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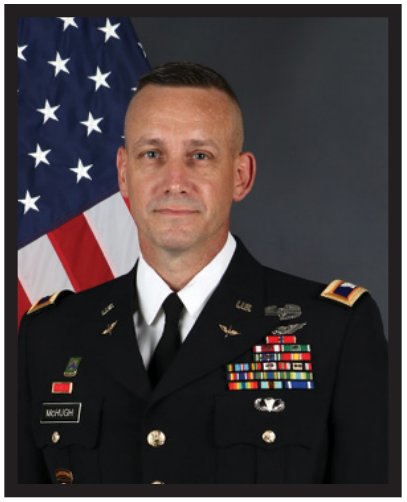
Commandant's Corner



Colonel Kevin E. McHugh, Commandant, USAWOCC

Approaching my fourth year in the seat I remain humbled and as eager as the first day in continuing what we started years ago, to ensure the cohort remains ready to support Commanders wherever and whenever needed. As we remain laser focused on transformation and our goal for continuous improvement we will not rest on the accomplishments of the past, we must continue to innovate forward. With that in mind, we will reimagine warrant officer professional military education (PME) through continued enhancements to how we deliver and assess warrant officer PME. Perhaps CW4 Jody Herrs' article highlighting the need for a new study on warrant officer utilization and education will contribute to a future evolution of what PME should be…Here are USAWOCC, you can trust that we are all in, seeking new opportunities aligned under our new higher headquarters to innovate warfighting education at the pace required to stay aligned with the needs of the Joint Force. The Army War College (AWC) assumed initial operating capability (IOC) as the new Army University earlier this year. This creates opportunities for new enhancements to warrant officer education. As many of you are already aware, we have been working and will implement a new course, the Warrant Officer Master Course (WOMC) in FY27. Capitalizing on an opportunity, the course will now align under the Army Strategic Education Program (ASEP) located at Carlisle Barracks, PA, while still being delivered to the force in FY27.

A huge thanks to all that continue to think, write, and submit work for publication in this, and other professional journals tied to warfighting, our profession, and how we can support the Army's transformation for what lies ahead. I appreciate our readers as well as those that continue to invest through academic and leader development across the T2COM, CAC and Army University enterprise. Keep up the fire!

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Legal Interoperability and NATO Convergence: A Strategic Look at the Role of the JAG Corps in Great Power Competition

CW4 Jairo Parra, Judge Advocate General's Corps

The concept of convergence – an outcome created by the concerted synchronization and integration of effects across land, air, maritime, cyber, and space from multiple echelons against combinations of decisive points in any domain to create the impact against a system, formation, decision maker, or in a specific geographic area (U.S. Department of the Army, 2022) – is central to the U.S. Army's approach to Multi-Domain Operations (MDO). For NATO, convergence is uniquely complex, requiring not only cross-domain synchronization but also multinational alignment of international law, rules of engagement, and national authorities. Legal interoperability is therefore not a peripheral concern; it is a strategic prerequisite for credibility, deterrence, and operational success that must be achieved through cooperation (see Figure I-1).

In an era marked by intense power competition, the effectiveness of the US-NATO Alliance, and NATO's multi-domain convergence, hinges not only on military capabilities but also on the ability of its legal advisors (LEGADs) to harmonize divergent national authorities, rules of engagement, international treaties, and the interpretation of international law. The U.S. Army JAG Corps, in partnership with NATO LEGADs, must spearhead the efforts to establish legal interoperability as a strategic enabler of deterrence, credibility, and operational success across the Alliance.

The U.S. Army's concept of convergence – the agile and integrated employment of effects across land, maritime, air, space, and cyber domains – has emerged as the central component to its approach to Multi-Domain Operations (MDO). In the U.S. context, convergence reflects not only the operational and technical synchronization of capabilities but also the ability to synergize authorities, systems, processes, and expertise to deliver timely and decisive effects of combat power during a crisis (U.S. Department of the Army, 2022). At the NATO level, however, convergence adds additional layers of complexity that must be addressed during the cooperation phase of the Competition Continuum (see Figure I-1). The Alliance must integrate not only across operational domains but also across the sovereign legal frameworks, rules of engagement, doctrine, regulations, and political constraints of thirty-two member states.

In this complex environment, law is not merely a constraint but a strategic enabler. Effective and timely legal support ensures that multinational forces act within domestic and international legal parameters, thereby maintaining legitimacy, credibility, and cohesion. As it pertains to all U.S. branches of government, federal law and policy provide the framework for strategic direction, setting the context, purpose, and tasks for employing the instruments of national power (Department of Defense, 2022). Conversely, divergent interpretations of law and policy amongst NATO members create operational gaps that adversaries can exploit. Russia and China, in particular, have demonstrated an adept use of the current operational environment, military lawyers must spearhead the dialogue among NATO Allies and partners to synchronize legal perspectives, influence policy and statutory developments where possible, and manage divergence when necessary.

Strategic-Level Challenges in NATO Convergence

Cyber Operations – NATO Allies disagree on whether inevitable cyber intrusions and operations constitute an armed conflict attack or an intelligence activity. As discussed by Schiffman (2022), China's primary method of operation is to reinterpret international law, particularly in the maritime, space, and cyber domains, in ways most favorable to China's interests and least beneficial to its adversaries. Other near-peer adversaries use the same methods to create dominance in the cyber realm, consistently accomplishing their strategic objectives while remaining below the threshold of armed conflict. Additionally, attribution standards throughout the Alliance vary vastly, and secrecy laws often restrict intelligence sharing, slowing NATO's ability to converge cyber effects (Aronsson & Swaney, 2022).

Interoperability and Standards – NATO and its allied partners must achieve and sustain interoperability across the technical, procedural, human, operational, and information domains while adapting to emerging technologies and competing international standards. Harmonizing legal frameworks, ensuring compliance with international law, and providing timely and decisive legal advice on sovereignty, ROE, humanitarian and disaster management, and ethical norms to enable seamless multinational operations (Aronsson & Swaney, 2022)

Recommendation: Advancing Legal Interoperability

• Develop NATO Legal Convergence Doctrine. Collaborate and produce a baseline authorities matrix and shared threshold guidance.

• Institutionalize Legal Planning. Include LEGADs in early operational design and employ legal "red teams" in all NATO, multinational, and Joint exercises.

• Expand and Develop Legal Education and Training. Deepen institutional learning in emerging domain law, expand the understanding of doctrine, increase multinational LEGAD exchanges, and develop Legal Centers of Excellence (CoEs) across all Allied and partner nations.

• Strengthening Legal Networks. Empower NATO and partner CoEs and regional legal forums to cultivate interoperability by developing a multinational training curriculum and training aids aimed at achieving NATO convergence.

• Further U.S. JAG Corps Presence and Leadership. Carefully assign leadership, cultivate strategic talent, and maintain presence in key NATO billets and Headquarters to provide and influence U.S. interests throughout the Alliance.

Conclusion

NATO's ability to converge capabilities across domains in a moment depends on more than technology and synchronizing effects – it depends on the legal interoperability of its member states. Divergent national legal frameworks slow operations, weaken deterrence, and create exploitable seams for adversaries. Conversely, harmonized legal approaches project unity, strengthen legitimacy, enable swift action, and, if necessary, respond to aggression.

The JAG Corps, working alongside NATO LEGADs, must lead this effort. By embedding legal advisors in planning, shaping doctrine, developing and enabling CoE, and building multinational trust networks, they transform law from a constraint into a force multiplier. In the era of great power competition, where adversaries exploit "the grey zone, NATO's credibility rests not only on military might but also on its ability to act lawfully, cohesively, and decisively.

References

Abbott, C. K. (2014). A brief overview of legal interoperability challenges for NATO arising from the interrelationship between IHL and IHRL in light of the ECHR. *International Review of the Red Cross, 96*, 107–137.

Aronsson, L., & Swaney, B. (2022). Priorities for NATO Partnerships in an Era of Strategic Competition. National Defense University: https://digitalcommons.ndu.edu/inss-strategic-perspectives/9

Cesari, L. (2021). In pursuit of the best standards: what material and legal interoperability for NATO? NATO Legal Gazette, 42, 36-52.

Department of Defense. (2022). Joint Campaigns and Operations (JP) 3-0. Washington, D.C.:U.S. Department of Defense.

Department of the Army. (2022). Operations (FM) 3-0. Washington, D.C.:Department of the Army.

Schiffman, S. R. (2022). Great Power Use of Lawfare: Is the Joint Force Prepared? JFQ 107, 4th Quarter, 15-20.

Editor's Note: CW4 Parra has over 15 years of service as a legal administrator in the JAG Corps, most recently as the Senior Legal Administrator for U.S. Army Europe and Africa, Wiesbaden, Germany. His experience at the strategic echelons of the U.S. Army is extensive. His previous assignments include: Senior Legal Administrator, Eighth Army, South Korea; Senior Legal Administrator, Army North, Fort Sam Houston, Texas; Senior Legal Administrator, U.S. Army Medical Command, Fort Sam Houston, Texas; Senior Legal Administrator, 82d Airborne Division, Fort Bragg, North Carolina; Legal Administrator, Special Litigation Team (U.S. v. Bradley Manning), Fort McNair, Washington, D.C.; and Legal Administrator, XVIII Airborne Corps, Fort Bragg, North.

Disaster Response and the United States Army: The Role of the United States Army During Domestic Emergencies, Focusing on the Coordination of Civilian and Army Actions During Domestic Crisis

CW4 Erin A. Phillips, Military Intelligence

The U.S. Army needs to codify a plan to integrate and exercise with local, state, and federal emergency response agencies to ensure flexibility, continuity of effort, resource utilization, and timely response. As environmental events increase, the populations in numerous cities in the United States are changing. The COVID-19 pandemic marked a migration of people moving from urban to rural areas, with many moving to southern and western states (Toukabri & Delbé, 2022). As the population of those cities increased, the number of emergency responders largely remained the same. The Bureau of Labor Statistics (2022) reports that the average number of emergency responders, including paramedics, firefighters, emergency medical technicians, and law enforcement, per citizen ranges from 48 to 10,000.

Emergency response encompasses local, state, and federal agencies. Agencies at all echelons are required to communicate efficiently and effectively to ensure mission accomplishment. In September 1989, Hurricane Hugo's category four assault on the southwest coast underscored the need for a coordinated response. While it took the Federal Emergency Management Agency (FEMA) several days to respond and more than eight hours to declare some of the hardest-hit areas disaster areas, the U.S. military responded in their absence (McAllister, 2005). The response resulted in the most significant military surge to a natural disaster until Hurricane Katrina in 2005.

Since January 2025, FEMA has reduced employee numbers by approximately 150 personnel (Gutierrez & Kroll, 2025). The reduction of personnel opens the door for increased response times and delayed responses. The gap created needs to be filled by other organizations, such as the U.S. Army.

Authorities and Purpose for Disaster Response

Law/Directive	Primary Purpose	Who Can Invoke It?	Key Limitation/Feature
Stafford Act	Authorize federal disaster relief and emergency assistance	President, upon Governor's request	Does not authorize law enforcement functions
Posse Comitatus Act	Prohibit use of federal military for civilian law enforcement	N/A (It is a prohibition)	Exceptions must be authorized by Constitution or Congress
Insurrection Act	Allow use of federal military for domestic law enforcement	President	Suspends Posse Comitatus; used for rebellion/civil unrest, not typical disasters
DoD Directive 3025.18	Establish policy and procedures for DSCA	Secretary of Defense	Provides internal DoD guidance for executing DSCA missions

Figure 1: Descriptions of each act and directive, their primary purpose, who can invoke it, and each law and directive's key limitations and features.

When the U.S. military needs to provide an emergency response on American soil, the Defense Support of Civil Authorities (DSCA) is the foundational formal process that allows the intervention. Responding service members fill a support role for the civilian agencies at the location. The legal foundations that allow for the deployment of service members on U.S. soil are: The Stafford Act, The Posse Comitatus Act, The Insurrection Act, and DoD Instruction 3025.21, Defense Support of Civil Law Enforcement Agencies.

The graphic above outlines each act and directive, their primary purpose, who can invoke them, and the key limitations and features of each. Notably, the Posse Comitatus Act is a prohibition; therefore, it is not an act that requires invocation. Also, the Insurrection Act is significant: it suspends the Posse Comitatus prohibition, is invoked by the President, and is not used for typical disasters. "Typical disasters" are categorized as both natural (e.g., hurricanes) and man-made (e.g., terrorist attacks) (GovFacts, 2025). Additionally, the National Response Framework (NRF) and the National Incident Management System (NIMS) are integral to emergency response. "The NRF establishes a new approach to coordinating federal and nonfederal resources and entities" (Lindsay, 2008, p.2). The NIMS works in conjunction with the NRF to ensure a proactive, systematic approach to emergencies at all echelons, regardless of the cause (DHS, 2017).

Continuity of Effort

Civilian and military personnel working together is not a novel concept. As of June 2023, the number of civilian employees working in the Department of Defense (DoD) exceeded 700,000 (GAO, 2025). There is, however, a distinct difference between working with the military in a DoD capacity and during an emergency response. In an emergency response situation, civilian emergency managers are the lead. Military personnel can respond quickly, with the necessary equipment, and fill a support role. Past incidents have created tension during civil-military responses due to unclear roles and responsibilities. The lack of clarity led civilians to believe there was an issue with military mission creep (Bollen & Kalkman, 2022).

Recommended Way Ahead

The current state of emergency response is best addressed through a federal decision mandate; however, in its place, there is a viable alternative. Retired Brigadier General Neal S. Mitsuyoshi broached this topic while attending the U.S Army War College in 2014. While the plan was succinctly outlined and seemingly attainable, it did not come to fruition. It is unclear why this plan was not adopted. Considering the Army's primary mission in 2014, with Afghanistan and Iraq as the primary focuses, adding a new mission to the service may not have been tenable at the time. Decision-makers may not have understood the scope of the emergency response issue and the need to implement a solution.

The foundation of BG (R) Mitsuyoshi's recommendation was the current FEMA regional alignment structure. To date, FEMA has 10 regions that span the United States (FEMA, 2025). BG (R) Mitsuyoshi proposed the creation of a Regional Domestic Response Force (RDRF). BG (R) Mitsuyoshi asserted that all components and services should be aligned to FEMA regions, based on unit assets and geographic proximity. The figure below outlines the proposed alignment. Each region outlined below contains at least two military component installations. Creating an RDRF from the units currently aligned to each region would streamline the emergency response. The RDRF units could be implemented on a rotational basis, with units rotating responsibility for responding based on a duty roster or patch chart. Implementing this way allows units to share responsibility while maintaining their current mission.

Figure 2: Graphic showing the proposed alignment of the RDRF and FEMA regions.

Currently, a federal emergency declaration activates the Stafford Act and allows for Title 10 service members to respond. Prior to the emergency declaration, state and local officials must submit a Request for Assistance (RFA). Without an RFA, military personnel cannot conduct a proactive response (Mitsuyoshi, 2014). The synergy created between the RDRF, other government agencies, and emergency management agencies will enhance the capabilities of all parties. The RFDF will be postured to provide clarity and recommendations specific to military support capabilities and capacity. Simultaneously, the RFDF will be the foremost authority on the distinctiveness of each region and on how best to provide an expedient response in times of crisis.

