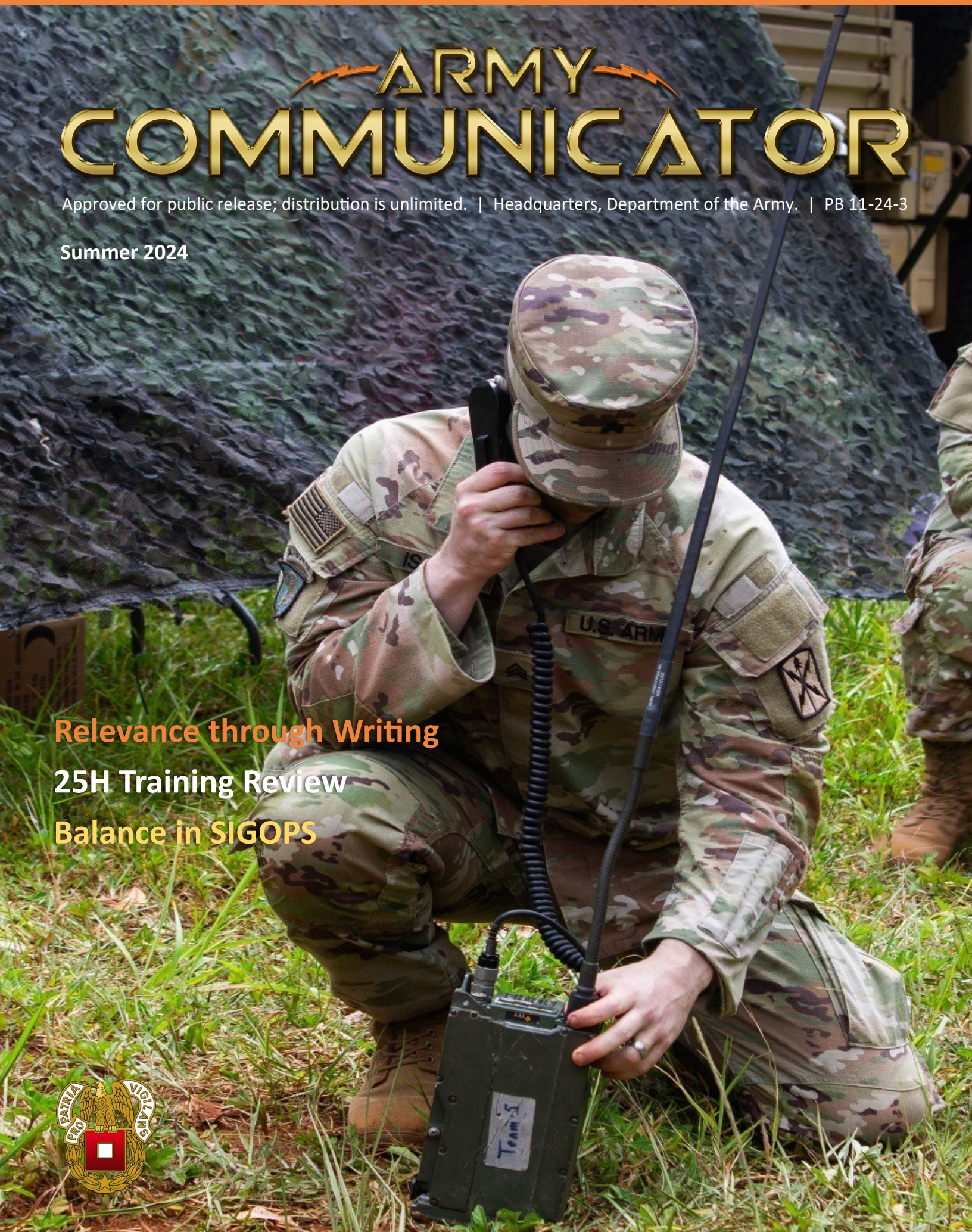
THE PROFESSIONAL BULLETIN OF THE U.S. ARMY SIGNAL REGIMENT

ARMY COMMUNICATOR

Approved for public release; distribution is unlimited. | Headquarters, Department of the Army. | PB 11-24-3

Summer 2024



Relevance through Writing

25H Training Review

Balance in SIGOPS

In this issue

The Army Communicator is published as a command information e-publication for the men and women of the United States Army Signal Corps under the provisions of AR 360-1. Opinions expressed herein do not necessarily reflect the views of Office, Chief of Signal, the U.S. Army or the Department of Defense.

Send articles, photos, graphics, and story ideas for the Army Communicator to the editor-in-chief at laura.m.levering.civ@army.mil or here.

For additional information, call 706-791-7325.

Follow the Signal Regiment on Facebook here. Follow the 43rd Chief of Signal on LinkedIn here and X (formerly Twitter) here.

On the Cover:

Sgt. Jonathon Isaac, of 307th Expeditionary Signal Battalion-Enhanced (ESB-E), participates in a Single Channel Ground and Airborne Radio System (SINCGARS) competition for Operation Jungle Spear. The competition is Alpha Company, 307th ESB-E's key training event for Fiscal Year 2024, third quarter. (Photo by Pfc. Dylan Keller, 307th ESB-E, 516th Signal Brigade)

A Message from the 43rd Chief of Signal

Team Signal,

I am truly honored and humbled to return to Fort Eisenhower as the 43rd Chief of Signal, joining such a long and distinguished line of Signal Leaders. I am also very excited to be once again writing for the esteemed journal, the Army Communicator. It is hard to believe that is has been 104 years since the first Signal Corps publication. In 1976, Maj. Gen. Charles Myer reenergized the tradition, rebranding it as the Army Communicator, writing that "it is our hope that it will become a dynamic spokesman for Army Communications."

Just like the Signal Regiment, the Army Communicator continues to change with the times, truly fulfilling Maj. Gen. Myer's dream of a dynamic voice. We moved to a digital platform years ago, long before the other branches.

The 38th Chief of Signal, Maj. Gen. Robert Edmonson, revamped the journal again in 2018, publishing on the U.S. Army Cyber Center of Excellence public website. Today we are excited to be part of the Chief of Staff of the Army Gen. Randy George's Harding Project initiative supporting all professional military journals. I know that the Signal Regiment is best placed to once again lead the way in sharing our story with the rest of the Army and the military community at large. "Getting the message" through is what we do!

Col. Julia M. Donley
43rd Chief of Signal and U.S. Army Signal School Commandant

I want to thank the current and past contributors from the field. This journal would be meaningless without all of you. It takes work and time to translate the amazing things that all of you do into an article worthy of publication. Twice I've negotiated with the editor-in-chief on grammar, format, and brevity in order to publish two articles: "No Mission Too Difficult, No Sacrifice Too Great, Duty First!" in the Fall 2005 edition, and "Technological Evolution is Inevitable" in the Summer 2007 edition.

I understand the demands on your time, but sharing your stories is so important that I ask each of you to consider how you can contribute. This is a quarterly, themed, publication. You are currently reading the Training edition, to be followed by Doctrine, Materiel and Regimental Heritage. We need your input to each of those quarterly editions. If I can do it, so can you! Let's continue to "get the message through!"

"Getting the message through is what we do!"

- Col. Julia M. Donley, 43rd Chief of Signal

Pro Patria Vigilans!
Watchful for the Country!

Orange You Glad You're Signal?

Command Sgt. Maj. Linwood Barrett
Regimental CSM

Communicators,

We have had an amazing last few months, and I just wanted to take a quick moment to thank you all and highlight the Regiment!

Not only did we celebrate the birthday of the greatest Army in the world, but we also celebrated the 164th birthday of the Signal Corps! Our anniversary ball was a huge success, and we thank everyone for their continued support!

On June 21, we bid farewell to Brig. Gen. Paul Howard and welcomed our 43rd Chief of Signal and Commandant, Col. Julia Donley. Our Signaleers on Fort Eisenhower and others at numerous camps, posts, and stationed across the globe logged more than 2,000 miles in celebration of our amazing corps. Additionally, we inducted 12 new Distinguished Members of the Regiment for their lifetime contributions to the Signal Corps. With the first member being Retired Col. David Kyle in 1986, it is vital that we keep this prestigious tradition going and recognize our trailblazers!

As you all know, the Signal Corps has a rich history and lineage that dates as far back as 1860, and to date we are still going "Signal Strong!" We continue to constantly assess and adapt to current requirements and prepare our Signaleers to be successful in all domains! Their technical and tactical proficiency along with the professional pride and grit that our signal Soldiers process will ensure we continue to "Get the Message Through." As the commanders voice, it is our mission to provide reliable communication in support of large scale combat operations.

Let's continue to push the envelope as we move full steam ahead into the next quarter. Please continue to push those that need it to the 25HY2 transition course. We still have approximately 251 that need to complete that requirement. In the near term, we are still working hard on the program of instruction for the Combined Senior Leaders Course. We truly thank you all for the feedback and recommendations.

Additionally hot off the press is the Digital Master Gunners Course. We have conducted two this year, and the next one is scheduled for Sept. 3. We are committed to providing institutional training and programs that arm our Communicators with the tools they need to support lethality!

The Chief of Signal and I truly appreciate all you do! Thank you for your continued commitment to the signal mission!

We are the Signal Corps!
Signal Proud! Signal Strong!

Self-Development Training Domain: Make the Most of Your Time

"Leader development is achieved through the life-long synthesis of the knowledge, skills, and experiences gained through the training and education opportunities in the institutional, operational, and self-development domains." **- Army Regulation 350-1: Army Training and Leader Development**

Chief Warrant Officer 5 Chris R. Westbrook, Regimental CWO

We all understand the institutional domain as training at the school-house. The operational domain is best described as on-the-job-training. Self-development is a bit different as it is where the individual seeks out to become proficient in tasks or gain knowledge through self-study.

The main question I have been asked in discussions regarding the self-development domain is: "What are my resources?"

In the Signal community, we have had several iterations of programs designed to close the gap in knowledge and build up skills for the future. Some may remember Smartforce, SkillPort, or Percipio as available resources online that are no longer available to us. Today we do have an option available to service members, Department of the Army civilians, and military spouses: Udemy.

The Udemy site provides training in many areas. In addition to subjects common to IT professionals, there are leadership, management, marketing, data science, entrepreneurship, health, and life skills classes. Courses are free and the registration process is simple.

Steps to sign up

Military: Obtain a Cloud One single-sign on account (common access card required):
https://www.my.af.mil/gcss-af/USAF/ep/home.do

Register with Udemy: https://digitalu.udemy.com

DA civilian: Register with Udemy: https://armyciv.udemy.com/

Military spouse: Obtain a DS Logon account:
https://myaccess.dmdc.osd.mil/identitymanagement/app/registration

Obtain a Spouse Education & Career Opportunities (SECO) account in Military OneSource:
https://myseco.militaryonesource.mil/portal/getting-started

Register with Udemy within 30 days of obtaining SECO account:
https://myseco.militaryonesource.mil/portal/events/live/udemy

Getting to the Heart of the Harding Project

Greetings, Team Signal!

Laura M. Levering
Editor, U.S. Army Signal School

Just when I thought I had a good grasp on the Harding Project and all it would entail, a workshop I attended last month proved me wrong. This Chief of Staff of the Army's (CSA) initiative that landed on my desktop (and that of fellow military publication editors) just months prior seemed to have developed wings and taken flight almost overnight.

If you haven't familiarized yourself with the Harding Project, don't wait; educate yourself on it now. One way to do this is by visiting (and subscribing to) the Harding Project Substack. Managed by the CSA's team, this site is filled with the latest on the Harding Project and includes several "how to" guides that will benefit every level of writer. It also houses a link to articles recommended by the CSA each month– one of which belongs to the Signal Corps' very own Sgt. Maj. Shane Short, whose article "Enabling Maneuver in Large Scale Combat Operations" is being featured for the month of July.

Whether or not you contribute to the Army Communicator, the Harding Project will impact you. The initiative is about so much more than simply revitalizing professional military writing in publications. It is about stewarding your profession; it's about "advancing the collective body of knowledge;" it's about becoming better writers, because that leads to better communication, which leads to a well-educated force, and a well-educated force is a more effective force!

As I type this, a new website is being built in support of the Harding Project's objective to modernize branch journals. Spearheaded by our partners at Army University Press, the "Line of Departure" site will become the primary hub for all branch journal content, to include the Army Communicator. The end-state will be a mobile-friendly, 508-compliant platform with a more broad, deeper audience over time. Some of your articles will be featured front-and -center on that site. A "soft launch" of the site is tentatively planned for August, with the full launch being revealed during the Association of the U.S. Army 2024 Annual Meeting & Exposition in October.

Here at the Signal Corps, we will continue to provide quarterly themes for the Army Communicator, but do not let those themes limit you. Although important topics, at the core, they are suggestions to help you – the Signal Professional – begin writing, and in doing so, hopefully spark some professional discourse among your peers.

As you begin your approach to writing, take into consideration these key points, as shared directly by the CSA's special assistant: How well does the article align with the CSA's focus areas? Is it written like an article or is it simply an academic article from school? Is it actionable, innovative, engaging with others, and generally add value to the Army's body of knowledge?

If you have any questions whatsoever, as always, do not hesitate to reach out to me.

Submission guidelines: Articles need to be sent as a Word document with photos and graphics sent as **separate** attachments (not embedded in Word). Include a description of each photo/graphic along with the rank, full name, and unit of person who took photos (or created graphic). Acronyms need to be spelled out on first reference, with the abbreviation of the term acceptable on subsequent reference.

Fall 2024 theme: Articles related to Doctrine, Materiel and Regimental Heritage.

Deadline to turn in submissions: September 13.

U.S. Army Signal School moves to Fort Eisenhower

50 years ago

Steven J. Rauch
Signal Corps Branch Historian

Organizational changes often follow the cessation of hostilities as the military attempts to correct imperfections exposed by conflict, take advantage of lessons learned, and adjust to postwar conditions.

Following the Vietnam War, the Department of Defense initiated plans for consolidation, reduction, realignment, or relocation of Defense activities expected to save the U.S. Army some $58 million. But money was not the sole reason for these changes.

