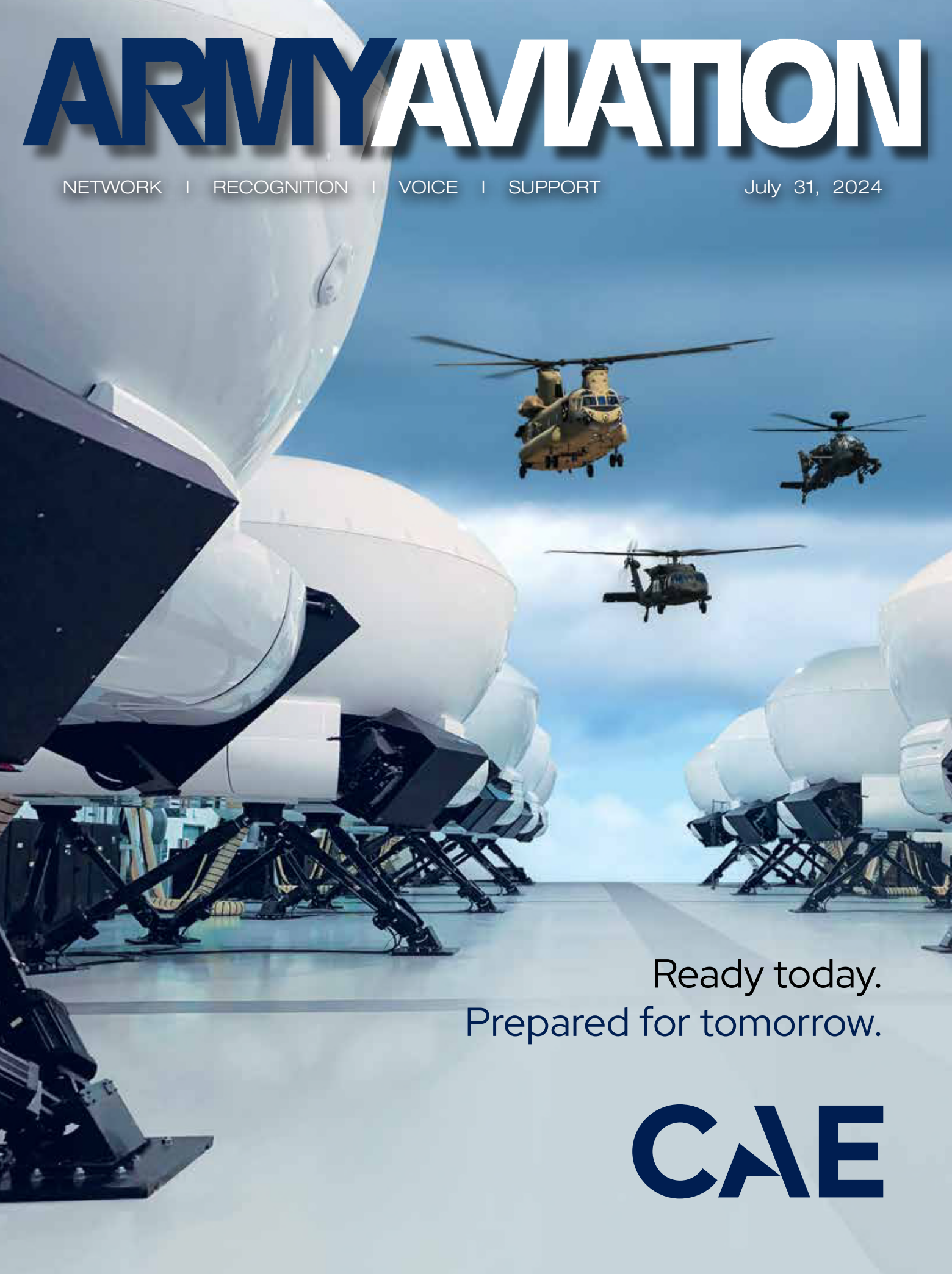
ARMY AVIATION

NETWORK | RECOGNITION | VOICE | SUPPORT

July 31, 2024

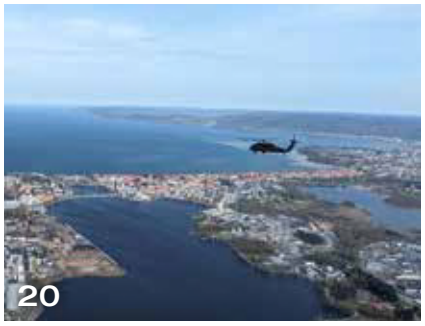


SIMULATOR PRODUCT SOLUTIONS LLC

Soar To Greater Heights With The Premier Simulation Product & Services Provider

Proudly supplying the US and friendly militaries, prime contractors, and systems integrators with cutting-edge high-fidelity grips, lighted panels and bezels, displays, touchscreen displays, keyboards, test sets, and ancillary simulation and training products and software solutions.

info@simulatorps.com • (310) 830-3331 • www.simulatorps.com

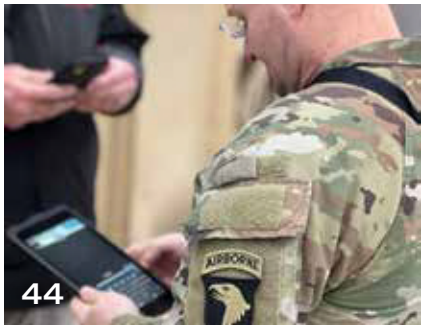


Contents

July 31, 2024, Vol. 73, No. 7

TO THE FIELD

SPECIAL FOCUS – Training



Contents

July 31, 2024, Vol. 73, No. 7

SPECIAL FOCUS – Simulation

SPECIAL FOCUS — Aviation Survivability

FROM THE FIELD

DEPARTMENTS

AAAA NEWS

ARMY AVIATION COMMUNITY NEWS

ARMY AVIATION is the official journal of the Army Aviation Association of America (AAAA). The views expressed in this publication are those of the individual authors, not the Department of Defense or its elements. The content does not necessarily reflect the official U.S. Army position nor the position of the AAAA or the staff of Army Aviation Publications, Inc., (AAPI). Title Reg® in U.S. Patent office. Registration Number 1,533,053. SUBSCRIPTION DATA: ARMY AVIATION (ISSN 0004-248X) is published monthly, except May and September by AAPI, 593 Main Street, Monroe, CT 06468-2806. Tel: (203) 268-2450, FAX: (203) 268-5870, E-Mail: aaaa@quad-a.org. Army Aviation Magazine E-Mail: magazine@quad-a.org. Website: http://www.quad-a.org. Subscription rates for non-AAAA members: $35, one year; $65, two years; add $10 per year for foreign addresses other than military APOs. Single copy price: $4.00. ADVERTISING: Display and classified advertising rates are listed in SRDS Business Publications, Classification 90. POSTMASTER: Periodicals postage paid at Monroe, CT and other offices. Send address changes to AAPI, 593 Main Street, Monroe, CT 06468-2806.

Don't Trust your *Escape and Evasion* to some random Company...

TRUST the company that has always been there for you, deployment after deployment: Phantom

Phantom Warrior TLS® for Aviation:

* Covert and Overt White
*Cyan
*Infrared
*Flash patterns built in
*Lens for 360 visibility
*Hands free mount
*AA battery system
*LED/50000 hour bulbs
*Waterproof
*Reliable
*Durable

NSN 6230-01-681-9161

Phantom Products, Inc.
Designed and Built in Rockledge, Florida USA
PH: (321) 690-6729
CAGE 3WQN8

* Small Business * Made in USA * ISO9001:2015 Certified *

www.PhantomLights.com

ARMYAVIATION

Founders /Art and Dotty Kesten

Publisher / William R. Harris Jr.

Editor / CW4 (Ret.) Joseph L. Pisano Sr.
editor@quad-a.org

Associate Editor / CW5 Adam Jarvis
adam@quad-a.org

Director of Design & Production
Anne H. Ewing
magazine@quad-a.org

Contributing Editor / Mark Albertson
mark@quad-a.org

Family Forum Editor / Judy Konitzer
judy@quad-a.org

Director of Advertising & Exhibit Sales
Robert C. Lachowski
bob@quad-a.org

Deputy Director of Advertising & Exhibit Sales
Erika Burgess
erika@quad-a.org

Advertising & Exhibit Sales Manager
Carmen Tuohy
carmen@quad-a.org

Marketing Director / Jennifer Chittem
jenn@quad-a.org

Social Media Manager / Chelsea Jarvis
chelsea@quad-a.org

Director Data Services / Ben Marini
ben@quad-a.org

Circulation Department
Mira Auxier
Deb Cavallaro
Debbie Coley
Jackie Harris

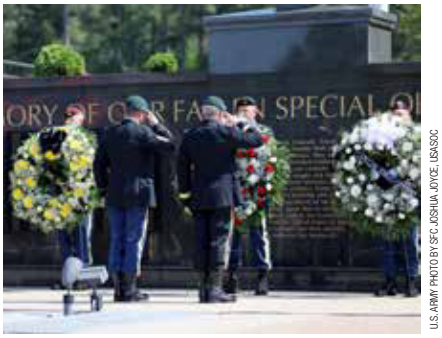
Editorial Address
593 Main Street, Monroe, CT 06468-2806
Tel: (203) 268-2450 / Fax: (203) 268-5870

Visit our website for additional articles and updates.
ARMYAVIATIONmagazine.com

On The Cover

Briefings

Night Stalker Names Added to USASOC Memorial Wall



U.S. ARMY PHOTO BY SFC JOSHUA JOYCE, USASOC

The U.S. Army Special Operations Command added five names of Soldiers with the 160th Special Operations Aviation Regiment (Airborne) to its memorial wall during a ceremony Thursday, May 23, bringing the total number of command soldiers who died in the line of duty to 1,273. The Night Stalkers were killed Nov. 10, 2023, when the Black Hawk helicopter they were on crashed in the Mediterranean Sea. The fallen are: CW3 Stephen R. Dwyer, CW2 Shane M. Barnes, SSG Tanner W. Grone, SGT Andrew P. Southard, and SGT Cade M. Wolfe. May they rest in peace.

AFC Stands Up ADS CFT

U.S. ARMY FUTURES COMMAND GRAPHIC

The Army is creating a new team focused on helping the force better see, sense and target deep into the battlefield. The All-Domain Sensing Cross-Functional Team is being created out of the Assured Positioning, Navigation and Timing/Space Cross-Functional Team. The transition "arrives on the heels of the successful completion" of the team's "original mission," the Army said in a news release. The team will be based in Adelphi, Maryland, and Huntsville, Alabama, and focus on four lines of effort for the Army: Multi-Sensor Dominance, Sensing Architecture, Advanced Processing and Dissemination, and Operational Enablers. It is expected to reach full operational capability by the second quarter of fiscal year 2025.

DoD Authorizes Reimbursement of Breastmilk for Troops on PCS Move

PHOTO BY AIR FORCE SMSGT BETH HOLLIKER

A new Department of Defense policy, which took effect May 24, authorizes nursing military mothers traveling on permanent change of station orders to get reimbursed for up to $1,000 of the cost of shipping their breast milk back to their child. It is similar to an earlier policy enacted in 2022 that helps troops recoup the cost of shipping breast milk when they are on temporary duty travel for work trips longer than three days. The new rule applies to service members who are breastfeeding children up to 12 months old. Troops are responsible for making their own arrangements for transporting breast milk.

Army Will Reimburse Spouses for PCS Business Costs

Military spouses can now be reimbursed up to $1,000 for certain business costs they incur when moving to a new post, the Army announced on June 4, 2024. These include at least part of the cost of moving and removal services for business equipment, new equipment purchases, information technology costs, and fees for business permits, registration and inspections. Spouses could already recoup as much as $1,000 spent to obtain new professional licenses due to a permanent change of station – a policy that has been in place for several years. Now they can be reimbursed for both types of spending, totaling up to $2,000 per PCS move. Go to *https://myseco.militaryonesource.mil/portal/* for more information.

SUSPENSES:

August 1 - Logistics Technician of the Year Award, Logistics Support Unit of the Year Award, Materiel Readiness Awards for Contributions by an Individual Member of Industry, a Small Business Organization, a Major Contractor, an Industry Team, Group, or Special Unit, Unmanned Aircraft Systems Soldier of the Year Award, UAS Operations Technician of the Year Award, UAS Unit of the Year Award, and Fixed Wing Unit Award.

DELIVERING UNMATCHED AIRCRAFT SOLUTIONS TO THE WARFIGHTER

Our commitment to you:

Always providing the highest quality work, the best products, and the quickest response to our customers.

SES

SES: Small Business Customer Focus, Large Business Capabilities

248 Dunlop Boulevard, Huntsville, AL 35824 www.ses-i.com

National Executive Group Annual Review

The Annual Summit and your Association continue to grow.

AAPI FILE PHOTO

In May or June after the Summit each year, the National Executive Group gathers at the Connecticut AAAA National Office to review and assess our organization's posture and status, and to discuss and chart the next couple of years activities and initiatives.

The NEG consists of four elected officers: me as president, MG (Ret.) Wally Golden as senior vice president, BG (Ret.) Tim Edens as treasurer and MG (Ret.) Todd Royar as secretary. It also includes our two appointed vice presidents – CW4 (Ret.) Becki Chambers, VP for membership, and LTC (Ret.) Jan Drabczuk, VP for chapters.

This year after Becki and Jan briefed membership and chapter programs and initiatives, the four elected officers focused on the review and assessment of the AAAA national business model. Specifically, we reviewed the membership dues structure (which has not changed since 1998, in either corporate or individual member dues), AAAA national event topics, and our event/forum registration policies and fees for both exhibitors and individuals.

The good news is that the AAAA is in the strongest position it has ever been in terms of membership (which is at an all-time high of over 21,000) and fiscal position (currently have net assets financially at a record level). That said, questioning what our future organizational vulnerabilities could be, and discussing what efforts and programs were required to ensure we 'survive and thrive' organizationally, help bound our focus and energy during the review.

First, although our Annual Summit has grown substantially over the years, the inflation in vendor costs, especially since COVID, has outpaced our increased exhibit sales. Our smaller events (Aviation Survivability, Luther Jones, and Cribbins) are losing money; the positive Annual Summit net revenue each year is what solely underwrites all the other shortfalls in membership dues and smaller-event net revenues.

The vulnerability here is that if we must cancel another Summit (or two… as occurred during COVID), we have to ensure our Emergency Fund is robust enough to sustain the organization for two straight years, without any Summit income/revenue. We are currently at $4.6M on the way to the ceiling of $7.01M in the Emergency Fund that will be required to meet the two-year self-sustaining goal. And yes, we do in fact still have event cancellation Insurance (those policies yielded over $6M in total to AAAA for the cancelled 2020 and 2021 Summits), but now those policies going forward specifically exclude any 'pandemic' coverage, which is no longer available to any organization.

In a comparative analysis, we assessed like/similar military organizations and associations to determine how AAAA fit and compared; it did not take much to figure out that even just considering inflation since 1998, we had some further work and analysis to do. We certainly don't have all the answers yet but are working them… and we will propose a plan to the full National Executive Board at the November meeting in Huntsville. Likewise, we assessed where we stood regarding exhibitor fees and policies, and we will be recommending some changes there as well.

Although we are enjoying record-setting metrics now, our assessment is that we have to pivot from our financial dependance on one positive revenue event, the AAAA Annual Summit. We must ensure that our great organization is protected long into the future, and to continue to provide world class support to you all, our Army Aviation Soldiers and Families, no matter what.

MG Walt Davis, U.S. Army Retired
36th President, AAAA
walt.davis@quad-a.org

START **LIGHTER**
START **FASTER**
START **SMARTER**

Certified Lithium-ion Aircraft Batteries

Cut aircraft battery weight and increase your useful load. Like you, True Blue Power® batteries are always mission ready. They fully recharge within 30 minutes and deliver superior performance in the most rugged environments. Even better, you'll eliminate expensive battery maintenance and the need for ground power units. **Start LIGHTER, start FASTER and start SMARTER every time.**

trueblupowerusa.com/*GETSTARTED*

TRUE BLUE POWER®
A division of Mid-Continent Instrument Co., Inc.

Simulations, Training, and Aviation Survivability

By MG Michael C. McCurry II

U.S. ARMY NTC ALPHA TEAM COURTESY PHOTO

AH-64 fires flares in response to simulated threat.

Army Aviation increases the lethality and survivability of the combined arms team.

U.S. ARMY NATIONAL GUARD PHOTO BY CW2 PATRICK REED

CPL Charles Brower conducts a pre-phase power-on check of the Chaff Flare system for a UH-60M Black Hawk helicopter.

This sacred trust has been a hallmark of the branch since our inception, drawing on lessons learned and observations of wars of the past and current operations around the world. In partnership with industry, we deliver Aircraft Survivability Equipment (ASE) capabilities to the field after rigorous testing and analysis to defeat enemy threat systems. Beyond materiel solutions, the Aviation enterprise and operational units leverage simulations and training to develop, refine, and implement doctrine and tactics, techniques, and procedures. These efforts are interconnected as we continue to transform in contact ensuring Army Aviation will continue to fight, win, and survive in the multidomain of large-scale combat.

Equipping our aircraft to defeat the adversary's systems and increase our survivability is essential. Army Aviation is pursuing transformational threat detection capabilities through an improved missile warning system that will leverage MOSA (modular open system architecture) to deliver multi-functional capability while providing overmatch for near peer adversaries. The ability to rapidly respond to emerging threat systems like enemy UAS and advanced missiles will ensure Aviation survivability on the LSCO battlefield.

As the Army prepares for Large Scale Combat Operations (LSCO), the way commanders will train must continue to evolve. This evolution

will refine individual and collective training while leveraging the latest technology. The Synthetic Training Environment (STE) represents one of these initiatives as it will create a realistic threat environment against a peer adversary. Additionally, using next generation digital planning systems supported by virtual and augmented reality, commanders can now visualize the battlefield in real time to rapidly plan, adjust, and rehearse missions against modern high-risk threat capabilities. With recent advancements in technology, state of the art simulations systems interwoven with next generation Command, Control, Computers, Communications, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) will play a vital role. As we adapt, realistically replicating our equipment without its cost in both dollars and risk is extremely beneficial. It allows us to gain practical experience while mitigating risk.

While ASE and simulations are important arrows in our survivability quiver, they are certainly not the only ones. Doctrine and training are the glue that solidify this survivability process. STACOM 24-03, to be released on 9 July rescinds STACOM 23-01 and previous 2800 and 2900 series tasks and introduces and provides guidance to the force for the revised Air Mission Survivability (AMS) task training. The revised AMS task was thoroughly tested and validated to ensure the maneuver is simple to teach, train, and evaluate. Multiple aircraft AMS training remains optional for commanders and requires the Directorate of Standardization and Evaluation (DES) to certify unit standardization pilots before initiating training.

The role of the Aviation Mission Survivability Officer (AMSO) and Instructor Pilot (IP) in aviation mission survivability (AMS) training is essential. AMSOs are the experts in understanding our capabilities versus our adversaries' and mitigating tactical risk through fused mission planning. We know 80 percent of survivability is "left of launch" achieved through a thorough understanding of the threat, the operational environment, and the mission. Conversely, the IP's role in training is to ensure aircrew members are proficient in evasive flight maneuvers. By working in concert, AMSOs and IPs drive AMS training in the mission planning cell, simulations, and the aircraft so our aviation formations can fight, win, and survive in any operational environment.

The emerging and evolutional threats we face challenge us to transform in contact. This triad of ASE, simulations, and scenario-based training are enablers that will help us do that, and as we learn, the process is iterative. However, they will help us transform to meet the threats of the multi-domain environment and win.

Above the Best!
Fly Army!

MG Michael C. McCurry II is the Army Aviation branch chief and commander of the U.S. Army Aviation Center of Excellence and Fort Novosel, AL.

U.S. Army Training and Doctrine Command

Better People Make Better Soldiers

By GEN Gary M. Brito

U.S. ARMY PHOTO BY ROBIN HICKS, FT. JACKSON TNG SPT CTR

Basic Combat Training institutionalizes foundational skills in the process of transforming civilian volunteers into Soldiers.

We all know that Soldier; the one that maxes their physical fitness test, shoots expert on their assigned weapon, and rapidly earns status as a pilot in command and air mission commander, but never achieves their potential as a Soldier.

Some financial failing, relationship problem, or other personal issue derails their progress and puts them on the wrong path. For some, it's a personal decision – they had the resources, their leadership was engaged, but they chose not to do anything about it – but others simply lacked the basic life skills they needed to succeed.

Our Army is excellent at training Soldiers, developing pilots who know how to fight and win on the modern battlefield – no one is better! How do we train the life skills required for Soldiers to thrive and make the most of their warfighting competences? I would argue these are intrinsically linked. To help them meet their potential, we owe it to our People to give them the skills they need to succeed as Soldiers, members of cohesive teams, AND productive members of society.

This isn't a new agenda. It is a societal imperative, a fundamental responsibility of the Army to the society we serve, one that we've filled for generations. As Elvis Presley said in 1958, "The Army teaches boys to think like men." The Army should help young men and women, some of whom had tough upbringings without proper role models, mature into responsible, well-adjusted citizens, capable of thriving in the modern world. Our training not only makes Soldiers, it makes Soldiers for Life, who are well trained in their skill sets – "war fighting ready" – as well as contribute to their communities and have the skills to live happily and productively.

Teaching these skills is also a warfighting imperative. It is difficult to maintain readiness and build cohesive teams with

people whose personal lives limit their availability, dedication, and focus. Our junior professionals realize this, as SFC Leyton Summerlin wrote in the Summer 2023 issue of Infantry, "better people make better Soldiers, and better Soldiers are more lethal." Our Army must continuously transform its systems to develop those skills in a modern context.

Foundational Skills Development

Foundational skills are the baseline that every Soldier must master to be warfighting ready. They are an integrally linked set of requirements that range from basic Soldier skills (common core training, standards and discipline) to life skills (finances, refusal, etc.) to prevention and resilience (sexual assault prevention, equal opportunity, suicide prevention, etc.). Considering these skills as a holistic package enables us to avoid a checklist mentality toward skills critical for team building. Our training should always strive to build well-rounded professionals with character, competence, and commitment.

TRADOC is working to apply accepted Soldier and Leader development models and provide coherent plans for foundational skill development to commanders at echelon. We will positively impact the current paradigm by applying tried and true Army systems for skills development to the problem while adhering to the complex requirements levied by law, DoD Policy, and DA Policy/Regulation to build skill development models that can be used in Professional Military Education (PME) and by operational commanders.

The Way Ahead

Building on pre-existing systems, TRADOC has adopted an iterative approach to foundational skills development in initial entry training. We train and certify our leaders at the Drill Sergeant Academy using a revised program of instruction that trains them with the skills needed to lead challenging conversations. Those Drill Sergeants then train new Soldiers through an iterative, but flexible approach that provides multiple, structured touchpoints on all foundational skills while retaining the flexibility for leaders to re-address problem areas at any point. This prepares the new Soldiers for an immersive, scenario-based capstone event at the end of training to prepare trainees for transition to their next assignment. This training in no way replaces warrior tasks and battle drill training, rather, it is complementary.

While it is vital for us to focus on our initial entry trainees in the short-term, the long-term goal is to institutionalize foundational skills in a career-long approach. By training, educating, and validating these skills during career-long institutional touchpoints and reinforcing them during operational unit training and leader development programs, we will create leaders with increased warfighting readiness who train resilient Soldiers as part of their daily affairs.

To fully institutionalize foundational skills, they must become part of our culture. Leaders like you must understand and teach them at your level and work to build understanding across our profession. Only as a team can we build the foundational skills of our force, improve the lives of our Soldiers, and improve warfighting capability!

This We'll Defend!

GEN Gary M. Brito is the commanding general of U.S. Army Training and Doctrine Command headquartered at Fort Eustis, VA.

Rehearsing to Win: Simulations' Crucial Role in Enhancing Maneuver

By CW5 Michael A. Corsaro

As sure as the law of gravity applies to all objects that leave the ground, the law of primacy holds true to the importance of training aircrews on the fundamentals that will enable us to fight, survive, and win in large-scale combat.

Field Manual 7-0, Training, breaks down how we progress from individual to collective, simple to complex task training and execution. This crawl-walk-run method can be time-consuming and resource-intensive on a unit. Technology in current development will allow us to relieve some of that burden on Soldiers through simulation and digital rehearsal capabilities, allowing us to focus on training end states and synchronize combined arms maneuver. This approach will enable Army Aviation to remain the most agile maneuver element within the Division commander's arsenal.

This approach briefs well, but what does it look and feel like? Let us take a standard rehearsal of the concept (ROC) drill, which a recent Combat Aviation Brigade (CAB) executed. The unit ran two ROC drills to show the difference between building a typical sand table rehearsal and a digital one. The manual drill took forty-six hours and a platoon to construct; the digital one took four hours and two personnel. The most significant takeaway was when they briefed their division commander using the digital tool. It allowed him to fully appreciate the airspace, fires, and maneuver plan as well as witness contingencies highlighting the risks.

Upgrades to our individual task learning in the self-development domain are another area we are advancing. Typically, we start at the Interactive Multimedia Instruction (IMI) Level 2 or limited interaction with instructor-led PowerPoint training. The Program Executive Office Aviation (PEO AVN), combined with the Aviation Center of Excellence (AvCOE), has invested in the new virtual training environment (VTE). As part of this new environment, the virtual training suite incorporates high-fidelity 3D models and simulation, achieving IMI Level 4 and the potential to grow into the virtual reality/augmented reality (VR/AR) learning space. Imagine downloading Aviation training to a commercial off-the-shelf (COTS) VR headset and training start-up procedures in your aircraft, along with loading mission equipment such as radios, without the need for expensive infrastructure and complexes. This capability is already being utilized for maintenance training and is in the final development stages for aircraft survivability equipment training.

U.S. ARMY PHOTO BY DONNIE RYAN

COL Scott Woodward, deputy commanding officer, U.S. Army Combined Arms Center – Training, examines the features of the Reconfigurable Virtual Collective Trainer-Aviation (RVCT-A) for the Army's Apache helicopter platform.

Doing More with Less

The reality of the challenges we face in Army Aviation today is that we have to grow experience to fight in a contested environment with systems that are far more advanced and require more workload on the aircrew to employ properly. Learning by doing comes with inherent risk; we can mitigate much of that risk with advanced simulations and simulators. The devices that Army Aviation started with have come a long way. Still, we face a time now where we must be able to accurately replicate aircraft systems, threats and the operational environment (OE) in which we plan to execute missions. A great example of how we are getting after this new paradigm shift is the incorporation of one world terrain (OWT) by the Program Executive Office Simulation, Training and Instrumentation (PEO STRI). The

OWT delivers 3D global terrain capability and associated information services that support a fully accessible virtual representation of the physical earth that is useable by all simulation trainers and represents the OE's complexities. The ability of Army Aviation to execute simulator training while accurately representing littoral, dense vegetation, urban, and mountainous areas cannot be understated.

Threat is another area which we have spent time improving. Currently, we hold our simulation devices to an unclassified level; however, we recently invited Brigadier General William Glaser from the Synthetic Training Environment Cross-Functional Team (STE CFT) to tour our simulations and partake in some Aviation Mission Survivability (AMS) 2800/2900 task training. He noted the importance of and solidified the requirement that all future simulations operate at a classified level to ensure accuracy in threat profiles and non-kinetic effects training. Senior leadership guidance stresses the importance of getting this right, not simply doing it right now. This imperative, in part, led to the decision to delay the introduction of the new Reconfigurable Virtual Collective Trainer-Air (RVCT-A), which may seem negative but is a win for the warfighter. The deliberate decision to delay RVCT-A fielding enables PEO STRI to make improvements annotated by the Directorate of Simulations (DOS) through multiple Soldier touchpoints and get our warfighters the best they deserve. It shows that the process is working and that there is value in Soldier feedback in the development process.

Your vote counts. It sounds like a bumper sticker or hand wave, but it is how we will develop all future programs. We need you to help shift this to the synthetic training environment and shape what is important. This bottom-up refinement will ensure that we maintain our edge and put the proper rigor into our training reps and sets.

Enhancing Maneuver

Aviation Mission Survivability focuses on the mission aspect to distinguish its role from the protection warfighting function to enhance the maneuver warfighting function. When we first introduced Survivability principles into warfare, they focused more on individual roles, but they have now grown to encompass holistic employment. We are committed to the ground force commander and the Soldiers in support of the ground scheme of maneuver – that's a Sacred Trust. When we train, it is not simply to operate a complex aircraft but to employ, through our collective tasks, weapon systems as a part of the combined arms team. We must utilize our training aids, devices, simulators, and simulations (TADSS) to mitigate risk and ensure we are always ready to fight. Although quoted by famous generals during famous wars, General George S. Patton said it best: "He who sweats more in training bleeds less in battle." The "Sweat Equity" we invest now will ensure success on the battlefield of 2030 and beyond!

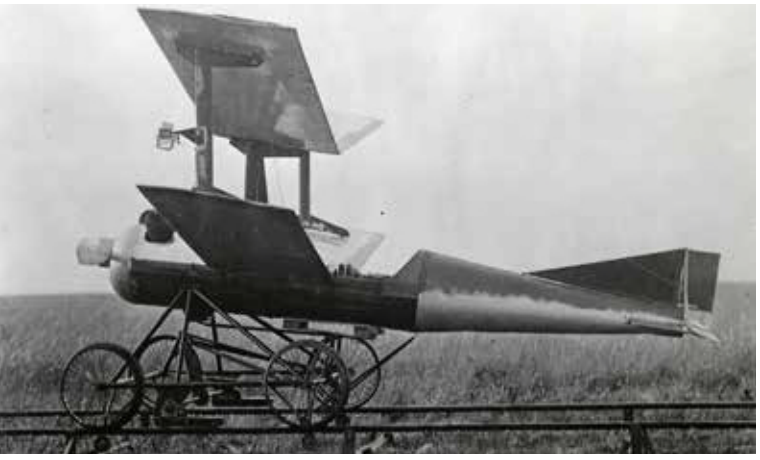
I thank CW4 Chris "Chappy" Crawford, the Aviation Branch Aviation Mission Survivability Officer, and the Survivability Branch, Directorate of Training and Doctrine at USAACE for their hard work for this article. It is their subject matter expertise and vast experience that makes this information – Above the Best!

