

The US Army War College Quarterly: Parameters

Volume 53
Number 3 *Volume 53, Number 3 (2023) Autumn
Issue*

Article 4

7-28-2023

A Call to Action: Lessons from Ukraine for the Future Force

Katie Crombe

John A. Nagl

Follow this and additional works at: <https://press.armywarcollege.edu/parameters>



Part of the [Defense and Security Studies Commons](#), [International Relations Commons](#), [Military History Commons](#), [Military, War, and Peace Commons](#), [National Security Law Commons](#), [Other Public Affairs, Public Policy and Public Administration Commons](#), [Peace and Conflict Studies Commons](#), [Policy History, Theory, and Methods Commons](#), [Politics and Social Change Commons](#), [Public Administration Commons](#), [Public Affairs Commons](#), and the [Terrorism Studies Commons](#)

Recommended Citation

Katie Crombe & John A. Nagl, "A Call to Action: Lessons from Ukraine for the Future Force," *Parameters* 53, no. 3 (2023), doi:10.55540/0031-1723.3233.

This Article is brought to you for free and open access by the Parameters and Associated Collections at USAWC Press. It has been accepted for inclusion in The US Army War College Quarterly: Parameters by an authorized editor of USAWC Press.

A Call to Action: Lessons from Ukraine for the Future Force

Katie Crombe and John A. Nagl
©2023 John A. Nagl

ABSTRACT: Fifty years ago, the US Army faced a strategic inflection point after a failed counterinsurgency effort in Vietnam. In response to lessons learned from the Yom Kippur War, the United States Army Training and Doctrine Command was created to reorient thinking and doctrine around the conventional Soviet threat. Today's Army must embrace the Russo-Ukrainian conflict as an opportunity to reorient the force into one as forward-thinking and formidable as the Army that won Operation Desert Storm. This article suggests changes the Army should make to enable success in multidomain large-scale combat operations at today's strategic inflection point.

Keywords: strategic inflection point, Ukraine, multidomain operations (MDO), mission command, large-scale combat operations (LSCO)

Andrew S. Grove, president and CEO of the Intel Corporation, coined the phrase *strategic inflection* point in 1988 to describe a fundamental change in the well-being of an organization.¹ He visually depicted the inflection point as the exact moment when the nature of the organization changes in a subtle but profound and lasting fashion, leading to a path of growth or decline. At this juncture, adept and creative leaders recognize and accept this choice, advancing their organizations to meet the moment. Rigid, hesitant, or risk-averse leaders fail to accept this departure, leading to irrelevance and, ultimately, organizational failure.

Fifty years ago, in 1973, the United States Army faced a strategic inflection point. The US intervention in Vietnam left the Army demoralized, and American leadership watched as the Soviet-equipped Egyptian Armed Forces nearly defeated the US-equipped Israeli Defense Forces in the Yom Kippur War. In response, the Chief of Staff of the United States Army established the United States Army Training and Doctrine Command (TRADOC) to reorient thinking and doctrine around

Acknowledgments: The authors would like to thank the paper authors cited in this article as well as faculty team members Al Lord, Jerad Harper, Rebecca Jensen, and Dan Miller; student members Dale Caswell, Matt Holbrok, Thomas Kunish, Jason Lojka, Povilas Strazdas, and Darrick Wesson; and Army War College interns Gabrielle Boyes and Jason Du.

1. Andrew S. Grove, *Only the Paranoid Survive: How to Exploit the Crisis Points That Challenge Every Company* (New York: Currency Doubleday, 1996), 32.

the conventional Soviet threat. Chief of Staff of the United States Army (CSA) Creighton William Abrams Jr. selected General William E. DePuy, a revolutionary intellectual and combat leader, to spearhead the effort. DePuy's new organization was charged with studying the Yom Kippur War to develop concepts, drive procurement and materiel changes, and prepare the Army to fight a modern war.² Secretary of Defense James R. Schlesinger, Abrams, and DePuy recognized that the Army was at a critical juncture and that only a monumental shift could prepare the force for the changing character of war. It would be 50 years before the next great inflection point suggesting the need for doctrine and materiel changes emerged.

Fifty years later, the Army faces a new strategic inflection point, a choice to alter the fundamental way the US Army prepares for the next fight. As the Defense establishment emerges from 20 years of counterinsurgency operations and begins to embrace a future of large-scale combat operations, the ongoing Russo-Ukrainian conflict brings the changing character of warfare into sharp relief—a future of warfare marked by advanced autonomous weapons systems, artificial intelligence, and a casualty rate the United States has not experienced since World War II.

