

# Strength in Knowledge

# The Warrant Officer Journal

# April-June 2024

## Volume 2, Issue 2



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April - June 2024 Volume II, Issue 2

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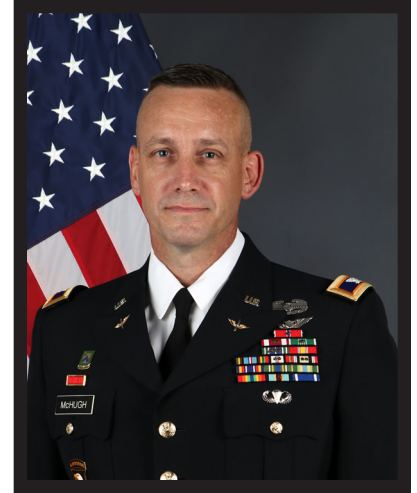
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# Commandant's Corner

## Colonel Kevin E. McHugh, Commandant, USAWOCC

Happy 106th Birthday to the Warrant Officer Cohort! Since the last issue of Strength in Knowledge, the USAWOCC team has continued its holistic and steadfast work across three lines of effort and seven organizational priorities. The first and most relevant for this publication and audience is USAWOCC's priority #1, the modernization of warrant officer education. In this issue, we hear from warrant officers and Army Civilian Professionals (ACP) across various occupational specialties focused on continuous improvement through education and training and its application across our Profession. As I reflect on the last two years here at the USAWOCC, the continued importance of the ongoing modernization effort across the enterprise continues to ring louder. We must press on to achieve a progressive and sequential educational experience that combines common core education (USAWOCC) and technical training (Centers of Excellence) to sharpen warrant officer integration and improve unit readiness. As this modernization effort continues marching towards completion with implementation planned for next October (FY26), the expectations for future warrant officers as integrators, leaders, and advisers continue to evolve and grow.



Picture: COL Kevin E. McHugh

he team at USAWOCC partnered once again with the Military Officers Association of America (MOAA) to recognize this year's Eagle Rising Inductee on 9 July. This year's inductee dedicated his life to the Nation and Cohort with over 30 years of selfless service and contributions. Congratulations to CW5 Julian A. Evans, III, and his family, who will forever be integral to the USAWOCC, Cohort, and Eagle Rising Society.

I hope you enjoy reading Issue 2 of Volume 2! Keep the articles coming to continue improving the Cohort and our Profession. Lastly, please let us know how we are doing and how we can improve the Warrant Officer Journal. Thanks for all you do!

***Strength in Knowledge!***



# Deputy Commandant's Corner

## CW5 Stephen Napoli, Deputy Commandant, USAWOCC

When you climb a tree, you reach for the strongest branches. You do not necessarily reach for the biggest branches or the ones with the most leaves. Even if it looks “strong enough,” grabbing the wrong branch can have predictably poor outcomes. Reaching out to quality mentors is similar to reaching out to a strong branch to elevate your personal and professional growth.

FM 6-22: Leader Development (2022) describes mentorship as “a voluntary developmental relationship that exists between a person of greater experience and a person of lesser experience characterized by mutual trust and respect” (p. 2-23). Mentorship is not an Army requirement, although it feels like it should be. Word search “mentor” in FM 6-22, and you will see 160 returns. Therefore, it must be important to develop others through the mentorship process.



Picture: CW5 Stephen Napoli

As a senior (old) warrant officer in a few organizations, I have had amazing opportunities to share what I hope is wisdom with officers and Soldiers of all ranks. As a Deputy Commandant, I have had a unique opportunity to be challenged by, learn from, and share wisdom with the sponges we call “Warrant Officer Candidates.” They are thirsty for information about their new adventure as they enter the W-Ranks. They are anxious and intimidated. They are also energized, inspired, and excited to convert their professional goals into professional accomplishments. This is no different from us older folks when we were in their position. To help navigate the deep waters, they want mentors.

They want mentors now but sometimes fail to realize they already have a bench of potential mentors. Someone encouraged them to apply to become a warrant officer. Someone wrote their letter of recommendation. Someone has given an uncomfortable correction to stimulate a behavior change. Someone offered a different perspective that reveals how misinformed people can be. Someone has pushed and encouraged them to be more—whatever “more” means in a specific situation. Someone has already been the strong branch in the tree. Then, the person becomes a candidate, and the mentorship opportunities fade because life gets busy, and the candidate forgets.

Some candidates want simple conversations of encouragement, some want a checklist of what to do and when to do it, and some only want to be told how amazing they are. All candidates want more understanding of what to expect at different points in their careers. Of course, that is difficult to provide in a “one-size-fits-all” format during their time as candidates. Hopefully, we recognize that candidates are the examples here, but the application goes far beyond them.

What specifically leads to success as a warrant officer (however, one might define “success”)? I was asked that question several years ago. The answer is not as unique to the warrant officer profession as we might think. The answer applies to every role in life—from parenting to leading small teams and ministering to Soldiering. And that answer also answers the question of what qualities we should see in potential mentors. We will explore that answer together in the next edition of *Strength in Knowledge*. And we will do so through plain language that we can all relate to.



# Great Mentors

**“Great mentors have great mentors.”**

(attributed to several people)

**“Sometimes great mentors become great mentors by overcoming the influence of bad mentors.”**

CW5 Stephen Napoli

Figure 1: Great Mentorship

In the meantime, I encourage us all (including myself) to continue growing into stronger branches to better serve those we mean to lead, advise, and mentor.

Stephen Napoli  
CW5, AV  
Deputy Commandant



Graphic: Tree of Mentorship with Strong Branches created by ChatGPT 4o

# Letter to the Editor - CCW—What?

**CW5 Jeremie J. Zabko, G3 Avation, US Army Pacific**

## **CCW—What?**

Let's embark on a slightly more enlightening journey through the tangled forest of military acronyms, particularly focusing on the Warrant Officer realm. The mission, should we choose to accept it (and we do, with a flourish of sarcasm), is to decode the cryptic alphabet soup of "CCWO", "CWOB", and "SWOA". This isn't just for kicks; it's a noble quest to shine a beacon of wisdom across the confused landscapes of ranks and MOSs. Imagine, if you will, the sheer chaos of witnessing folks brazenly flaunting titles like CCWO and SWOA in their email signoffs, as if these were trendy accessories rather than esteemed positions. And yes, this is happening despite the existence of MILPER message 23-399, a document apparently as popular as a dentist appointment.

For those intrepid souls seeking knowledge beyond the elusive MILPER message, salvation can be found within the sacred scrolls of AR 600-20, AR 600-3, and DA PAM 600-3. These texts, soon to be graced with the wisdom of MILPER 23-399, are akin to the guidebooks for the perplexed, outlining the paths through the dense jungle of Army regulations and officer development.

## **Now, let's dive into the heart of the matter, shall we?**

CWOB, or Chief Warrant Officer of the Branch, is a title not to be tossed around lightly. This acronym is reserved for the elite, not a free-for-all badge for anyone feeling particularly important in their battalion or brigade. With the Army's 26 branches, only 17 have the honor of boasting a CWOB, making it a title of distinction and not a casual moniker.

Enter the CCWO, the Command Chief Warrant Officer, a beacon of leadership in the warrant officer community. This isn't a title you stumble into; it's earned through a mix of expertise, selection by a command list, and a hefty dose of professional military education. The CCWO is the tactical and operational sage, a key adviser, and an integral part of the command team, listed proudly on the unit's Table of Organization and Equipment (TO&E) or Table of Distributions and Allowances (TDA). To aspire to this role without the proper credentials and selection is akin to declaring oneself a king in a land of equals – ambitious, but fundamentally flawed.

And then there's the curious case of self-proclaimed CCWOs, a phenomenon as baffling as it is misguided. It's crucial to understand that being the sole warrant officer in your department does not a CCWO make. Such declarations are not just incorrect; they're a faux pas of the highest order, a misstep in the intricate dance of military decorum.

Lastly, the SWOA, or Senior Warrant Officer Advisor, emerges as a figure of wisdom and guidance. Unlike its counterparts, the SWOA is an additional duty rather than a position carved in stone, designated to offer sage advice on the myriad aspects of warrant officer life within the organization. This role is appointed by commanders at the battalion level and above, ensuring that the SWOA's wisdom is not diluted by a plethora of unnecessary titles.

In summary, this paper isn't just a sarcastic romp through the world of military acronyms; it's a clarion call to all Warrant Officers to wield their titles with care, respect, and a deep understanding of their true meaning. Let us navigate these waters with the dignity and precision they deserve, ensuring that each acronym is a badge of honor, not a mere ornament.

Jeremie J. Zabko

CW5, AV

Senior Warrant officer of the window cubicle

Senior Warrant Advisor to anyone who will listen

*Author's Note: CW5 Zabko is the Pacific Theater Standardization Officer, US Army Pacific, G3 Aviation.*

*Editor's Note: CW5 Zabko forwarded this message to warrant officers throughout the Pacific Theater with positive response. He offered to share the message with our Journal to both enlighten and entertain our community. Works like this generate interest, dialogue, and potentially debate vital for professionalism and ethics. The Harding Project and this Journal want to hear from you. Do not hesitate to submit your works to the **WO\_Journal@army.mil** for consideration.*



Graphic: Logo of the United States Army Pacific and Moto of One Team.



# Editors Notes

**Mr. Jim Steddum, Managing Editor**  
**CW3 Suzy Albert, Associate Editor**

This issue of *Strength in Knowledge* is geared toward developing leaders prepared for large-scale Combat Operations. We start with the basics of adult education, which equips soldiers with critical thinking and problem-solving skills. Andragogy promotes lifelong learning, enabling them to adapt to complex and evolving combat scenarios. This educational approach fosters a deeper understanding of military doctrine, technology, and strategic decision-making, essential for effective leadership and operational success.

The Training with Industry (TWI) program is one platform for capturing experiential learning. TWI provides soldiers with hands-on experience and insights into civilian sector advancements. By partnering with leading industries, the military can leverage innovative technologies and practices, enhancing its operational capabilities. TWI ensures that soldiers are proficient with the latest tools and methodologies, bridging the gap between military needs and civilian innovations.

Readiness Initiatives are fundamental for maintaining a combat-ready force. These initiatives encompass regular training exercises, equipment maintenance, and logistical preparations. They help ensure personnel are physically and mentally prepared and that equipment is operational, guaranteeing forces can rapidly respond to threats. Readiness initiatives also include continuously evaluating and improving strategies, ensuring adaptability in dynamic environments.

The editorial board selected these articles because they directly impact large-scale combat operations by providing means and methods to garner high-level thought required for operation in multiple domains.

The Harding Project wants you to share your thoughts on these articles through professional discourse. Please send your letters to the editor or new articles to [WO\\_Journal@army.mil](mailto:WO_Journal@army.mil).



# **The Foundation of Adult Education**

**Mr. William J. Clark, Department of Leadership and Management**

Candidate for Master of Education, Louisiana State University

## **Part I: The Adult-Learner**

At a very early age, introduction to learning curricula meant to broaden our world knowledge is engrained in our culture. From learning the stove is hot to introducing calculus, we need to understand when to transition to the next level of learning. As we age and are introduced to more advanced technology, our learning accelerates quicker than the previous generation. Now, students can scroll through encyclopedias on a device smaller than their hand and use advanced algorithms to write multiple-page papers on whatever subject's requirements. An educational institution or educator must understand when the student switches from youth to adult learner. Adult learners possess different attributes, characteristics, and expectations that will guide them to continue to seek enlightenment through education.

### **Classification**

One of the first aspects of the adult learner we must understand is when students will transition from a grade school mindset to an adult-organized way of learning. Everyone will make this transition at different times, but in general, it is essential to have programs that serve those 16+ years of age who are no longer enrolled in school or required by state law to be enrolled (Bonney, 2018, p. 1). At this age, we will notice a shift in priorities in this student, fueled by external factors such as work or an unusually structured home life requiring more attention (usually from the oldest sibling taking care of younger ones). During the early to mid-1800s, Alexander Kapp developed a system to assist in identification and education for the benefit of the adult learner. In itself, andragogy and foundational theories, including self-directed, transformational, and experiential learning (Rocco et al., 2021, p. 74), provide an imperative understanding of how educators can develop and employ information to facilitate learning in adults. Another aspect of adult learners is how and where they will receive their education. There are many choices in furthering one's education, and selecting that place will also determine the facilitation requirement for each adult. Robert Peers articulated this best when he wrote, "The general picture of the age distribution of adult students does not tell the whole story since the average age of different groups differs according to the type of course, subject, and place the course is held" (1998, p. 180). Whether online, in-person, or hybrid, the adult learner requires a different learning experience than experienced during grade-school studies.

### **Characteristics**

Adult learners are driven by different factors that influence their choices in education. The pedagogical student is mandated to attend a certain level of education by law or parental preference. In contrast, adults can choose to participate in academic or work-related education. In a sense, adult learning refers to the education and training pursued by mature learners (Bouchrika, 2023, p. 2), insinuating

that the learner expects a return on their investment in education. All adult learners have obstacles such as technology or working in Excel or Word, time-related commitments that go against work/family schedule, existing student loans, and not remembering past studies (i.e., chemical or physical chemistry) for which refresher tutoring is required (Bellare et al., 2023, p. 34). External influences articulate their experience in a subject area. However, they will also allow their work/life priorities to influence how they prioritize what needs to be completed and when.

Moreover, adult learners will have their purpose drive the quality of work prepared in an educational setting. They are more autonomous in their work, which may lead to a fear or lack of change in their current knowledge, but they could be coached and mentored into a new order of thinking. Also, career development with opportunities provided by their employer, with one of the top offerings being tuition reimbursement (Bellare et al., 2023, p.34), can influence the adult learners' cause to develop.

## Expectations

Educators need to understand that three significant areas comprise the definition of what adult learners expect in an institution: learner-centeredness, self-directed learning, and a humanist philosophy (Bouchrika, 2023, p.2). These areas allow the adult learner to prioritize life expectations with that of the educational institution, which is usually seen through online learning and the willingness of the learner to select that platform. Throughout history and equally today, adult education has been a voluntary movement without external pressure to maintain attendance (Peers, 1998, p.171). The freedom of not relying on external pressure to ensure tasks are completed surprisingly allows the adult learner to enjoy successes or reflect on failures more intentionally. Many different educational programs are tailored to adults, and academic or trade-specific knowledge facilitates a variety of choices for this student population. Honest feedback, faculty support, and course availability are essential to the adult learner and influence their choice of program and institution.

Adult learners have different experiences and constraints in furthering their education than traditional grade school learners. Career, family, and other factors significantly influence how and when the adult learner will continue to receive an education. Individual attributes, characteristics, and expectations drive the adult learner to select an institution and course program that will benefit them. Educators must develop and instruct the adult learner differently than traditional education practices dictate. We must understand the history of adult learning development to understand this concept.



Graphic: Rendering of  
Adult Education created by  
ChatGPT 4o

## **Part II: The History of Adult Education in America**

### **Education Historically**

Education in the United States (U.S.) has seen an influx of participants and regulations that will enable those who wish to pursue relevant knowledge and enlightenment. Since the formation of the U.S., individuals who were able and accepted to attend an adult education program have drastically changed. Socially and economically prosperous men led the development of the educational foundation of this country but have since handed the reins to a more diverse population. Given this information, it is still statistically relevant to note that similar socially influenced selects still significantly affect the programming and selection of which adults are allowed access to education after high school. From historical U.S. programs to current trends impacting adult education and development, achievable access to adult education after high school impacts how we ensure a willing and educated workforce.

