-60 Pave Hawk at specified altitudes to achieve the same rates of descent as the airborne soldier and equipment deploying from a fixed-wing aircraft. The testing

determined minimum ice thickness to successfully support aerial drops without breaking through frozen surfaces, codified data points for future reconnaissance teams, and provided a pathway for use of frozen bodies of water for drop zones.

70th BEB's ice testing focus has been on air mobility and air assault operations that included landings of

for risk-informed decisions and will considerably increase the generation of crossing site and landing zone candidates for a wide range of combat operations.

As operations in the winter continue for the 11th Airborne Division, engineers are focused on expanding ice testing for larger loads and different purposes. "Forward aviation combat engineering [is] employed

“ Forward aviation combat engineering [is] employed to shorten the distance between an aviation unit's objective areas, improve unit sustainment, reduce turnaround times, and enhance the availability and responsiveness of aviation assets. ”

UH-60 Black Hawks and a CH-47 Chinooks on a frozen lake. The engineers sling-loaded a joint light tactical vehicle, a small-unit support vehicle, and various cargo loads to simulate aerial insertions of troops and sustainment missions in areas with no conventional landing and drop zones available. The observed data points gathered during the exercise showed minimal deflection on the ice, illustrating that frozen surfaces are more than capable to receive rotary aircraft and sling-loaded equipment.

For ground-based operations, both battalions continued to refine concepts for reconnaissance and execution of ice bridges where the ice sheet may be too thin to support military vehicle traffic. The bridge is created through a process of pumping water from underneath an ice sheet back onto the top of the ice sheet, keeping the water in place with small snow berms, and allowing the ice to harden in lifts. Ice bridging is critical to ground mobility, especially early in the winter when ice thicknesses can be expected to be suboptimal for sustained river crossings.

Both engineer battalions continue to work with the Army Software Factory to develop an end-user application that will significantly ease the requirements for the ice reconnaissance process. The software is designed to reduce potential calculation errors by automating equations and enabling rapid information sharing through real-time geolocated data points for planners and decision-makers. Once fully developed, the product will provide ease of access to a wide array of data

to shorten the distance between an aviation unit's objective areas, improve unit sustainment, reduce turnaround times, and enhance the availability and responsiveness of aviation assets.”⁹ As partnerships continue during extreme cold weather, we expect to test forward arming and refueling point operations and utilize lakes and rivers for forward landing strips for lightweight aircraft and tactical unmanned aircraft systems.

In addition to ice testing, 70th BEB has begun a series of tests on the strengths and capabilities of snow. One of the primary problems for military operations in extreme cold is sustainment. It takes more fuel, more vehicles, and significantly more time to move materiel across the battlefield. One of the few things that arctic and subarctic environments have in abundance during the winter is snow. We have learned over time that snow is a reliable substitute for everything from antivehicle obstacles to fighting positions, to insulation for equipment. With the hard-packed, frozen ground and amount of snow cover, you have to build up, not dig down.

Snow-berming is one of the primary uses for engineer equipment during extreme cold weather operations. Berms can be tied into eleven-row obstacles or quickly emplaced for antivehicle obstacles kilometers at a time. They are quick and effective barriers, an extremely useful method for hiding vehicles, personnel, or equipment, and they provide a surprising amount of protection.



Soldiers from Company D, 70th Brigade Engineer Battalion, and the Army Test and Evaluation Center conduct snowshoe testing at the Cold Regions Test Center, Donnelly Training Area, Alaska, on 16 March 2023. (Photo courtesy of authors)

Snow itself is different in extreme cold weather. As mentioned above, the Army defines wet cold and dry cold by temperature ranges, but these ranges also affect the type of snow that a region can expect. In the wet cold zone, snow typically adheres to itself and is easily shaped. This is the region of cold where snow can be made into snowballs and snowmen. Snow tends to be drier and lacks adherence below 20°. In the interior of Alaska, most snow tends to be dry and powdery. Those of us who live and operate up here liken it to powdered sugar. It is harder to walk in than the “wet snow” typical of more southern locations and provides a much less stable surface for everything from snowshoes and skis to snow machines and small-unit support vehicles. Because of this, we began looking at whether the powdered snow of the subarctic provides the same level of protection as the more compactable wet snow.

Initial research was surprising. Even for subarctic, dry snow, in almost any act of compaction (shoveling, stomping, placing in a sandbag, snow blowing), essentially doubles the density of the snow.¹⁰ As a starting point, we knew that berming would at least double the

density of the snow we were working with. More recent research tested capabilities of snow as protection from direct-fire weapon systems, using modern munitions. The most recent study showed that compacted snow provided protection for every munition up to .50 caliber in less than 1.5 meters of snow. Perhaps most surprising is that first, the bond created by the snow particles causes the rounds to ricochet, and second, that the dry snow almost serves as a self-healing substance, filling in gaps after a round penetrated the snow.¹¹

70th BEB validated the protective capabilities of snow berms against small arms and machine gun rounds to effectively build hasty fighting positions using readily available tools and materials on the battlefield. The engineers tested the effectiveness of snow berms by firing 9 mm, 5.56 mm, 7.62 mm, and 12.7 mm (50 caliber) ammunition into berms of varying depths and ages (fresh snow, an eight-hour berm, and a berm that had been emplaced for three weeks). Bullet penetrations were recorded to determine the most effective construction method with the most stopping power. The test results confirmed that a four-and-one-half-foot

snow berm compacted every twelve to eighteen inches can stop 95 percent of the ammunition fired from multiple calibers of weapons. Testing will continue this winter with expansion into better understanding the protective capabilities of snow for indirect fire munitions and explosives.

Airborne and Air Assault Considerations in Extreme Cold

The 11th Airborne Division conducts a Joint Pacific Multinational Readiness Center exercise annually to certify its brigades under extreme cold conditions. In March 2023, the 2nd Brigade (Airborne) conducted an airborne assault into the Yukon Training Area before expanding the lodgment and attacking to seize division objectives twenty-five to thirty kilometers away. Airborne assaults and air assaults are difficult to synchronize and execute in even the best conditions. In extreme cold, problems are magnified tenfold. For the soldiers who operate in Alaska, “Rule of the North” number two comes into play over and over: time. In Alaska, everything takes three to four times longer than in the lower forty-eight.¹²

The bread and butter of airborne assaults for engineers is a progression of the light airfield repair package (LARP), field landing strip clearance, and airfield damage repair in sequence to get the engineer equipment to the drop zone, clear for explosive hazards, and then repair a landing strip suitable to marshal in follow-on forces. The engineers dominate the space needed to ensure the rest of the forces have a way into the fight.

The LARP is a series of air-droppable platforms to include blade assets, excavating capabilities, and repair kits needed to fix damages to the airfield so aircraft can air-land. Under normal conditions, these platforms can be dropped, recovered, and begin operation with the first crater repaired in a time standard of under eight hours. In extreme cold, this process looks entirely different. Under extended periods of darkness, with platforms plummeting into feet of snow, engineers must trudge through blankets of snow to even find the equipment before the derigging process can occur. Once the platforms have been found, the equipment then must be recovered out of the snow, derigged, and started under conditions that sometimes reach negative double digits.