After the Vietnam War, the U.S. Army undertook a massive reorganization of its major commands in the continental United States. Effective July 1, 1973, the Continental Army Command, headquartered at Fort Monroe, Virginia, was split along two functional lines. One line merged with the Combat Developments Command at Fort Belvoir, Virginia, to form Training and Doctrine Command (TRADOC). The other line transformed into Forces Command (FORSCOM) at Fort McPherson, Georgia.

Another feature of the reorganization consolidated the First and Third Army headquarters at Fort Meade, Maryland, under First Army, and realigned the geographic areas of the three remaining continental armies. The numbered armies were subordinate to FORSCOM as reserve commands. Part of the TRADOC organization included the relocation and consolidation of several service schools. In April 1973, Secretary of the Army, Howard Callaway, announced that the Military Police School would move from Fort Gordon, Georgia, to Fort McClellan, Alabama. Calloway also announced that the U.S. Army Signal Center and School at Fort Monmouth, New Jersey, would be merged with the Southeastern Signal School (SESS) at Fort Gordon. The decision to move the Signal School to Fort Gordon was based on reducing manpower and operational costs, providing greater efficiency in support of academic programs, access to adequate field training sites, and a climate more conducive to year-round outdoor training.

The Army projected a yearly savings of over $17 million by centralizing all signal training at Fort Gordon. The move was to occur in two phases and was to be complete by 1976. A special Signal Realignment Group was responsible for planning, developing and coordinating all actions to physically relocate personnel, equipment, and material from Fort Monmouth to Fort Gordon.

A total of 754 civilian employees were identified as having transfer rights to Fort Gordon and were informed about living conditions in the area. Only 84 employees elected to transfer to Georgia at positions comparable in grade to what they held previously. The positions of those who did not transfer were filled by hiring actions in the local labor market as well as civil service hiring actions nation-wide.

Phase I of the realignment began in June 1973 with the relocation of initial communications infrastructure and equipment needed for training the courses not already part of the SESS curriculum. Initially, 27 courses were to transfer to Fort Gordon, but this was reduced to 16 with the transfer of the Air Defense Radar Repair Course to Fort Bliss, Texas; the Combat Surveillance Photo Equipment Repair Course to Fort Huachuca, Arizona; and seven audio-visual courses to Lowry Air Force Base, Colorado. The transfer of courses was accomplished on a phase-in/phase-out basis.

All students training at Fort Monmouth at the time of the move completed their training there and at that installation and the incoming students for new classes began their

Aerial photo of new Signal School facilities construction in the early 1970s to include Signal Towers and academic buildings.
(Photo from Signal Historical Collection)

training at Fort Gordon. The second phase of reorganization began on July 1, 1974, when the SESS was redesignated as the U.S. Army Signal School by TRADOC GO 140, March 4, 1974. By that time, the school had 829 civilians, 2,174 military permanent party and supported 5,858 students at Fort Gordon. Several parallel actions occurred on that date as well.

The former school at Fort Monmouth was renamed the U.S. Army Communications-Electronics (C-E) School to continue those residual training activities waiting to move south. The C-E School had 525 civilians, 1,323 military permanent party, and supported 1,971 students at the time.

Brig. Gen. William J. Kennedy assumed command of the U.S. Army Signal School on July 18, 1974, to carry out the mission of:

1. Providing resident and nonresident instruction for active and reserve component personnel under approved programs of instruction.
2. Providing nonresident instructional support materials to individuals, and to reserve component and ROTC units.
3. Developing programs of instruction, Army-wide literature, military occupational specialty (MOS) requirements, and MOS evaluation tests.
4. Developing branch doctrine and participating in combat development activities including studies and analysis, doctrine, materiel, field experimentation, test and evaluation, and life cycle evaluation
5. Command, administer, and provide logistical support to assigned and attached personnel, including students.

The transfer of signal courses and equipment from the C-E School at Fort Monmouth continued through 1976, when 44 additional courses moved to Fort Gordon. Prior to the reorganization, the SESS was in the middle of a significant facilities modernization program. In 1973 alone, 13 major construction projects totaling over $50 million were underway or just completed. Completed projects included Ring Hall, a $3.2 million bachelors officers' quarters.

The Signal School flag with the school crest. (Signal Historical Collection)

April 1973 saw the completion of the third phase of construction of training facilities: a $4.9 million contract for six buildings.

More was planned for the Signal School and the installation when in August 1974, the House of Representatives approved an additional $9 million for new construction.

A Journey in Military Academia: Breaking Down Barriers to Writing

The Harding Project

Capt. Noe Lorona
Army Futures Command

In 2011, I joined the Army at 24 years old, embarking on a journey that intertwined my military career with a rigorous academic path.

My educational pursuits have been both rewarding and challenging, from an associate degree in database administration to a doctorate in management specializing in information technology management. However, despite these accomplishments, I often grappled with a crucial question: Where do I go from here?

My Journey and the Need for a Writing Platform

Throughout my career, I have served in various capacities, including as an automated logistical specialist (92A), a chemical officer (74A), and a signal officer (25A). In 2022, I joined the Army Software Factory as a platform engineer, acquiring an additional skill identifier (ASI). During my academic journey, I wrote numerous papers on topics such as ethics in the military, military ethos, training management, and implementing modern software development processes to enhance Army software and improve the end-user experience.

Despite producing what I believed to be publishable work, I struggled to find a suitable platform to share my insights. Concerns about potentially sensitive content and the need for operations security, public affairs, and command clearances further complicate the publishing process. I resorted to publishing in magazines such as AFCEA Signal Magazine and Army AL&T to keep exercising the writing muscle and help build my portfolio as a publisher and academic while still active duty.

Most academic journals demand novel contributions to the field through vigorous research, and while platforms like Medium and LinkedIn exist, they often require an established following to gain readership.

Posting on a personal website would also pose challenges in engaging an audience, particularly given the difficulty of attracting the attention of busy "Scrolling Soldiers." Let's be honest. Soldiers are not going to log into a NIPR laptop to read an article; we need to focus on delivering the content in a format that is equitable to all.

The Challenge of Publishing in the Military

There are numerous barriers to publishing within the military. The requirement for new academic contributions, the need for an established audience, and the procedural hurdles for sensitive content create significant challenges. As a result, many service members with valuable insights and experiences hesitate to share their work, fearing the complexities and potential repercussions.

I wrote extensively on military-related topics during my academic journey, yet I often felt my work needed an appropriate outlet. Whether it was exploring military ethics, discussing the importance of training management, or proposing modern software development processes to improve Army operations, I encountered the same obstacles. The lack of a dedicated platform for military writing meant that my work and many others remained largely unseen and underappreciated.

The Importance of Military Writing and Review

The Harding Project offers a promising solution to these challenges. Providing a dedicated platform for military writing aims to foster a culture of professional discourse within the military community. This initiative is not just about publishing; it is about creating a supportive environment where service members can share their experiences, insights, and analyses without the fear of procedural hurdles or the need for an established following.

Professional military writing is crucial for several reasons. It encourages critical thinking and communication skills essential for leadership and decision-making. Writing allows service members to preserve their experiences and lessons, providing valuable resources for future generations. It also helps bridge the gap between the military and civilian world, enhancing public understanding of military operations and challenges.

The Review Process

There are different types of peer review processes employed in academic publishing to ensure the quality and credibility of research articles. Here I will discuss them and how they can be leveraged to improve military writing. I suggest you keep rank in mind since I will discuss it afterward.

Single-Blind Peer Review: Reviewers know the identity of the authors, but the authors do not know who the reviewers are. This method allows reviewers to provide honest and unbiased feedback while avoiding potential conflicts of interest, although it might introduce bias based on authors' identities.

Double-Blind Peer Review: Both the reviewers and the authors remain anonymous to each other, reducing bias based on authors' identities and promoting a more impartial review process. However, maintaining anonymity can be challenging in specialized fields.

Open Peer Review: Both the reviewers and the authors know each other's identities, promoting transparency and accountability. This can encourage constructive feedback, though reviewers might be less critical to avoid conflicts.

Post-Publication Peer Review: The article is published online and then reviewed by the community of researchers and readers. This allows for a wider range of feedback and continuous improvement, but quality control can be inconsistent.

Collaborative Peer Review: Reviewers collaborate with the authors to improve the manuscript through an interactive process, enhancing the quality of the manuscript but potentially being time-consuming.

Editorial Review: The manuscript is reviewed by the journal's editorial board or in-house editors, thus providing a faster review process but potentially lacking specialized expertise.

Learning from "The Rank Problem" Article

Some of my biggest inspirations came from lower-ranking individuals whose work I cited in my dissertation. Expertise does not always come with time and rank, a sentiment echoed in an article I read on the Harding Project's Substack about the "rank problem," written by Lt. Col. Erik Davis. We should all listen to each other and default to kindness, open dialogue, and constructive feedback.

Open Peer Review and Mentorship

One particularly beneficial model is open peer review, where both authors and reviewers know each other's identities. This approach promotes transparency and accountability and offers additional opportunities for professional mentorship. Younger authors can expand on their ideas and gain valuable context through collaboration with more experienced peers. Open peer review can foster cross-branch collaboration, enriching the quality and diversity of military writing.

We can use modern technology and online collaboration tools such as Zoom, Teams, Office 365, Google Docs, and Miro to facilitate this process. These tools enable authors and reviewers to work together in real time, discussing and refining their work. Of course, using the right tool for the correct impact level is essential, ensuring that security and confidentiality are maintained.

By embracing these technologies, we can enhance the writing process and create a more dynamic and interactive environment for military writers.

So What?

The Harding Project represents a significant step towards renewing professional military writing.

By offering a dedicated platform and supportive community, it addresses the challenges faced by military writers and encourages a culture of professional discourse.

As someone who has experienced the struggles of publishing within the military, I am excited about the potential of the Harding Project to transform military writing and discourse. Through this initiative, we can ensure that the art of military writing continues to thrive, benefiting both the military community and the broader public.

About the Author

Capt. Noe Lorona is a signal officer currently serving as a platform engineer for the Army Software Factory where he plans, develops and deploys cloud architecture to support Agile application development. Lorona holds a Doctor of Management from Colorado Technical University and a Master of Science in management and a Bachelor of Science in information technology, both from National American University. His professional certifications include Certified Associate in Project Management from the Project Management Institute and six Computing Technology Industry Association certifications.

Conquering the Terrain of Reorganization

A review of the initial training for 25H

Staff Sgt. Stephen P. Brailo II
U.S. Army Signal School

It has been over a year since the U.S. Army Signal School graduated the first Network Communication Systems Specialist (25H), Class 001-23. The convergence of the 25L (cable systems installer-maintainer), 25N (nodal network system operator-maintainer), and 25Q (multichannel transmission system operator-maintainer) brought a revolutionary change. It solidified the U.S. Army's commitment to fortifying its network communications in the face of an ever-changing threat in the digital spectrum.

One of the most foundational aspects and significant components of a 25H military occupational specialty (MOS) is the training at the Signal School. Trainees at the school receive a blend of rigorous coursework, practical exercises (PEs), and real-world simulations, which challenge trainees in safeguarding the Army's network infrastructure in a constantly evolving environment. With any change, becoming adaptable is a core part of becoming a proficient network communication systems specialist.

The current Program of Instruction (POI) comprises of five modules: Modules A-Basic Communicator Module, B-Networking, C-Transport, D-Fiber, and E-Capstone. The design will give trainees the requisite skills, knowledge, and information to address complex communication challenges head-on. Training commences with foundational courses covering network fundamentals, communication protocols, and operational systems.

Sgt. 1st Class Kino Malone, a 25H instructor for the fiber section, said, "The 25H course is a one-of-a-kind course that is tailored to a robust academic environment for personnel with an aptitude for information technology."

Malone has dedicated himself to improving his "foxhole" any chance he can get, as his previous assignment was with the 4th Security Force Assistance Brigade (SFAB), at Fort Carson, Colorado. Having an instructor who hails from an SFAB provides a role model for trainees to aspire to be, as SFAB Soldiers are highly trained and among the top tactical leaders in the Army.

"The course provides a platform to embolden minds to experience and pursue a new specialty. Foundational concepts ranging from networking, routing, switching, and utilization of virtual machines within a network infrastructure," Malone said.

Sgt. 1st Class Kino Malone guides Spc. Kevin Thomas through a fiber optic practical exercise in Module D at Vincent Hall-Relocatable Building. (Photo by Staff Sgt. Brian Andino, U.S. Army Signal School)

Trainees also dive into the complex intricacies of network security, data literacy, data transmission, and troubleshooting methodologies while gaining tools to utilize tactical and strategic lines of communication. The hands-on training that every trainee receives will provide them with opportunities to utilize the actual operation of the fielded equipment, which includes the Joint Node Network (JNN), Tactical Communications Node (TCN), High Capacity Line of Sight (HCLOS), Satellite Transportable Terminal (STT), Wireless Small Form Factor (SFF), Commercial Coalition Equipment (CCE), Terrestrial Transmission Line of Sight (TRILoS), Transportable Tactical Command Communications (T2C2), fiber optics, and the Secure, Mobile, Anti-Jam, Reliable, Tactical Terminal (SMART-T).

As training progresses, trainees will experience immersive exercises, simulations, and mission scenarios developed for further improvement of analytical and decision-making abilities under pressure combined with hands-on exposure to

equipment in service. The curriculum exposes trainees to many PEs that emphasize the practicality of configuring networks, optimizing communication channels, and mitigating vulnerabilities of networks to gain experience in network management within a tactical and strategic environment. However, the road to implementing the 25H POI has its challenges.

The rapidly evolving communication environment of network threats exemplifies the dire need for continuous curriculum adaptation and innovation. Training Development (TD) is a section within the Signal School that assists in guiding the necessary changes to the POI to restructure the curriculum. Biweekly meetings are held with TD and the 25H instructors to discuss changes needed that would help bring necessary revisions to the POI, but the process to change the POI is quite lengthy. Revisions must travel through multiple echelons before it receives the final approval to be inputted into the curriculum.