### **Adult Education**

During the formation of the United States, educational opportunities developed from academics such as Benjamin Franklin, which set the foundation for how professional men would educate and apply knowledge in the industry. Noted in his autobiography, Benjamin Franklin addressed education by narrating that “reading became fashionable; and our people having no public amusements to direct their attention from the study, became better acquainted with books (1771, pg. 3). Notations such as this indicate that institutions for higher education were mostly out of reach of the early U.S. population, which allowed for the publishing of books to enlighten individuals who were unable to pay for college. One major reason for someone to start a version of adult education was to ensure that they had the knowledge required to maintain a business or work under the owner of such a business. In short, industrial training was common in the early U.S. to facilitate a wage to “bring home the bacon” to their family. Libraries had a large influence in gaining knowledge in academics or industry early in the U.S. These libraries did require a monetary donation for access. Still, it was significantly less than attending a traditional university or college. In these library clubs, every member, in his turn, should produce one or more queries on any point of Morals, Politics, or Natural Philosophy (Franklin, 1771, p. 1); it is important to note that the use of the term “his” still annotates that men were the sole member group in these clubs. Although women and some African Americans could gain a higher education, it was usually based on financial class or the proprietor’s will for educational opportunities.

### **Religion**

Religion significantly impacted who would receive a higher education and who would not. One of the significant factors in education is the language in which religious materials are written. As English became more common in religion, adults who could read and decipher religious messages widened, allowing more of the population to gain an education. Historically, the Bible was one of the first pieces of literature someone would learn to read and commonly one of the only books personally owned during the time the U.S. was formed. It has been noted in multiple sources that the “Social Gospel movement appealed to the mortality of Christians to respond to the needs of people in poverty, immigrants, and other disenfranchised populations (Loberg, 2022, p. 230). Loberg has brought to light the necessity for expanding religion through education and reading spiritual documents. Surprisingly, this also indicates the need to fit into a society for those who have traveled from outside the traditional borders of a culture. Religious groups would also seek out those who wish to learn about specific aspects of spirituality, leading to organizations traveling to those outside their domain. Traveling to educate enforces the process that involves a significant proportion of persons in the relevant universe; activities of interest possess



specific stability and resilience over time (Guo, 2015, p. 10). Guo could articulate how the framework of adult education seemed to be sought out by specific individuals and purposes. Religion, industry, or academic needs in the context of initial vocational training provide basic vocational knowledge and skills in specialties for integration, reintegration in the labor market, and the development of human resources (Nikolaus, 2020, p. 103). Religion and vocation influenced who and why early U.S. adults sought higher education.

## **Trends Impacting Adult Education**

As adult education developed in the U.S., so did the social norms in who and why adults would attend. Educational methods were grounded in individual interaction with others and the social environment (Loberg, 2022, p. 232), indicating that adult education would elevate individuals to a higher social level other than physical money. Industry plays a prominent role in the type of continuing education adults seek. Trade schools, vocational rehabilitation, and different dimensions of higher learning would influence how business owners hire and fire workers. Workers in a pledge for their jobs or promotion would take necessary steps to ensure success. When analyzing the relationship between unemployment and the quality of education, we must first recognize the surrounding factors that contribute to unemployment (Haddad, 2022, p. 51). These factors include monetary class, social class, and certain immigration statuses, which provide substance to how adult education is marketed and achieved. Employers have derived incentives to encourage their current workforce to seek higher education; the problem is that adult learners' motivations differ from children's. Most adults seek education because they have specific goals (Nikolaus, 2020, p. 68), indicating that specialty knowledge is needed. The diversity of a population will always dictate educational necessity; it also falls on the students facing different challenges that require a higher level of maturity to resolve (Haddad, 2022, p. 69), which is a by-product of the initial education received as a child. Individual developmental needs that stem from self, industrial, and societal requirements influence how educational institutions develop content and who has access to it.

## **Access to Education**

From the early days that formed the U.S., libraries have improved the general conversation of the Americans and made the typical tradesmen and farmers as intelligent as most gentlemen from other countries (Franklin, 1771, p. 3). Libraries could provide knowledge for those who wish to self-develop, but institutional learning was offered only to a select few. Historically, white men of means or their employees could attend adult education institutions to enhance the monetary gain of the "bosses" place of business. As time and laws developed, more diverse individuals of the U.S. population would have the opportunity to satisfy their reasons for learning. The university industry will continue its long-standing commitment to social inclusion by working toward a more inclusive adult education squarely focused on benefiting marginalized adult learners (Guo, 2015, p. 8), facilitated by additional equality laws provided by the U.S. legislative branch of government. Women, Black Americans, Latin Americans, Asian Americans, and even migrants could pursue adult educational opportunities better than they would have in the past. For every adult, it is essential to identify the educational needs and the objectives of the program they want to attend (Nikolaus, 2020, p. 105). A significant need currently is the opportunities afforded to immigrant women, who face multiple barriers in adapting to the host society, particularly in accessing the labor market and owing to disadvantages attributed to gender, class, and race (Guo, 2015, p. 12). With as many strides in equality as the U.S. currently has made in education, it is time to address the minority of the minorities that make up our culture known as America.

The United States remains the beacon of the world's freedoms through legislation, awareness, and action, including adult educational resources. Continued work is necessary to ensure that everyone



who has a personal drive for higher education is provided with the opportunity to achieve it. Whether it is trade, academics, or an extended understanding of an individual topic, adults learn because of different factors than children. However, we look at the current issues in adult education, the idea of life, liberty, and the pursuit of happiness (Creek, 2014, p. 55), which have foundational properties in how citizens achieve an education. However, the educator's focus is to ensure that we follow specific guidelines to capture the attention of adults who learn a particular set of information at a specific time.

## **Part III: Philosophical Foundations of Adult Education**

### **Affiliated Philosophies in Adult Education**

Adult educators have always had the talent of adapting to the student and determining the most effective method of presenting information. Today, there is a list of current philosophies that adult educators adopt to enhance the environment for learning. With the application of ancient techniques or capitalization on modern developments in adult education, learners today have yet to have a variety of opportunities to develop technical or institutional knowledge to succeed in a career path. The application of Essentialism, Perennialism, Behaviorism, Progressivism, and Existentialism has the potential to reach individual students in what they want to achieve.

#### **Essentialism**

This philosophical approach to education can integrate common and essential ideas or skills belonging to a particular culture, made available to everyone in a centralized atmosphere. The professor would establish the environment necessary to adopt and learn from different perspectives encompassing the classroom's subcultures. It is also seen as taboo in some institutions as this is "often associated with old-fashioned conservative and even patriarchal thinking" (Holma, 2007, p. 45). Looking from a more conservative lens, Essentialism can potentially turn some learners off from the lessons the educator presents. Holma articulated this best when she stated that Essentialism "cannot serve on its own as a philosophical justification for essentialism but needs some supplementary argument" (2007, p. 47). Educators who take on this philosophy must supplement another to enhance the effectiveness of their teaching techniques.

#### **Perennialism**

Perennialism takes on the historical complexity of adult education by basing on Aristotle, Socrates, and Plato to embrace thought in the students. This philosophy established itself in modern form as a secure resting place for those who lacked faith in the progressive recipe for educational problems (Mosier, 1951, p. 80). Considering this, it is common for Perennialism to be supplementary to Essentialism in adult education. Educators effectively pass information to students in a way that will reinforce other knowledge as it relates to how it transforms over time. In this, "truth was defined as conformity of thought with things, not as temporary and accidentally disclosed, but under the form of eternity (Mosier, 1951, p. 84). Philosophically speaking, the educator corresponds current knowledge to what has been passed down and vetted over generations in context to the lesson's topic.

#### **Behaviorism**

Behaviorism exists in the student population to correlate what knowledge can do in the operational

environment. Another term for this philosophy is Kinesthetic learning. From a mechanical view or what information is synthesized in an academic paper, this is how the rubber would meet the road for the learned topic. More importantly, Behaviorism is a psychology and philosophy of learning; objectives are stated before instruction (Ediger, 2006, p. 180). A student will find this usually in the syllabus of a course they are beginning to take. Standardized tests indicate a form of Behaviorism with its uniformity of test-taking conditions (Ediger, 2006, p. 179), which exists in the fields corresponding to a course tailored to a scientific approach vs. a liberal art one. Behaviorism also has roots in modern philosophic and scientific movements (Spurgeon & Moore, 1997, p. 1) as learning institutions adapt to cultural shifts in education requirements.

## **Progressivism**

Progressivism, evolving from behaviorism, assists students in their education by testing through experimental learning and, in a more simplistic form, gaining answers to specific questions in a facilitated environment. Progressivism has historical origins in the progressive movement in politics, social change, and education (Spurgeon & Moore, 1997, p. 1). This philosophical approach to teaching is a melting pot containing all other educational philosophies. Studies in educational philosophy indicate this is the most predominant philosophical preference for professors and leaders in education (Spurgeon & Moore, 1997, p. 5). It is essential to understand that all students have questions about what is being taught and how it is presented. Progressivism subjectively allows the student to identify and place in context the answers to their questions and how relevant the information is to future careers or studies.

## **Existentialism**

This philosophy of education considers the idea that every student is unique. The uniqueness of the student body diversifies educational requirements in that individual students will be catered to in the curriculum. Views in this area contain implications that reconstruction or radical adult education holds that society requires constant change (Conti, 2007, para 8). Existentialism in adult education is viable due to the generational communication gap between the professor and the student. In my adult education experience as an instructor, this philosophy is the basis for the “facilitator” model for instruction. The “teacher is a guide, a motivator, a supervisor, a helper, and one who encourages to bring the best out of learners (Ediger, 2006, p. 181). Existentialism is familiar in military adult education at the different levels of rank-based education to members of the Department of Defense.

## **Formation and Application**

It is essential to realize that the individual educator and the educational institution do not have to be on the same philosophical plane to be adequate for their students. The magic of adult education happens when different philosophies can be integrated to form the best environment for life-long learning. However, developing a working philosophy is an important step in preparing an individual for the role of educator (Spurgeon & Moore, 1997, p. 1). Individuals need to understand how the students receive the teaching style they are educated. No matter what field you are in, one of the characteristics of professional development activities among this diverse group of adult educators is an attempt to understand better the teaching-learning process (Conti, 2007, para 2). Educators may adopt different philosophies to engage students in the same class.

If we look at education as an art, the perception and reception of how the students receive and retain knowledge is of the utmost importance to the educator and the institution. In itself, “teaching style is comprehensive and is the overt implementation of the teacher’s beliefs about teaching, it is directly

linked to the teacher's educational philosophy" (Conti, 2007, para 6). Working together, the teacher and the educational institution will integrate philosophies to reach each student on campus better. This will ensure that knowledge is not just received by the student but retained for further use.

## **Part IV: What is Andragogy?**

Over the past century, adult education has undergone a transformation that has brought it away from traditional academics. Individuals such as Alexander Kapp and Malcolm Knowles developed a philosophy that brought the adult learning model away from Pedagogy, which is the model for structured education experienced by children and adolescents. By developing andragogy, adult education began looking at the traditional higher education setting, noticing that students are motivated by various internal and external stimuli (Pew, 2007, p.15). Kapp and Knowles continued their work and found that the study of student motivation spans philosophical and practical disciplines and offers multiple findings with recommendations for the best practice of educating adults (Pew, 2007, p.14).

Andragogy means the art and science of teaching adults, which solved the problem of conflicted terms and methods (Forrest & Peterson, 2006, pgs. 114-115) caused by developing adult curriculum utilizing Pedagogy, or child philosophy. Unlike child students, adult learners are not defined by their roles as students but rather by the various identities they must use to live their lives (Forrest & Peterson, 2006, p. 117). Adult learning approaches lean towards the hands-on learning approach, andragogical tends to be highly participatory with foundations in the experiences hands-on applications can provide. (Bouchrika, 2023, p. 2). The philosophical study of andragogy led to the discovery of the Six Assumptions that guide educators to better reach adult learners. These assumptions allow adult educators to ensure that the content presented brings breadth and depth to satisfy their motivations for continued education.

### **Six Assumptions of Andragogy**

The first assumption we will look at is the Self-Concept. Self-concept learners are independent and self-directed (Bouchrika, 2023, p. 4). These learners work well with the curriculum-unlocked early and practical guidance through syllabuses and grading rubrics. The following assumption is the Learning from Experienced learners. These are our direct students who reinforce information through application or repetition.

Experience learners also learn through previous experience, which allows for a good repository for learning (Bouchrika, 2023, p. 4). Next, we have our Readiness to Learn group, which seeks out information that is valid to them and how it integrates with the world in which they operate. Immediate Application learners are driven by tasks they need to complete in life. Adult learners in this category are focused on the next step of completion to get to the next phase in a profession. Our Internally Motivated group is just that: they are driven by internal factors that guide their educational goals (Bouchrika, 2023, p. 5). Lastly, the Need-to-Know students require the relevance of the information being passed to them. Bouchrika said the best about this group is that "they need to know the value and what they are learning" (2023, p. 5). The six assumptions of andragogy allow us to develop course content that will facilitate the next topic of discussion, the different learning styles of adults.

### **Adult Learning Styles**

Different factors influence the identification of adult learning, starting with how they were educated as children. We begin by looking at what styles are developed to ensure the knowledge gained is retained.

In this section, we will examine seven different learning styles, along with some other theories that supplement these learning styles.

## **Visual/Spatial**

This style relies on images to process information and is also good at making connections (Bleich, 2023, p. 3). Visual aids delivered through media like PowerPoint allow this learner style to provide validity with different pieces of information and how to link them together.

## **Auditory**

Auditory-style learners retain information better by hearing it. Educators provide breadth and depth of knowledge by correlating the different words and terminology their lectures utilize. This style is usually the focal point of learning in an adult-centered institution (Bleich, 2023, p. 3). Lectures, informational videos, and podcasts engage auditory learners the best.

## **Linguistic**

Linguistic learners process information best through speaking and other language exercises (Bleich, 2023, pgs. 3-4). Adult learners in this style are usually in specialized speaking or language courses required for their professions. Motivations exist internally and externally, as how they verbally communicate affects how others receive their information. Reaching these learners is best through writing assignments, discussions, and guided readings.

## **Logical/Mathematical**

Logical-styled learning requires the adult to utilize distinct processes to break down learning into steps (Bleich, 2023, p. 4), allowing them to analyze problems logically. Gaming and other similar analytical frameworks are best for engaging this style of learner. Logical style is also described as Theorists, according to Amponsah, “because they seek to understand theories behind actions and integrate observations” (2020, p. 7). These learners are good to have in class because they can assist in connecting the dots with different types of information.

## **Intrapersonal**

Solitude and reflection for the Intrapersonal learner provide them with the tools necessary to retain information in the adult learning environment. They also require additional time to create and respond to discussion boards, but it will also allow them to provide deeper insights for the group (Bleich, 2023, 2023, p. 5). Another term utilized for this group is the Reflectors because they observe and evaluate, taking the time to come to conclusions (Amponsah, 2020, p. 6).

## **Interpersonal**

The social butterfly of the adult learning world, they thrive with interactions with others. Social interaction is needed to process information, usually extroverted and willing to guide small groups for in-person discussions (Bleich, 2023, p. 5). Engagement from the educator by face-to-face discussions is the most effective way to engage these learners.

## **Kinesthetic**

The action-takers of the class engaged by applying the information to the physical world. They must be able to put their hands on the information to gain experience and retain knowledge (Bleich, 2023, p. 6). Kinesthetic learners are also known as Activists because they operate in the here and now (Amponsah, 2020, p. 7).

There have been many strides to better the education of adults through developing philosophies that do not play to the Pedagogy design. Andragogy can reach different learning styles by activating the Six Assumptions, providing a broader spectrum of career adults to continue their education. In the educational environment, there have also proved to be those who cross the lines of learning styles to fit the information into their narrative of “why they need to learn”. Adult education, which is based on internal and external influences requiring continuing education, reveals the Pragmatists of the student group. They enjoy new ideas and theories and, by applying them to practice, can quickly act to change their style to fit the information type (Amponsah, 2020, p. 7). As educators, we also need to adjust our teaching style to ensure the inclusion of the different adult learners attending our institutions for education or training.