CW5 Michael A. Corsaro is the tenth chief warrant officer of the Aviation Branch with the U.S. Army Aviation Center of Excellence, Fort Novosel, AL.

Branch Command Sergeant Major Update

Transforming in Contact: Building Highly Lethal Unmanned Professionals

By CSM Kirk Coley



NATIONAL MUSEUM OF THE U.S. AIR FORCE PHOTO

U.S. ARMY PHOTO BY SPC ALIYAH WEBB

There are few Soldiers in the Army who understand what the Chief of Staff, Army (CSA) means when he says "transforming in contact" more than our Unmanned Aircraft Systems (UAS) Soldiers.

Left: The Kettering Aerial Torpedo "Bug."

Right: U.S. Soldiers with the Army National Guard train with RQ-28A short range reconnaissance quadcopters during a field training exercise at Fort Indiantown Gap, Pennsylvania, June 6, 2024.

The history of UAS in the Army is one of constant change. From the early years of experimentation with the Kettering "Bug" to the Radioplane RP-71, through the implementation of our first truly capable systems with Akila, Pioneer, and Hunter up to today's Gray Eagle and with FTUAS on the horizon, UAS has been in a non-stop state of transformation. You will never find anyone in the UAS community who says, "that's the way we've always done it" simply because the only constant has been change. The pace of technological development in this arena, combined with the insatiable demand that warfare places on unmanned assets would suggest that the future looks no different.

Where We Are

Many throughout the Army responded in shock when HQDA EXORD 178-24 directed the divestment of the RQ-7B Shadow and the RQ-11 Raven. These two systems were the unmanned workhorses for decades of combat in Iraq and Afghanistan. Our UAS soldiers; however, were not surprised. They, more than many, recognized the inherent limitations of those aircraft, and were excited at the prospect of being able to experiment and explore new and developing capabilities. Training at Fort Huachuca, Arizona already looks very different than it did at the beginning of this year. They have received four RQ-28A Small Unmanned Aircraft Systems (SUAS) as well as six "Parrot" commercial off the shelf aircraft and are training on them. The unit has already begun divestment of the Shadow. On 7 June 2024, the exception to policy was approved to allow the UAS Instructor Operator course graduates to certify as SUAS Master Trainers, alongside their MCOE counterparts. This change helps us set the stage for where we want to go in the near future. USAACE has also taken steps to ensure all 15Ws who were previously eligible to receive CSIP will continue to do so IAW the approved waiver dated 31 MAR 2024. In addition, 15Ws will no longer have to meet a minimum flying hour requirement to earn their Senior and Master Aviation Badge but instead will earn their advanced badges based on 10 and 17 years aviation service, respectively.

Where We Are Going

As we look at available capabilities and those in development, it looks more like we are on the cusp of a revolution rather than an evolution in how the Army operates and integrates its unmanned platforms. This revolution will send ripples of change throughout the DOTMLPF framework, and I wanted to take this opportunity to share some of our early analysis on the future of our UAS organizations.

The U.S. Army Aviation Center of

Excellence (AvCOE) is transforming the doctrinal (D) duties of the 15W Soldier, optimizing the organization (O) of the TUAS platoon and the distribution of UAS expertise at echelon, realigning the training (T) of 15Ws based on evolving technologies, operating concepts and lessons learned. Additionally, we are expanding knowledge based on emerging UAS material (M) solutions, transitioning our leader development (L) courses to deepen knowledge and sharpen expertise while keeping pace with technological and tactical change, and adapting personnel management (Pe) to ensure the right expertise is assigned to the right billet at the right time. Much of this will require a review of existing policy (Po) to ensure Army and installation guidance matches our tactical implementation.

Doctrinally, the 15W of tomorrow will be a vital component of the Army's layered unmanned Hunter-Killer capabilities as well as Army Aviation's Future Aviation Tactical Ecosystem (FATE). Aviation's ecosystem includes our existing and future ground tactical systems, manned aircraft fleets, Launched Effects (LE), layered UAS, space, and terrestrial sensors as a conduit to execute reconnaissance, surveillance, and target acquisition and long-range precision fires throughout the operating environment. Gone are the days when 15Ws operated a single unmanned platform. Instead, 15Ws will operate a fleet of unmanned assets from across all groups, integrating and synchronizing them with LE, ground maneuver, fires, manned aviation, and ground robots to synergize a positive impact on the ground commander's operation.

To achieve this future, the 15W will undergo a transformation to become UAS and LE master integrators, trainers, and operators. Much like today, this future starts with 15W10 Soldiers building a foundation of expertise in aviation mission planning and safety plus integrating UAS and LE operations into reconnaissance, security, and attack missions. 15W20 Soldiers will be leaders and master integrators, seamlessly integrating UAS and LE capabilities into combined arms warfare while deconflicting airspace. 15W30 will serve as UAS Master Operators, expert Trainers for all UAS systems, airspace managers, and advanced UAS integrators in ground maneuver battalion and brigade operations. The 15W40 will be the senior leader and the master of UAS in combined arms and FATE, at echelon, through planning, managing, integrating and synchronizing the ecosystem to create synergistic effects.

While most of what I can tell you about the future of our UAS strategy revolves around the 15W, we have not left out the 15E, and we are actively developing our strategy for our maintainers. We have already reallocated nine days of the 15E AIT course away from Shadow specific training like emplace and displace operations, in favor of training 15E's on the basics of SUAS operations and an overview of short-range reconnaissance.

All of this enables aviation to unburden the ground tactical commander from coordinating multiple cross domain assets, allowing them to focus on their objective. As we are reminded daily by events in Ukraine, unmanned capabilities bring a relentless pace to modern warfare. The ability to see, strike, and extend across the frontlines places an incredible pressure on a unit's necessity to remain mobile. The 15W's ability to both wield and integrate this capability, and to do it in close coordination with ground commanders, will ensure that the US Army continues to dominate the fight across multiple domains.

Above the Best, Fly Army!

CSM Kirk R. Coley is the command sergeant major of the Aviation Branch at the United States Army Aviation Center of Excellence, Fort Novosel, AL.

Enlisted Aviation Soldier Spotlight

Each month we will feature a past AAAA National or Functional Enlisted or NCO Award winner as part of our ongoing recognition of the Best of the Best in our Aviation Branch. The CY 2022 National winners were featured in the April/May AAAA Army Aviation Mission Solutions Summit issue.

Aircraft Survivability Equipment Award, 2022

Sponsored by General Atomics Aeronautical Systems, Inc.

CPL Lason T. Arreola

Company D, 3rd Battalion, 160th Special Operations Aviation Regiment (Airborne)
Hunter Army Airfield, Georgia

Corporal Lason Arreola's accomplishments as a 94R, Aircraft Survivability Repairer, are nothing if not amazing. He has distinguished himself as a subject matter expert in the repair of Night Vision Goggles, Aviation radios, and Aircraft Survivability Systems (ASE) and was an integral part of the implementation of a new infrared countermeasure system. His maintenance experience has contributed to the superb upkeep of ASE installed on 16 MH-47G and 10 MH-60M helicopters valued over one billion dollars. He has been an integral part of maintaining no notice deployment aircraft resulting in ASE being Fully Mission Capable before departure. He was selected as the first choice for a no-notice deployment to the USS Lewis B. Puller ESB3 vessel in the Mediterranean Sea. His professionalism and expertise are the prime example of what a leader should be. His consistent dedication to the team and the mission has ensured that he, the unit, and the Soldiers he works with are ready to go at a moment's notice both physically and mentally. CPL Arreola's accomplishments, professionalism, and mission-focused approach to Aircraft Survivability for the Warfighter make him the only choice for the 2022 AAAA Aircraft Survivability Equipment Award.

Risk Management is an Active and Continuous Process

By CW4 Christopher Perkins

In the Army, safety is often an afterthought rather than the result of a deliberate process.

USAOPIC GRAPHIC

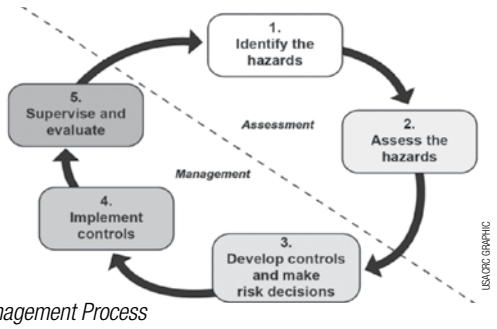
A notable example is the final weekly closeout formation, where a safety brief is given with minimal consideration for actual risk, with little relevance to the audience and is perceived as a barrier between Soldiers and their weekend. This conversation should be an effort for leaders to provide guidance on what to do and how to act so their subordinates can manage risk and return to work without injury, causing property damage or experiencing other mission-impairing factors. Approaching safety this way is the start to operationalizing the risk management process and should be the desired outcome for embedding safety considerations into any military operation.

Instead, we inaccurately use the terms safe or safely to describe our future actions, which places the responsibility of managing risk on the actions of others. "Be safe" is not risk management; it treats safety as implied and relies on luck to prevent injury or loss. It creates an unnecessary challenge to overcome when you are trying to change the perception of those within your organization.

Safety is not simply a noun. Safety results from the successful application of the risk management model. We manage risk every day without always consciously realizing it. When you drive to work and notice someone ahead of you is slowing down, you apply the brake to avoid a collision. As the real-time hazards change, we adjust our controls to manage and mitigate new risk.

Risk management is the process of identifying, assessing, and controlling risks and making decisions that balance risk cost with mission benefits. Risk management does not eliminate risk; rather, it reduces risk to an acceptable level by applying and supervising controls to known or anticipated hazards. This process ensures leadership at the appropriate level is accepting the residual risks.

The five steps of risk management, as defined by Army Techniques Publication (ATP) 5-19, are to identify the hazards, assess the hazards, develop controls, and make risk decisions, implement controls, and supervise and evaluate. The Risk Common Operational Picture or the Deliberate Risk Assessment Worksheet physically represents the risk management process based on the initial plan and communicates the results of that process to others. A document has never prevented injury and loss. It is the thoughtful, thorough, and continuous application of the risk management process that does.



Risk Management Process

The risk management process cannot be static, nor can it stop after the initial assessment. Investigations reveal time and again that the hazard that caused the mishap was not originally planned for but, more importantly, there was no effort made to re-evaluate the risks as conditions changed. Instead, risk management is and must always be dynamic. Real-time risk management is how you respond when your plan does not survive first contact.

ATP 5-19 states that real-time risk management is the immediate management of hazards as they occur. Commanders provide intent and designate those personnel responsible for making real-time risk-related decisions in their absence once an operation or mission begins. However, operationalizing risk management means every person involved in the mission must actively and continuously participate in the real-time risk management process. Active participation includes communicating changes from the initial plan, newly identified hazards and identifying actions that can immediately address real-time risk.

Quite often, we have a voice in our head that tells us something is not right, even if we cannot always immediately define what that is. Real-time risk management is simple: communicate that sense of unease when you do not share an understanding of the current operation, when operations violate a standard or an established hazard mitigation or control, or when activities do not pass the commonsense test. Speak up – your voice could very well stop the next tragic mishap.

CW4 Christopher Perkins is an Army Mishap Investigator at the United States Army Combat Readiness Center, Fort Novosel, AL

uAvionix DEFENSE

LOW SWaP
NO COMPROMISE

uAvionix ZPX systems enable secure Mode 5 platform identification for Uncrewed Aircraft Systems (UAS). ZPX transponders and receivers outperform traditional crewed aircraft transponders with a Size, Weight, and Power (SWaP) that is suitable for carriage by tactical UAVs as small as Group 1. ZPX transponders are also compliant with civil airspace requirements as Mode S/1090ES ADS-B transponders, simplifying aircraft configurations. Trust uAvionix for uncompromised, AIMS certified, airspace solutions.

AIMS CERTIFIED

LEARN MORE AT
UAVIONIX.COM/DEFENSE

Supporting Exercise Swift Response

By CPT Jeffrey Windmueller

The MEDEVAC pilots couldn't miss the crowd in blue scrubs, pressing cell phones against the building's glass to capture the HH-60 Black Hawk practice landings on Linköping University Hospital's helipad.

U.S. ARMY RESERVE PHOTOS

Task Force Tiger supporting Exercise Swift Response in early June 2024, part of Steadfast Defender, the largest NATO military exercise since the end of the Cold War.

Earlier that week, multi-ship missions buzzing with the mix of Black Hawks and CH-47 Chinooks' heavy blades drew customers out of Jönköping's restaurants, bars and businesses. Spectators stared into skies before turning to each other and saying: "Amerikanerna är här." The Americans are here.

Roughly three months after Sweden's accession into NATO, the Army Reserve Aviation Command's Task Force Tiger arrived at Hagshult Wartime Air Base as part of Swift Response, the largest multinational U.S. Army European airborne exercise held annually in Europe and one in the Defender Europe series.

The exercise last May allowed the combined units under 8-229th Assault Helicopter Battalion commander LTC Stephen Morrow the opportunity to train alongside their Active Component Army and NATO partners in large scale combat operations (LSCO) – from maintenance and port operations to air assault and MEDEVAC.

"It was a mission of many firsts," said Morrow. "For a lot of our soldiers and leaders, they had never been overseas, never deployed before. And there are a lot of similar conditions from a logistical standpoint.

Planning for Swift Response required cross-country coordination with participants primarily consisting of part-time, Troop Program Unit (TPU) service members. Task Force Tiger was comprised of Charlie Company, 8-229th Aviation Battalion in Fort Knox, KY, Golf Company, 5-159th General Support Aviation Battalion at MacDill AFB, FL, and Fox Company, 2-135th GSAB at Joint Base Lewis McChord, WA.

As they focused on Chief of the Army Reserve LTG Jody Daniels' emphasis toward "tough, realistic training done safely," the Task Force prepared for some of the largest events in Defender Europe history.

Swift Response kicked off with a Joint Forcible Entry airborne operation with nearly 800 service members from U.S., Hungary, Italy, Spain and Sweden participating. The storied 173rd Airborne Brigade led the charge, while Task Force Tiger pushed the capabilities of their MEDEVAC unit, transporting nine paratroopers safely to nearby hospitals. They even exercised their CASEVAC response—utilizing a stock UH-60L to save a soldier's eyesight.

That same night, the task force collected troops for an air movement to the Kvarn Training Area, where paratroopers engaged in a Military Operations in Urban Terrain (MOUT) night assault. Task Force Tiger's aircrew spent the night cold-load training the units into packing every inch of the aircraft before taking off into the dark of night, utilizing night-vision goggles.

Another first: utilizing the port of Kalendborg, Denmark, before crossing the Kattegat Strait en route to the Swedish countryside. An operation which required assistance from another host country but impressed upon its participants the ARAC's ability to transport a battalion's aircraft and support equipment across the Atlantic in order to complement Active Component units.

Swift Response 2024 stood as a testament to the unparalleled capabilities of the Army Reserve Aviation Command (ARAC) in executing complex airborne operations. The multinational exercise underscored the critical role of reserve forces in maintaining readiness and interoperability within NATO. ARAC's involvement highlights its pivotal contribution to enhancing collective defense and crisis response capabilities.

"We have the resources and the capability to train together," said ARAC commanding general, BG Roger F. Deon, Jr. "What we're demonstrating here in Sweden, is the ability to work seamlessly with our newest ally, the 32nd member of the North Atlantic Treaty Organization, Sweden."

CPT Jeffrey Windmueller is the public affairs officer for the U.S. Army Reserve Aviation Command at Fort Knox, KY

BUILDING THE

FUTURE WITH ARMY AVIATION

Tyonek is hard at work building the future. We added new facilities and faster precision machines to deliver more OEM-quality avionics, electronics, and mechanical components for aviation and ground systems. We expanded our hangars to meet the demands for maintenance and modification on Army, other DoD, and FMS aircraft. We designed and fielded new products to meet current needs and help defend against tomorrow's threats.

Tyonek is proud to build the future with Army Aviation.

BUILD THE FUTURE WITH US.
Visit www.Tyonek.com/careers

- Logistics Support Facility (LSFMA-V) Prime Contractor
- Redstone Test Center Aviation Management Support Service Prime Contractor
- BAE Systems Small Business Supplier of the Year
- Lockheed/Sikorsky Elite Supplier
- Lockheed/Sikorsky Supplier of the Year (Black Hawk)
- Lockheed Martin RMS Outstanding Small Business

Tyonek

SBA 8(a) Certified | Alaska Native Corporation | ISO 9001 | AS9100 | AS9110 | Certified FAA Part 145 Repair Stations

Aviation Maintenance Impacts Battlefield at National Training Center

By SSG Jacob Watkins

Throughout history, people have invented, refined, and built impressive machines and written procedures to improve our way of life.

Co. B, 2nd Bn., 227th Avn. Regt. removes CH-47 main rotor blade to replace leaking seal during National Training Center Rotation 23-08. National Training Center, California June 22, 2023.

This never-ending process of creating, refining and evaluating is how humans have continued to advance. Military operations are no exception to this cycle and have benefited greatly from it. Every military operation, whether it was victorious or not holds information that can be used to affect change for future operations. The impacts of every participant can be analyzed, and the amount of effect can be measured.

From 5-25 June 2023, the 128th Aviation Brigade at Fort Eustis, Virginia, sent six Advanced Individual Training (AIT) Instructors to the National Training Center (NTC) in California to augment the permanent party Observer Coach Trainers (OC/T) stationed there. Their mission was to observe Aviation maintenance and the impact it had on military operations. The instructors found the harsh environment and scale of operations increased the difficulty on the unit being observed and all aspects of the units' operations were pushed beyond their usual limits. It was apparent on the first day of the rotation, how critical Aviation maintenance would be on the units' ability to successfully perform operations. Every aspect of Aviation maintenance, from the number of personnel, amount and type of equipment and tools, and the experience level of each member contributed to the stressors; shortcomings in these areas affected the Aviation unit's ability to support the ground force.

Army Aviation integrates into unified land operations by conducting air-ground operations as the Aviation maneuver force of the combined arms team. An effective Aviation Soldier must be able to conduct maintenance operations, ground vehicle convoy operations, and basic combat skills such as reacting to indirect fire. First line supervisors, intermediate supervisors, senior advisors, and Commanders at all levels were tested in their abilities to supervise and personally execute all of these tasks during this NTC rotation. The friction points observed during this iteration at NTC ultimatley lead to the ground force commander losing trust in the avaition unit's ability to support operations. Maintenance related obstacles were a daily occurance and kept the avaition unit from ever reaching a 100% operational rate for its aircraft during the exercise.

During the rotation, aircraft maintenance issues hampered the units' ability to support the ground force almost daily as resupply flights, escort flights, medevac response, and air assault missions were all slowed due to maintenance related problems. Part shortages, lack of expeirience, and manning issues also contributed to problems for both the ground force and the avaiation unit. Informed by these issues, AIT Instructors must continually stress the importance of not only conducting aircraft maintenance properly, but the impact it can have on the unit being supported. Simple maintenance practices can affect the course of a battle.

AIT Instructors in the 128th Aviation Brigade can seek improvement through evaluating their ability to develop AIT Soldiers to conduct aircraft mainetnance properly and constantly remind them they are part of the overall objective. Instructors can use lessons learned from observing NTC rotations and other military exercises to better train future Aviation Soldiers. These Soldiers must be able to perform maintenance tasks, conduct military vehicle convoy operations, and basic combat skills. Confident, skilled Soldiers build capable units that build trust and enable the ground force commander to successfully win on the battlefield.

Born Under Fire!

SSG Jacob Watkins is a Powertrain instructor for the 128th Aviation Brigade at Joint Base Langley/Eustis, Virginia.

S·A·F·E

STRUCTURE DESIGNS

JOHN 13:7

CREATIVE PROJECT SOLUTIONS

THROUGH DESIGN, ENGINEERING, AND MANUFACTURING

AIR ▪ LAND ▪ SEA ▪ SPACE

ZERO NRE FOR DESIGN

GSA Contract Holder
Contract 47QSWA20D002L

ISO 9001:2015 QUALITY CERTIFIED

702.209.8811 | SAFESTRUCTUREDESIGNS.COM | SALES1@SAFE-2.COM

Continuing Airworthiness

By Mr. Dave Cripps and Mr. Steve Braddom

This is the last in a series of AvMC Tech Talk articles about the basic tenets of airworthiness.

The last two articles covered design approval, which ensures that the design of the air system follows the appropriate military "building code" requirements for the aircraft, and production approval, which ensures the "as built" system conforms to the approved design. This article covers the final tenet, continuing airworthiness.

The focus of design approval is all of the aircraft of a particular model, design, and series. Production approval shifts the focus to individual tail numbers. Continuing airworthiness then ensures that each individual tail number remains airworthy throughout its entire service life. Airworthiness is defined as the property of an air system configuration to safely attain, sustain, and complete flight in accordance with approved usage limits, and the first key element of continuing airworthiness is ensuring the aircraft is operated within its approved usage limits

U.S. ARMY AFTD PHOTO

A contractor performs aircraft maintenance inspections at the U.S. Army Redstone Test Center.

per Chapter 5 and the weight and balance limits per Chapter 6 of its Operator's Manual, and that the proper inspections and maintenance are conducted after any limit exceedances. Aircraft components are designed in the context of a planned usage spectrum for the aircraft which defines the intensity and duration of the stresses and loads those components will be

exposed to across the service life of the aircraft. Significant deviations from this planned usage spectrum can result in reduced aircraft component lives. Continuing airworthiness also mandates strict adherence to normal operating procedures per Chapter 8 and emergency procedures per Chapter 9 of the Operator's Manual.

Continuing airworthiness also requires that maintenance on aircraft is in accordance with the approved intervals and procedures per the aircraft Technical Manuals (TMs) and Depot Maintenance Work Requirements (DMWRs). Proper maintainer training, approved TMs, quality control and technical inspectors being independent of aircraft maintainers, unit leadership emphasis, and the Aviation Resource Management Survey (ARMS) inspection are just a few examples of how the Army ensures that maintenance meets continuing airworthiness requirements. Occasionally, situations arise in the field that require a deviation from the approved processes, intervals, or inspection criteria in the aircraft TMs. In these situations, an airworthiness action called a Maintenance Engineering Call (MEC) is used to assess, approve, and document the deviation. AvMC Liaison Engineers (LEs) working with units in the field coordinate and manage thousands of MECs a year to ensure aircraft remain available and airworthy. If a permanent change to maintenance publications or DMWRs is necessary, a Maintenance Engineering Order (MEO) is used until the TMs or DMWRs can be updated. Exacting record keeping provides not only a record of work performed, but also the inspection and approval of the work and a history of work performed, should an incident require review for possible causal factors.

Maintaining airworthiness across the lifespan of a system also requires dealing with defects or other potentially hazardous conditions that are discovered after the aircraft is fielded. When such a defect or hazardous condition is discovered, a Product Quality Deficiency Report (PQDR) is generated that initiates an engineering investigation into the root cause. The U.S. Army Aviation & Missile Command (AMCOM) issues messages in accordance with Army Regulation 750-6 such as Safety of Flight (SOF) messages, Aviation Safety Action Messages (ASAM), and Aviation Maintenance Action Messages (AMAM) to provide compulsory maintenance, technical or other information as well as direction and guidance regarding the issue. Continuing airworthiness requires compliance with all mandatory messages.

Finally, continuing airworthiness requires ensuring that all spare parts and overhaul services are obtained from sources whose parts and processes have been stringently validated to meet all technical and quality requirements. This includes ensuring control of critical safety items (CSI) as discussed in the last article on production approval.

While design and production airworthiness are the responsibility of materiel developers, acquisition program offices, and airworthiness engineers and officials, continuing airworthiness is everyone's responsibility. Operators, maintainers, trainers, and leaders at all levels have a critical responsibility to ensure the continuing airworthiness of Army aircraft by operating and sustaining them in accordance with the approved limitations, processes, and procedures.

Mr. Dave Cripps is the chief airworthiness engineer and Mr. Steven Braddom is the deputy airworthiness engineer at the Systems Readiness Directorate, U.S. Army Combat Capabilities Development Command Aviation & Missile Center, Redstone Arsenal, AL.

Psoriasis

By LTC Julissa Mendoza, M.D.

Q: I was recently diagnosed with psoriasis and was told I need to take medication to control the symptoms. Will I still be able to fly?

FS: Psoriasis is a chronic skin condition that causes areas of redness with patches of silvery scales on different parts of the body. The thick scaly areas are called plaques. There are several types of psoriasis; plaque psoriasis is the most common manifestation. The scalp, face, elbows, and knees are the typical affected areas; however, plaques can develop on any part of the body. The size and distribution of affected areas can vary; from small, localized areas to widespread disease.

All variations of psoriasis have similar symptoms: itching, burning and soreness. Psoriasis mostly affects adults; men and women are affected equally. It tends to appear between the ages of 30 to 50 years of age.

Some individuals with psoriasis can also develop psoriatic arthritis. This can appear, on average, about ten years after the initial skin lesions. However, it cannot be predicted who will develop psoriatic arthritis. Both men and women are affected equally. Joints, such as shoulders, knees, fingers, and toes are commonly involved. The spine can also be affected. Pain and swelling of tendons and ligaments can also be present. Psoriatic arthritis is also a chronic condition that can have episodic flares over time.

Q: What causes psoriasis?

FS: There are multiple factors involved; genetics and our immune system may have a role in the development of psoriasis. Research has shown there is a genetic component; patients diagnosed with psoriasis may have a relative with this condition. Skin trauma caused by a sunburn or physical trauma may also induce the initial appearance of lesions. Other factors that may trigger the initial appearance of psoriasis are smoking, heavy consumption of alcohol, certain medications as well as stress. Psoriatic lesions will usually improve during the summer months; however, flares may be aggravated by winter weather. Knowing what triggers the appearance of lesions can help reduce flares.

Q: What do I do now?

FS: There are several treatments available; depending on the type, location and severity of psoriasis, a combination of medications may be used. Treatments can help alleviate the symptoms of itching, reduce appearance of lesions as well as help prevent psoriasis from worsening. A consultation with a Dermatologist is recommended to help with the treatment and management of psoriasis. Your flight surgeon may also consider a referral to a Rheumatologist to aid in early diagnosis of psoriatic arthritis as well as treatment recommendations.

Mild psoriasis can usually be treated with topical (skin application) treatments, such as emollients, moisturizers, steroid creams/ointments along with topical Vitamin D.

Moderate to severe psoriasis may necessitate systemic medications, phototherapy or biologic therapies which target specific parts of the immune system that cause the symptoms of psoriasis.

Some treatments for psoriasis may also help with symptoms of psoriatic arthritis. This again depends on the extent of the affected joints. If a few joints are involved, this may be treated with conservative therapy such as physical and occupational therapy as well as possible use of non-steroidal anti-inflammatory medication. Moderate to severe joint pain may require similar systemic and/or biologic medications as mentioned above for skin psoriasis.

Follow-up appointments with your dermatologist, as well as with a rheumatologist if indicated, will help individualize treatment plans to see how the medications are helping the symptoms as well as modifying interventions as necessary.

Q: How does this affect my flying status?

FS: Psoriatic lesions on your palms, soles, scalp, or on a large portion of your body, such as your back, can negatively impact your ability to properly wear life support equipment. It is important to inform your flight surgeon if your symptoms are interfering with the wearing of your uniform and/or use of the life support equipment. Undiagnosed psoriatic arthritis or worsening arthritis can also interfere with performance of your duties around the aircraft.

Per the Aeromedical Policy Letter (APL) from the United States Army Aeromedical Activity (USAAMA), if you are diagnosed with psoriasis, a waiver may be obtained. However, if your psoriasis becomes extensive (e.g., impacts the proper wearing of aviation life support equipment), does not respond to treatments or the treatments require frequent monitoring by a provider, you may first need to undergo a medical evaluation board to be found fit for retention before a waiver can be submitted.

Although you currently have psoriasis, there are several medications and treatments available to help control the symptoms and prevent your condition from worsening over time.

Fly Safe!

Questions for the Flight Surgeon?

If you have a question that you would like addressed, email it to AskFS@quad-a.org. We will try to address it in the future. See your unit flight surgeon for your personal health issues.

The views and opinions offered are those of the author and researchers and should not be construed as an official Department of the Army position unless otherwise stated.

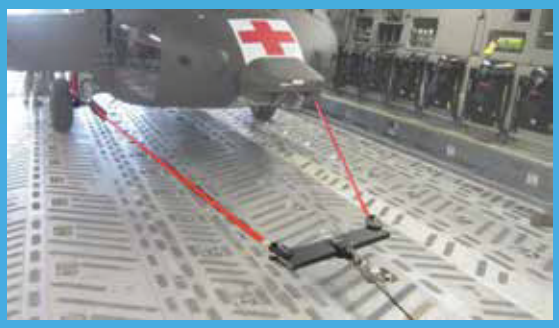
LTC (Dr.) Julissa Mendoza is a flight surgeon and Aerospace Medicine specialist at the Department of Aviation Medicine, Fort Novosel, AL.

Tow Bridle Load Out Kits

US Army and Air Force

Primary Load Out Kit

- Approved For All Army Helicopters
- Lightweight - High Strength
- Plasma® 12 Strand Ropes
- Carbon Fiber Spreader Bar
- Lines Maintain Equal Tension
- Required Class 9 Equipment



Call for more information (864) 638-6196 or visit our website www.heli-basket.com.

The appearance of U.S. Department of Defense (DoD) visual information does not imply or constitute DoD endorsement.