An American Army still grappling with the lessons from Afghanistan must embrace the Russo-Ukrainian conflict as an opportunity to drive progress toward the creation of a force and strategic direction as forward-thinking and formidable as the one TRADOC built for the United States ahead of Operation Desert Storm.³ In fall 2022, a team of faculty and students at the US Army War College assembled around this call to action. The team believed the Russia-Ukraine War unfolding in front of them was a wake-up call for the Army across the traditional warfighting functions that also required a culture change across the Army's education, training, and doctrine enterprise to embrace new lessons learned and to drive change across all echelons of the Army.

Education, Training, and the Roots of TRADOC

In his early experience in Normandy, DePuy saw his division lose 100 percent of its enlisted men and 150 percent of its officers in six weeks, providing him with a profound lesson on the ramifications of poor leadership and insufficient training. He spent the rest of his career focused on leader development, specifically on balancing the need for both training

2. Henry G. Gole, *General William E. DePuy: Preparing the Army for Modern War* (Lexington: University Press of Kentucky, 2008).

3. John A. Nagl, "Why America's Army Can't Win America's Wars," *Parameters* 52, no. 3 (Autumn 2022): 7–19, <https://press.armywarcollege.edu/parameters/vol52/iss3/3/>.

and education. DePuy saw the necessity of linking the *what* and *how* (training) with the *why* and *whether* (education) in a performance-oriented training environment.

Importantly, DePuy also reoriented doctrine after the Yom Kippur War toward fighting manuals that specifically taught both combat and support soldiers how the Army would fight on a modern battlefield at every level, from weapons teams to division headquarters.⁴ The goal of the manuals was to orient soldiers and officers on practical ways to optimize the US Army's weapons systems and minimize vulnerabilities to the enemy's systems. He wanted to bring combat development out of the ambiguous and distant future into real-time training that anticipated imminent threats.⁵ Finally, DePuy believed that careful selection and training of soldiers—including training leaders and units together—mattered in the drive for combat readiness. DePuy's legacy lives on in two commands today. The United States Army Futures Command has responsibility for transformation and innovation priorities and should certainly pay close attention to the war in Ukraine, but DePuy's brainchild, TRADOC, can lead the Army back to the basics of education, training, and doctrine development at the pace it was founded—a pace that drove ruthless prioritization and reassessment.

Why Now?

American military leadership recognizes the titanic shift in geopolitics, with General Mark A. Milley, Chairman of the Joint Chiefs of Staff, calling Russia's February 2022 invasion of Ukraine the "greatest threat to peace and security of Europe and perhaps the world" in his 42 years of uniformed service.⁶ The conflict in Europe and the arrival of artificial intelligence and autonomous and hypersonic weapons systems point to fundamental changes in the character of war and the way military forces fight.⁷ As it did after the Yom Kippur War, the US Army must examine the Russia-Ukraine War to derive lessons learned for doctrine, organization, training, materiel, professional military education, and Army leader development—and it must integrate all those lessons into organizing,

4. Romie L. Brownlee and William J. Mullen III, *Changing An Army: An Oral History of General William E. DePuy*, USA Retired Center for Military History Publication (CMH Pub) 70-23 (Carlisle, PA: United States Military History Institute, 1988), 182–85, 188–89, https://history.army.mil/html/books/070/70-23/CMH_Pub_70-23.pdf.

5. Brownlee and Mullen, *Changing an Army*, 189.

6. Jim Garamone, "Potential for Great Power Conflict 'Increasing,' Milley Says," DOD News, U.S. Department of Defense (website), April 5, 2022, <https://www.defense.gov/News/News-Stories/Article/Article/2989958/potential-for-great-power-conflict-increasing-milley-says/>.

7. John Grady and Sam LaGrone, "CJCS Milley: Character of War in Midst of Fundamental Change," USNI News (website), December 4, 2020, <https://news.usni.org/2020/12/04/cjcs-milley-character-of-war-in-midst-of-fundamental-change>.

training, and equipping a force that can win future conflicts anywhere on the spectrum. At the request of TRADOC, a small team of faculty and students at the Army War College began an examination this year, leading to a handful of takeaways that merit further study in the areas of command and control, mission command, casualty replacement and reconstitution, artificial intelligence, intelligence and deception, and multidomain operations. While the War College team produced article-length analyses of each of these areas that we hope to publish soon, this article will hit the wavetops of each area in turn.