## **Part V: Training Adults**

Once adults have entered the workforce, they will be subject to multiple levels of training that will enable them to adopt the lifelong learning model of adult education. Training takes care of the need for adults to learn, commonly to ensure an excellent annual review, keep a job, or know what is necessary to get a better job (Kulkarni & Talgade, 2018, pgs. 23-24), training prepares a person for the present job, while a classroom teacher prepares a person for future job challenges (Kulkarai & Talgade, 2018, p. 24). One can also see that on-the-job training takes over where the academic classroom leaves off. Commonly, adults will only know what skills or specified required skills they will need to excel in a position once they are placed in that environment. It is important to remember that on-the-job training is done at the workplace by someone who already knows how to perform a task and teaches another person how to accomplish it (Chong & Tway, 2006, p. 29). Technical training will be provided to employees through formal and informal presentations, which will depend on the need for the training. Specialized forms of training include coaching and mentoring (Chong & Tway, 2006, p. 28), allowing for a different form of influencing based on the required job skill. Adults on the job commonly become motivated to learn after they experience a need to know, and they enter into an activity with a life-task or problem-centered need for the information (Winstein, n.d., p. 568). This means some adults will only know what they need to learn once they experience the job. In the end, training is nothing but a well-planned program aimed at developing specific skills and knowledge needed by the manpower (Kulkarni & Talgade, 2018, p. 24).

## **Differences Between Education & Training**

The process in which adults gain knowledge to satisfy personal and professional motivations originates from two main focal points: traditional education and specified training. The differences between the two can go from extensive to minimal. Adults have a deep psychological need to be self-directing (Weinstein, n.d., p. 566), which can be found in the specificity of training and adult vs. educating an adult. Educating an adult envelops the general knowledge that provides the baseline of intellect to gain employment. Training an adult incorporates the required knowledge to perform a task an employer needs. In the traditional academic environment, adults are focused on getting good grades (Kulkarni & Talgade, 2018, p. 23). Stable employment or career progression in the workforce motivates retaining the information learned during training. The workforce has the pleasure of dealing with the range of



experience within a group of adults, which is why establishing suggested or mandatory prerequisites for training courses to maintain the necessary cognitive level in their employees (Lanese, 1983, p. 15). With the corporate atmosphere being very diverse in terms of knowledge and skills required to perform, supervisors must design multiple avenues to ensure that the employees have access to and maintain interest in completing the training. The delivery methods that training departments use are self-instructional materials, lectures, discussions, or interactive programs that may involve role-playing or simulations (Lanese, 1983, p. 15). Learning is the common denominator between adult education and adult training; the main differences are external motivations and delivery processes.

## **Applying Adult Learning Principles to Train the Workforce**

There have been great strides in ensuring that the information adults need to perform is presented so that it can be retained and applied. The philosophy of andragogy allows us to understand that adults learn more effectively when they see that information is relevant to their lives (Weinstein, 1983, p. 566). The tricky part for the trainer is presenting the appropriate information and the presentation technique to allow the adult learner to correlate this information as a need. It is important to emphasize that training effectiveness is enhanced through the trainee's task performance (Chong & Tway, 2006, p. 28) or the information's ability to achieve success. Training of adults is commonly done in four phases these phases are Phase I: Determining what training is needed; Phase II; Designing the necessary training; Phase III; the implementation of the designed training on the workforce; Phase IV: Evaluation of the training and workforce to validate the training (Chong & Tway, 2006, p. 30). The phased process aligns with the Pedagogy philosophy, but the content design is andragogy-aligned. External motivators facilitate the interest in employees; one of them is the idea that the unavailability of acquiring or applying new skills makes them limited in promotions or may not have continued employment with an employer (Lanese, 1983, p. 16). Employers and trainers also develop courseware to entice learning for the employee by allowing for verbal, written, image, or a combination of media mediums in their training (Jay, 2023, p. 2). In turn, the employer can test the participant's understanding of the training (Jay, 2023, p. 6) by analyzing work proficiency or an assessment after completing the block of instruction. Adult training envelopes similar principles to education in a traditional classroom, but the application and relevancy of the information are assessed in real-world situations. In a career, adults understand that learning is a long-term process of absorbing and retaining new information (Jay, 2023, p. 4).

*Author's Note: Will Clark is an instructor in the Department of Leadership and Management, U.S. Army Warrant Officer Career College (employed by Will Technology, Inc.). He retired from the Army in 2020 as a CH-47 Crew Chief. He is pursuing a Master of Education from Louisiana State University.*

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Graphic: Academic Achievement created by  
ChatGPT 4o

# Training with Industry: Finding New Purpose

## CW3 Michael Rodriguez, U.S. Army Judge Advocate General's Corps

Have you ever felt like something is holding you back? Or do you think your organization could do more but need to know where you would begin? Do you feel disconnected from your organization's strategy? Yearning to be part of a more significant cause is why uncovering a fresh purpose can wield considerable influence. Yet, its potency hinges on collective alignment (Rigby, Smith, First, & Cochemé, 2024). The U.S. Army Judge Advocate General's Corps spearheaded this collective alignment by choosing me to participate in the Army's Training with Industry Program (TWI). Over the past year, I have engaged in the TWI as an Army Fellow at Deloitte. TWI aims to provide selected Army personnel with the opportunity to gain career-broadening experience while working in an industry environment (U.S. Department of the Army, 2024). It also provides the participant's organization the means to acquire needed skills or expertise to accomplish its mission (U.S. Department of the Army, 2024). The Army's Training with Industry Program fosters collective alignment between Army units and their personnel by synchronizing collaborative objectives, facilitating learning experiences led by industry experts, and bolstering organizational commitment by retaining top-tier talent.

The TWI program revitalizes purpose by harmonizing the Army's organizational and personnel objectives. An organization's mission and vision statement embody objectives to fulfill a need or serve someone (Rigby, Smith, First, & Cochemé, 2024). Organizations in both the private and public sectors publish their mission and vision statements, but they rarely provide clarity of purpose. When the purpose is clear, compelling, and consistently fulfilled, it has the power to align staff toward shared objectives, ignite exceptional dedication, direct resources to essential priorities, enhance accountability, and establish an organizational culture that fosters mutual benefits for all employees (Rigby, Smith, First, & Cochemé, 2024). One mutual benefit is the development of leaders and expertise versus hitting an organizational metric.

Purpose refers to "aspirations that motivate our activities" (Ivtzan, Lomas, Hefferon, & Worth, 2016). TWI's alignment of personal and organizational goals creates "synergy," where the combined effort of both parties results in upskilling-driven employees to achieve organizational goals and boost morale, motivation, and job satisfaction, leading to higher engagement and reduced turnover rates. When the purpose is aligned between employees and their organization and the employees achieve their goals, the organization benefits from their success (Dhingra, Emmett, Samo, & Schaninger, 2020). Employees often become more efficient and productive in their work, contributing to overall organizational success. When individuals and organizations achieve goals through TWI, the organization will foster a culture of innovation and creativity as employees seek out new ways to solve problems and improve processes.

TWI program enables participants to seize learning opportunities and glean insights from industry experts. As an Army Fellow with Deloitte, I gained invaluable exposure to real-world scenarios by working directly within their industry settings. This experience allowed me to immerse myself in real-world situations and gain firsthand insight into industry practices, challenges, and trends. TWI participants may have access to specialized knowledge, tools, and resources available only through the private sector but not readily available within their assigned branch. This accessibility partnership will provide TWI participants with an unparalleled learning experience and valuable insights into their industry's best practices and innovations.



Participants typically can work closely with industry experts who serve as mentors or supervisors. These mentors can provide valuable guidance, feedback, and insights based on their experience in the field. At Deloitte, my assigned supervisors made me feel that their loyalty was to me, not just to the company (Tjan, 2017). I had the privilege of meeting with managing directors, and they treated me as a peer rather than a subordinate. By collaborating with professionals from diverse backgrounds, industries, and disciplines, TWI participants can gain exposure to diverse perspectives and approaches to problem-solving, enabling the Army to maintain an employer-educator partnership with industry leaders and keep up with the rapid pace of change in the public sector because the pace of technology change has outpaced the ability for educators to produce a talent pool to meet demands (Fuller & Raman, 2023). This exposure can broaden TWI participants' thinking and help them develop more innovative and practical solutions to challenges today.

Organizations participating in TWI offer participants the opportunity to build professional networks and establish connections with industry experts. These connections can open doors to future collaboration, job opportunities, and ongoing learning opportunities. Overall, TWI can be a valuable way for individuals and organizations to enhance their learning and gain valuable insights from industry experts, contributing to the professional development of the individual and the organization's success in improving mission capabilities. Moreover, the benefits of TWI extend beyond individual professional growth and networking.

The TWI program enhances organizational commitment to retain top talent effectively. It helps Army organizations balance the need to retain and develop talented individuals with the immediate need to fill gaps or vacancies with available personnel who may have different expertise or skill levels. It is about finding a way to manage both strategic talent development and operational staffing needs effectively. However, our education and training system needs to be in line with demand.

Army organizations are leveraging TWI opportunities to demonstrate a commitment to investing in their Soldiers' growth and development to meet demand. For example, the Army announced a new warrant recruiting military occupational specialty — designated as 420T Talent Acquisition Technicians, "This occupation will serve at multiple echelons as a leader, advisor, trainer, and technical expert through the Army's Recruiting Enterprise" (Winkie, 2024). The first cohort will complete their Warrant Officer Basic Course in three phases. The first phase will be completed at the Adjutant General Corps' human resources schoolhouse located at Fort Jackson, South Carolina. The second phase will be completed at the U.S. Army Recruiting Command's Recruiting and Retention College located at Fort Knox, Kentucky. The last phase will be at an undetermined third location associated with industry/academia partnerships training (Winkie, 2024). The Army is adopting a culture where top talent feels recognized and appreciated, with clear pathways for career advancement. TWI talent supply chain trained, skilled professionals within real-world industry settings. The U.S. Army Recruiting Command's investment in professional growth is one example of its commitment to the Army People Strategy (U.S. Army, 2024). The return on investment is an established and proven supply chain for a talent pipeline that values and supports the career advancement of Army Recruiters to meet the demands of the Army.

Participation in TWI programs allows top talent to gain a new purpose, expand their knowledge, and develop new skills, increasing job satisfaction, engagement, and fulfillment. This sense of belonging and community can strengthen their ties to the organization and increase their commitment to staying long-term. Both the company and the employee thrive when their purpose aligns (Smith & Kouchaki, 2023). Offering TWI opportunities creates a competitive edge in the talent market and makes an organization more attractive to top talent in its talent pool. The opportunity to participate in such programs can serve as a valuable incentive for recruitment and retention, helping the organization maintain a competitive edge in attracting and retaining top performers.

In conclusion, the Training with Industry (TWI) program is a powerful catalyst for aligning individual and organizational purposes within the Army. By providing selected personnel with the opportunity to gain career-broadening experiences in industry settings, TWI fosters professional growth, enhances job satisfaction, and strengthens commitment to the organization. My experience as an Army Fellow at Deloitte underscored the immense value of this program, as it allowed me to engage with industry experts, build professional networks, and gain insights into best practices and innovations.

The TWI program ensures personnel possess the latest knowledge and skills, benefiting individual participants and the Army's operational capabilities. This strategic investment in talent development helps the Army meet immediate staffing needs while nurturing a pipeline of future leaders. As organizations across both the private and public sectors strive to achieve purpose congruence (Smith & Kouchaki, 2023). TWI exemplifies how aligning individual aspirations with organizational goals can lead to mutual success. TWI strengthens the Army's mission capabilities, fosters a culture of innovation, and ensures that top talent remains engaged and committed to long-term service.

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Graphic: Army Training with Industry  
Logo created by ChatGPT 4o

# Revamping Warrant Officer Appointment Physicals

## CW4 Athena M. Clements, New Hampshire Army National Guard

It is no secret that in the “War for Talent,” recruiting and retention is a current challenge across all U. S. military branches and components, including the Army National Guard warrant officer cohort. In 2022, Gen. James McConville, then Chief of Staff of the Army, stated: “We have opportunities to offer men and women unlike any other place. We want to make sure that we’re taking advantage of the talent we have in the military.” Are we truly doing enough to take advantage of the talent in our ranks when it comes to warrant officer recruiting?

As any seasoned Army National Guard Warrant Officer Strength Manager (WOSM) will tell you, accessing each technical warrant officer is lengthy and comprehensive. In a way, it should be. Readiness is critical, and the Army must ensure that we commission true subject matter experts and strong leaders as warrant officers; there is no room for mediocre or sub-par performers. The warrant officer definition states, “Warrant officers in the Army are accessed with specific levels of technical ability. They refine their technical expertise and develop their leadership and management skills through tiered progressive assignment and education” (DA PAM 600-3, 2023). The packet sent to the applicant’s proponent must paint a vivid picture of their technical expertise. Hence, it includes all past noncommissioned officer evaluation reports, academic evaluation reports, various letters of recommendation from commanders and subject matter experts, GT score verification, and an exhaustive resume, to name just a few.

Along with obtaining an approval letter from the proponent, each applicant must complete a Chapter 2 appointment physical to appear before a state Federal Recognition Board (FRB). The FRB ensures applicants meet the medical, moral, and professional qualifications to perform the duties of the grade and position they are examined before being designated as a candidate (NGR 600-101, 2018). If you currently serve as a warrant officer, I’m sure you remember the application process as your first test on the long road to pin on that dot—eventually!

The Chapter 2 physical requirement is an unnecessary stumbling block for many otherwise qualified applicants, even with the medical waiver process being considered. The Assistant Secretary of Defense for Manpower and Reserve Affairs (ASD (M&RA)) and the Under Secretary of Defense for Personnel and Readiness (USD (P&R)) should require a Chapter 3 retention physical for technical warrant officer accessions versus the more comprehensive chapter 2 enlistment, appointment, and induction physical to eliminate redundancy, an unreasonable standard, and unnecessary barriers. The Chapter 2 appointment physical negatively affects technically qualified applicants, warrant officer vacancy fill rates, and overall unit readiness. When considering the Chapter 3 retention physical, there are no negative impacts on the applicant’s overall mission or medical readiness. After training time is invested in the candidate and the initial training costs are spent on Warrant Officer Candidate School and the Basic Course, the U.S. Army would still have a fully medically ready warrant officer upon graduation.

All applicants for appointment as a commissioned or warrant officer in the Active and Reserve Components are subject to the standards of the Chapter 2 physical, including enlisted Soldiers (AR 40-501, 2019; DoDI 1304.26, 2018; DoDI 6130.03, 2022). This is a redundant requirement, as all currently serving members completed a Chapter 2 enlistment physical at a Military Entrance Processing Station (MEPS) upon joining the military. If there has not been a significant break in service, the lesser Chapter 3 retention standards should apply. The applicability section of Chapter 3 specifically states: “These retention standards are for continued military service” (AR 40-501, 2019). Being discharged

as an enlisted Soldier in the Integrated Personnel and Pay System-Army (IPPS-A) the day before commissioning and then onboarded as a warrant officer the next day is hardly considered a significant break in service. It is merely a required administrative transaction for continued military service in the new commissioned role. Chapter 3 physically addresses “the various disqualifying medical conditions and physical defects which may render a Soldier unfit for further military service” (AR 40-501, 2019). At no point does the U.S. Army require a currently serving member to repeat an entrance physical to verify their medical readiness, outside of applying to commission as an officer or warrant officer. Service members must complete an annual Physical Health Assessment (PHA) or Post-Deployment Health Reassessment (PDHRA) through their Medical Command. If a Soldier separates from service for more than six months (a significant break in service), they must complete a new chapter 2 physical to re-assess into the military (AR 40-501, 2019).