The elaborate process for curriculum changes has proven to impede the 25H course from creating time-sensitive scenarios to implement complex technical concepts through simulations and operational mission training. The course heavily depends on virtualized simulations due to the availability of equipment to conduct hands-on training.

Module B holds the most course hours throughout the current POI, which consists of classroom instruction and PEs through the commercial virtual training environment (CVTE). Trainees engage heavily in PEs through CVTE due to the lack of equipment and the number of students in the schoolhouse, which reduces the physical hands-on training needed for trainees. Staff Sgt. Joseph Longacre, a 25H instructor for the networks section, expressed the dire need for a change in the curriculum to address the challenges trainees will face at their units.

"The 25H course teaches trainees about various pieces of signal equipment used throughout the Army," Longacre said. "Trainees are taught about virtual machines, servers, and networking equipment throughout the course, but given the equipment restrictions, we are limited in tapping into the potential that could be taught to make the 25H an asset on the battlefield."

Reducing the element of hands-on training and having to rely on the adoption of virtual environments for training could result in a systematic disadvantage for our trainees as the 25H will be tasked with more communication support and responsibilities vital to coordinating movements, relaying orders, and maintaining situational awareness on the battlefield. As Signaleers, our main objective is to provide a voice in the fight, because we are essentially the nerve center – facilitating effective and concise communication to ensure the mission's success.

Despite challenges throughout the course, the 25H MOS is a testament to the Army's commitment to transformation to meet an evolving threat by enabling multi-domain success in network communications through a rigorous and adaptive training curriculum. Trainees emerge as a proficient network communication systems specialist equipped to ensure seamless communication within the military's digital network. As technology evolves, the 25H MOS remains at the forefront of safeguarding the Army's network infrastructure.

Staff Sgt. Joseph Longacre gives a block of instruction on the Wireless Small Form Factor about the Black Enclave associated with the piece of equipment. (Photo by Staff Sgt. Brian Andino, U.S. Army Signal School)

Writing Fellows Program Selectee Q&A

Stewarding the profession

Laura Levering
U.S. Army Signal School

Sgt. Maj. Noel DeJesus, U.S. Army Network Enterprise Technology Command

In support of the Chief of Staff of the Army's efforts to "revitalize and reinvigorate professional writing in the military," Army University Press (AUP) established a voluntary, non-resident writing fellowship program earlier this year: The LTG (Retired) James M. Dubik Writing Fellows Program. The 2024 fellowship volunteer agreement is a one-year commitment in addition to the fellow's primary duties.

Open to officers, NCOs, and civilians from across all services, allied/partner nations, and academia, a total of 92 queries and 55 applications were received for the program. Of those 55, only 15 were selected – one of them being Sgt. Maj. Noel DeJesus, a proud Signaleer and recent graduate of the U.S. Army Sergeants Major Academy (Class 74).

As a member of the first Writing Fellows Program cohort, DeJesus will directly contribute to the CSA's initiative under the Harding Project. Furthermore, he will have opportunities to meet with senior leaders (including the program's namesake), be invited to attend events including the Association of the United States Army (AUSA) National Conference in October, and mentor prospective writers, among other opportunities. Perhaps more importantly, DeJesus is serving as part of a group that will help shape the future of forthcoming programs.

Read more about this unique opportunity from DeJesus, and keep your eyes open for more from this senior leader and other fellows in coming months.

How did you first hear about the 2024 LTG (Retired) James M. Dubik Writing Fellows Program?

I saw a post on LinkedIn by the Army University Press that announced: "In support of the Harding Project and the CSA's effort to revitalize professional writing in the Army, AUP introduces the LTG (Ret.) James M. Dubik Writing Fellows Program."

Who or what prompted you to apply for the fellowship?

As a writer, I was immediately intrigued by the post. After visiting the page and learning about the fellowship's purpose, I knew it was something I wanted to pursue. The stated objective of the fellowship is to enhance scholarship and writing by supporting authors who contribute quality content to AUP, branch journals, and other publishing platforms on important national security and defense topics.

Briefly explain the application process.

The application process started in March, when I submitted my Curriculum Vitae (CV) along with a writing sample, a paper titled "The Operational Art and Design of the Normandy Invasion" from the Sergeants Major Academy, which earned the "Purple Pen" award from The Department of Joint Interagency, Intergovernmental, and Multinational Operations (DJIIMO). Additionally, I included a one-page essay explaining why I was applying for the fellowship, emphasizing the importance of writing as a tool for the generational transfer of knowledge within the Noncommissioned Officer Corps.

What was your reaction when found out you were selected?

When I received the notification of acceptance on May 28 - almost three months after I first applied - I was overwhelmed with excitement. I opened the email during one of our final weeks at the Sergeant Major Academy. When I shared the news with my classmates, they gave me a huge round of applause and showed enormous support. Throughout the academic year, I had emphasized the importance of writing, and my classmates knew how passionate I was about professional writing in the United States Army. Their encouragement and support truly meant everything to me.

What do you hope to achieve by being a part of the program?

I hope to spread awareness of the importance of writing within the Noncommissioned Officer Corps. Subsequently, I aim to improve the accessibility to written articles as well as remove any perceived barriers to entry for those looking to publish their work. I envision an Army in which Soldiers can have immediate access to a catalog of articles written by NCOs and an Army where the essays written by corporals and above during their professional military education can be shared across the force utilizing a centralized database that collects, organized, and distributes leadership writings.

What have you learned about yourself through this writing (and some cases speaking) process?

Writing has become a core part of my holistic health, and I usually start every morning around 3:30 a.m. with an hour of reading, writing, or researching. Through writing, I have gained a better understanding of my leadership philosophy. It has challenged me to deeply explore my values and experiences and express them with vigor and clarity on paper. Additionally, writing has broadened my horizons, allowing me to explore a wide variety of subjects. It has stimulated my learning and helped me identify flawed arguments and logical fallacies that I might have overlooked before.

Where did the inspiration for your article "Modernizing Professional Military Education in the Digital Age" come from?

The inspiration for my paper was drawn out of frustration with the lack of technological integration within some classrooms at the Sergeants Major Academy. Throughout the year, I consistently argued for the inclusion of data literacy and the ethical application of artificial intelligence in the classroom. My paper presents an argumentative case that there is an urgent need for the modernization of professional military education if the Army wants to deliver a world-class learning environment that prepares Soldiers for the multidomain battlefield of 2030-2040. Furthermore, the modernization of the professional military education system will assist the Army in the recruitment, training, and retention of Generation Z Soldiers who are digitally native.

What are some other notable articles/papers you've written?

Other notable papers that I have written include "A Legacy of Writing: Fostering Writing by Sergeants Major" for the Harding Project, as well as "Senior NCO Asks: Have We Become "Too Cool" for Mentorship" and "Breaking Down the Complexities of the Army's OER/NCOER Evaluation Reporting System" for the Army Communicator.

Why is professional writing in the military so important?

Professional writing in the military is supremely important because writing is historically the greatest tool for the generational transfer of knowledge. Every year, thousands of Soldiers leave our service, and many of them possess years, if not decades, of leadership experience, insight, and lessons learned. I envision a leadership writing repository that captures these millennia of leadership thoughts through written articles that can be organized, collected, and distributed in an on-demand learning platform for Soldiers to read and learn from.

How do you feel about going to the AUSA National Conference in Washington D.C. as a program fellow?

I am ecstatic about the potential to attend the AUSA National Conference as an LTG (R) James M. Dubik Writing Fellow. I attended the AUSA National Conference for the first time in 2022, and it was an eye-opening experience. To have the opportunity to showcase the importance of professional military writing in one of the Army's grandest stages would be an absolute dream come true.

What advice can you offer Soldiers who are interested in professional writing but aren't sure of how or where to begin?

My advice would be to find a writing mentor and reach out to as many publications as possible. A great place to find a writing mentor is by reading professional military articles that pique your interest, and then reaching out to those authors for guidance and insight.

I've published a few articles this year and have had plenty of great conversations with Soldiers who have contacted me with their ambitions of publishing. I am ecstatic to state that I've personally helped many of these Soldiers publish their first articles. Additionally, I've been writing for years, and rejection is a natural part of the process, so I would encourage Soldiers to keep sharpening their craft and not giving up at the first sign of rejection. In many cases, the editors will provide you with great feedback on how to strengthen your writing and encourage you to resubmit your work.

Successfully Building a Canoe While Rowing

Lessons learned

Maj. James R. Amsler III
62nd Expeditionary Signal Battalion-Enhanced

There are several lessons learned from the 62nd Expeditionary Signal Battalion's (ESB) modernization to become an expeditionary signal battalion-enhanced (ESB-E) that may be applied not only to future ESBs pending modernization to ESB-E, but to other units undergoing a modified table of organization and equipment (MTOE) change that are not aligned, or included, in the Army's Regionally Aligned Readiness and Modernization Model (ReARMM).

Dozens of comments and suggestions were provided through Soldier feedback, company leadership, and battalion staff, however, three overarching themes were consistently brought up: property, training, and balance. Given the sheer amount of property identified for divestiture and the amount of property identified for modernization, this is not a property book officer or operations problem; this is a battalion problem that requires a team of Soldiers at every echelon to facilitate the process and ease the friction.

Training Soldiers on new equipment, sending them on active missions, providing garrison support as a tenant unit, and still maintaining daily operations and taskings from higher is an impossible task unless there is consensus that none of these tasks will be entirely "green." Careful approaching and balancing for tasks required and tasks wanted will also force commands to be careful on when and where to assume risk. Quickly balancing and reprioritizing tasks all while acknowledging that the task is not yet done is a difficult process. Most individuals prefer to see tasks to completion. However, given the scale and time required for modernization a singular focus is untenable. General advice to solving these problems requires a slow and methodical approach over a stretched period, while remaining prepared to reprioritize efforts as new problems emerge requiring immediate action.

New property is rarely looked at with apprehension and mistrust, however, the arrival of new equipment will invariably not mesh with the current equipment on hand. The legacy equipment requires divestiture, and the new equipment will have a learning curve associated with it. For instance, the signal nodes that ESBs operated consistently and routinely for many years for upper tactical internet (TI) came with robust generators that allowed signal units to provide some degree of self-sustainment when deployed. ESBs would bring their signal assemblages and generators, the gaining unit would provide fuel, and in turn, the ESB would provide services. Now, however, with the emergence of Scalable Network Nodes (SNNs) as the primary means of communication, there is not an organic long-term generator option for the ESB-E.

Alpha Company, 62nd ESB-E integrated the TRILOS with the SNNs to establish high bandwidth connectivity between the supported unit's TAC and TOC.
(Photo by Capt. Christian A. Martin, A Co., 62nd ESB-E)

The SNN is issued with a small generator, intended to supply signal crews with enough power and time to bring up services, stabilize any issues, and then find alternative power. The responsibility for continued operational power and fuel is now in the hands of the supported unit. This requires staff-to-staff communication and coordination to ensure that the supported unit has organic equipment that can facilitate that of an ESB-E.

Training is almost always the top priority for every Army leader. Maximizing the opportunity for Soldiers to experience hands-on training and instruction provided by true subject matter experts is something that must be prioritized and capitalized on. However, when the unit is still required to provide personnel and equipment to support exercise objectives, there is a cascade effect on those available for training. For signal units specifically, lets say a team of four Soldiers

Alpha Company, 62nd ESB-E's first field test with the new SNN during Griffin Watch 24 on Fort Cavazos, Texas. (Photo by Capt. Christian A. Martin, A Co., 62nd ESB-E)

is deploying to support an operation lasting two weeks, and this operation is occurring during a block of instruction during New Equipment Training. This takes away four Soldiers who must validate the equipment, an NCO to provide supervision, and company leadership to ensure timelines, inspections, pack up, and roll out successfully occur. Additionally, because signal units deploy as crews, you now have an entire team that has missed out on the critical training for equipment that will soon be their primary focus. Follow-on training, or training the trainer, will need to occur to level the bar, or additional crews will have to be disbanded and then re-organized to equalize the newly trained operators across the formation and balance knowledge among the crews. Either way, the result is an additional delay in the validation of individuals and crews that are expected to rapidly deploy with their equipment.

Command involvement is critical during all aspects of modernization. Commanders and leadership at all levels need to have reliable and honest communication to ensure friction points are identified and the right tasks are being prioritized. For 62nd ESB-E, there were multiple examples when the unit received unanticipated taskings across the echelons that took away Soldiers who were slotted for training.

Ultimately it is the commander's call to determine, based on their risk assessment, where the priority lies. Commands will go red on slides, however, if the company, battalion, and brigade leadership agree on which taskings to set aside that will make for a less stressful and more transparent modernization effort. The key consideration in all this is to maintain a careful balance in prioritization to ensure that current missions have minimal impact on future missions.

The Army is a constantly evolving branch. To keep pace with changes, there will be periods of drastic shifts in personnel, equipment, and mission sets. The current solution is a model that mirrors the Army's current ReARMM cycle. A unit assumes a red-cycle stance, with no mission tasks other than the divestiture of equipment and personnel, and then the fielding and training associated with the new equipment. Unfortunately, signal brigades and battalions do not fall under this cycle's protection. Instead, they must focus on modernization while assuming a low operational pace during the transition.

A unit's success will be heavily dependent on early communication that establishes boundaries of what support can and cannot be provided during modernization. Once an agreement is made, this allows the modernizing unit to shift back focus internally on those three key priorities: property divestiture and fielding, training on newly fielded equipment, and balancing those tasks within external mission enabler operations.

More than Promotion Points

NCOs and college education

1st Sg. Wolfgang McLachlan
59th Signal Battalion

Ask any NCO if a college degree is important, and you will likely hear "yes." From centralized NCO Evaluation Board After Action Reviews (AARs) to Noncommissioned Officer Professional Development (NCOPD) discussions, the message that higher education highly influences enlisted Soldiers' development is routinely echoed across the force. However, ask them why a college education is important, and you will likely hear, "I don't know" or "because the Army thinks it's important." Those are the answers I often received while researching my doctoral dissertation. The Army's efforts to ensure enlisted Soldiers understand why a college education is necessary for their development are so far off the mark that they aren't even hitting paper.