HELIBASKET™

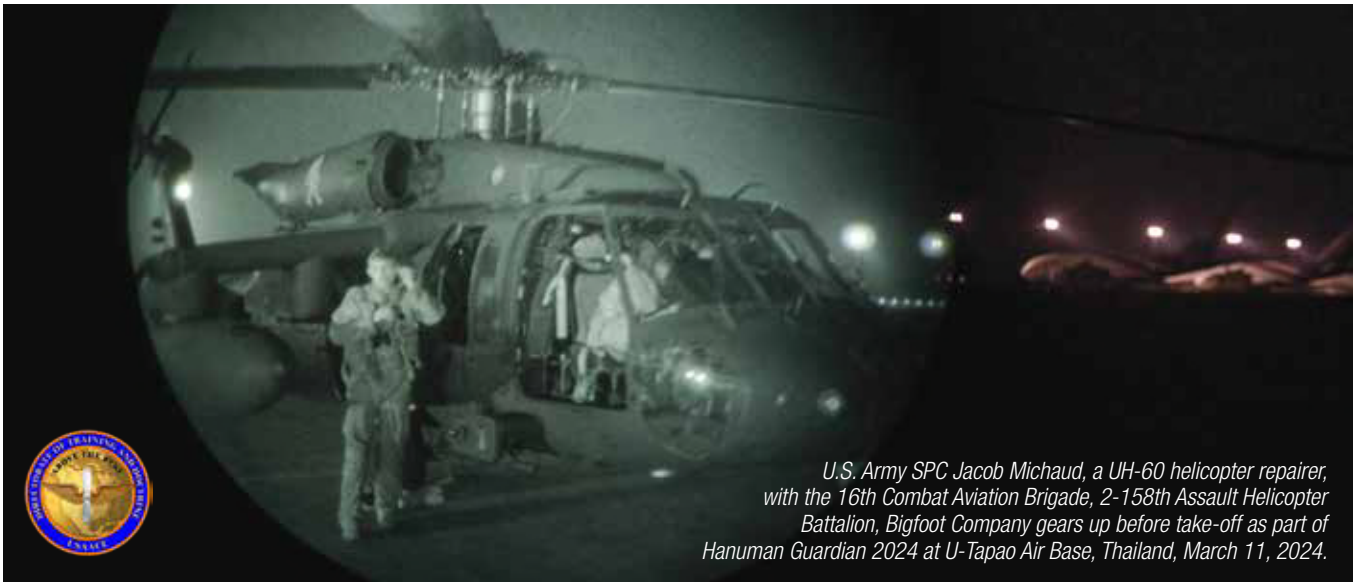
RESCUE - DEPLOYMENT - LOGISTICS

For Your Most Critical Missions, Trust HELIBASKET™

Helibasket, LLC • 450 N Highway 11, West Union, SC 29696 • 864-638-6196 • www.heli-basket.com • CAGE 6K5F7

Training Army Aviation to Fight and Win

By COL Sean Keefe and LTC Julie MacKnyght



U.S. Army SPC Jacob Michaud, a UH-60 helicopter repairer, with the 16th Combat Aviation Brigade, 2-158th Assault Helicopter Battalion, Bigfoot Company gears up before take-off as part of Hanuman Guardian 2024 at U-Tapao Air Base, Thailand, March 11, 2024.

U.S. ARMY PHOTO BY SPC ADDISON SHINN

The U.S. Army Aviation Center of Excellence (USAACE) continues to pursue significant transformation to improve Army Aviation's ability to fight for and with the Warfighter on the ground. As Army Aviation has shifted from counterinsurgency (COIN) operations to large-scale combat, USAACE recognizes the need to continuously evolve our equipment, doctrine, training, and leader development. The Directorate of Training and Doctrine (DOTD) leads USAACE's efforts in the latter three, and this article will focus specifically on enhancing training and safety, training for large-scale combat, and renovating institutional training to keep pace with transformation.

Enhance Training and Safety Now

DOTD is leading several initiatives to enhance training and reduce risk. The primary two are updating the Risk-Common Operating Picture (R-COP) to ensure risk is briefed and approved at the appropriate command levels and developing a strategy to mitigate spatial disorientation (SD).

A key finding from FY23's HQDA-directed Aviation Stand Down was that the R-COP did not account for cumulative risk. Through comprehensive dialogue with the field and across USAACE's directorates, DOTD improved the R-COP by establishing thresholds for compounding risks in each section. If these thresholds are exceeded, the total risk value reverts to its original unmitigated level. Furthermore, the experience section now includes discussions on airframe model hours versus total hours. The updated R-COP instructions foster improved communication among key stakeholders during the mission approval process and emphasize the crawl-walk-run methodology outlined in FM 7-0. Lastly, the R-COP now mandates a check for conditions conducive to SD and a discussion on mitigation techniques.

SD remains a challenge for Army Aviation, prompting DOTD to develop a comprehensive training strategy. This strategy entails enhancing SD training in the Initial Entry Rotary Wing course (improved academics and integrating purpose-built SD simulators), introducing a dedicated SD aircrew training manual (ATM) task, and refining unit continuation training. A standardized "Respond to Unusual Attitude" task in all ATMs emphasizes a consistent approach to prevent SD: Communicate – Anticipate – Avoid – Counteract. The task is structured similarly to the Emergency Response Method. Lastly, DOTD is creating a Training Support Package for required annual training, featuring improved academics, the new ATM task, and a supplement guide to train and evaluate the task.

Train for Large-Scale Combat

DOTD's major initiatives aimed at facilitating large-scale combat training encompass revising the Army Aviation Training Strategy (AATS), improving multi-aircraft training, and revising Aviation Mission Survivability (AMS) training.

The AATS has been undergoing revision for the past year. It will maintain its Mission Essential Task-based approach as the Army prepares to transition from the Combined Arms Training Strategy (CATS) to the development of Army Training and Evaluation Programs (ARTEPs) and Mission Training Programs (MTPs). The AATS will continue to emphasize a progressive training model, fostering proficiency from individual to battalion levels. Moreover, it will remain a valuable tool for commanders at all echelons for unit training management. What's new? The updated strategy will integrate the requirements of ReARMM, focusing on large-scale combat and aligning with current Army and Aviation doctrine. It will feature a simplified flying hour model (a requirements document based on quantifiable and objective analysis) that

aligns with unit training needs. Additionally, the updated strategy will include a codified aircrew readiness model to inform training readiness reporting. Aircrew readiness ratings will ensure honest dialogue between commanders about aircrew proficiency and true mission capacity.

To recover proficiency - lost after decades of COIN - in multi-aircraft maneuver, DOTD expanded from the single task 3010, renamed "Basic Maneuvering Flight," to include a second, graduate level task 3011 "Advanced Maneuvering Flight."Together, these tasks establish standards for the crawl-walk-run approach across all aircraft platforms. Additionally, this month DOTD will initiate a revision of TC 3-04.4, Fundamentals of Flight, to address combat maneuvering considerations, among other key updates.

Over the past year, DOTD has considerably enhanced survivability training through a major AMS maneuver revision effort coupled with additional live-flight combat-effectiveness testing. Now consolidated into a single, streamlined maneuver, task 2910 is easy to teach, train, and assess. DOTD has developed the CUI Radar Frequency training guide, covering individual and trainer academics, the crawl-walk-run methodology, and 3D instructional videos. Furthermore, the task and training package underwent rigorous testing and validation by DES.

Transforming Institutional Training

Army Aviation UAS institutional training is advancing to keep pace with Army transformation. The development of Future Tactical UAS (FTUAS) capabilities and the widespread use of small UAS on the battlefield demand specialized expertise in training, integrating, and employing UAS, as well as managing airspace. DOTD is transforming institutional training for 15W Soldiers/NCOs and 150U Warrant Officers, shaping them into master integrators, trainers, and operators to meet these evolving UAS mission requirements.

DOTD is leading the training strategy development for the Future Long Range Assault Aircraft (FLRAA). The strategy includes developing an institutional training plan that qualifies FLRAA Aviators and maintainers and a collective training plan that builds collective training proficiency at echelon and certifies FLRAA units. DOTD is garnering lessons learned from previous Army Aviation fielding and analyzing sister service V-22 Osprey studies and institutional training.

USAACE remains committed to evolving and advancing Army Aviation to ensure its readiness and effectiveness in modern combat. DOTD supports this by continuously transforming institutional and operational training products and resources. DOTD, in conjunction with other directorates such as DES, is steadfast in showing that enhancing training and safety is not mutually exclusive with preparing for the complexities of large-scale combat. These comprehensive transformations underscore our unwavering dedication to those we support. Army Aviation is committed to the Soldiers on the ground – it's our sacred trust.

The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Department of the Army, DoD, or U.S. Government.

COL Sean Keefe is the director and LTC Julie MacKnyght is the chief of the Doctrine and Tactics Division (DTAC) of the U.S. Army Aviation Center of Excellence Directorate of Training and Doctrine (DOTD) at Ft. Novosel, AL.

Reinvigorating Unit Training Management

By COL Joseph A. McCarthy

U.S. ARMY GRAPHIC

The best units observed by DES during assessments excel due to conducting tough, realistic, performance-oriented, and standards-based training which emphasized mastering the fundamentals. Leaders actively engage in leading, assessing, and training their units, with training plans aligned with Mission Essential Tasks List (METL) and real-world mission requirements. Leaders implement the art and science of Unit Training Management (UTM) to prioritize "training to train," ensuring only trained leaders drive and supervise Soldier training.

However, many officers and NCOs show a decline in UTM proficiency, attributed to two decades of Iraq and Afghanistan deployments. The ARFORGEN model and 1:1 Boot on Ground (BOG)/Dwell ratio led to higher headquarters-driven training, often supported by external teams or contractors. This has left gaps in UTM expertise among current leaders in the Total Aviation Force.

Fighting and winning in large-scale combat demands commanders to be firmly at the center of the UTM process. The commander employs the science of UTM through doctrine and the Army's operations process for training codified in FM 7-0 and the Aviation Training Strategy, and the art through engaged leadership, developing challenging training scenarios, and resourcing at echelon.

Reinvigorating UTM among junior leaders is crucial, emphasizing proper planning, execution, and assessment rooted in mastering the basics through quality home station training. Creating a comprehensive Unit Training Plan (UTP) using doctrinal resources may seem daunting. Brigade and battalion commanders must coach junior leaders to reinforce Professional Military Education. DES offers UTM mentorship during assessments and by request via MS Teams.

The excerpt below provides an example of the art of UTM for company and troop command teams to visualize an aviation UTP from (METL) and mission requirements to training execution and After Action Reviews (AAR).

The Fundamentals

Understanding unit METL and mission requirements are fundamental to UTM. Commanders derive top-down training guidance from higher headquarters, then formulate UTPs using MDMP or Troop Leading Procedures. Training planning aligns collective tasks with METL and mission specifics, integrating guidance from two levels up.

Commanders must identify the collective tasks on which to train, identify, and sequence training events, identify resources required, and provide the guidance necessary to achieve mission readiness. Analysis requires the commander to review their METL and specific mission requirements while incorporating training guidance two levels up when developing their UTP. Collective training builds upon individual skills and introduces additional skills which support the unit's mission.

Individual training forms the core of Army Aviation readiness. Commanders and their subordinate leaders must ensure every .1 hour of flight is focused on achieving the task, conditions, and standards outlined in their respective Aircrew Training Manual and Training Support Packages. Additionally, every 1 minute of training outside the cockpit must be focused on developing or sustaining combat readiness.

UTPs are briefed during Semi-Annual or Quarterly Training Briefs, forming a contract between units and higher headquarters. Mission command

empowers subordinates to achieve training objectives, requiring thorough preparation through company/troop training meetings participated by all key leaders in the organization.

Every flight operation in Army Aviation is a live-fire event and incurs inherent risk. Commanders relentlessly drive the risk management process to not eliminate risk, but rather eliminate unnecessary risk. Deliberately applying risk management as intended will enable aircrews to operationalize all missions, tasks, and activities while identifying hazards, ultimately yielding more favorable outcomes. AR 95-1, Flight Regulations, prescribes the mission approval process in three steps: initial mission approval, mission planning and briefing, and final mission approval.

Mission Approval Process

Initial mission approval is the first step in which the mission approval authority approves the mission in accordance with the commander's policies and procedures by considering some of the following factors: alignment with the unit's mission essential task list, aircraft required and availability, availability of required special mission equipment, trained aircrew availability, tactical and threat considerations, and other factors identified by the Initial Mission Approval Authority (IMAA). During this step, engaged leadership is critical with company/troop commanders, standardization pilots, maintenance officers, and aviation safety officers all in attendance.

Once aviation training is approved by the IMAA, the next step is ***mission planning and review*** by the mission briefing officer (MBO). This step involves detailed planning, a risk assessment, risk mitigation by the aircrew, and a review by the MBO. Aviators conduct detailed mission planning and develop the minimum mission products outlined in the Aviation Branch SOP and the unit specific supplement, identify potential risk and initial risk mitigation techniques by completing the RCOP, and brief the MBO.

MBOs are responsible for validating pre-mission planning IAW appropriate regulations and SOPs and ensuring that key mission elements are evaluated and briefed to the mission Pilot in command (PC) or Air Mission Commander (AMC). The MBO must ensure key areas are evaluated in the mission planning sequence by utilizing the MBO checklist to See yourself, see the mission and the environment, see the weather, and see the threat.

The last step of the mission approval process is the ***final mission approval***. Based on the resulting mitigated risk, the appropriate final approval authority reviews the mission validity, planning, and risk mitigation, and ultimately authorizes the flight/operation in accordance with the commander's policy. The final approval authority indicates authorization for flight by initialing the DA Form 5484 with the briefing officer and PC or AMC. If a crewmember changes or a mission parameter changes which increases the resultant risk, the mission PC or AMC will be re-briefed and reapproved as required.

Lastly, aircrews execute mission/METL focused training and conduct detailed AARs. AARs serve as a feedback mechanism to help commanders make informed assessments. Assessments help commanders determine if the training plan requires modification, if retraining is necessary, and identify unanticipated risk to be mitigated during future training events.

The art and science of Unit Training Management is essential to producing flexible UTPs to build and maintain training readiness. New missions will emerge, personnel will PCS in and out of units, and new emergencies will throw the plan off course. However, if done correctly, the UTM provides flexibility and the ability to adjust over the course of the UTP to meet new demands.

Over the past year, DES has refocused its efforts to provide more mentorship and training opportunities that can help units with UTM or other Aviation-related training areas. Support can be requested through one of our formal targeted training opportunity windows (see HQDA EXORD 034-33 for request process), where we work to improve standardization programs, support collective training events, and build readiness generators like Unit Trainer/Evaluator and Maintenance Examiners. Additionally, other training and mentorship opportunities and support can be requested through the DES Share Point site at *USAACE Directorate of Evaluation and Standardization - Home (sharepoint-mil.us)*.

COL Joseph A. McCarthy is the director of the Directorate of Evaluation and Standardization at the United States Army Aviation Center of Excellence, Fort Novosel, AL.

Leg Day: Battle Staff Training - You Reap What You Sow

By LTC Chaz Allen

U.S. ARMY NTC PHOTO

A planning cell at the National Training Center.

Attack aviation companies / troops, and assault formations consistently demonstrate that they can safely fly their aircraft and accomplish assigned missions at the National Training Center (NTC) with lethality and survivability. In contrast, based on Eagle Team Observer, Controller/Trainer observations, synchronizing the warfighting functions (WfF) to reduce risk to force and risk to mission challenges most units, particularly in a time constrained environment.

During rotational in-briefs, many units describe their train up with well-earned pride. Command post exercises (CPX), field training exercises (FTX), live fire exercises (LFX), gunneries, and validation exercises served as milestones in a gated training strategy. Aircrews performed multiple repetitions of aviation's core competencies including information collection with MQ-1s, providing reaction time and maneuver space as well as attacking to destroy enemy with AH-64s, air assaults (AASLT) with UH-60s, air movements such as CH-47 M777 gun raids, aero-medical evacuation (MEDEVAC) with HH-60s, and enabled command and control over complex terrain with UH-60s. To apply a fitness analogy, such training is the bench press equivalent in a unit training plan. It is fun, what everyone asks about, and gives you aesthetic appeal.

Still, aircrew proficiency—though essential—is merely a portion of what it takes to win in Multi-Domain Operations (MDO) and Large-Scale Combat Operations (LSCO). The squat, not the bench press, is the king of all exercises, and training the staff is like training legs. Effective battle staff training connected to multi-echelon training forges an organization that can synchronize WfF, secure enablers, assess in execution, and succeed in multi-domain operations. The only trouble is no one likes leg days.

It is not hard to train the staff. We have ample opportunities, even in garrison; we just need to exploit them.

COL Capehart, the commander of Operations Group (COG) warned, "Commanders stress the importance of lethality. Trust me, you will be lethal. The only question is how many of your own soldiers will die as a result of poor planning and inadequate staff actions." The Battle Staff needs training, but we get what we ask for.

Who Trains the Staff?

The Quarterly Training Brief (QTB) is the unit's opportunity to present their progress as well as their plan going forward to execute the commander's Annual Training Guidance (ATG). It is an opportunity to allocate time on long range calendars and request support from higher headquarters. Companies usually brief in the following order, HHC, A, B, C, D, E, F. Flight companies discuss AASLT, attack, recon, lift, and aerial C2 training. D Co. addresses its ability to conduct field maintenance. Forward support companies brief Forward Arming and Refueling Point (FARP) capability. But what does HHC present? Most of their time is spent on M17, M4, ACFT, night drivers' qualification and, if we are lucky, how many times they will establish systems (tents, OE-254 antennas, the STT, AFATADS, etc.). There is something missing.

Who addresses how the battalion will transform the garrison staff into a battle staff capable of executing the operations process that synchronizes and mobilizes all WfFs? Who will address how the operations process increases the effectiveness of the function of the command post that enables the commander to Understand, Visualize, Synchronize, Direct, Lead, and Assess? The battalion commander is ultimately

responsible for training the staff but in this case, the XO/S3 are the principal trainers. When do they account for their team's proficiency?

The S2 may be great at physical security inspections, but can they build an enemy situation template (SITEMP) and allow the commander to start with the red pen during planning? The S3 may have a great task tracker for gate guard and staff duty, but can they wargame and build a SYNCHMAT? The S4 may manage the budget well, but can they manage (Logistics Status) LOGSTAS and integrate sustainment into COA development? The S6 give you access to your NIPR e-mail account, but can the S6 build and employ a robust and resilient PACE plan? Proficiency at garrison tasks is no guarantee of WfF proficiency in combat. Still, battalions struggle at NTC not because they lack talent or capable fighters. They just need more reps.

Exploit Every Opportunity

Training WfFs does not always require elaborate FTXs. Austere conditions stress systems, but Battalion Field Grades can train the Military Decision Making Process (MDMP) in a tent, an abandoned building, a hangar, or their very own headquarters. We can execute the entirety of the operations process in garrison. We forfeit opportunities to operationalize small missions because it is easier to plan small missions in a vacuum without MDMP.

Instead of assigning a single junior officer to plan the next small arms range, convene the staff, gather the tools, and do MDMP to create the plan. Build fighting products. Issue an Operations Order (OPORD). Conduct a confirmation brief, back brief, and rehearsals. Do a Future Operations (FUOPS) to Current Operations (CUOPS) handover and assess the operation through execution.

Exploit every opportunity, using simple missions as vehicles, to train the staff. There is a persistent illusion that MDMP requires days, weeks even, of drawn-out working groups and briefings. Missions in Large Scale Combat Operations (LSCO) rarely afford such luxury. A trained staff can flow through the steps of MDMP in a few hours, with a solid wargame, culminating in the production of critical fighting products that enable the commander to assess in execution. Posted throughout NTC is a slide which depicts decision points, fighting products and highlights that assessment in execution is key to successfully combining arms in LSCO.

Creating a Synchronization Matrix (SYNCMAT), Execution Checklist (EXCHECK), and Decision Support Matrix (DSM) from scratch takes some concerted effort up front, but once you have a worthy template it requires less bandwidth to update it for follow-on missions. Units come to NTC with a quantifiable number of AASLTs, FTXs, LFXs, and other training metrics. They brief such metrics in the QTB. How many times, in the last quarter, has the unit conducted MDMP? How many times have they generated fighting products? How many times have they conducted a Future Operations (FUOPS) to Current Operations (CUOPS) transition? How many times have they led a Combined Arms Rehearsal or a Sustainment Rehearsal?

In Conclusion

During QTBs, give the Field Grades the opportunity to brief their plan to increase the WfF proficiency of their staff and hold them to account. Allow the Field Grade leaders to highlight their training progression from schools (such as the Air Cavalry Leaders Course or the S2s Foundry Opportunities), individual, section, and collective level training events. Overcome the perennial problem of garrison staff metrics being assessed more frequently than battle staff performance and see every task that appears in a Division Weekly Tasking Order as an opportunity for MDMP.

Army Aviation and its stalwart aircrews continue to demonstrate proficiency at its core competencies at NTC. Our bench press is strong. The battle staff deserves more training at home station so they can better synchronize WfF particularly in a time compressed environment, secure enablers, assess in execution, and succeed in multi-domain operations. We need more leg days.

The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of Department of the Army, DoD, or U.S. Government.

LTC Chaz Allen is the S-3 Aviation trainer at the National Training Center at Fort Irwin, CA.

Littoral Airspace Management –

The Argument to Re-Focus Army Airspace Management to Battalion Echelon

By COL Beau Rollie

Notional DOCTRINALLY MANDATED airspace solution for BN airspace (500 ft AGL and below) and BDE airspace to CL Example Keypads for JMRC Tactical Airspace

ALL JMRC GRAPHICS

As the number of battlefield airspace users increase, the U.S. Army must revise its structures to push airspace control/integration capabilities to lower echelons. Current joint air ground integration cells (JAGIC) and brigade aviation elements (BAE) are proving insufficient to manage assigned airspace when the number of aircraft/drones increase significantly. Evidenced by the war in Ukraine, modern conflict shows a marked increase in the volume of airspace users, including small unmanned aerial systems (SUAS/Type 1 drones) and launched effects (LE/Kamikaze drones) who share the third dimension with already plentiful helicopters, fixed wing aircraft, and artillery. The uptick in use of drones and LEs is challenging previous notions of air superiority and is overwhelming attempts to integrate airspace using current airspace control personnel and entities. The U.S. Army must adjust how we fight in the air domain to out-compete adversaries. Specifically, we need to change assignment of airspace responsibilities to give lower echelons, down to the "maneuver" battalion level, airspace control authorities because battalions will become the primary airspace user on future battlefields.

Recent exercises at the Joint Multinational Readiness Center (JMRC) show that BAEs have neither the systems nor communications required to handle the increased air traffic. The U.S. Army should create ***battalion*** aviation elements, manned by 15-series Military Occupation Specialty Soldiers who come armed with the proper air command and control systems and radios to manage beyond line-of-sight / over the horizon (OTH) communications for air operations in the "air littoral" to address this shortfall.

The assessments regarding the limits of Army airspace management capabilities referenced in previous paragraphs are informed by JMRC Observer Coach/Trainers (OC/T) participation in Ukrainian battalion staff training over a dozen iterations from 2023-2024. Through direct interactions with Ukrainian leaders, JMRC OC/Ts learned some unique lessons about air operations in the Ukrainian War. Specifically, the conflict has stalemated into "no-man's land" conditions mimicking World War I. The major difference between WWI and Ukraine's "no-man's land" is that drones are the equalizer not artillery. Drones are a low-cost option providing protagonists a venue to contest air superiority while dominating the land domain. The proliferation of drones/SUAS is a primary factor con-

tributing to the ground stalemate and challenges to traditional air superiority. If one examines battles near Kharkiv in May 2024, the skies over and near the city are so congested with drones it is almost impossible to move on the ground unobserved and the airspace is too dangerous for manned aircraft to operate. Neither Ukrainian or Russian rotary or fixed wing aircraft venture near the frontlines, preferring drones to spot targets and hurl glide bombs (cheap LE), artillery, or kamikaze drones to destroy anything the spotter drones see. To integrate this complex airspace and the numerous drones that fight there, Ukrainian battalion echelons created a drone staff section, and the U.S. Army should seek to emulate this staff section at battalion echelons and test the concept in training.

JMRC exercises are attempting to replicate the integration of drones in training like the war in Ukraine and after coaching/testing different methods, OC/Ts discovered that the complexities posed by managing airspace with extensive use of SUAS/LEs, manned helicopters, and artillery overtaxes current airspace management system and capabilities. The remedies to address this problem include: 1) Army should apply more airspace integrators at maneuver battalion echelons by creating littoral air ground integration cells (LAGIC); 2) Army should equip LAGICs with the Tactical Air Integration System (TAIS) as airspace common operating picture and multiband radio sets for OTH communications and tracking of aircraft; 3) Army must dictate a doctrinal airspace management solution for integration/deconfliction of manned and unmanned aircraft. A recommended solution is keypads for simplicity. Also, the Army should reimagine application of the coordination level (CL) to acknowledge that drones are the primary users of littoral airspace below the CL. CL and below should belong to battalions with brigade/division controlling from CL to coordinating altitude (CA).

Two potential Army structural solutions to achieve the recommendations above are: 1) change infantry/Stryker/armor battalion Modified Table of Organization and Equipment to include a LAGIC cell or, 2) create an MTOE company comprised of LAGICs under the combat aviation brigade, similar to the way the Air Force has Tactical Air Control Parties under the Air support Operations Squadron, that are farmed out to Army maneuver battalions. Under this construct, the CAB trains and equips LAGICs and sends out to maneuver battalions as necessary.

With the number of drones/SUAS we operate now and expect to operate in the future at battalion and company echelons, a battalion airspace integrator LAGIC section is crucial to airspace integration and the success of future operations. Battalions must own their piece of the airspace so the Army can dominate the air littoral and land domains. A LAGIC, with the trained personnel, the right systems/processes, and viable doctrine will be key to this effort, and if integrated upstream with BAE and JAGIC elements, our future air dominance will be ensured.

COL Beau Rollie currently serves as the Senior Aviation Trainer for Falcon Team of the JMRC in Hohenfels, Germany.

Joint Readiness Training Center Update

By LTC Trent Miller

ARMY PHOTO BY JRTC OPS GROUP

TF Brawler, 4th Battalion, 3rd Aviation Regiment, conducts a commander's update brief, Arnland, JRTC Tactical Training Area, May 10, 2024.

Two weeks to plan in a predictable battle rhythm, landing in a familiar area, no division airspace user plan, hard-stand refuel with no concern for availability, no surface-to-surface fires, limited small unmanned aerial systems operating at the same time and place, rapid access to the classes of supply and all tools, no concerns about equipment availability, static enemy forces, accurate intel, and the division commander is not calling your battalion if a flight is 30 minutes late because you had to jump to a spare aircraft and missed your mission timeline.

This sounds like a typical air ground training event at home station for most aviation battalions. Our air ground operations (AGO) are largely company-focused, with the battalion and installation providing sustainment and training locations in a predictable environment. There is often not enough focus by leaders in the battalion to ensure missions can be executed as planned.

Aviation battalions often struggle to manage the complexities of Large Scale Combat Operation (LSCO) training during their rotation at the Joint Readiness Training Center (JRTC). We frequently attribute this to a carryover from home station procedures, faulty time estimates, and inaccurate assumptions about the roles and responsibilities of specific leaders and staff members.

To combat this, we recommend that units carefully consider how they conduct AGO sustainment, planning, and time management while in garrison. This can be viewed from two primary perspectives: 1) commanders do not impose enough accountability to ensure mission success with our air mission commanders, non-commissioned officers, and future operations and current operations personnel to understand their roles and responsibilities. 2) How we conduct AGO is too company-centric and isolated to ensure adequate understanding of the plan and likely branch plans to support battalion operations.

Roles and Responsibilities

Air Mission Commanders (AMC) need to assume a revised role in the operations process in LSCO. As one task force commander explained it, "Commanders provide detailed orders and I trust AMCs to accomplish them, as directed, through rigorous pre-mission planning, verification, and rehearsals that instill understanding across the flight and current operations." The complexity of LSCO AGO, coupled with the detailed synchronization necessary to mitigate risk to force while ensuring successful operations is significantly different from the previous war's AGO.

We often see command sergeants major conducting first sergeant duties, first sergeants conducting platoon sergeant duties, and platoon

sergeants (PSG) doing things squad leaders should do. Our observation is that most mid-grade NCOs simply don't know what their responsibility is and what is expected from them in a tactical environment. This results in a trickle-up effect for the next leader to assume their duties. We feel this can be resolved through a detailed Tactical Standard Operating Procedure (TACSOP) that is part of the Non-Commissioned Officer (NCO) professional development program at the battalion level. The Command Sergeant Major validates that PSGs know and understand their roles and responsibilities from the TACSOP as well as other battalion standards for tactical operations. First Sergeants would validate their squad and team leaders. Without direct, senior NCO oversight and validation, we will continue to see unaware NCOs struggle with tactical operations.

With the division unit of action in full effect, companies and battalions no longer have the latitude to be late, off plan, or misinformed. Oftentimes, the difference between success and failure at JRTC is 30 minutes. Being in a battle position 30 minutes late means the enemy armor column has passed through the engagement area and is likely in close contact with friendly forces. Being 30 minutes late means the protection and fires assets aligned for the air assault are no longer synchronized and able to provide maximum coverage that can increase success and survivability, which allows the ground force to be rapidly emplaced to close with and destroy the enemy. Being 30 minutes late means that multiple causalities succumb to their wounds and are not able to return to duty in a timely fashion to support follow-on operations. The primary comment from all commanders following a rotation is that they wish they had been more direct and provided detailed control to ensure synchronization of effort, reduce risk, and ensure mission success during every aspect of the rotation.

Roles and responsibilities that work in garrison typically do not work in LSCO. Commanders and their senior leaders may want to ask themselves the following: Do all current operations and future operations personnel have defined roles and responsibilities and does their supervisor understand them? Are we using pre-scripted two-minute drills on a regular basis to quickly update the commander on the current situation and pending decisions? Have we developed a detailed N-hour sequence for planners and flight crews that covers receipt of the mission through post-mission recovery and after-action review which will set conditions for the next mission? Is there a battalion process to develop the ATP 3-04.1 military decision making process (MDMP) and air assault planning process (AAPP) outputs that are usable at the company and staff level to conduct the operation? Battalions that don't develop MDMP and AAPP outputs to break the stove pipes of company-focused operations struggle to gain synchronization for the duration of the rotation and inadvertently increase risk in a variety of areas. These specific outputs not only synchronize operations, but they develop the understanding needed across the battalion to ensure mission success and reduce risk.