Conducted simultaneously to the derigging of our LARP is our field landing strip clearance conducted by

our sapper platoons. This clearing process assesses the status of the drop zone, evaluates the dimensions of damage needing repair, and clears the area of hazards and explosives. This mission set under snowfall increases in time and differs significantly in resources needed. Snow and extreme cold both significantly affect mine detecting and ground penetrating radar to find foreign objects. With this, the team must be much more deliberate. The clearance team must be proficient on skis and snowshoes and develop marking systems specific for snow cover.

Once the field landing strip has been cleared of hazards, the LARP equipment begins the repairing process. Airfield repair under extreme cold conditions is night and day from temperate operations. Just clearing the snow to create routes can take upward of a day for multiple blade teams to execute. The engineer equipment itself faces unique challenges as well. Hydraulic line malfunctions and engine issues begin to interfere as temperatures plummet. Maintenance practices for our equipment must be stellar before heading into the fight. The field landing strip repair itself is also different. Normally these operations would be conducted with dirt, sand, or concrete; engineers use ice-crete (a mixture of snow, water, and gravel that matches the strength of concrete) and water to and make the surface suitable for landing.

Air assault operations are similarly challenging, including whiteout conditions caused by rotor wash, soldiers dropping into feet of snow, loss of space due to loading or sling-loading snow-capable tracked vehicles, and the inability to quickly move off of the “X.” As discussed above, though, extreme cold weather also opens previously unheard-of areas for helicopter landing zones. Rivers and lakes can be used for helicopter landing zones as well as drop zones for both people and equipment.

As with airborne operations, getting engineer equipment to the fight and sustaining it remains the biggest challenge for extreme cold weather air assaults. Lightweight excavators can be employed to quickly clear fighting positions. Bobcats can be used to quickly clear pads and routes for troop movement. Sappers with chainsaws and cutting equipment can quickly expand helicopter landing zones, create new ones, or fortify defensive positions. As mentioned previously, though, all things with moving parts require much more care in extreme cold weather.

Conclusion

The majority of soldiers in our Army have not experienced the weather effects of extreme cold, much less been required to execute military operations for sustained periods of time. But the likelihood of fighting in extreme cold remains as high now as it ever was. Russia, China, and North Korea all have climates that meet, if not exceed, those of interior Alaska. For the soldiers of the 11th Airborne Division, our job is to be ready: to fight and win in places no one else can go.

For combat engineers of the Arctic Angels Division, our focus on assured mobility has allowed us to expand our understanding of the risks and opportunities presented by extreme cold weather and mountainous terrain. The macroeffects of terrain provide many restrictions, but opportunities abound in the coldest regions on

earth if you understand the use of terrain in the winter. Snow and ice are barriers for some, but for enterprising engineers, they combine to increase usable terrain, lessen the strain on sustainment for class four, and provide significant protection capability if used properly. Airborne and air assault operations in subarctic and arctic environments have significant challenges, but the lack of mobility for road-bound vehicles makes both operations extremely necessary for operations in the subarctic.

To some, the conditions discussed here seem impossible to comprehend, but the Arctic Angels find ways to survive and thrive in these conditions. To paraphrase George K. Swinzow, you can't just choose not to fight a winter war, and sometimes you may be an unwilling participant—but extreme cold becomes “a strategic advantage to the trained, motivated combatant.”¹³ ■

Notes

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A paratrooper from 1st Squadron (Airborne), 40th Cavalry Regiment, and a 9th Assam Battalion soldier scale a climbing wall during interoperability training November 2022 at the Indian army's high altitude training area in Auli, India. Nanda Devi stands in the background at 25,643 feet. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment, public affairs representative)

Strategic Partnership in the Himalayan Mountains

Yudh Abhyas 2022

Lt. Col. Jake A. Hughes, U.S. Army

In November 2022, 1st Squadron (Airborne), 40th Cavalry Regiment, the “Denali Squadron,” and a contingent of the staff from 2nd Infantry Brigade Combat Team (Airborne), 11th Airborne Division (2/11 IBCT), deployed from Joint Base Elmendorf-Richardson to the Indian army’s high altitude training area in Auli, India, to conduct an eighteen-day bilateral training exercise—Exercise Yudh Abhyas 2022 (YA22). U.S. Army Pacific Command and the Indian army established Yudh Abhyas in 2004 as an annual bilateral exercise and has since executed eighteen iterations ranging in scope from a platoon-level field training exercise (FTX) to a battalion/squadron-level FTX that coincided with a brigade-level command post exercise. It has typically alternated host nations yearly, with U.S. Army Pacific Command hosting odd-numbered years and the Indian army hosting even-numbered years.¹ Of note, this exercise is not strictly an 11th Airborne Division mission; the 25th Infantry Division initially hosted it and subsequently the 7th Infantry Division.²

The Denali Squadron partnered with 9th Battalion of the Assam Regiment, nicknamed the “Nimble Ninth” or “9th Assam,” for this iteration of Yudh Abhyas. The 9th Assam Battalion specializes in training and fighting at high altitude, arguably the most challenging terrain on the planet. The Assam Regiment (self-named the “Rhinos”) of the Indian army has a long and gallant history throughout multiple conflicts. Its first battalion was raised in June 1941 to fight against the Japanese invasion of what is present-day Burma.

The regiment has grown since its inception to over twenty infantry battalions of varying focuses and specializations from all seven of the northeastern states of India.³

Strategic Significance of Yudh Abhyas

Yudh Abhyas’s strategic importance is clearly outlined in the National Defense Authorization Act of

2022, “To advance the shared objective of a free and open Indo-Pacific region through bilateral and multilateral engagements and participation in military exercises, expanded defense trade, and collaboration on humanitarian aid and disaster response.”⁴ The exercise is directly focused on broadening ties with India. At its inception, the Yudh Abhyas exercise provided a line of communication to a country that had previously been isolated from the global community. India’s strategic geographical position in the U.S. Indo-Pacific Command (USINDOPACOM) area of responsibility (AOR) provides a vital partner in the vicinity of our primary strategic threats—China, Russia, North Korea, and Iran. With a lack of a NATO-comparable alliance in the Pacific theater, Yudh Abhyas strengthens U.S. relations in the USINDOPACOM region, providing tangible efforts to enhance geopolitical and military relationships. This exercise also supports the larger framework of the Pacific Pathways mission by ensuring close military and geopolitical ties through bilateral cooperation, and it provides proof of interoperability concepts for future contingency and large-scale combat operations.⁵

Yudh Abhyas is one of many multinational exercises within the USINDOPACOM AOR, which comprises almost half of the earth’s surface and is home to more than half of the global population.⁶ As many of these nations have maritime interests and influence, many of these exercises have a maritime focus. Exercises such as Pacific Vanguard, involving naval forces from five nations and executed simultaneously with our land-based exercise, support several USINDOPACOM focus areas like allies, partners, and exercises.⁷

Pacing Threat Reaction

China’s reaction to YA22, which occurred within one hundred kilometers of the Line of Actual Control (a demarcation line between China and India that delineates areas in the disputed border region that are actually controlled by the two parties in lieu of an actual agreed-upon border), is tangible proof of the impact a single cavalry squadron can have in a strategic partnership in the USINDOPACOM AOR. China’s Ministry of National Defense spokesperson, Zhao Lijian, formally objected to the exercise, stating this training event “violated the spirit of relevant agreements signed by China and India in 1993 and 1996, and

Lt. Col. Jacob Hughes, U.S. Army, commands 1st Squadron (Airborne), 40th Cavalry Regiment. He holds a BS from the University of Illinois and an MS from Marine Corps University. His assignments include Stryker, Ranger, light, and airborne formations; and he has deployed in support of Operations Iraqi Freedom, Enduring Freedom, and Freedom’s Sentinel.