The Current Messaging

Four prominent publications that emphasize a college education's importance are:

- DA PAM 600-25 (U.S. Army Noncommissioned Officer Professional Development Guide)
- AR 621-5 (Army Continuing Education System)
- Centralized NCO Evaluation Board AARs
- Soldier's Military Occupational Specialty (MOS) career map on the Army Career Tracker website

They emphasize the need for enlisted Soldiers to include college education in their holistic developmental planning. First, DA PAM 600-25 highlights that higher education is a component of the self-development domain by stating, "civilian education and military professionalism are not mutually exclusive, they are mutually supporting" (Department of the Army, 2023a). AR 621-5 supports this position, stating, "the intent of the structured self-development program is to bridge the gap between operational and institutional domains and set conditions for continuous learning and self-improvement" (Department of the Army, 2019). This publication outlines the need for higher education by stating, "leaders develop through a combination of military training, education, and experiences supported by institutional training and education, operational assignments and self-development."

The following benchmarks outline timelines for enlisted Soldier levels of degree obtainment:
1. Begin postsecondary studies during the first five years of enlistment.
2. Earn an associate degree from an accredited educational institution or complete an education goal between the fifth and 15th year of service.
3. Complete a bachelor's degree from an accredited educational institution by the 20th year of service.

1st Sgt. Wolfgang McLachlan, 59th Signal Battalion.

Next, centralized NCO evaluation board AARs present a well-defined narrative of the board members' expectations regarding civilian education's role in tabulating that year's Order of Merit List (OML) for each grade plate. The most recent staff sergeant (SSG), sergeant first class (SFC), and master sergeant (MSG) evaluation board AARs contained the following insights.

The Fiscal Year (FY) 2023 SSG evaluation board AAR said NCOs who "earned an associate degree or higher" (Department of the Army, 2023c) took an essential step in fulfilling the total Soldier concept of holistic self-development. The FY 2023 SFC evaluation board AAR highlighted that "specific to civilian education, board members noted that most NCOs valued and embraced self-development as outlined in DA PAM 600-25" and "the majority of those NCOs properly documented achievement of an associate's degree or work towards a baccalaureate degree or higher" (Department of the Army, 2022a).

Continuing this theme, the FY 2023 MSG board AAR said that "board members looked favorably upon candidates who were pursuing and completing a college degree" and "the board recommends SMs continue to seek civilian education opportunities" (Department of the Army, 2023b). Throughout these centralized NCO evaluation board AARs, pursuing a college education is a common theme repeatedly identified as a distinguishing factor for candidates.

Finally, Soldiers' MOS career maps on the Army Career Tracker website highlight recommended college programs paired with particular MOSs and grades. These suggestions simplify Soldiers' academic journeys, making it easier to achieve educational goals. When incorporated into Soldiers' monthly or quarterly counseling, they help develop, monitor, and readjust progress against established timelines.

Foundation of the Doctoral Research Study

I started my doctoral program in early January 2019,

inspired by a sergeant major's doctoral work. I decided to revolve my study around Army senior NCOs and the driving forces behind their decisions to pursue or forgo college education.

Next, I narrowed my research population to Signal Corps SSGs to command sergeants major (CSM), their raters, and senior raters. Although the research study focused on senior NCOs, I added SSGs because they become the pool's newest senior NCOs each year. These decisions ensured compatibility among the research project's participants and had the broadest applicability possible while preserving the project finding's reliability. With the population identified, two research questions formed the foundation for the qualitative method research approach:

RQ1: What are the motivating factors behind Signal Corps senior NCO decisions to pursue or not pursue a college education?

RQ2: How do senior leaders perceive the roles and organizational benefits of college education to Signal Corps senior NCOs?

I designed an anonymous 15-question online survey with an informed consent agreement and 15 demographic, Likert-scale (a scientific psychological scale commonly used in scaling responses in survey research), and open-ended short-response questions. To ensure anonymity, the questionnaire did not ask for personally identifiable information and operated from March 21 to June 3, 2022. In all, 46 participants answered the online survey. They hailed from 13 Signal Corps Brigades and other eligible Army organizations.

Demographic Response Data

Gender

Of the 46 survey participants, 38 (82.60%) were male, seven (15.21%) were female, and one (2.17%) declined to answer. This male-to-female ratio closely aligns with the 2022 demographics profile of Army active component demographics, consisting of 84.3% male and 15.7% female (DOD, 2022b).

Age

The participants' ages ranged from 27 to 57 years old, with the median age being 40.5 years old. Age groups consisted of three (6.52%) participants in their 20s, 16 (34.78%) in their 30s, 23 (50%) in their 40s, and three (6.52%) in their 50s, with one (2.17%) participant declining to answer. This diversity offered an exceptional array of life experiences.

Participant's Current Rank

Participating NCOs, SSG to sergeant major (SGM), comprised 36 of the total 46 participants (78.26%), with the remaining answers comprising eight (17.39%) commissioned officers from second lieutenant to colonel, one (2.17%) warrant officer 2, and one participant (2.17%) who declined to answer. The enlisted-to-officer ratio closely aligns with the 2022 demographic profile of Army active-duty members, consisting of 79% enlisted and 17% officer (DOD, 2022b). This representation of NCOs and enlisted personnel gives this study an additional layer of creditability.

Highest level of civilian education

Participants' levels of education ranged from high school diplomas to doctoral candidacy. Most possessed at least an undergraduate degree. A total of 45 (97.82%) participants responded, with one participant (2.17%) declining to answer. The wide arc of experiences provides insight into participants' choices regarding academic self-development.

Should a college degree be required for senior NCO promotions?

Participants responded "Yes" (17 – 36.95%), "No" (22 – 47.82%), or "Unsure" (7 – 15.21%). They voiced their rationale about their responses in subsequent sections.

Ideal degree level for NCOs: SSG through CSM

Of the 46 survey participants, 44 (95.65%) responded to the recommended degree level for SFC and MSG, and two (4.34%) declined to answer. However, 45 (97.82%) responded to first sergeant (1SG) through CSM, and one (2.17%) declined to answer. Participant responses to this question highlighted the diversity of perceived benefits of a college education to senior NCOs. However, a common trend emerged: The ideal education level increased as the corresponding NCO leadership rank increased.

Findings Evaluation

This qualitative research study explored the dynamics influencing Signal Corps senior NCO decisions toward pursuing a college education and their direct leaders' interpretations of these decisions. In response to RQ1, five themes emerged, with three explaining why participants chose to pursue a college education and two illuminating why they did not.

RQ1: Reasons given *for* pursuing college education

1. Promotion: Participants overwhelmingly listed the desire to compete with their peers during annual centralized senior NCO promotion boards as the prime motivator behind their decision to pursue a college education.
2. Marketability in the civilian workforce: Several senior NCOs listed obtaining a college degree as a step in their preparations for transitioning into post-military civilian employment.
3. Self-Development: Many respondents attributed their pursuit of a college education to an intrinsic love of learning, drawing parallels between continued education and reaching one's full potential.

RQ1: Reasons given for *not* pursuing college education

1. ***Industry technical certifications***: The primary reason NCO participants who chose not to pursue a college degree said they wanted to pursue applicable industry technical certifications instead.
2. ***Work/life balance***: NCOs often cited concerns about balancing personal and professional demands

with college requirements as reasons they chose not to pursue higher education.

RQ2: Perceived beneficial skills developed while pursuing and obtaining a college education

The study revealed senior NCO raters and senior raters viewed pursuing a college education as cultivating beneficial skills. Their authored NCO Evaluation Report (NCOER) assessments reflect this outlook. Benefits of a college education include:

1. Unlocks individuals' intellectual potential
2. Further refines problem-solving skill sets
3. Leads to higher reading and writing comprehension levels
4. Develops holistic and asymmetrical thinking
5. Fosters creativity
6. Develops proper time management skills
7. Cultivates intrinsic drive and self-reliance
8. Enhances ability to integrate available resource material in developing solutions to problems
9. Improves self-confidence
10. Stimulates convergent, divergent, and later thinking

Implications

Most NCO study participants saw the desire to be competitive with peers and get promoted to the next grade as the driving force behind pursuing a college education – not progressing in their cognitive development. Their feedback often stated that attending college would be viewed favorably by their raters and senior raters, reflect positively on their NCOERs, and help to secure stronger positions on the OML. However, few NCO participants understood their Rater and Senior Rater's rationale behind viewing such academic pursuits in a favorable light. The desired endgame was simply obtaining a college degree, not the benefits cultivated through its pursuit.

Most enlisted Soldiers don't understand a college education's role in self-development. This gap nurtures an environment in the NCO Corps where obtaining a degree, regardless of field of study or difficulty, became the focus over the skills an academic journey cultivates. This environment sets a dangerous precedent: Soldiers may view an easily obtainable online degree in a discipline not applicable for their MOS as on par with a STEM degree or one that aligns with their MOS career map.

To allow enlisted Soldiers to realize their full potential, the Army must provide a clearly defined intent rooted in published doctrine, outlining the skills they should cultivate through a college education.

Recommendations

An overarching theme of this study was that Soldiers of all ranks are unaware of the cognitive benefits gained from pursuing a college education. Most believe that a college education serves mainly to keep them competitive for promotion. The USARMY Pentagon HQDA DCS G-1/Military Publishing Policy Directorate must clearly address and codify support in DA PAM 600-25 and AR 621-5. HQDA publications should present the list of desired cognitive skills developed through college education and explain the spirit of intent behind the messaging. Then, senior enlisted leaders should discuss it with their Soldiers to ensure they understand the intent and focus on cultivating the skills rather than simply earning a degree.

The Army must take advantage of this lull between major wartime engagements to develop its enlisted Soldiers properly and realize their potential in all domains. As we prepare for the next war which will inevitably call us to action, we will either set the conditions for success or find ourselves on the back foot. Prudence calls us to action. **The choice is ours**.

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The Fight to Fiber at PCC4

Lessons learned

Chief Warrant Officer 2 Kale W. Gallo
86th Expeditionary Signal Battalion

Project Convergence Capstone 4 (PCC4) was an excellent test of training readiness and ability to problem solve and adapt to changes in the technological landscape in which the 86th Expeditionary Signal Battalion (ESB) fights. The 86th ESB is the last ESB in Component 1 of the Army, scheduled to convert to an ESB-E (Enhanced) with modernized communications equipment in Fiscal Year 2025, second quarter.

Multidomain operations include the cyber domain and have placed a significance on not only being able to communicate (command and control) across this domain but also in understanding our electromagnetic signature as well as working with existing civilian infrastructure to conceal our signature, specifically the hiding in plain sight concept.

During PCC4, most of our fight was with how to get data from point A to point B as quickly as possible while maintaining the confidentiality, integrity, and availability of the data. This necessitated the use of fiber optic technology as a backbone for all tactical network nodes operating in the division or corps area and over doctrinal distances.

At Camp Pendleton, California, in preparation for Phase 1, we were able to build our own fiber optic backbone using our Army program of record systems because the size and shape of the operational area there was such that we could accommodate with a few 100-meter reels of Tactical Fiber Optic Cable Assembly (TFOCA). However, when transitioning to Phase 2 at Fort Irwin, California, our operational area stretched over doctrinal distances: from the Leader Training Program (LTP) facility to the Rotational Unit Bivouac Area (RUBA), and out into "the box" to places such as Bicycle Lake, Ujen, and Razish.

To provide high-bandwidth, high-speed, and secure data transport across those doctrinal distances, we had to interface with the installation's fiber optic infrastructure. The need to interface with the fiber optic infrastructure highlighted three main problems:
1. We have outdated, legacy equipment.
2. We could not acquire the equipment we needed through the Army's systems for ordering parts.
3. We could not purchase the equipment we needed directly from sources readily available in the local area.

The Army's programs of record have focused heavily on military satellite communications (SATCOM) as the main means of transport for Army systems. This is understandable since SATCOM has been made widely available, has potentially global reach for beyond-line-of-sight communications, has been proven reliable even in contested environments, and has cost the government billions of dollars to put in place.

Historically, it has been the best option for units deployed to remote parts of the world in defense of freedom. Recently, the Army has prioritized large scale combat operations, shifting focus to winning the fight against a near-peer fighting force(s) in a developed country (or countries) across the globe. Also, countries that were considered "third world" not long ago now have modern fiber-optic communications infrastructure.

Lastly, many new Army systems rely heavily on high-bandwidth, high-speed, low-latency data transmission capabilities, such as the Army's cloud applications supporting mission command (MC). Fiber-optic technology provides all that with the added benefit of being more secure than traditional copper media due to the lack of electrical signals and the behavior of reflected light. We must be prepared to take advantage of such infrastructure or be prepared to build our own to support our modern Army's communications requirements and provide the same agility and flexibility in cyberspace as we have developed within the land domain.

The first problem we identified as a lesson learned during PCC4 is that our equipment is not capable of directly interfacing with modern fiber-optic infrastructure. TFOCA connectors are not widely used in non-military applications. Our equipment does not have media converters that can support the different standards of fiber-optic transport, specifically single-mode fiber. We only have multimode fiber-optic media converters, and they support data rates of either 100Mbps or 1000Mbps.

Our systems' media converters do not support the standard small form-factor pluggable (SFP) interfaces and therefore limit us to the type of physical connection built into the media converters, which varies. Straight-tip (ST) is used in the satellite transportable terminal (STT), command post node (CPN), joint network node (JNN), and single switch shelter (SSS) 100Mbps media converters. Subscriber connector (SC) is used in the CPN, JNN, and SSS 1000Mbps media converters.

Lucent connector (LC) is only found in our legacy Warfighter Information Network – Tactical (WIN-T)

systems where SFPs are used, which includes only a few critical interfaces in certain switches and routers. On top of all that, the installation fiber-optic infrastructure at Fort Irwin consists of only single-mode fiber connected to either LC SFPs in infrastructure fiber optic switches or connected to SC fiber-optic patch panels. For our tactical nodes to connect, we needed single-mode media converters that could accept SFPs, we needed SFPs that matched frequency and power of those present in the infrastructure switches, and we needed TFOCA-to-LC adapter cables.