Challenges

Resource constraints are an issue for this plan. As ARSTRUC 28-32 (2025) illustrates, all Army components are undergoing significant shifts. The units that are currently naturally aligned to FEMA regions may not be able to support in the event of a crisis. Additionally, Soldiers may be unable to respond due to ongoing missions. A comprehensive military approach may be needed to ensure a timely and robust response. Deploying service members with the necessary equipment from multiple locations may prove cost-ineffective. An RFA may not be possible if local and state emergency management teams are reacting to a no-warning incident. The inability to submit the requisite request will significantly increase response assistance time. Lack of regional alignment hinders units' ability to train with emergency managers and responders. Training as one fights helps ensure the establishment of lines of communication and that all participants understand their roles and responsibilities prior to being called to action.

Conclusion

From fires to floods, in the last 10 years, the United States responded to more incidents than ever before (FEMA, 2023). Included yet not stated in the fact above, do these emergency incidents impact countless lives? As the resource-to-incident ratio for emergency response decreases, there is a clear need for coordination among emergency response agencies at all echelons and with the Army. Given FEMA's current state, the military will inevitably receive more requests to respond. If Emergency Responders and the Army do not take a proactive posture and codify collaboration, the United States

risks catastrophic consequences from the next large-scale disaster. The Regional Disaster Response Force is the best way to solve this challenge.

Editor's Note: Chief Warrant Officer 4 Erin Phillips is a Human Intelligence Technician, currently assigned to the United States Army Europe and Africa command. With over twenty-nine years as an intelligence professional, CW4 Phillips is a committed leader and lifelong student. She holds an Associate of Arts in Intelligence Studies, a Bachelor of Science in Public Administration, and a Master of Science in Public Administration with a focus in Emergency Management.

References

Berthelot, R. (2010, September 10). The army response to Hurricane Katrina. U. S. Army. https://www.army.mil/article/45029/the_army_response_to_hurricane_katrina

Bollen, M., & Kalkman, J.P. (2022). Civil-Military Cooperation in Disaster and Emergency Response: Practices, Challenges, and Opportunities. Journal of Advanced Military Studies13(1), 79–91. https://muse.jhu.edu/article/857232.

Department of the Army. (2025, June 30). Army structure (ARSTRUC) memorandum 2028-2032. U.S. Department of Defense.

Federal Emergency Management Agency. (2017). National incident management system. U.S. Department of Homeland Security.

Federal Emergency Management Agency. (2025, July 10). Regions, states and territories. U.S. Department of Homeland Security. https://www.fema.gov/about/regions

Federal Emergency Management Agency. (2023). National preparedness report. U.S. Department of Homeland Security.

GovFacts. (2025, June 19). When America calls: How the military responds to disasters at home. https://govfacts.org/federal/defense/when-america-calls-how-the-military-responds-to-disasters-at-home/.

Gutierrez, G., & Kroll, S. (2025, March 10). How FEMA cuts are spreading far beyond Washington. NBC News. https://www.nbcnews.com/news/us-news/fema-cuts-are-spreading-far-washington-rcna195708\

McAllister, B. (1989, October 5). FEMA officials admit response to Hugo was slow - The Washington Post. The Washington Post. https://www.washingtonpost.com/archive/politics/1989/10/06/fema-officials-admit-response-to-hugo-was-slow/b9e3fe16-6515-40b2-8caa-bd958c0989cb/

Mitsuyoshi, N. S. (2014). The Army's role in domestic disaster response: Preparing for the next catastrophe [Civilian research project, U.S. Army War College].

Toukabri, A., & Delbé, C. (2022). New data reveal most populous cities experienced some of the largest decreases. United States Census Bureau. https://www.census.gov/library/stories/2022/05/population-shifts-in-cities-and-towns-one-year-into-pandemic.html

U.S. Department of Homeland Security. (2008). National incident management system. Author.

U.S. Department of Homeland Security. (2017). National incident management system. Author.

U.S. Department of Labor Bureau of Labor Statistics. (2025). Occupational outlook handbook, EMTs and paramedics. https://www.bls.gov/ooh/healthcare/emts-and-paramedics.htm

U.S. Government Accountability Office. (2023). DOD civilian workforce: Actions needed to analyze and eliminate barriers in diversity. https://www.gao.gov/assets/gao-23-105284.pdf

It Takes TWOS: It's Time for Another Total Warrant Officer Study

CW4 Jody Herr, Military Intelligence

This year marks the 40th anniversary of the Total Warrant Officer Study (TWOS)—a 1985 Department of the Army initiative to redefine the role of Warrant Officers out to 2025. This historic anniversary presents an opportunity to reevaluate long-held views about what it means to be a Warrant Officer and how we can optimize the Cohort for the next 40 years.

Introduction

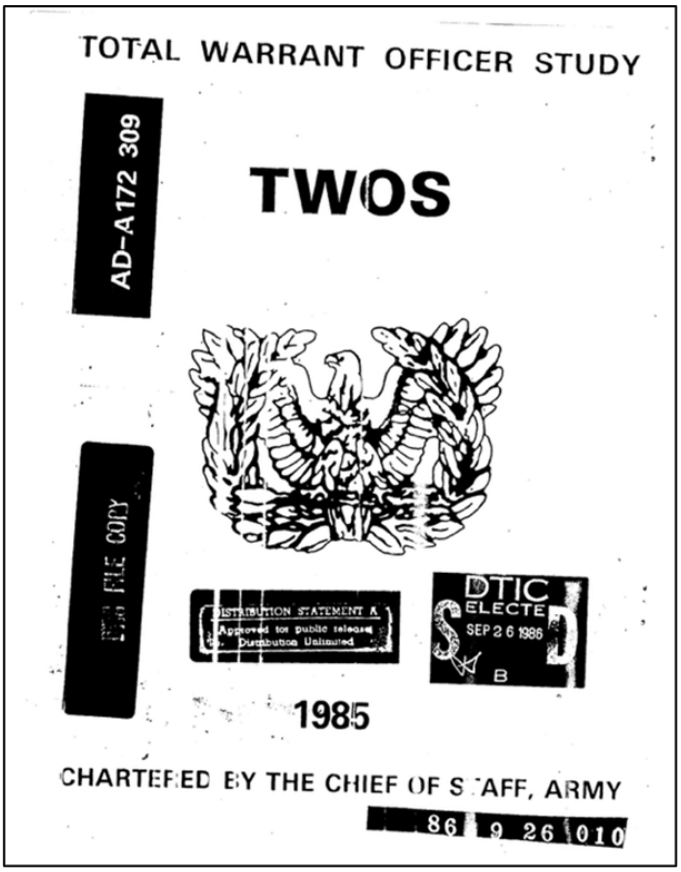
Senior Warrant Officers owe the Chief of Staff of the Army clear-eyed recommendations on Warrant Officer force structure optimization to support the Army Transformation Initiative (ATI). To accomplish this, we must engage in difficult conversations, maintain transparency, and let the data inform our recommendations. Simply put, it's time for another TWOS.

The thesis of this article is that the Army should conduct another comprehensive, army-wide study to examine the role, utilization, and professional development of Warrant Officers, informing changes that would enhance combat readiness. This theme is supported by the results of a 2025 survey of Field Grade Warrant Officers included in this article. This 2025 survey offers insights into how the Warrant Officer Cohort perceives its identity, education, and the role of Senior Warrant Officers.

This article proceeds in three parts. First, it describes the outcomes of the 1985 TWOS and contemporaneous surveys and legislation. Second, it presents the results of a 2025 survey of Field-Grade Warrant Officers from across the Army. Lastly, it provides recommendations for the future of the Warrant Officer Cohort.

Two of a Kind

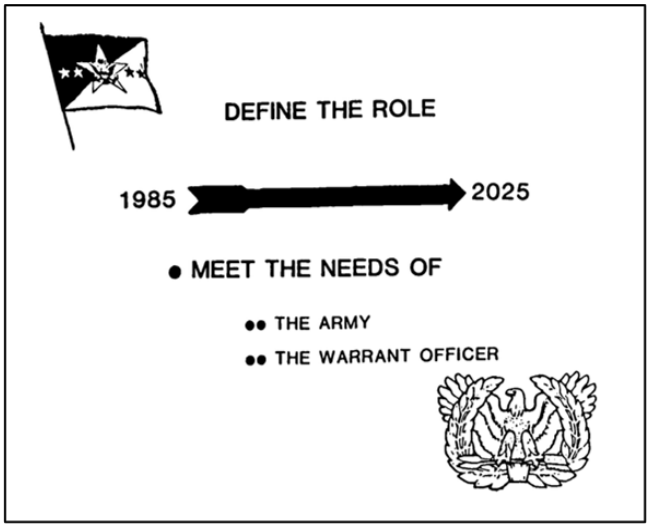
Today's Army is in a transformational period, remarkably similar to the post-Vietnam era in which the original TWOS was conducted. The 2025 Army Transformation Initiative (ATI) charges the Army to "build a leaner, more lethal force" in which "every role must sharpen the spear or be cut away." In this spirit, the Warrant Officer Cohort owes the Army some homework on how we plan to gain efficiencies. And we can't afford to get this wrong, as our conclusions will impact overall Army readiness and the careers of countless future Warrant Officers.



Put Two and Two Together

Exactly forty years ago, in August 1985, the Army finalized the Total Warrant Officer Study (TWOS). The TWOS was the first and, to date, the only comprehensive analysis of the Warrant Officer program by the Department of the Army. (Note: Other Army studies on the Warrant Officer Cohort, such as

the 2002 Army Training and Leader Development Panel (ATLDP), were not Army-wide comprehensive studies on the scale of TWOS. The purpose of TWOS was "to examine the current and future (out to the year 2025) role, utilization, compensation management, and professional development of the Total Army Warrant Officer and to recommend changes if the effect would enhance combat readiness." The output of TWOS was intended to "optimize every aspect of Warrant Officer management and development" to ensure Warrant Officers continue to "make critical contributions to the defense of our Nation."



The primary instrument of the TWOS was a mail-in survey, supplemented by supporting workshops, Warrant Officer steering groups, General Officer advisory groups, and a comprehensive review of systems and programs. The TWOS analyzed more than 27,000 survey responses from Warrant Officers and O-grade commissioned officers from all three components, as well as retirees. It involved the individual evaluation of thousands of handwritten comments. The output was a series of recommendations based on three key questions: (1) What is the definition of the Warrant Officer? (2) What are Warrant Officers doing now? (3) What should Warrant Officers be doing in the future?

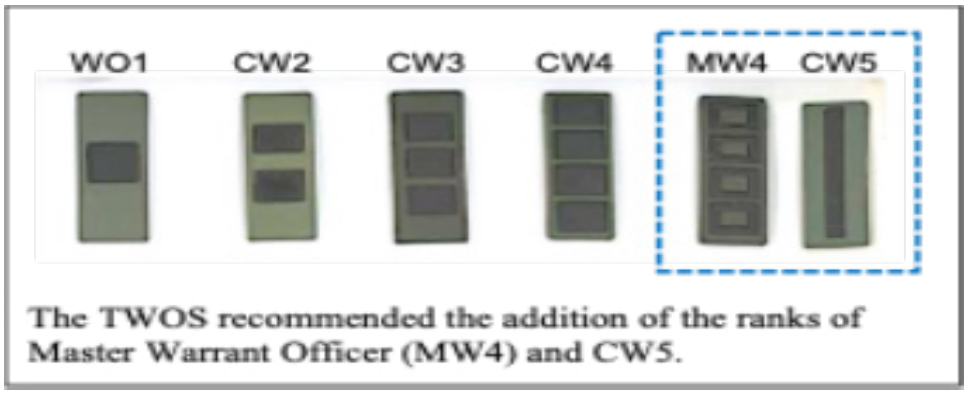
No Two Ways About it

The TWOS final report recommended numerous changes to Warrant Officer recruitment, training, and retention—many of which remain in place today. However, the following short paragraphs will focus on three key outcomes of TWOS and contemporaneous legislation that remain topics of debate within the Cohort.

Warrant Officer Definition

The first TWOS recommendation was a rewrite of the Warrant Officer definition. While acknowledging that "Warrant Officers have been, and will continue to be, the Army's technical experts," the new definition included the word leadership for the first time. This change likely influenced the Defense Authorization Act of 1986, which codified Warrant Officers as commissioned officers—a break in the nearly seven-decade tradition of being "appointed by warrant." Of note, the TWOS did not recommend this change. Instead, it resulted from a DoD initiative to align Army Warrant Officer grade plates with those of the maritime services, whose Warrant Officers were already taking the commissioning oath. The question of Warrant Officers becoming commissioned officers was an old debate by the time of TWOS. LTC Paul Coroneos argued in 1973, "The closer warrant officers are associated with their commissioned brethren, the less they will be able to avoid the strictures and problems of the officer corps and be available for concentration in their unique area of technical specialization." Warrant Officers continue to experience this tension, as evidenced by the results of a 2025 survey included in this article.

CW5 Creation and Extension of Warrant Officer Service



The TWOS recommended the addition of the ranks of Master Warrant Officer (MW4) and CW5.

The TWOS recommended the creation of a nominative Master Warrant Officer (MW4) rank that would be senior to all other CW4s. Further, it advocated for the creation of the rank of Chief Warrant Officer Five (CW5), which was ultimately realized in 1992. According to TWOS, the CW5 was envisioned as a "true branch technical integrator" with the "essence of the Warrant Officer role to remain at the warfighting level. TWOS also recommended a new career plan that provided the opportunity for warrant officers to remain on active duty for 30 years as a warrant officer or until age 62.

2025 Survey of Field Grade Warrant Officers

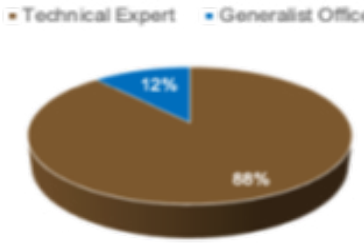
The author of this article conducted a survey of sixty Field Grade Warrant Officers (CW3-CW4) across 11 Army branches and all three components. The average participant age was 44 years, with an average time in service of 24 years. The purpose of the survey was to gather data on how today's Warrant Officers perceive their identity, education, and the role of Senior Warrant Officers. The survey consisted of multiple-choice and free-text questions. The survey questions were largely based on the original 1985 TWOS survey packet. The survey's results strongly suggest the Army would benefit from another comprehensive Army-wide study to examine the role, utilization, and professional development of Warrant Officers.