Further, the Chapter 2 standards are unreasonable for technical warrant officer accessions. Most Army National Guard warrant officer applicants for technical positions are seasoned mid- to senior-level noncommissioned officers with five to fifteen years of service. Many applicants have also deployed multiple times. Both deployed and stateside service often comes with physical and mental repercussions, including injury (for example, back and knee issues that may result in a profile) and psychological trauma such as Post Traumatic Stress Disorder, anxiety, or depression. Suppose the U.S. Army truly seeks experienced operators and strong leaders who are experts in the subject matter. In that case, they should not penalize applicants for the physical and mental injuries sustained through service to their country. Experience often comes with scars.

Further complicating the unreasonable standard is the fact that if an applicant cannot pass the Chapter 2 physical, he or she is removed from warrant officer consideration but still deemed medically fit enough to continue to serve (and deploy) as an enlisted member; often rising to the senior enlisted level of First Sergeant or Sergeant Major. This sends a flawed message to the force that the rejected applicants are good enough to serve, lead, and advise in a senior enlisted capacity rather than as a warrant officer. Is this how we treat our noncommissioned officers – the very backbone of the Army – as second-rate citizens? We know better, and we must do better.

Finally, the Chapter 2 physical standard creates an unnecessary barrier for qualified applicants, a point both the New Hampshire Army National Guard State Surgeon and Medical Detachment Commander call “spot on.” Data from the Director’s Personnel Readiness Report (DPRO) system shows that many warrant officer vacancies have low-density feeder occupational specialties with small applicant pools. This trend exists across many states and territories. In 2021, the Army National Guard had 2,333 warrant officer vacancies out of 10,234 authorized positions, prompting the Secretary of the Army to adopt a policy allowing retired Active Duty warrant officers into the National Guard and Reserves while still drawing their pensions to address the massive shortages (AD 2021-28, Winkie, 2021). Retaining the difficult and unreasonable Chapter 2 physical standard for currently serving applicants reduces the pool of available technical experts, leaving critical positions vacant for long periods. This adds to the known shortages that the Secretary of the Army has already taken extraordinary measures to remedy by bringing our retired Active Duty counterparts into the Reserve Component (AD 2021-28). IPPS-A data from 2021 shows the New Hampshire Army National Guard had 12 technical warrant officer vacancies that year, with three applicants, turned away due to disqualifying physical conditions under the Chapter 2 physical that were not eligible for medical waivers. Their medical disqualifications negatively affect warrant officer vacancy fill rates and overall readiness, leaving units to operate without necessary subject matter experts to provide recommendations to the commander and guidance and training to subordinates. The longer our key technical warrant officer slots remain vacant, the further their sections degrade – intelligence, food service, allied trades, ammunition, or air and missile defense. If the main concern is readiness, it is plain to see that there is a much more significant negative impact on our readiness by medically disqualifying applicants who happen to be technical experts in their field under



Chapter 2 standards and leaving these vital positions vacant. Revisiting Gen. McConville's statement, "We want to make sure that we're taking advantage of the talent we have in the military." The U.S. Army cannot afford to keep the Chapter 2 appointment physical as the commissioning standard; it is undermining the readiness of our units and our cohort.

After examining the physical requirements, disqualified applicants, and unit fill rates for technical warrant officers, the preponderance of evidence supports the Assistant Secretary of Defense for Manpower and Reserve Affairs (ASD (M&RA)) and the Under Secretary of Defense for Personnel and Readiness (USD (P&R)) adopting the more reasonable chapter 3 retention physical instead of the chapter 2 enlistment, appointment, and induction physical. We must work to break down antiquated and unnecessary barriers within the commissioning process for the good of our Soldiers, our cohort, and our Nation. This is just one simple step we can take to retain our top performers, fill our warrant officer vacancies with qualified technical experts, and push all Army components forward in the War for Talent. Let's get it done.

*Author's Note: Athena M. Clements, U.S. Army National Guard, is a Chief Warrant Officer 4 with the New Hampshire Army National Guard. Mrs. Clements currently serves full-time as the State Equal Employment Manager and in an M-Day role as the J8 USPFO Branch Chief. She served as New Hampshire's Warrant Officer Strength Manager for three years and as a Training, Advising, and Counseling Officer with the Reserve Component Warrant Officer Candidate School for eight years. She holds a bachelor's degree from North Adams State College in Massachusetts.*



Graphic: Rendering of futuristic military medical screen created by ChatGPT 4o



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# Education: The Blue Print of the Army

**CW4 Matthew Chrisman, CW4 Joseph Galbraith, CW4 Michael Gudmundson, CW4 Will Sirmon, and CW4 Josh Wills**

*Editors Note: The contributing authors developed this article during the Warrant Officer Senior Service Education Course (Class 24-0004) as their capstone project in May 2024. Their individual information is found in their author's notes.*

## Introduction

To develop the proper blueprint of education, you must start with leadership. Does the chosen leadership have the right experience to develop these blueprints? Can the leadership work well with other leaders to establish a good education mission statement? The US Army must address TRADOC leadership education shortfalls within a multifaceted institutional domain; leader relationships, the operational environment, and professional military education will strengthen the Army's foundation and promote a more enhanced global leader.

## A Stronger Sergeant Major and Warrant Officer Relationship

To achieve a better educated, cohesive, and lethal fighting force, we can focus and improve on relationships amongst leaders that will get us to this goal. Turning for a moment to the Army Warrant Officer (WO), we can pick apart the aspects needed to educate the WO of the future. The Army has 48 WO military occupational specialties, which are the jobs WOs operate in. Most technical branches require Soldiers to achieve a Non-Commissioned Officer (NCO) rank to be partially qualified for an appointment as a WO. Not just any NCO will suffice. Only the very best NCOs will be selected to become WOs. Understanding that the Army must recruit the best NCOs to become WOs, it is prudent for WOs to work closely with and have strong professional relationships with those responsible for the development of NCOs, and that is the Sergeant Major. The Army Warrant Officer and Sergeant's Major cohorts must bridge relationship gaps, fostering collaboration, communication, and mutual respect for a more robust military force.

Dissecting this relationship gap between Sergeants Major (SGM) and WO cohorts, we can examine, identify, and determine areas that need special attention and prioritize factors that will help build strong, lasting bonds between the two cohorts. After all, SGMs and senior WOs seek opportunities to engage in initiatives to improve NCO and WO education.

For centuries, the link between senior officers, or commanders, and their senior enlisted NCO, or SGM, has been established, codified, and battle-tested. Those in charge revere these two professionals as the most competent and committed leaders the Army has chosen for leadership. Their bond is strong; the bond between WO and SGM should be just as strong.

A WO cohort comprises the best trained, most technical, and highly competent NCOs the Army offers. Army WOs are invested in the educational development of the NCOs within their career management field (CMF). The WO cohort's existence means that CMF's NCOs will strive for excellence and push themselves to greatness. Should an NCO choose a path for WO selection, their achievements in the

operational, institutional, and self-development training domains will be scrutinized to prove they stand above their peers. As stated before, the best NCOs will be chosen as WOs. When the senior WO and SGM cohorts work together to develop and improve the three training domains, professional military education for both cohorts will reap the benefits.

Separately, understanding the educational impacts of large-scale Combat Operations (LSCO), knowing that improving education takes work, and knowing how important communication strategies between stakeholders are while paying attention to ethical considerations makes the undertaking of building a strong partnership between senior WOs and SGM seem less daunting.

## **Educational Impacts to Large-Scale Combat Operations**

This recommendation for stronger bonds between SGM and WOs is for developing better education initiatives that have lasting impacts on readiness and the total Army in LSCO. Ultimately, a more cohesive and collaborative enlisted and warrant leadership structure can enhance readiness across the Army. When SGMs and WOs work together effectively, they can better support their units' training, morale, and readiness. At the operational or strategic level, this may influence the types and intensity of training and exercises conducted by the organization. Adequate and realistic (battle-focused) training is essential for maintaining readiness for LSCO scenarios. If the recommendation involves the integration of new technologies or capabilities, there may be implications for readiness. The Army must ensure that Soldiers are trained to use these technologies effectively and properly maintained and supported in the field (ex., C-sUAS, micro-sensors, autonomous detection).

## **Improving Education Takes Work**

Convincing the Army to prioritize, approve, and implement initiatives for collaboration efforts between cohorts comes with a cost. In a resource-constrained environment where growth is not permitted, it is understood that other avenues must be considered. Army WOs and SGM approach challenges from different perspectives due to their unique roles and experiences. Working together allows them to consider a broader range of factors and develop more comprehensive solutions to complex problems. Collaboration and mutual support create effective pathways for career development for both Senior NCOs and WOs. This can include opportunities for cross-training, leadership exchanges, and joint assignments that broaden both cohorts' skill sets and experiences. A strong bond between SGM and WOs can contribute to overall unit cohesion and effectiveness. When senior leaders are aligned and supportive of each other, it sets a positive example for junior enlisted soldiers and fosters a culture of teamwork and mutual respect.

## **Communication Strategies Between Stakeholders**

An undertaking like the emphasis on relationship building, where little to no emphasis was, to begin with, will undoubtedly draw levels of scrutiny. "It is important to note that there is no timeline to human ego development, and there can be no one-size-fits-all approach to its progress." Relationship and communication strategies between vertical and horizontal stakeholders are vital for seeing the merits and benefits of SGM and WOs closing relationship gaps. This endeavor will succeed with a strong relationship, clear conscience, and consistent communication. There are also the nay-sayers or counterproductive stakeholders which must be considered. These and other communication considerations regarding educational goals based on bonds between cohorts are valid.

Strengthening communication between SGMs and WOs creates opportunities for mentorship and guidance. Chief Warrant Officers can mentor Sergeants Major on technical aspects of their roles, while Sergeants Major can provide leadership and professional development mentorship. Working closely together allows SGM and senior WOs to collaborate more effectively on solving complex problems and addressing challenges within their units. Their combined perspectives and expertise can lead to more innovative solutions, like improvements in education. Instead of dwelling solely on the negative aspects of the situation, focus on finding constructive solutions. Dealing with counterproductive leaders can be emotionally taxing and stressful. Therefore, by approaching the problem with a proactive and solution-focused mindset, you can mitigate the negative impacts and work towards positive change within the organization. The ultimate recommendation is that SGM and WOs lead by example. You can positively influence the culture and dynamics within the organization, even in the face of counterproductive leadership.

## **Ethical Considerations**

Addressing ethical considerations in building strong bonds between SGM and WOs requires thoughtful leadership, clear guidance, and ongoing oversight from senior leaders. By prioritizing fairness, integrity, and professionalism, the leadership should advocate for and implement a strong bond between SGMs and senior WOs while upholding its core values and ethical standards. Advocating for a strong bond between Sergeants Major and Chief Warrant Officers should uphold the authority and prerogatives of officers within the organization. Maintaining transparency and integrity in all professional interactions is crucial to mitigate the risk of favoritism or bias. All Soldiers should have equal opportunities for mentorship, professional development, and advancement regardless of rank or position. And lastly, when WOs and SGMs collaborate, they can contribute diverse insights and expertise to the decision-making process. This can lead to more informed and well-rounded decisions that account for both technical considerations and personnel-related factors.

Soldiers and subordinate units highly regard the relationships among their senior leaders. The capacity in which those seniors collaborate is where the examples are set, behaviors observed, and leadership is followed. Sergeants Major and Warrant Officers have a collaborative opportunity to boost educational initiatives that will benefit both NCO and WO cohorts. “Imagine the impact if this template spread across multiple centers of excellence. The benefits would multiply exponentially, helping to strengthen trust and build understanding within leadership teams before unit arrival.”

As the relationship between Sergeants Major and Warrant Officers expands, it sets a foundation of trust that will mold the blueprint for negotiating and educating the force. When addressing the difficulties of LSCO or irregular warfare, our soldiers expect strong bonds amongst their leaders.

## **Irregular Warfare**

“To subdue the enemy without fighting is the acme of skill.” -Sun Tzu

In recent years, the operational environment has been shifting towards Irregular Warfare (IW) within each of the Geographic Combatant Commands (GCC). IW is a conflict where one or both sides do not adhere to conventional military tactics and strategies. Instead, IW elements use unconventional methods such as guerrilla tactics, sabotage, terrorism, and other forms of asymmetric warfare. Several factors, including changes in the global security environment, technological advancements, and the proliferation of non-state actors, have shifted the Operation Environment. For the United States Army to meet and win within each GCC, there will need to be a deep analysis of the operational approach for



the self-development, operational, and institutional domains.

IW has been used since ancient times, and elements have been employed throughout our military campaigns. The definition of IW has been heavily debated in recent years. The current Reference Copy of Joint Publication 1, Volume 1 Joint Warfighting (JP 1) defines irregular warfare as “a struggle among state and non-state actors to influence populations and affect legitimacy. In the gray zone between war and peace, ARSOF provides the United States Government with a small-foot-print option for influencing unfriendly regimes and counterinsurgencies and assisting in containing possible conflicts that may undermine US and allies’ partnership. Large-scale maneuver elements focus on combat power by dominating physical terrain. Army Special Operation Forces expand the breadth and depth of their operational reach by working by, with, and through indigenous elements to deter or defeat hybrid threats. The goal is to set conditions for Large Scale Combat Operations (LSCO) as the primary or supporting role of the US Army or Joint Force. “Traditional warfare aims to win wars. Irregular warfare aims to secure or maintain the legitimacy of a government” (Lt Col Abby Barger, Published July 6, 2023, Wild Blue Yonder Online Journal).

One of the main drivers of the shift towards irregular warfare is the changing global security environment. Traditional state-on-state warfare is becoming less common as states are increasingly unwilling to engage in large-scale military conflicts. Instead, regional and international powers increasingly rely on proxy forces and non-state actors to achieve their strategic and operational objectives. Non-state actors, such as terrorist groups and insurgent movements, are becoming more prevalent and influential in global conflicts (Figure 1). Some have reshaped antigovernment-leaning and antidemocracy-inspiring countries, thus increasing recruitment for these movements while filling their global operational approach for state actors, specifically Russia, China, and Iran (Seth G Jones).

...if we learned anything from Iraq and from the two decades of battling various asymmetric threats, it is that victory means both military success and lasting peace.

Advancements in technology have played a significant role in irregular warfare evolution. The proliferation of cheap and accessible technology, such as drones and cyber weapons, has lowered the barriers to entry for non-state actors, allowing them to conduct sophisticated attacks that were once the exclusive domain of nation-states. This has created a more complex and unpredictable operational environment where traditional WWII military tactics and strategies may be less effective or moved into a supporting role. A recent example of a technology shift is Ukraine’s employment of drone support or a primary effort to stall Russian force’s advancement or Iran-backed militia “Houthi” conducting drone attacks against US Navy warships. So, how will the US Army provide early and frequent exposure at the junior level that will inevitably guide and make a better leader for strategic, operational, and tactical elements?

“a gray zone ‘win’ is not a win in the classic warfare sense,” but rather, “maintaining the US Government’s positional advantage . . . or simply denying an adversary a decisive positional advantage.” (General Joseph Votel)



Graphic: Educational Blueprint created by ChatGPT 4o

## Forging ARSOF/US ARMY Expertise

One of the main issues is that when repetition is not consistent or interrupted, it causes the development and the capability of the expertise to be slowed. For example, the current ARSOF pipeline has all elements focused on the Pineland Scenario that spans from US Support to FID to US Sponsored seven phases of Unconventional Warfare. According to doctrine and US Code, there are 14 core activities for Special Forces Green Berets, but 1st SFC (A) focuses on a list of nine: COIN, FID, UW, CT, the counter-proliferation of weapons of mass destruction, special reconnaissance, security force assistance, and information operations. IW is composed of five elements: counterinsurgency, stability operations, foreign internal defense, counterterrorism, and unconventional warfare. Once the ARSOF soldier has graduated from their pipeline, they move on and are gainfully employed globally, fulfilling GCC requirements and pursuing deepening knowledge of their trade. As ARSOF soldiers continue to move up the ladder of Bloom Taxonomy (Figure 2), they increasingly attempt to apply their expertise to the current environment, the partner element, or their organization. The interesting assumption is that everyone is equal in learning, understanding, and applying their profession.