Soldiers from 86th ESB set up a radar system with Australian Defense Force at Camp Pendleton, California and the National Training Center during PCC4. (Screenshot taken from video by Sgt. Maxwell Bass, 24th Theater Public Affairs Support Element)

Acquiring such equipment was the second problem we identified as a lesson learned. It is difficult to find correct part numbers, National Stock Numbers (NSN), or Line-Item Numbers (LIN) for the commercial-off-the-shelf (COTS) items such as the SFPs and single-mode media converters. We could find the correct information for the TFOCA adapter cables, however, at the time, everything related to TFOCA was on backorder everywhere with no expected fulfillment dates.

We began looking into ways we could acquire the items outside of official Army programs of record, and we identified our third problem and lesson learned. Any purchases using the Government Purchase Card required pre-approved quotes through other program of record systems such as Computer Hardware, Enterprise Software and Solutions, along with memorandums requiring signatures after traversing multi-echelon, time-consuming chains of approval. There were also questions of where funds to purchase such mission-essential items needed to come from and on which hand receipts such equipment would end up, which resulted in time-consuming discussions across multiple echelons and external organizations about lines of accounting and potential property book changes. Addressing these problems in the near term will enable units such as 86th ESB to maintain relevance and continue to support the fighting force with high-bandwidth, high-speed, low-latency, secure data transport and enable distributed mission command (DMC) in any environment.

There must be funding and processes that units can use to rapidly adapt to their environment and mission requirements that can be reconciled after the fact, or the Army must find a way to field the equipment more quickly for a unit operating in such an environment.

Agile and Anti-Agile in Signal Operations

Achieving balance

Capt. Noe Lorona and Sgt. 1st Class Jesus Ambrocio
Army Futures Command

The term "Agile Manifesto" has become synonymous with flexibility and adaptability in software development. However, in the structured environment of the military, many practices are inherently Anti-Agile. This article introduces the concept of the "Anti-Agile" practices emphasizing the necessity of these seemingly rigid practices within military operations and what a combined approach could impact our signal Soldiers.

While the Agile Manifesto promotes invaluable principles for rapid and iterative software development, the Army's established protocols, tactics, techniques, protocols (TTP), and standard operating procedures (SOPs) are crucial for maintaining order, accountability, and effectiveness.

The Agile Manifesto values individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, and responding to change over following a plan. This article aims to strike a balance between Agile methodologies and essential Anti-Agile practices, particularly in signal operations. By understanding and integrating Agile and Anti-Agile practices, signal leaders can enhance their operational effectiveness and ensure the seamless integration of innovative software and hardware solutions into Army frameworks.

Individuals and Interactions Over Processes and Tools

The Agile Manifesto emphasizes the importance of individuals and interactions over processes and tools. This principle highlights that effective communication and collaboration among team members are crucial for the success of software development projects. By fostering open dialogue and intense interpersonal relationships, teams can quickly adapt to changes, address issues, and deliver high-quality software efficiently.

Anti-Agile

In signal operations, there is an essential need for well-defined processes and tools. These Anti-Agile practices ensure that operations are standardized, repeatable, and reliable.

Processes and tools are vital for maintaining consistency, especially in high-stakes environments where precision and accountability are paramount. In Army operations, rigorous processes help manage complex systems and ensure that all personnel follow established protocols, reducing the risk of errors. Tools and systems are standardized to facilitate training, maintenance, and interoperability among various units and branches.

Working Software Over Comprehensive Documentation

The Agile Manifesto prioritizes working software over comprehensive documentation. This principle underscores the importance of delivering functional software that meets user needs, rather than spending excessive time on detailed documentation. In the fast-paced world of software development, this approach allows teams to iterate quickly, respond to feedback, and continuously improve the product.

Anti-Agile

On the other hand, the military's use of comprehensive documentation is a cornerstone of its operations. In signal operations, thorough documentation is crucial for several reasons. First, it ensures that all procedures are standardized and can be replicated accurately.

Detailed documentation also provides a clear audit trail for accountability and regulatory compliance. Comprehensive documentation helps manage the complexity of IT systems. It ensures that all personnel, regardless of their location or experience level, have access to the same information. This uniformity is critical for coordinating efforts across different units and branches, maintaining operational security, and ensuring all actions are traceable and verifiable.

Customer Collaboration Over Contract Negotiation

The Agile Manifesto values customer collaboration over contract negotiation. This principle highlights the importance of ongoing communication and cooperation with customers to ensure that the software meets their needs and can be adapted as those needs evolve. By fostering a collaborative relationship, development teams can quickly respond to feedback and make adjustments, leading to more successful outcomes.

Anti-Agile

In contrast, the military often relies heavily on strict contract negotiation. Contracts are typically detailed and rigid, specifying exact requirements, timelines, and deliverables. This ensures clarity and accountability from the outset, reducing the risk of misunderstandings and ensuring that all parties are aligned on the project's objectives.

These detailed contracts are essential for managing the complexities of military projects. They provide a structured framework that ensures all stakeholders are aligned and accountable, which is crucial for coordinating efforts across various units and maintaining operational integrity. When security and precision are

paramount, such as developing encrypted communication tools or implementing secure network infrastructure, adhering to strict contractual agreements helps maintain consistency and reliability. The clarity and structure provided by detailed contracts ensure that projects remain on track and within budget, which is critical given the high stakes and significant resources involved.

Responding to Change Over Following a Plan

The Agile Manifesto emphasizes flexibility and adaptability, allowing development teams to pivot quickly in response to new information or shifting priorities. This ensures that the final product remains relevant and valuable to the user.

Anti-Agile

The Army places a strong emphasis on following a plan. Detailed planning and execution are crucial for ensuring precision and predictability in operations. This includes logistics, communication, and contingency plans, which are essential for coordinating complex operations smoothly and efficiently.

Communication may be limited in contested environments, and having a well-defined strategy that aligns with the commander's intent is critical. Delegated command and control empower units to act independently while aligning with the mission. Adhering to a plan ensures precision and clarity, helping all team members understand their roles and responsibilities.

Harmonious Partnership

To integrate Agile practices effectively in signal operations while respecting essential Army protocols, it is important to identify areas where both can coexist harmoniously. By focusing on specific Agile frameworks and continuous improvement, we can enhance military IT operations' overall effectiveness and resilience. The following are some frameworks and ceremonies you can use.

Kanban boards: Implement Kanban boards to visualize work, manage workflow, and limit work in progress. This helps signal leaders track tasks, identify bottlenecks, and improve efficiency.

Scrum: Use Scrum frameworks for managing complex projects, with regular sprint planning, daily stand-ups, and sprint reviews to ensure continuous progress and adaptation.

Retrospectives: A retrospective is a meeting to reflect on recent work, identify areas for improvement, and implement changes. This practice encourages continuous improvement and team learning.

User Stories: Create user or system stories to capture needs and requirements of different stakeholders. This ensures that work efforts are aligned with user, system needs and mission objectives.

Agile Release Train (ART): In larger projects, use the ART approach from the Scaled Agile Frame work (SAFe) to coordinate multiple teams working towards a common goal, ensuring alignment and integration of efforts.

Story Pointing: Use story or task pointing to help teams understand the complexity and dependencies of tasks. By using story pointing to estimate the complexity of tasks such as setting up communication networks, coordinating logistics, or managing intelligence reports, teams can better understand the effort required and prioritize accordingly. This method encourages team discussions, ensuring a shared understanding of requirements and potential challenges, which improves coordination and teamwork. It also helps identify task dependencies and potential bottlenecks, allowing for better planning and resource allocation.

Extreme Programming (XP): Pair Soldiers to work together on systems, networks, and signal equipment. This practice enhances knowledge sharing and reduces errors, improving the quality of work while maintaining a shared context. If one person is absent, the other can continue with the shared content, reducing the risk of a single point of failure.

Continuous Integration/Continuous Deployment (CI/CD): Implement automated testing to ensure continuous integration and deployment, helping to maintain high software quality and reduce the risk of errors. Utilize Microsoft Power Apps to automate repetitive tasks in an S6 office, such as user account management and automated status reports. This can free up personnel to focus on more critical tasks and improve efficiency.

Continuous Training and Education: Promote a culture of continuous learning to ensure that teams continuously improve their skills and knowledge. Send Soldiers to classes that will increase their data literacy, upskill their technology skills, and help modernize systems at the lowest level. This includes attending training sessions, participating in workshops, and encouraging knowledge sharing among team members. Continuous learning allows teams to stay current with the latest technologies and best practices, fostering innovation and adaptability.

Conclusion

Balancing Agile and Anti-Agile traditional military practices in signal operations is essential for modern Army lethality. While Agile methodologies promote flexibility and rapid iteration, the structured protocols and SOPs of the military ensure order and reliability.

We can enhance operational efficiency and resilience by integrating Agile frameworks such as Kanban, Scrum, and Extreme Programming with everyday Army tasks. Continuous learning and education will equip Soldiers with the necessary skills to innovate and adapt, creating a harmonious partnership between Agile principles and military rigor that drives mission success.

Signal Corps History Comes to the Stage

'Hello Girls'

Retired Col. Linda Jantzen
College of Information and Cyberspace, National Defense University

A key episode in the history of the U.S. Army Signal Corps – the recruitment and deployment of bilingual women switchboard operators in World War I – is portrayed in "The Hello Girls," a musical by Peter Mills and Cara Reichel.

With the support of the Doughboy Foundation, which educates the public about America's participation in World War I, most of the cast of the original 2018 off-Broadway musical was recently reunited. They performed a brief concert of songs from the musical the World War I Memorial, and a full performance on May 7, at the John F. Kennedy Center for the Performing Arts in Washington D.C.

The Signal Corps, like the rest of the U.S. Army of 1917, was completely unprepared in terms of manpower and equipment for the requirements imposed by modern warfare. The Signal Corps, comprised of 55 officers and 1,570 men at the time, would expand to 2,712 officers and 53,277 men by the end of World War I.

Maj. Gen. George O. Squier launched the Signal Corps Reserve prior to U.S. entry into the war drawn from American Telephone and Telegraph Company, Western Electric, Western Union, and the Postal Telegraph, to be prepared to be sent abroad immediately should the U.S. enter the war. Among those experts was AT&T Chief Engineer John J. Carty, who offered to the Army not only the company's physical plant but its services to organize, select, and train technical experts to build, operate and maintain the network.

The American telephone system in 1917 comprised three times the number of telephones as there were in all the warring countries in Europe put together. The Signal Corps took on the mission to transplant to French soil, 3,000 miles from U.S. shores, a complete modern American system that would connect with and augment the war-damaged French infrastructure.

As the network grew more robust, so did the need for skilled switchboard operators who could not only connect a huge volume of calls quickly and calmly, but who could negotiate connections with French operators who did not speak English and interpret conversations between English and French speaking officers. The Army wanted the best operators and translators, and in 1917, most professional operators in the U.S. were women. Their skills were so vital to the war effort that Gen. John Pershing defied Army regulation prohibiting women from being Soldiers and called for the creation of a Woman's Telephone Operating Unit. According to a 1919 report of the chief signal officer to the secretary of war, "The use of female operators in France was decided upon for two reasons. The first of these was the unquestioned superiority of women serving as telephone switchboard operators…"

At the request of the Signal Corps, the Engineering Department of AT&T undertook to secure the operators. They did not have to search for long.

The first call for 100 volunteers was answered by 7,600 applications. Along with their counterparts who operated the switchboards for Army cantonments and the many training camps that sprung up around the U.S., these women were known colloquially as "Hello Girls." Ultimately, 223 would take the Oath of Service and don Army uniforms then deploy to France.

The musical tells the story of the first group of Hello Girls who deployed to France in March of 1918. Chief Operator Grace Banker of Passaic, New Jersey, led a group of 33 operators. The musical focuses on the experiences of Banker, Helen Hill of New Haven, Connecticut; Berthe Hunt and Louise LeBreton of Berkeley, California; and Suzanne Prevot of New York. Every detail of the women's experience is expressed in song. For example, in the song "Connected," the character playing Banker describes Banker's devotion to her profession of making sure "voices that someone needs to hear get through," and to "share in a world that's wider than my own." She ultimately is convinced to "answer the call" and join the Army's call for bilingual switchboard operators.

In "We Aren't in the Army," women recruits describe why they wanted to join and lament over how

Portrait of Grace Banker wearing the Distinguished Service Medal. (Photo Courtesy of Carolyn Timbie)

"selective the service can be" when it comes to inducting women. In "Marching Orders," male Lt. Joseph Riser describes with embarrassment having to tell his buddies from the academy that he commands the "Bell Battalion Telephonic Ladies Switchboard Unit Number One." That embarrassment of course turns to pride and mutual respect when later Capt. Riser observes the women in action and then relies on their skills to connect his calls from the front.

In "Quinze Minutes," the women describe life under bombardment by the German Paris Gun, which for days on end would strike Paris with an artillery shell on a schedule of every 15 minutes. In "Twenty," Banker exhorts a skeptical Riser to send the women to the front with First Army as the Meuse Argonne offensive kicks off. Banker's 20 reasons culminate in her dropping and doing pushups, telling Riser, "Help me count."

Col. Darcy Saint-Amant, retired Col. Linda Jantzen, retired Col. Patricia Collins, and Sgt. Maj. Kristie Brady attended the musical, shown here with Grace Banker's helmet. (Courtesy photo)

The real Grace Banker and her operators overcame the objections of many who questioned how the women would perform under fire. In real life, Col. Parker Hitt, chief signal officer for First Army, had no such misgivings and ordered Banker and a team of operators to draw helmets and gas masks and report to his headquarters in preparation for the final offensive of the war.

The music and choreography convey the stress of maintaining communications amidst the battle through artillery shells and a fire that broke out in the building that housed the switchboards. In the last song of the show, "Making History," Banker, who remained after the Armistice until September 1919 to support the Army of Occupation at Coblenz, Germany learns from Suzanne, who had already returned home, that the Army did not consider them as having been Soldiers, but civilian contractors.