2025 Survey Demographics			
Component	**n**	**Age (mean)**	**Years of Service (mean)**
COMPO 1 (Active Duty)	27	41	21
COMPO 2 (National Guard)	17	46	27
COMPO 3 (Army Reserve)	16	47	26

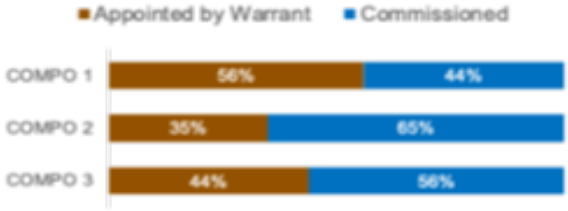
Two Cents

The 2025 survey revealed no clear consensus on the question of Warrant Officer identity, specifically regarding the pros and cons of being "appointed by warrant" versus being a commissioned officer. However, the survey did identify a clear trend in how respondents view the Army's utilization of Senior Warrant Officers. For example, 71 percent of total respondents answered "No" to the question: Is the Army getting full value out of the CCWO position? Similarly, 76 percent answered "Yes" to the question: Should CW5s be subject to selective retention boards? In aggregate, the results strongly suggest that Field Grade Warrant Officers would welcome the opportunity to provide significant input to another comprehensive Army-wide study, similar to the TWOS of 1985.

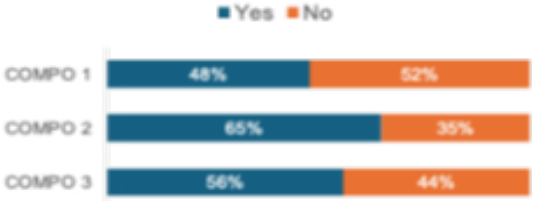
When you think about your identity in the Army, which do you most closely identify with?



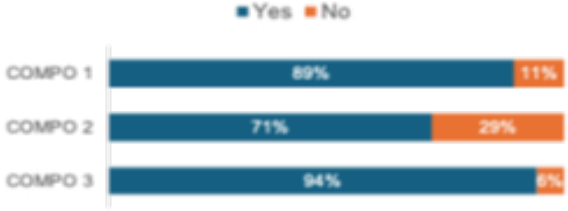
Would you rather the Army consider you "appointed by Warrant" or a Commissioned Officer?



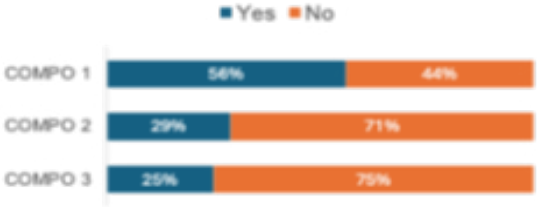
Do your Commissioned Officer duties compete with your ability to reach your full potential as a technical expert?



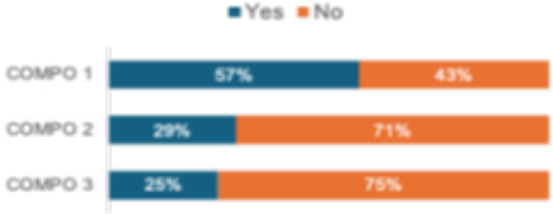
Should Warrant Officers receive civilian degrees as part of WOPD?



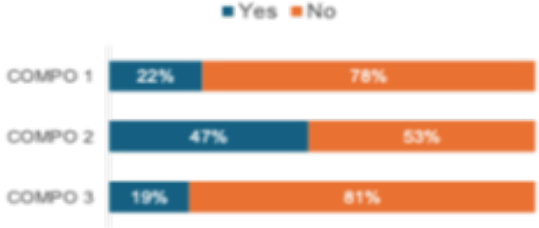
Should total WO service be shortened from 30 years to allow for career progression of CW4s?



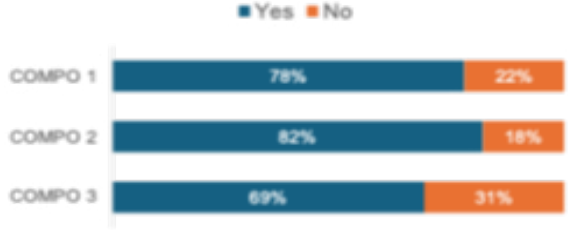
Are CW5s remaining in positions too long?



Is the Army getting full value from the CCWO position?



Should CW5s be subject to selective retention boards (SRB)?



Should the Army conduct another Total Warrant Officer Study?

Conclusion

Surveys are powerful tools for change. The TWOS of 1985 and associated legislation drove sweeping changes that have impacted every Army Warrant Officer over the past 40 years. As the Army Transformation Initiative charges the Army to "build a leaner, more lethal force" in which "every role must sharpen the spear or be cut away," Warrant Officers owe the Army some homework on how we plan to gain efficiencies. To accomplish this, every Warrant Officer's voice is critical to the conversation. Warrant Officers deserve a forum in which to capture their voices and let the data inform our recommendations. In other words, it's time for another TWOS. But it's okay—together we can do this, just as we did in 1985.

Editor's note: CW4 Cody Herr is a senior intelligence analyst with two decades of experience supporting special operations. He holds a Master of Science in Strategic Intelligence degree from the National Intelligence University. He is a recipient of the General Douglas MacArthur Leadership Award and the Military Intelligence Corps Knowlton Award. His writing has appeared in the CIA journal Studies in Intelligence, the American Intelligence Journal, National Intelligence Press, and Special Warfare Magazine. The article is a peer-reviewed student paper from the Warrant Officer Senior Course.

References

Dan Driscoll and Randy George, Letter to the Force: Army Transformation Initiative (ATI) (U.S. Army, 2025), 1.

Department of the Army, Total Warrant Officer System (TWOS). Volume 1 (Government Printing Office, 1985), iii, https://apps.dtic.mil/sti/html/tr/ADA172309/.

Department of the Army, U.S. Army Combined Arms Center, The Army Training and Leader Development Panel ATLDP Phase III - Warrant Officer Study Final Report (Fort Leavenworth, KS, 2002).

Department of the Army, Total Warrant Officer System (TWOS). Volume 1 (Government Printing Office, 1985), vi, https://apps.dtic.mil/sti/html/tr/ADA172309/.

Department of the Army, Total Warrant Officer System (TWOS). Volume 1, iii.

Department of the Army, Total Warrant Officer System (TWOS). Volume 1, xxxv.

Department of the Army, Total Warrant Officer System (TWOS). Volume 1, xxxv.

Department of the Army, Total Warrant Officer System (TWOS). Volume 1, xl.

Bill Walton, Commissioning of Army Warrant Officers: When and Why Were Warrant Officers Commissioned? (n.d.), 1.

Paul P. Coroneos, The Warrant Officer in the Volunteer Force, January 5, 1973, 18, https://apps.dtic.mil/sti/html/tr/AD0761429/.

Department of the Army, Total Warrant Officer System (TWOS). Volume 1, xxxvii.

Dan Driscoll and Randy George, Letter to the Force: Army Transformation Initiative (ATI) (U.S. Army, 2025), 1.

Systems Thinking Leadership

CW4 Ethan Jacobs, Aviation

Fiscal year 2023 marked the deadliest year for Army Aviation in over a decade, with 14 Soldiers killed in 10 separate mishaps. The Army initiated a branch-wide stand-down in April of 2023 to address the alarming increase in mishaps, but as operations resumed, mishaps continued into fiscal year 2024 (Judson, 2024). According to the May additions of Flightfax (2024 & 2025), a total of 23 Soldiers and 1 Border Patrol agent were killed in two years, and Fiscal Year 2025 has already delivered 4 fatalities. These numbers reflect only the mishaps that resulted in the death of crewmembers, while disregarding the additional 237 mishaps (FY23-24) that caused damage exceeding $60,000 (Department of the Army, 2023). The generation of these disturbingly high numbers outside of combat operations has led to official mitigation efforts and informal finger-pointing.

Many are quick to blame the experience vacuum the airline industry has induced across the U.S. military aviation population. In contrast, others point to the UH-72A as the primary trainer for skill degradation. Some feel that the Army's Initial Entry Rotary-wing program is neglecting critical skills. It always seems that the Army's flying hour program is underfunded while operational demand is increasing. From these speculations, it is easy to fall into a linear, event-oriented decision-making process. If we increase the active-duty service obligation (ADSO), we will keep more aviators in the cockpits, leading to a corresponding increase in experience. However, an unexpected trend emerges in the data: the number of Soldiers applying suddenly begins to decrease. Could this be causally linked to the decade's commitment of service in exchange for flight school, which might be considered a side effect? Or is it coincidental? This is a complex problem that requires rigorous study from a complex discipline: systems thinking and systems dynamics modeling.

The world we operate in, domestically and internationally, permissive and nonpermissive, is changing at an accelerated pace. The Russo-Ukrainian War has demonstrated that the challenges our military will encounter in Large-Scale Combat Operations will be even more complex and dynamic. It will neither resemble past engagements nor mirror current combat operations. Many of the decisions we make today will generate unanticipated problems in the future. Mr. Sterman stated in his book Business Dynamics: Systems Thinking and Modeling for a Complex World (2000):

> Effective decision making and learning in a world of growing dynamic complexity requires us to become systems thinkers […] to expand the boundaries of our mental models and develop tools to understand how the structure of complex systems creates their behavior (p. vii).

The Army has started sprinkling the term "systems thinking" in doctrinal publications (ADP), Field manuals (FM), Army Technique Publications (ATP), and various other publications without clearly defining what systems thinking is, beyond a couple of paragraphs, nor has it established a formal block of instruction. A technical report created by the United States Army Research Institute for the Behavioral and Social Sciences (Wisecarver et al., 2022) had "identified systems thinking as one of six strategic thinking competencies" (p. iv). It offered a basic definition of systems thinking: "A cognitive approach that applies a holistic perspective to identify and understand interrelationships and emergent properties among elements" (p. iv). However, the complexity of systems thinking, combined with systems dynamics, will require more than a definition.

The Army will need to cultivate a culture of systems thinking, and that begins with our leaders becoming

systems thinkers and understanding the tools available to them for decision-making. The introduction of this concept should be taught at the junior officer level and expanded upon throughout the various levels of professional military education

Systems

Before discussing what systems thinking entails, a system needs to be clearly defined. According to Ms. Meadows' book Thinking in Systems (2008), a system consists of elements that are interconnected to achieve a function or purpose. It is important to note that there is a distinction between the function or purpose and the system's ultimate behavior. Often, the system's behavior is an emergent phenomenon arising from the relationships or interconnections among its elements. The more complex the interconnections are, the more complex the system.

For example, an infantry company is a system composed of elements such as Soldiers, weapons systems, supporting equipment, the environment, and terrain. The interconnections include vertical and horizontal lines of communication, the commander's intent, the laws of war, fields of fire, and the laws of physics. The purpose of the system is to engage and destroy the enemy, occupy terrain, or conduct unit physical training. The behavior of the system could shift due to miscommunication or lack of communication, encountering a steep terrain feature, or even the changing of an element, such as an excellent or toxic leader (Meadows, 2008).

A rifle, such as an M4, is called a weapon system because it consists of elements such as the receiver, the recoil spring, the stock, a barrel, a magazine, the ammunition (which can be further broken down into primer, powder, shell, and bullet), an aiming device, the environment, and the Soldier. Individually, these parts cannot perform a function until they are combined, and interactions are established. These interactions are physical and chemical. The system's function is to accurately shoot a projectile at a target over a certain distance. The behavior of the weapons system can be affected by the type of ammunition, the aiming device, or increasing friction within the system due to carbon buildup. The system's behavior can also be purposely changed by leveraging key points. For the M4, adjusting the barrel length or rifling can affect the weapon system's accuracy and effective range. Changing from iron sights to expensive optics can also affect how the weapon is employed, altering other interactions, such as increased weight, cost, or the life cycle of an element. These changes are the feedback loops that concern a systems thinker.

It is also important to understand that systems are governed by several principles (Shahroudi, 2022), including the holistic principle that complex systems are more than the sum of their elements. An M4 disassembled is no longer a system, nor is it a system without the Soldier. It is the interaction of all the parts that makes it effective in its function. Systems do not exist in isolation; they are part of a larger system that includes themselves (the system of interest), an enabling system, and a context system. The boundaries between these systems may be fluid depending on the perspective of examination, the purpose of the system, and what roles they fill. Systems will evolve over their lifecycles and generate emergent behavior (unanticipated side effects) due to interactions within and between the three systems. Humans are also influenced by assumed mental models of the system's architecture based on its behavior, and the wanted and unwanted emergent behaviors may negatively impact decision-making. A Soldier not correctly trained in maintaining an M4 may have an incorrect mental model of the system and believe that the weapon is broken when it misfeeds a bullet instead of realizing the breakdown is due to his or her inaction.

Systems Thinking and Systems Dynamics

Systems thinking is a term that first appeared in the late 1980s and was soon adopted into the business world vocabulary. In Mr. Schuster's book (2018), he quoted Mr. Richmond (credited with coining the term): "Systems thinking is the art and science of making reliable inferences about behavior by developing an increasingly deep understanding of underlying structure" (p. 8). The ability to think in systems allows for understanding that a system's behavior results from its structure. When outside influences generate a reaction within that system, it will behave in a manner that would most likely be different than that of another system. The solution to a system's problem is usually found by leveraging

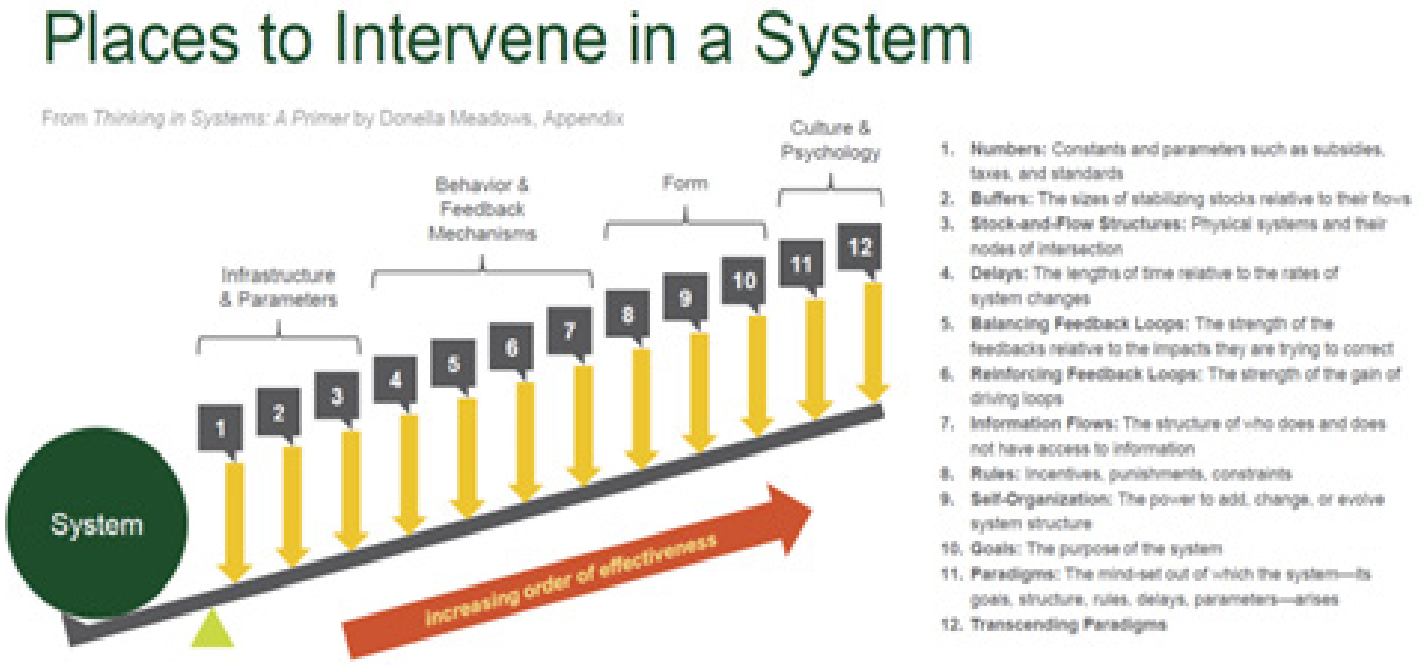


Figure 1 Places to Intervene in a system (Meadows, 2008)

a key point within the system. The challenge is identifying the most effective place to change the system so that the net result of its behavior aligns with its intended purpose.