Before training at a combat training center, units should closely assess how their daily operations will impact their ability to meet the demands of LSCO. Senior leaders who lead the training and certification of new leaders on clearly defined roles and responsibilities, and then hold them accountable to meet those responsibilities can increase effectiveness and reduce unit risk. Developing orders, conducting rehearsals, conducting condition checks, and after-action reviews at the battalion level on a regular basis can increase synchronization and ensure continuous improvement to better support the next operation.

The views expressed in this article are those of the authors and do not necessarily reflect the official policy or position of Department of the Army, DoD, or U.S. Government.

LTC Trent Miller is the senior aviation trainer in the Operations Group at the Joint Readiness Training Center, Ft. Johnson, LA.

60M Operational Flight Trainer

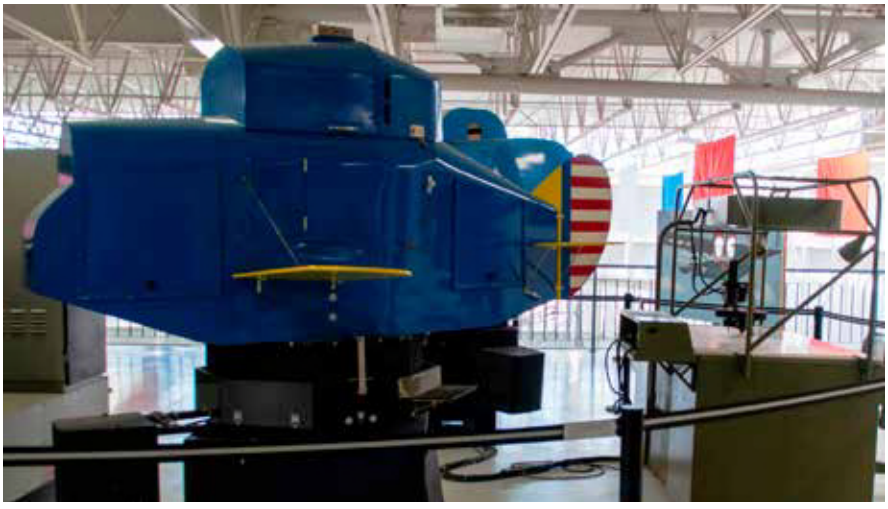
U.S. ARMY PHOTO, WARRIOR HALL

Army Aviation: Celebrating One Hundred Years of Simulation Innovation

By Tom Equels and Kevin Hottell

Army Aviation Simulation has come a long way over the last one hundred years. *SFTS: the Shape of Things to Come* (Army Aviation Digest, Equels, April 1976) gives us a detailed historical perspective of the first fifty years of Army Aviation simulation programs, from the development of the very first instrument simulator in the mid-1920s to the high-quality, computer-generated helicopter instrument simulator of the 1970s.

The Army Air Corps' first instrument simulator was the Link Trainer, affectionately called 'The Blue Canoe'. (Army Aviation Digest, Ray, *The Missing Link, January, 1961)* The Blue Canoe was designed by one of America's great inventive geniuses, Ed Link, in response to a serious need for innovation in instrument flight training revealed by numerous weather-related losses in the U.S. Postal Air Service and the Army Air Corps. Link's instrument simulator was commercialized in 1929 and put into service by the Army Air Corps in the early 1930s. The Blue Canoe was a useful, but — being limited by 1920s technology — also a very rudimentary simulation device. It failed in any respect to suspend disbelief and provide the feeling of flying. However, it did give pilots time to get used to the basics of operating both flight and navigation instruments.



U.S. ARMY AVIATION MUSEUM PHOTO

Link Trainer Blue Canoe

The same reason for the development of Link's simulator instrument training device in the mid-1920s – unacceptable levels of weather-related air crashes – also motivated a change in the Army's helicopter instrument training program in the 1970s, when weather-related crashes spiked with the corresponding dramatic upswing in helicopter operations due to Vietnam and the implementation of an Army-wide air mobility strategy. Up until 1971, Aviation Center flight school helicopter graduates received only a very basic introduction to instrument flight called a 'Tactical Ticket,' which was designed solely to address tactical emergencies such as inadvertent Instrument Flight Rules conditions. However, starting in 1971, flight school graduates received extensive instrument instruction and an Army 'Standard Ticket,' as well as an FAA-issued helicopter instrument rating.

This demand for high-quality instrument training led to the first truly significant technological breakthrough in Army Aviation helicopter instrument simulation since the Blue Canoe. Remarkably, Blue Canoe simulators designed in the 1920s were still a part of Army instrument flight training fifty years later, in the early 1970s. It was then that the Army Aviation Center developed the first computer-driven, high-reality, Singer-Link instrument simulator with the UH1FS.

Utilizing a digital and analog hybrid computer system and 1500-Psi hydraulic actuators on five coordinated axes of motion, the UH1FS set the world standard for helicopter instrument simulation. It replicated the cockpit of the UH-1H, mirroring the experience of actual instrument flight in motion, sound, vibration, control, flight feel and instrument response. By 1974, there were 24 UH1FS instrument cockpits fully integrated into the Aviation Center's instrument training program. Extensive testing demonstrated with statistical validity that substituting UH1FS simulator time for in-aircraft training had no adverse impact on instrument proficiency as measured by final instrument check-ride scores. The savings in training costs, flight safety and environmental impact were enormous. It was an easy decision: Simulation would become an integral part of Army Aviation's training programs, both at the Aviation Center and in the field. By 1976, UH1FS instrument simulators, along with qualified instructor pilots, were being exported from the Aviation Center to units in the field.

The step from UH1FS helicopter instrument simulation with a blank screen to visual helicopter training systems was not far behind. The first developmental Chinook and Cobra visual simulators were up and running for evaluation purposes at the Aviation Center in 1976, using marginally effective and make-shift plywood, modelling clay and paint terrain boards for the visual effects. These mid-1970s wood-and-clay terrain board flight simulators were just the very first step in the development of the modern high-resolution, computer-driven digital visual display training systems that can suspend disbelief, create optimal training environments, and give students the 'feel' of flying.

As with all leaps in technology, the simulation advances of the 1970s had clear cultural challenges. Many Army Aviators – perhaps due to the legacy of the crude 'Blue Canoe' – resisted the concept that simulator training was 'real' flight training. But, over time the advances in simulation technology have won over even the most hard-core detractors. The tremendous financial savings, the remarkable training flexibility provided to flight instructors, the flight safety advantages and the ever-improving realistic flight environments have helped move simulation to the forefront of the Army's Aviation training programs. The first 24 instrument trainers at the Army Aviation Center in the mid-1970s have given way to more than 100 simulator training cockpits at the Aviation Center, and more than 300 training cockpits with field units at approximately 50 locations. The Army is currently booking 300,000 hours of high-quality simulated training per year and achieving tremendous savings estimated at almost a billion dollars per year over the cost of live flight. Further, 300,000 hours of simulator flight time versus aircraft flight time results in a significant safety advantage, saving aircraft and lives over the long term.

Army simulation programs today are state of the art and Army Aviation is developing amazing new technologies for the future. Since the early 2000s, Army Aviation has fielded, modified and upgraded myriad simulators both at Ft. Novosel and in the field.

The Flight School XXI Simulation Services contract began in 2003 and fielded more than 70 simulators, including TH-67 (later replaced with UH-72A), UH-60A/L (replaced with UH-60M), CH-47D (replaced with CH-47F), and OH-58D (out of service October of 2014) simulators to support a 22% increase in simulations from the previous flight school program of instruction.

Program Executive Office – Aviation has kept pace with the provision of sustainment training simulators that are also transportable, including the UH-60M Black Hawk Aircrew Trainer (BAT), the CH-47F Transportable Flight Proficiency Simulator (TFPS), and the latest versions of the AH-64 LONGBOW Crew Trainer (LCT).

Since 2003, Aviation Branch has increased the average percentage of simulation training to live training from 18% to 39%, embracing steadily increasing numbers of simulators to offset the cost of live training, to allow the training of dangerous tasks in a safe environment, and to focus training on specific tasks without potential distractors or dangers.

As virtual-reality (VR), augmented-reality (AR) and mixed-reality (MR) technologies increase in capability, the need for large-scale visual systems and motion systems will continue to wane, and our simulations will become easier to maintain, less expensive and more transportable. Embedded training technologies that can assist instructors during their flights with students and help reinforce lessons learned during after-flight debriefings already exist and have been in use for a decade or more.

Army Aviation has come a long way since the 'Blue Canoe' was conceived and created in the 1920s. The past 50 years have seen dramatic progress in the field of training, and the coming hundred years of simulation development is unlikely to slow down even one bit. Our challenge moving forward is to determine which of the technologies best meet our training needs and how best to develop, acquire and field them. We stand on the shoulders of those visionaries who went before us. Embracing their lessons and employing cutting-edge technologies, we see a bright future for Army Aviation's simulation programs.

Thomas Equels is a former CW2 who helped field the 2B24 UH-1 simulators in the mid-1970s at then-Ft. Rucker, AL and is currently the CEO of AIM Immunotech; and Kevin Hottell is the Deputy Director of Simulation at Ft. Novosel, AL.

The Case for Intentionally Designing Our Systems to Work Together

By LTC Robert Miller

U.S. ARMY SOAR PHOTO

Two 160th SOAR (A) AH-6 Little Birds providing air support over rooftops.

In the ever-evolving landscape of DoD aviation modernization, the capacity to transform visionary concepts into reality often hinges on the strategic integration of advanced methodologies coupled with prudent financial planning. System of Systems engineering (SoS) informed by Model-Based Systems Engineering (MBSE) is a linchpin in this endeavor and an area we must invest in to enable the future minimum viable aviation platform for the next conflict. Digital Engineering coupled with the adoption of best practices and lessons learned from NASA's lengthy research on programmatic return on investment (ROI) versus programmatic cost of MBSE, will enable our modernization efforts to provide groundbreaking achievements in an era surely to be marked by fiscal constraints and operational ambiguity.

Systems Engineering (SE), the backbone of successful aerospace projects, has evolved to address the increasing complexity of our platforms. Our internal management and inclusion of broad platform-based systems engineering, and design has not. Traditional SE focuses on the integration of various subsystems to ensure they work together seamlessly to achieve the desired outcomes. However, as aerospace systems grow in complexity, the concept of Systems of Systems (SoS) takes greater priority. The interdependence and coordinated functioning of various subsystems that may have different operating principles, owners, intellectual property and objectives ultimately burdens the pilot, the commander, and the task force. Concurrently, the integration of Cyber-Physical Systems (CPS) has become crucial, blending physical components with computational elements to create more adaptive, autonomous, and efficient systems. This evolution signifies a shift from isolated system development to an interconnected, holistic approach to system integration.

NASA's analysis provides empirical evidence underscoring the return on investment (ROI) of implementing systems engineering principles in aerospace projects. Studies conducted by NASA have demonstrated that investing in comprehensive systems engineering processes, including MBSE, can lead to significant cost savings, im-

proved system reliability, and reduced risk of project overruns. The ROI manifests in various ways, from decreased development and operational costs to enhanced system performance and extended operational life. On a series of projects from the mid '60s through the early '90s a sweet spot of 10% investment of overall program cost yielded a tremendous reduction in cost overrun on NASA programs. Comparing this to our current efforts, we rely on our industry partners to invest in this area. If we are relying on one original equipment manufacturer the platform level engineering is likely to be high, as is the cost and schedule to modify the platform and the likelihood of vendor lock.

MBSE, unlike traditional systems engineering, which often relies on a plethora of documents and isolated processes, uses comprehensive models to encapsulate and communicate the intricate web of system requirements, designs, and functionalities. These models serve as the central repository of knowledge, enabling stakeholders to explore, validate, and refine system aspects cohesively throughout the project lifecycle. By employing MBSE, aerospace projects can achieve a higher level of integration and coherence, ensuring that all subsystems are aligned with the overarching system goals and performance criteria. This holistic approach not only streamlines the engineering process but also enhances the reliability, efficiency, and performance of the final aerospace product, marking a significant leap forward in the field's capability to tackle more complex and ambitious projects.

In December of 2023, the Under Secretary of Defense for Research and Engineering, The Honorable Heidi Shyu, published DoD Instruction 5000.97 on Digital Engineering. This directive replaces the 2007 Modeling and Simulation Management Directive and mandates the integration of digital engineering methodologies, technologies, and practices across the life cycle of defense acquisition programs. The instruction necessitates the incorporation of digital engineering in all new programs, allowing exceptions only by decision authority. It directs components to apply digital engineering practices in requirements, cost, business, and sustainment areas, emphasizing the transition from traditional document-based communication to digital models as the primary method for conveying system information. This shift reflects the DoD's commitment to modernizing its processes and embracing advanced technologies for improved operational effectiveness (Defense Acquisition University (DAU)) .

The application of MBSE in aerospace projects offers a comprehensive view for optimizing subsystems, ensuring that each component aligns with the overall system's objectives. This approach not only facilitates a deeper understanding of the system's functional and performance requirements but also enables the identification and resolution of potential issues at an early stage, thus mitigating risks and reducing costs. MBSE has been instrumental in defining and simulating the complex interactions between various subsystems. These simulations allow engineers to assess the viability of different design options, optimize the system configuration, and ensure that the final product meets the stringent demands of space missions. Through the lens of MBSE, aerospace projects can achieve a level of precision and efficiency that was previously unattainable, paving the way for the successful realization of even the most challenging aerospace endeavors.

The transition to MBSE presents several challenges. These complications range from the cultural shift required to embrace new methodologies to the technical hurdles of integrating MBSE tools with existing systems and the associate high cost. Adopting MBSE necessitates a significant change in how teams collaborate and make decisions, moving away from traditional document-centric approaches to a model-centric mindset. Additionally, there is the challenge of training and skill development, as personnel must be proficient in utilizing MBSE tools and interpreting model-based information. The initial investment in MBSE tools and the effort to establish comprehensive system models can be substantial but are counterbalanced by the long-term benefits of improved system integration, enhanced communication across teams, and a more efficient design process that can lead to cost savings and reduced time to market for complex aerospace projects. Addressing these barriers effectively is crucial for organizations to fully leverage the advantages of MBSE and realize its potential in enabling more innovative and complex combat rotary wing systems.

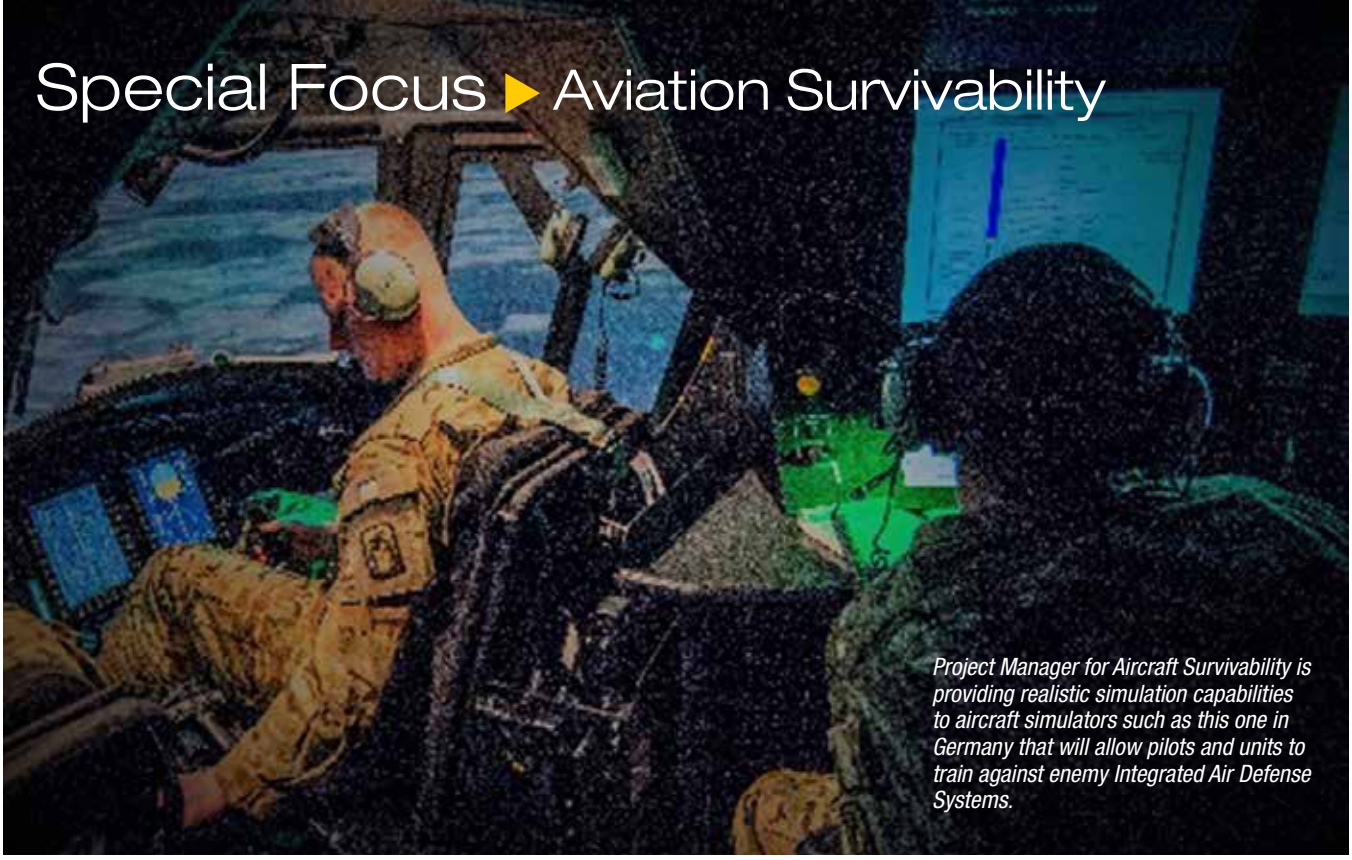
The acquisition of various subsystems in aerospace projects places a considerable workload on human operators, who must manage and oversee the integration and functioning of these components. MBSE can significantly alleviate this burden by providing clear, detailed models that represent each subsystem and its interaction within the larger system. This modeling enables operators to anticipate potential issues, understand system behavior, and make informed decisions, reducing the cognitive load and the risk of errors. Moreover, MBSE's ability to simulate different scenarios and operational conditions allows for comprehensive testing and validation before actual deployment, further easing the operator's workload. By centralizing system information and streamlining communication, MBSE enhances the operator's ability to manage complex systems efficiently.

The adaptation of robust systems of systems engineering managed through digital engineering means like MBSE, SoS, CPS, and their integration in aerospace projects reveals a transformative trajectory toward achieving what was once considered impossible. The adoption of MBSE, supported by empirical ROI analyses and NASA's research, illustrates its potential to enhance system reliability, efficiency, and performance. While the transition to MBSE presents challenges, such as cultural shifts and technical integration, its benefits in streamlining project execution and reducing cognitive loads on operators are undeniable.

The multi-tiered architecture of CPS in aviation, from plug-and-play to self-configuration, signifies the progressive autonomy and sophistication we expect in handheld commercial systems but struggle to materialize in the defense space.

The concerted application of SE, SoS, CPS, and MBSE principles is pivotal in navigating the intricacies of performing in the next fight. We must improve our abilities in this arena.

LTC Robert Miller is a pseudonym for a Systems Integration Officer in the Systems Integration and Management Office at Fort Campbell, KY.



Project Manager for Aircraft Survivability is providing realistic simulation capabilities to aircraft simulators such as this one in Germany that will allow pilots and units to train against enemy Integrated Air Defense Systems.

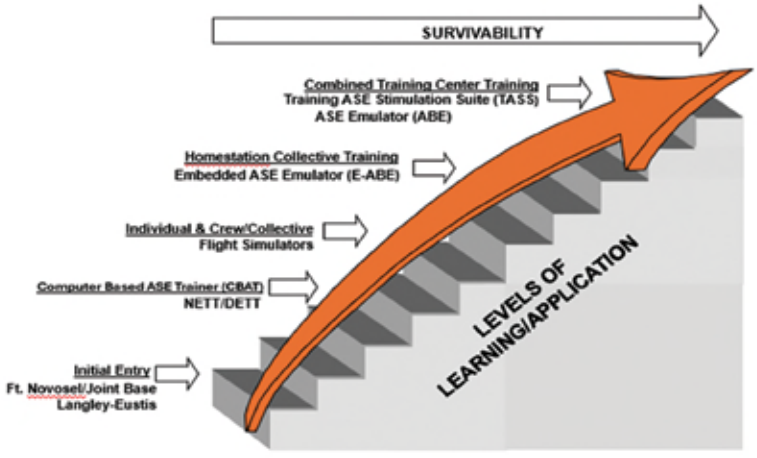
U.S. ARMY PHOTO BY GEORGIOS MOUMOULIDIS

Project Manager Aircraft Survivability Equipment Update

By Mr. Steve Hinton and Mr. Jason Matheney

The US Army has enjoyed air dominance for decades in all of its combat operations. After September 11, 2001, the Army engaged primarily in Counter Insurgency (COIN) Operations and as a result the training for Army aviators reflected that need. As the world has evolved, new threats and new concerns have presented themselves in the ever-changing geo-political landscape. As a result, US Army Aviation is shifting its prime operational and tactical focus from COIN operations against small and non-state actors to full scale combined arms operations against peer/near-peer adversaries. To be successful in this type of warfare, the US Army must update not only its Aircraft Survivability Equipment (ASE) and Tactics, Techniques, and Procedures (TTPs), but also how soldiers are trained. Due to tightening budgets and a need to modernize across the Department of Defense, the Army must meet the challenge in a relatively short period of time with less money, fewer soldiers, and less equipment.

Aircraft Survivability Training Strategy



PM/ASE GRAPHIC

The Project Management Office for Aircraft Survivability Equipment (PMO ASE) is modernizing its threat detection and countermeasures to defeat this advanced network of threats. To maximize effectiveness of these efforts, the PMO ASE Training Aids, Devices, Simulators and Simulations (TADSS) Team is continually developing products to optimize Army aircrew ASE training. PMO ASE must ensure aircrews understand the utility of evolving ASE capabilities to continue US Army supremacy over advanced anti-aircraft threats. How the Army trains aviation units is as important as the equipment that it develops and installs.

The biggest challenge for US Army aircraft operating against peer/near-peer threats is the enemy's sophisticated Integrated Air Defense Systems (IADS). These systems can detect, identify, track, and engage US Army aircraft at longer distances and higher altitudes than ever before. As a result, Army Aviation is

modernizing ASE systems and associated training capabilities to alert air crew members of IADS activity.

TASS

PMO ASE is working closely with the Combined Arms Center and Program Executive Office Simulation Training and Instrumentation (PEO STRI) to field the Training ASE Stimulation Suite (TASS) to the National Training Center (NTC), Joint Readiness Training Center (JRTC), and the Joint Multinational Readiness Center (JMRC) on properly configured AH-64Es, CH-47Fs and UH-60Ms. TASS enables rotational units to train against a peer/near-peer IADS without threat spectrum emitters or ASE systems installed.

TASS utilizes ground threat emitters to broadcast line-of-sight radio signals to the Advanced Smart Onboard Data Interface Module (ASMODIM) which hosts the PM ASE-developed ASE B-kit Emulator (ABE) software for engagement adjudication and reporting. This capability has never been available to US Army pilots and closes a significant collective training gap. It has also received very positive reviews from Combat Aviation Brigade (CAB) aircrews who have utilized it at the Combined Training Centers (CTC). TASS replaced the legacy Man Portable Air Defense System (MANPADS) ASE Trainer (MAST) which was developed by PMO ASE to support COIN operations.

The aircraft platform Project Offices and PEO STRI are fielding individual/crew and collective flight simulators at the CABs' home stations. PMO ASE is working with the aircraft platform Project Offices and the Synthetic Training Environment Cross Functional Team (STE CFT) to ensure realistic, unclassified ASE threat engagements and standardized threat systems across all simulators. In addition, PMO ASE is continuously updating and modernizing the Computer Based ASE Training (CBAT) Distance Learning modules including a new enhanced cloud-based version that will be released in late 2025.

E-ABE

PMO ASE is also in the process of developing and fielding an Embedded ASE B-Kit Emulator (E-ABE) capability which will provide an ASE Individual/Crew Home-Station training capability that fills a training gap in Army Aviation. E-ABE uses government owned, non-proprietary software embedded on an aircraft processor.

U.S. ARMY PHOTO BY DAVIDE DALLA MASSARA

U.S. Army pilots and crews will be facing a multitude of advanced air defense as part of enemy Integrated Air Defense systems such as this Man Portable Air Defense Systems (MANPAD) being used by NATO Polish Army soldiers during an exercise in in Pula, Croatia.

With E-ABE, virtual threats can be plotted anywhere on the map database of the mission planning system. As the aircraft enters the threat system detection zone, the aircrew will receive cockpit visual and aural cues on multifunction displays. If the aircraft stays within the threat system detection zone, E-ABE continually evaluates and adjudicates the aircraft and threat systems' actions. These actions include using unclassified threat performance, unclassified ASE performance data, while also taking into account the execution of TTPs, timing, deployment of available counter-measure expendables, terrain, and other factors.

E-ABE allows aircrews to train on ASE tasks during any flight, at any location without the need for ASE B-kits, threat emitters or any other additional equipment. CAB aircrews conducting flight training on threat weapon TTPs will not have to limit their training to Electronic Warfare (EW) ranges or any defined training area. PMO ASE is currently developing, testing, and evaluating the E-ABE software for properly configured UH-60M, AH-64E, and CH-47F aircraft with planned fielding to start in FY26. A potential exists for early fielding of E-ABE in FY25 to the Ft. Novosel Advanced Tactics Instructor Course (ATIC).

Prior to CAB deployment, PMO ASE collaborates with training experts at Ft. Novosel to conduct any new ASE capability or refresher training that may be required by the deploying CAB. PMO ASE also fields New or Displaced Equipment Training Teams (NETT/DETT) to units receiving ASE B-kits prior to deployment. PMO ASE Subject Matter Experts create a Training Support Package (TSP) for each ASE system the unit deploys and provides the latest information to the gaining units. PMO ASE also offers this training upon request by individual units.

As evident in the current Ukraine and Russian conflict, IADS systems have created aviation chaos. Neither country has been able to obtain air superiority. Both countries have lost hundreds of fixed wing and rotary wing aircraft because of enemy IADS. The US Army is learning the lessons of this war and is equipping our aircraft with the most advanced ASE, new TTPs and TADSS to ensure that our CABs can fight, win, and survive in combat against peer/near-peer adversaries.

Mr. Steve Hinton is the Assistant Product Director Training Aids, Devices, Simulators, and Simulations (TADSS) for Common Systems Integrations; and Mr. Jason Matheney the Product Director for Common Systems Integration Office of the Project Manager for Aircraft Survivability Equipment located in Huntsville, AL, under the Program Executive Office Intelligence, Electronic Warfare & Sensors.

Product Manager Air Warrior 2024:

Update to the Field

By Dr. Carlos Correia, Mr. Chuck Myer, and Mr. George Robertson

U.S. ARMY PHOTOS BY MAJ. ANDREW M. MANGSENG

Left: The 101st Airborne Division G6, LTC Cato, sends chat messages from the ATAK to the Eagle Joint Operations Center (E-JOC) prior to initial departure on a Long Range Air Assault.

Right: 101st Combat Aviation Brigade aviator with SMEs from PdM Air Warrior and PdM Helicopter and Multi Mission Radio (HAMMR) conduct final conditions checks with air crews on the TSM and ADK equipment usage.

Product Manager Air Warrior (PdM AW), a subordinate organization to Project Manager Soldier Survivability operating out of Huntsville, Alabama, equips the Army's Aviation Enterprise with aircrew equipment, helmets and displays, and aircrew mobile handheld devices. Alongside several other teams within Program Executive Offices of Soldier, Aviation and Command, Control and Communications-Tactical (C3T), PdM AW strives to enhance safety, survivability, and situational awareness of Soldiers. For PdM AW, FY24 is dedicated to producing and fielding several capabilities specifically, introducing the Nett Warrior-Aviation (NW-A) Tablet into the cockpit to enable the shift of the network endpoint from vehicles and Command and Control (C2) nodes, directly to the Soldier.

Nett Warrior-Aviation Tablet

The NW-A tablet is a modified commercial off the shelf tablet tailored for use in Army cockpits as the planned replacement of the current Electronic Flight Bag (EFB). NW-A will also provide air crews with a tactical mission planning and execution capability, aligned with currently issued ground forces end user device. The NW-A tablet uses a converged software baseline know as Android Tactical Assault Kit (ATAK) currently used by ground formations throughout the Army. NW-A builds on this software architecture by adding functionality specifically needed by aircrews. While the NW-A tablet maintains the legacy EFB capabilities of replacing paper in the cockpit, it is now both a peacetime and combat tool allowing for deployments in support of all contingency operations. NW-A provides aviators a comprehensive approach to mission execution by enabling conversion of Aviation Mission Planning System (AMPS) products and loading of ground force tactical products in ATAK for in-flight display and use. As the Aviation Enterprise develops the optimal nodes for connectivity to the Integrated Tactical Network (ITN), NW-A will begin fielding as the initial component of Air Ground Operations (AGO). NW-A brings a

powerful and constantly evolving capability to the Army Aviator through a multi-use tablet.

In addition to EFB functionality and mission products currently in use by aviators, PdM AW integrated third party capability, through various developers to create, augment, and integrate new capabilities on the aircrews' devices. As part of the evolutionary development of NW-A, PdM AW equipped several operational force aviators with this capability to execute multiple demonstration events and Soldier touchpoints and continues to incorporate Soldier feedback to improve on an already valuable tool. Operational Combat Aviation Brigade (CAB) aviators provided valuable feedback and insight after executing tasks using the functions of the NW-A at several iterations of the Experimentation Demonstration Gateway Event, Project Convergence, and multiple Combat Training Center rotations. Using agile software sprints, PdM AW refines evolutions of NW-A software hosted on the tablet to sustain what aviators liked as well as improve and quickly add requested capabilities to better meet the aviators' need. In short, the tablet will result in a one tablet solution for Aviators across the enterprise.