As the show closes with the lyrics, "Every one of us is making history…" we learn that history was made in 1977 when Congress passed and President Jimmy Carter signed legislation granting veteran status to the 223 Hello Girls who served overseas in World War I. Only about 21 of the women lived to receive their Army discharge papers.

The show was very well received by the audience and made a powerful impression, especially on the Signal Corps veterans who attended.

"We no longer have to fight for equal benefits as they did, but women Soldiers today owe these women a debt of gratitude having walked through the doors they opened for us" said retired Col. Linda Jantzen.

Retired Lt. Col. Indira Donegan said, "As a former Army officer and Signal Corps combat veteran, the lyrics hit home in a way I couldn't have expected. This is more than just a musical about the first women to serve in the military. This is **the** origin story of American women in STEM [science, technology, engineering and math] and of women in service to our nation."

Retired Lt. Gen. Susan Lawrence expressed "The musical was incredible. Its message often revolved around themes of empowerment, unity, and resilience in the face of adversity. It highlights the vital role these women played in communication during wartime, showcasing their determination and strength."

Also in attendance were Elizabeth Cobbs, author of book, *The Hello Girls*; Jim Theres, film maker of a documentary by the same name; Claudia Friddell, author of the children's book, *Grace Banker and her Hello Girls Answer the Call*; and several descendants of Hello Girls including Carolyn Timbie, granddaughter of Grace Banker; Catherine Bourgin, granddaughter of Marie Edmee LeRoux; and Donna Ayres, grandniece of Olive Shaw.

Who in the Signal Corps ever thought there would be a musical written about it? The creators of the musical drew most of the scenes and some of the lyrics from Cobbs' book and from Banker's personal memoir. The cast did their homework, too. They researched the stories of the real-life characters they portrayed, and their personal connection with these women came through in their performances. The show is at once powerful, touching and funny, educational, and thoroughly enjoyable.

The United States World War I Centennial Commission, a federal agency, has recommended to Congress (with the support of the American Legion, the Veterans of Foreign Wars, and the Military Women's Memorial) that the Hello Girls be awarded a Congressional Gold Medal for their groundbreaking service in World War I. For more information, click here.

Relevance Through Effective Writing

Sharing experiences

Sgt. Maj. David G. Cyr
Sergeants Major Academy

"Our NCO Corps is admired by our contemporaries around the world and is an integral part of what has made our Army so successful throughout our 244 years of service to the nation," wrote 16th Sgt. Maj. of the Army Michael A. Grinston (Department of the Army, 2020, p. 3).

True, our Army is unlike any other because our NCO corps' skills, experiences, and contributions set us apart from the rest, and that's something to be proud of. But can we hang our hat on our past, or should we continue to look for ways to improve and remain relevant as the backbone of the Army?

In a recent article, Master Sgt. Noel DeJesus said his "inability to learn from the experiences of thousands of sergeants major who have paved the way for me seems hypocritical" (DeJesus, 2024, para. 6). I agree with this claim and support the notion we need to learn from the experiences of those who came before us lest we repeat their mistakes and halt progress. For every NCO who submits an article for publication, thousands remain mute in the hope someone else will speak up.

The Army's senior leaders insist the voice of professionals at all levels is critical to strengthening our Army and adequately preparing to answer our nation's call (George et al., 2023). To ensure we have a voice and our experience transfers, NCOs must seek opportunities to publish their experiences.

Sharing NCO Experiences

We have an unstated obligation to leave the Army better than we found it. We can do that through writing. Written contributions can help ensure Soldiers have access to relevant experiences, lessons learned, insight, and even personal and professional development recommendations.

But where, or to whom, do you submit your work if you have something to share? **Professional bulletins** like the **Military Review**, the **Army Sustainment Professional Bulletin**, and the **Army Communicator** provide NCOs with platforms to exercise their voice. They are easily accessible through the Army Publishing Directorate or each's web page. **Army University Press** consolidated additional branch-specific journals like **Special Warfare**, the **Chaplain Corps Journal**, and even **Applied Language Learning** (which provides leaders a place to share their insights on instruction techniques and curriculum development). Additional opportunities exist through Army channels like the **NCO Journal** and the **Harding Project**, which offer online platforms to turn your thoughts into something that helps others learn and grow. Despite the many options available to NCOs, several barriers prevent Soldiers from taking the leap.

Singapore Warrant Officer 1 Cheng Qiao Feng and Sgt. Maj. David G. Cyr. The pair worked together to get Feng's article published in the NCO Journal here. (Courtesy photo)

Overcoming the Barriers

As an instructor at the Sergeants Major Academy, I see firsthand how our next generation of sergeants major shy away from or resist the writing process. Their reluctance is sometimes due to a simple lack of desire to write. Other times, it's because they are unsure what to write about. That said, plenty of open and active discourse in the classroom leads me to believe they all have something to share. Within every NCO, there is a wealth of knowledge that can help our Army, and the only thing keeping most from sharing it with the world is confidence.

To help others find that confidence and share their voice, I created a list of four things NCOs can do to strengthen their writing skills and gain confidence (none of which includes going back to school). Some of these worked for me. I hope they can for you.

Read

These are supposed to be tips to improve our confidence in writing, so why start with reading? While reading is fundamental, what I mean here is to research and figure out what already exists on a topic that interests you. That way, you can answer the question: "How unique is my idea?"

The NCO Journal and the *Military Review* want authors to consider whether their article is unique or written from a fresh perspective (Army University Press, n.d.). The only way to answer that question is to know what's out there, and the only way to know what's out there is to read.

If you're like me, reading can be difficult because of noisy or busy environments. I find it best to read in a quiet setting at the end of the day.

Answer the Call

One of the responses I frequently get when talking to leaders about submitting an article for publication is the need for guidance on what to write about.

Answering a publication's call is a great place to start in those cases. Most of the resources listed above include article submission requirements, which usually include areas of focus. For instance, the *Army Sustainment Professional Bulletin* lists seasonal themes through next winter, including lessons learned in sustainment operations in Ukraine and maritime sustainment in the U.S. Indo-Pacific Command theater (Army Sustainment, n.d.). If you're struggling to settle on a topic, browse the submission guidelines of potential platforms to determine what they seek. Doing so may spark your creativity.

Work Together

Find a battle buddy – someone who shares your views or who can help you refine them through brainstorming or outlining. Someone who can help you edit, refine, and, when needed, delete unnecessary content.

In the January 2024 edition of the *Army Communicator*, Capt. Alvin Cade Jr. and Sgt. 1st Class Albert Jones co-authored an article describing the brigade support battalion's importance in logistical support to the warfighter (Cade & Jones, 2024). I am not making a case for or against their published opinions; I am simply showing that others are working as teams to get their thoughts published. You can, too.

Risk Rejection

Thomas Edison said, "I have not failed 10,000 times – I've successfully found 10,000 ways that will not work" (Hendry, 2013, para. 2). He brought us the light bulb, for which, if I stop to think about it, I'm grateful. But he's also noted for his willingness to try and fail. So, give writing a shot, and don't stop at your first no. Sometimes, you submit an article that doesn't meet the requirements or intent for one publication but does for another. While submitting simultaneous submissions to different publications is not generally a good or accepted practice, taking a no with one and turning it into a yes at another is common. Remember, failure is not measured by the number of rejections but by when you give up.

Conclusion

We all want to leave the Army better than we found it. But that requires stepping outside our comfort zones and sharing our thoughts and experiences. Writing is not always an easy process, but sometimes all it requires is starting. The only bad paper is one that's never written. Overcoming barriers and taking the leap might be as simple as finding a battle buddy to share the experience or taking a few minutes each day to read articles submitted by other leaders. Whatever it takes, just get started. Answer the call. Our Soldiers need to learn from your experience. Be bold and never fear rejection. One closed door leads to countless others that might be open. Ring the doorbell and see if someone is home. What's holding you back?

Editor's note: This article was first published in the *NCO Journal* here.

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Empowering Warrant Officers for Future Battlefield Communications

The WO's critical role

Warrant Officer Patrick J. Kooiker
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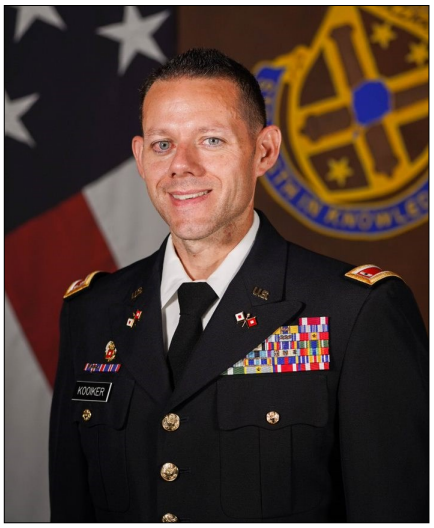

Warrant Officer Patrick J. Kooiker Minnesota Army National Guard

In a recent training initiative led by Chief Warrant Officer 4 Shaun Gillie and Chief Warrant Officer 3 Marcelo Jang of U.S. Army Forces Command (FORSCOM), strides were taken to equip warrant officers with the necessary knowledge and skills for the evolving landscape of data, operations, and electronic systems maintenance. Held at Fort Eisenhower, Georgia, the training brought together around 50 participants, including students and senior warrant officers, to delve into the future of battlefield communications.

Drawing insights from past experiences such as Desert Storm, Iraqi Freedom, and Afghanistan campaigns, as well as lessons learned from conflicts like Ukraine, it became apparent that our communication strategies must adapt to the demands of modern warfare.

As we transition into large-scale combat operations (LSCO), there is a pressing need to streamline our communications infrastructure, reducing complexity, manpower requirements, and downtime. A key aspect of this strategy involves managing the expectations of our commanders and customers while embracing innovative solutions. By leveraging commercial off-the-shelf systems like Starlink and exploring low earth orbit systems, we can significantly enhance our communication capabilities while minimizing our footprint on the electromagnetic spectrum. Furthermore, the expansion of Secure but Unclassified-Encrypted (SBU-E) data usage promises to revolutionize tactical communications. By allowing perishable data, such as fire missions, to be transmitted securely and efficiently, we can ensure real-time responsiveness on the battlefield while simplifying maintenance requirements and improving overall lethality.

While these changes are still in the planning stages, it's imperative that units continue to maintain their current systems diligently. Preventive maintenance, software updates, and effective coordination with S4 personnel are all crucial elements in ensuring operational readiness.

In this journey towards modernization, warrant officers play a pivotal role. Their expertise and dedication are invaluable assets in maintaining and enhancing our communication infrastructure. As such, opportunities abound for those willing to embrace this challenge. With nine warrants slated for J-6 FORSCOM, now is the time for individuals with a passion for innovation to step forward and shape the future of warfighting capabilities.

Chief Warrant Officer 3 Marcelo Jang, FORSCOM, shares best practices to engage electronic systems maintenance warrant officers . (Photo by Warrant Officer 2 Ricardo Sanchez, U.S. Army Cyber Center of Excellence)

Looking ahead, the landscape of military communications will undoubtedly continue to evolve. By equipping ourselves with the necessary skills, embracing new technologies, and fostering collaboration, we can ensure that the U.S. Army remains at the forefront of warfare, ready to adapt to whatever challenges the future may bring.

Warrant Officer Patrick J. Kooiker was a student in the 255N (Network Operations) Warrant Officer Basic Course, Class 001-24 (Reserve Component) at the time of writing this article. He graduated from the course on April 12, 2024.

Beneficial Implications of Artificial Intelligence Within the United States Military

Shaping operations

Sgt. Maj. Raymond Lopez
Cyber Training Brigade

Sgt. Maj. Raymond Lopez, Cyber Training Brigade

The Artificial intelligence (AI) fundamentally reshapes U.S. military operations, heralding a new era of enhanced efficiency, effectiveness, and safety across various domains.

AI's capability to rapidly process vast datasets and develop predictive algorithms is revolutionizing force protection by enabling the detection and neutralization of threats, such as improvised explosive devices (IEDs) and enemy combatants, more swiftly and accurately than ever (Cummings, 2017). This technological advantage extends to improving situational awareness.

AI-powered sensors and systems provide commanders with an unprecedented real-time view of the battlefield, leveraging data from satellites, drones, and ground sensors (Johnson, 2019). Furthermore, AI's application in training and simulation systems offers Soldiers realistic and challenging environments, preparing them for the complexities of modern combat through sophisticated AI-driven simulations. AI accelerates decision-making processes and significantly enhances cybersecurity and information operations, which is vital for safeguarding sensitive military data and countering sophisticated cyber threats and adversarial information campaigns (Defense Innovation Board, 2019). Through these multifaceted applications, AI empowers military commanders to make more informed, rapid decisions in complex scenarios (Szabadföldi, 2021). It underscores its indispensable role in maintaining the U.S. military's technological supremacy and its readiness to deter adversaries in a rapidly evolving global security landscape. By enhancing force protection, improving situational awareness, developing training and simulation systems, accelerating decision-making, and integrating AI into cybersecurity and information operations, AI can help the military maintain its technological edge and deter adversaries.

Enhancing Force Protection

Enhancing force protection through AI in the U.S. military is a crucial development in modern warfare strategies. Developers increasingly use AI technologies to create new systems that detect and neutralize threats quickly and accurately (Johnson, 2019). These systems utilize advanced algorithms and machine learning techniques to monitor vast areas for potential dangers, such as IEDs and enemy combatants (Szabadföldi, 2021). An exemplary case is the use of AI in drone surveillance, where algorithms analyze real-time data to identify and track potential threats, offering a significant advantage over traditional surveillance methods (Allen & Chan, 2017).

Furthermore, AI's role in predictive analytics revolutionizes threat anticipation and response strategies (Davis, 2019). For instance, AI systems can analyze historical data and current intelligence to predict enemy actions, allowing the military to take proactive measures (Cummings, 2017). This predictive capability is instrumental in safeguarding Soldiers and civilians, reducing the likelihood of casualties by anticipating and countering threats before they materialize (Defense Innovation Board, 2019).