What systems thinking requires of us is to step back from linear thinking, a methodology we have been taught and used throughout our careers. We have been conditioned to solve problems by analyzing, breaking apart, and then examining the smaller pieces, allowing us to create direct linkages and if/then logic steps, based on a pre-established mental model. It is easy to fall into the trap of zeroing in on an external source, making a decision, and implementing a quick fix to the perceived problem. Although this may yield a solution, it is rarely one that does not generate its own problems. Because of delays within the system's structure, problems may not manifest for a period of time. Our forces have been experiencing significant delays since the DoD shifted to the Blended Retirement System in 2018. There is speculation about the impact the decision will have on recruiting and retention, as well as the level of experience we will maintain within our formations. Seven years later, we still do not have enough data to understand the impacts of the policy change (Seck, 2023).

Systems thinking begins with observing events or gathering data. This information is then combined over a defined amount of time to establish patterns of behavior of how the elements of the system interact. From this, the system's true structure can be established and leverage points identified. The key concept is that the mental model we hold of the system might need to change so we can understand its true structure. This allows us to modify the structure at critical points to create a more holistic solution to long-term problems and minimize unanticipated emergent behavior. Systems thinking emphasizes

that, given the complex dynamics of our world, there will never be a perfect solution that does not impact other systems. There is no decision or process that one can affect that will exist in isolation; they will cross boundaries into other systems, and that is where unanticipated emergent behavior will generate.

Systems thinking is a discipline of philosophy that is made rigorous by tools and methods such as causal loop diagrams and System Dynamics simulations. Humans are cognitively limited in the amount of information that they can process. Because of this limitation, the way we perceive data becomes selective, and we make decisions based on a small fraction of available information (Sterman, 2000). In the same way we train our aviators in flight simulators, we can create models of select systems of interest by mapping causal loop diagrams that incorporate the stocks and flows of specific attributes. Computer simulation software will perform calculations over a defined time horizon and generate graphics to inform decisions.

For example, during the COVID pandemic, the term “flattening the curve” was repeated daily across mainstream and social media. This was the result of policymakers reviewing a Systems Dynamics simulation result of how a disease may spread in a population. Figure 2 illustrates a basic causal loop diagram of how the disease spreads. The blue arrows represent interactions or relationships among the different elements, and the blocks represent the two stocks of interest: people who have not had COVID and those who have had COVID. Think of the “Infection Rate” between the two stocks as a valve that controls the flow between them.

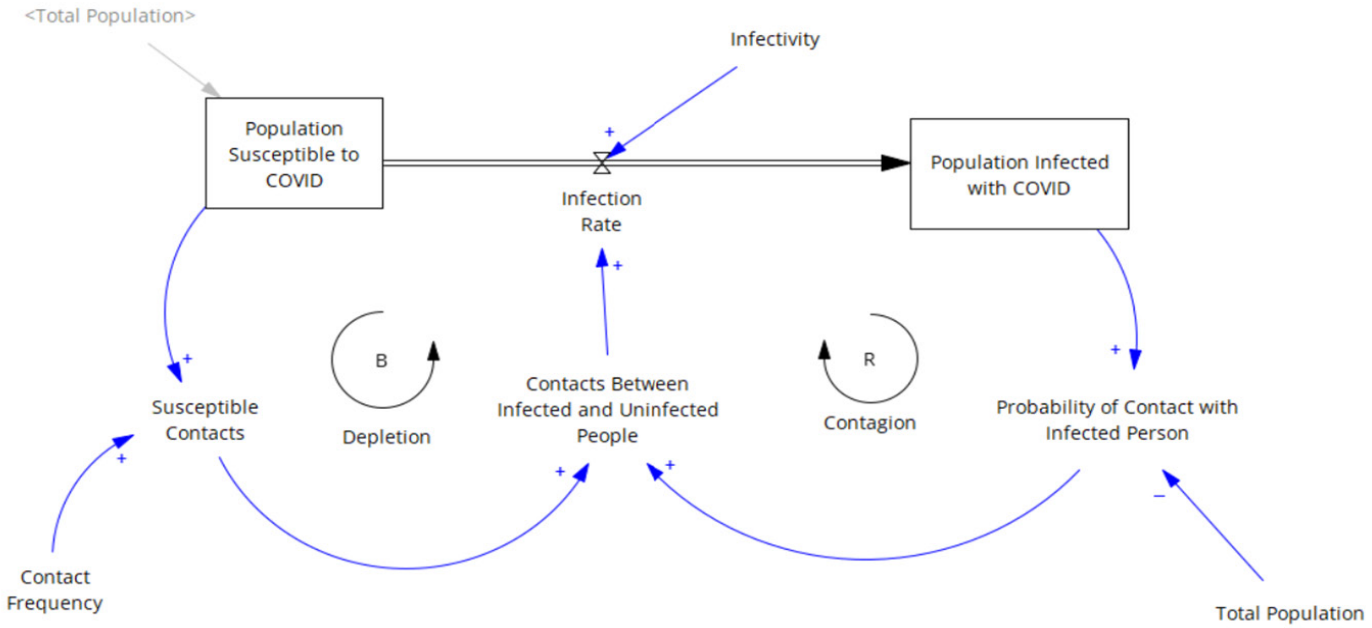


Figure 2 Casual loop diagram with stocks and flows (adapted from Shahroudi, 2022).

Fig 2 Casual loop diagram with stocks and flows (adapted from Shahroudi, 2022)

One of the points of leverage within the system that policymakers focused on was the frequency of contact. By reducing contact frequency, government officials observed that the number of COVID cases per day decreased, and a policy for lockdowns and social distancing was developed.

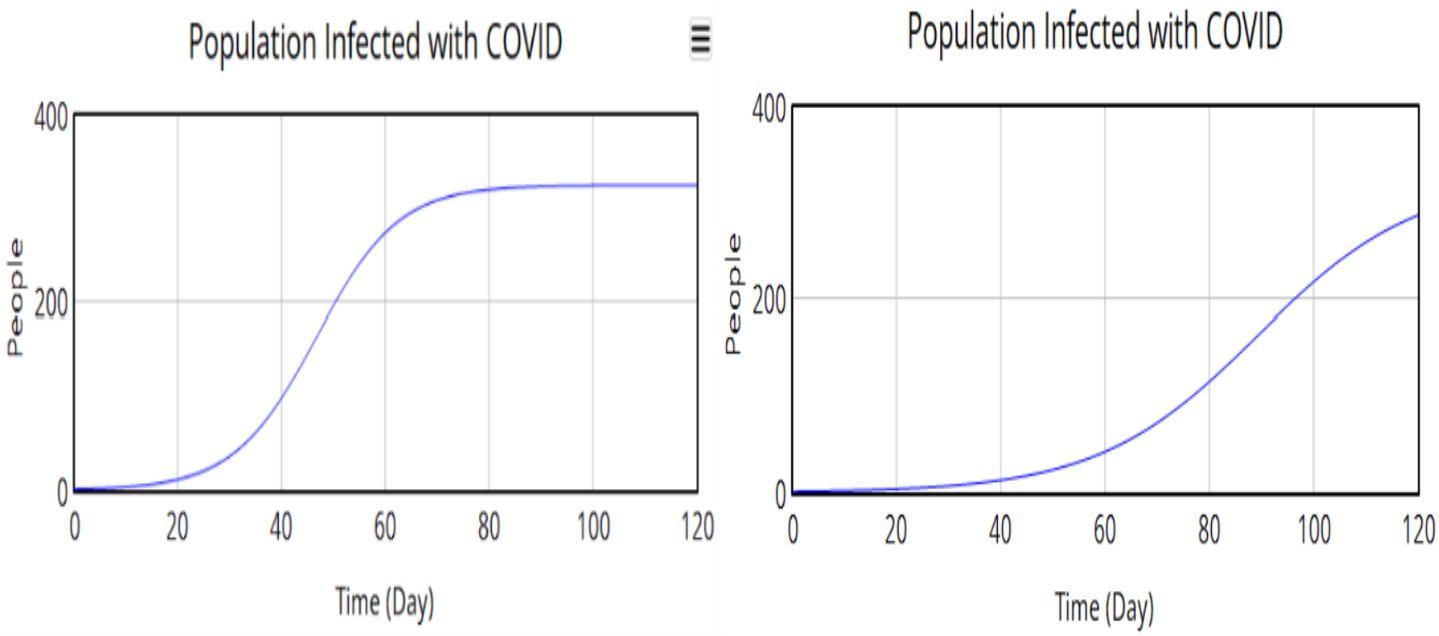


Figure 3 Reducing the Contact Frequency element flattened the curve according to this simulation (adapted from Shahroudi, 2022)

The goal was not to prevent the spread of COVID, but rather to slow the rate of infection to avoid overwhelming the medical system. However, these decisions affected many other systems, including the economy, education, and other key sectors.

The application of system dynamics modeling in our Army is unlimited. These tools can be used to forecast logistics demand, such as oscillations in over- and understocked parts; calculate ammunition forecasts; test the longevity of current production capabilities, as is occurring in the Russo-Ukrainian War; or eliminate costly bubbles in training pipelines. The question of how the Army can improve the proficiency of our new Aviators is complex. However, the answer may lie in a holistic understanding of the system's elements and relationships.

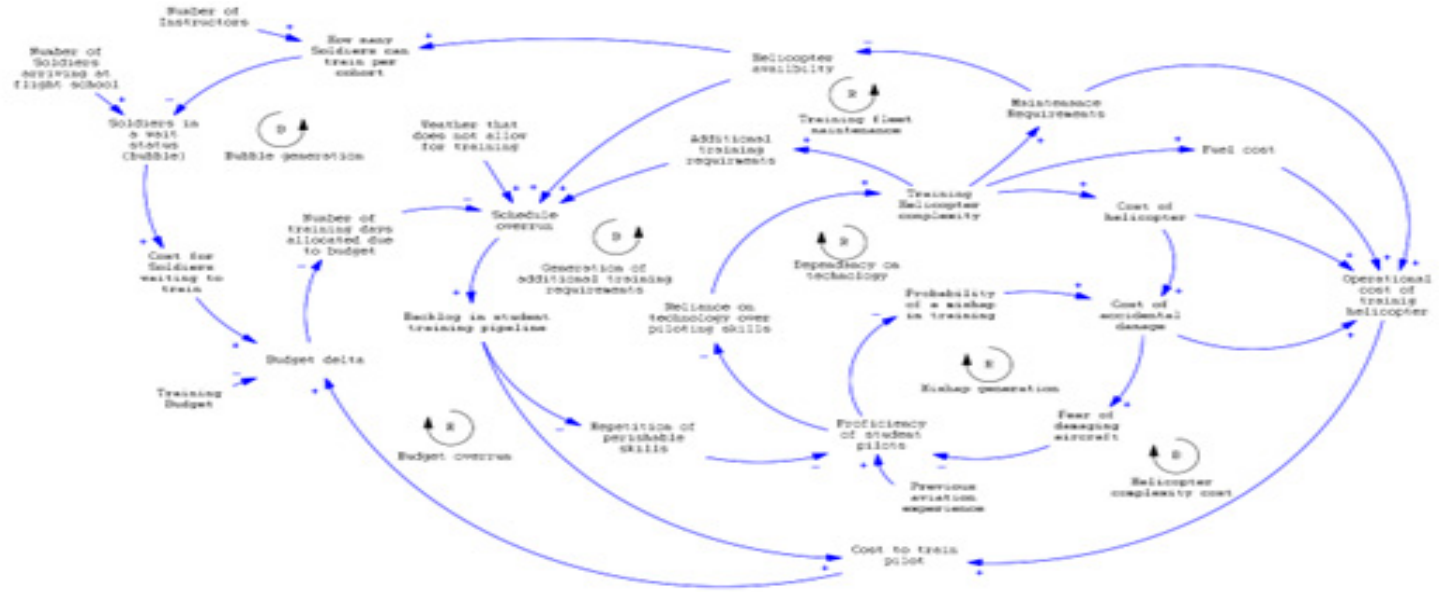


Figure 4 Possible Causal Loop Diagram for IERW, leverage points identified. (Jacobs, 2023)

Conclusions

The shift from a linear thinking model to a systems thinking model will enable leaders at all levels to visualize systems holistically, reveal critical interfaces between elements, and recognize patterns that enable faster, more accurate problem-solving and decision-making. This methodology will increase our readiness for the modern battlefield, thereby reducing casualties from unanticipated consequences.

Educating and ingraining our leaders with systems thinking needs to be done at all levels of command to facilitate horizontal and vertical lines of communication for decision-making. Systems thinking should be integrated at the junior levels of professional military education, and system dynamics should be introduced for select positions at intermediate levels.

The most glaring constant we all recognize about the modern battlefield is how quickly it evolves and adapts. Technological advancements are demonstrating that cheap weapons, such as UAVs, can negate our monetary advantage in expensive weapons systems and technology. The result of this will demand new approaches to defeating our enemies at tactical and strategic levels, faster research and development, a more streamlined acquisition process, and the development of new policies. Above all else, we must do this faster than the enemy.

References

Judson, J. (2024, April 23). US Army faces uphill battle to fix aviation mishap crisis. Defense News. Retrieved from https://www.defensenews.com/training-sim/2024/04/23/us-army-faces-uphill-battle-to-fix-aviation-mishap-crisis/

Department of the Army. (2023). Army Regulation 385–10: The Army Safety and Occupational Health Program. Headquarters, Department of the Army. Retrieved from https://armypubs.army.mil/

Flightfax. (2024, May). Class A - C Mishap Tables. U.S. Army Combat Readiness Center. Retrieved from https://safety.army.mil/Portals/0/Documents/ON-DUTY/AVIATION/FLIGHTFAX/Standard/2025/FF142-May-2025.pdf

Flightfax. (2025, May). Class A - C Mishap Tables. U.S. Army Combat Readiness Center. Retrieved from https://safety.army.mil/Portals/0/Documents/ON-DUTY/AVIATION/FLIGHTFAX/Standard/2025/FF142-May-2025.pdf

Jacobs, E. S. (2023). Complex Systems Dynamical Analysis of U.S. Army Aviation Pilot Training [Unpublished Masters paper]. Colorado State University

Meadows, D. H. (2008). Thinking in systems: A primer. Chelsea Green Publishing.