The downside is that we, as an organization, are chasing that next rank, reducing learning, understanding, and employing capability. Since September 11, 2001, we have drastically reduced the time we allow individuals to remain with their operational element, which lengthens the time for deep knowledge developmental edge. As illustrated in Figure 2 and considering DA PAM 600-3 and 600-25, the time to go from knowledge to evaluation has extended because of two issues. The first is training certification, and management has moved up from the tactical level, which has reduced the deep understanding of a problem and how to approach and mitigate risk. The second issue is the reduced time at the tactical level, which has diminished high-quality repetitions that make a better leader by dealing with various problems that require and enhance decision-making skills. For example, when I arrived at my first Special Forces Company/Operational Detachment Alpha (ODA), the average age in the company was 38, with ten years on an ODA. This 10-year period creates a deep understanding and knowledge that allows commanders to accept risk more freely and permits individuals to answer requirements globally while working off only the commander's intent. So, how do you forge expertise? Take a hard look at DA PAM 600-3/600-25 to possibly create two pipelines that allow individuals to make the rank of E-8 and let the other one follow the command track to make E-9. This will serve two purposes: the individual who wants to stay at the tactical level will conduct high-quality repetitions to build a better team at the lower level with more profound knowledge. While still allowing the command track individual to pursue up and out while maintaining a deep knowledge individual to assist with hard decisions from the tactical level. So, what will be required of Army elements in a permissive, semi-permissive, and denied environment outside of the core fundamentals that are taught to maneuver and support elements? Below are some fundamental changes that can be implemented to enhance effectiveness in technical environments, whether you are attending PME or an advanced class. The individual and leader will utilize DA PAM and a mapped-out plan that will monitor and assist with the soldier's success.

## Increase Cybersecurity Training

Cybersecurity is becoming a crucial aspect of irregular warfare with the increasing use of technology. Army personnel must be able to identify and mitigate cyber threats that can disrupt their operations or compromise their mission. This includes training in secure communications, encryption, and digital forensics to help target or assist in signature reduction. Recent conflicts have shown that integrating cyber-enabling capabilities with warfighting functions provides a marked advantage. One aspect of these hybrid strategies involves using cyber operations

to disrupt communication and information systems. The US Department of Defense has acknowledged the growing cyber threat, emphasizing enhanced cyber defenses and capabilities to protect critical infrastructure and maintain operational advantage (US Department of Defense, 2018). Using drones, encrypted communications, and non-uniformed combatants complicates detecting and attributing hostile actions. A RAND Corporation study highlights how such tactics have been effectively used in conflicts, forcing conventional forces to adapt to a constantly evolving threat landscape (RAND Corporation, 2019).

## **Enhance Electromagnetic Warfare Training**

Electromagnetic warfare (EW) is another critical capability that requires elements to be trained to improve their lethality in operational environments. They need to be able to identify and disrupt enemy command, control, cyber, and communication networks, jam enemy signals, and protect their communications from interception with assistance in signature reduction. EW training should be a significant focus due to the shrinking size of the world. Cyberspace Electromagnetic Activities (CEMA) soldiers should have more training or equipment to automate programming and Electromagnetic Spectrum (EMS) activity reporting. US Army EW training will improve with adjusted programming with current equipment and improved programming with fielded equipment. EW equipment takes too much time to program and configure to keep pace with the changing operational environment. The process is preparing, programming, confirming, adjusting, and operating. To prepare EW equipment, the CEMA 17 series soldier should research the geographic location where EMS equipment will operate with current EMS activity data from US spectrum management, intelligence, and host nation civilian spectrum management sources. To complete the programming, the unit spectrum manager will review all EMS-dependent equipment to allocate frequencies for every EMS-dependent system to conduct the mission. ADP 3-0 states, “No two operational environments are the same.” A recommended option is for the EMS survey team to be sent to the employment location to identify and compare EMS activity with research and expected EMS results. Survey team data can reduce interference, identify additional EMS activity, and confirm that current programming power levels meet commanders’ intent for signature management. Near-field surveys can detect changes in EMS activity that have not already been considered.

## **Incorporate Advanced Technologies**

Advanced schools must be developed to provide training in the latest technologies and innovations to improve from lethality to governance in technical environments. This includes everything from drones and advanced communications systems to new weapons and equipment. Additionally, they need to be able to troubleshoot and repair these systems in the field and understand the underlying technical principles to support, enhance, or identify repairs. The equipment or soldier training recommendation is a false option; as technology develops, equipment should stand up to automation as soldiers stand down for human EMS activity survey, programming, and reporting. The military will fight with the soldiers and equipment currently fielded. Equipment AI automation and most/all system integration are feasible, and human-in-the-loop management will reduce costs when equipment automation integration is trusted and verified. Miscalculations can result in unintended deaths; therefore, the verification standard must be high. Just like a physical map cannot be spoofed or jammed, the programming and AI must have comparable independent or standalone tests. The purpose of the test is to confirm AI programming accuracy. For example, detect when programming needs update, wrong data input, or an unknown error is causing malfunction or decrease in accuracy. Technology accuracy testing can be a simple operator process like zeroing an M4.

## **Focus on Data Analysis and Intelligence Gathering**

Data analysis and intelligence gathering are becoming critical components of irregular warfare with the increasing use of technology. Operational elements must be trained to analyze data and intelligence to identify enemy patterns and vulnerabilities. This includes training in data analysis software and traditional intelligence-gathering methods. Tactical sensors may be the only ones in contested and congested EMS environments to conduct data analysis and intelligence gathering. Equipment AI automation, system integration, and accuracy testing can use local sensors to verify national intelligence gathering and exchange data without a cross-domain solution. CEMA EMS survey equipment and soldiers operate under separate authorities than intelligence. This means combat data can be exchanged with any host nation civilian or military to build everyday operation picture awareness. For example, US sensors detect a friendly civilian or military partner operating on unauthorized frequency. The intelligence community may be unable to release how we know a non-U.S. transmitter is active. CEMA community sensors can immediately share frequency, power level, emitter azimuth, and likely equipment location due to operations under separate authorities. Commanders and staff must distinguish CEMA combat data from the rigor of an intelligence product; this same product would increase risk if applied in a kinetic targeting scenario.

## **Enhance Mission Planning and Execution**

With the increasing complexity of technical environments, mission planning and execution become even more critical. Elements need to be able to plan complex operations that involve advanced technologies and adapt to changing situations in the field. Mission planning and execution should be a significant focus geared towards more high-quality sets and reps of MDMP to ADM, thus promoting personnel to employ at the top of Bloom's Taxonomy. For example, EMS AI automation and human-in-the-loop equipment programming management integration improve joint and multinational common operation picture development. The OE will change with every sensor and transmitter. Most conventional Army EMS sensors are programmed to require an operator to interpret data and report in another system. This slows down OE condition reporting and is a recommended starting point to improve EMS equipment automation. EMS-dependent node emplacement limits the ability to identify and detect spectrum activity to identify suspected, confirmed, or authorized transmitters within a set distance. EMS transmitter placement can manipulate threat sensors to delay, deceive, or deny advisory decision-makers. Mission planning and execution are dependent on equipment programming.

The operational environment has irregular warfare identified as changing, driven by various factors, including changes in the global security environment, technological advancements, and the proliferation of non-state actors. This shift poses significant challenges for traditional military forces, which must adapt their strategies and tactics to be effective in this evolving environment. To do so, they invest in new technologies, capabilities, and approaches that can help them better understand, respond to irregular threats, and operate effectively in non-traditional and unpredictable environments. The role of all Army elements in irregular warfare is critical, and their effectiveness is often determined by their level of lethality in technical environments. By implementing the abovementioned changes, Army elements can improve their ability to operate and engage in complex technical environments and ultimately increase their effectiveness of lethality in irregular warfare.

Relationships between the forces help bridge the educational gap, allowing for a broader spectrum of knowledge across the LSCO-MDO spectrum. For junior and senior leaders, an aviation framework will further develop the necessary skills to support, engage, and destroy the enemy on future battlefields.



## **Aviation Leader Education**

The sharing of updated education information is crucial in the current LSCO environment. Training dollars must be stretched, but not at the expense of effectiveness. Sharing our craft across the domains can strengthen integration and interoperability. All branches should learn early and often how the branches affect each other. Like the benefits of irregular warfare across different formations, Aviation can be used more efficiently if many organizations know its capabilities. What you can do for me and what I can do for you should be a new motto in training education. The basic capabilities of conventional manned aviation should be briefed early during ROTC and OCS to provide base-level knowledge to junior officers as they begin their careers in the US Army. Aviation's capabilities and integration should continue as the leader advances in their career and need to be a requirement for officers' professional military education (PME) from the Captains Career Course (CCC), Intermediate Level Education (ILE), and the US Army War College. The end state for these educational requirements will produce a far more adaptable, agile, and cognitive ground force that is ready and prepared for LSCO-MDO operations.

## **Conventional Manned Aviation Capabilities (ROTC, OCS)**

For conventional Army units, the aviation branch employs three vertical lift combat platforms comprised of a utility, cargo, and attack helicopter capable of performing tactical troop transport, medical evacuation (MEDEVAC), heavy lift and heavy assault, and attack and reconnaissance. The education required at the junior officer level involves the capabilities of the primary vertical lift assets in aviation and how they can support the ground force.

### **UH60 Blackhawk**

The Army fights at the squad level, with eight soldiers led by one Non-Commissioned Officer (NCO). The UH60 is capable of tactical troop transport of a fully equipped infantry squad in seats. Due to its powerful engines and drivetrain, it can insert combat troops within various terrain with a range of approximately 220 nautical miles. The UH60 can provide 9000 lbs. of vertical lift for cargo and equipment (sling load) but is limited by environmental conditions. On a typical summer day, at sea level, about 6000 lbs. is about the maximum and is further limited as density altitude increases. Furthermore, this platform provides battlefield air ambulance and medical evacuation services. In large-scale combat operations, this service is integral in caring for our military's wounded and transporting them to the next higher level of care.

### **CH47 Chinook**

When the size of the force or equipment weight limits the UH60, The CH47 Chinook can pick up the slack. The CH47 is a heavy lift, heavy assault cargo aircraft capable of tactical troop transport, cargo operations (both internally and externally), and transportation of up to 33 combat troops with seats. It provides vertical resupply and can transport military equipment internally and externally on the battlefield. The sling load can lift to 26,000 lbs, but environmental limitations further decrease this number. As with the UH60 example above, the CH47 could lift about 20,000 lbs, given the same environmental conditions. The Chinook has the same all-terrain capability as the UH60 but can also land in water for boat recovery. The CH47 has a range of approximately 330 nautical miles.

### **AH64 Apache**

Close Air Support (CAS), reconnaissance, anti-armor, and escort describe the mission of the AH64 Apache. Close air support offers the Apache as an asset to troops engaged on the ground, with a variety of weapons, including a 30mm cannon, rockets, and hellfire missiles. The AH64 can also provide aerial reconnaissance using multiple sensors and cameras to determine an enemy's position, numbers, and equipment. In the 1980s, the AH64 Apache was initially designed as a tank killer and is the perfect aerial artillery platform to engage and destroy the enemy's armor capability. With a range of 300 nautical miles, the AH64 can provide security escorts for other aircraft, such as vehicle convoys on the ground.

## **Ground Force Commander (CCC, ILE, War College)**

For ground force commanders at the company to brigade level, a higher level of education on aviation operations and implementation is paramount concerning large-scale combat operations across a multi-domain battlefield. A more in-depth knowledge of Aircraft capabilities, mission planning, communication, and special considerations will be required as our force prepares for the next war. The ground force commander must clearly understand economies of force to ensure that the Ground Force Commander (GFC) and Air Assault Task Force Commander (AATFC) can provide the required assets.

The 101st Airborne has set the gold standard for using helicopters, mainly lift assets, to get the humans and equipment to the target on time. They train intensively and cohesively together as an infantry and aviation force. The ground force commander knows how to use these flying machines like a train conductor with a finely tuned watch. He or she gets to practice with these aviation assets because they are in their backyard, usually an airfield on the same base as his infantry force. This is the training level required for all infantry units in the US Army. Previous missions have shown that a scenario where a GFC knows precisely how to use the aviation tool is an exception. Typically, the varied missions that aviation is tasked with provide minimal training opportunities for the aviation company because of the need for more knowledge of the requestor. Often, aviation commanders are forced to simulate their training scenarios. The GFC is typically the leader of a force that has never trained with helicopters and now knows how to use them as intended.

Air movement operations are conducted to reposition units, personnel, supplies, equipment, and other critical combat elements supporting current and future operations. Air movement operations allow the ground force commander to control the tempo of operations and meet the enemy force at the time and place of choice as he or she sets conditions. Utility and cargo helicopters supplement ground transportation to help sustain continuous offensive and defensive operations and allow the supported commander to overcome rugged terrain and time constraints on operations." (FM 3-0, 2022)

In the new LSCO fight, helicopters will continue to be used as an agile and flexible asset to take the fight to the enemy, where fixed assets cannot go due to terrain and radar threats. A helicopter's low and slow profile is hard to detect with radar. A concept that most non-infantry-type units do not consider when planning a simple air movement is that of minimum force. How many troops are needed on the target to conduct the mission? The broader concept concerns the economies of force and one in which the AATFC must work. In the LSCO battle, an acceptable loss of aircraft will have to be accepted against a near-peer army, and both commanders will need to understand how this affects the management of the aviation mission. Also, which personnel are considered essential to the mission? GFCs also must be familiar with the many limitations of the lift assets. FM 3-0 It is critical for all crews and the ground force commander to be aware of potential impacts to fuel, time on station, ability to support follow-on missions (such as immediate casualty evacuation [CASEVAC]), or other potential impacts within the AO if the AATF does not land on time due to a Cherry call. Crews and planners should also verify the communication capabilities of the supporting element, providing the Cherry/Ice status and any lag time

required to relay the call to all involved parties. (FM 3-0, 2022)

## **Army Aviation Captains Career Course**

### **Professional Military Development**

Commanders, leaders, and planners across the branches need to be educated about the capabilities of aviation assets that they will be working with in this new fight. As leaders, we are responsible for developing soldiers to build and lead teams. Education can start well before the command level in base-level education, beginning with basic training. The Captains Career Course (CCC) is a branch-specific professional military education course that prepares officers for the company command role. This would be an excellent opportunity to integrate aviation assets' use and capabilities and learn how to exploit their strengths. As the leader advances into the Intermediate Level Education (ILE) and War College, a higher level of understanding and competency will be taught, including the core competencies from FM 3-04, Army Aviation.

This FM would be the background for teaching Army Aviation's role in Unified Land Operations. Army Aviation has seven core competencies:

1. Provide accurate and timely information collection
2. Provide reaction time and maneuver space
3. Destroy, defeat, disrupt, divert, or delay enemy forces
4. Air assault ground maneuver forces
5. Air movement of personnel, equipment, and supplies
6. Evacuate wounded or recover isolated personnel
7. Enable command and control over extended ranges and complex terrain

These competencies are available to the entire joint force. Commanders and leaders should employ and seek out the aviation tool set. Education on integration with aviation formations remains a gap in the Army, and as our force works on large-scale combat operations, it must be corrected. This valuable integration will allow readiness for future fights and more coordinated planning between ground and air operations.

Lastly, advancing technology can also be integrated from the ground unit to maximize aviation assets. The next generation of vertical lift assets (future vertical lift) will utilize technology to allow plug-and-play systems to limit delays in the approval process. Utilizing out-of-the-box thinking and specialized training at the senior leader level and existing aviation assets is necessary to prepare for the LSCO fight.