1st Squadron (Airborne), 40th Cavalry Regiment, paratroopers and 9th Assam Battalion soldiers conduct an acclimatization training foot march during the first phase of Exercise Yudh Abhyas 2022 in Auli, India. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment)

does not help build bilateral trust.”⁸ In response, the Indian government dismissed China’s opposition of the exercise, which further supports our endeavor to increase multinational partner ties and reinforces the importance of the United States as the partner of choice in the region.⁹

11th Airborne Division in the Indo-Pacific

The “Arctic Angels” continue to prove their capability to operate in the Arctic, mountainous terrain, and other extreme cold-weather areas while maintaining readiness for global deployments within the USINDOPACOM AOR. To attain these diverse objectives, the 11th Airborne Division (Arctic) concentrates on “three distinct sectors of development: Arctic capability, readiness for large-scale combat operations, and interoperability with allies and partners.”¹⁰ This exercise provided the opportunity to prove that Arctic Angel paratroopers can deploy, fight, and win in any environment within the theater.

Exercise Design

YA22 was executed in three phases. The first phase included deployment and acclimatization, which set conditions for the physical and mental rigors of the training exercise. Phase two consisted of interoperability training that provided the foundation from which the combined battalion would draw upon to complete the FTX successfully. The final phase, the FTX, was the culminating event that validated the tactical acumen and interoperability of four U.S./Indian army combined companies.

Phase I: Deployment and Acclimatization

Acclimatization is critical to preparing to fight and win in a high-altitude environment. Fitness is a great equalizer, and the squadron set conditions for this deployment by conducting an intense regimen of physical training in the mountains surrounding Joint Base Elmendorf-Richardson. Denali paratroopers focused on long-distance movements on foot and snowshoes with

full combat equipment twice a week for four months leading up to the exercise and incorporated weekly lower-body strength workouts. This regimen paid huge dividends when facing the terrain at the high-altitude training site in the Himalayas.

Over the course of a three-day period, Denali paratroopers of the 11th Airborne Division deployed from Joint Base Elmendorf-Richardson at an elevation just above sea level to the training site in Auli, India, at 9,500 feet above sea level. Upon their arrival, the commander of the 9th Assam Regiment, Brig. Gen. Pankaj Verma, requested that all 11th Airborne Division paratroopers complete a strict three-phase, four-day acclimatization period. The Indian army utilizes this four-day acclimatization model prior to conducting any training above 2,500 meters (\approx 8,200 feet).

Phase Ia of acclimatization encompassed two days, during which the squadron was restricted to limited movement around the camp with no vigorous activity or exercise. Phase Ib, the intermediate phase, started on the third day. Vigorous activity was still restricted, but troopers were encouraged to move around the camp freely at their own pace. Phase Ic, the run phase, allowed the troopers to conduct physical fitness training and led into the first day of tactical training for the exercise.

During the acclimatization period, the Denali Squadron and 2/11 IBCCT staff members conducted initial integration of forces; shared tactics, techniques, and procedures (TTP) for operating in high altitude and extreme cold weather; and participated in the YA22 opening ceremony. Officers of the 9th Assam led lectures on operations in high-altitude areas (HAA), focusing primarily on physiological aspects of acclimatization, identification and treatment of high-altitude illnesses, identification and treatment of cold weather injuries, and survivability in HAAs and extreme cold weather environments. The Indian army and U.S. Army use very similar identification techniques and treatments for cold weather injuries, but the Indian army focuses more heavily on high-altitude illnesses. The primary illnesses that impact operations in HAAs include altitude illness syndromes (i.e., acute mountain sickness, which occurs at altitudes greater than eight thousand feet; high-altitude pulmonary edema; and high-altitude cerebral edema) and high-altitude pulmonary hypertension.¹¹

In addition to high-altitude illnesses, the Indian army officers provided a combination of lectures, demonstrations, and practical exercises on survivability in HAA. This training focused on avalanche risk identification, rescue techniques, and maneuvering on glaciers. These specialties allow the Indian army to safely traverse the mountainous terrain in the Himalayas.

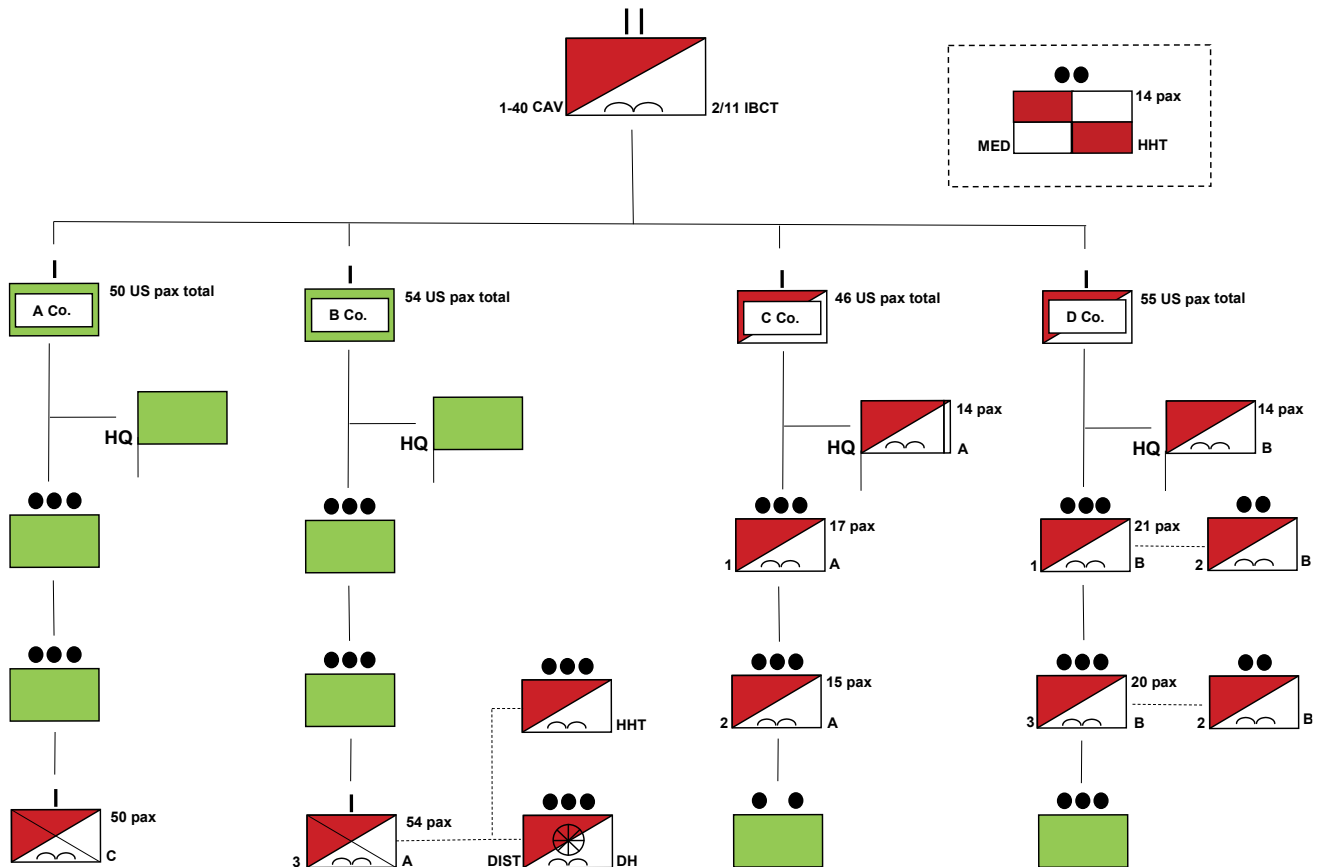
The acclimatization period culminated as the 9th Assam soldiers and Denali paratroopers conducted the opening ceremony. The Indian army's band learned and played the U.S. national anthem to express their respect for the partnership. The opening ceremony focused on the history of the exercise and esprit de corps between the Denali Squadron and the 9th Assam, and it ended with the initial integration of the companies to prepare for the next phase, interoperability.