ADK

While the initial fielding baseline of NW-A is not network enabled on the aircraft, the objective goal of the Aviation Enterprise is a fully network enabled tablet for use both on and off aircraft. At the direction of the Aviation Enablers-Requirement Determination Directorate (AE-RDD), PdM AW demonstrated the capabilities with the goal of informing requirements, by developing the Aviation Information System (AIS) Demonstration Kit (ADK) to enable on aircraft network capability for the NW-A tablet. The ADK is on the third generation of capability and continues to participate in experimental and operational events to glean feedback and evolve the capability.

The ADK is a low density, experimental "install on, install off" network node that requires no permanent modification to the aircraft platform. PdM AW is demonstrating the rapidly installed ADKs on UH-60M, UH-60L and CH-47F aircraft in 101st, 82nd and 25th CAB. Additionally, PdM AW issues a TSM radio, with a WiFi dongle, to a low density of AH-64E within those COMPO 1 CABS. The ADK provides immediate connectivity to modern ITN architecture, which enables real time battlefield situational awareness and Platoon level digital communications displayed on the NW-A. The benefits include network connectivity across localized and beyond line-of-sight ITN radios, legacy platform integrated data links and real time traffic and weather all leading to better situational awareness and survivability of aircraft crews. With this connectivity, the ADK further enables effective air to ground operations, by allowing aviators to connect to the ITN and Air Ground Network Radio (AGNR) architectures. For the first time, with this critical connectivity, Army aviators can observe and participate in the active Common Operating Picture (COP) at the Soldier level to provide increased close air support.

While the ADK is still an experimental kit, it demonstrates capability that allows legacy and future aviation platforms seamless communication via data and voice to ground forces through multiple radios nodes that establish the ITN. As legacy networks with vehicle endpoints evolve into Soldier centric networks with Soldier endpoints, the ADK brings dynamic and collaborative battlefield situational awareness to the individual Soldier. These Soldier centric networks will have the capability to intelligently extract information from individual users and provide the most relevant data in a timely manner for battlefield decisions.

The Aviation Enterprise is analyzing data to select the Army's permanent solution for connectivity on aircraft. While doing so, improvement and experimentation with the ADK will continue to inform decisions. NW-A is demonstrating the future where both Soldiers, and their critical aviation enablers, will have the right information, at the right time to make more informed decisions on the battlefield.

Dr. Carlos Correia is the product manager, Mr. Chuck Myer is the APM, HUD/Mobile Handheld Devices, and Mr. George Robertson is the Personal Electronics Lead for the Air Warrior Product Office located in Huntsville, AL

Tactics, Techniques, and Technology

By CW4 Michael Maquet and CW3 Joshua Baker

The Survivability branch understands the adage that "Armies prepare to fight their last war, rather than their next war." Technological growth towards enhancing lethality has made tremendous strides in the last decade. Artificial Intelligence, Generation 6 fighters, Hypersonic missiles, Unmanned Aircraft Systems (UAS), Long Range Precision Fires, as well as cyber based activity are a handful of the advancements that are driving change in Army training and doctrine.

As the Army shifts focus to 2040 and the Force Design Update (FDU), the role of Aviation in large-scale combat operations (LSCO) evolves significantly. The changing dynamics of modern warfare necessitate a comprehensive re-evaluation of current practices and the development of new strategies to ensure the effectiveness and survivability of our forces.

U.S. ARMY PHOTO BY CW3 CALEB RICHMOND

Test participants from 1st Armored Division CAB, Ft. Bliss, TX and members of DOTD Survivability Branch, Ft. Novosel, AL, during Quick Reaction Test 3# (QRT3) in November of 2023.

New Strategies

Starting with the basics, a critical area has been the development of an unclassified fundamentals of combat survivability manual. The new ATP 3-04.25 Fundamentals of Combat Survivability, which is anticipated to be released in Q1-Q2 FY25, will provide fundamental knowledge necessary to build Aviators towards more complex mission planning and analysis. Availability and access to classified resources has been a struggle for Army Aviators. An unclassified manual will provide broad access to essential survivability principles without compromising sensitive information, resulting in a collective "raising of the bar" for knowledge across the force.

Updating the program of instruction (POI) for our Aviation Mission Survivability Officer Course (AMSOC) is crucial to ensure that training programs remain relevant and effective. As new strategies and technologies emerge, it is essential that the curriculum reflects these changes and prepares our Aviators to become subject matter experts in aircrew survivability. The latest POI update will mirror the revised AMSO critical task list (CTL) to ensure our new AMSOs receive instruction and practical application training. In addition to the AMSO CTL, the Aviation Tactics Instructor Course (ATIC) is revising its CTL and POI to complement their role with that of AMSO. This includes training on the integration of unmanned systems, cyber warfare, and electronic warfare into traditional Aviation operations. By providing students with a holistic and up-to-date education, we can cultivate a generation of soldiers who are prepared to navigate the complexities of a future fight. Additionally, the Army is investing in a Senior Tactics Instructor Course (STIC) to replace the current Warrant Officer Intermediate Level Education (WOILE). This will bring these two tactics-focused tracks together and provide senior-level education on echelons above battalion. STIC will focus on advanced tactics and strategic-level planning, preparing AMSOs and IPs for higher levels of integration.

Adversaries' technological improvements have kept Aviation planners on their toes over the last several years. Updates to operating systems, combat maneuvers, and tactics to match enemy capabilities have been the result. Directorate of Training and Doctrine (DOTD) has been working with partners across United States Army Aviation Center of Excellence (USAACE) to help redefine what necessary operational knowledge is. These efforts are leading to an evaluation of how things have been done versus how they should/could be in a more modern, technical, and demanding environment. Expect to see changes in the form of doctrine and maneuver updates aimed at consolidation and simplification, not just "defragging the hard drive" but intentional tactics to focus lethality and improve survivability.

Enhancements in Training

Preparing for this more technological foe requires enhancements in training. While in cockpit, scenario driven training is an absolute necessity it also proves to be expensive and laborious. Additionally, it is functionally depen-

dent on maintenance, logistics, and land availability. These constraints lead to a need for improvement in Training Aids, Devices, Simulators, and Simulations (TADSS). Training modules developed through the Virtual Training Suite (VTS) are providing detailed and accurate representations of real-world devices, allowing for virtual hands-on learning of complex and difficult to access training opportunities. Systems such as the Embedded ASE B-Kit Emulator (EABE) is another solution to Aviation assets. EABE cockpit integration allows for realistic in-aircraft training against modern threats without having to be on a dedicated EW range. Investments in TADSS will be critical moving forward to efficiently maintain readiness.

Mission Planning Platforms

To manage larger and more complex battle spaces mission planning platforms require significant revision. The integration of advanced data analytics, artificial intelligence, and near-real-time intelligence feeds allows for more comprehensive and strategic planning. The Aviation Mission Planning Users Collaborative (AMPUC) is bringing together mission planners with industry experts to design technology that is effective, portable, and intuitive. This, in conjunction with a medium that can be easily taken onto a SIPR network, is critical to real world utilization in the Operational Environment. The correct technologies enable mission planners at the lowest echelons to use relevant up-to-date information to enhance fused mission planning, allowing commanders to visualize the battlespace in greater detail and make informed decisions to preserve combat power through Aviation maneuver.

Integration of UAS

A pivotal aspect in the evolution of Aviation's role in LSCO is the integration of UAS and their contribution to combat survivability. As the Army focuses its attention on the FDU 2040, it becomes clear that the dynamics of modern warfare demand a thorough reassessment of strategies to guarantee the effectiveness and survivability of our forces. Incorporating UAS into combat maneuvering and TADSS is paramount. UAS not only extend the reach of manned aircraft but also provides invaluable reconnaissance and surveillance capabilities, enhancing situational awareness and preemptive strike capabilities. Moreover, the integration of UAS into mission planning processes allows for a more comprehensive understanding of the battlespace, enabling commanders to make informed decisions that preserve combat power through Aviation maneuver. By embracing UAS and integrating them seamlessly into training and operational frameworks, the Army ensures its Aviation units remain agile, adaptable, and ready to face the challenges of modern warfare.

The future of Army Aviation is proving to have a compounding learning curve. Access to information, increased automation, and relevant tactics are critical to survivability. Survivability Branch understands the complexities of this dynamic environment and is actively working to provide our Army Aviators with the best systems and tactics in the world.

CW4 Michael Maquet and CW3 Joshua Baker are AMSO Training Developers within Survivability Branch of the Directorate of Training and Doctrine at Ft. Novosel, AL.

ASDAT Highlights of the Last Year

By CW4 Cesar D. Urquiza

U.S. ARMY PHOTO BY JOE TAYLOR

CH-47 airframe test during the Threat Weapons & Effects (TWE) Conference, May7-9 at Eglin Air Force Base, Florida.

The past year has been transformative for the Aviation Survivability Development and Tactics (ASDAT) team, reflecting significant strides in enhancing the resilience and combat effectiveness of Army aviation assets. From initiating innovative programs to key personnel changes, ASDAT has demonstrated an unwavering commitment to advancing aviation survivability in increasingly complex operational environments.

J-FORCE QRT

This year marked the beginning of a groundbreaking initiative – the Joint Forensic Operations and Remote Collection Evaluation (J-FORCE) Quick Reaction Test (QRT) proposal. This effort, launched in collaboration with the Operational Test and Evaluation Office, aims to address the requirements outlined in JP 3-30. JP 3-30 mandates the Joint Air Component Commander (JFACC) to establish processes for reporting all surface-based fire engagements, combat damage to air assets, and combat casualties arising from these events. While the Joint Combat Assessment Team (JCAT) currently fulfills this requirement, evolving threat environments necessitate the adaptation of methodologies to maintain effectiveness.

The J-FORCE QRT is designed to develop, test, and validate tactics, techniques, and procedures (TTPs) that integrate National Technical Means available from partner agencies. This initiative will explore the utility of Title 50 tools and databases, leveraging historical and near real-time information for remote sensing of critical parameters. The goal is to conduct near real-time adjudication of aircraft combat damage, thereby preventing future combat losses. JCAT members can visualize findings from these efforts using physics-based modeling software such as Battle Space Inc. (BSI) – Modern Air Combat Environment (MACE).

By expediting JCAT's collection procedures in contested operational environments (OEs), J-FORCE QRT aims to provide initial forensic analysis and quick assessments to inform the Joint Aviation Survivability Program (JASP), commanders, and warfighters. This proactive approach is essential for understanding and mitigating emerging and rapidly evolving threats in hypermobile OEs.

Joint Aircraft Survivability Community Events

The 2024 Threat Weapons & Effects (TWE) Conference, held from May

7th to 9th at Eglin Air Force Base, was a pivotal event for the combat aviation survivability community. Sponsored by JASPO and JCAT, the conference brought together experts from the US Army, Navy, Air Force, intelligence agencies, academia, and industry. The event provided a comprehensive platform to address the challenges posed by large-scale combat operations against peer adversaries.

LTC Bryan Munsch's keynote address set the tone for the conference, highlighting the evolving threats from the CENTCOM, EUCOM, and INDOPACOM regions, particularly from surface-to-air missile systems and unmanned aerial systems. Attendees engaged in hands-on experiences with threat munitions, enhancing their understanding of the current threat landscape and improving their survivability strategies.

Technological advancements in military aviation were a key focus, with sessions on directed energy weapons, full-scale lethality testing, and the latest radar SAM system developments offering valuable insights. The live fire testing sessions provided practical learning opportunities, while structured networking events facilitated collaboration among participants. These efforts underscored the importance of unified approaches in enhancing the resilience of military aircraft systems in high-threat environments.

Honoring a Legacy: Bart Schmidt

During TWE, the attending aviation survivability community partners took a moment to honor Bart Schmidt, a dedicated professional whose 31-year career has profoundly impacted Army aviation and the survivability of military aircraft across all services. Bart's journey began on active duty, where he served with distinction for 26 years before transitioning to civil service. His roles within the ASDAT team and JCAT have been marked by unwavering dedication and expertise.

Bart conducted over 50 combat damage assessments, critically analyzing enemy tactics and advocating for tactical adjustments that have saved countless lives. His contributions as a subject matter expert, delivering classified briefings to more than 3,500 personnel, have been instrumental in shaping operational and tactical strategies.

One of Bart's notable achievements includes validating the Enhanced Surface to Air Missile Simulation (ESAMS) with the Army's UH-60 BlacK Hawk in challenging environments. This project significantly advanced our modeling capabilities, providing a deeper understanding of aerial threats. Bart's commitment to his work has left an indelible mark on the field of aviation survivability, and we extend our heartfelt thanks to him for his service, mentorship, and friendship as he embarks on a well-deserved retirement.

Farewells and Welcomes

This year, significant personnel rotations were also observed within the ASDAT team. We bid farewell to CW4 (Ret.) Blake Gailey, CW3 Terrill Hassell, and CW3 David Deavila. Their exceptional contributions to ASDAT, USAACE, and the Joint Aviation Survivability community have been invaluable. We wish them all the best in their future endeavors and remain grateful for their dedication and service.

In welcoming new team members, we are excited to introduce CW4 Mark Baranowsky, CW3 Franco Lopez, and CW3 Nick Dong. Their motivation, initiative, and contributions have already significantly impacted the community. Their fresh perspectives and innovative approaches promise to drive further advancements in aviation survivability.

Looking Ahead

As we look forward to the future, ASDAT remains committed to continuing its contributions to the Joint Aviation Survivability Program. The initiation of the J-FORCE QRT and the advancements made at the TWE Conference underscores our dedication to staying ahead of evolving threats and enhancing the survivability of our aviation assets.

The continuous evolution of adversaries' weapons engagement ranges and Anti-Access & Area Denial (A2AD) strategies necessitates ongoing adaptation and innovation. By leveraging new tools and processes, ASDAT aims to effectively conduct time-critical vulnerability and survivability assessments in contested, congested and expanded threat scenarios.

The past year has been marked by significant achievements and changes within ASDAT. From the launch of the J-FORCE QRT to the recognition of dedicated individuals like Bart Schmidt and the introduction of new team members, ASDAT continues to exemplify excellence in advancing aviation survivability. We remain steadfast in our mission to protect our air assets and ensure the safety and effectiveness of our warfighters. The dedication and expertise of the ASDAT team ensure that we remain at the forefront of aviation survivability, ready to face the challenges of today and tomorrow with resilience and innovation.

The views expressed in this article are those of the author and do not reflect the official policy or position of the Department of the Army, DOD, or the U.S. Government. (See AR 360-1, para. 6-8d).

CW4 Cesar D. Urquiza is the chief of the Aviation Survivability Development and Tactics (ASDAT) Team, headquartered at the U.S. Army Aviation Center of Excellence, Fort Novosel, AL.

Innovation and Collaboration to Defeat the Modern Threat

By Mr. John Sensing, Mr. Ryan Wilson, Mr. Will Collier

U.S. ARMY PHOTOS

Whether in the classroom or on the flight line, the Aviator-ARAT-PO relationship is in action. Frequent operational communication fuels EW innovation to combat the ever-advancing threat.

Over the past decade, Peer and Near-Peer adversaries have made significant advancements to their Electronic Warfare (EW) system capabilities. The Army and its fellow Services must adapt to modernized threat radar technology to achieve overmatch against potential Peer and Near-Peer adversaries. The Army and its Joint Service partners are teaming to pursue many innovative activities that will enhance capabilities and reduce duplication of efforts across the Services. These innovative activities focus on developing, testing, and distributing Army EW Mission Software with significant time reductions.

The Army Reprogramming Analysis Team Program Office (ARAT-PO), under the command of the CECOM Software Engineering Center (SEC), was formed over 30 years ago to provide Army Aviation with a government capability to rapidly respond to threat radar systems. The Army, Air Force, and Navy Reprogramming Centers are charged with working with the intelligence community to characterize threat radars, identify changes in threat system behavior, create a software solution to identify the threat, and distribute to forward deployed aviation assets as rapidly as possible.

The Army currently has divided its global areas of interest into 12 regions. ARAT must remain diligent to constantly monitor the globe for new or changing threats to provide Army Aviators with the most up-to-date mission software for onboard Aircraft Survivability Equipment (ASE).

The Challenge

New and emerging threat EW systems are advanced enough to confuse or even evade US detection systems. Legacy threat EW systems are constantly being upgraded and frequently not retired despite the emergence of new modernized systems. This results in an ever-increasing number of Radio Frequency battlefield threats.

The Army must combat the technological advancements made to threat radar systems. Joint Service Reprogramming Centers and Intelligence Production Centers must partner to address the escalated capability of Peer and Near Peer battlefield radar guided lethality. The more modern detection systems such as the AN/APR 39 E(V)2 and AN/APR 48B are bringing improved detection of enemy radars, but with that the Army has increased its need to have more sophisticated mission software to reprogram these systems to keep pace with the threat. Matt Bernhardt, SEC Associate Director, Intelligence Electronic Warfare and Sensors Directorate, stated: "Greater threat complexity will require additional software development and testing time compared to the mission software to detect Cold War-era systems".

With so many proliferated threats around the world and increased detection systems to support, each Service is required to keep pace with this increased workload. Currently, the Services are running individual support efforts for each EW system that they support. Each Service providing these operational activities has created their own tools and processes to accomplish the task, thus creating still more duplication of efforts.

The Solution

To meet the challenges of developing and testing mission software, the Army must integrate modern technologies and processes into the analysis, development, and operations test cycles. ARAT has been active with the Joint Services and Intelligence Community to collaborate with identifying best practice solutions that enhance the Reprogramming Communities' ability to rapidly develop and test mission software.

Additionally, ARAT is leveraging advanced technologies

with the Test Resource Management Center (TRMC), the Navy Multi-Spectral Defensive Electronic Warfare Systems (MDEWSSA), the Office of the Secretary of Defense Strategic Capabilities Office (SCO), the Air Force 350th Spectrum Warfare Wing (SWW), 453rd Electronic Warfare Squadron, the 57th Intelligence Squadron. ARAT is also engaging with the Threat Systems Management Office (TSMO), DOT&E's Test & Evaluation Threat Resource Activity (TETRA), National Security Agency (NSA), United States Secret Service, and Homeland Security to bring additional capabilities to the ARAT toolbox.

ARAT and its Joint Service partners have developed software automation tools to greatly enhance the software testing infrastructure and reduce human in the loop responsibilities. ARAT has incorporated government-developed intelligence software platforms such as Army Threat Integrated Development Environment (TIDE), USAF SPECTRE, USN Improved Many on Many (IMOM) tools that provide higher fidelity of parametric analyzation of threat systems. The Joint Service collaboration has been instrumental in leveraging unique skillsets across the Reprogramming Centers to incorporate modernized approaches to developing and testing mission software.

The ARAT-developed Simulation Modeling Framework (SMF) has been adopted by the Joint Reprogramming Centers as a common platform for creation, cataloging, and updating of highly accurate threat RF signal models. SMF allows any Service to select threat simulations from a common simulation database. The simulations can be populated by the Joint Reprogramming Centers to aid in the development and testing of mission software for aviation EW systems across the Services.

DOD Aviation forces can no longer address changes in threat characteristic in weeks to months. The Services must accept the fact that with potential Peer and Near Peer engagements, rapid changes to mission software must now be addressed in hours. To enhance capability across the Services, DOD is teaming with the Defense Intelligence Agencys to prepare for the most advanced threats. TETRA's Cognitive Electronic Warfare (CogEW) Working Group is analyzing tools and methods to employ Machine Learning and Artificial Intelligence (ML/AI) that can quickly assist human analysts and engineers in pinpointing Signals of Interest for rapid development and testing of mission software.

According to the Director of TETRA, Dr. Eric Demirjian, "the next generation of advanced EW capabilities will be highly augmented by artificial intelligence technologies creating a formidable human-machine team that will significantly impact current DoD EW reprogramming practices."

Conclusion

This Nation's adversaries are increasing EW capabilities at a more rapid pace than ever before, thereby increasing their lethality. For Army Aviation to maintain overmatch, ARAT must embrace modern technologies to facilitate innovative activities that provide rapid threat analysis, mission software development and testing, and distribution to combat forces on the edge. Leveraging innovation developed across the Joint Service Reprogramming Centers must be integrated into current tools and processes. ARAT will continue to drive down timelines for producing mission software solutions with the goal of achieving near real-time threat change updates.

Mr. John Sensing is a program lead, Mr. Ryan Wilson, a lead system engineer, and Mr. Will Collier a project lead in the Army Reprogramming Analysis Team-Program Office, Intelligence, Electronic Warfare & Sensors Directorate, CECOM Software Engineering Center at Aberdeen Proving Ground, MD.

Fighting a Combat Aviation Brigade in the Pacific

By COL Matthew J. Scher and CW3 Michael D. Harms

A 25th CAB CH-47 trains for "Fat Cow" operations at JPRMC 24-01 to extend the operational reach in the Pacific region.

The world holds its breath as tension increases throughout the Middle East and Ukraine. The People's Republic of China (PRC) benefits from conflicts that divert attention away from their aggressive military growth, massive technological leaps, and increasing political and economic influence. It is even easier to boil a distracted frog that is chasing flies in the pot.

The Temperature Rises

The People's Liberation Army (PLA) is developing more capable and advanced forces. They use national training exercises like Red Sword, Blue Shield, Golden Helmet and Golden Dart to test the mettle of new weapon systems. The PLA recently unveiled the new Type 625 Advanced Anti-Aircraft system, which is highly mobile, responsive, and deadly. These exercises continue to increase the complexity with the newest exercise, Qingdian integrating electronic warfare (EW). These are no longer the barely combat-capable PLA forces of old.

The PLA's increased frequency and intensity of military drills in the East and South China Seas is alarming. China's Eastern Military Command can quickly transition from training to sea blockades and military conflict without warning. Their persistent exercises are desensitizing the world to actions that can readily turn into complex operations.

An Evolving Combat Training Center

Given the PLA's growth in military capability, the U.S. Army's combat aviation brigades (CAB) must ensure their teams are ready to fight and win in large-scale combat operations (LSCO). In the Pacific, a CAB must operate as part of a joint force to execute multi-domain operations (MDO) with partners and allies. Training for this reality is challenging, but the Hawaiian Islands are the perfect training venue for the newest Combat Training Center (CTC) — The Joint Pacific Multinational Readiness Center (JPMRC). JPMRC provides realistic training in the jungle and archipelagic environment in which US forces may have to fight to build readiness for operations west of the international date line (IDL). This readiness is applied alongside partners and allies in conjunction with Operation Pathways to deter adversaries and signal resolve, while posturing combat-credible forces where they can respond quickly.

At JPMRC 24-01, the 25th CAB

learned what it takes for a CAB to fight and win in the Pacific. They needed well-planned sustainment operations, accurate tactical risk assessments, informed decision-making processes, and redundant command and control systems. Mission command at echelon was critical. Battle Captains, Company Commanders, and Air Mission Commanders analyzed priority intelligence requirements and friendly forces information requirements to make tough decisions from the Commander's decision support matrix. Training leaders to make hard choices according to the Commander's guidance and intent was invaluable.

The stressors on the sustainment warfighting function were amplified in the archipelagic environment. JPMRC is a fantastic proving ground for creative solutions to sustainment challenges. The CAB found success in leveraging joint partnerships; naval vessels provided mobile and survivable forward area refueling and rearming capabilities to aviation assets, expanding operational reach. CH-47s validated ship-to-shore sustainment capabilities with vessels over 150 nautical miles offshore. Additionally, the employment of the CH-47 "Fat Cow" provided surprise, survivability, and a longer range for attack assets.

During JPMRC 24-01, the 25th CAB fused Intelligence Collection (IC) and Fires (IC-FIRES) to integrate multi-domain effects, increasing lethality and mission survivability simultaneously. The learning curve for the electromagnetic (EM) spectrum is steep. The CAB synchronized aviation operations with convergence windows to strategically fly between islands. Pilots adopted new electronic warfare concepts to better understand their signatures and impacts on the operating environment.

Over-the-horizon classified communications challenge operations in the island chain environment. But JPMRC rotations help to experiment with and develop sustainable solutions.

The most recent applications included Link-16 Move-Out Jump-On (MOJO) Kit, the Integrated Tactical Network (ITN), and the Android Tactical Assault Kit (ATAK). These platforms enabled mission command, enhanced planning, updated the common operating picture, prevented fratricide, and coordinated airspace. These platforms were crucial for positioning the necessary assets to overpower the enemy and win decisively. Research and development are still required, especially concerning the Secret Internet Protocol Network (SIPRNET) and a full integration of these capabilities into cockpits. But the relationship between U.S. Army Program Executive Office — Mission Command and Aviation continue to work towards viable solutions. Each CTC rotation provides opportunities to adapt and overcome formidable command and control challenges.

A Pathway to Success

In April 2023, during Operation Pathways, the 25th CAB launched a Long-Range Air Assault from Fort Magsaysay to the islands north of Northern Luzon, assaulting a ground force as far north as Basco Island (a 135-mile over-water flight). The receipt of the mission started in Hawaii and progressed over 5,500 miles to Northern Luzon (11 times the distance from Fort Campbell to Fort Johnson), resulting in a precise application of aviation combat power in a multi-domain environment. The 25th CAB capitalizes on these opportunities annually and focuses on over-water capabilities to build proficiency in a maritime environment.

The mission relied on the 25th Division Sustainment Brigade, 8th Theater Sustainment Command, and the 1st Marine Expeditionary Force. The effort required joint coordination with the USS Miguel Keith, U.S. Marine Corps Air Naval Gunfire Liaison Company, U.S. Marine Corps V-22s, an E-3 Sentry Airborne Warning and Control System, and the 1st Battalion, 27th Infantry. Relationships built long before the exercises were critical to enabling the joint coordination required to execute complex operations effectively and on time. Island-hopping air assault exercises are necessary to adapt to the challenges of the Pacific. A robust deck landing qualification (DLQ) program is a requirement for mission success in this theater. 25th CAB maintains a robust DLQ program and works closely with 16th CAB, 1-228th Aviation Regiment, 10th CAB, and most recently 101st CAB, all with emerging aviation maritime capabilities to assist, share lessons learned, and collaborate for DLQ opportunities.

Difficult Running Estimates in the Pacific Region

Competition and conflict within the first island chain will require aircrews to operate within contested airspace, inside the PRC Anti-Access/Area Denial (A2AD) umbrella. The PRC's ability to collect in this space is immense. Leaders must understand the EM signature created during flight and from their command posts, tactical assembly areas, and forward arming and refueling points. Aviation Mission Survivability Officers and Cyber Electromagnetic Activities Officers cannot be the only officers that understand the electromagnetic (EM) spectrum. All leaders must be self-aware of what they look like in the EM spectrum, what effects they should ask for to support their operations, and what electronic emissions they should control based on the enemy threat.

As tension rises in the Pacific, the chances of strategic miscalculation increase. Expanding PLA exercises in the South China Sea reduce the time between the first indicators and warnings of conflict. The proximity and timing of compressed events will decide which units will respond.

The 25th CAB has a responsibility to be ready to fight and win in this environment. The challenges of fighting on an island chain are not deterrents, but opportunities for commanders and leaders to be innovative. Now is the time to prepare: to train Soldiers to be lethal, cohesive, and fit; to strengthen our connections with an understanding of our partners and allies and the terrain on which we might fight; to transform ourselves in both technology and organizational design to optimize our lethality; and to strengthen our Army profession to ensure that our foundation is enduring.

COL Matthew J. Scher is the commander and CW3 Michael D. Harms is an Aviation Mission Survivability Officer and Security Cooperation Liaison for the 25th Combat Aviation Brigade, at Wheeler Army Airfield, Hawaii.

50 Years Ago – Women in Army Aviation: Ahead of the Curve

By Mark Albertson

Editor's Note: Throughout 2024 we will be celebrating the inclusion of women in Army Aviation with articles about the 50-year history.

In 2013, LTC Gail E. Atkins, from Westchester, Pennsylvania, had been flying UH-60 Black Hawk helicopters for 18 years. By this time, she was commander of the 122nd Aviation Support Battalion, 82nd Combat Aviation Brigade (CAB).

Atkins observed the evolution of women in combat: "In aviation, we went through this back in '93; when the military opened up attack aviation to women, so we are 15 years ahead of the curve in aviation compared to where our other branches are." [1]

Atkins also noted the increase in the number of women who joined the ranks, "I have an all-female staff right now and it's just the way it has worked out… But I think it is indicative of the number of women who are joining the service."[2]

Atkins is quite correct in observing the evolution of women in combat, and long before Secretary of Defense Leon Panetta rescinded battlefield restrictions that had been placed on women in the first place.

Operation Just Cause

Prior to the Persian Gulf War, 1991, women were flying into a combat zone in 1989 during Operation Just Cause in Panama.

December 20, 1989, at Tinajitas, defending Panamanians were particularly aggressive, holing Black Hawks, inflicting wounded on at least two UH-60s. CWO Debra Mann, piloting a Black Hawk, shuttled troops into Tinajitas from the 1st Battalion, 504th Parachute Infantry Regiment.

Another Black Hawk during that same mission was piloted by 1LT Elizabeth Dreiling with 1LT Lisa Kutschera as co-pilot. The following day, December 21, WO1 Caryl Newberry faced small arms fire on a mission. All these women were nominated for Air Medals with "V" for valor for their efforts.[3]

Operation Desert Shield/Storm

Unlike Panama in 1989, women aviators' exposure to combat intensified with Operation Desert Shield/Storm.