Schuster, S. (2018). The art of thinking in systems: Improve your logic, think more critically, and use proven systems to solve your problems - Strategic planning for everyday life. Steven Schuster

Seck, H. H. (2023, March 31). Is blended retirement making a difference? Air & Space Forces Magazine. Retrieved from https://www.airandspaceforces.com/article/is-blended-retirement-making-a-difference/

Shahroudi, K. E. (2022). Systems Thinking for the real world [Lecture Notes]. SYSE 505, Colorado State University

Sterman, J. (2000). Business dynamics: Systems thinking and modeling for a complex world. Boston: Irwin/McGraw-Hill

Wisecarver, M., Byrd, C., Loer, A., Engelsted, L., Adis, C., Kaplan, M., & Weyhrauch, W. S. (2022). A conceptual model of Army leader systems thinking (Technical Report 1420). U.S. Army Research Institute for the Behavioral and Social Sciences. Retrieved from https://apps.dtic.mil/sti/trecms/pdf/AD1190337.pdf

Husky's Hidden Hand: A Compass for Change Agency and Subject Matter Expertise in Large Scale Combat Operations

Dr. Jeremy D. Howard, Ed.D., Air Defense Artillery Branch

Headquarters Department of the Army (HQDA) Department of the Army Pamphlet (DAPAM) defines Army Warrant Officers 600-3 (2023) as not only technical experts and trainers, but also as both combat leaders and advisors. In both the combat leader and advisor role, they must use their immense expertise to ensure that vital lessons of the past are not needed to be relearned the hard way by today's commanders as the Army expands its wartime focus to prepare for Large Scale Combat Operations (LSCO) involving the pacing threat of potential peer and/or near-peer state actors. Twenty plus years of operations in the Global War on Terror have empowered most of the Army's modern leaders to be well versed and prepared for counter-insurgency operations (COIN), but the emergent focus on pacing threat actors and their peer/near-peer capabilities have created a training and readiness vacuum (Cooper, 2023; Flanick, Fox, & Smith, 2025). Army Warrant Officers must effectively develop their dynamic teams by leading up and down the chain, through competent advising of leaders above them and unmatched expertise in their tactical and technical craft as they train subordinate leaders.

Operation Husky, the 1943 Allied invasion of Sicily and largest amphibious assault of the entire World War II conflict represents a virtual cornucopia of lessons learned to be exported to the United States Army's renewed emphasis on LSCO involving potential peer and/or near-peer threats. It is not the intent of this paper to sow seeds of decent or doubt on the strategic success and importance that Operation Husky played in the war effort. However, leaders must examine the operation in its totality through an inspective lens, to identify both success and folly so that improvements are made at the Strategic, Operational, and Tactical levels of future operations. In viewing Operation Husky through this lens, two main lessons learned can be identified. The first lesson was that while intelligence was crucial in the prediction of German Tank movement and maneuver, disruption of intelligence created gaps that affected commander decision making processes (Woislaw, 2021). The other major lesson learned from Operation Husky involved the joint and multi-domain nature of the operation in that the lack of command, control, and coordination between Allied forces not only negatively affected scheme of maneuver and decision dominance of on ground leaders, but also introduced significantly enhanced potential for fratricide which directly resulted in decreased available forces to the operation's endeavors (Barr, 2019). At the surface level, these points appear to be affected at echelons far beyond the reality known to the Warrant Officer Cohort; however, it is the intent of this article to address these lessons from the locus of control for which an Army Warrant Officer operates.

Army Warrant Officers are uniquely postured to shape and affect the Army's future operations in the LSCO battlespace. Doctrine speaks to Warrant Officers at all ranks and levels of responsibility, it charged Warrant Officers to be experts in their field, to include the Warrant Officer 1-level, they then progress to increasing levels of responsibilities as advisors and trainers and are consistently defined as experts in their field (HQDA, 2023) which pursue virtuosity in their craft. Doctrine aside, there is ample anecdotal evidence speaking to the vitality of Warrant Officers as both technical experts and trusted agents that can shape the development of the force positively, as role models, standard bearers, and guardians of the Army process (Asare, et al., 2024; Harvey, 2024). While the breadth and scope of Army Warrant Officers has evolved significantly since World War II and Operation Husky, WWII had approximately 57,000 Warrant Officers actively serving and today we see a broader range of career fields and a smaller number of Warrant Officers at approximately 16,000, the refined role of the modern era Army Warrant Officer is specifically suited for preparing the Army for LSCO (DMDC, 2025; WOHF, 2015). Thus, Army Warrant Officers are unparalleled in their fit for leveraging the lessons learned from Operation Husky and ensuring our commanders of the future are prepared for the challenges of LSCO.

Lesson Learned 1: Overcoming Intelligence Gaps and Enabling Commanders

The value of intelligence does not necessarily lie with what knowledge it provides as much as the value resides within the timeliness and accuracy of the information received. This view on the value of intelligence is echoed by Fanik, Fox, and Smith (2025) in their focus on the importance of dissemination of intelligence in the Targeting Process and by Woislaw's (2021) analysis of Major General Allen's 1st Infantry Division's performance in Operation Husky when the intelligence they received was accurate and timely. Woislaw (2021) also presented an intelligence value based upon the intelligence information's ability to provide situational awareness to ground commanders to enable decision making and in its ability to predict adversary actions, both of which enable commanders to identify opportunities to exploit. In the end, accurate and timely intelligence enables decision dominance, despite if it is provided by Paul Revier riding around the country side announcing the arrival of the British or if it is a modern era J3.2 Hostile Air Surveillance Track message produced by an electronic intelligence hit and published to the Joint Data Network in CENTCOM representing a Group 3 Drone operating on a Loitering Munition/Kamikaze Drone mission set on its way to a U.S. Forces base.

Valuable intelligence on the enemy armor's posture and scheme of maneuver enabled the 1st Infantry Division to cease initiative and break out of the Gela Beachhead. While that is merely a single situation in the overarching conflict, it is worth noting that the general analysis of the operation found that when the tactical intelligence was appropriately disseminated it enabled the ground commanders' decision dominance, shaped the conflict, and contributed to the success of the amphibious assault. However, while Operation Husky benefited from timely and accurate intelligence at times, it also suffered from inaccurate, untimely, and poorly disseminated intelligence that negatively affected the operation (Woislaw, 2021).

There were two main points of Operation Husky's land domain fight for which intelligence failures can be cited. One intelligence failure was the misidentification of German units which directly led to underestimation of the size and availability of German forces by Allied forces. Allied forces developed an underestimation in Axis forces capabilities based on poor intelligence, this flawed assumption underprepared the ground forces for units' ability to reinforce and reorganize. Another intelligence failure was ground commander battlefield situation obscuration due to higher echelons withholding of intelligence or fragmented dissemination of intelligence. In both cases, intelligence failures were overcome, and victory was obtained, but this paper's thesis is that the Army Warrant Officer must leverage this knowledge to prevent future operations from enduring the same pitfalls.

Army Warrant Officers can leverage their roles as integrators and technical experts to overcome future LSCO-based intelligence concerns of the likes that were experienced during Operation Husky. The HQDA (2023) defined Warrant Officers as technical experts across their rank structure. In this capacity, Army Warrant Officers would need to leverage their technical expertise (despite their career field) to analyze received intelligence. Fragmented information needs to be filtered and examined through a stronger scope. Then enemy forces will be more accurately identified and thus, their posture and constitution more correctly predicted. This better parsing of intelligence data allows commanders battlefield clarity and decision dominance. Further examining these lessons from the lens of the HQDA (2023) definition, Warrant Officers are described as integrators of emergent technologies. In this capacity, the Warrant Officers role would be focused on the management of intelligence gathering systems and timely distribution of products and/or insertion of intelligence products to planning systems. In both cases, Army Warrant Officers embodying the Warrant Officer definition would add value to their organizations and aid in overcoming this lesson learned in the LSCO environment.

Lesson Learned 2: Communications and Chain of Command in the Joint Fight

Barr (2019) captured a major lesson learned that defines a modern concern for LSCO in, "…greater attention to efficient liaison and co-ordination before the operation began would have smoothed the Allies path in Sicily and may have prevented some of the more egregious errors and misunderstandings that developed. (p.28)". Field Manual [FM] 3-0 (2025) clearly states that Army Operations are multi-domain in nature and that leverage Joint and Army capabilities to achieve objectives. Operation Husky was multi-domain for its era including amphibious landings and naval support from the maritime domain, application of air power and airborne assets from the air domain, and the application of maneuver tactics on the land domain. However, a combination of the absence of an Army Group Headquarters on the island for a significant portion of the operation and poor communication and coordination between Allied and Joint forces played significant roles in the delay of friendly forces scheme of maneuver directly resulting in Axis forces having improved decision dominance and reaction time (Bar, 2019). Today's modern force structure provides a Joint Forces Commander (JFC) placed in command of a Joint Task Force (JTC) for a theater in crisis (HQDA, 2025). Within this JTF each domain gets a Component Commander (CC), Maritime (MCC), Air (ACC), Land (LCC), etc. This Joint operations-centric force structure further supports that Army operations are multi-domain operations, and this creates the potential for the pitfalls of Operation Husky to rear their ugly head in future operations.

There is value in the examination of Operation Husky's failures in command, control, coordination and liaison efforts to define specific areas for which Warrant Officers have a locus of control and scope of effect that will help to avoid their potential presentation in future LSCO situations. General Harold Alexander's 15th Army Group Headquarters' location and support of the operation was cited as a point of contention in the campaign, as it was the campaign's coordinating headquarters. Bar (2019) explains that General Alexander chose not to establish headquarters forward on the island in the early part of the campaign. Bar (2019) continues and assigns significant responsibility to this decision in that the two forward subordinate Armies, the 7th and 8th Armies, were deprived of coordination and liaison efforts for their multi-domain support needs from the Joint force. While the modern battlefield mitigates much of this concern by providing enhanced situational awareness through Intelligence, Surveillance, and Reconnaissance (ISR) feeds from drones or other intelligence gathering systems and tactical data flows across the world via beyond line-of-sight (BLOS) Tactical Data Links (TDLs); in the era of Operation Husky this lack of support was costly. The other major failure in this arena of command and control was an insufficient level of Army command-level coordination and liaison between Allied forces. While the lack of communication and coordination between the land component maneuver forces of the 7th and 8th Armies and how that caused significant delays that favored Axis elements decision making and scheme of maneuver; the fratricide event that cost the lives of 318 U.S. personnel during the 504th parachute infantry regiment's insertion stands out as a very serious consequence of the overarching lack of coordination between Allied forces. In one case, plans were not developed for the two Armies scheme of maneuver for the exploitation phase in the other poor information dissemination set the stage for weary gunners to engage low flying aircraft unknowingly taking American lives (Bar, 2019; St. Clair, 2007). In both cases, the characteristics and duties assigned to the modern-day Army Warrant Officer provide mitigations for these potential follies in a future LSCO campaign.

From the Warrant Officer perspective, a key takeaway for modern LSCO planning with respect to the failures in command and control, lack of liaison and coordination, and the resultant fratricides of Operation Husky is that there is a critical need for professionals with the technical expertise and knowledge of integration of systems to provide robust communications across the Joint environment and various domains of operations. While systems have been emplaced across the Department of Defense to improve these gaps, as an example the Joint Task Force formation to align Joint forces interoperations and the Theater Air Ground System (TAGS) for coordination of Joint fires across various domains; it is the Army Warrant Officer that will play a critical role in integration of systems in LSCO as

they are described as the innovative integrator of emergent technologies in the very definition of the cohort (Asare, et al., 2024; HQDA, 2023).

Synthesizing information from Harvey's (2024) article, the Warrant Officer's advisory capacity has been developed from a legacy of trust that enables them to recommend to commanders and other leaders on the integration of systems, placement of key nodes or Command Posts, and advise on the operations of systems that enable communication. As an example, recommending that TDL capable systems are integrated to the Joint Data Network will enhance both situational awareness of the Command Post and leadership, but this also will mitigate fratricide potential through the inherent sharing of Precise Position Location Information (PPLI) message. There is an incredible proliferation of TDL capable systems that are operated by or are operated within proximity of various Army Warrant Officer career fields. Gebara (2006) identified this need when he quoted VADM Arthur Cebrowski, "If you are not Link 16-capable, you will not be welcomed on the U.S. Battlefield… You will be considered a Blue-on-Blue engagement generator: A threat to friendly and coalition forces." Army Warrant Officer need to advise and liaise with leaders at all echelons and across the Joint force on the integration of their systems to ensure the appropriate level leadership and Command Post have the most timely situational awareness of their subordinates' actions despite geographic location, that operational information is appropriately disseminated to key elements, and that systems are operating on the Joint Data Network to aid in fratricide prevention.

Conclusion

"Those who cannot remember the past are condemned to repeat it. (Santayana, 1905)" While it is very easy to Monday-Morning-Quarterback the events of Operation Husky and admittedly plenty of researchers have examined this campaign in significant depth and breadth; it is far harder and vastly more important to take the lessons learned and apply them to the future of LSCO campaigns. The modern-day Army Warrant Officer is well positioned to act as an agent of change when it comes to the prevention of recurrence of the historic mistakes of Operation Husky. The Army's renewed focus on LSCO involving pacing threats uniquely place the Army Warrant Officer in a space where they must leverage their expertise to ensure the lessons from the past, such as the intelligence and command failures of Operation Husky, are not relearned. Army Warrant Officers must accomplish this immense task by appropriate advising of leaders and effective training of subordinate teams, using the inherent deep tactical and technical knowledge to fill readiness gaps and prepare the force for future challenges in the LSCO battlespace.

Furthermore, a key aspect of the Army Warrant Officer's role that was repeatedly addressed in this paper is that they are innovative integrators. But the cohort must ask itself, what does it mean to integrate innovatively? This thought exercise can empower the cohort to understand that these are more than just words they were forced to memorize in Warrant Officer Candidate School, these words mean something! Innovative integration means that Army Warrant Officers have more than just the technical proficiency to administer, manage and integrate diverse Army systems across operational domains, but that they think outside the box in the integration process. LSCO will challenge the systems the Army knows and uses, it will be a forcing function for Army Warrant Officers to race to out innovate the enemy. Army Warrant Officers must learn from the past, examine lessons learned, and develop innovative solutions in the integration of systems to overcome the intelligence and communication gaps that will be inherent in the LSCO battlespace involving peer and/or near-peer threat actors. The Army Warrant Officer is the key to the problem set that has plagued complex and multi-domain military operations of the past.