The benefits of AI in enhancing force protection are manifold. By automating and improving threat detection and response, AI increases the safety of military personnel and enhances the overall effectiveness of military operations (Johnson, 2019). The reduction in response time to threats and the ability to manage large-scale data for threat analysis are significant advancements brought about by AI (Davis, 2019). The future of AI in this domain holds the promise of autonomous systems capable of making real-time decisions in critical scenarios, further enhancing the safety and efficiency of military operations (Allen & Chan, 2017).

Integrating AI into unmanned systems and robotics for patrol and reconnaissance missions exemplifies another dimension of force protection (Morgan et al., 2020). These AI-enhanced platforms can persistently survey high-risk areas without putting human lives in danger, identifying, and even neutralizing threats from

a distance (Johnson, 2019). For example, AI-enabled uncrewed aerial vehicles (UAVs) can autonomously navigate complex terrains to gather intelligence or monitor enemy movements, providing a tactical advantage while minimizing threat exposure (Allen & Chan, 2017). This application extends the reach of military surveillance and integrates seamlessly with crewed operations to create a layered defense strategy, effectively increasing the security perimeter around protected assets and personnel (Szabadföldi, 2021).

Moreover, AI's capability in cyber defense acts as a force multiplier in protecting critical military networks and communication systems. By employing AI-driven cybersecurity solutions, the military can preemptively identify and neutralize cyber threats, safeguarding the integrity of operational data (Defense Innovation Board, 2019). Cybersecurity is increasingly important as cyber warfare becomes a critical front in modern conflicts, where the ability to disrupt, deceive, or degrade enemy communications and control systems can have strategic implications (Cummings, 2017). AI's role in cyber defense emphasizes its significance in physical and digital battlegrounds, showcasing its extensive influence on force protection by securing the physical assets and the informational backbone of military operations against a broad spectrum of threats (Szabadföldi, 2021).

The inferences of AI transitioning from the direct benefits in force protection extend to another critical domain: situational awareness (Cummings, 2017). AI's ability to gather, process, and analyze data from various sources equips commanders with a comprehensive understanding of the battlefield, enabling more informed decision-making and effective response strategies (Johnson, 2019). The improvement in situational awareness facilitated by AI complements force protection measures and offers a broader strategic advantage in military operations (Davis, 2019).

Improving Situational Awareness

The role of AI in improving situational awareness within the U.S. military is a testament to the transformative impact of technology on modern warfare (Cummings, 2017). The ability of AI to process and analyze data from various sources, including drones, satellites, and ground sensors, is pivotal in enhancing the military's understanding of battlefield dynamics (Johnson, 2019). These AI-driven systems synthesize information from various inputs, offering a comprehensive and real-time picture of the operational environment (Davis, 2019). This enhanced situational awareness is critical for commanders, allowing for more informed decision-making and strategic planning (Szabadföldi, 2021).

A prominent example of AI's application in situational awareness is its integration into reconnaissance and surveillance operations (Allen & Chan, 2017). AI algorithms can swiftly process visual and sensory data from reconnaissance missions, identifying potential threats and points of interest that might escape human analysis (Morgan et al., 2020). This rapid processing capability is invaluable, especially in complex and fluid operational environments where time-sensitive decisions are crucial (Defense Innovation Board, 2019).

Additionally, AI systems contribute significantly to pattern recognition and anomaly detection (Johnson, 2019). By analyzing historical and current data, these systems can predict potential enemy movements and tactics, thus providing strategic advantages to military planners (Davis, 2019). Predictive intelligence is essential not only for real-time tactical decisions but also for long-term strategic planning (Cummings, 2017). The benefits of AI in this domain are manifold. Enhanced situational awareness leads to better battlefield management, more effective deployment of resources, and a higher probability of mission success (Szabadföldi, 2021). It also plays a crucial role in minimizing risks to Soldiers and civilians, as well-informed decisions lead to more precise and targeted actions with reduced collateral damage (Allen & Chan, 2017).

Incorporating AI in improving situational awareness sets the stage for its application in training and simulation systems (Johnson, 2019). The data and insights from AI-enhanced situational awareness provide a rich foundation for developing realistic and challenging training environments (Davis, 2019). By leveraging the detailed understanding of real-world conditions, AI can create simulations and training scenarios that closely mirror actual operational environments (Morgan et al., 2020). This transition from enhanced battlefield awareness to training and simulation underscores the holistic impact of AI in revolutionizing military operations, from strategic planning to Soldier readiness (Cummings, 2017).

Developing Training and Simulation Systems

The development of training and simulation systems enhanced by AI marks a significant stride in the U.S. military's approach to preparing Soldiers for the complexities of modern warfare (Cummings, 2017). AI-driven training systems offer highly realistic, adaptable, and dynamic simulation environments that closely replicate combat scenarios (Davis, 2019). This technological evolution is crucial for training Soldiers in various contexts, ranging from conventional battlefield engagements to asymmetric warfare scenarios (Johnson, 2019).

One of the critical advantages of AI in this domain is the creation of immersive training experiences that adapt to the individual learning styles and performance levels of Soldiers (Szabadföldi, 2021). AI algorithms can analyze a Soldier's performance in real time, adjusting the difficulty and nature of scenarios to challenge

them appropriately and ensure effective learning (Morgan et al., 2020). For example, combining virtual reality (VR) and augmented reality (AR) technologies with AI enables Soldiers to train in virtually constructed environments that closely mimic actual battlefields, with dynamic variables like changing weather conditions and evolving enemy tactics (Defense Innovation Board, 2019).

Additionally, AI facilitates the analysis of training outcomes, providing detailed feedback and insights that guide improvements in Soldier performance (Allen & Chan, 2017). AI systems offer unprecedented data-driven analysis by meticulously recording and evaluating every aspect of the training exercises, enabling a continuous improvement loop in training methodologies (Davis, 2019). The application of AI in training and simulation systems extends beyond individual Soldier training to encompass collective and strategic training exercises (Johnson, 2019). AI-driven simulations can model complex operational scenarios, allowing military commanders and units to practice and refine tactics, techniques, and procedures in a controlled yet realistic setting (Cummings, 2017).

As AI continues to refine training and simulation systems, it simultaneously lays the groundwork for the process of accelerating decision-making (Morgan et al., 2020). The insights and experience gained from AI-enhanced training environments contribute to a deeper understanding of operational dynamics (Allen & Chan, 2017). This understanding and AI's ability to process and analyze vast amounts of data empower military leaders to make swift, informed decisions in real-time combat situations (Johnson, 2019). The progression from training and simulation to accelerating decision-making underscores AI's comprehensive impact on enhancing the operational capabilities and strategic understanding of the U.S. military.

Accelerating Decision-Making

The acceleration of decision-making processes within the U.S. military by applying AI is a crucial enhancement in contemporary military operations (U.S. Department of Defense, 2018). AI's capacity to rapidly process, analyze, and interpret vast amounts of data is transformative, particularly in high-stakes environments where timely and accurate decisions are paramount (Johnson, 2019). This capability significantly augments the decision-making efficiency of military commanders, enabling them to respond more effectively to rapidly evolving situations on the battlefield (Cummings, 2017).

AI's impact on decision-making is multi-faceted. One of its primary benefits is reducing the time taken to analyze complex datasets (Morgan et al., 2020). This rapid data processing allows military leaders to receive actionable intelligence in a fraction of the time it would take using traditional methods (Szabadföldi, 2021). AI algorithms are particularly adept at identifying trends and anomalies that may take time to become apparent to human analysts (Defense Innovation Board, 2019). By employing predictive analytics and machine learning, AI can forecast potential enemy movements, anticipate strategies, and suggest optimal responses (Cummings, 2017). This foresight is invaluable for strategic planning and operational readiness, allowing military planners to stay ahead of potential threats and opportunities. Integrating AI into decision-making processes also enhances the accuracy of decisions (Davis, 2019). By relying on data-driven insights, military commanders can make decisions informed by a comprehensive analysis of available information, minimizing the risks of oversight or bias that might affect human judgment (Morgan et al., 2020). This aspect becomes crucial in complex scenarios where one must consider multiple variables and potential outcomes. AI-powered systems continuously update and provide recommendations based on the latest information, ensuring military decisions rely on the most current operational picture (Scharre, 2018). This capability is particularly beneficial in crises or active engagements, where a rapid response is essential (Cummings, 2017).

The application of AI in accelerating decision-making does not replace human judgment but rather complements it (Scharre, 2018). By providing military leaders with enhanced analytical capabilities and timely insights, AI acts as a force multiplier, enabling them to make more informed, efficient, and effective decisions (Defense Innovation Board, 2019). This technological advancement marks a significant shift in military operations, underscoring the importance of speed, precision, and adaptability in modern warfare (Johnson, 2019). Integrating AI into the decision-making process within the U.S. military signifies a profound shift towards more agile, informed, and effective operational capabilities (Szabadföldi, 2021). This advancement bolsters the military's strategic and tactical proficiency and ensures a heightened state of readiness and responsiveness in an increasingly complex global security environment.

As AI continues to refine and expedite the decision-making processes, it concurrently sets the stage for integration into cybersecurity and information operations (Morgan et al., 2020). The vast data in military decision-making necessitate robust cybersecurity measures to protect sensitive information (Defense Innovation Board, 2019). Furthermore, the increasing importance of the information domain in modern warfare underscores the need for advanced AI capabilities in managing and countering information threats (Cummings, 2017). The progression from accelerated decision-making to the integration of AI in cybersecurity and information operations

highlights the multifaceted impact of AI in modernizing and securing military operations against evolving threats (Szabadföldi, 2021).

Integrating AI into Cybersecurity and Information Operations

Integrating AI into cybersecurity and information operations represents a critical advancement in the U.S. military's capabilities to counter emerging digital threats and manage the complex information environment of modern warfare (U.S. Department of Defense, 2018).

As the cyber domain becomes increasingly pivotal in military strategy, AI's role in bolstering cybersecurity measures and enhancing information operations is becoming more pronounced and indispensable (Cummings, 2017). One critical application is in the detection and neutralization of cyber threats (Szabadföldi, 2021). With their advanced algorithms, AI systems can monitor network activities continuously, identifying patterns indicative of malicious activities such as hacking attempts, malware infiltration, and unauthorized data exfiltration (Morgan et al., 2020). Unlike traditional cybersecurity measures that rely on known threat signatures, AI can adapt and respond to new and evolving threats in real time, thus providing a dynamic defense mechanism (Allen & Chan, 2017). Additionally, AI plays a significant role in automating responses to cyber incidents (Defense Innovation Board, 2019). Upon detecting a potential threat, AI-driven systems can initiate immediate countermeasures, such as isolating affected network segments or deploying patches to vulnerabilities (Johnson, 2019). This rapid response capability is vital in minimizing the impact of cyber-attacks and maintaining the integrity and availability of critical military networks and data systems (Szabadföldi, 2021).

In the arena of information operations, AI's impact is equally transformative. AI can analyze large volumes of data from various sources, providing insights into enemy tactics and strategies in the information domain (Davis, 2019). This capability is crucial for understanding and countering adversarial propaganda, disinformation campaigns, and psychological operations (Morgan et al., 2020). AI-driven analysis can discern trends and patterns in information dissemination, aiding military strategists in developing countermeasures and conducting strategic communication campaigns (Allen & Chan, 2017).

Moreover, AI's role in managing the complexity of the information environment extends to processing and interpreting open-source intelligence (OSINT) (Defense Innovation Board, 2019). AI systems can sift through vast amounts of publicly available data to extract relevant information for strategic decision-making, force protection, and situational awareness (U.S. Department of Defense, 2018). Integrating AI into cybersecurity and information operations enhances the U.S. military's ability to protect its digital infrastructure and manage the information battlefield (Szabadföldi, 2021). It represents a strategic shift towards a more proactive and intelligence-driven approach in dealing with the challenges of the digital age. This integration underscores the increasing reliance on AI as a critical component in maintaining technological superiority and operational readiness in a rapidly evolving security landscape (Davis, 2019).

Conclusion

Integrating AI into the U.S. military marks a transformative shift, significantly enhancing force protection, situational awareness, training and simulation systems, decision-making processes, and cybersecurity and information operations. This evolution reflects a strategic adaptation to the complexities of modern warfare, leveraging AI to address emerging challenges and bolster national security against sophisticated cyber threats. The expansion of AI's role underscores the need for ethical governance and international compliance, necessitating collaboration among policymakers, technologists, and ethicists to navigate its implications.

As AI continues to evolve, it positions the U.S. military for technological superiority, promising a future where AI is central to military strategy and operations, ensuring a more capable, efficient, and adaptive force ready to confront the 21st century's challenges.

About the author

Sgt. Maj. Raymond Lopez, is a native of Moca, Puerto Rico. He is a cyber operations specialist and recent graduate of the United States Army Sergeant Major Academy, Class 74. Lopez has served in key leadership roles including first sergeant in the Cyber Protection Brigade, then-Fort Gordon, Georgia, and interim sergeant major for the Operations Directorate (G3) at U.S. Army Cyber Command. He is currently enroute to become the proponent sergeant major for the Cyber Corps. Lopez holds an associate degree in computer information security and has multiple professional cyber certifications. He is married to Kaleena Lopez; they have three children.

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‘Ready’ Battalion Sets New Standard for Mission Readiness and Theater Support

Freedom Shield ‘24

Article, photo by Maj. Adam P. Robitaille
304th Expeditionary Signal Battalion-Enhanced

The 304th Expeditionary Signal Battalion-Enhanced (ESB-E) set a new standard for mission readiness and theater support in March 2024 by deploying more signal teams in a single month than any other ESB-E. Forward-stationed on Camp Humphreys, Republic of Korea, the “Ready” Battalion deployed 32 scalable network node (SNN) teams throughout Korea in support of the Freedom Shield 2024 theater exercise and other ongoing missions, demonstrating the unit’s capacity for rapid and widespread deployment in support of contingency operations.