CPT Lorelei W. Caplan, a 27 year-old commander of an Army aviation company, was shuttling supplies to troops in the forward areas and bringing out wounded from contested landing zones. MAJ Marie T. Rossi, commander of a company of Chinook helicopters, piloted her CH-47 on missions which took her into enemy territory. Tragically, the day following the ceasefire, Rossi and three of her crewmen were killed when they struck "an unlit microwave tower."[4]

August 9, 1990, CPT Victoria Calhoun was deployed to Dhahran, Saudi Arabia, as a CH-47 pilot for Operation Desert Shield. As Desert Shield became Desert Storm Calhoun airlifted troops from the 101st Airborne Division "to Forward Operating Base Cobra, ninety-three miles inside Iraq… She never saw anyone shooting at her, but the missions inside Iraq allowed her to log twenty-two hours of combat time, just like her male counterparts… During one mission, she came within ninety miles of Bagdad during one mission."[5]

A pair of women soldiers was taken prisoner, one of whom was Army transportation SPC Melissa Rathburn-Nealey. Rathburn-Nealey inferred that her captives had treated her well. The other was flight surgeon, MAJ Rhonda Cornum who was captured after her assigned Black Hawk had been shot down. Cornum was not only wounded but treated in an undignified fashion by her captors. Her story will appear in a later issue.

Thirteen female service personnel were killed during Operation Desert Storm, four of whom died in a Scud missile attack. Another twenty-one were wounded.

Operation Iraqi Freedom

In March 2006, CW3 Lori Hill, 2nd Squadron, 17th Cavalry Regiment, was piloting an OH-58 Kiowa in a flight two flying in support of a pair of Bradley Fighting Vehicles. According to an Army Press Report, Hill "was piloting her Kiowa Warrior when the lead chopper came under heavy fire." She drew fire away from the other helicopter, while simultaneously providing suppressive fire for troops engaged with the enemy on the ground. A rocket-propelled grenade hit her aircraft, damaging the aircraft's instrumentation; but she established communication with the ground forces and continued to provide them with aerial weapons support until the soldiers reached safety. As she turned her attention to the aircraft, which was losing hydraulic power, her Kiowa Warrior took on machine gun fire, with a round finding one of Hill's ankles. Still, with a damaged aircraft and an injury, she landed at Forward Operating Base Normandy, saving her crew and aircraft. For her actions she was presented the Distinguished Flying Cross by Vice President Richard Cheney at Fort Campbell, Kentucky, October 16, 2016.[6]

MAJ Jennifer A. Phelps observed that some of these women pilots were not being brought along gradually.

"Straight out of flight school, female aviators are immediately being tested in combat. They no longer have the luxury of reporting directly to a unit in garrison, for example 1LT Erin Leach who report-

ed to her unit in Afghanistan in March 2007 and was immediately assigned as a UH-60 platoon leader within the 2nd Bn. 82nd Avn. Regt. Direct out of flight school, 1LT Sara Piro led her scout platoon in the 4th Squadron, 3rd ACR, in the Iraqi theater during 2003; then again in 2005-2006 serving her female troop commander, Captain Monica Foley.[7]

Operation Enduring Freedom

Women assigned to brigade aviation elements assisted ground commanders with the planning of aviation operations.

"LTC Carly Wegan served as a brigade aviation element officer for the 4th Brigade Combat Team with the 82nd Airborne Division during a 2007 deployment in support of Operation Enduring Freedom in Afghanistan.[8]

The circumstances outlined in earlier articles in this series as well as the unswerving dedication of the women in Army Aviation, together with women in the other Services, all helped to force the 2013 decision to enable women to "officially" participate in combat. For as history shows, time-honored gospel rigidly held by those above can be successfully challenged by a new scripture written by a new generation of converts arising from below.

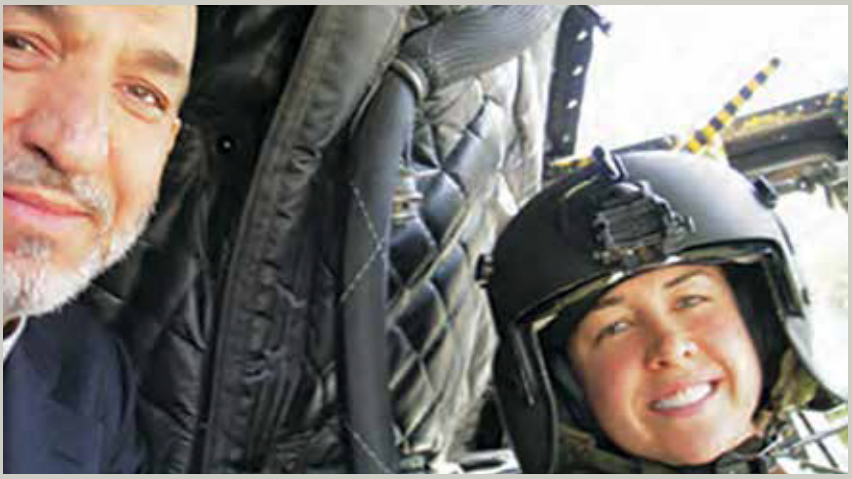
After all, such is how Army Aviation was formed.

Endnotes:

1 - See page 2, de Armas, Sergeant April, 82nd Combat Aviation Brigade, "Women Make Their Mark in Combat Aviation," *www.army.mil/article/97320*
2 – Ibid.
3 - See pages 269 and 270, "Tinajitas, 20 December 1989—"Women's Air Medals with 'V'," A History of Army Aviation, by Dr. John W. Williams
4 – Ibid., 270
5 - See pages 2 and 6, "The Women Who Won the Right to Fly in Combat," Military Times, by Eileen A. Bjorkman, May 13, 2023
6 - "CWO3 Awarded Distinguished Flying Cross," Army News, *http://www.army.mil/article/97755*, October 25, 2006.
7 - See page 5, "Women in Army Aviation Today ," Army Aviation, by Major Jennifer A. Phelps, *armyaviationmagazine.com/women-in-army-aviation*
8 – Ibid., 6

Mark Albertson is the award-winning Army Aviation Publications Historian and a contributing editor to ARMY AVIATION magazine.

Women such as CW3 Stephanie Rose, left, and CPT Hartleigh Caine, both AH-64D Longbow attack helicopter pilots with the 4th Cbt. Avn. Bde., pictured here in Iraq in April 2006, are flying combat aviation missions in direct support for their ground force brethren.



CPT Brooke Taylor, a seasoned CH-47 Chinook pilot, had a mission on July 18, 2005 to fly Hamid Karzai, president of the Islamic Republic of Afghanistan, during her deployment in support of Operation Eduring Freedom.

ALL PHOTOS AAPI FILE PHOTO

Straight out of flight school in early 2007, 1LT Erin Leach found herself being tested in combat as a UH-60 platoon leader in Afghanistan with the 2nd. Bn., 82nd Avn. Regt. Female pilots like Leach are proving themselves as leaders and aviators, performing equally or better with their male counterparts. Leach is pictured here ready for an Oct. 1, 2007 mission in Afganistan.

The Pen Gun Flare Incident

By CW5 (Ret.) John Harris

Editor's Note: This is the next in a series of articles throughout the year taken from the pages of The VHPA AVIATOR, the newsletter of the Vietnam Helicopter Pilots Association. Preserving the Legacy! Enjoy

CW4 (Ret.) Joe Pisano, RVN 1970-1971

AUTHOR PERSONAL PHOTO

The three pen-flare culprits… (l to r) WO1s Michael Grant, Lynn Skuza and John Harris.

In January 1973, shortly afterwards the Paris Cease-Fire had been announced, an incident took place which came very close to ending my military career. Some troops on the opposite side of Can Tho Army Airfield were discharging their weapons into the air, in honor of the cease-fire, an action that in later mid-east conflicts would often be referred to as "celebratory gunfire."

A group of 8-10 pilots and crew chiefs from my unit, the 18th Corps Aviation Company (CAC) Huey Flight Platoon were hanging around the pilot's hooches, drinking, when someone suggested celebrating the cease-fire as well, but instead of firing weapons, use emergency pen-flares instead. These small flares were carried in every aircrew member's survival vest and could fire straight up to about 150'.

Several of us did so but after we had finished firing, we walked around a corner and ran into the 164th Aviation Group Commander, an LTC "C" (name omitted for privacy) Note: LTC "C" had a very negative reputation as a stern disciplinarian; he had handed out a Field Grade Article 15, a career-killing event for any active-duty officer, to a 1LT in our platoon for simply returning to base shortly after curfew. He had also attempted to give an Article 15 to one of our best SP5 crew chiefs for "disrespect," when after approaching the SP5 from behind while in the middle of a strenuous detail, the soldier swore and complained about the task, before LTC "C" had even identified himself as an officer!

Fortunately, our C.O., MAJ Childers, was able to talk LTC "C" down off the cliff and no charges were pursued against the SP5. When we recognized LTC "C," a group of four of us came to the position of attention and formed a single file. The detained group of "culprits" consisted of me, WO1 John Harris and WO1 Mike Grant, WO1 Lynn Skuza and an SP4 Cross. LTC "C" then ordered one of the other pilots not in the culprit group, to get our C.O., MAJ Jerry Childers and return on the double. When MAJ Childers, who had already been asleep, returned, LTC "C" ordered the four of us to go get fully dressed in jungle fatigues and to report to his office in 30 minutes. He briefly stated that our actions of firing the pen flares over the billeting area had endangered the lives of numerous personnel and therefore, he intended to "charge us accordingly."

As soon as LTC "C" left, MAJ Childers asked us what had happened and we simply explained that we had been celebrating the end of the war, and did not believe we had endangered anyone.

When we all reassembled at 164th Group HQ, outside LTC "C's" office, we were met by a JAG (Judge Advocate General) lawyer, who with no notice, had been hurriedly summoned to meet with the four of us and to act as our defense counsel. Note: It should be remembered that back then, most of the junior JAG lawyers in Vietnam had actually been drafted into such roles and therefore, were rarely career officers. In a quick huddle, he advised us to not agree to anything with LTC "C" during our initial meeting, and to defer any decisions until we spoke with the JAG again afterwards.

The next move was for LTC "C" to summon SP4 Cross alone. After about five minutes, Cross exited and related that LTC "C" had apologized for the actions of the warrant officers and advised that no charges would be brought against him. Copper then summoned Grant, Skuza and I into his office, where he placed us at the position of attention, with our JAG counsel present as an observer.

As the Convening Authority, LTC "C" then proceeded to read us our rights under Article 31 of the UCMJ (Uniform Code of Military Justice.) These rights generally conform to the right to remain silent, right against self-incrimination and right to an attorney. He advised us he intended to prosecute us, by imposing Field Grade Article 15s. He added since he had personally witnessed our actions, it was clear that we were at fault and should therefore, simply accept our punishment. That said, we were ordered to report back to his office the next morning, after consulting with our JAG counsel.

The JAG said we simply had two choices: either accept the Colonel's career-killing Field Grade Article 15 punishment or refuse to do so and instead, demand a court-martial. He made it clear that if we accepted the Article 15, we were at most looking at paying a fine of one or two hundred dollars. Should we, however, opt for a Special Court-Martial, we could be subjected to confinement for up to one year. This fact alone was often enough pressure to cause most accused soldiers to accept an Article 15 and avoid any chance of greater punishment.

Fortunately for us, our JAG was not a career officer, and offered his frank assessment of our situation. With the war over and the primary goal of the command to get all U.S. personnel out of Vietnam in an expeditious manner, he firmly believed there was absolutely no chance that our higher headquarters could convene a formal Court-Martial, during the few remaining weeks we had left in country. This would mean that a Court-Martial would have to be set up at a post in the U.S., after we had all returned home. Since everyone involved; i.e., the accuser, the three defendants, all witnesses, the commanders, etc., were already on PCS orders to widely dispersed locations, the trial would have to take place at one base and everyone would have to be flown in while on TDY.

Then the JAG opined: "With the war just having ended, can you imagine what the news media would say, once it was revealed that the Army was going to hold a Court-Martial, at great expense to the taxpayers, of three recently returned combat-veteran helicopter pilots, for having over-enthusiastically celebrated the end of the Vietnam War?" He finished by saying that his best legal advice was that all three of us should refuse the Article 15, and unanimously demand a Court-Martial.

We then held a meeting with MAJ Childers who said he agreed with the JAG's assessment and advice. Following a quick huddle, during which somebody mentioned the old phrase attributed to Ben Franklin from 1776 that goes: "We must surely hang together or surely we shall hang separately," the three of us agreed to unanimously refuse the LTC "C's" Article 15 and told MAJ Childers of our decision. MAJ Childers gave us what I would characterize as a slight smile of approval and said he would convey our decision to LTC "C."

The next morning, we re-assembled at LTC "C's" office, then were called-in and placed at the position of attention. It was readily apparent that LTC "C" was furious that we had decided to refuse his Article 15. He proceeded to go on and on in a tirade which fluctuated from a few conciliatory comments to open hostility. But it was when he concluded his rant with a declaration that during our remaining time in country, he would be closely monitoring the three of us, we knew that our calling his bluff had worked; we had successfully pushed his envelope and survived!

CW5 (Ret.) John Harris is a VHPA and AAAA life member living in Cypress, CA.

AAAA Chapter Affairs

By LTC (Ret.) Jan Drabczuk

I appreciate the support from Robert M. Puglisi, Treasurer; Chris Wanitshka, Senior VP; and Mike Younce, President, for authoring and sharing the Central Florida Chapter information.

The Magnolia Chapter

The Magnolia Chapter was established 28 years ago in 1996 through the efforts of LTC (Ret) William Merrell.

He believed it was a way to recognize Mississippi Army National Guard (MSARNG) Aviation personnel and tap into and get support from AAAA's powerful lobbying efforts. At the time, ARNG Aviation did not have the representation that it does today within AAAA. Thanks to efforts of those like LTC (Ret) Merrell, since then AAAA has maintained a strong membership, partnership, and representation within all Mississippi Aviation units.

Chapter Demographics

Today the Magnolia Chapter is a Senior Chapter with over 110 members and represent a robust enterprise of Aviation units and assets located throughout the State of Mississippi. This includes 1 Expeditionary Combat Aviation Brigade (ECAB), 1 Theater Aviation Sustainment Maintenance Group (TASMG), 1 Assault Helicopter Battalion (AHB), 1 Airfield Operations Battalion (AOB), 11 subordinate Aviation units to include a UAS detachment and a C12 detachment, 3 Army Aviation Support Facilities (AASF), and 1 Aviation Classification Repair Activity Depot (AVCRAD) that serves the Southwest Region of the US.

CHAPTER COURTESY PHOTO

MSARNG Aviation Soldiers were inducted into the Bronze Honorable Order of Saint Michael during the inaugural Mississippi Aviation Ball hosted by the 1108th Theater Aviation Support Maintenance Group (TASMG) and Magnolia Chapter of AAAA on April 6, 2024 in Biloxi, MS. Pictured (l to r): MAJ Andy Cook, MAJ Brandon Dixon, CW5 Jesse Green, MAJ Wade Jeffries, SSG Tiffany Pullum, CW5 Jeff Letort, MAJ Jonathan Maruszak, MAJ James Rainer, COL Andy Ratcliffe, LTC Wangson Sylvien, CW5 James Waltress.

The Magnolia Chapter is comprised primarily of MS National Guard personnel along with some DoD civilians, defense industry members, active duty, and reserves Soldiers (current and retired). When you consider Army Aviation MSNG unit members, federal technicians, and state employees, there are over 1000 personnel who are a part of the Aviation enterprise in Mississippi. Which means there is plenty of opportunities for the Magnolia Chapter to grow.

Recognition

The Magnolia Chapter has been focusing its efforts on recognizing the most outstanding leaders, civilian supporters, and Soldiers in Aviation through the Order of Saint Michael and Knight of the Order of Saint Michael awards programs. The Chapter believes that the continued success of these programs will promote AAAA, its initiatives, and further demonstrate support for Army Aviation. Since 2020 the Magnolia Chapter has been awarded 15 Bronze OSMs and 1 Silver OSM. The Magnolia Chapter will have two more opportunities in 2024 to present awards and the Chapter fully expects to receive several nominations from units who recently returned from mobilizations. Further initiatives will include the implementation of the Soldier and NCO of the Month/Quarter/Year program which will help give Soldiers a sense of "what AAAA can do for you."

Support

Often an untapped resource, the Magnolia Chapter has recently begun to utilize the Out-of-Cycle Funding Request process to provide needed funds which support Aviation related events. At the end of 2022 the Chapter provided funds for a pre-deployment social for their Aviation Brigade and in April 2024 the Chapter supported their Inaugural Aviation Ball. In the future, the Chapter will look at how they can support unit MWR events and other smaller events to broaden their outreach to all units.

Summary

Continued Soldier recognition and outreach is at the forefront of Magnolia Chapter's initiatives. With the abundance of Aviation personnel within Mississippi, the Chapter sees unlimited possibilities for growth and support of Army Aviation Soldiers and Families. As the Magnolia Chapter moves forward, their mission remains clear, support Aviation by supporting its most important asset, the People in it.

Feel free to contact me if you need help with your Chapter, establish a new Chapter, Executive Board support, would like your Chapter featured in the AAAA magazine or to obtain clarification of National procedures.

LTC (Ret.) Jan S. Drabczuk
AAAA VP for Chapter Affairs
jan.drabczuk@quad-a.org

AAAA Chapter News

Oregon Trail Chapter Fundraiser

CHAPTER COURTESY PHOTO

Chapter president CW4 Latny Salt (left) poses with the chapter's 2024 AAAA Scholarship winners (l to r) Ms. Kendall J. Snyder, Ms. Giselle Griffin, and Ms. Rebecca Harwick on May 18, 2024 at The Gallery Golf Club in Marana, AZ. The ladies came out to lend their support to the chapter annual Armed Forces Day Golf Tournament fundraiser.

Washington Potomac Chapter Recognition

The chapter recognized three Department of the Army Civilians during a March 12, 2024 ceremony at Davison Army Airfield, Ft. Belvoir, VA.

ALL CHAPTER PHOTOS BY ADAM SIKES

Mr. Nick Ingle was presented the chapter 1st Quarter, FY24 Department of the Army Civilian of the Quarter award by (l to r) COL (Ret.) Ron Lukow, Chapter President, Mr. James Boyd, Chief of Staff, The U.S. Army Aviation Brigade (TAAB), and CPT Sam DeCapua, Commander, D Company, 12th Aviation Battalion. Ingle was recognized for his outstanding performance of duty as the Aircraft Mechanic Supervisor in D/12th Avn. Bn.

Mr. Cameron Pugh was presented the chapter Department of the Army Civilian of the Month award for January 2024 by COL (Ret.) Lukow, and Mr. Boyd in recognition of his outstanding accomplishments and performance as the TAAB IT Specialist INFOSEC Custodian.

Mr. Luke Smith was presented the chapter 2023 Department of the Army Civilian of the Year award by MG Trevor J. Bredenkamp (right), Commanding General, United States Army Military District of Washington, and Commander of Joint Force Headquarters-National Capital Region, and LTC David Crocker (left), Commander, Operational Support Airlift Activity and chapter Vice President for Programs. Smith was recognized for his outstanding performance of duty as the Joint Task Force-National Capital Region J38 Aviation Planner.

ORDER OF ST. MICHAEL INDUCTEES

Air Assault Chapter

CHAPTER PHOTO BY MAJ (RET) SCOTT HOLLINGSWORTH

Mr. Walter G. "Gary" Adams, AMCOM Chief of Regional Aviation Sustainment Maintenance-East, is inducted into the Gold Order of Saint Michael at his retirement ceremony on May 8, 2024, by AAAA National Secretary, MG (Ret.) Todd Royar, as chapter president, COL (Ret.) "Hawk" Ruth looks on.

Aviation Center Chapter

CHAPTER COURTESY PHOTO

COL (Ret.) Christopher Carlile is inducted into the Gold Honorable Order of St. Michael by AAAA National Secretary MG (Ret.) Todd Royar on April 12, 2024 at the U.S. Army Aviation Museum, Ft. Novosel, AL. Pictured with them are (l to r) LTG (Ret.) Mark Curran, Chairman of the USAAMF and MG Michael C. McCurry, commanding general of the U.S. Army Aviation Center of Excellence. Carlile was recognized for his significant contributions over a lifetime of service to the Army Aviation community and AAAA.

Corpus Christi Chapter

CHAPTER COURTESY PHOTO

Mr. James J. Shamess, with wife Linda by his side, was inducted into the Silver Honorable Order of St. Michael on April 15, 2024 at Corpus Christi Army Depot by CCAD Chief Operating Officer, Mr. Rod Benson. Shamess was recognized for more than 40 years of outstanding support to Army Aviation culminating with his service as Chief of the Aircraft Maintenance Engineering Division of the U.S. Army Combat Capabilities Development Command's Systems Readiness Directorate.

Tennessee Valley Chapter

CHAPTER PHOTO SHERRY DORNER

Mrs. Jordan Duffy is inducted into the Honorable Order of Our Lady of Loreto on May 16, 2024 in Huntsville, AL, by LTC Adrian Watts, Product Manager Infrared Countermeasures, PM ASE and chapter VP Awards, CSM (Ret.) Randy Wise. Duffy was recognized for her outstanding support of the multiple family readiness groups in the units her husband was assigned to and her service as a front line medical professional.

OSMs Continued on page 61

AAAA **Membership** Update By CW4 (Ret.) Becki Chambers

CW4 Latny Salt had shared with me the story of Dottie as a potential subject for the membership article. Dottie was a longtime supporter of and volunteer for AAAA.

The Membership Corner

The Old Tucson Chapter suffered a great loss of one of their beloved lifetime members, MSG Dorothy "Dottie" L. Snyder in March of 2024.

OLD TUCSON CHAPTER PHOTO

To say Dottie was an exemplary volunteer of our Chapter is a severe understatement. For decades she set the high standard of what it meant to freely offer to take part in supporting the U.S. Army Aviation Soldier and Family with AAAA.

Dottie was born in Spangler, PA on October 15, 1950. After graduating from Cambria-Heights High School she enlisted in the Marine Corps in 1968. She served at the White House and Pentagon as a Ceremonial Guard until, at the time, she was removed from service for pregnancy in 1970. This afforded her time to earn an associate degree in accounting which she promptly applied in additional service to the Pennsylvania Army National Guard. She retired after 20 years at Fort Indiantown Gap as a payroll clerk with the 28th Infantry Division.

It was during Dottie's time at Fort Indiantown Gap that she met her cherished "Danny" playing on a softball league. After her retirement she followed him to Tucson, Arizona where he continued his service at the WAATS. She and Daniel Snyder were married for 30 years. She quickly became involved with the FRG and became a lifetime member of EAGNUS. Never one to sit still, she even served the boards of Teen Challenge of Arizona and the Springboard Ladies Guild. Together they were a special powerhouse couple in their volunteer efforts.

Dan would tell you "It was all Dottie's idea"! At her memorial service, Dan even shared his own official name badge with the Springboard Ladies Guild. Loyal and faithful, he always drove her to functions and was ready for any tasks that came up. Despite medical challenges presenting themselves, she always had a way of still being involved. Before her passing when Dan had asked her how she put up with him 24-7, she responded with "it's because I'm married to my best friend".

What made Dottie so special? Her qualities included passion, reliability, and commitment. Dottie had a way to rally those around her to support a cause. She could be feisty- but it came with a steady momentum to always do better for others. We will miss her encouraging input at our meetings. It's hard to come by volunteers with such rich experience in life, service, and community involvement.

Dottie was important to our Chapter by always generating awareness of our Chapter and our events. No matter where she went, she was always promoting AAAA and the good done especially for the scholarship recipients! She lived the pillars of our mission statement by Networking, Recognition, Voice and Support every day.

Having passed away on March 11, 2024, in Tucson, Arizona, Dottie will be missed dearly by all those who loved her! Her bargain hunter shopping sprees, music selection of Def Leppard, Bon Jovi, Motley Crue, collecting shot glasses and coffee cups will forever have a sacred spot in our hearts. One final THANK YOU Dottie – for the memories, care and concern, and enthusiastic curiosity over our menus.

Her story is one to remember for generations and hopefully can serve as an inspiration to live life with great purpose. Dottie was of great service as a volunteer in a multitude of ways for several decades. I believe she directly strengthened our community and made a difference with her life. I'm forever grateful to her contributions and am lucky to have called her a friend.

Thank you, Latny, for submitting this article. Dottie will be missed. – Becki

CW4 Becki Chambers
AAAA Vice President for Membership

New AAAA Life Members

Colonial Virginia Chapter
1LT Joseph B. Dail
North Country Chapter
CW4 Mark Pfluger
Utah Chapter
CPT Casey Hoopes

New AAAA Members

Air Assault Chapter
WO1 David J. Guerrero
Mr. Steve Paga
Ms. Annamarie Rodriguez
Mr. Brian Summers
Mr. Jose Torres
Aloha Chapter
Mr. Peter Mansoor
CPT William Miller
Arizona Chapter
Mr. Thomas Leeper
Aviation Center Chapter
2LT Ean J. Aldridge
2LT Sullmun A. Alsubuie
WO1 Malik S. Althouse
WO1 Erik T. An
WO1 Shawn L. Anderson
WO1 Carlos A. Arredando
WO1 Sierra D. Arroyo
WO1 Yasser D. Ashby
WO1 Kasey C. Barker
WO1 Zachary D. Bearer
2LT Joshua J. Beddall
WO1 Austin T. Beekman
WO1 Charles A. Bradford
2LT Joseph L. Bragg
WO1 Nathan A. Brenner
WO1 Louie Brooks
2LT Zachary Carter
WO1 Sarah N. Chapman
WO1 Andrew C. Charles
WO1 Vincenzo Chiariello
WO1 Wondin J. Choy
2LT Nicholas V. Cordies
2LT Oscar L. Cruz
WO1 Travis A. Damazio
WO1 Samuel L. Davison
WO1 George K. Demeris
WO1 Jeran T. Diola
WO1 Zachary P. Ewers
WO1 Robert S. Flanders
WO1 Juan A. Flores-Salazar
2LT Tyler J.D. Goodwin
WO1 Cameron L. Grant
WO1 Braxton L. Greathouse
2LT John P. Harrell
WO1 Amber L. Hawk
WO1 Paul B. Hyman
WO1 Timothy E. Jackson
2LT Kellen J. Jensen
WO1 Payton O. Johanneson
WO1 Brett W. Kaber
2LT Kamren S. Klakos
2LT Qudus O. Kolapo
WO1 Daniel M. Krastev
2LT Christopher Krawiec
2LT Grace S. Kreuser
WO1 Christopher M. Lee
WO1 Dylan J. Leech
WO1 Torey J. Levesque
WO1 Kevin K. Lokits
WO1 Nathan J. Lopez
WO1 Diego Mendez
CPT Glenn T. Miller
WO1 Houston J. Moore
WO1 Brenden A. Morgan
WO1 Kyle S. Morris
WO1 Nathan T. Nguyen
2LT Robert E. Osborn
2LT Travis C. Petersen
WO1 Dominic S. Pieruccu
CPT Montgomery E. Potter
1LT Lilian K. Powers
2LT Jonathan D. Prall
CW3 Wender Ramos
WO1 Edwin A. Rehling
WO1 Amir Sadek
2LT Patrick W. Scheffey
WO1 Joshua L. Schmitz
2LT Jensen E. Schneiderhan
WO1 Reis A. Sessions
1LT Bryan M. Sims
WO1 Jhantha M. Singkhek
CPT Jesse Sledge
WO1 Ashton G. Smith
WO1 Tyler G. Smith
WO1 Ousmane Sow
WO1 Cody A. Stokes
2LT Mark A. Styles
WO1 Kauilama K.Thomas
WO1 Angelica Vargas
WO1 Patrick D. Vossmer
2LT Trent R. Weller
1LT Alexa Zammit
Battle Born Chapter
PFC Austin James Galleron
Bayou Chapter
SFC Joshua Futrell
Miss Bailey Kimble
CPT Jarrett Logan
CW4 Clifton Roller
SSG Taurean Shropshire
Colonial Virginia Chapter
SSG Rahnjames Clements
WO1 Adam M. Crews
1LT Joseph B. Dail
SSG Ivette O'Berry
Mr. Darren Spencer
Connecticut Chapter
PFC Stephen Daniel Deal
Cowboy Chapter
PV2 Jacob Alan Wilhoit
Flint Hills Chapter
1LT Madeline Briggs
CSM Ralph Woods
Free Dominion Chapter
WO1 Brandon Athey
Mr. James Barker
SFC James Canady
Mr. Levi Cirre
SGT Robert Colwell
PFC Phillip Deal
SPC Chase Fletcher
SSG Kevin Guerrero-Kilgore
SPC Timothy Hieronymus
SGT Dustin Hoffman-Wootton
Mr. Bryson Hopkins
SPC andrew maresca
SGT Ben martell
SFC Michael Martin
SPC Jonathan A. Mayberry
CW2 Ted Schoenborn
SGT Thomas Shields
CW2 Joshua B. Shropshire
CW5 Jonathan Sigl
Mr. Tyler Simmons
SPC Robert Souza
SGT Cary Strome
1LT Grayson Taylor
SPC Tyquan Vaughan
SSG Brian Wade
SPC Carlos Walter
SPC Nicolas Zuffoletti
Gold Standard Chapter
MAJ Jason Stanley
Great Lakes Chapter
LTG James F. Pasquarette, Ret.
Idaho Snake River Chapter
Ms. Hattie Givens
PFC Hunter Lee Pollard
Iron Mike Chapter
CW2 Miguel Beltre
SFC Christopher Miller
WO1 Michael S. Wong
Jack H. Dibrell/Alamo Chapter
1SG Steven Cline
Jimmy Doolittle Chapter
Ms. Jessica Mitchell
Keystone Chapter
PFC Kyle Dean Dietz
GEN Stephen J. Townsend, Ret.
Lonestar Chapter
Mr. Jesse English
MAJ Jason C. Stanley
Mid-Atlantic Chapter
Mr. Robert J. Lang
PV2 Stephen Silva
Morning Calm Chapter
CPT Kyoohyun James Sim
Mount Rainier Chapter
Mr. Haim Kats
Narragansett Bay Chapter
PFC Thomas J. McGowan. Jr
North Country Chapter
CW4 Mark Pfluger
North Star Chapter
Mr. Ryan Jansen
North Texas Chapter
CSM Scott Skellenger
Northern Lights Chapter
SGM Arturo Bautista
Oregon Trail Chapter
SPC Jacquelyn Marie Turner
Savannah Chapter
CSM Jessica Boughan
LTC Jeffrey Murphy
LTC Peter Thomas
Southern California Chapter
Ms. Nicole Diamond
Mr. Casey Martin
Mr. Matthew Ramirez
Ms. Makayla Thomas
Mr. Christian Veeris
Mr. Mark Yun
Tarheel Chapter
WO1 Justin Lee Davis
SSG Mardi Topping
Tennessee Valley Chapter
Mr. Bob Caldwell
Mr. Travis Grant
Ms. Emily Macomber
Ms. Kathryn A. Mason
Ms. Meredith Milligan
Mr. Abel A. Montgomery
COL Jeffrey Poquette
Mr. Warren Reppond
Mr. Justen B. Rhyne
Mr. Joe Simon
Mr. Ryan M. Smith
Mr. Todd Stanley
Mr. Tom Travis
Ms. Lashonida R. Wilson
Utah Chapter
PFC Clayton Lamar Auger
CPT Casey Hoopes
Ms. Sienna Lewis
SGT Derrick Pili
Mr. Richard Sykes
Volunteer Chapter
SPC Shawn Allen, Jr.
Mr. Victor Chargualaf
Voodoo Chapter
SSG Jesse Smith
Washington-Potomac Chapter
PFC Sidharth Ganesh

OSMs *Continued*

Washington Potomac Chapter

CHAPTER COURTESY PHOTO

COL Craig Hunter was inducted into the Bronze Honorable Order of Saint Michael by the District of Columbia ARNG SAAO, LTC Ryan Rooks, at Davison Army Airfield, Ft. Belvoir, VA, on April 30, 2024. Hunter was recognized for his positive leadership and lasting contributions to the DCARNG aviation organization, Soldiers and their families as he transitions to the Maryland National Guard to serve as the Special Assistant to the TAG.