Command and Control

Twenty years of counterinsurgency and counterterrorism operations in the Middle East, largely enabled by air, signals, and electromagnetic dominance, generated chains of command reliant on perfect, uncontested communication lines and an extraordinary and accurate common operating picture of the battlefield broadcast in real time to co-located staff in large Joint Operations Centers. The Russia-Ukraine War makes it clear that the electromagnetic signature emitted from the command posts of the past 20 years cannot survive against the pace and precision of an adversary who possesses sensor-based technologies, electronic warfare, and unmanned aerial systems or has access to satellite imagery; this includes nearly every state or nonstate actor the United States might find itself fighting in the near future. The Army must focus on developing command-and-control systems and mobile command posts that enable continuous movement, allow distributed collaboration, and synchronize across all warfighting functions to minimize electronic signature. Ukrainian battalion command posts reportedly consist of seven soldiers who dig in and jump twice daily; while that standard will be hard for the US Army to achieve, it points in a very different direction than the one we have been following for two decades of hardened command posts.⁸

Culture Eats Strategy for Breakfast

Perhaps more important than fielding new command-and-control systems is the culture shift required to embrace distributed command and control, more commonly known as *mission command*. When Milley served as Chief of Staff of the Army, he explained mission command through a concept of “disciplined disobedience” in which subordinates are empowered to accomplish a mission to achieve the commander’s intended purpose—

8. US Army general officer discussion with Ukrainian battalion commander, early 2003, relayed to the authors.

even if they must disobey a specific order or task to do so. Without perfect communication, a subordinate officer or soldier must be trusted to make the right judgment call during battle, unencumbered by the need to seek approval for small adjustments.⁹

Mission command is not doctrine to be written, tested, and shelved. It must be lived, trained, rehearsed, and embraced as an integral part of daily operations and training in garrison and combat at every echelon. The advent of artificial intelligence affords the US military the opportunity to reimagine mission command and test it with virtual simulation environments. We cannot expect a brigade that micromanages garrison tasks to execute combat operations successfully at the attrition rate incurred in modern large-scale combat operations. Disciplined disobedience requires initiative both to provide and to understand the commander's intent, end states, constraints, and restraints. Leaders and followers must be brilliant at the basics but must also be able to embrace change and think critically. Trust is the essential ingredient in mission command, but changing the Army's organizational culture to encourage senior leaders to empower and support subordinates is an enormously difficult task that will require focused attention from senior Army leaders.¹⁰

Casualties, Replacements, and Reconstitutions

The Russia-Ukraine War is exposing significant vulnerabilities in the Army's strategic personnel depth and ability to withstand and replace casualties.¹¹ Army theater medical planners may anticipate a sustained rate of roughly 3,600 casualties per day, ranging from those killed in action to those wounded in action or suffering disease or other non-battle injuries.¹² With a 25 percent predicted replacement rate, the personnel system will require 800 new personnel each day. For context, the United States sustained about 50,000 casualties in two decades of fighting in Iraq and Afghanistan. In large-scale combat operations, the United States could experience that same number of casualties in two weeks.¹³

9. C. Todd Lopez, "Future War Requires 'Disciplined Disobedience,' Army Chief Says," Army (website), May 5, 2017, https://www.army.mil/article/187293/future_warfare_requires_disciplined_disobedience_army_chief_says.

10. Jamon K. Junius, "Mission Command in the Ukraine War" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023).

11. Brian Dukes, "Senior Leader Resilience and Replacement" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023); and Dennis Sarmiento, "Medical Implication of the Ukrainian War" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023).

12. Headquarters, Department of the Army (HQDA), *Sustainment Operations*, Field Manual (FM) 4-0 (Washington DC: HQDA, July 2019), 4-4.

13. Department of Defense (DoD), *Casualty Status* (Washington, DC: DoD, May 22, 2023), <https://www.defense.gov/casualty.pdf>.

In addition to the disciplined disobedience required to execute effective mission command, the US Army is facing a dire combination of a recruiting shortfall and a shrinking Individual Ready Reserve. This recruiting shortfall, nearly 50 percent in the combat arms career management fields, is a longitudinal problem. Every infantry and armor soldier we do not recruit today is a strategic mobilization asset we will not have in 2031.¹⁴ The Individual Ready Reserve, which stood at 700,000 in 1973 and 450,000 in 1994, now stands at 76,000.¹⁵ These numbers cannot fill the existing gaps in the active force, let alone any casualty replacement or expansion during a large-scale combat operation. The implication is that the 1970s concept of an all-volunteer force has outlived its shelf life and does not align with the current operating environment. The technological revolution described below suggests this force has reached obsolescence. Large-scale combat operations troop requirements may well require a reconceptualization of the 1970s and 1980s volunteer force and a move toward partial conscription.¹⁶