Phase II: Interoperability Training

The interoperability phase of the exercise began by establishing the combined battalion task organization (see figure 1). The partnered battalion composition included 234 paratroopers across Alpha, Bravo, and Charlie Troops of the Denali Squadron and 325 soldiers from the 9th Assam Battalion. These elements merged to create four companies and established the foundation for interoperability for the duration of the exercise. The company task organization structure was created to integrate infantry and reconnaissance capabilities into each maneuver unit. It also facilitated our ability to share TTPs at the individual and company levels easily. A secondary benefit was the natural cohesion built between Denali troopers and 9th Assam forces.

Alpha and Bravo Companies were commanded by company commanders from the 9th Assam who hold the rank of major. The composition of these companies included two 9th Assam infantry platoons and one U.S. dismounted infantry reconnaissance platoon from Charlie Troop. U.S. captains commanded Charlie and Delta Companies and were each comprised of one organic reconnaissance troop and one 9th Assam infantry platoon. To assist with command and control and to also serve as liaisons, the 9th Assam assigned captains to C and D Companies as each unit's second-in-command.

The task organization of the combined battalion worked well as the unique capabilities of



(Figure by author)

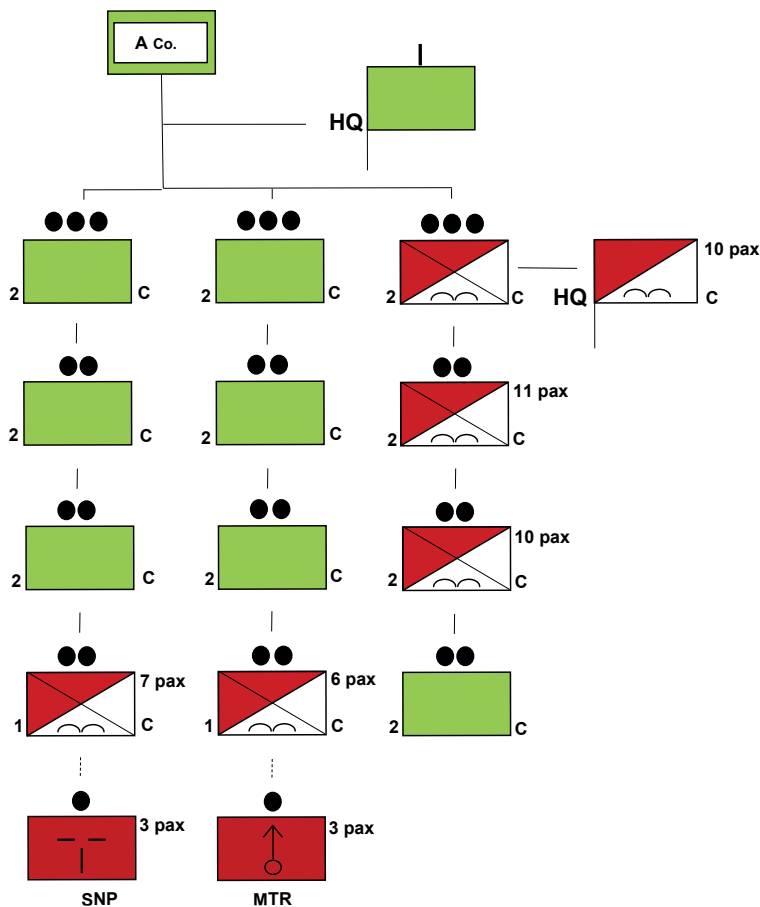
Figure 1. Yudh Abhyas 2022 Combined Battalion Task Organization Chart

reconnaissance and infantry elements within each company complemented each other, and they identified and worked through a language barrier between Denali troopers and 9th Assam soldiers, a challenge that is often inherent to combined operations. Very few enlisted 9th Assam soldiers or junior officers spoke English; likewise, very few U.S. paratroopers and leaders spoke Hindi. However, the units were able to mitigate this through the phenomenal work of the 9th Assam company commanders and second-in-command leaders as they provided critical interpreter capabilities that further enabled mission success.

During the interoperability phase, the companies executed tactical training across three broad categories: tactics, equipment, and mountaineering. By focusing the training on these specific aspects of combat capabilities, both units were afforded the opportunity to learn from one another and share TTPs. Each training event began with a detailed and well-organized instruction

block and demonstration given by either a 9th Assam or a Denali subject-matter expert. After the block of instruction on preferred tactics, the group discussed notable similarities and differences between the units' respective TTPs and then conducted practical exercises to enhance the experience. This method of teaching and learning allowed the units to grow together as combined companies and established the baseline for how they would execute operations during the FTX portion of the exercise.

Tactics training modules. The units executed five tactics training module lanes during the interoperability phase. The Village Clearing module helped both organizations better understand planning considerations of seizing or securing objectives within a built-up area, command and control of a raid, movement in urban terrain, and room clearing. Kill Box—or what the U.S. Army refers to as Battle Drill 6, Enter and Clear a Room—helped us share TTPs on how to



(Figure by author)

Figure 2. Yudh Abhyas 2022 Company A Task Organization Chart

clear buildings of suspected hostile forces, the special equipment required, and the roles and responsibilities of each member of the squad and platoon. The Jungle Lane demonstrated the difficulties associated with small-unit operations within densely vegetated rainforest or jungle. This two-hundred-meter lane, in essence, was a range that required teams to maneuver uphill while identifying and engaging static and moving enemy targets with paintball ammunition rounds. The Trap Lane was another jungle-specific lane that helped demonstrate how the enemy can use intricate trap systems during guerilla warfare to attrit enemy forces without decisive engagement. U.S. forces experienced many of the same traps—which include punji pits, swinging logs attached to trip wires, and blow darts tied to pressure mechanisms—during the Vietnam War. The Counter-Improvised Explosive Device Tactical

Lane specifically intended to compare Indian versus U.S. Army TTPs. The Indian army began by staging a specific scenario that involved the approach of a suspected vehicle-borne improvised explosive device and the required steps of clearing said threat. Indian and U.S. soldiers demonstrated their preferred methods of clearing such threats from road systems.