References

Asare, I., Dickinson, W., Lombera, G., Pettigrew, L., Rodriguez, J., & Volk. (2024). Warrant Officer Technical Expertise in the Strategic Environment. The Warrant Officer Journal, II(2), 42-52. Retrieved from https://www.armyupress.army.mil/Portals/7/WOCC-Journal/2024-Journals/SIK-Volume-II-Issue-2.pdf#page=42

Bar, N. (2019). Between Patton and Montgomery: Robert Henriques and Operation Husky. War in History, 00, 1-28. doi: https://doi.org/10.1177/0968344519836442

Cooper, C. (2023, July 7). Curing the COIN hangover. Westpoint.edu. https://lieber.westpoint.edu/curing-coin-hangover/

Defense Manpower Data Center [DMDC]. (2025). DoD personnel, workforce reports & publications. Retrieved from https://dwp.dmdc.osd.mil/dwp/app/dod-data-reports/workforce-reports

Gebara, A.J. (2006). Beyond the wild blue-on-blue: Leveraging counter-fratricide technologies for operational effects [Masters thesis]. United States Marine Corps School of Advanced Warfighting. Retrieved from https://apps.dtic.mil/sti/tr/pdf/ADA508734.pdf

Harvey, M. (2024). The Role of US Army Warrant Officers in Re-Establishing Trust in Army Process. The Warrant Officer Journal, II(4), 33-37. Retrieved from https://www.armyupress.army.mil/Portals/7/WOCC-Journal/2024-Journals/PB_1918-24-4-UA.pdf#page=33

Headquarters, Department of the Army [HQDA]. (2023, April 14). Department of the Army Pamphlet [DA PAM] 600-3, Officer Talent Management. Retrieved from https://www.army.mil/g-1#org-g-1-publications

Headquarters, Department of the Army [HQDA]. (2025, March 21). Field Manual [FM] 3-0, Operations. Retrieved from https://armypubs.army.mil/ProductMaps/PubForm/Details.aspx?PUB_ID=1030750

Flanick, K., Fox, M., & Smith, M. (2025, August 11). The dichotomy of large-scale combat operations targeting for a counterinsurgency experienced force. Mipb.ikn.army.mil. https://mipb.ikn.army.mil/issues/jul-dec-2025/the-dichotomy-of-large-scale-combat-operations-targeting-for-a-counterinsurgency-experienced-force/

Santayana, G. (1905). The life of reason. New York, NY: Charles Scribners Sons.

St. Clair, M.G. (2007). The twelfth US Air Force tactical and operational innovation in the Mediterranean theater of operations 1943-1944 [Thesis]. USMC School of Advanced Air and Space Studies. Retrieved from http://research.maxwell.af.mil

Warrant Officer History Foundation [WOHF]. (2015). Army warrant officer history part 1 – 1918 to 1996. Retrieved from https://warrantofficerhistory.org/Hist_of_Army_WO.htm

Woislaw, J.A. (2021). The 1st Infantry Division in Sicily: A case study in tactical intelligence [Masters thesis]. United States Army Command and General Staff College, Fort Leavenworth, KS. Retrieved from https://apps.dtic.mil/sti/html/trecms/AD1157541/

The Consequences of Forgetting the Lessons Learned During Counter-Insurgency Operations of the Global War on Terrorism

CW3 David L. Benson, U.S. Army

The purpose of the United States Army is to fight and win the nation's wars on land. According to FM3-0 (2025), "The Army's primary mission is to organize, train, and equip its forces to conduct prompt and sustained land combat to defeat enemy ground forces and seize, occupy, and defend land areas" (p. 1). Ever since the large land wars of World War I and World War II, the United States Army has prepared for another large land battle somewhere in the world. Planning for battle against other large militaries worldwide is expected, as they pose the greatest threat to the United States' security, and being unprepared for nations like Russia and China would be detrimental. Until the fall of the Soviet Union, the primary objective was to plan for another large land battle in Europe. The Cold War large maneuver warfare mentality continued through the 1990s and beyond the terror attacks on September 11, 2001. After some hard lessons learned and too many casualties in Afghanistan and Iraq, the United States Army changed its tactics and training mentality to focus on Counter-Insurgency Operations (COIN). With the rise of China and Russia's aggression in Eastern Europe, the Army is back to focusing on large land battles through its Large-Scale Combat Operations (LSCO) doctrine (Headquarters, Department of the Army, 2025). If the Army is not careful, we will find ourselves in a position where we must learn the hard lessons of COIN operations again. Even as the Army shifts its doctrine back to a focus on LSCO, it must not lose sight of the high likelihood of a COIN conflict. It therefore must find ways to maintain the lessons learned during the Global War on Terrorism to help save service members' lives in the future.

While it is necessary to prepare for LSCO in the event of a potential conflict with China or Russia, history since World War II indicates that a COIN conflict is more likely (Kilcullen, 2012). The fact that the United States is acknowledging and preparing for China as its own described pacing challenge (United States Department of Defense, 2022) will likely deter a LSCO confrontation. Analyzing the total physical and economic devastation to the nations of Europe and Asia after World War II, proves that a large war is not worth the cost, even if a nation comes out as the victor. During the Cold War, both the United States and the Soviet Union knew a war against each other would be disastrous, even if it did not reach the likely nuclear climax. Instead, the United States found itself embroiled in several small-scale conflicts. Furthermore, except for Desert Storm, none of these conflicts since the Korean War looked anything like the war the Army was preparing for against the Soviets. Even Desert Storm is not a good example of LSCO because the United States Army destroyed the Iraqi Army so quickly and decisively that it did not demonstrate the depth and breadth required for an actual LSCO conflict.

The biggest conflict the United States was involved in between the end of the Korean War and the present was the Vietnam War. The reasons for the start of the Vietnam War, and the political fallout from the war, are well documented, and the details do not need to be covered here, except to understand the United States Army perspective that we never learned how to adapt to a COIN fighting style the North Vietnamese pursued. While a handful of battles, such as Ia Drang, had the look of large-scale ground combat, the North Vietnamese understood they could not stand toe to toe with the United States Army. Therefore, they engaged in extensive guerrilla tactics while the Army was trying to fight a LSCO-style war. At the cost of many US lives, we could not change our fighting style and adjust away from the concept of the fight against the Soviet Union. While the Vietnam War was a long, bloody fight, it did not hold any of the staples of LSCO.

Following Vietnam, the United States found itself engaged in several small conflicts around the globe, with the intent of creating global stability and protecting its interests. Until the United States and its allies expelled Iraq from Kuwait in Desert Storm, none of the small operations could be considered LSCO. These operations ranged from conflicts in Panama and Grenada to a variety of other locations

(US Army Center of Military History, 2015). All these operations dealt more with stability or policing type actions; much more akin to COIN than LSCO. Desert Storm is the one conflict that comes the closest to LSCO since the Korean War. However, as mentioned above, the quick and overwhelming victory by the Allies never allowed this war to reach anything close to the conflict planned against the Soviets at the time, or to the potential conflict with China that the United States Army is preparing for now. After pushing the Iraqi Army out of Kuwait, the United States pulled forces out of Iraq and did not attempt to unseat the Iraqi government or stabilize the country. Regardless of whether this was the right decision or not, based on events after the 2003 invasion of Iraq, it is easy to see how Iraq could have turned into a COIN operation if the Army had been ordered to stay. Since Desert Storm, the United States continued to find itself involved in small, stability, or guerrilla operations in a variety of locations like Bosnia, Kosovo, and other locations around the world (US Army Center of Military History, 2015).

Following the attacks on September 11, 2001, the United States started the operations in Afghanistan, shortly followed by the invasion of Iraq in 2003. Despite the end of the Cold War and the small policing and asymmetrical operations the Army found itself in since then, the doctrine still focused on large-scale ground operations. It took ten years for the United States to understand that we need to change our doctrinal approach to the Global War on Terrorism (Stenson, 2022). The lessons learned over two decades of COIN operations were hard-earned and well-documented. Since the completion of the last LSCO-type conflict in Korea and countless asymmetrical operations since then, the United States Army has finally understood and implemented the changes needed to succeed in COIN operations. Since the end of major operations in the Middle East and the growing threat posed by China, and to a lesser degree by Russia, the United States is focusing again on LSCO.

The argument here is not that the United States should not adjust its doctrine to LSCO or ignore the threat posed by China and Russia. Doing so would be irresponsible and jeopardize the interests of the United States and global security. However, Army doctrine and plans need not be mutually exclusive. History can be a teacher, offering a glimpse into what alternate futures could hold. By preparing for LSCO against near-peer threats, we are reducing the likelihood of a LSCO conflict. However, as outlined in the RAND study, this could increase the likelihood that China or Russia would support asymmetrical conflict against the United States, as they did in Vietnam, Iraq, and Afghanistan (Predd, Deluca, Savitz, Geist, & Lee, 2025). Preparing for LSCO does not exclude preparing for COIN operations. While there are many ways the United States Army can maintain lessons learned from the Global War on Terrorism, two broad frameworks can help planners determine the best course of action.

One concept is to incorporate COIN principles across all Army training echelons. This would be a broad-based approach that provides minimal training to all Soldiers across the Army. A potential downside to this approach is that it could get marginalized while focusing on China and LSCO operations. The second approach is to focus on one primary unit as the experts in COIN Operations beyond the Special Forces' scope. This unit would be the first deployed to an operation that was COIN in nature, or after a large-scale maneuver is successful and stability operations begin, much as in the 2003 invasion of Iraq. One potential downside of this approach is the risk of limiting the manpower available for LSCO operations should they occur. However, it would not be difficult for this unit to move from COIN to LSCO if the need arose.

References

Headquarters, Department of the Army. (2025). FM 3-0 - Operations. Washington, D.C.: Army Publishing Directorate.

Kilcullen, D. J. (2012). The City as a System: Future Conflict and Urban Resilience. The Fletcher Forum of World Affairs, 19–39.

Predd, J. B., Deluca, P., Savitz, S., Geist, E., & Lee, C. (2025). Thinking Through Protracted War with China. Santa Monica: RAND Corporation.

Stenson, R. (2022, October 10). US Army Training and Doctrine Command updates Army capstone doctrine, codifying shift to multidomain operations. Retrieved from Army.mil: https://www.army.mil/article/260943/us_army_training_and_doctrine_command_updates_army_capstone_doctrine_codifying_shift_to_multidomain_operations

United States Department of Defense. (2022). 2022 National Defense Strategy of the United States of America. Washington, D.C.: Department of Defense.

US Army Center of Military History. (2015). Research. Retrieved from Chronology of Army History: https://history.army.mil/Research/Series-and-Collections/June-14th-The-Birthday-of-the-US-Army/Chronology-of-Army-History/

Designating the Electromagnetic Spectrum (EMS) as an Operational Domain

CW2 Jeff B. Newsome and CW2 Travis M. Whitesel

The concept of military domains has traditionally encompassed air, land, maritime, space, and cyberspace, each defined as mediums for maneuver and control to achieve strategic objec-tives (ADP 3-0, 2019; FM 3-0, 2022). With the increasing dependence on and complexity of electromagnetic spectrum (EMS) operations, evaluating whether EMS should also be designated as an independent domain is essential. EMS is classified under cyberspace due to its role in data transmission. However, this oversimplification overlooks the EMS's broader utility and necessity in modern warfare, particularly in electronic warfare (EW) activities—attack, protect, and sup-port—pivotal to battlefield superiority (JP 3-85, 2020).[TW1.1]

Definition of Military Domains

A military domain is a medium an actor must access, maneuver within, and control to achieve its objectives in a conflict. According to joint military doctrine, current domains include air, land, maritime, cyberspace, and space. Conflict in each domain requires unique strategic ap-proaches due to the medium's physical and operational characteristics. For example, operations in the air domain depend on altitude, speed, and air control, while the maritime domain relies on waterborne maneuverability. Similarly, cyberspace operations hinge on data integrity, network connectivity, and access to digital systems, while the space domain requires control over orbital pathways and space-based assets (JP 3-0, 2022b; JP 3-12, 2022a).[TW2.1][TW2.2]

The Electromagnetic Spectrum (EMS): Definition and Strategic Importance

EMS encompasses all frequencies of electromagnetic energy, including radio, microwave, infrared, visible light, ultraviolet, X-rays, and gamma rays. It is the backbone for critical military operations such as communication, radar, jamming, electronic surveillance, and precision target-ing. Control over EMS enables forces to detect, track, and target adversaries, which is crucial for achieving operational dominance in other domains. As a medium, EMS is essential not only for digital communication but also for conducting electronic attacks, defenses, and support opera-tions that influence the broader conflict environment (JP 3-85, 2020).

EMS in Relation to Cyberspace and Other Domains

Military operations increasingly depend on the EMS for data transmission, as a conduit for communications, radar, and weapon guidance systems, and to enhance situational awareness (JP 3-12, 2022a). While cyberspace serves as the operational sphere for information and network security, EMS provides the medium across which these and other critical capabilities operate, ex-tending to electronic attack, support, and protective measures. For example, the Army's opera-tions doctrine describes EMS as an essential component of EW, integral to controlling the opera-tional environment, thus necessitating a dedicated focus beyond cyberspace (FM 3-12, 2021b; AR 525-24, 2023).

Although cyberspace relies on EMS for data transmission, the relationship between the two is not synonymous. Cyberspace focuses on digital networks, data integrity, and virtual inter-actions, while EMS deals with electromagnetic energy across a wide frequency range used for both digital and non-digital

applications. For example, while cyberspace operations might involve securing data on a network, EMS operations could involve jamming an adversary's radar or communications. These functions highlight EMS's broader applications, encompassing digital and physical effects that cyberspace alone cannot achieve. This distinction underscores the need to treat EMS as a separate operational domain rather than a subcategory of cyberspace (FM 3-12, 2021b; JP 3-85, 2020).

Challenges of Integrating EMS into Cyberspace Operations

Integrating EMS under cyberspace demeans its function, limiting military strategy and oversight.[TW3.1] Current doctrine often fails to capture EMS's unique capabilities, such as elec-tronic warfare's ability to disrupt enemy operations without engaging in physical combat. [TW4.1][TW4.2]As a result, it is possible that commanders do not understand its full functionali-ty and request to deploy cyber forces when they mean EW. This can result in delayed operations or confusion for the staff regarding what capability to deploy. When EMS is confined to cyber-space, the strategic focus narrows to network and data security, overlooking critical aspects of electronic warfare. For instance, radar jamming, deception, and directed energy weapons operate within EMS but are not directly aligned with cyberspace's core focus on data and networks. This paper argues that separating EMS would improve clarity and operational focus, allowing forces to develop specialized EMS tactics that maximize its unique characteristics (FM 3-0, 2022; JP 3-0, 2022b).

Cyberspace operations focus on information networks, seeking to secure, exploit, or ma-nipulate data within and across these networks (JP 3-0, 2022b). In contrast, EMS operations en-compass a physical range of frequencies for communication and signal-based operations, which include jamming, spoofing, and sensing. As EMS encompasses a broader range of applications beyond just data movement, it requires a dedicated approach to fully leverage its unique opera-tional properties (Chief of Staff Paper #1, 2021a). Unlike cyberspace, where operations primarily seek data manipulation, EMS operations directly impact the tactical and strategic environment by altering the electromagnetic operational environment (EMOE).

The Role of Electronic Attack, Protect, and Support within EMS

The scope of EMS capabilities—spanning electronic attack (e.g., disrupting enemy radar), electronic protection (e.g., securing communications against jamming), and electronic support (e.g., detecting adversarial signals)—illustrates its distinct contributions to combat operations. In high-stakes environments like the Indo-Pacific, where communication systems face considerable interference risks, establishing EMS as a separate domain would allow more precise strategic alignment and resource allocation (FM 3-0, 2022; JP 3-85, 2020). Additionally, as joint force op-erations grow increasingly complex, designating EMS as a distinct domain would streamline command and control structures, enabling dedicated resources and personnel to optimize the full scope of EMS applications across various conflict levels.