## **Conclusion**

The framework to solve academic deficiencies in TRADOC leadership education must start with relationships. This will create the blueprint required to address these shortfalls and expand the knowledge of our next-generation war-fighting leader. Ground force commanders will need to understand how principles of irregular warfare can shape the future battlefield and how aviation knowledge and implementation will give them the combat tools to be successful.

## Author's Notes:

*CW4 Matthew Chrisman served as the Senior Training Developer for all CBRN Warrant Officer PME at the US Army CBRN School from 2020 to 2023 when he was selected to be the 5th Regimental Chief Warrant Officer (RCWO) of the Chemical Corps. As the RCWO, he is focused on the WO Cohort's health, education, and training. He has 27 years of combined enlisted and WO experience.*

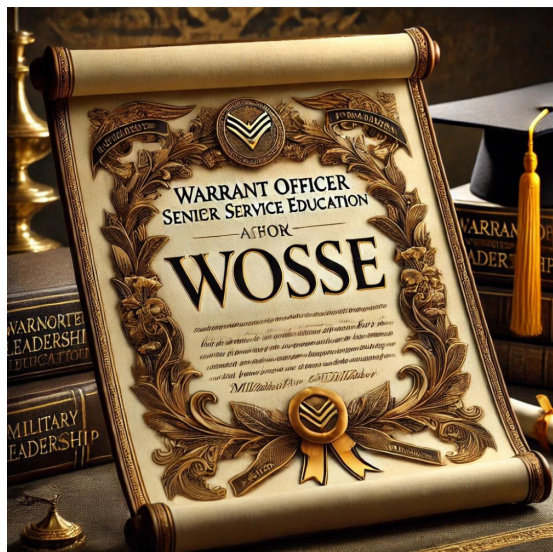
*CW4 Josh Wills is currently the 1st Special Warfare Training Group (A) Operation Warrant Officer, where he is finishing his second year. Later this year, CW4 Wills will become the Deputy Commandant at the Special Forces Warrant Officer Institute. Over his 30-year career, he was assigned to 1st Battalion, 505th Parachute Infantry Regiment, 82nd Airborne Division, 3rd Special Forces Group (A), and was nominated for assignment to the Special Forces Warrant Officer Institute as the Special Forces Warrant Officer Advance Course Director. During his 20 years in 3rd SFG (A), he conducted 11 combat rotations in Iraq and Afghanistan and various operations in Africa and Tajikistan.*

*CW4 Joseph Galbraith is the Standardization Pilot and Senior Warrant Officer Advisor for the 2-211th General Aviation Support Battalion in the Utah Army National Guard. Joseph is a qualified Aviation Safety Officer and UH-60 Instructor Pilot. He earned a Bachelor of Science in Emergency Services Management from Utah Valley University. Joseph also works as an Airline Pilot in the civilian sector. He has a combined service between enlisted and Warrant Officer time of 27 years.*

*CW4 Will Sirmon is the Standardization Pilot for the 2-151st Aviation Battalion in the South Carolina Army National Guard. He is a full-time UH60 Instructor Pilot and Instrument Flight Examiner in both the UH60 Blackhawk and UH72 Lakota. CW4 Sirmon earned a Bachelor of Science in Business from The Citadel in 2002 and a Master of Business Administration from The University of South Carolina in 2019.*

*CW5 Tom Gudmundson is the USAREUR-AF CEMA technician. He is also the European and African CEMA land domain integrator for NATO and African operations. He has two EW deployments, one to Iraq and one to Afghanistan. His experience is in reprogramming fielded program of record systems and integrating CEMA with multinational forces in PACOM, EUCOM, and AFRICOM.*

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Graphic: Rendering of Warrant Officer Senior Service Education created by ChatGPT 4o



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# Warrant Officer Technical Expertise in the Strategic Environment

**CW4 Ishmael Asare, CW4 William Dickinson, CW4 Gus Lombera, CW4 LaTonya Pettigrew, CW4 Jason Rodriguez, and CW4 Volk**

*Editors Note: The contributing authors developed this article during the Warrant Officer Senior Service Education Course as their capstone project in May 2024. Their individual information is found in their author's notes.*

## Introduction

Throughout history, Warrant Officer (WO) employment and engagement illustrated the necessity of removing stigmas, stereotypes, and systematic stagnation that limit warrant officers to few strategic positions. These few sporadic accesses to the joint planning and Combatant Command (CCOM) staff need to be increased, and unnecessary gaps in the joint planning process are forced. The perpetual necessity for technical expertise at joint and strategic levels cannot be overstated in the contemporary competition continuum. Warrant officers are only sometimes assigned to these staff or in positions where their technical expertise can be leveraged in joint planning environments.

“As the US Army continues to contour training and readiness toward potential large-scale combat operations (LSCO), the need for transformation and modernization is becoming more apparent every day...warrant officers will play a critical role as systems integrators in LSCO, particularly at the strategic level” (Drake, 2021, pp 50-53). IAW Joint Publication 4-0 warrant officers offer competencies spanning all operational domains and most core functions support requirements in a joint operational environment. The doctrine has implied decision-makers that decision-makers need to impose a revised structure and force management for WO joint assignments. Therefore, the authors of this paper implore the CCOM, strategic, and joint commanders to integrate Senior field-grade warrant officers to assist all facets of the warfighting functions at the echelon, especially at the joint and strategic levels.

## History of Warrant Officer Corps

The history of warrant officers is long and broad; the depth and breadth of their employment depict a wide array of adaptability and essential expertise at the echelon. Medieval times have shaped WO modernity. “As early as 1040, warships furnished to King Edward’s The Confessor included crews with permanent officers designated as master, boatswain, carpenter, and cook. These officers oversaw the sailing [to complete missions in oftentimes joint strategic, operational, tactical objectives] and maintenance of the ship, while the captains’ and lieutenants’ sole purpose was to command soldiers carried onboard and to lead their troops during combat.” Before the Army’s adaptation, history also suggests WO assignments that date back to Napoleon’s utilization of “warrant officers (1798-1815). These WOs served as communication links between his commissioned officers and the rank-and-file soldiers.”

The history of the Army Warrant Officer can be traced back to 1896, following the decision of the War Department to establish civilian headquarters clerks and pay clerks. In 1916, such positions were

recognized as military instead of civilian, leading to the creation of the ranks of Army Field Clerk and Quarter Master Corps Field Clerks. The rank and grade of warrant officers were created in 1918 after the Army Mine Planter Service (AMPS) was formed.

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## **The Origins and Evolution of Warrant Officers**

The role of warrant officers ensued out of necessity in 1918 during World War I (WWI). The period required highly skilled individuals who could manage advanced technologies and complex equipment, such as observers and pilots in the Army Mine Planter Service. At the time, the ranks of enlisted individuals and commissioned officers were inadequate, given the highly technical nature of such roles (US Army Basics, 2023). Due to their technical skills in the Army, warrant officers functioned as a bridge between commissioned and enlisted ranks. Their position granted them access to strategies and ground-level insights from supervisors and enlisted troops. Towards World War II (WWII), the rank of warrant officers increased due to the growing complexity of the global conflict. However, after the war, their numbers declined due to personal cutbacks and budgetary constraints, but their significance in availing technical mastery continued to be recognized. Later, during the Vietnam War and the late 20th century, their number surged as they served in the technical and logistical fields as intelligence agents, aviators, and administrators (US Army Basics, 2023).

In the 21st century, the US military enterprise’s survival and success triggered WO evolution; they fill critical leadership and expertise roles, including computer network engineers, pilots, and human resource administrators. Today, the Army WO is a corps and cohort within the Army, interwoven with pilots, systems integrators, and technical experts. Warrant officers constitute 3% of the Army and 21% of the Officer Corps, serving in about 17 branches and over 60 specialties (US Army, 2016). The officers usually receive branch-designed technical training and education, which is vital in delivering their mandates at all strategic, tactical, and operational levels. Furthermore, they have a unique and specialized role in the US Army since they are few subject matters capable of addressing technical challenges, leading troops, and presenting advice to commanders. In 2005, the Department of the Army revisited and revised the definition of the Army Warrant Officer:

The Army WO is a self-aware, adaptive technical expert, combat leader, trainer, and advisor. Through progressive levels of expertise in assignments. WOs administer... operate and integrate Army systems and equipment across the full spectrum of Army operations. Warrant officers are competent and confident warriors, innovative integrators of emerging technologies, dynamic teachers, and developers...They support a wide range of Army missions throughout their career (US Army Personnel Proponent, 2023).

Thus, despite their minute presence in the force, warrant officers' role within the military enterprise at every echelon is undeniable and invaluable. Hence, there is a need to trace their historical roots and comprehend their unique duties and responsibilities in modern times.

## **Expanded Role of Army Warrant Officers in Contemporary Structure**

The role of warrant officers in the US Army cannot be overstated because they are integral to modern military structure and operations. It stretches beyond being stationed in a cocoon or being enlisted personnel. Warrant officers' role combines astute leadership capabilities and in-depth technical prowess. This multifaceted role influences modern-day military dynamics, bridging the gaps between enlisted soldiers and commissioned officers (US Army Basics, 2023). Often teased to be unicorns, warrant officers provide expertise, sometimes relegated to the mythical but powerful example of expertise, self-, and situational awareness found for King Arthur through the trusted voice of his advisor Merlin.

With the advent of multi-domain threats and the need for warrant officer advisement and expertise, the Army, in recent years, has expanded Warrant Officer Specialties. Current cyber threats have led the US Army to establish the Cyber Operations Technician Warrant Officer Specialty. This intervention contributed to the invaluable technical depth of cyberwarfare initiatives, shattering the traditional belief that warrant officers' roles are strictly logistical or technical. A similar manifestation was observed in advanced aviation as the officers played an integral part as pilots, improving the Army's Aviation Branch. Notably, warrant officers usually undergo an exhaustive sequence of training and education to run the Army's complex initiatives, including transport and construction. For instance, their training and knowledge of Secret Compartment Information Facility (SCIF) construction has seen them manage several mega projects, including the Next National Geospatial-Intelligence Agency (NGA) West Project, which was led by the specialty of Chief Warrant Officer 2, Derik Liebenstein (Paul, 2023). Necessarily, what makes the role of warrant officers unique is that they understand plans and apply technical skills to deliver their mandates.

Other examples include the HHBN, United States Army, Europe, and Africa. According to FMSWEB, this unit supports missions and movements in support of the Geographic Combatant Command (GCC). "USAREUR MCP provides AOR-wide Title 10, administrative control (ADCON), Army support to the other services and Army executive agent responsibilities in support of the GCC; also supports forward deployed Army, Joint, and Multinational Forces deployed to a JOA established within the JOA; provides direct planning support and reach back capability to the Contingency command post (CCP)...to conduct mission command..." (FMSWeb, 2024). In this unit, more than Warrant Officers use their real-time technical expertise to further joint initiatives by supporting JOA operations.

## **Exempted Expertise**

The same unit above does not have a Command Warrant Officer who would travel with the commanding general to planning meetings and conferences. Though the WOs above are in key supporting positions,



because of their defining expertise, WO positions should be prescribed at the joint echelon/staff level.

Antiquated organizational premises misleadingly look at the military and assume warrant officers are needed about the “tactically proficiency” in the second half of their popular motto. Strategic leadership definitions were weaponized to construct barriers to warrant employment beyond the operational level. “Strategic leadership is the process of aligning people, systems, and resources to achieve a vision for the enterprise while enabling an adaptive and innovative culture necessary to gain an advantage in the competitive environment” (Galvin et al., 2019). Reading through the definition of strategic leadership on its face, there is no reason that the Warrant Officer has not been considered for this type of position. In the Primer for Senior Leaders 4th Edition, three of the four criteria for senior leaders succeeding in strategic environments imply their acknowledgment and proper employment of Senior Warrant Officers. These three include: “understanding the breadth, scope, and complexity of the environment in which they operate, leveraging senior leadership teams, and operating as stewards of the profession” (Galvin et al., 2019). The authors of this paper wholeheartedly acknowledge the variations in technical ability and application amongst Senior Field Grade Warrant Officers; however, the same also applies to their regular officer cohort. Both cohorts have “street to seat.” However, WO accessions for street to seat foster promotion at levels that match experience and adequate responsibilities. Therefore, even with the eight areas where the Army currently offers “street to seat” (aviation, special forces, cyber, intelligence, information technology, ordnance, quartermaster, and military police), promotions and professional military education are tailored to individual readiness, potential, and abilities of all warrant officers. Furthermore, this notion and weaponization of archaic memes towards warrant officers is antithetical to the Army’s clarity in defining the identity and employment of US Army Warrant Officers and the primer, which encourages senior leaders to leverage the expertise, experiences, and employment of their assigned senior leadership. Due to the nature of accession in the WO cohort, 85% are not “street to seat” but have proven to have excellent experience in understanding the military culture and applying technical expertise at echelon.

## **Senior Field Grade Warrant Officer Leadership**

Senior field grade warrant officers are CW4s and CW5s. CW4s are “commissioned officers with the requisite authority pursuant to assignment level and position as given by the President of the US They are senior-level technical and tactical experts who perform the primary duties of technical leader, manager, maintainer, sustainer, integrator and advisor.” Senior level implies higher echelons of operational, strategic, and joint environments. Many CW4s qualify for these strategic-level positions because, at the CW4 level, the WO is the commander’s integrator and translator who applies technical expertise and tactical proficiencies to strategic initiatives and problem sets. This is further proven as CW4s are expected to provide direction, guidance, resources, assistance, and supervision necessary for subordinates to perform their duties. These subordinates include an array of enlisted, contracted, civilian, and interagency personnel. Their evolutionary expertise is applied at every level- battalion, brigade, division, corps, and echelons above corps operations. The culmination of years of experience, transformation, adaptability, and systems thinking molds the senior warrant officer to be the trusted voice in interactions with NCOs, other officers, primary staff, and special staff. Their mentorship and guidance are resounded up, down, and through the chain of command and their channels of influence.

Chief Warrant Officer Fives are the senior-most, field grade warrant officers, comprising the smallest population of warrant officers; these commissioned warrant officers are the requisite authority pursuant to assignment level and position as given by the President of the US Because of the source of their assignment level, CW5s innately are master-level technical and tactical experts who consistently illustrate the necessary abilities to perform, advise, and integrate at strategic levels. Their primary duties are technical leader, manager, integrator, advisor to Senior Commanders, or any other duty the

branch prescribes. CW5s are talent managers and the bridge to warrant officers' correct education and employment throughout their charge or assignment. CW5s primarily support brigade, division, corps, echelons above corps, cohorts, and major command operations and are integral to Joint Warfighting functionality and planning (Para. 3-5, Department of the Army Pamphlet 600-3, 14 October 2005).

Hating to restate the obvious, too many leaders who design structure and command units have unjustly burdened the warrant officer cohort with proving the Army's definition before allocating space for WO advisors to integrate beyond the operational level. For example, a look at a DOTMLPF-P approach, doctrinal standards would have to be changed before allowing senior Warrant Officers into strategic positions. Doctrine would need to be created and thoroughly outlined for strategic Warrant Officer positioning. However, priorities for doctrinal changes about counterinsurgency (COIN) as we transition from COIN to LSCO would place this project near the end of Army strategic priorities.

Each contemporary President delivers their national security plan, which informs the Department of Defense and Department of the Army strategic planning and documents. In this Era of Human Advancement, where nonstate actors and near-peers are racing to outpace and outmaneuver the US in every area of DIME, the Army must review its engagement and employment of warrant officers that had typically relegated strategic and joint planning to field-grade officers.