Equipment training modules. To gain a better appreciation of each unit's tactical employment of weapons and capabilities, the units executed three equipment-focused training modules during the interoperability phase. The Unmanned Aircraft System (UAS) and Counter-UAS Module enable the combined force to observe and train with one another's assigned UAS, share capabilities, and discuss preferred methods of countering enemy UAS threats. The Weapons Training Module included a capability overview of each unit's assigned weapon systems from individual weapons to crew-served weapon systems as well as hands-on live-fire training at a range complex. The Equipment Display Module focused on demonstrations of

special items of mission essential equipment to include missile systems and long-range acquisition optics. Hands-on training followed the demonstrations.

Mountaineering training modules. To further enable successful execution of operations during the FTX, the units completed several military mountaineering lanes. The rock-climbing lanes were separated between natural and artificial rock walls. Indian army mountaineering experts received support from U.S. mountaineers to provide training to all personnel from both nations. Soldiers rappelled from fifty-foot towers, climbed artificial rock walls, zip-lined across natural chasms, and experimented with different descent techniques.

In addition to the interoperability modules, each morning, the companies conducted a physical training regimen together, which enhanced cohesiveness



1st Squadron (Airborne), 40th Cavalry Regiment, paratroopers and 9th Assam soldiers conduct a familiarization fire with the M240 Medium Machine Gun during the interoperability phase of Exercise Yudh Abhyas 2022 in Auli, India. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment)

and esprit de corps to set conditions for the upcoming FTX. These physical training events were wide-ranging and included yoga, cardiovascular endurance training, strength training, and competitive sports.

Phase III: FTX Execution

The FTX phase of the exercise employed the four companies across a broad geographic area around the high-altitude training area. The scenario included a wide range of tactical mission tasks to include establishing a patrol base, conducting link-up procedures, conducting a passage of lines, conducting a zone reconnaissance, conducting a raid, and conducting humanitarian and disaster relief operations.

C Company initiated the FTX by infiltrating into the training area dismounted and maneuvering north of Auli to establish a temporary operating base (TOB, or patrol base). C Company established security, and A Company maneuvered dismounted into the area of operations, conducted link-up procedures and a forward passage of lines through C Company, and moved

into the TOB. This allowed them to conduct troop leading procedures, precombat checks, and precombat inspections to set conditions for initiating movement to execute a raid on an objective that housed a high-value target. During the raid, the high-value target and several suspected accomplices exfiltrated the objective area and maneuvered to another village.

C Company displaced and maneuvered to an alternate location to establish another TOB and prepared for a zone reconnaissance mission in support of B Company. C Company's zone reconnaissance operation included scouting routes to facilitate unrestricted maneuver for B Company into their objective area and establishing three observation posts along a ridgeline that overlooked B Company's objective. C Company employed both U.S. and Indian high-powered optics and targeting devices to provide overwatch and identify personnel in the village. The company collected priority intelligence on the objective and communicated it to the combined battalion tactical operations center to drive the decision-making process to commit B



A 1st Squadron (Airborne), 40th Cavalry Regiment, paratrooper and a 9th Assam Battalion soldier traverse a rope bridge that was constructed to replace a simulated bridge destroyed by flooding during the humanitarian relief mission of the field training exercise phase of Exercise Yudh Abhyas 2022 in Auli, India. (Photo by Capt. Tim Cerruti, 1st Squadron [Airborne], 40th Cavalry Regiment)

Company's cordon and search of the objective village. B Company subsequently conducted a cordon and search of the objective village and captured the high-value target, concluding the direct-action portion of the FTX.

While A, B, and C Companies executed their respective direct-action missions, D Company concurrently executed an out-of-sector humanitarian and disaster relief mission. The scenario for this phase of the FTX was drawn from a real-world event in 2021 during which a valley within Uttarakhand was suddenly and catastrophically flooded when an avalanche dropped twenty-seven million cubic meters of rock and glacier ice from the nearby Ronti Mountain, causing a dam to fail and resulting in over two hundred people dead or missing.¹² D Company's mission tasks included search-and-rescue procedures in mountainous terrain,

command and control, casualty care, casualty evacuation, and battle tracking. D Company established a command post and Role 1 medical center and embedded mountaineers at points of high terrain that made manual traversing impossible. One site involved packaging casualties into a Skedco litter and sending them on a zip line across a canyon, three hundred feet above a river. Another site focused on the assisted lowering of a litter patient in a Skedco supported by two mountaineers. Reports were given directly to the company commander, who documented each casualty received in order to provide information to displaced families and to higher headquarters. The FTX culminated with a combined after action review in which each company shared lessons learned and highlighted their successes during the mission.

Lessons Learned

Troopers of the Denali Squadron and the soldiers of the 9th Assam Regiment left YA22 more confident, competent, and capable of executing their assigned missions at home and abroad. We found that language barriers do not constrain unit cohesion, it is built upon crucible-like training in harsh environments with a single mind toward completing the mission. The most

significant lesson learned is that the acclimatization period is crucial to mission success for all military operations in HAA. These operations require intense preparation, a rigid acclimatization process, and multiple years of experience to build the expertise necessary to thrive in the environment. Exercise YA22 proved that the Denali Squadron is fully prepared to deploy, fight, and win in any environment across the INDOPACOM AOR. ■

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Military Review Remembers Lt. Gen. Julius W. Becton Jr.

Lt. Gen. (ret.) Julius W. Becton Jr., 97, formerly of Bryn Mawr, Pennsylvania, died 28 November 2023 at the Fairfax retirement community in Fort Belvoir, Virginia.

Entering service amidst the challenges of a segregated society and military during World War II, he became a groundbreaking military officer. He served as a second lieutenant in 1945 with the all-Black 93rd Infantry Division in the Pacific and in 1946 was transferred to the Army Reserve. Reentering active service in 1948, he served with great distinction over the next thirty-five years, leading troops in combat in Korea and Vietnam, and later serving in key roles during the Cold War. His major assignments included commanding the 1st Cavalry Division, the Army Operations Test and Evaluation Agency, and VII Corps in Germany during the Cold War. His final assignment before retiring from the Army in 1983 was deputy commander of the Army Training and Doctrine Command.

After retirement, he served as director of the Office of Foreign Disaster Assistance in the U.S. Agency for International Development from 1984 to 1985. In 1985, he was appointed by President Ronald Reagan to be director of the Federal Emergency Management Agency—the first African-American to hold that position.

Subsequently, he served as president of Prairie View A&M University (his alma mater) and the chief executive officer of public schools in Washington, D.C. He also served as a corporate executive and was a distinguished author. ■



Lt. Gen., Julius W. Becton Jr. (Photo courtesy of the U.S. Army via Wikimedia Commons)

COMMENTARY



A Prose Elegy on the Death of Freedom of Thought

Glenn Corn

Whoever would overthrow the Liberty of a Nation, must begin by subduing the Freedom of Speech.