Electronic Attack (EA)

Electronic Attack (EA) involves using the Electromagnetic Spectrum (EMS) to degrade, disrupt, or deny enemy electronic systems, such as radar and communication networks, support-ing tactical and operational objectives. Techniques like jamming or deceiving enemy radar ob-scure friendly force movements, ensuring greater operational security and maneuverability (FM 3-12, 2021b; JP 3-85, 2020).

Electronic Protect (EP)

Electronic Protect (EP) safeguards friendly EMS capabilities from adversarial attempts to disrupt or deny access. This includes implementing defensive measures to secure military com-munications and navigation systems against jamming or interference, thereby maintaining opera-tional effectiveness in contested environments (FM 3-12, 2021b; JP 3-85, 2020).

Electronic Support (ES)

Electronic Support (ES) entails collecting intelligence and situational awareness through EMS activities, such as intercepting enemy signals. These operations enable real-time insights into adversary movements and capabilities, essential for informed decision-making and tactical ad-vantage on the battlefield (FM 3-12, 2021b; JP 3-85, 2020). While EMS operations may comple-ment cyberspace efforts, these functions underscore that EMS operates as an independent do-main critical to achieving strategic dominance in contemporary conflicts.

Benefits of Designating EMS as a Separate Operational Domain

Designating the Electromagnetic Spectrum (EMS) as its own domain would enable the military to fully control and exploit EMS capabilities by separating them from the cyberspace domain. This distinct designation would provide a structured framework for developing special-ized tactics, command and control (C2) enhancements, and strengthened defenses crucial for modern conflict (JP 3-12, 2022a; JP 3-85, 2020).

Development of Specialized Tactics and Training [TW5.1]

Recognizing EMS as an independent domain would allow us to create targeted training programs and develop tactics specifically suited for EMS operations. It would also enable us to train professionals in EMS to counter adversarial use of the domain. This focus would improve operational effectiveness in contested environments where control over EMS is vital for mission success (JP 3-12, 2022a; FM 3-12, 2021b).

Improved Command and Control (C2)

A separate EMS domain would give commanders more explicit oversight and control by defining responsibilities within a dedicated structure. This approach would help prevent overlap or confusion with cyberspace operations, allowing for a more streamlined and effective C2 pro-cess (JP 3-12, 2022a).

Strengthened Defense and Resilience

Given the increasing sophistication of electronic warfare threats, establishing EMS as its own domain would strengthen military defenses against complex threats. Enhanced resilience against attacks on GPS, communication systems, and radar would protect critical assets and en-sure operational continuity (JP 3-12, 2022a; JP 3-85, 2020).

Policy Recommendations and Future Research

Develop EMS-Specific Doctrine

Crafting a doctrine specifically for the Electromagnetic Spectrum (EMS) would address its distinct operational needs independent of cyberspace. This doctrine should outline strategies encompassing electronic attack, protection, and support functions, ensuring that EMS capabilities are fully utilized in various operational scenarios (JP 3-12, 2022a; JP 3-85, 2020).

Enhance International EMS Norms

Establishing global standards for EMS operations, similar to norms in other domains, would mitigate risks of misinterpretation or escalation in multinational contexts. Explicit interna-tional norms would promote responsible EMS usage and help stabilize relations during collabora-tive or contested engagements (JP 3-85, 2020).

Integrate EMS into Multi-Domain Operations (MDO)

Incorporating EMS-specific capabilities into Multi-Domain Operations (MDO) doctrine would enhance joint force effectiveness. EMS plays a critical role across domains, so leveraging it within MDO would enable forces to coordinate and capitalize on EMS's unique advantages during operations (FM 3-12, 2021b). Further research is essential to address the economic, politi-cal, and technological factors associated with formalizing EMS as a separate domain. This re-search should assess the impacts on training requirements, resource distribution, and international collaboration and explore how these factors would shape a dedicated EMS framework (Chief of Staff Paper #1, 2021a).

Conclusions

Designating EMS as its own operational domain recognizes its strategic role beyond the confines of cyberspace, emphasizing its unique capacity to influence the battlefield across the competition continuum. By advancing EMS as a separate domain, the military can optimize elec-tronic warfare capabilities and better secure the electromagnetic environment essential for mod-ern warfare (JP 3-12, 2022a). As technological and operational landscapes evolve, this distinction will ensure EMS resources are effectively integrated and prioritized, providing a solid foundation for future conflict environments.

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References

Department of the Army. (2019). Operations (ADP 3-0).

Department of the Army. (2021a). Army multi-domain transformation (Chief of Staff Paper #1).

Department of the Army. (2021b). Cyberspace operations and electromagnetic warfare (FM 3-12).

Department of the Army. (2022). Operations (FM 3-0).

Department of the Army. (2023). U.S. Army cyberspace and electromagnetic warfare operations (AR 525-24).

Joint Chiefs of Staff. (2020). Joint electromagnetic spectrum operations (JP 3-85).

Joint Chiefs of Staff. (2022a). Cyberspace operations (JP 3-12).

Joint Chiefs of Staff. (2022b). Joint campaigns and operations (JP 3-0).

Designed Lethality: Weaponizing the Data Science Technician by Restructuring Warrant Officer PME

CW4 Stephen Andre, Military Intelligence

The Army is drowning in data while starving for actionable insights. The sheer volume of data across warfighting functions strains manual workflows, wasting critical time and degrading the commander's ability to make informed, data-driven decisions. Many propose AI as the universal solution to eliminate inefficiencies and accelerate analysis. However, the sheer variety and nuance of use cases make a one-size-fits-all approach for the Army unrealistic. Each use case demands a unique lexicon of concepts and workflows to achieve mission objectives. Where AI falls short, warrant officer technicians excel. Use cases form the basis of the technician's expertise. When equipped with data science, these experts become the drivers of decision dominance. The Army achieves victory through laser-focused algorithms that transform data into information faster than the enemy. Warrant officer technicians provide this edge. To harness their power, the Army must shift training paradigms by rethinking legacy requirements and codifying the active-duty data science technician as its premier data solutionist.

The Need for Subject-Matter Experts

Vendor dependence threatens information dominance. Too often, the Army turns to vendors and loses accurate insights because contractor data scientists often lack deep subject-matter expertise and understanding of Army-specific workflows. As a result, critical gaps emerge in their solutions. The Army cannot dominate when automated Intelligence workflows fail to standardize mission-critical data or skip essential analytical steps. Nor does it dominate when vehicles stay deadlined because algorithms do not replicate predictive maintenance calculations.

Warrant officers, not outside vendors, are the Army's guardians of technical data and workflows. With data science skills, they transform hands-on experience into mission-relevant algorithms. They deploy code across vast datasets to increase information lethality through automated near-real-time analysis. No one matches their Warfighting knowledge. Equipping them with data science strengthens the Army's resolve to "fight for, defend, and fight with information" (ADP 3-13, 2023).

The Training Paradigm: Time-in-Service Bottleneck

Timing is critical, and it is currently hindering the development of skilled data scientists. The first opportunity for warrant officers to pursue graduate degrees appears too late for most to consider changing their career paths. To overcome this obstacle, the Army must redesign its professional military education (PME) training model. Redesign takes into account: (a) the 10 years of service the average non-commissioned officer has before starting candidate school; (b) the six-year warrant officer technician commitment after completing the basic course; (c) the policy requiring at least four years active-duty warrant officer service to attend a fully funded civilian graduate program; and (d) the four-year nonconcurrent additional duty service obligation (ADSO) for attending an 18-month graduate program (AR 350-100, 2023; McHugh, 2026).

Simple math shows warrant officers can first attend grad school as a CW2 with roughly 14 years of service. At best, they graduate at the 16-year mark of their career, placing them at the end of their six-year technician commitment. Once they graduate, their four-year service obligation for using a fully funded graduate program begins, putting them at or near retirement eligibility upon completion. These calculations exclude PCSs, PME, and other requirements that often extend timelines. By placing career-altering decision points for established CW2s well beyond the midway point of their careers, the Army puts itself at a severe disadvantage in recruiting and retaining valuable talent.

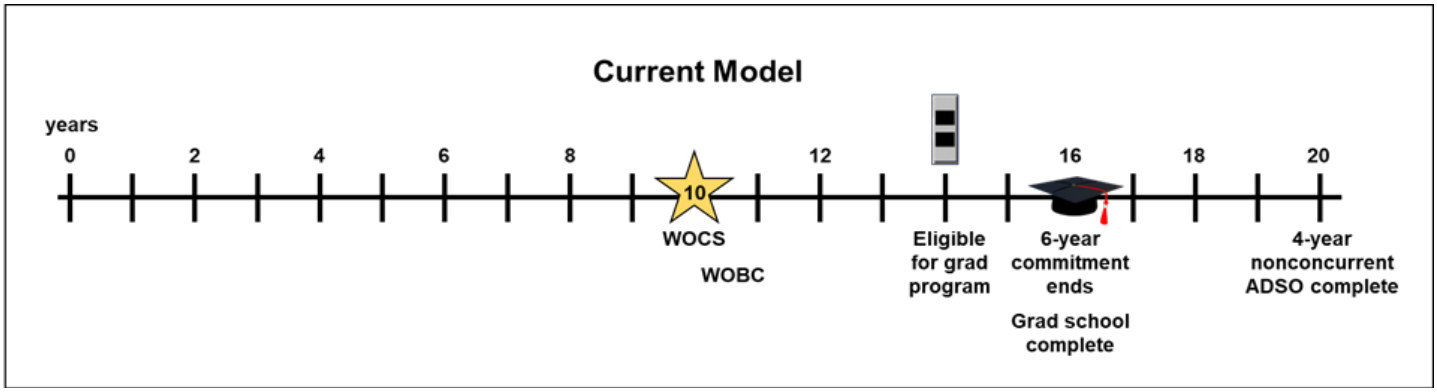

Figure 1: Current Army Model for Fully Funded Graduate School

Case Study: INSCOM Intelligence Data Science Pipeline

In 2017, the United States Army Intelligence and Security Command (INSCOM) began recruiting 50 Intelligence technicians for data science. Partnering with the Army Human Resources Command and a recognized master's program, they built a graduate studies pipeline for mid-level warrant officers. This endeavor reveals how additional service requirements create unnecessary administrative hurdles in the recruiting process. The last two warrant officers to apply did so in 2020, and they are currently the lone Intelligence data science technicians in the Army. By following the Army model for attending funded graduate school, INSCOM fell well short of its 50-target goal and set itself back years in the race for information dominance.

Shifting the Paradigm: Developing a Data Science Pipeline

Drag impedes progress. To enable a data-capable force, the Army must immediately adopt a novel WO PME approach. The Warrant Officer Career College (WOCC) should develop a data science pipeline in collaboration with a recognized master's program. Active-duty candidates from all warfighting functions apply for the pipeline through both WOCC and the university while completing their packet. Upon selection, candidates follow the traditional PME model, with one change: newly pinned warrant officers attend graduate school rather than the basic course. After completing their master's, they report to their first assignment and begin their six-year commitment with no additional, nonconcurrent four-year ADSO required. The standard PME for advanced and senior courses in their military occupational specialty (MOS) will remain in place as these data science technicians continue advancing in their careers.

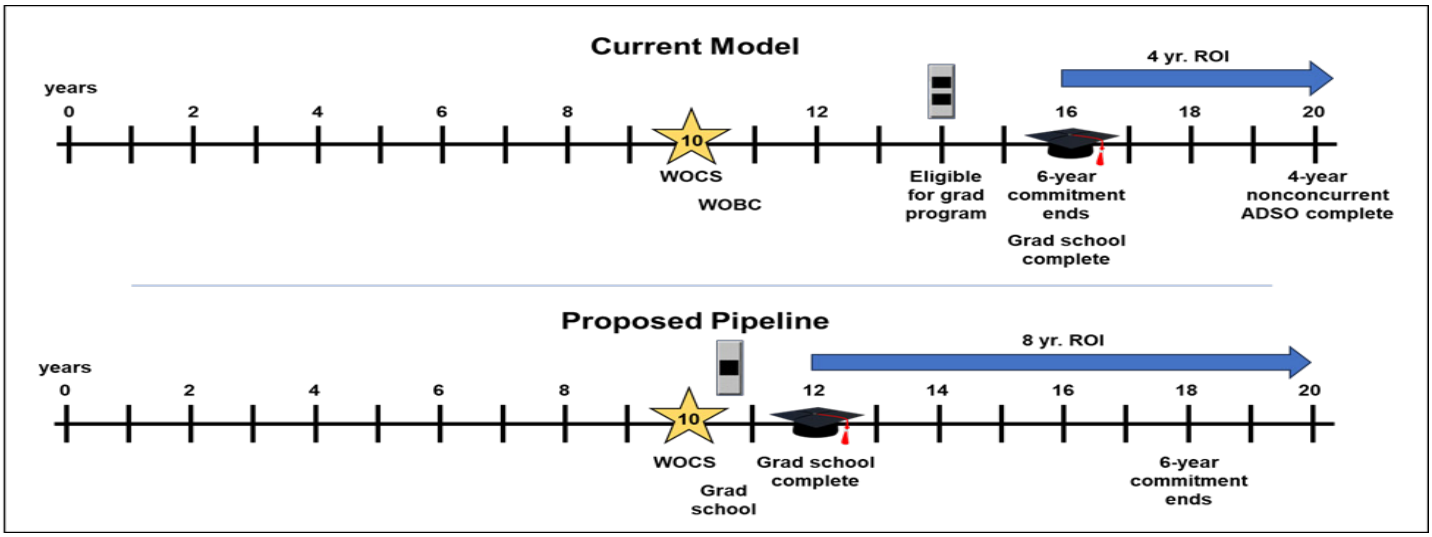

Figure 2: Securing Return on Investment: Current Model v. Proposed Pipeline

Note. In the proposed pipeline, technicians enter the data science pipeline at the beginning of their warrant officer careers, roughly doubling the Army's return on investment. Table 1 on page 9 further details the pipeline.

Replacing the basic course with graduate school is urgently needed for two reasons. First, it breaks the crippling 14-year time-in-service bottleneck that forces prospective data science technicians to choose between pursuing timely graduate degrees and maintaining current career paths. Sending a WO1 to a master's program after candidate school leverages technical momentum now and avoids the four-year service obligation that is stopping warrant officers from pursuing graduate degrees. Second, it eliminates redundancy. Many of the technical skills taught in the basic course are the same skills candidates already possess when selected for warrant officer school. Substituting this redundancy with advanced civilian education demonstrates the urgent, flexible adaptation the Army needs for success. This does not skip professional growth; this optimizes growth and closes a critical gap before it's too late.