During the theater exercise, Ready Battalion simultaneously employed 22 SNN teams, four Phoenix terminals, and two Secure Mobile Anti-jam Reliable Tactical-Terminals (SMART-T) at 10 unique locations across the peninsula. These operations highlighted the battalion's ability to provide essential command and control (C2) capabilities to key military commands, including United States Forces Korea, Combined Forces Command, Eighth U.S. Army, and others.

Freedom Shield 2024 enabled the Ready Battalion to showcase expeditionary deployment and command post operations, employing a battalion main command post (MCP), rear command post (RCP), and alternate network operations center at three separate locations. The battalion headquarters executed a 125-mile ground movement and established a tactical MCP at Camp Carroll while maintaining C2 of all battalion operations and demonstrating adaptability in austere environments. The RCP on Camp Humphreys coordinated centralized logistic and maintenance support and provided redundant C2 capabilities. At a third location, 304th ESB-E network engineers collaborated with the 41st Strategic Signal Battalion to establish an alternate network monitoring capability, exemplifying the battalion's commitment to innovation and interoperability in support of ongoing operations.

Soldiers operate a Phoenix Terminal in support of Combined Forces Command at CP Tango, Republic of Korea.

Command Sgt. Maj. Ian Riley coordinates operations from the 304th ESB-E MCP on Camp Carroll, Republic of Korea.

These complex operations were enabled by key Ready Battalion training and maintenance initiatives that reflect a proactive approach to readiness. The unit training plan includes quarterly platoon validations consisting of MCP operations, company and platoon alert procedures, platoon and team deployment, and external validations of network extension and tactical radio capabilities. This training has resulted in 90% of signal teams validated on Digital Gunnery Table VI, despite high Soldier turn-over. Maintenance initiatives – including on-site cable repair and fabrication, detailed maintenance schedules, and standardized recovery operations – have resulted in a consistent 95% operational readiness rate and being awarded U.S. Army Cyber Command’s Army Award for Maintenance Excellence despite a high operational tempo.

Ready Battalion’s training and maintenance initiatives have been reinforced and supported by frequent engagements and collaboration with U.S. Army Communications-Electronics Command trainers and maintainers, as well as with numerous industry partners.

Overall, the 304th ESB-E's accomplishments not only showcase their exceptional capabilities in providing critical communication support, but also establish them as a benchmark for mission readiness and theater support within the signal community.

Signal Corps Welcomes 43rd Chief of Signal

Assumption of Responsbility

Article, photo by Laura Levering
U.S. Army Signal School

The U.S. Army Signal Corps welcomed its 43rd Chief of Signal and Signal School commandant during an assumption of responsibility ceremony held June 21.

U.S. Army Cyber Center of Excellence and Fort Eisenhower Commanding General, Maj. Gen. Paul T. Stanton, presided over the ceremony.

Col. Julia M. Donley replaced Brig. Gen. Paul D. Howard, 42nd Chief of Signal. Howard was summoned to U.S. Army Central Command, MacDill Air Force Base, Florida, weeks prior to Donley's arrival.

Wasting no time, Donley hit the ground running, literally, leading thousands of troops with an early-morning run celebrating the Signal Corps' 164th birthday on the same day as her ceremony. Having arrived the week prior, she also participated in a host of other significant events, including a post-wide U.S. Army Birthday Run, Distinguished Members of the Regiment induction, and Signal Corps Anniversary Ball.

Donley acknowledged it had been a "whirlwind couple of weeks" leading to this day.

At the core of all the pomp and circumstance stood a leader who now has the "reins to drive and steer the future … a responsibility for which [Donley] is overly qualified," Stanton said.

"We will keep pace with the rate of change of technology and the rate of change of our adversaries…. but at the same time, we have to defend our communications equipment and we have to think about the battlefield geometry and placement of our systems in the context of moving the right data to the right place at the right time in ways that we weren't challenged with previously," he continued.

There was no doubt in Stanton's mind that the Signal Corps has the right person for the mission.

"The eyes of the Army and the nation are upon the Soldiers that will matriculate through our courses, through our formations … led by the Chief of Signal and the Commandant of the Signal School," he said. "We need leaders like Julia Donley to take the reins and propel into the future."

Upon delivering her remarks, Donley's eyes were on the audience that gathered to show their support during her time of transition – several who were present during her relinquishment ceremony two weeks prior and made the trek from the Maryland/D.C. area. After expressing her gratitude for them, and many others, Donley got to business.

Col. Julia M. Donley delivers welcoming remarks during her assumption of responsibility ceremony in which she officially became the 43rd Chief of Signal and U.S. Army Signal School Commandant.

"The Army expects us, the regiment, as it has for the last 164 years to once again reinvent ourselves and to be the Army's innovators," Donley said. "We need to continue to move the regiment forward – caring for the regiment of today, remembering the regiment of the past … and what the focus really needs to be is on the regiment of tomorrow."

It's an undertaking in which success is largely dependent on what's next for the network – a question that's being actively explored now.

"It's going to require us to change how we train, what we buy, determine what data is needed where, what's the most efficient way to reach it, and most importantly we need to start moving away from the mindset where we all control our own little bits of the network and embrace the fact that all of us are the distant end," Donley said. "All of these are tough questions, but whatever happens, whatever the Army needs, I know that the people of the Signal Corps are up to the task – ready to answer the call, as we have done for 164 years, because we are one unified regiment supporting each other every single day in order to provide the Army with its one unified network."

Donley commissioned as a second lieutenant in the Signal Corps through Georgetown University's Reserve Officer Training Corps program in 2000. She most recently served as the brigade commander of 21st Signal Brigade, Fort Detrick, Maryland, but has held a wide variety of command and staff positions.

Visit the U.S. Army Signal Regiment Facebook page for complete footage of the ceremony.

86th ESB Takes Vision and Develops Program

Build-A-Tiger

Lt. Col. Robert H. Widmyer
86h Expeditionary Signal Battalion

According to Department of the Army (DA), developing and sustaining readiness is the Army's No. 1 priority, executed daily by units through tough, realistic, and standards-based training (DA, 2019).

Training prepares Soldiers to perform a multitude of varying mission sets aligned against complex and ever-changing operational environments. The skills acquired at home stations, camps, or bases, through demanding training cycles, equip service members to meet and dominate challenges globally. Training requires extensive thought, deliberate action, and supportive resourcing as the foundation toward mastering specific and recurring tasks, drills, or activities.

One training approach aimed at fostering cohesion, transfer of learning, empowerment of junior leaders, and friendly competition is the 86th Expeditionary Signal Battalion's (ESB) Build-A-Tiger program. The Build-A-Tiger program encompasses a holistic approach to training and leader development focused on individual teams.

The foundation for the 86th ESB's Build-A-Tiger program is the unit's vision that nests key tasks within the T.I.G.E.R. mnemonic device: trusted teams, initiative, greatness, engaged experts, and ready.

Trusted teams: Emphasizes the importance of building and forming trusted teams at all echelons. This act requires deliberate planning and creation of opportunities for team development. Trusted teams are critically important within an ESB as six-person command post node (CPN) team-sized elements routinely deploy supporting other Army/joint/coalition organizations with their command and control (C2) mission requirements. Thereby, requiring our teams to be adept at not only trusting the members of their team, but also at earning the trust of the units they are assigned to support.

Initiative: Leaders at all levels must understand the unit's vision, priorities, and mission to effectively make decisions and take disciplined initiative. If Soldiers and leaders understand these three things, they can take disciplined initiative and make decisions to the betterment of the unit and accomplishment of its' missions.

Greatness will be recognized, rewarded, and encouraged for all Soldiers assigned to the 86th ESB to strive for. Winning our nation's war(s) is ultimately a competition, and to achieve this directive, we must have competitive Soldiers, leaders, and units. The capstone event for Build-A-Tiger is a competition of all teams to enhance their competitive spirit and recognize the best teams across the battalion.

Engaged experts: Leader engagement is vital to the development of successful Soldiers, leaders, teams, and units. A leader's presence reinforces priorities and creates opportunities for development. The most important thing that you can give someone is your time and attention. Engaged leadership enables expertise to be built through daily or routine training events. Expertise takes time and is built through sets and repetitions of deploying, employing, maintaining, operating, and troubleshooting assigned and supportive equipment platforms. All of these actions aid in establishing the foundation for readiness – one of the most important factors all military organizations must strive to build and sustain.

Ready Soldiers, families, teams, and unit! The unit's collective vision is centered on the goal of maintaining the highest possible readiness at the tactical echelon daily, offering consistency for Soldiers, teams, families, and the unit.

The objective is not to attain 100% readiness and sustain it annually, nor is it to surpass the readiness of other units who may be on different training cycles. Rather, the goal is to sustain the highest level of readiness possible as an individual Soldier, as a team, as a family, and as an organization.

We understand the impact of missions, training cycles, permanent changes of station, and personnel ending their service, as well as many other factors have on readiness levels. Thereby considering the comprehensive factors of this goal, we develop and regularly communicate training plans and annual training guidance ensuring everyone remains collectively focused on achieving our highest level of readiness every day so we are ready to "Fight Tonight" and win our nation's wars.

The Build-A-Tiger program is executed through a three-phased approach: validation of equipment, certification of Soldiers and teams, and team competition.

Validation of equipment ensures all equipment is fully mission capable and ready for operability. This requires satellite access to validate the C2 equipment as well as the vehicles required to transport Soldiers and equipment. Load plans and equipment maintenance are also validated. Certification of Soldiers and teams are defined as the confirmation of each Soldier's ability to accomplish their assigned roles and responsibilities as well as the collective team's

ability to deploy and set-up their C2 node within the established time frame.

The certification phase includes the timely loading of equipment into vehicles, pre-combat checks and inspections (PCCs/PCIs), and a mission brief prior to the deployment of any team.

The competition phase is the final phase and only occurs after teams have validated their equipment and been deemed certified. During the competition phase, teams are given a location, their technical data, and directed to deploy and setup to standard as quickly as possible. Each team is timed and observed by internal battalion subject matter experts and leaders. Any deficiencies are annotated, as observed, and assessed time deductions, which are added at the completion of the team's setup. An after-action review (AAR) is conducted by the team and leaders at the conclusion of each iteration, affording teams the opportunity to ask questions and learn from all involved.

The 86th ESB provides tactical C2 support at Fort Irwin, California, in support of PCC4. (Courtesy photo)

The competition phase concludes with informal recognition of all teams that participated and a formal ceremony congratulating the top three teams across the battalion in front of the entire unit.

The first iteration of the 86th ESB's Build-A-Tiger was executed in November of 2023, prior to our unit supporting Project Convergence Capstone 4 (PCC4) January to March 2024. Satellite access time was reserved from mid-November through mid-December. The first two weeks enabled validation of equipment, followed by one week for certification, and a one-week period for team competition.

Lessons learned that will be applied for the next iteration: Refine and publish the evaluation criteria and scoring standards for the competition phase; rehearse PCCs and PCIs for load-out and deployment of passengers and equipment; cross-training amongst the team; communication between company and battalion network operations (NetOps) section; and refinement to the battalion NetOps Standard Operating Procedures (SOP).

The results of the Build-A-Tiger are evident in the achievements and accolades received from battalion through Army command echelons, throughout the entirety of the PCC4, the Army's premier experimentation exercise. The battalion deployed 28 of 30 C2 nodes and 210 personnel, across four different areas of operation, for 10 total weeks. The unit provided reliable tactical C2 support supporting multi-national partners, joint force partners, and multiple Army units including 18th Airborne Corps, III Armored Corps, and the Joint Modernization Commander in developing the Department of Defense's Combined Joint All-Domain Command and Control concept.

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DMR Ceremony Honors 12 New Inductees

Tradition of Excellence

Article, photo by Laura Levering
U.S. Army Signal School

The U.S. Army Signal School hosted its annual Distinguished Members of the Regiment (DMR) induction ceremony at the Augusta Marriott Convention Center on June. 15. Twelve new members were recognized, joining the elite ranks of other previously inducted individuals.

The DMR program was established by the Signal Corps upon regimental activation in 1986 to recognize "personnel who have made a special contribution and distinguished themselves in their service to the Regiment."

The 43rd Chief of Signal, Col. Julia M. Donley, welcomed inductees saying that she was honored to "stand amongst so many leaders who have done so much that benefits the people of [the Signal Regiment] and Army's network."

Donley went on to say that she was happy to see so many familiar faces being inducted, having served with several of them throughout her Army career – one of them formerly her first sergeant when she served as a company commander.

Distinguished Members of the Regiment must be current or former members of the Signal Corps Regiment. Nominees may be active duty, U.S. Army Reserve, Army National Guard or Signal Regiment Department of the Army civilians (active or retired status). The designation as a Distinguished Member of the Regiment is largely ceremonial and serves to perpetuate the history and traditions of the Regiment, thereby enhancing unit morale and esprit. Member selections are designed to not only recognize these individuals but also to promote and enhance the history of the Regiment, and foster cohesion amongst its members. To date, there are 184 total DMR inductees.

Closing out the ceremony, Regimental Command Sgt. Maj. Linwood E. Barrett looked at each newly inducted member and said, "On behalf of the Signaleers that serve this great country, we thank you for what you've done, and we thank you for what you're going to continue to do."

2024 Distinguished Members of the Regiment are:

- Maj. Gen. (Retired) LaWarren V. Patterson
- Brig. Gen. (Retired) Charles R. Parker
- Col. (Retired) Brian P. Moore
- Col. (Retired) Michael A. Brown
- Lt. Col. Theodor Seuss Geisel (posthumously)
- Maj. Herman V. Wall (posthumously)
- Chief Warrant Officer 5 (Retired) Curtis McDonald
- Command Sgt. Maj. (Retired) Edward Jones
- Command Sgt. Maj. (Retired) Sheldon L. Moorer
- Command Sgt. Maj. (Retired) Thao Kamakahi-Watson
- Command Sgt. Maj. (Retired) Stanley M. Davis
- Sgt. Maj. (Retired) Robert Trawick Jr.

U.S. Army Signal Regiment command leaders join newly inducted Distinguished Members of the Regiment for a group photo.