—Benjamin Franklin

We hear a lot today about cancel culture. Most of us have heard horrible stories about innocent people accused of crimes or unacceptable indiscretions requiring public humiliation and social isolation. Public figures, officials, or even a colleague in the office can be suddenly labeled as guilty by the court of public opinion for some uninvestigated allegation or unsubstantiated suspicion of a misdeed and given no chance to prove their innocence to a rumor-hungry mob that is either not capable of thinking critically or unwilling to take the time to research facts. Judgments passed as quickly as a tweet can be written, or condemnation can be posted. Souls can be crushed. Careers can be ended. Lives can be destroyed. Freedom of thought and expression can be threatened.

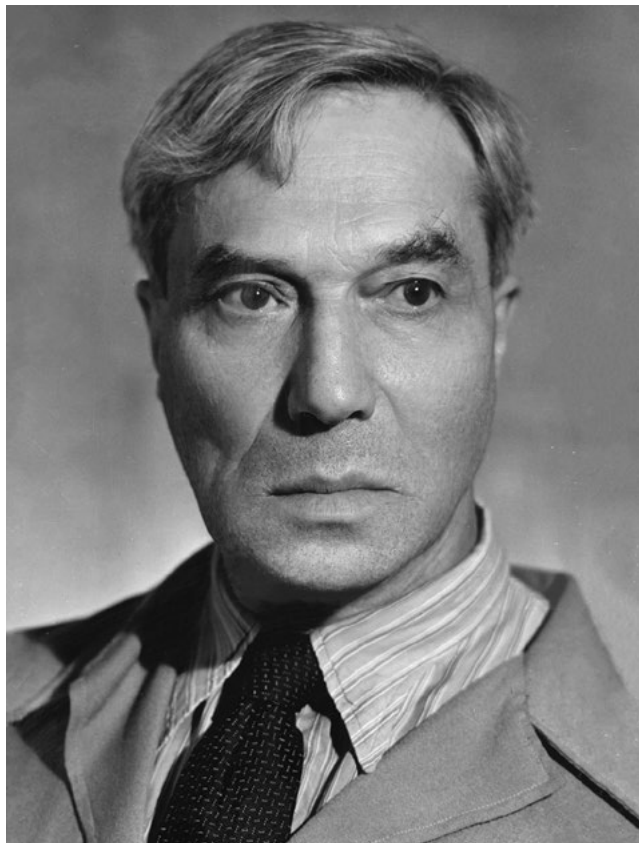
This is a terrible trend in today's America—the phenomenon of character assassination and canceling others—but while this reality may appear to be something new to us, it is not.

While most Americans are probably not very familiar with all of his literary work, many have heard the name Boris Pasternak in connection with the Soviet poet and writer's incredible novel *Doctor Zhivago*, thanks to the award-winning film adaptation of the novel that is considered a classic of American cinema.¹ Some may also remember that Pasternak was the first Soviet writer in history, and the second Russian, to win the

Nobel Prize in Literature after his novel was smuggled out of the Soviet Union and published in the West.²

While *Doctor Zhivago* brought Pasternak fame and honor outside of the Soviet Union, it brought him great misfortune inside of that empire. Prior to writing the novel, Pasternak was lauded by the Communist Party and his fellow writers as a hero and great talent, and, after the death of Soviet poet Vladimir Mayakovsky, who was known as the “Poet of the Revolution,” it was Pasternak who was selected to take Mayakovsky's esteemed place in the Soviet system. With that prestige came privileges unknown to ordinary Soviet citizens: access to otherwise hard-to-acquire products, the privilege of living in his own home instead of a communal apartment, and other allowances most Soviets could only dream about. And, most importantly for an intellectual like Pasternak, it allowed him to meet with friends and fellow intellectuals and share his thoughts and views on issues most Soviet citizens were too afraid to speak about given the looming threat to freedom of expression emanating from Joseph Stalin's secret police.

Interestingly, when Pasternak began to write *Doctor Zhivago*, he understood that the novel could anger some Soviet officials and might not be welcomed by the country's all-powerful censors and Communist Party apparatchiks. He understood that if he put his thoughts on paper and expressed ideas or sentiments that were not welcomed or approved by the authorities, he risked losing his special place in Soviet society and the privileges he enjoyed. While many lesser people might have chosen to suppress the ideas inside and opt to protect the material benefits that his special status gave him,



Boris Pasternak, 1959 (Photo courtesy of Wikimedia Commons)

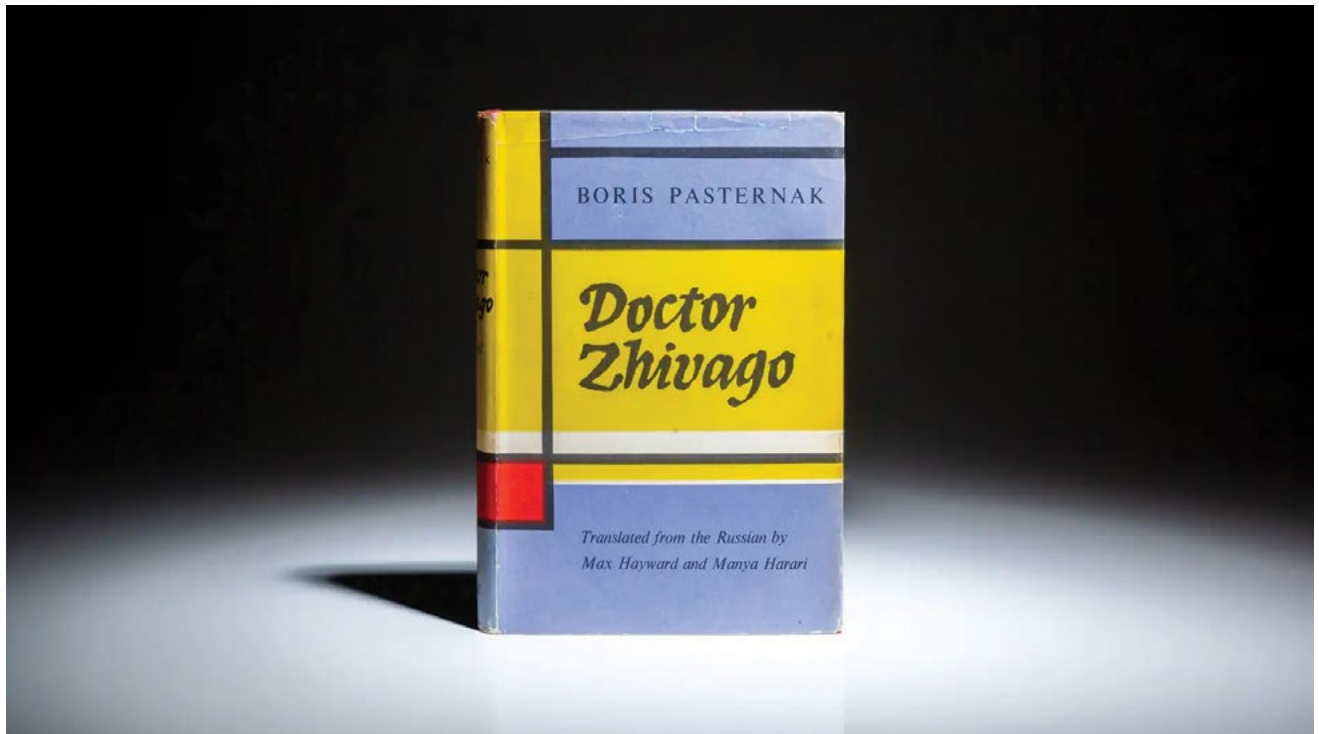
Pasternak, as an artist, could not accept the idea of self-censorship. He understood that he had a story that he needed to tell, a complicated story of life in a time of great trouble and upheaval in Russia set against the backdrop of revolution, civil war, death, destruction, and struggle. Pasternak did not write his novel to criticize or judge anyone—not the communists, not the monarchists, not the “reds” or the “whites.” He wrote it to share his feelings about love and beauty existing even during the most troubled of times. In telling this story, he refused to whitewash the backdrop, the reality of what he had personally experienced during this terrible period in Russian and Soviet history. And because he refused to censor his thoughts or deny himself the right to self-expression, he paid a terrible price.