CHAPTER COURTESY PHOTO

CW5 David R. Spielman was inducted into the Silver Honorable Order of St. Michael by LTC Derrick Zant (left), U.S. Army Intelligence and Security Command (INSCOM) G-3 Aerial-ISR Division Chief of Aviation and COL (Ret.) Ron Lukow, chapter president on April 12th, 2024 in the INSCOM headquarters at Ft. Belvoir, VA. Spielman was recognized for his unwavering commitment to duty and selfless service for 26 years as a tactical and technical expert serving the last six years as the INSCOM Standardization Officer and now as The Army Aviation Brigade's (TAAB) Standardization Instructor Pilot at Davison Army Airfield.

Mr. Isaac Perry
Wright Brothers Chapter
Mrs. Christina M. Evans
Mr. Edward Ignacio
PV2 Dylan Craig Soisson
Mr. Ned Swift
Yellowhammer Chapter
PFC Jacob H. Richardson
No Chapter Affiliation
Mr. Zach Dolack
CPT Lacie Emch
Ms. Cassandra Goldberg
TSgt Jordan Haley
PFC George Luis Hernandez
SGT Scott Knolton
MAJ Richard Leonard
CPT Maxwell Liebl
CW5 Shannon Martin
COL Matthew L. McGraw
1LT Russell D. Mckeithen
CW2 Andrew Miquelon
Mrs. Candace Reppond
WO1 David C. Rockholt
1LT Joshua Ropka
PFC Kaelan C.Shetler
Mr. Donovan Smith
SSG Alexander Swierski
Mr. Roy Wiley

AAAA **Family Forum**

Building Resilience and Well Being in the Army Aviation Community

By Judy Konitzer and Kerry Irvin

The Army Aviation Association of America's Annual Mission Solutions Summit was about Transforming Aviation Warfighting; with a pivotal convening for Strengthening our Sacred Trust within our community.

PHOTO BY COL(R) E.J. IRVIN

Kerry Irvin (6th from right) led a Spouse Professional Session called "Unanchored: Navigating Challenging Times and Embracing Uncertainty" on April 26 at AAAA's 2024 Mission Solutions Summit in Denver.

Amidst strategic discussions and displays of technological advancements, there was a profound call to action: to bolster the well-being and professional growth of Army Aviation families.

AAAA organized two Spouse Professional Development sessions that resonated deeply with spouses. One led by Kerry Irvin, CEO of Operation Healing Forces, was more than a workshop. It helped facilitate a pathway to empowerment.

Irvin, DoD Master Resilience Trainer, Human Performance Expert, and Army Aviation spouse took the stage with *Unanchored: Navigating Challenging Times and Embracing Uncertainty.* Her dynamic approach captivated the audience as she delved into practical strategies for resilience and post-challenge growth. Her expertise shed light on how military family members can not only survive but thrive in the face of adversity.

Throughout the session there was a palpable sense of camaraderie and shared experience among attendees. Discussions ranged from the neuroscience of stress to the power of self-talk in shaping perceptions.

Irvin covered separate components like Resilience, a Growth Mindset, Mindfulness and Emotional Intelligence that, when utilized together, have proven to help enhance the overall mental, physical, and emotional well-being of individuals to promote post-challenge growth. She started by acknowledging the term resilience is often overused, with its true meaning diluted - especially in the military community. However, she shared that in terms of positive psychology, resilience is the capacity to withstand and recover from difficulties, and it means resilience is a skill that can be strengthened.

Irvin shared research related to post-challenge growth and discussed why some individuals may have the capacity to recover more productively than others when facing similar adversities. She provided insight on how individuals can shore up their ability to productively respond to stressors in their lives. The group had a lively discussion about factors related to stress and whether all stress is bad. Using the example of the trees from a Biosphere2 experiment, Irvin highlighted how some stress can in fact be productive, and shared some effective tools a person can utilize to mitigate counterproductive stress responses.

Participants learned about the brain's responses to stress through the fight, flight, or freeze reflex response, and how its Amygdala activation can be countered by tools that engage the Prefrontal Cortex allowing a person to react in a manner that helps enhance their performance, values, goals, and relationships.

Irvin also talked about how to utilize Emotional Intelligence skills such as self-awareness and self-management to implement strategies that aid in post-challenge growth. While exploring differences between a growth mindset and a fixed mindset, Irvin treated them to an engaging Coffee County, Alabama dirt road story crafting a picture of "how neuroplasticity of the brain can be intentionally harnessed by implementation of a growth mindset by individuals seeking to create new pathways in their responses to life's challenges. Neurons that fire together, wire together! And when taken together, the skills and tools shared have been proven to help individuals have an enhanced appreciation for life, a changed sense of priorities, fortified relationships, greater sense of personal strength, recognition of new possibilities in life, and a reinforced sense of purpose. Strengthening resilience, cultivating a growth mindset, and honing our emotional intelligence are not just skills, she added, they are essential tools for success and well-being."

AAAA's commitment to empowering Army Aviation families was evident in every aspect of the spouse development sessions. By investing in the well-being and professional growth of our community, we are strengthening our sacred trust and ensuring a brighter future for all.

For more information about topical research and practical strategies contact Kerry at *kerry.irvin@ophf.org.*

Kerry Irvin is the CEO of Operation Healing Forces, a Certified Master Resilience Trainer, Presidential Lifetime Achievement Award recipient, three-time Military Spouse of the Year, and sits on several military-centric national advisory boards. Kerry resides with her husband COL(Ret.) E.J. Irvin in Tampa, FL.

AAAA **Awards**

Order of St. Michael Inductees

Gold
Air Assault Chapter
BG John N. Dailey
Silver
Air Assault Chapter
CW5 Jaime I. Craig
MSG Richard E. Lacombe
Aviation Center Chapter
CW4 Jason L. Burke
COL Joshua P. Higgins
LTC April D. Kearney
Corpus Christi Chapter
James J. Shamess
Frontier Army Chapter
Gary R. Jones
Gold Standard Chapter
CW5 Bradley D. Elefson
Green Mountain Boys Chapter
COL John M. Johnston
Griffin Chapter
COL Romeo R. Macalintal Jr.
Iron Mike Chapter
COL Christopher J. Kirk
Morning Calm Chapter
LTC Ian H. Benson
LTC Scott D. Gale
Mount Rainier Chapter
MG Bret D. Daugherty
CSM Michael S. Twaddell
Northern Lights Chapter
CW5 Michael C. Edwards
COL Nathan S. Surrey
CW4 Ellery Villalobos
Phantom Corps Chapter
CW5 Travis J. Baxter
CW5 Justin N. Crow
COL Philip E. Graham
CW4 Justin D. Johnston
Michael G. Stender
Rio Grande Chapter
CW4 Stephen G Davis
Tennessee Valley Chapter
COL John Valentine, Ret.
Washington-Potomac Chapter
CW5 David R. Spielman
Bronze
Air Assault Chapter
CPT John T. Barry
MSG Willie Brown
CW4 Christopher F. Carson
CPT Katie L. Emery
CW4 Glenn E. Stewart
CW4 Lawrence W. Ward
Aloha Chapter
1SG Matthew Bryan
Arizona Chapter
COL Paul G. Harrell
Aviation Center Chapter
SFC Eric Harriel Jr.
CW3 James Hawkins
CW4 Michael L. Luna
MAJ Harrison M. Moder
Colonial Virginia Chapter
SSG Jocelyn M. Call
Scott A. Engelmeyer
Paul W. Kylander
CPT Brandon J. Link
SFC Robert Sanchez
Corpus Christi Chapter
Roderick D. Benson
Flint Hills Chapter
SFC Raymond P. Brown
SFC Robby J. Fowler
SFC Robert H. Hauser
SFC Morgan A. Hicks
CW2 Ricardo A. Hurtado
CPT Jose C. Ramos
SFC Matthew B. Williamson
Gold Standard Chapter
SSG Jared F. Lancaster
Green Mountain Boys Chapter
CW4 John D. Labbe
CW5 Keith W. LeBlanc
CW4 Kevin M. LeBlanc
Griffin Chapter
CW4 Jason C. Andersen
CW3 Brett H. Jenkins
1SG Robert J. Middleton
MSG Craig R. Miller
CW2 Stephen A. Thurston
CW3 Bobby D. Zizelman
Grizzly Chapter
COL William B. Gentle
Iron Mike Chapter
MAJ Marisa C. Lock
MAJ Cassandra Perkins
Magnolia Chapter
CW4 Derek Abbot9
CW5 Stanley M. Caldwell
COL Andrew Ratcliffe
CSM Eric N. Spellman
Mid-Atlantic Chapter
Eric T. Hughes
Dennis A. Teefy
Morning Calm Chapter
CPT Natalia Drew
Mount Rainier Chapter
SSG Graham Baxter
SFC Jason T. Brown
SFC Michael O. Cushman
CW4 Tyson Edkin
CW4 James R. Fitzpatrick
CW5 Carl Hermanson
MA Troy A. Hokanson
CW4 Joshua T. Kinne
MAJ Braden Maughan
SFC Jeremy L. Rigby
1SG Henry J. Stone
1SG Robert Taylor
Phantom Corps Chapter
MAJ Adam P. Guay
COL Robert D. Hegland
CPT Charles G. Leonard
1SG Robert A. Thibault
Ragin' Cajun Chapter
CPT Daniel L. Davis
MAJ Christopher M. DiMaio
CPT Koo (David) Ji
SFC Justin L. Merson
SFC Nathan W. Rew
Rio Grande Chapter
CW3 Jeffrey Van Camp Jr.
LTC Jennifer L. White
Tarheel Chapter
SSG Daniel J. Orr
Tennessee Valley Chapter
MAJ Chad M. Howard
LTC Kelley A. Nalley
Lindell E. Whaley
Volunteer Chapter
CW4 Matthew Stephenson
Washington-Potomac Chapter
SFC Daniel E. Rice
Winged Warriors Chapter
SFC Arturo Fernandez-Choy
MAJ Hiram A. Figueroacruz
MAJ Robert B. Forney
SFC Manuel Garciaquintana
CPT Avery J. Hage
1SG Raleigh Hawkins
CPT Nicholas M. Lake
CPT William M. Monlux
MSG Terrell J. Murphy, Jr.
CW5 James T. Petty
MAJ Lance W. Randles
CPT Jonathan A. Scott
CW4 Ben Thorley
No Chapter Affiliation
1SG Rusty L. Lansford
Northern Lights Chapter
CW3 Jeremiah C. Harrison
CW2 Christoper A. Kealty
COL Russ Vanderlugt
CW3 Adam N. Wells
CPT Samuel J. Wetlesen

Knight

Air Assault Chapter
CW4 Daniel R. Lawman
Griffin Chapter
CPT Ryan S. Rowden
Magnolia Chapter
LTC Steven Jackson
Morning Calm Chapter
SFC Derek M. Smith
Phantom Corps Chapter
MAJ Michael Cuddy
LTC John P. Dolan
Ragin' Cajun Chapter
CPT Shaun D. Brooks
SSG Quentin B. Chester
Keith E. Morrow
Tennessee Valley Chapter
LTC Robert Domitrovich, Jr., Ret.
Thunder Mountain Chapter
CPT David Ramirez
Winged Warriors Chapter
CSM Nicholas Ford
1SG Alexandra Kassieram
COL James Wiese
No Chapter Affiliation
LTC James E. Patrick, Ret.
CPT Ralph Priddy, Ret.

Our Lady of Loreto

Arizona Chapter
Karen Y. Edwards
Griffin Chapter
Elizabeth A. Raymond
Mount Rainier Chapter
Tara Neal
Melissa A. Shadwick
Tennessee Valley Chapter
Sharia Davis
Margo D. Domitrovich
Lora Valentine

AAAA Salutes the Following Departed...

MAJ Lester Fullen, Ret. *Deceased 1/22/2024*

Industry News

Announcements Related to Army Aviation Matters

Editor's note: Companies can send their Army Aviation related news releases and information to editor@quad-a.org.

Leonardo DRS to Provide Additional QCL Systems for CIRCM

U.S. ARMY PHOTO

Leonardo DRS, Inc. announced on June 10, 2024 that it has received another full-rate production contract to supply its industry-leading Quantum Cascade Laser (QCL) technology to enable Common Infrared Countermeasure (CIRCM) systems for critical military aircraft protection. The award from Northrop Grumman continues the collaboration between the two companies on this QCL capability that provides advanced protection against current, evolving, and proliferating missile threats to U.S. military aircraft.

Army to Field Over 1,000 Switchblade 600 Kamikaze Drones

AEROVIRONMENT GRAPHIC

GEN James Mingus, the Army's vice chief of staff, revealed on June 21, 2024 the Army will field more than 1,000 Switchblade 600 drones over the next year as part of Replicator, the Pentagon's effort to field thousands of uncrewed systems. Built by AeroVironment, the Switchblade 600 loitering munition is one of a few systems the Defense Department plans to buy in the first segment of the Replicator program and is the only one officials have identified by name. With a 24-mile range, 40 minutes of loitering endurance and the ability to fly at speeds of up to 115 miles per hour, Switchblade 600s are built to destroy armored vehicles and other targets in multi-domain military operations. The Pentagon plans to spend a total of $1 billion on the Replicator program in fiscal years 2024 and 2025.

Honeywell to Acquire CAES

HONEYWELL GRAPHIC

Honeywell

CAES

CAES GRAPHIC

Honeywell announced on June 20, 2024 that it has agreed to acquire CAES Systems Holdings LLC (CAES) from private equity firm Advent International for approximately $1.9 billion in an all-cash transaction. This acquisition will enhance Honeywell's defense technology solutions across land, sea, air and space, including new electromagnetic defense solutions for end-to-end radio frequency (RF) signal management. This acquisition will enhance Honeywell's defense technology solutions across land, sea, air and space, including new electromagnetic defense solutions for end-to-end radio frequency (RF) signal management.

Contracts – (From various sources. An "*" by a company name indicates a small business contract / "**" indicates a woman-owned small business)

All Clear Repair Services Inc., Miramar, FL, was awarded a $15,975,000 firm-fixed-price contract for UH-60 Black Hawk maintenance and overhaul; work locations and funding will be determined with each order, with an estimated completion date of May 30, 2029.

General Electric Co., Lynn, MA, was awarded a $1,128,042,359 firm-fixed-price contract for T700 series turbine engines; work locations and funding will be determined with each order, with an estimated completion date of June 13, 2029.

Merlin Labs Inc., Boston, MA, was awarded an indefinite-delivery/indefinite-quantity contract (H9240824R0003) with a ceiling of $105,000,000 to design, integrate, and test an operationally relevant system that will demonstrate reduced aircrew capability to encompass testing, production, integration, demonstration, and sustainment, on various Special Operations Forces aircraft mission design series in support of U.S. Special Operations Command; work will be performed in Boston, MA; Centennial, CO; and Eglin Air Force Base, FL, and is expected to be completed within the contract's five-year ordering period, or by June 2029.

The Boeing Co., Ridley Park, PA, was awarded a $115,158,530 firm-fixed-price modification to an existing delivery order (H9224122F0073) for procurement of MH-47G renew build rotary wing aircraft in support of the U.S. Special Operations Command (USSOCOM); the majority of the work will be performed in Ridley Park and is expected to be completed by July 2027.

ADVERTISER INDEX

Thank You to Our Scholarship Fund Donors

AAAA recognizes the generosity of the following individuals, chapters and organizations that have donated to the Scholarship Foundation, Inc. from June 2023 through June 2024. The list includes donations received for all scholarships, as well as the General Fund which provides funding to enable the chapter, corporate, heritage and individual matching fund programs as well as national grants. Every penny donated to the Scholarship Foundation goes directly towards scholarships as a result of the Army Aviation Association of America subsidizing all administrative costs (minus investment brokerage fees).

IHO – In Honor Of

7th Squadron 17th Cavalry Ruthless Riders Association
7-17th Cavalry Association-IHO Barbara Inglett
190th Assault Helicopter Association
AAAA Air Assault Chapter
AAAA Arizona Chapter
AAAA Aviation Center Chapter
AAAA Badger Chapter
AAAA Big Sky Chapter
AAAA Bluegrass Chapter
AAAA Central Florida Chapter
AAAA Colonial Virginia Chapter
AAAA Connecticut Chapter
AAAA Cowboy Chapter
AAAA Delaware Valley Chapter
AAAA Gold Standard Chapter
AAAA Griffin Chapter
AAAA Idaho Snake River Chapter
AAAA Keystone Chapter
AAAA Lindbergh Chapter
AAAA MacArthur Chapter
AAAA Mid-Atlantic Chapter
AAAA Minuteman Chapter
AAAA Mohawk Chapter
AAAA Mount Rainier Chapter
AAAA North Star Chapter
AAAA North Texas Chapter
AAAA Old Tucson Chapter
AAAA Oregon Chapter
AAAA Phantom Corps Chapter
AAAA Prairie Soldier Chapter
AAAA Southern California Chapter
AAAA Tarheel Chapter
AAAA Tennessee Valley Chapter
AAAA Washington Potomac-Chapter
Acuity International
Arthur Agnew
Air Shelters USA, LLC (ZUMRO)
AIRBUS U.S. Space & Defense, Inc.
AIRBUS
Aircrafters, LLC
All In Credit Union
Amazon Smile
AAPI
Army Aviation Association of America
Army Otter-Caribou Association Inc.
Aseptic Health
Gerald Babor
Charles D. Bayless
Belkin International
Bell Textron Inc.
Joseph Bergantz
Robert P. Birmingham
The Boeing Company
Celeste & Paul Bogosian
Steve Bolton
Richelle Brown
Sherry C. Brown-IHO Joyce Hesson
Larry Brown
BT Mack
Mary & John Burke
Luann J Burnham-IHO COL John March Stephen T. Burns
C&F Bank
Cynthia S. Campbell-IHO CW4 Richard Campbell
Charles C. Claudill-IHO Joyce Hesson Bell
Combined Federal Campaign
Nathan S. Champion
Russell W. Chung
Sylvia A. Cikins-IHO Joyce Hesson
Charles T. Climer
Justin Vernon Cole
Colony Contruction, Inc.
Buddy Conklin
Craig Cook
Tim Cotter
Geoffrey A. Crawford
David W. Crocker
Rick Crogan
Lance J. Culver
Gary L. Cunningham
Patrick F. Curran-IHO Fallen Aviation Brethren
Daniel R. Curry
Brittany Curtiss
Davidson Brown, Inc.
Gail Davis
Gerald R. Davis
Rodney Davis
Walter L. Davis
Robert L.Davis, Jr.
Todd Digeronimo
DigiFlight, Inc.
Gail & Jan Drabczuk
Angela & Paul Duff
Craig J. Dupuy
The Dustoff Association
Timothy J. Edens
Element Construction
Laura Essey
ESS-Eye Safety Systems
Facility Engineering Associates, P.C.
Teresa Ferraro
Michael C. Flowers
FORTS Services
Vanessa & Jeffrey Fowler-IHO COL Hoecherl
James G. Freeman
Craig Gable-IHO COL Gary L. David
Jenny & Paul Gale
Galvion
GeneralAtomicsAeronauticalSystems,Inc.
Michael P. Goodwin
Jacqueline & Thomas Gordon
Jon Graft
Thomas O. Graft-IHO Joel R. Graft
Mark W. Grapin
John Haire
Scott J. Halverson
Estate of Lee & Odette Hand
Joanne Hansrote
Thomas M. Harrison
Helibasket LLC
Margaret & Clifford Holgate-IHO James Hesson
Scott W. Hollingsworth
Richard W. Huber
Tom T. Huff
LaVerne Humpert-IHO LTC Gabriel Spicer
Iron Bow Technologies
James M. Israel
Charles Jackson-IHO Levi Scott
JACS Aircraft Certification Specialists
Jack A. James-IHO T/SGT Karl P. Danckwerth Sr.
Larry Jess
Robert L. Johnson
Larry Martin Jonas
JS Solutions LLC-IHO COL Hoecherl
Clara Ann Junot-IHO Joyce Hesson
Kathryn's High Tea
Strata-G Solutions LLC
Richard D. Kenyon-IHO Virginia Kenyon
Thomas J. Konitzer
Sarah & Taylor Lang
James F. Leary
Leidos
Shane C. Leipertz
Elizabeth & John Lewis-IHO Joyce Hesson
Karen Lloyd
Lockheed
The Lockwood Group LLC
Missy & Brenton Logan
Robert C. Lorenz
Timothy A. Lunger
Elisabeth & Daniel T. Madish
Tommy L. Marks
Elizabeth A. Martin
Stephen T. Mauro
Patricia McBride-IHO COL Gary David
Charles E. McCormick
Thomas P. McGurn
MG and Mrs. Carl H McNair, Ret.
Rudy Mendez
Jane F. Merryman-IHO Joyce Hesson
Krista Mills
Charles Mineo-IHO CW2 Brian Madrid
William H. Morris
Stephen D. Mundt
Donald T. Munsch, Munsch & Co.
Aeromechanics
MyHy Liquid Hydration Mix
James T. Naylor
Network for Good
Northrop Grumman-IHO COL Hoecherl
Kathleen O'Connor
Elizabeth Oneill
Ostovich Enterprises, Inc.
The OV-1 Mohawk Association
Amber & Brent Pafford
Elaine & Clarence Patnode
Marilee Patrick & Sandra Becker
Patriot Taxiway Industries
Daniel C. Pearson
Peduzzi Associates, LTD
Janet Penny
Barbara & Daniel Petrosky
Phantom Products, Inc.
Piasecki Foundation
Billingsley G. Pogue
Kyle Poppell
Douglas L. Powell-IHO Joyce Hesson
Janet M. Powers Fund-IHO Joyce Hesson
Radial Solutions Inc.
Patricia & Brian Ranson
Marc L. Rassler
Charles R. Rayl-IHO Rosalie Sparks
Ian Reardon-IHO James C. Reardon
Jaros C. Rickmeyer
Marilyn C. Rickmeyer
John M. Riggs
Roberson Giving Fund
Kenneth Todd Royar
S3-System Studies & Simulation, Inc.
Latny & Jonathan Salt
Pat J Salvo-IHO COL Gary David
The Sendak Family
Matthew D. Shattuck
Mary & William Shelt
Billie K. Sikes
Bradford L. Smith
Alan M. Smith
Jan Smith
Judith & Mark Smith
Heather Snoe
Barry J. Speare-IHO Diane Speare
Marian Spencer
Diane L. Spencer
Tracey & Karl Stahlecker
Celia Stump
Kathryn Taylor
Truck & Transportation
Terry L. Truett
Jill & James Tyler-IHO COL Hoecherl
Kevin Valdes
Justino Vega
Vertx
Veterans Home Association of the Whitemarsh Valley
Vietnam Helicopter Pilots Association (VHPA)
VHPA-IHO Fallen Troopers of the 227th Helicopter Battallion
Vita Inclinata Technologies
Leslie H. Weinstein-IHO Joyce Hesson
Donna & Thomas Whitaker-IHO Joyce Hesson
Erin Whitaker-IHO Joyce Hesson
Karen White-IHO CW5 Frank E. White
The White Birch Foundation Gift Fund
Myrna Williamson-IHO MG Carl McNair
Whitney & Jeffrey Winchester-IHO COL Hoecherl
The Winvale Group
Corey Womack
Wreaths Across America
Jessica & Chuck Wright
Michelle F. Yarborough
Michelle Yarborough-IHO CW4 Thompson
The Zieff Family Fund Inc.-IHO Bill Harris

For more information about the Foundation or to make a contribution, go online to www.quad-a.org; contributions can also be mailed to AAAA Scholarship Foundation, Inc., 593 Main Street, Monroe, CT 06468-2806.

People On The Move

Aviation General Officer Promotions/Assignments

U.S. ARMY PHOTO

Secretary of Defense Lloyd J. Austin III announced on June 14 that the president has nominated Army MG David J. Francis for appointment to the grade of lieutenant general, with assignment as deputy commanding general, U.S. Army Training and Doctrine Command; and commanding general, U.S. Army Center for Initial Military Training, Joint Base Langley-Eustis, Virginia. Francis is currently serving as the chief of staff, U.S. Africa Command, Germany.

Reenlistment

U.S. ARMY NATIONAL GUARD PHOTO BY 2LT KATE KRAMER

Re-up in the Sky

U.S. Army Maj. Gen. Michael Wegscheider, left, 28th Infantry Division commander, gives the Oath of Enlistment to Sgt. Natalie Wilson, signal support systems specialist with the 28th Expeditionary Combat Aviation Brigade, on a CH-47 Chinook helicopter over Fort Indiantown Gap, Pennsylvania, May 19, 2024.

FLIGHT SCHOOL GRADUATES

AAAA provides standard aviator wings to all graduates and sterling silver aviator wings to the distiguished graduates of each flight class ... *another example of AAAA's* ***SUPPORT*** *for the U.S. Army Aviation Soldier and Family.*

AAAA congratulates the following officers graduating from Flight School XXI at the U.S. Army Aviation Center of Excellence, Novosel, AL.

54 Officers May 16, 2024

Class 24-014

Commissioned Officers

CPT Hays, William J. -DG
1LT Bradshaw, Alexander S. -HG
2LT Eisele, Chad R. -HG
2LT Goans, Tristan N. * -HG
CPT Ortiz, Andrew J. * -HG
2LT Bevill, Billy E. *
2LT Birkland, Zachary G. *
1LT Colegrove, Andrew J. *
2LT Harbeck, Christopher J. *
2LT Hopey, Rachel L.
2LT Juhasz, Andras T. *
2LT Kaczmarski, Andrew J.
1LT Kiger, Noah R. *
1LT Kortz, Julia C.
1LT Low, Brody R. *
2LT Martinez, Brandon S. +
1LT Norden, Hannah A.
1LT Orellana, Mason F.
1LT Pollino, Darrin J.
1LT Schroering, Alexander D. *
2LT Snelgrove, Peter J. *
2LT Thomason, Alex K. *
2LT Trogdon, Grayson T.
1LT White, Brianna C.

Warrant Officers

WO1 Baker, Eric W. * -HG
WO1 Schilt, Emmett F. * -HG
WO1 Wise, Jared K. * -HG
WO1 Bellino, Joseph S. *
WO1 Brown, Shannell G.
WO1 Castillo Lechuga, Francisco M. *
WO1 Choi, Jung Ho *
WO1 Cox, Michael E. *
WO1 Day, Trinity S.
WO1 Eyckmans, Ben
WO1 Fiero, Travis A. *

FSXXI Class 24-014

FSXXI Class 24-015

WO1 Fitch, Nathan C.
WO1 Frost, Caleb A.
WO1 Guzman Estrella, Emmanuel *
WO1 Jones, Teegan J. *
WO1 Jung, Ethan W. *
WO1 Kelly, Harrison T.

People On The Move

WO1 Kibler, Stephanie N. *
WO1 Konop, Dominic A.
WO1 MacGregor, Tyler D.
WO1 Mazey, Benjamin J. *
WO1 McFadden, Chae D. *
WO1 Moroney, Timothy E.
WO1 Odojewski, David M. *
WO1 Perry, Andrew L. *
WO1 Sherpa, Sonam T.
WO1 Sowell, Jacob A.
WO1 Thornton, Megen A.
WO1 Tosh, Brandon M.
WO1 Tran, Binh H.

