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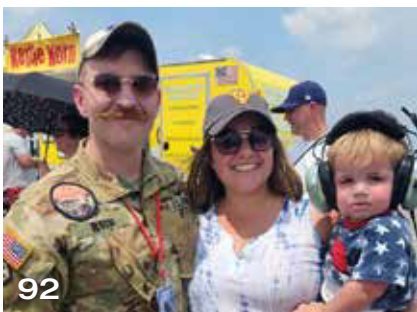
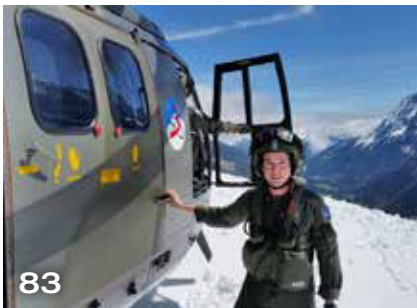
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On The Cover

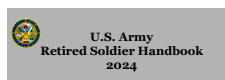
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Army Blue Book and Digital Library in Development



U.S. ARMY PHOTO BY LAURIN BUDPITA

Noncommissioned officers across the Army will gain a new leadership reference tool next year, according to Sergeant Major of the Army Michael Weimer. The "Army Blue Book and Digital Library," the program's tentative name, is under development with the Army Software Factory and Training and Doctrine Command with a goal to begin beta testing the platform in fall 2024. According to Weimer, the blue book app will be a one-stop shop for Army enlisted leaders who want to know "what right looks like." It will include Army and unit history information, philosophical references like values and creeds, up-to-date information on standards and discipline, clearly defined leader responsibilities, and a digital library containing the service's most commonly referenced regulations and other publications. The Army also plans to include a feedback mechanism in the application that will allow soldiers to suggest ideas to service senior leaders. The feature will not be anonymous, however.



U.S. ARMY GRAPHIC

Your mission has changed, but your duty has not!

Army Publishes New Retiree Handbook

The Army has released the 2024 U.S. Army Retired Soldier Handbook. Prepared by the Army Retirement Services Office, Deputy Chief of Staff, G-1, Headquarters, Department of the Army, the 14-chapter handbook is for informational purposes only and does not make or change policy or regulation. Contact your Army Retirement Services Officer (RSO) for detailed or additional information. The handbook may be downloaded from the Army Retirement Services website at <https://soldierforlife.army.mil/Retirement/post-retirement>.

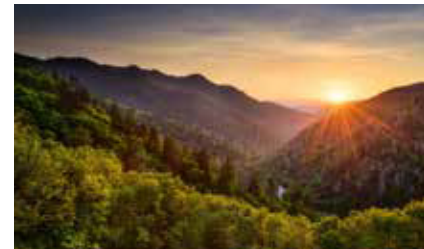
Retirees to See Smaller Social Security COLA Boost



U.S. SSA GRAPHIC

Retirees from the federal government and military will see a much smaller cost-of-living adjustment to their Social Security benefits next year thanks to cooling inflation rates. The Social Security Administration announced in October that the COLA for 2024 will be 3.2%, which beneficiaries will see reflected in their statements come January. That means retirees would see an average increase of \$59 each month, according to the AARP. The adjustment is significantly less than last year's, which at 8.7% was the largest bump in four decades following a period of high prices for consumer goods during the COVID-19 pandemic. Social Security began notifying people about their new benefit amount by mail starting in early December. Individuals who have a personal "my Social Security" account can view their COLA notice online at <https://www.ssa.gov/myaccount/>. You can also create a personal account at the same URL.

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CORRECTION:

On page 74, November 2023 issue, Art's Attic 50 Years Ago – Frau Hannah Reitsch's name is misspelled. We apologize for the error.



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Ending the Year with a Bang!

First, on behalf of the entire AAAA National Executive Board, and Bill Harris and Janis Arena's team at the Monroe, Connecticut AAAA global headquarters, I would like to wish you and your families all the peace that is the promise of this holiday season.

We hope you have had some time to enjoy each other's company and appreciate all we must be thankful for. As we start the new year, we are blessed for all that AAAA does, and will do, for you and your families in the future.

We have just concluded our Cribbins Readiness Conference in Huntsville, Alabama as I write this. By metrics, it was our most supported Cribbins Conference to date, with almost 2,100 registered and over 120 exhibitors. A very special thanks to our host, the AAAA Tennessee Valley Chapter led by Mr. Gary Nenner, and especially to MG Tom O'Connor, Commanding General, Aviation and Missile Command; Acting PEO, Aviation, Mr. Rodney Davis; the Fort Novosel leadership representing MG Mac McCurry (Branch Chief Warrant Officer and Command Sergeant Major) and their leaders; they were omni-present for the two and a half day meeting with our users from the field and our incredible Industry Partners, and attending and participating in the numerous focused working groups. See page 80 for details and photos of our outstanding awardees.

The AAAA Scholarship Foundation held their second annual fund-raising dinner during the Cribbins Conference as well. It was a 1960s/70s theme to celebrate the 60 years since the



The AAAA National Executive Group (l to r), MG (Ret.) Wally Golden (Sr. VP), MG (Ret.) Walt Davis (President), BG (Ret.) Tim Edens (Treasurer) and MG (Ret.) Todd Royar (Secretary), doing their part to drive the scholarship fund-raising party bus on Nov. 14, at the Von Braun Center in Huntsville, AL.