Long before cancellation was socially prevalent, the completion of Pasternak’s novel resulted in his cancellation. The Soviet authorities and their lackeys in the Union of Soviet Writers did not appreciate Pasternak’s novel and the fact that the writer refused to present “Soviet reality” as something grand and

spectacular. They accused him of writing an anticommunist novel that undermined the image of the USSR. Understanding that the Soviet bureaucracy might never allow his novel to be published in the Soviet Union, Pasternak took a second courageous step and allowed a copy of his manuscript to be smuggled out of the country to Europe, where it was eventually published in France. For his great artistic work, Pasternak was awarded the Nobel Prize in Literature, which of course only angered the Soviet authorities, who labeled Pasternak an “enemy of the people” and quickly moved to cancel him in the eyes of his own people.

While Ivan Bunin was forced into external exile by the Soviet system, Pasternak was forced into spiritual exile, stuck inside of the USSR. The once-lauded Soviet writer and poet was placed under surveillance, ostracized, and very sadly, quickly shunned by many of those who earlier called themselves his friends and rushed to benefit from his previous privileged status. After his cancellation by the Soviet Union, Pasternak lived the remaining few years of his life in obscurity, isolated and alone, unable to publish any more of his work, and surviving primarily by translating foreign literary works into Russian. While he was not executed in the basement of the infamous KGB headquarters in Central Moscow or shipped off to the Gulag, spiritually he was executed, and according to many who knew him, he died a broken man who had been abandoned by

Glenn Corn is a founder partner of Varyag LLC, an adjunct professor at the Institute of World Politics, and a former senior executive in the Central Intelligence Agency who worked for thirty-four years in the U.S. intelligence, defense, and foreign affairs communities. He spent over twenty years serving overseas, including in Russia, Türkiye, Central Asia, South Asia, and the Middle East; and he served as the U.S. president’s senior representative on intelligence and security issues. He has a bachelor’s degree in Russian studies from Hofstra University and a master’s degree in Russian language and literature from American University. He is also a graduate of the U.S. Army Russian Institute. Corn speaks Russian and Turkish and has also studied and worked in the Arabic, Uzbek, and Azeri languages during his career.



Cover of *Doctor Zhivago* (Photo courtesy of First Edition Rare Books)

his friends and his country only because he dared to express himself in writing.

Of course, as is often the case, after Pasternak was canceled, the most senior official in the Soviet Union's hierarchy, Communist Party General Secretary Nikita Khrushchev, decided to actually read *Doctor Zhivago*. His conclusion? Khrushchev found nothing in the novel he considered to be anti-Soviet and, instead, is said to have opined that Pasternak had written a great novel. But by the time Khrushchev read Pasternak's novel, it was too late to undo the damage done to Pasternak and to Soviet society.

Fortunately, you may be thinking, that type of horrible behavior and treatment of a great figure could never happen in the United States. The Soviet Union—Russia, maybe—but not in the United States. Yet, sadly, America has its own terrible example of cancellation from the same period of history. As Pasternak was destroyed in the USSR, an American scientist and thinker, Dr. Robert Oppenheimer, was forced to suffer his own public and personal humiliation at the hands of jealous and petty individuals who did not appreciate the fact that Oppenheimer dared to have his own ideas and was courageous enough to express them.

Oppenheimer entered the 1950s as a hero in the eyes of the American public. He was a brilliant scientist and capable organizer who was credited with driving the scientific aspects of research on the Manhattan Project, which led to the United States as the first country in the world to create an atomic bomb. At the time, during the Second World War, being the first to attain such a capability was an incredibly significant achievement given the threat the world faced from Nazi Germany of reversing the course of the war and imposing fascist ideology on others. And even after the Nazis were defeated, having an atomic capability forced the expansionist Stalin to think twice about trying to force Soviet rule on other countries. But like Pasternak, Oppenheimer would pay a significant price for saying what he believed and not conforming to the views of others—as we like to say today, “for speaking truth to power.”

In Oppenheimer's case, he did not agree with the views of a powerful Washington insider, German-born American political philosopher Lewis Strauss. Oppenheimer refused to go along with Strauss's views on important issues related to nuclear and scientific policy, and as a result, Strauss exploited his influence within the U.S. government to organize a vicious

character assassination of Oppenheimer that resulted in the “father of the atomic bomb” having his security clearances stripped and labeled a Soviet spy. Much like Pasternak, Oppenheimer was canceled by his detractors. Oppenheimer had his rights violated by Strauss’s allies inside of the U.S. government and was the target of a fabricated case against him that called into question Oppenheimer’s loyalty to the United States and his suitability.

While some who were aware of Strauss’s manipulation of the system and his lies about Oppenheimer eventually had the courage to speak up, it was only after the brilliant scientist’s clearances were revoked and his role in any future discussion of nuclear policy in the United States was ended. Long after Oppenheimer had passed away, in the 1990s, the Russian Foreign Intelligence Service opened the archives of the Soviet-era intelligence service and revealed that the Soviets had never recruited Oppenheimer, nor had he shared sensitive information with Moscow. This information was soon verified by the Federal Bureau of Investigation, which also announced that it had never collected any information that supported the allegation that Oppenheimer had betrayed the United States. Like Pasternak, Oppenheimer’s name was eventually cleared in the court of public opinion, but only after incredible moral and spiritual damage had been done to Oppenheimer and the United States.

Sadly, the blockbuster film about Oppenheimer’s life and personal struggle was released at a time when too many Americans are having to suffer from the phenomenon that is commonly referred to as cancel culture.³ In recent years, too many Americans have been targeted by political opponents, jealous competitors, or just overly emotional and poorly educated individuals or groups who are quick to pass judgment and condemn others without taking the time to collect and research facts and demand credible evidence of wrongdoing by the target of accusations. We know from the cases of Pasternak and Oppenheimer that character assassination is not a new weapon for the human species, but today, technology has made it possible to disseminate lies or distortions to large audiences with little real effort. The quality of U.S. education is declining, and with it, the ability of Americans to think critically. This has led to a dangerously high number of people having the characters assailed,



J. Robert Oppenheimer, 1944 (Photo courtesy of the U.S. Department of Energy)

reputations damaged, and professional and personal lives ruined. This trend is not only unfair to those unjustly targeted, but it is also extremely unhealthy given the fear it is creating among a large portion of the population, leaving too many Americans afraid to express their views or feelings freely.