Changing Character of War

Dramatically increased casualty rates, with resulting implications for force structure and manning requirements, are just one of the many dramatic changes in the character of war. The ubiquitous use of unmanned aerial vehicles, unmanned surface vehicles, satellite imagery, sensor-based technologies, smartphones, commercial data links, and open-source intelligence is fundamentally changing the way armies will fight on the land domain in much the same way that unmanned aerial vehicles have changed the way air forces conduct operations in this century.¹⁷ These systems, coupled with emerging artificial intelligence platforms, dramatically accelerate the pace of modern war. Tools and tactics that were viewed as niche capabilities in previous conflicts are becoming primary weapons systems that require education and training to understand, exploit, and counter. Nonstate actors and less capable nation-states can now acquire and capitalize on technologies that bring David's powers closer to Goliath's.

Beyond the military changes, transnational corporations in the commercial sector are playing an operationally significant role in the artificial intelligence and information battlespace. These private companies are exponentially

14. Stephen K. Trynosky, "Paper TigIRR: The Army's Diminished Strategic Personnel Reserve in an Era of Great Power Competition" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023), 22.

15. Trynosky, "Paper TigIRR," 20.

16. Kent Park, "Was Fifty Years Long Enough? The All-Volunteer Force in an Era of Large-Scale Combat Operations" (Strategic Research Paper, US Army War College, June 2023).

17. Jay Bradley, "Fires in the Ukraine War" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023).

increasing the effectiveness of intelligence processing, exploitation and dissemination, dynamic targeting, and fires. A public-private partnership founded on transparency is essential when preparing for and while engaging in conflict. This partnership should be formed in garrison, and training exercises with private companies should be incorporated into wargames, planning, exercises, and experimentation to ensure that soldiers are familiar with the systems that may prove vital in future combat—and so that the private companies can gain a better understanding of what capabilities the military needs.¹⁸

Embrace Deception and Greater Use of Unclassified Intelligence

The incorporation of open-source and declassified intelligence into the information space immediately proved effective at the outset of the Ukrainian conflict, shifting domestic, international, and adversary reactions upon release. This technique will play an outsized role in future conflicts and, when advantageous, open-source intelligence should be integrated into intelligence fusion to ensure expedited dissemination to the public—always while ensuring the benefit of releasing the intelligence is worth the possible risk to sources and methods inherent to any declassification efforts. While many examples of the application of open-source information to the war in Ukraine cannot be discussed in this article, one that can is crowdsourcing possible war crimes to enable attribution and eventual prosecution of the perpetrators.¹⁹

Beyond open-source intelligence incorporation, Army professional military education and training must include basic instruction on deception operations, given the unparalleled transparency observed during operations in Ukraine. The Armed Forces of Ukraine are exceptionally skilled at deception across the strategic, operational, and tactical levels, an effect that requires synergy and trust to integrate capabilities across domains.²⁰

Multidomain Operations

The US Army continues to make significant headway in the development of multidomain operations (MDO), with its third MDO task force having

18. Schuyler Moore and Mickey Reeve, “U.S. Central Command Holds a Press Briefing on Their Employment of Artificial Intelligence and Unmanned Systems” (transcript), U.S. Department of Defense (website), December 7, 2022, <https://www.defense.gov/News/Transcripts/Transcript/Article/3239281/us-central-command-holds-a-press-briefing-on-their-employment-of-artificial-int/>.

19. Deb Amos, “Open Source Intelligence Methods Are Being Used to Investigate War Crimes in Ukraine,” *PBS Newshour* (website), June 12, 2022, <https://www.npr.org/2022/06/12/1104460678/open-source-intelligence-methods-are-being-used-to-investigate-war-crimes-in-ukr>.

20. Clay Huffman, “Intelligence in the Ukraine War” (strategic research paper, US Army War College, Carlisle, PA, 2023).

achieved full operational capability in May 2023. These theater-specific task forces incorporate long-range precision effects including cyber, electronic warfare, intelligence, and long-range fires to counter hybrid threats from Russia and China.²¹ Although the MDO task forces are modernizing rapidly, the remainder of the Army must also understand and incorporate the tenets of multidomain operations that will characterize future wars. The communication and visualization requirements for an all-knowing, all-seeing MDO task force are significant and largely immobile, meaning the smaller maneuver units must understand the capabilities of an MDO task force without necessarily having unencumbered access to it. The smaller units must anticipate gaps in enemy defenses and exploit emergent advantages.²² Anticipation, exploitation, and mission command do not happen organically; all require education, training, and doctrine.