52 Officers May 30, 2024
Class 24-015
Commissioned Officers
1LT Corkery, Andrew R. -DG
1LT Alexander, Spencer R. * -HG
1LT Harder, Brandon D. * -HG
1LT Hill, Tucker F. * -HG
2LT Hittle, Hayden J., II * -HG
1LT Anderson, Louis J. *
1LT Arnold, Michael N.
1LT Bottheim, Jon E.
2LT Brown, Andrew A. *
2LT Grayson, Luke R. *
1LT Kirkland, Robert C. *
1LT Leone, Roman A. *
2LT Martinez, Alfonso M.
2LT Messmer, Ryan P. *
1LT Mitchell, Layne E. *
1LT Paschal, Wyatt R. *
2LT Pickrell, Emily A. *
1LT Rivera, Natalia K.
2LT Sanchez, Felipe T. *
1LT Smythe, Connor M. *
2LT Vandenberg, Peter W.
2LT Waters, Isaac A. *
CPT Wold, Dylon J. *
Warrant Officers
WO1 Ainsworth, Mark C. -HG
WO1 Cook, John S. * -HG
WO1 Pacheco, Austin P. -HG
WO1 Spann, Jesse R. -HG
WO1 Ashton, Stephen M. *
WO1 Benavides, Ever M.
WO1 Bennett, Jarrod A.
WO1 Bonnes, Eric J.
WO1 Bugarin Palmieri, Amanda
WO1 De La Rosa, Tylor A.
WO1 Dingeldein, William G.
WO1 Gray, George R., Jr.
WO1 Kolb, John J.
WO1 Landon, Mason R. *
W01 Leon Guerrero, Christopher W.
WO1 McCurry, James D.
WO1 Miner, Christopher D.
WO1 Nwaobi, Paul C.
WO1 Osmer, Gregory D. *
WO1 Perkins, Stephen J.
WO1 Reiswig, Simeon S.
WO1 Rivas, Isaias J., Jr. *
WO1 Smith, Matthew J.
WO1 Spangler, Leah A. *
WO1 Steinberg, Charles C.
WO1 Wagner, Joshua M.
WO1 Webb, Mark L.
WO1 Willingham, Nicholas N.
WO1 Wooten, Aaron C.
-DG: Distinguished Graduate
-HG: Honor Graduate

* = AAAA Member
+ = Life Member

Non-Rated Warrant Officer

AAAA congratulates the following officers graduating from the Aviation Maintenance Warrant Officer Basic course at the U.S. Army Aviation Logistics School, Joint Base Langley-Eustis, VA.

11 Graduates, May 17, 2024
Classes 003-004 2024
WO1 Justin Davis, * -DG
WO1 Keith Buss, -HG
WO1 David Guerrero * -DG
WO1 Donovan Dunlap-HG
1LT Ali Rashid Al Behaih
1LT Talal Abdulsalam Al hardi
2LT Ghaith Alkuwari
WO1 Roger Kim
WO1 Ian Harvey
WO1 Joseph Page
WO1 Matthew Patey
* = AAAA Member

ADVANCED INDIVIDUAL TRAINING (AIT) GRADUATIONS

AAAA congratulates the following Army graduates of the indicated Advanced Individual Training (AIT) courses at the 128th Aviation Brigade, Joint Base Langley-Eustis, VA and the U.S. Army Aviation Center of Excellence, Ft. Novosel, AL.

Aviation Maintenance Technician (151A)
Class 003-24
WO1 Justin Davis * -DG
WO1 Keith Buss
Class 004-24
WO1 David Guerrero * -DG
WO1 Donovan Dunlap
WO1 Ian Harvey
WO1 Joseph Page
WO1 Matthew Patey
AH-64 Attack Helicopter Repairer (15R)
Class 015-24
PV2 Kristopher Cody Welker * -DG
PFC Nicholas Agullar
PV2 Jacob Michael Grimes
SSG Austin Alexander Hannah
PFC Connor Peter Hikade
PV2 Joseph Andrew Neithercut, II
PFC Alexander Aiden Peters
PVT Darian Trevon Rashad
SPC Pashko Shkreli
PV2 Malachi Brett Smith
PFC Eric Tovar
PV2 Landon James Vidmar
Class 016-24
PFC Ty Austin Herrin * -DG
PV2 Samuel Michael Anderson
PFC Pranta Barua
PFC Jesus Roberto Bermudez Campa
PV2 Jacob Patrick Britton
PVT Kaden Nicholas Giedzinski
PV2 Anthony Gilberto Gutierrez
PVT Aaron David Matsche
PVT Grant Gene McGarity
PFC Joshua Francisco Miranda
PV2 Trystin William Powers
PVT Ashton Uriah Smith
Class 017-24
PFC Haodong Qiu * -DG
SPC Joshua A Bean
SPC Richard William Good, Jr.
PV1 Trent Tyler Potter
PFC Christian Miguel Simental, Jr.
Class 019-24
PV2 David M Petlick * -DG
SPC Robert Timothy Arnold
SGT Zane Samuel Bell
SPC Seth Thomas Fulton
PV2 Gustavo Fabian Garcia Robles
PV2 Jory Elliot Hoover
PVT Noah Riley Patton
SPC Joshua Alexander Reveles
Class 020-24
SPC Jacquelyn Marie Turner * -DG
PV2 Johnathan Reid Atkinson
PVT Samuel Lee Beckham
PV2 Lia Lujero Nazareno
PFC Lucas Thomas Weimar
PV2 Joseph Willis
PFC Taylor Adair Wurtele
Class 021-24
PVT Brendan N. Mosbaugh * -DG
PV2 Owen Reid Clingan
SPC Delwin Donald Daugherty
PV2 Nathan Scott Duncan
PVT Bryton John Jacobsen
SPC Nicolas Mejia Jaramillo
SPC Cameron Brooks Kennedy
PFC Isaac Medrano
SPC Andres Reyna Barron
SPC Jesus Alberto Vencesrojo
CH-47 Medium Helicopter Repairer (15U)
Class 201-24
PFC Stephen Daniel Deal * -DG
PV2 Abdulsamad Shinaayomi Ayofe
PV2 Johnathan Angel Baskette
PFC Hector Raul Garcia Monroy
PFC Mark Allen Hancock
PV2 Jacob Tyler Hopcus
PV2 Phan Quoc Tri Le
SPC Chaseton Matthew Madrid
SPC Clay Michael Palmer
PV2 Joshua Eddie Smith
PFC Michael David Stites, Jr.
PV2 Michael Lee Yingst, Jr.
Class 014-24
PFC Kyle Dean Dietz * -DG
CPL Cauy William Duba
PV2 Damian Rayn Duncan
PFC Anthony Flores-Aguilar
PV2 Cody Michael Mandell
SGT Alexander Ortega
PV2 Colton Ray Owen
PV2 Ethan Craig Recher
PV2 Samroy Richard Rhynie
PFC Kevin Andres Rios
PV2 John Wesely White, II
PV2 Eric Mitchell Williams
Class 015-24
SPC Stephen Robert Brennan
PV2 Tristan Andrew Solomon Cruden
PFC Elijah Lee Farringer
SPC Kameron D.G. Greene
SPC Derek Ross McCulloch
SPC Braedon Daniel Monzo
SGT Wesley Major Pierce
SGT Shaun Paul Segura
PV2 Corbin Dalton Vorel
SGT Michael William Whitaker, III
SGT Michael Taylor Wolff
Class 016-24
PV2 Dylan Craig Soisson * -DG
SPC Braulio Eniel Barreda
PV2 Pierce Randallhackman Brundage
PV2 Asa Ray Gaunt
PV2 Logan David Gilchrist
PV2 Josue Gonzalo Herrera Trueva
PV2 Ryan Maddox Newman
PV2 Angel Javion Kaihoi Oviedo
SPC Richard Lane Pelot
PV2 Reagan Todd Perkins
PV2 Derek Wayne Sanders
SPC Isaac Shawn Thompson
UH-60 Helicopter Repairer (15T)
Class 028-24
PFC Jacob Hayden Richardson * -DG
PFC Curtis Elliott Brown
PV2 Danel Julian Fernandez Jimenez

Continued on next page

People On The Move

AIT Graduations
Continued

CPV2 Aaron Paul Getler
PV2 Cory Andrew Johnson
SPC Jacob Wesley Jones
PV2 James Daniel Larose
PV2 Daniel Bradley Moore
PV2 Dominic Daniel Rogers
PV2 Said Teodoro Romero Salinas
Class 029-24
PV2 Stephen Silva * -DG
SPC Esteban Alvarez
PV2 Anthony James Barber
PV2 Manuel Eduardo Cachutt
SPC William Thomasjacob Case
PFC Brandon Ray Cottle
SPC Julia Elizabeth Demster
CPL Andres Gonzalez
SGT Henry Porter Oakley
SPC Tyler Joseph Rose
PV2 Caden Matthew Shipley
SPC William Randall Sutton, III
Class 030-24
PFC Jose Anibal N. Nevarez * -DG
PFC Paytin Antwan Cruz
PFC Malcolm Beauhunter Duthie
PFC Connor Lee Hawkins
PV2 Troy Jarrett Hayes
SPC Cardez Leandis Jackson
SPC Tristan Reed Jones
SGT Blake William Kuerner
PFC Jacob Robert Metcalf McGee
PFC Dillon Q Mortensen
Class 031-24
PV2 Ethan William Norris * -DG
SPC Steven Jacob Adcock
SPC Micah Dallas Bohne
SPC Jelani Christian Cameron
SGT Zachary Kenneth Hogan
SPC Ugur Karabulut
PFC Jose Ariel Lopez Martinez
PFC Jeremiah Ethan McCaskill
SGT Tre Josephhenry Neether
SGT Ceke Niderhauser
SGT Jorge Evel Riveraluna
SPC Joel Ryan Trammell
Class 032-24
PV2 Johnathon D. Hernandez * -DG
PV2 Jordan Riley Cecil
PV2 Liam Gregory Hanks
PV2 Evan Michael Heinsen
PFC Shane Patrick McDonough
PFC Gadiel Andres Ortegavazquez
PFC Arnaldo Rivera Santiago
PV2 Bryon Aleksander Stansell
PV2 Manuel Seth Vegas
PV2 Cameron David Vun Cannon
Class 033-24
PV2 Joseph E.Polanco * -DG
PV2 Jeremy Joseph Collins
SPC Kevin A Escobar
PV2 Jaden Nicholas Hawkins
PV2 Raul Erick Lopez
SPC Tyron Diquan Martin
SPC Jonathan Michael Morgan
PFC Haven Tyler Osteen
SGT Coner Philip Ramos
SPC Scott Anthony Sanders
SPC Gabriel E Smith
PV2 Jude Lee Wilson
Class 034-24
PV2 Javier Fornes * -DG
PFC Shavaun Michele Brugger
PV2 Mark Jayson Tagaca Cascayan
PV2 Alexander Cade Edwards
PV2 Jacob Brandon Jones
PFC Aidan Jay Kyle
PV2 Henry Leal
SPC Bryson Craig Moore
PFC Joshua Steven Penn
SPC Ethan Patrick Shetler
SPC Felixberto Maria Trinidad
Class 035-24
PFC Hunter Lee Pollard * -DG
SPC Taelan Noble Blais
PV2 Jarrett Anthony Cade
PFC Colin Michael Findura
SPC Stephen Andrew Florey
SPC Dalton Levi Hacker
PFC Alexander Denney Haight
SPC Julioromano Starita Iglesia
PV2 Hayden Lane Moore
PV2 Christopher Rios
PFC Christian Nathaniel Towler
PFC Joshua Allen Wood
Class 036-24
PFC Jordyn Nicole Grendahl * -DG
PFC Gladys Denise Bautista
PV2 Thomas James Bibbey
PV2 Jacob Bailynn Brown
PV2 Baxter David Cole
PFC Alexander Scott Gilbert Hall
PV2 Cayden Amos Ramon
PV2 Alex Ryder Schmidt
PV2 Hudson Soler
PV2 Bret Douglas Weidman
PFC Keenan Nathan Wingfield
Class 037-24
PFC John Michael Finch * -DG
PV2 Michael Kenneth Lee
PV2 Teon Sabrian Madison
SPC Luis Sebastian Marrero Stella
PV2 Antonio Nadir Munoz
SGT Michael Thomas Pape
SPC Jaime Enrique Reyna, Jr.
PV2 Wesley James Stevenson
PV2 Gavin Van Turner
PV2 Jackson Chase Turpin
PVT Austin Cole Vanness

Aircraft Powerplant Repairer (15B)
Class 003-24
PFC Thomas J. McGowan, Jr. * -DG
SPC Jonathan Brady Bryant
PV2 Anthony Cain Castro
SPC Lucas David Koppenhofer
SPC Jose Carlos Lopez
PFC Joseph Edwin Morris
PV2 Ethan Andrew Vick

Aircraft Electrician (15F)
Class 005-24
PFC Kaelan C. Shetler * -DG
PV2 Rodolfo Manuel Alaniz, IV
PVT Rafid Sabah Damouk
PFC Dameon Palmer
PV2 Lukas Vincent Saenzduchateau
Class 006-24
PFC George Louis Hernandez * -DG
SPC Jason Reynaldo Brown
SPC Carlos Jacobo Rodriguez
PV2 Aaron Ray Simmons

Aircraft Structural Repairer (15G)
PFC Broden Giuseppe Romano * -DG
PV2 Joshua Boyd Brown
SPC Ling Yu Chen
PV2 Isaiah Benjamin Kella
PFC Elijah David Patrick McCann
PFC Oswin Manuel Palomino
PV2 Conor Christopher Pramov
PFC Lorenzo Villalobos
PV2 Clinton Wayne Wigley, Jr.

Avionic Repairer (15N)
Class 003-24
PFC Estella Lerae Elliott * -DG
PFC Isaac John Alexander
PV2 Arturo Alejandro Berroa
PV2 Nicole Elizabeth Burgess
PV2 Auron Michael Cruz
PFC Naomi Melissa Tzib
SPC Gregory Ryan Vafiadis
Class 004-24
PFC Austin James Galleron * -DG
PFC Brazos Waine Brown
PFC Mason Jesse Fratzke
PV2 Tajaelien Ishawn Ramon Griffin
PV2 Gabrial Lyn Lang
SPC Seth Milam Maqueira
PFC Ezra Stephen Syska
PFC Jacob Calvin Wofford
Class 005-24
PFC Samuel Earl Rivera * -DG
PV2 Anasia Evonne Tyrene Butler
PV2 Elian Joel Morales-Nieves
PFC Bryanna Nichole Nolan
PV2 Jacob Wayne Peschon
PFC Dale James Thomas
PFC Nicholas Brian Torres
PFC Elijah Joel Whitty

AH-64 Armament/Electrical/ Avionic Systems Repairer (15Y)
Class 005-24
PFC Clayton Lamar Auger * -DG
SPC Rolando Delgado, Jr.
PV2 Tyler James Gorajewski
SPC Chase Hunter Harrington
PV2 Sean Patrick Mowles
PV2 Dylan Michael Jose Sebastiao
PV2 Christian Andrew Wallace Walton
PV2 Zeke Wayne Yon
Class 006-24
PFC Jacob Alan Wilhoit * -DG
SPC Alam M Aguilar
PFC Robert Charles Alfaro, III
PFC Zachary Anderson
PFC Caleb Michael Bigos
SPC Spencer Craig Dearden
PFC John Mark Mortensen
SPC Jaydon Luis Pedroza
PV2 Clayton Andrew Prouty
PV2 Bryan Allen Smith
PFC Xander Franklin Worthey
-DG: Distinguished Graduate
-HG: Honor Graduate
* = AAAA Member

UPCOMING AAAA EVENTS

AUGUST 2024
1 Award Submission Deadline – Logistics Support Technician and Unit of the Year; Materiel Readiness Awards; Fixed Wing Unit of the Year; UAS Soldier, Technician and Unit of the Year
18-21 EANGUS 53rd Annual Conference, Detroit, MI
23-26 NGAUS 146th General Conference, Detroit, MI

SEPTEMBER 2024
1 Award Submission Deadline – Air/Sea Rescue; ATC Controller, Maintenance Technician, Manager, Facility, and Unit of the Year; DUSTOFF Flight Medic of the Year; Medicine, Trainer of the Year Awards
14 National Aviation Hall of Fame Enshrinement, Dayton, OH
16-17 Army Aviation Survivability Forum (AASF), Huntsville, AL
25-26 Unmanned Aircraft Systems West, San Diego, CA

Unmanned Aircraft Systems (UAS) Graduations

UAS REPAIRER
AAAA congratulates the following Army graduates of the Unmanned Aircraft Systems Repairer Course, MOS 15E and 15M at Fort Huachuca, AZ.

Shadow UAS Repairer Course
5 Graduates, 12 June 2024
SPC Carson Lewis E -DG
PV2 Evareau David Patrick
PFC Frazier Devon Connor
SPC Harvey Andrew D
PVT Tenorio Jeremiah N

Gray Eagle UAS Repairer Course
7 Graduates, 24 June 2024
PFC Gecawich Cass M -HG
PFC Correll Jett Edward
SPC Lopez Ruben Marcos
PV2 Millermedlin Jaden Isaac
PFC Santos Dexter Preston
PVT Sims Jackson
PV2 Whitcomb Christopher P

UAS Operator
AAAA congratulates the following Army graduates of the Unmanned Aircraft Systems Operator Course, MOS 15W at Fort Huachuca, AZ.

Shadow UAS Operator Course
9 Graduates, 3 June 2024
PV2 Steltenpohl Jake Nicholas -DG
PV2 Byrd Brookelynn A
PV2 Crosby Kelsen B
PV2 Linehan Aidan P
PV2 Markin Dillon J
SPC Park Derik J
SPC Posada Eduardo A
PV2 Rodriguez Juan J
PV2 Wilson Taisean J
10 Graduates, 21 June 2024
PV2 Baedke Gary Jonathan
SPC Branch Isaiah A
SPC Collins Justin K
SPC Conwellwayment Samuel Isaia
PVT Grundy Robert Joseph
PFC Lee Tyler Douglas
SPC Mccord-Magnusson Jordan G
PFC Richardson Weston M
SGT Tepale Ashley A
PV2 Yeomans Kieran F

AAAA **Legislative** Report

By LTC (Ret.) Patrick "Josh" Baker
AAAA Representative to the Military Coalition (TMC)
josh.baker@quad-a.org

2024 Defense Appropriations Conference Report

The House of Representatives is making great progress at marking up their versions of the NDAA and Defense Appropriations Bill.

RED - Program Funding Decrease **GREEN** - Program Funding Increase

Fiscal Year 2025 Army Aviation Budget Mark-Up Tracker					
PROCUREMENT (Proc)					
		House Marks			
Program	Requested	HASC (NDAA)	Comment	HAC-D (Defense Approps)	Comment
MQ-1 UAV	$0	$0		$240,000	25M for NG
Future UAS Family	$149,059	$149,059		$149,059	
Small UAS (SUAS)	$69,573	$69,573		$69,573	
Apache Block 3 Reman	$570,655	$570,655		$557,399	GFE Ahead of Need
Apache Block 3A Reman (AP)	$0				
Blackhawk M Model (MYP)	$709,054	$709,054		$769,054	60M For NG
Blackhawk M Model (AP)	$58,170	$58,170		$58,170	
Blackhawk L & V Models	$0				
Chinook	$699,698	$804,698	2 A/C	$699,698	
Chinook (AP)	$0				
Spectrum Army SUAS	$0				
Gray Eagle	$0				
UH-72 Lakota	$0	$0		$12,000	Lifecycle Sust.
Gray Eagle Payload	$14,086	$14,086		$14,086	
Gray Eagle Mods2	$23,865	$23,865		$23,865	
Multi Sensor Airborne Recon	$0				
Apache Mods	$81,026	$81,026		$104,326	Tail rotor, Barrel
Chinook Mods	$15,825	$15,825		$38,825	AV Computer, Protection
Blackhawk Helicopter Mods	$34,565	$34,565		$39,565	Thermo. Tailrotor
Network and Mission Planning	$49,862	$49,862		$59,862	AMCS
COMMS, Nav Surveillance	$61,362	$61,362		$61,362	
Degraded Visual Environment	$3,839	$3,839		$3,839	
Aviation Assured PNT	$69,161	$69,161		$69,161	
GATM Rollup	$4,842	$4,842		$4,842	
UAS MODS	$2,265	$2,265		$2,265	
ASE	$139,331	$139,331		$139,331	
Survivability Countermeasures	$0				
CMWS	$51,646	$51,646		$51,646	
CIRCM	$257,854	$257,854		$257,854	
Common Ground Equipment	$31,181	$31,181		$31,181	
Aircrew Integrated Systems	$14,478	$14,478		$14,478	
Air Traffic Control	$27,428	$27,428		$27,428	
Launcher, 2.75 Rocket	$3,815	$3,815		$3,815	
Launcher, Guided Missile; Longbow Hellfire	$21,545	$21,545		$21,545	
RESEARCH DEVELOPMENT TEST & EVALUATION (RDT&E)					
Program	Requested	HASC (NDAA)	Comment	HAC-D (Defense Approps)	Comment
Future Vertical Lift Technology	$52,685	$55,185	eVTOL	$66,350	Numerous
Air Platform Applied Research	$53,206	$53,206		$49,604	Climate Change Initiatives
Air Platform Advanced Tech	$17,076	$17,076		$17,076	
Future Vertical Lift Advanced Technology	$140,578	$150,578	Add manufacturing	$222,619	Numerous
Aviation Advanced Development	$6,591	$6,591		$19,091	All electric flight controls
Small Unmanned Aerial Vehicle (SUAV)(6.4)	$1,800	$1,800		$1,800	
Future Tactical UAS	$127,870	$114,140	Slow Expenditure	$127,870	
Aircraft Avionics	$7,171	$17,171	Virtual MWO	$22,171	BE-CDL
Air Traffic Control	$982	$5,982	IMPACT	$10,982	Integrated mission planning
Common Infrared Countermeasures (CIRCM)	$11,691	$11,691		$11,691	
Aircraft Survivability Equipment	$38,225	$38,225		$38,225	
Future Long Range Assault Aircraft Development	$1,253,637	$1,253,637		$1,253,637	
Joint Air-to-Ground Missile (JAGM)	$3,030	$3,030		$3,030	
Small Unmanned Aerial Vehicle (SUAV)(6.5)	$37,876	$37,876		$37,876	
Aviation Ground Support Equipment	$979	$979		$30,979	CSOC, MDO testing
Aircraft Certification	$2,201	$2,201		$2,201	
Blackhawk Product Improvement Program	$25,000	$25,000		$130,500	Modernization, Main rotor
Chinook Product Improvement Program	$4,816	$4,816		$4,816	
Improved Turbine Engine Program (ITEP)	$67,029	$67,029		$67,029	
Aviation Rocket System Product Improvement	$0			$10,000	Hydra-70 improvement
Unmanned Aircraft Systems Universal Products	$24,539	$24,539		$24,539	
Apache Future Development	$8,243	$8,243		$8,243	
Aircraft Engine Component Improvement Program	$142	$142		$142	
Tactical Unmanned Aerial Vehicles	$0				
Airborne Recon Systems	$0				
MQ-1C Gray Eagle UAS	$6,681	$6,681		$6,681	

Art's Attic

By Mark Albertson

Art's Attic is a look back each issue at 25 and 50 years ago to see what was going on in ARMY AVIATION Magazine. Contributing editor Mark Albertson has selected a few key items from each decade's issues. Art Kesten is our founder and first publisher from 1953 to 1987. He is also the founder of the AAAA in 1957 and served as its Executive Vice President. The cartoon, right, was created back in 1953 by LT Joe Gayhart, a friend of Art's and an Army Aviator, showing the chaos of his apartment-office in New York City where it all began.

25 Years Ago

July 31, 1999

Brigadier General Carl I. Hutton

Brigadier General Carl I. Hutton (seated in a Cessna L-19 trainer) championed the armed helicopter program from the start. Minus his tenacity in the face of indifference and opposition, Army helicopters in the 1950s period of base-building never would have fired a shot.

Colonel Jay D. Vanderpool

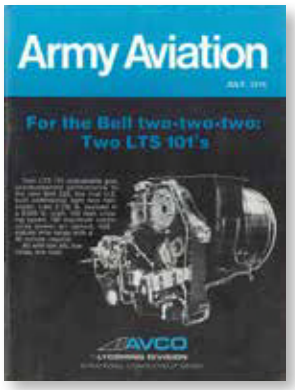
Colonel Jay D. Vanderpool found it immensely difficult introducing new concepts into the military bureaucracy. Recalling history, he cited such examples of "inertia and obstructions encountered by proponents of the musket, the airplane, the tank, the parachute and nuclear-powered submarine, to name a few. . . "

Captain James Montgomery

Captain James Montgomery and the first "official" armament kit. He was the test pilot in the July 1957 firing exercises. Prior jerry-rigged "kits" used lighter .30 caliber machine guns and a single pair of Oerlikon rockets.

Piasecki H-21

The twin-rotor Piasecki H-21 was officially named the Shawnee. Unofficially it was known as the "Flying Banana." It would see action early in the Vietnam War. The example shown boasts a chin turret from a Boeing B-29 Superfortress mounted beneath the nose.



50 Years Ago

July 1974

Protection

Project MAASTER tests, Fort Hood, Texas. Here missile-firing Army helicopters zero in on full-sized tanks. To minimize the damage, skirt armor and fenders were applied to this M-48, such as had been featured on such German tanks as the Panzerkampfwagon IV in World War II. Equipped with a remote control device, it becomes a moving target when the helicopters fire their TOW missiles. The latter are inert so when the tank is hit it will be none the worse for wear.

Stunt Job

Captain Dave Yensan, VP of AAAA's Taunus Chapter, prepares to start a Buecker Jungmeister. Alongside is Herr Werner von Arx, world renowned stunt pilot. This aircraft and others like it will be on display as well as perform aerial demonstrations at the Maurice Rose AAF Open House, August 24, 1974. The Open House, sponsored by Frankfurt's Taunus Chapter, will feature aircraft from U.S., German and British forces.

Modification

A team from Grumman set up shop at the 73rd Military Intelligence Company to produce the first dual control OV-1D Mohawk trainer. Major Franklin D. Griswald, commander of the Hanau-based aviation company, praised the quick and skillful modification performed by the special ten-man squad from the Grumman Aerospace Corporation plant, Stuart, Florida. The standard OV-1D model, latest in a long line of the famed triple-tailed Grumman "Mohawk" aircraft, has only a single set of controls for the pilot in the left seat. The right seat is usually occupied by a surveillance equipment operator.

Celebrating the 50th Anniversary of the Army Aviation Hall of Fame

50 YEARS 1974-2024

The Army Aviation Hall of Fame, sponsored by the Army Aviation Association of America, Inc., recognizes those individuals who have made an outstanding contribution to Army Aviation.

The actual Hall of Fame is located in the Army Aviation Museum, Fort Novosel, AL.

The deadline for nominations for the 2026 induction is June 1, 2025

Contact the AAAA National Office for details and nomination forms at (203) 268-2450 or visit www.quad-a.org

Army Aviation Hall of Fame

General Hamilton Hawkins Howze

By Mark Albertson

Hamilton Howze was born at West Point, New York on December 21, 1908. He was the son of the Commandant of Cadets at the U.S. Military Academy, Robert Lee Howze.[1] His brother was Major General Robert Lee Howze, Jr. Hamilton Howze graduated West Point in 1930.

Thus, his 35-year Army career began as a second lieutenant attached to the 7th Cavalry at Fort Bliss, Texas. During World War II, Howze served in the 1st Armored Division in North Africa, 1943, then in Italy, 1943-1945.

Following the war, in 1948, he attended the National War College, following which he was attached to the Pentagon as a member of the G-2 from 1949 to 1952; according to his own writings, three of the most miserable years of his life.[2] Promoted to brigadier general in 1952, he became the Assistant Commanding General of the 2nd Armored Division in Europe.

Like General James M. Gavin, Howze saw the future of troop movements as being in the air – light fixed wing types and helicopters. Indeed, the latter had established its bona fides in Korea. It was a natural progression that Howze became one of the intellectuals of the airmobility movement in addition to being an ardent disciple of Carl von Clausewitz:

"Throughout the war (WWII), I carried with me, in the back of my jeep, a red, very thin, bound book, The Principles of War, by Count von Clausewitz. I read it through perhaps a dozen times." "Because of its great clarity, its classic literary style, and the military genius of the author, I found the book eminently sustaining in times of stress."

"The book was a reassurance, a friendly voice reminding me of the inescapable, grinding friction that characterizes even well-conceived battle operations and that if one has planned reasonably well, has made allowances for difficulties and delays, and has taken every possible measure to make success a certainty, things just might come out pretty well."[3]

Owing to the efforts of Lieutenant General Gavin[4], Howze served as the first Department of the Army Director of Army Aviation from 1955 through 1958. He was the proper choice, not only owing to his intellectual capabilities, but because he was from Army Establishment, and a product of its Officer Class, both facts of which lent him much credibility in affecting the legitimacy of Army Aviation and helping to insure its survival.

In 1960, Howze was assigned to the Rogers Board, which was an attempt to enlist the inclusion of aircraft manufacturers in the ongoing Airmobility Revolution. And in 1962, Howze chaired The Tactical Mobility Requirements Board, or "Howze" Board, which resulted in the creation of the 11th Air Assault Division (Test). The ongoing revolution of mobility in war, following 1918 with the tank, was now being transformed into the air; and for the United States Army, it was with the helicopter.

Howze subsequently served as commander of XVIII Airborne Corps during the Cuban Missile crisis and, as a four-star general, his final posting was as Commanding General, Eighth U.S. Army and Commander-in-Chief, United Nations Command/U.S. Forces Korea, from 1963-1965.[5]

Howze retired in 1965 and moved to Fort Hood, Texas. He died December 8, 1998.
He was inducted into the U.S. Army Aviation Hall of Fame in 1974.

Endnotes

1 - Following his graduation from the Point in 1888, Robert Lee Howze was eventually assigned to the Sixth Cavalry in South Dakota, where he was awarded a Medal of Honor for actions against the Sioux.
2 - See page 150, Chapter 13, "The Pentagon," *A Cavalryman's Story*, by Hamilton H. Howze.
3 - Ibid., 129
4 - Ibid., 179
5 - Ibid., 265

Mark Albertson is the award-winning Army Aviation Publications Historian and a contributing editor to ARMY AVIATION magazine.


SURVIVE TO FIGHT,
FIGHT TO WIN
Making it to the fight in current and future operational environments is half the battle. The true victory is winning the fight and returning home safely.
Leonardo's ASE products keep your crews and aircraft safe in today's ever-changing battlefield. Through collaboration with industry leaders, we deliver proven, high-confidence, high-effectiveness, and high-reliability solutions for the Future Long Range Assault Aircraft (FLRAA) and Uncrewed Aircraft Systems (UAS) you depend on.
leonardo.us
LEONARDO
TECHNOLOGY FOR A SAFER FUTURE