Paradigm Shifted: Let's get to Work

Decision dominance is now a reality, not just an aspiration. Active-duty warrant officers surge back into the force as data science technicians in their MOS, armed with algorithms that transform nuanced data into clear, actionable information. Commanders across every warfighting function exercise judgment with lethality, striking high-payoff targets and securing supply lines in real time. This is future combat: a lethal, data-enabled force created by shifting educational paradigms to deliver technical expertise that contractors and AI platforms cannot. The INSCOM case study highlights the urgent need to restructure PME and eliminate additional service obligations. The roadmap to build graduate pipelines is already in place. Figure 2 lays the groundwork for increasing recruitment and improving return on investment. Now is the time to act. The Army must immediately arm itself with data-hardened technicians, ready to deploy algorithms and seize decision dominance in the next multi-domain fight.

References

Department of the Army. (2023). Information (ADP 3-13).

Department of the Army. (2023). Officer active duty service obligations (AR 350-100).

Department of the Army. (2023). Officer talent management (DA PAM 600-3).

Lawrence, D. F. (2025, February 10). Army approves $1,550 monthly bonus for some warrant officers. Task & Purpose. https://taskandpurpose.com/news/army-warrant-officer-bonus/.

McHugh, Kevin. (2026, January 9). Commandant's remarks [Brief]. Warrant Officer Senior Course in-processing department overviews, Fort Rucker, AL.

Office of the Under Secretary of Defense for Acquisition and Sustainment. (2020). Operation of the software acquisition pathway (DoDI 5000.87).

U.S. Army War College. (2025). Academic year 2025-26 annual estimate of the strategic security environment. U.S. Army War College Press. https://press.armywarcollege.edu/monographs/979.

The Advisor's Edge: Why EI is the Warrant Officer's True Force Multiplier

CW4 Damion L Lewis

What is the Army's most dangerous vulnerability? It is not found in a lab or on a battlefield; it lives within the ranks. The U.S. Army invests billions in readiness and high-tech technology to outpace near-peer adversaries, yet the real threat to strategic effectiveness resides in the human domain: Emotional Intelligence (EI). For the U.S. Army's Warrant Officer Corps, the institution's technical experts, advisors, and integrators, this challenge is a daily reality. Warrant Officers serve as the emotional center of gravity within their formations, acting as the essential translators between a commander's intent and the technical specialists who execute it. Unlike Intelligence Quotient (IQ), EI can be developed, and when it is, it transforms leaders into astute, decisive, and resilient Soldiers. Neuroscience shows that emotions are contagious; one dominant mood can shift the energy of an entire room, for better or worse (Boukarras et al., 2024). The Army's greatest advantage is not more technology, but more emotionally intelligent Leaders.

The concept of "psychological safety" is no longer a soft HR buzzword; it is a neurological imperative. When employees feel psychologically safe, their brains are not in a state of "fight or flight." The prefrontal cortex, the brain's executive center responsible for problem-solving, innovation, and strategic thinking, is fully engaged (Boukarras et al., 2024). A leader who understands the neuroscience of emotional intelligence knows that every action can either trigger a threat response or create a sense of safety. Understanding neuroscience provides a clear blueprint for why emotional intelligence is indispensable in this environment. Leaders are required to make tough calls under enormous stress. However, the amygdala, the brain's "alarm system" responsible for fight-or-flight or freeze responses, can hijack this process, leading to impulsive, fear-driven reactions. (Barrett et al., 2007). For example, you are sitting in your office and receive an email from your boss that says, "We need to talk, come see me." What is the first thought that comes to mind? It is usually an immediate leap to a negative conclusion: "What did I do? Did I make a mistake? Did I miss something?" This illustrates how quickly the brain can interpret ambiguity as a threat. This is the beginning of an amygdala hijack. An emotionally intelligent leader can override this hijack, maintaining cognitive clarity and walking into their boss's office without being led by fear or anxiety. ADP 6-22's emphasis on leader "presence," "resilience," and "self-control" is the codified expectation that leaders, especially in a crisis, can manage their own emotional responses to think clearly under fire.

While a leader's IQ provides the blueprint for a winning strategy, it is EI that enables them to be inspiring and to guide the team in actually achieving victory. For a leader with formal command authority, these are valuable. Goleman and Boyatzis (2017) describe emotional intelligence as having four key domains: self-awareness, self-management, social awareness, and relationship management. For a Warrant Officer, whose currency is influence rather than command, they are indispensable.

- Self-awareness and self-management are the sources of the calm, steadying presence that allows a Warrant Officer to influence a chaotic situation without a single command.

- Social awareness and relationship management are the tools that enable effective cross-functional communication. A Warrant Officer's day is spent navigating interactions with officers, NCOs, civilians, and joint partners. EI determines whether these exchanges build cohesion or create friction. It allows them to "read the room" and adapt their message, turning technical jargon into actionable intelligence. These are not abstract concepts; they are the core competencies outlined in FM 6-22, such as "Builds Trust" and "Communicates Effectively."

Cognitive abilities like logical reasoning and problem-solving are good for making sound decisions; however, in a leadership context, IQ without EI can lead to a disconnect with the team and poor decision-making in high-stress environments. IQ gives a leader the 'what', the correct technical solution. However, EI provides the essential 'how' by enabling them to build the trust and resilience necessary for a team to implement that solution, especially under pressure.

In an era of technological dominance, the Army's "People First" philosophy and the Warrant Officer 2025 Strategy both point to the same conclusion: the future force requires leaders who are more adaptable and influential. The Army needs to strike a balance between investing in technology and human capital. This is most evident in the mentorship Warrant Officers provide. It is their EI that makes this guidance constructive, credible, and enduring. Whereas AI can be particularly effective in the context of large amounts of data, it is simply incapable of the delicateness of interpersonal judgment and emotional management that arises in ambiguous, culturally diverse, or ethically complex situations (Goleman & Boyatzis, 2017). Therefore, moving "People First" from principle to practice requires an aggressive investment in EI. This means integrating EI assessments and training into leader development pipelines, scaling performance coaching, and most critically, codifying EI competencies within official doctrine and evaluations. The strategic return on this investment is clear: high-EI leaders forge flexible, unified teams that excel under pressure and operate with initiative, especially at the lowest echelons where technology is often unreliable. Ultimately, fostering EI is the most direct way to generate quantifiable gains in morale, retention, combat readiness, and strategic relationships, truly making our people remain our greatest asset. (U.S. Army University Press. 2021).

To answer the question of the Army's most dangerous vulnerability, it is clear that even as the Army pours billions into technological advantage, its greatest weakness remains the shortage of emotionally intelligent leaders. No algorithm can replace the human impact of a leader's tone, presence, or ability to steady a formation under pressure. For Warrant Officers, trusted advisors, technical experts, and often the emotional anchor of their units' emotional intelligence, is not optional. It is the skill that turns expertise into influence and influence into operational success. These are qualities no adversary can easily replicate. As soldiers, leaders, and stewards of the profession, we must treat EI development with the same seriousness as any technical certification or modernization effort. If the Army is to achieve true dominance on the hybrid battlefield of the 21st century, it must embed emotional intelligence into doctrine, training, evaluations, and leader development.

References

Army, U. S. (2019). Army leadership and the profession. Army Doctrine Publication (ADP) 6-22. https://www.usarcent.army.mil/Portals/1/Documents/regs/ADP_6-22_Army%20Leadership%20And%20The%20Profession%20July2019.pdf?ver=uTv32wShESoGpfQRzOgjfw%3D%3D

Barrett, L. F., Bliss-Moreau, E., Duncan, S. L., Rauch, S. L., & Wright, C. I. (2007). The amygdala and the experience of affect. Social Cognitive & Affective Neuroscience, 2(2), 73–83. https://doi.org/10.1093/scan/nsl042

Boukarras, S., Ferri, D., Borgogni, L., & Aglioti, S. M. (2024). Neurophysiological markers of asymmetric emotional contagion: implications for organizational contexts. Frontiers in Integrative Neuroscience, 18, 1321130. https://doi.org/10.3389/fnint.2024.1321130

Goleman, D., & Boyatzis, R. (2017). Emotional intelligence has 12 elements. Which do you need to work on? Harvard Business Review. https://hbr.org/2017/02/emotional-intelligence-has-12-elements-which-do-you-need-to-work-on

U.S. Army University Press. (2021). Attitude reflects leadership: The role of emotional intelligence. NCO Journal. https://www.armyupress.army.mil/Journals/NCO-Journal/Archives/2021/February/Attitude-Reflects-Leadership

Call for Papers and Submission Guidelines

Strength in Knowledge: The Warrant Officer Journal is a professional bulletin of the United States Army produced by the faculty and staff working at the United States Army Warrant Officer Career College (USAWOCC). The editorial staff makes the quarterly publication to improve all areas of the Warrant Officer's education, whether common core or technical. This resource intends to inform and shape organizational systems in the greater profession of arms by sharing key insights and lessons learned.

We continuously accept manuscripts for rolling publications and subsequent journal editions. The journal invites practitioners, researchers, academics, PME students, and military professionals to submit manuscripts that address the issues and challenges of military education and training, training development, doctrine (whether specific data from manuals or discussion of concepts), systems warfare, Army modernization and other subjects relevant to the profession of arms. Submissions related to technical areas of various Warrant Officers' specialties will be considered case-by-case. Book reviews of published relevant works are also encouraged.

Submission Guidelines

Submissions should be between one and five thousand words and supported by research, evident through citing sources. Scholarship must conform to commonly accepted research standards, such as those described in The American Psychological Association Publication Manual, 7th edition. For resources on writing in approved APA format, simply contact USAWOCC. Book reviews should be between 500 and 800 words, and the book should be concisely evaluated regarding its relevance to the professional warrant officer or current fight. The editors recommend using Professional Writing (2024) available at: https://armyuniversity.edu/cgsc/cgss/DCL/files/ST_22-2_US_Army_CGSC_Writing_Guide_March_2024.pdf.

Articles and manuscripts must be submitted in Microsoft Word or a compatible format, with separate, author-owned or Creative Commons-licensed picture files and a 100-word author's note. We will publish articles individually and/or on a quarterly schedule. For additional information or to submit an article, email to wo_journal@army.mil.

Writing Challenge (Submission Ideas)

Senior leaders have recently commented on the journal's articles and content, noting that our writers tend to target the specifics of the Warrant Officer community. These same senior leaders have expressed an interest in seeing writers take the next step and consider how Warrant Officers can translate their experiences to increase Army lethality and capability on the current and future battlefield. So, what can we start to write about?

Consider writing about the Army Transformation Initiative, or ATI, and the subsequent impacts on programs of record mentioned in the memorandum. The transformation plan impacts everything from AH64-D and Gray Eagle to the newly acquired Booker. UAS seems to be evolving by the minute, and autonomy and data management are substantial areas of interest and concern. What do the Army's technical experts and systems integrators have to say on the subject? Everything from acquisition to system implementation for several record programs is actively evolving. Everyone across the Army would be interested in what "Chief" has to say regarding the impacts of these changes. Also, consider how tech has changed everything, such as the recent drone attacks by Ukraine in Operation Spider Web. How is war changing, and how will it impact our cohort? The force wants to read about that, so the challenge has been issued. Good luck, writers.

The Chief Warrant Officer EJ Kahn, Jr. Professional Writing Award

1. The Chief Warrant Officer EJ Kahn Jr. Professional Writing Award (KPWA) aims to advance literature on training, doctrine, and policy for professional development from a systems perspective. The KPWA recognizes writers who express systematic knowledge, experiential wisdom, and enthusiastic candor or discourse regarding the Strength in Knowledge theme for 2025: "systematic, data-driven approaches to address strategic gaps in operational readiness."

a. Background. Strength in Knowledge: The Warrant Officer Journal was established in January 2023 at the US Army Warrant Officer Career College at Fort Novosel, Alabama. The Journal is managed by faculty as an additional duty with support from volunteers. The Secretary of the Army recognized it as a Professional Bulletin (PB) 1918 in October 2024 with the third issue of Volume 2.

b. The Chief of Staff's Harding Project prompted the Journal to research Major General Harding. The research led to the article Beer and Skittles (2024), titled after Major General Harding's quote, "Army life, especially in war, is not all beer and skittles." This quote is found in the forward of Chief Warrant Officer EJ Kahn, Jr.'s book Army Life (1942), published by the Infantry Journal.

c. Chief Warrant Officer EJ Kahn Jr. was drafted in WWII and served most of his Army career as a writer for Major General Harding and a New Yorker war correspondent. He published many works throughout his life, many characterized by his unique skill to make complex information accessible to diverse audiences through storytelling.

2. Three award levels recognize voluntary article submissions to Army professional bulletins contributing to the Army's body of knowledge or professional discourse.

a. The Bronze Award recognizes writers selected for PB 1918 by at least five peers published in PB 1918. The award recipients will be announced in the quarterly Strength in Knowledge: The Warrant Officer Journal issue.

b. The Silver Award recognizes writers submitting and publishing two articles in Army professional bulletins within six months, one of which must be PB 1918. This award is limited to two annual awards, and each is announced in quarterly issues of Strength in Knowledge: The Warrant Officer Journal.

c. The Gold Award recognizes a writer with three or more different published articles in at least two separate Army professional bulletins within one calendar year. This award is limited to one award per calendar year and will be announced in the Strength in Knowledge: The Warrant Officer Journal.

3. Requirements.

a. Writers must have submitted their original work using the published submission guidelines, and the publisher selected and published the article.

b. Writers must affirm that the article is their original work and that no part of the article was plagiarized from other sources; that all references to other work have been properly and fully attributed; that it has not been previously published; that it is not now being considered elsewhere for publication; and that it is not currently pending consideration as an entry in any other competition.

c. Nominations for silver and gold award recognition must be received from:

(1) two officers (CW2 or above), or

(2) two Army Civilian Professionals (GS-11 equivalent or above), or

(3) any combination of officer and Army Civilian Professional.

d. Nominations must be received within six months of the latest original publication. The nomination should include the author's name, the article's title, and the publication's volume and issue. The nomination should also briefly explain why the article is relevant to contemporary Army issues or historically significant. Nominations must be sent by email to WO Journal@army.mil. There is no specific format for the nomination.

e. The Commandant of the US Army Warrant Officer Career College will make the final selections and announce the winners.

4. Evaluation is unavoidably subjective; however, these questions help evaluate essays and articles more objectively.

a. Does the article speak to all generations clearly with a reader-centric hook and maintain the reader's attention with candor, humor, wit, or charm?

b. Does the article fairly represent the background facts and provide a credible examination of the issue that is easily discernible by diverse audiences?

c. Does the article show evidence of research using accepted academic standards? Is the research mainly from primary sources properly cited using the style required by the publisher?

d. Does the article offer plausible solutions, recommendations about the problem or issue, or opinions about how the Army can find innovative solutions to face future challenges and threats despite work-force reductions and budget cuts?

e. Is the article well-organized? Does it move logically from a clear thesis through a well-developed argument using supporting evidence to yield persuasive conclusions or a call to action?

f. Does the article contribute anything new to the professional knowledge on the selected topic?

g. Does the article avoid excessive acronyms or jargon?

5. Point of contact for this award is the managing editor of the wo_journal@army.mil.

*** *Cash prizes are provided by the Above the Best Silver Chapter, US Army Warrant Officer Association, a IRC 501(c)(3) public charity. For more information, see their social media content. No governmental endorsement of this private organization is impled.*

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