The tragedy for everyone in the stories of Pasternak and Oppenheimer is that after they were subjected to character assassination, they could no longer continue to contribute more of the amazing things they had produced earlier in their lives. The world was denied their original ideas and unique perspectives. Unfortunately, this tragedy continues today. How many original thoughts or concepts are stifled by the oppressive environment that is created when people are too afraid to speak their minds or risk putting their thoughts down in writing and sharing them? Intellectually, emotionally, and psychologically, what is the cost on our society and future when ideas are suppressed and free speech crushed, not by some all-powerful secret police but

by an aggressive group of fellow citizens who refuse to accept that everyone has a right to think for themselves and disagree with their beliefs? How many young people today sit in college classes and subject themselves to self-censorship for fear of ostracism or sideline by their professors, teachers, and fellow students who feel that they have a right to express their own views but will not tolerate anyone expressing contrarian views? How competitive will the United States remain as a country if we continue to dissuade creativity and alternative expression?

Oppenheimer and his colleagues in the Manhattan Project beat their German competitors in the race to develop the atomic bomb not because they were smarter or better educated but because they were operating in a country that, at the time, encouraged the free exchange of ideas and promoted creativity and innovation. Diversity of thought, freedom of expression, and the encouragement of innovative thinking were key elements in the story of America's success, and these traditions are critical to the future of our country. Repression of thought and the silencing of voices is a far greater threat to our country today than the threat posed by any foreign nation. Too many people in the United States today think that they have the right to shout down or silence those who share views that they do not agree with, and they are allowed to get away with this type of uncivil behavior. Too many use the same tactics used by Oppenheimer's and Pasternak's opponents to silence alternative views.

During my career serving the United States, I spent many years working in countries where citizens who dared to openly express views that were not accepted by their governments could have serious consequences. Those who wrote anything that was not considered acceptable by a regime could face a tragic fate. In these countries, people were intellectually and spiritually terrorized by their government. However, in today's America, it is not the government that is terrorizing its citizens; the citizens themselves are the source of their own terror. Citizens are attacking each other and stifling free speech and artistic expression through a form of mob censorship. They are denying each other a key element of liberty that was once highly valued by Americans, a freedom Americans fought for and sacrificed their lives to defend.

Maybe, before we rush to judge someone accused of some indiscretion in the news or targeted with unsubstantiated allegations in social media, we should take the time to investigate the source of the allegations, collect facts, and control the temptation to join others who criticize and judge. If we do that, maybe the future Oppenheimers and Pasternaks will never have to suffer unjust and unwarranted humiliation and belittlement. And, next time anyone of us sees another trying to silence, marginalize, or sideline someone for the simple crime of thinking differently than the crowd, we should remember the following quote by Benjamin Franklin: "They who give up essential Liberty, to obtain a little temporary Safety, deserve neither Liberty nor Safety."⁴ ■

Notes

Epigraph. Benjamin Franklin, "Silence Dogood, no. 8, 9 July 1722," Founders Online, accessed 12 December 2023, <https://founders.archives.gov/documents/Franklin/01-01-02-0015>, first published in *The New-England Courant*, 9 July 1722.

1. Boris Pasternak, *Doctor Zhivago*, trans. Manya Harari and Max Hayward (New York: Pantheon Books, 1991); *Doctor Zhivago*, directed by David Lean, screenplay by Robert Bolt (Beverly Hills, CA: Metro-Goldwyn-Mayer, 1965).

2. The first Russian writer to win the Nobel Prize in Literature was Ivan Bunin, another incredibly talented Russian-born writer who was forced to flee Soviet Russia during the Russian Civil War because of his well-placed disgust for the Bolsheviks and the threat they presented to freedom of speech and expression.

3. *Oppenheimer*, directed by Christopher Nolan (Universal City, CA: Universal Pictures, 2023). *Oppenheimer* is a major biographical feature film that explores events in the life of J. Robert Oppenheimer, the American theoretical physicist credited with his role during World War II for providing the scientific direction and oversight of the process that resulted in the development of the atomic bomb, the use of which many assert led directly to the final capitulation of Japan.

4. Benjamin Franklin, "Pennsylvania Assembly: Reply to the Governor, 11 November 1755," Founders Online, accessed 12 December 2023, <https://founders.archives.gov/documents/Franklin/01-06-02-0107>, first published in *Votes and Proceedings of the House of Representatives, 1755–1756* (Philadelphia, 1756), 19–21.

Medal of Honor

Capt. Larry L. Taylor

Capt. Larry L. Taylor was awarded the Medal of Honor for his actions on 18 June 1968 near the village of Ap Go Cong in Binh Dương Province, Republic of Vietnam. Then a first lieutenant, Taylor was a Cobra attack helicopter gunship pilot on a nighttime mission to provide aerial fire support to a four-man long-range reconnaissance patrol (LRRP) team surrounded and taking fire from a much larger Viet Cong Force.

After locating the team, Taylor and his wingman began low-level attack runs on the enemy, taking intense fire. After about forty-five minutes and running low on ammunition and fuel, Taylor reconnoitered the team's intended escape route and concluded that the team would never make it to their evacuation point because of the concentration of enemy forces along the planned route.

Taylor was determined to rescue the beleaguered team. When the plan to rescue the LRRP team with a Huey UH-1 helicopter was canceled due to the threat in the area, Taylor decided to use his own two-man aircraft to conduct the extraction. He instructed his

wingman to expend all remaining ammunition, and he did the same. Then, he used his landing lights to attract the enemy's fire while the LRRP team moved to a second designated extraction point.

Taylor landed his gunship at the extraction site under heavy fire. With the LRRP team sitting on the aircraft's rocket pods and skids, an innovative method that had never been tried, Taylor lifted them out of danger and flew them to safety.

President Joseph Biden presented the Medal of Honor to Taylor on 5 September 2023 at the White House. Taylor originally received the Silver Star for his actions during the LRRP rescue, but the award was later upgraded. Biden remarked, "When duty called, Larry did everything—did everything to answer. And because of that, he rewrote the fate of four families for generations to come. That's valor. That's valor."

During his career, Taylor flew more than two thousand combat missions. In addition to the Medal of Honor, Biden mentioned that Taylor had also received a Silver Star, a Bronze Star, two Distinguished Flying Crosses, and forty-three Air Medals. The president joked, "Thank, God, he's not putting them all on his chest. He'd have trouble standing."

For more on Taylor's award, see the U.S. Army's Medal of Honor website at <https://www.army.mil/medalofhonor/taylor/>. ■



U.S. Army Capt. Larry L. Taylor (Photo courtesy of the U.S. Army)



President Joseph R. Biden Jr. presents the Medal of Honor to former U.S. Army Capt. Larry L. Taylor during a ceremony at the White House in Washington, D.C., 5 September 2023. (Photo by Henry Villarama, U.S. Army)