After examining multidomain operations during the Russia-Ukraine conflict, the study team asserts that the Army should reassess the roles and responsibilities of headquarters at echelon to account for multidomain operations and other emerging organizational structures like the Penetration Division.²³ The Army must expand linkages between joint exercises, division-level warfighters, and combat training rotations to teach synchronization of convergence and combined arms within the context of multidomain operations.²⁴ DePuy's "how to fight" manuals of the past reinvented as chat platforms fueled by generative AI knowledge bases and layered on top of National Training Center rotations, division and corps warfighter exercises, and small-unit training would serve as the ultimate convergence activity.

So What?

Grove believed that a strategic inflection point rarely announces itself but rather presents as a choice to bring clarity to chaos and take a new path, one that allows the organization to meet the moment rather than follow a comfortable but dead-end road. Today's Army is reminiscent of the Army of 1973, rife with experience, knowledge, and opportunities to change.

21. Charles McEnany, "Multi-Domain Task Forces: A Glimpse at the Army of 2035," Association of the United States Army (website), March 2, 2022, <https://www.ausa.org/publications/multi-domain-task-forces-glimpse-army-2035>.

22. Jesse L. Skates, "Multi-Domain Operations at Division and Below," *Military Review* (January-February 2021), 68-75, <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/January-February-2021/Skates-Multi-Domain-Ops/>.

23. Nathan A. Jennings, "Considering the Penetration Division: Implications for Multi-Domain Operations," Land Warfare Paper 145 (Arlington, VA: Association of the United States Army, 2022), <https://www.ausa.org/publications/considering-penetration-division-implications-multi-domain-operations>.

24. Steve Chadwick, "MDO and the Ukrainian War" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023).

TRADOC was established to transform the Army into the best-trained, -equipped, -led, and -organized land power in the world. DePuy's experiences in World War II and Vietnam and his study of the Yom Kippur War shaped his belief that transforming the Army into a land power capable of defeating a modern enemy required an Army-wide conceptual and doctrinal overhaul. He believed that officers must be intellectually capable and placed a premium on those who could solve problems with speed and quickly institutionalize change across the organization.

The Army of 2023 faces a similar inflection point, an opportunity to reassess the professional military education soldiers and officers are receiving across the TRADOC Centers of Excellence, their training experiences at the national training centers, and the daily training and education they receive throughout their careers. The AirLand Battle concept derived from the Yom Kippur War may now morph into artificial intelligence land battle informed by the Russia-Ukraine War and a future of largely unmanned or remotely manned ground combat vehicles. The Army must look at the scaffolding of everything from the basic courses to war colleges and orient lessons on what is being learned today, incorporating real-time, wartime action into the classroom and simulated battlefields. Although modernization is often focused on the material aspect of progress, the heavy lifting occurs when integrating new material with doctrine, organization, training, leadership, personnel, and facilities. To remain relevant to the pace of the rapidly changing character of war, TRADOC must lead this initiative now, adapting education and training in real time. Although crisis acts as a useful crucible for innovation, the US Army must ensure it captures these rapid changes in a manner that can be immediately written into doctrine, implemented in training, and woven into the daily lives of soldiers in garrison and combat.

The Armed Forces of Ukraine are buying lessons with blood that not only preserve their freedom but can also help the US Army deter and, if necessary, fight and win future wars at a lower cost of life and treasure.²⁵ It would dishonor those soldiers' sacrifices and the memory of General DePuy not to pay full attention.

25. Volodymyr Grabchak and Myra Naqvi, "Ukrainian History and Perspective" (Strategic Research Paper, US Army War College, Carlisle, PA, 2023).

Katie Crombe

Lieutenant Colonel Katie Crombe is an Army strategist currently assigned to the Joint Staff. She was the chief of staff of an integrated research project commissioned by TRADOC during academic year 2023 at the US Army War College.

John A. Nagl

Dr. John A. Nagl is a professor of warfighting studies at the US Army War College. He was the director of an integrated research project commissioned by TRADOC during academic year 2023 at the US Army War College.

Selected Bibliography

- Bradley, Jay. "Fires in the Ukraine War." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Chadwick, Steve. "MDO and the Ukrainian War." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Dukes, Brian. "Senior Leader Resilience and Replacement." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Grabchak, Volodymyr, and Myra Naqvi. "Ukrainian History and Perspective." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Huffman, Clay. "Intelligence in the Ukraine War." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Junius, Jamon K. "Mission Command in the Ukraine War." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Sarmiento, Dennis. "Medical Implication of the Ukrainian War." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.
- Trynosky, Stephen K. "Paper TigIRR: The Army's Diminished Strategic Personnel Reserve in an Era of Great Power Competition." Strategic Research Paper, US Army War College, Carlisle, PA, 2023.