Recent organizational changes have increased the need for...warrant officers to understand and execute mission command....in the late 2000, the Chairman of the Joint Chiefs of Staff, Gen. Martin Dempsey, developed the idea of incorporating a philosophy that seemingly diverged from Army culture...Given the ever-evolving state of enemy tactics and techniques [author emphasis added] to attain survivability, if not dominance, GEN Dempsey developed the mission command philosophy for the ability to change course and respond quickly to meet new challenges . This philosophy reflects a culture that is prevalent throughout technical centers around the world, including the US technology mecca of Silicon Valley (Keough, 2019).

Over the years, Sustainment, one of the warfighting functions, created the necessary shifts of replacing field-grade officers in strategic positions with senior, field-grade warrant officers; however, this evolutionary expediency is siloed to the Theater Sustainment and Expeditionary Commands. Though it is not the position of the authors of this paper to replace all senior field-grade warrant officers, the addition of senior warrant officer expertise should be engaged and employed in CCOMs and joint environments where national security interests are war-gamed and national interests initiatives are war-gamed. The Senior Warrant Officer is the culmination of technical expertise at the echelon and experiences that make them the Army's subject matter experts. Continuing to foster joint environments where in joint headquarters, Senior Warrant Officers are not engaged continues the opportunity for the nation's enemies to exploit technique and technological weaknesses that would be and could be addressed by Senior Field Grade Warrant Officers.

The Army has specific locations and positions for all personnel in the Army; these locations and positions are woven into Army structure documentation; however, shifts in priorities and the ways, means, and ends to warfare in this contemporary operational environment warrant immediacy that can prevail against near-peer nation-states. What's presented in this paper may seem unprecedented. Still, throughout one of the Army's warfighting functions, it has already been tried, trusted, and used to transform missions for ease, agility, and ultimate success. The Sustainment Warfighting function has nominated a Senior Warrant to assist in the Joint arena. Though a siloed solution to this problem set, these single broadenings of warrant officer roles should inspire leaders to integrate warrant officers across all Warfighting Functions. Since the Air Force reinstated its warrant officer cohort, assigning

warrants at strategic and joint commands could immediately synchronize systems, translate single service doctrine for joint implementation, and instill technical order and capacity across multiple COMPOs and inter-agencies.

In the Sustainment community, warrant offices have been used in prominent strategic positions typically considered “out of their wheelhouse.” In this first example, the CASCOM Commander authorized three warrant officer positions for the Army’s Reverse Collection and Analysis Team. “The Center for Army Lessons Learned (CALL) drove a requirement to distribute information to the operational force faster than ever before...at the time, Major General Mitchell H. Stevenson approved three warrants to CASCOM’s TDA...to use their expertise to validate many of the issues the units were reporting.” In these positions, WOs were integrated into the analysis process. “They routinely conduct first-cut analysis on sustainment issues before CASCOM’s directorates start working on solutions...who other than the Army warrant officer has the ability, understanding, expertise, knowledge, depth, and breadth of experience to work highly technical, tactical issues at an operational level while knowing how to embrace and engage strategic partners to accomplish the mission?”

The next example is also from the Sustainment Warfighting function. “Recently, the Army restructured the theater sustainment commands (TSC) so that senior warrant officers replaced field-grade officers in the distribution management center (DMC). The expeditionary sustainment commands and division sustainment brigades followed suit by replacing junior officers with senior and junior sustainment warrant officers in the commodity sections” (Baugh, 2012). Because these warrant officers replaced regular officers, they understand and execute mission command. DA PAM 600-3, Commissioned Officer Professional Development and Career Management, declares, “As warrant officers gain more experience and training, their focus and expertise shifts from their primary MOS to include integrating other system within their branch to theater, Army, Joint, and national-level operations” (Baugh, 2012). The Sustainment community’s evolutionary use of warrant officers is coded in Army doctrine and definition. Following the CASCOM Commander’s example, strategic and joint commanders should begin checking the formations for experiential expertise that can transform chaos into analysis for attainable solutions by G-staffs.

## **BC2WGs**

With prescription comes the necessity of application. Another examination point for senior warrant officer engagement in strategic analysis is Boards, Centers, Cells, and Working Groups. (BC2WGs). All Army Warfighting Functions take part in BC2WGs, where experts in various fields analyze missions for concrete courses of action. In the joint planning process where Boards, Centers, Cells, and Working Groups (BC2WGs) are used in Mission Analysis to answer, coordinate, advise, counsel, and create potential courses of action for multifaceted joint engagements, Senior field-grade warrant officers are not employed, engaged, or assigned. Most senior warrant officer expertise is employed after COAs have been developed. Again, “who would be a better fit for these analytical appointments than a technical expert whose scope of application spans tactical, operational and strategic levels?” Senior Warrant officers in strategic positions would enable echelons above the Corps to have a greater understanding and perspective of the “complexity of their environments” while “leveraging senior leaders.” Senior commanders need decision support; this is enhanced when functional expertise from across staff and external mission partners collaborate and synchronize strategic commanders’ decision requirements.

## **Future Directions and Recommendations for Army Warrant Officers**

Several indicators denote that the warrant officer cadre will expand beyond the traditional tactical and technical expertise. The evolution will integrate novel domains, primarily Cyber Warfare and Space Operations, due to the increasing development of technology. Such a change is likely to occur due to the efforts placed on these fields by the US Army since they have the potential to influence prospective combat guidelines. This way, talent acquisition, and retention concerns will prompt improvements in the current recruitment system. The US Army may consider deploying unique approaches like mentoring programs, career sabbaticals, and partnerships with relevant institutions to promote the profession's attractiveness (US Army Basics, 2023). However, despite these efforts, there are underlying challenges, including the demanding nature of warrant officers' role in the increasingly technological and advanced battlefield and the constant issue regarding the absolute clarity revolving around their role and responsibilities. For example, the current military environment demands unique technical capabilities that align with cutting-edge technology, geopolitical issues, and decentralized warfare. This challenge is compounded by the lack of recognition that often deters career progression, which is detrimental to the command culture. Understanding these problems will enable the formulation of strategies that will guarantee the adaptability and success of warrant officers. The Army Warrant Officer 2025 Strategy aims to produce warrant officers who are technologically agile, adaptive, and innovative leaders through world-class PME systems, optimized accessions, and leader development (US Army, 2016). Ultimately, the officers' knowledge and leadership will remain irreplaceable as technological warfare becomes more prevalent.

## **Vital Role of Senior Warrant Officers in the Joint Environment**

Effective leadership and specialized expertise are paramount in the complex and dynamic scope of modern warfare operations today. Where multiple branches of the military work together to achieve common objectives, the role of the Warrant Officer stands out as one of the most critical. Among them is the Senior Warrant Officer (SWO). These SWOs hold the highest level of responsibility and provide crucial support and guidance to ensure the optimal utilization of Warrant Officers across the joint force. The Senior Warrant Officer serves as the foremost authority on Warrant Officer matters within a joint command structure. As aforementioned, the uniqueness embedded within the warrant officer cohort makes them highly skilled subject matter experts with technical skills such as engineering, logistics, intelligence, and aviation that translate across echelons and services. The SWO, ingrained with systems expertise, service organizational culture, and applicable knowledge, acts as the principal advisor to senior leaders on all aspects concerning Warrant Officers, including their engagement and utilization.

As the Senior Warrant Officer, one of the primary functions is to provide guidance and formulate policies related to recruitment, training, career management, and utilization of Warrant Officers. The SWO works closely with senior leadership to develop strategies that optimize the contributions of Warrant Officers for joint operations. This involves identifying skill gaps, ensuring adequate training and professional development opportunities, and devising policies to retain experienced Warrant Officers. In the joint environment, seamless integration and coordination among military branches are essential for mission success. The SWO facilitates this integration by fostering collaboration and communication among Warrant Officers from different backgrounds. They ensure that Warrant Officers understand their roles and responsibilities with joint operations and work cohesively with their counterparts from other branches.

As the advocate for Warrant Officers, the SWO represents interests at the highest command level. They articulate Warrant Officers' unique capabilities and contributions, advocating for resources and



opportunities that enable them to excel in their roles. Additionally, the SWO mentors and guides junior Warrant Officers, guiding career progression and professional development. Beyond their advisory role, Senior Warrant Officers exemplify leadership and mentorship within the joint force. They lead by example and demonstrate the highest professionalism, expertise, and integrity standards. Through mentorship programs and one-on-one guidance, they nurture the next generation of Warrant Officers, instilling in them the values of service, dedication, and excellence.

In the intricate web of modern military operations, the Senior Warrant Officer stands as a linchpin, bridging the gap between specialized expertise and strategic leadership within the joint environment. Their role is multifaceted, encompassing guidance, policy formulation, integration, advocacy, and mentorship. As stewards of Warrant Officer Talent, Senior Warrant Officers ensure that the joint force harnesses the full potential of its most skilled specialists, ultimately contributing to the success of mission objectives and the defense of the nation.

The Sustainment War Fighting function has nominated a Senior Warrant to assist in the Joint arena. This is a siloed approach to this problem set and not a shared approach across all Warfighting Functions if all WfF would nominate a Senior Warrant to be the link from the Warrants that are the technical experts in their career fields to directly assist in writing a new policy.

## **The Crucial Role of Senior Warrant Officers in Service Component Employment**

Within each branch of the military, Senior Warrant Officers (SWOs) occupy a unique and critical position and provide specialized expertise and leadership essential for mission success. In the context of service component employment, where branches focus on their specific operational domains, SWOs play a pivotal role in optimizing the utilization of Warrant Officers to achieve service-specific objectives. Service components encompass the distinct branches of the military, such as the Army, Navy, Air Force, and Marine Corps, and each has its unique operational requirements and challenges. SWOs bring specialized expertise in technical fields relevant to their service branch, whether aviation, engineering, logistics, intelligence, or other domains. Their deep knowledge and expertise enable them to provide invaluable insights and support across various operational activities.

At the highest echelons of command within the service components, SWOs serve as principal advisors on Warrant Officer matters. They collaborate with senior leadership to develop policies and strategies that optimize Warrant Officers' recruitment, training, career progression, and utilization within their respective branches. This involves identifying emerging trends, assessing operational needs, and formulating plans to ensure that Warrant Officers are effectively employed to support service-specific missions. Within the service components, SWOs play a vital role in integrating Warrant Officers into operational planning and execution. They work closely with commanders and staff officers to ensure that Warrant Officer expertise is leveraged to enhance mission effectiveness. This may involve coordinating with other branches of the military, as well as allied and coalition partners, to maximize the collective capabilities available for achieving operational objectives.

As advocates for Warrant Officers within the service components, SWOs represent the interests and concerns of their fellow Warrant Officers at the highest levels of command. They advocate for resources, training opportunities, and career advancement pathways that enable Warrant Officers to thrive and contribute fully to service-specific missions. Additionally, SWOs serve as mentors and advisors to junior Warrant Officers, providing guidance and support as they navigate their careers within their respective branches.

SWOs epitomize leadership and mentorship within their service components, setting the standard for professionalism, competence, and dedication. Their actions and guidance inspire and motivate Warrant Officers to excel in their roles and strive for excellence. SWOs mentor junior Warrant Officers, imparting valuable knowledge, skills, and insights from their own experiences, ensuring the continuity of expertise and leadership within their service branches.

Senior Warrant Officers play a vital role in service component employment, leveraging their expertise, leadership, and advocacy to optimize the contributions of Warrant Officers within their respective branches of the military. Their efforts are instrumental in enhancing service-specific missions' readiness, effectiveness, and success and upholding the nation's defense.

## Conclusion

"Army warrant officers are unique in many ways, in [our contemporary crisis and] this capacity, they are able to call on their expertise at all levels of war" [author emphasis added.] The Army has taken deliberate action in doctrine to broaden warrant officers' unique, multi-echelon applicability. This evolution is undergirded by historical warrant officer implementation and is necessary for the US advantage against near-peer adversaries. Warrant Officers prove strategic capability from the cohort's history to the duty descriptions and recent implementation in strategic environments. The authors of this paper hope that today's senior leaders will be ready to leverage that capability across the military spectrum. Warrant Officers possess immediate expertise gained through the ranks, molded by missions, and stamped through sacrifice. The Army and joint environment could close gaps and points of exploitation by utilizing its subject matter experts. All Warfighting functional teams, BC2WGs, and joint commands would greatly benefit from the immediate and trusted analysis Senior field-grade Warrant Officers provide. As multiple domains threaten the US, it will need to rightfully employ all its servicemembers to the right positions for victory. "Who else, but senior field grade warrant officers?"

## Authors' Notes

*Ishmael Asare, U.S. Army, is a Chief Warrant Officer 4 at the U.S. Army Expeditionary Sustainment Command, Joint Base Lewis-McChord, Washinton. CW4 Asare currently serves as Senior Ordnance Maintenance Officer on the installation. Responsible for providing oversight, guidance, and coordination of sustainment operations for I Corps. Ishmael holds a Master of Business Administration, Columbia Southern University, AL. He has served in a variety of leadership positions from the tactical to the strategic levels. The problem set out in this paper is the Need for an Army Medical Intelligence warrant officer Additional Skills Identifier in Support of G2/J2 Requirements.*

*William D. Dickinson, U.S. Army, is a Chief Warrant Officer 4 at the U.S. Army Knowledge Management Proponent Office, Fort Leavenworth, Kansas. CW4 Dickinson currently serves on the faculty and holds the position of Senior Knowledge Management Instructor. William holds a bachelor's in management of information systems from Ottawa University. He has served as an Information Systems Technician (255A) since 2009 in a variety of leadership positions from the tactical to the strategic levels. The problem set out in this paper is from experiences of personnel shortages as the Warrant Officer moves through out their careers, either perceived or imagined the Warrant Officer existence in the Strategic Operations is very obscure.*

*Gustavo Lomberamendoza, U.S. Army, is a Chief Warrant Officer four at the 403D Army Field Support Brigade, Camp Henry, Daegu, South Korea. CW4 Lomberamendoza currently serves as the Senior*

Ordnance Ground Maintenance Warrant Officer. He is responsible for the Command Maintenance Discipline Program for four Logistics Readiness Centers and two Battalions within the Korean and Japan Theater of Operations as well as direct oversight of the Army Prepositioned Stock Set 4. Gustavo holds an Associate's Degree in General Technology from Pierce College, WA. He is currently enrolled in American Military University where he will complete his Bachelor of Science in Sport and Health Sciences on the Fall of 2024. The problem set in this paper is to emphasize the importance of embedding Senior Warrant Officers within the Joint Operations Commands to help make better informed decisions.

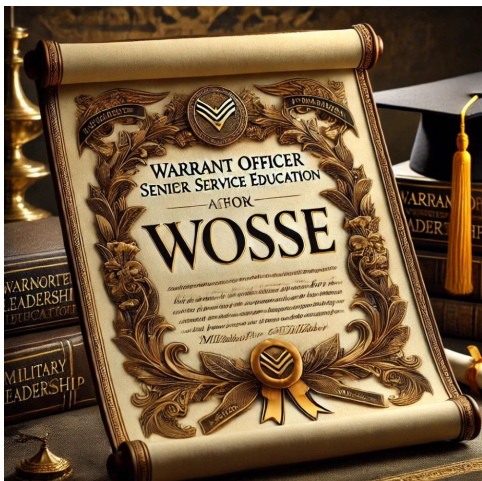
Chief Warrant Officer 4 LaTonya Y. Pettigrew is the Army Reserve Medical Command (ARMEDCOM) Senior Warrant Officer Advisor to the Commanding General and the ARMEDCOM G4 Senior Property Accounting Technician/Logistics Management Technician for ARMEDCOM. ARMEDCOM, the 8,000 Soldier strong Army Reserve Medical Command, is the Army's premier military medical professional organization, which augments, surges, and expands integrated health activities to the Army Medical Department and the Army. Her responsibilities in ARMEDCOM as the Senior PAT/Log Management Tech include: responsible for sustainment initiatives that analyze strategic supply chain management to prescribe running estimates, acquisition, and disposition strategies; balances budgetary constraints while devising resource adjudication; makes recommendations based on financial modeling, force management, and software; promotes auditability and End-to-End processes; performs full range of supervisory functions and analyzing logistical civilian support that reinforces property accountability; determines capability deficits and supplies innovations for total supply support; oversees contracted supply output for ACOR, ARMEDCOM. CW4 Pettigrew has a Bachelor of Science degree in Integrated Supply Chain Operations Management from the University of Phoenix and a Master of Divinity Degree in Christian Apologetics from Liberty University's Rawlings Divinity Seminary. The problem set in this paper is to emphasize the importance of embedding Senior Warrant Officers within the Joint Operations Commands to help make better informed decisions.

Jason K Rodriguez, U.S. Army, is a Chief Warrant Officer four at the 173RD Infantry Brigade Combat Team (Airborne) in Vicenza, Italy. A native of Bowling Green, FL. CW4 Rodriguez currently serves as the Senior Ordnance Ground Maintenance Warrant Officer. He is responsible for the y responsible for developing plans, coordinating, and synchronizing maintenance workload and vehicle recovery IAW brigade priorities; Forecasts, schedules, and provides technical assistance to six subordinate battalion maintenance activities. Maintains asset visibility of all internal maintenance capabilities and coordinates external maintenance support. He holds an MBA in Business Administration from Trident University International (TUI). The problem set in this paper is to emphasize the importance of embedding Senior Warrant Officers within the Joint Operations Commands to help make better informed decisions.

Chief Warrant Officer Four Blaine L. Volk is a native of Devils Lake, ND. He enlisted in the North Dakota Army National Guard in March 1992 and was appointed as an Army Warrant Officer in 2010. CW4 Volk commissioned as a 919A (Engineer Maintenance Warrant Officer), currently CW4 he was transitioned to a 915E automatically once receiving his CW4 rank. CW4 Volk is currently the Automotive Maintenance Tech for the 68th Troop Command, Bismarck, ND. He is the Surface Maintenance Mechanic Inspector Supervisor for the CSMS in Devils Lake, ND at Camp Grafton, for his Civil Service Military Technician position. I hold an automotive technology diploma from Lake Region State College. What I can see as far as this paper goes, we as Warrant Officers need to have an existence at the table when we are talking Strategic Operations so that our voice is or can be heard at all levels.

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Graphic: Rendering of Warrant Officer Senior Service Education created by ChatGPT 4o



# Book Review

## **A review of *The In-Betweeners*, by Bruce D. Callander, published in *Air Force Magazine*, November 1991; Review by Dr. George Wade, Department of Military History, U.S. Army Warrant Officer Career College**

A quick internet search on the topic of Air Force Warrant Officers will lead you to several sources announcing the return of the Warrant Officer to the U.S. Air Force. One article is an April 2024 announcement on the af.mil news site. In addition to detailing the specialties for these new Warrant Officers (information technology and cyber career fields) is a statement by Air Force Chief of Staff General David Allen, who ties this reintroduction to the need for technological superiority in an age of great power competition.

The Air Force stopped appointing Warrant Officers in 1959. What gives? Why does the Warrant Officer suddenly need to be reintroduced? The answer to this question should be of interest to all Warrant Officers in all services—most particularly the U.S. Army, from which the Warrant Officer began in U.S. military service.

Bruce Callander wrote an article called *The In-Betweeners* for *Air Force Magazine* in 1991—a long time ago. In addition to giving a short and comprehensive history of both Army and Air Force Warrant Officers, Callander created a paradoxical picture of both the reasons for creating and the place of Warrant Officers within the enlisted to officer structure. The paradox lies within the rank itself, which has been subject to use by the services in ways that defy the reasons for having an officer corps at all yet is irresistible as it creates space for technical specialization as a career endeavor.

Consider, as Callander informs, that the same year Congress allowed the Army up to 1,120 warrant officers that it also allowed the Army to give warrants to enlisted soldiers of long-service and to some Army pilots who lost their commissions at the end of World War I. The unsurprising result of this was an inability of the Army to defend the need for the entire warrant officer grade structure as a requirement for any Army organization. Warrant Officers, it seems, did not fit.

But then another World War came. The idea of great power competition certainly got its trial during World War II. Not surprisingly, the Warrant Officer came along for the ride. Why? Because of the need to create an Army of initially over 2 million in an era of technological specialization. The Army also used technological specialties to create new categories of enlisted technical specialists who received noncommissioned officer pay without the rank—they had their own separate rank structure. Such are the exigencies of war with peer or near-peer foes in an era of technological sophistication.

And then came airplanes in numbers previously unimagined. John Keegan tells us in his history of World War II that the United States went from making 2141 aircraft in 1940 to making 96,318 in 1944. The United States truly was the arsenal of democracy. Who was going to fly all these aircraft? The Army's answer was to make thousands of aviation cadets into flight officers, who were pilots, bombardiers, navigators, flight engineers, and fire control officers—in total, around 200,000 personnel. Importantly, the rank was equivalent to the then-existing rank of Warrant Officer Junior Grade for pay and some privileges of officer rank (salutes, titles, insignia), all the while ranking below all commissioned officers.

This rational answer to a technologically based requirement for specialist practitioners created problems within the Army rank structure with its attendant customs. The flight officers performing a highly technical skill did not fit within the social structure of the Army Officer Corps because they did not share common

education or orientation toward the profession of arms. What do a pilot and an infantry officer have in common in terms of their actual duties and the use of authority?

Additionally, the Army gave its major commands the authority to appoint and assign traditional (non-aviation) Warrant Officers without a standardized process. Here again, the use of the rank as a reward rather than an organizational requirement is an indelible part of Warrant Officer history. The result was several Warrant Officers, many doing essential jobs, who had a lot of experience. This gave them clout, which NCOs of the time lacked.

Future wars in Korea, and especially Vietnam, would do much to solidify the Army Warrant Officers because of their use as helicopter pilots. The nexus between the Warrant Officer rank and technical specialization is also evident today in the many (and growing) number of career fields for Warrant Officer service. At least two conclusions suggest themselves.

First, the need for Warrant Officers is tied primarily to the need for technical specialists unencumbered by military authority in the conduct of their technical vocations. This is a bedrock issue for Warrant Officers. Technology drove the need, not the requirements, for military discipline. Putting these together in a rank structure both useful to the Army and driven primarily by nonmilitary factors (flight, for example) is, of necessity, an experimental, dynamic, and time-sensitive endeavor.

Second, it is normal to use the Warrant Officer rank as either a reward or as a default for skills that do not fall within either officer or enlisted scopes of authority or practice. This should not be a surprise given the World War II experience when the rank was used as a reward for long service among specialists not eligible for battlefield promotions to Lieutenant; these were available only to combat arms soldiers. Further, the Army's use of Warrant Officers as pilots shows this strain as well.

The end of World War II saw the end of both flight officers and warrant officers—other wars would revive them. The problem of what to do with technical specialists for whom enlisted rank was not appropriate (scope of authority, command decision-making, and so forth) remained. The Warrant Officer rank for these technical specialists is the only default position available, assuming these positions must be filled by those subject to the UCMJ—in other words, soldiers.

These are all topics for considerable thought and discussion. Callander's article provides a solid and mercifully brief summary of Warrant Officer usage through World War II. This history should help frame issues related to Warrant Officer policy. If nothing else, it provides food for thought for current Warrant Officers.

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# Warrant Officer in History—CWO Frederick Edgar Ferguson

**CW5 Leonard Scott Momeny, Ed.D.**

On January 30, 1968, the North Vietnamese launched one of the most well-known military operations of all time, the Tet Offensive. The offensive was actually a series of surprise attacks that were coordinated across the entire country of South Vietnam, with a distinct focus on attacking both military and civilian centers of influence and power. One of the areas of focus for the enemy was the city of Hue. The Battle of Hue occurred between 31 January 1968 and 2 March 1968. Initially, the Army of the Republic of Vietnam (ARVN) and Military Assistance Command Vietnam (MACV) were largely unprepared for the Tet Offensive, suffering terrible losses during the fighting. However, the brave action of the ARVN, US Marines, Soldiers of the 1st Cavalry Division, and others would eventually push back the People's Army of Vietnam (PAVN) and Vietcong.



One of the Soldiers contributing to actions during the Battle of Hue was CWO Frederick Ferguson. Born August 18, 1939, in Pilot Point, Texas, Mr. Ferguson was a CW3 during his actions at the Battle of Hue. Aside from the Medal of Honor, Mr. Ferguson was awarded two Silver Stars, the Distinguished Flying Cross, the Bronze Star, and multiple Air Medals. After Vietnam, Mr. Ferguson would continue his service in the Arizona Army National Guard, eventually achieving the rank of Major. However, Mr. Ferguson would again return to the Warrant Officer Ranks in order to continue flying and instructing in the UH-1 Huey. The citation that follows outlines his actions during the Battle of Hue.

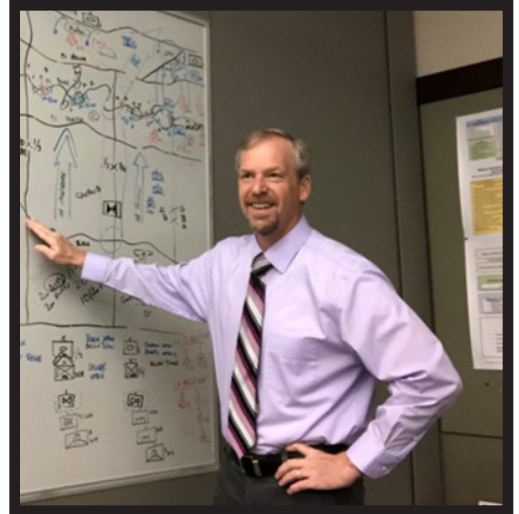
## Citation

For conspicuous gallantry and intrepidity in action at the risk of his life above and beyond the call of duty. CWO Ferguson, commander of a resupply helicopter monitoring an emergency call from wounded passengers and crewmen of a downed helicopter under heavy attack within the enemy-controlled city of Hue, unhesitatingly volunteered to attempt evacuation. Despite warnings from all aircraft to stay clear of the area due to heavy antiaircraft fire, CWO Ferguson began a low-level flight at maximum airspeed along the Perfume River toward the tiny, isolated South Vietnamese Army compound in which the crash survivors had taken refuge. Coolly and skillfully maintaining his course in the face of intense, short-range fire from enemy-occupied buildings and boats, he displayed superior flying skill and tenacity of purpose by landing his aircraft in an extremely confined area in a blinding dust cloud under heavy mortar and small-arms fire. Although the helicopter was severely damaged by mortar fragments during the loading of the wounded, CWO Ferguson disregarded the damage and, taking off through the continuing hail of mortar fire, he flew his crippled aircraft on the return route through the rain of fire that he had experienced earlier and safely returned his wounded passengers to friendly control. CWO Ferguson's extraordinary determination saved the lives of five of his comrades. His actions are in the highest traditions of the military service and reflect great credit on himself and the U.S. Army.

## Faculty Spotlight

### Mr. Jon Young - Academic Lead/SME, Department of Joint, Interagency, Multinational Operations, USAWOCC

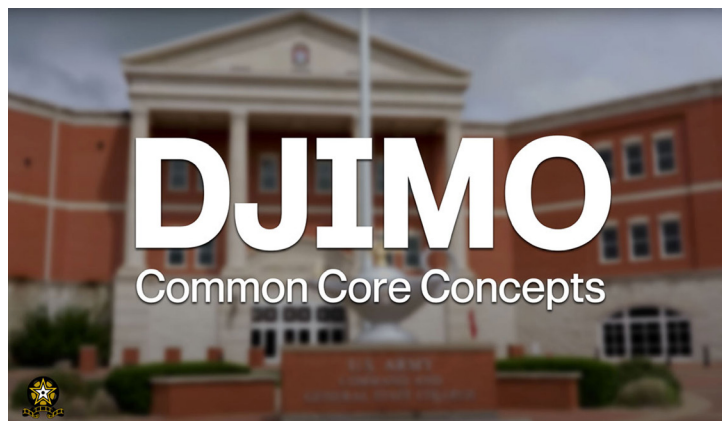
LTC (R) Jon Young is a senior faculty member at the Warrant Officer Career College (USAWOCC). For the past three years, Jon has served in the Department of Joint Interagency and Multinational Operations (DJIMO) and what is now known as the Department of Strategy and Doctrine, or DSD. As senior faculty with DSD, Jon has played a pivotal role in the creation of various new course curricula including the development of a candidate-level course on MDMP.



Mr. Young is not an atypical instructor usually encountered by students while attending USAWOCC, as he was never a warrant officer. Jon instead began his career in the US Army Ranger Regiment as an infantryman, eventually leaving enlisted service to attend the University of Texas at Arlington, graduating with a Bachelor of Arts in History and he earned an executive Master of Business Administration from Fundação Getulio Vargas in Brazil. Jon, would go on to enjoy a very successful military career, working in Special Forces and even attending the Command and General Staff Officer Course, WHINSEC. In 2005, Jon graduated with a Master of Arts in Latin American Affairs from the University of South Florida.

Later in his career, Jon would serve as the Branch Chief for DJIMO at the Command and General Staff School, Fort Leavenworth, Kansas. Once his military career had come to a close, Jon would later become an Assistant Professor for DJIMO where Jon Led 16-member student groups in a graduate-level educational environment focusing on preparing mid-level U.S. and international military officers for senior-levels of responsibility. Jon also provided quality assurance oversight for 48 military and civilian faculty in a graduate-level military professional development institution. Jon provided high quality instruction that surpassed the required learning objectives and he supervised the professional faculty development program. Jon obviously brings a tremendous experience set and perspective to USAWOCC. His efforts ensure that all doctrine curricula remain applicable and rigorous for all levels of students. Additionally, Jon's personal experience as a field grade leader provides tremendous insight for students into the minds of their future commanders.

LTC (R) Jon Young is just another example of the fantastic faculty awaiting students that attend the United States Army Warrant Officer Career College.





# Announcements and Administrative Notes

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

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

## Submission Guidelines

Submissions should be between 1,500 and 5,000 words and supported by research, evident through the citation of sources. Scholarship must conform to commonly accepted research standards such as described in The Publication Manual of the American Psychological Association, 7th edition. For resources on writing in approved APA format simply reach out to USAWOCC. Book reviews should be between 500 to 800 words and provide a concise evaluation of the book and its relevance to the professional Warrant Officer or current fight.

Submitted manuscripts in Microsoft Word, or compatible format, with separate picture files and a 100-150 word author's note by 15 November (Jan – Mar Publication), 15 February (Apr – June Publication), 15 May (July – Sep Publication), or 15 August (Oct–Dec Publication). For additional information, an email to [wo\\_journal@army.mil](mailto:wo_journal@army.mil).

## Cohort W - Podcast

The Warrant Officer Historical Foundation (WOHF) produces the Cohort W podcast to enlighten and inform its listeners about warrant officer history, education, and modernization. For the past three seasons, the WOHF selected an instructor from the Warrant Officer Career College as a WOHF Fellow. The original fellow, CW5 (Dr.) Russell Houser, developed the Cohort W podcast and CW5 (Dr.) Leonard (Mo) Momeny continued the podcast into season two. The current Fellow, CW3 Suzy Albert, is wrapping up season three with a spectacular review of Warrant Officer Candidate School modernization. To date, the podcast has over 10,000 downloads. Cohort W can be found on all major platforms. No endorsement by the U.S. Department of Defense or the U.S. Army is implied.

## Order of Eagle Rising Society

To learn more about the modern warrant officer exemplified by lifelong leaders of character, read about the inductees of Order of the Eagle Rising Society at: <https://sites.google.com/view/eaglerising/home>.