Foundation was established in 1963. As you can see in the photo, your AAAA National Executive Group was hard at work enjoying the event that raised over \$90,000 for future scholarships. The band was terrific, and everyone had a great time; it truly put the "fun" back into your dysfunctional/functional AAAA Family! A special thank you to SFI President COL (Ret.) Karen Lloyd and her team of volunteers who created and brought this event to fruition. See her article and more photos on page 96. Also, thank you to all the sponsors but most especially to Diamond Sponsor, Jan Smith and her company S3 Incorporated, and the entertainment sponsor, Amentum. These great industry partners' measure of underwriting ensured that the event was supremely successful, and supported the most significant AAAA membership benefit, the AAAA Scholarship Foundation, that every year gives out over \$650,000 to over 400 students.

And lastly, during the Cribbins Symposium we also held our semi-annual AAAA National Executive Board meeting. I am very grateful to all of our Na-

tional Executive Board members commitment and am especially impressed with our new AAAA National Members at Large and our new committee chairs, for all the work they are doing from Strategic Planning to the Awards Program. We are currently at a membership of over 19,600 members (only a few hundred away from our all-time high) while our AAAA Chapter activity and financial status are also at all-time high levels; your association continues to be in great shape!

Looking ahead to 2024, the April Annual Summit is literally six exhibit booths away from being completely sold out. The Gaylord Rockies sold out in minutes for hotel rooms, but numerous surrounding hotels are still available. Check out the web site and register today. Note that we are opening the show a day earlier so please plan accordingly.

Again, Happy Holidays and Happy New Year to you all. We look forward to a prosperous and productive 2024!!

MG Walt Davis, U.S. Army Retired
36th President, AAAA

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A Winning Military and Industry Partnership

By MG Michael C. McCurry II



U.S. ARMY PHOTO BY KELLY MORRIS

Developing Aviation Soldiers and Leaders, and transforming Army Aviation by synchronizing doctrine, training, operational concepts, sustainment, and facilities with the materiel are two of my biggest jobs as the temporary steward of the Sacred Trust.

Fort Novosel conducts its annual Aviation Industry Days event including a lineup of guest speakers and Q&A sessions at the Post Theater Aug. 9, 2023.

The broad scope of these continuous lines of effort would be impossible to handle without the tremendous partnership with industry that Army Aviation has enjoyed since the early 1900s. This partnership is a cornerstone of our success and is enduring. As we meet the challenges of future battlefields, our partnership will continue and must continue to evolve.

Benchmarks

As an Army, some may benchmark the genesis of our military-industrial partnership as World War I with the use of mechanized weaponry. However, it goes back much further. We have always relied on the ingenuity and work ethic of American industry. As early as the aftermath of the American

Revolution, Congress utilized private contractors to purchase small arms and ammunition to supplement our national armories.

During the Civil War, northern industries were producing large quantities of high-quality weapons in large numbers. One of the earliest private sector and Army Aviation partnerships was with the scientist and inventor, Thaddeus Lowe, who impressed President Lincoln by sending a telegram to him while in a balloon above the White House in July 1861. This demonstration resulted in the procurement of seven balloons for the Union Army and the naming of Lowe as the Chief Aeronaut of the Union Army Balloon Corps.

It is true that the 19th and 20th centuries witnessed a proliferation

of growth in the military-industry partnership. During both World Wars and the Korean Conflict, American industrial might produced military weapons and equipment on an exponential scale, supplying ourselves and our Allies to combat global threats. Notwithstanding, this period generated challenges in technology development, increased expense, and the balanced relationship between the military and industry. During the Cold War, the term Military Industrial Complex was coined, and the risks were highlighted.

Nonetheless, the military's Cold War partnership with industry delivered legendary aircraft such as the AH-1 "Cobra," OH-6 "Cayuse," and UH-1 "Huey." These aircraft were pivotal in supporting Soldiers on the ground



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during the Vietnam War. In addition to the Loach providing reconnaissance, and the AH-1 providing aerial rocket artillery and close combat support, the UH-1 fulfilled multiple roles, performing a variety of Army Aviation missions from air movement of supplies, air assault, and medical evacuation.

Following Vietnam and as the Army transitioned to Airland Battle doctrine, industry came through once again. Developing technologies and platforms to fight outnumbered, on an “extended battlefield,” by delivering the “Big Five” – the Apache and Black Hawk Helicopters, Bradley Fighting Vehicle, Abrams Main Battle Tank, and the Patriot Missile System. These weapons transformed how we fought in Desert Shield/Desert Storm and served us well over 20 years of sustained combat in Iraq and Afghanistan.

Strengthening the Partnership

Today, as we focus on training for Large-Scale Combat Operations against peer threats, like our Airland Battle transition and the other inflections before it, we must work together to provide lethal and survivable systems to meet the

rapidly evolving threats of today and tomorrow. This is critical not only for Army Aviation but for the survivability of the entire combined arms team and the Joint force. Despite the increasing capabilities of our foes, I am confident that our military-industry partnership will continue to provide our Soldiers with the weapon systems to fight and win in the future.

We have many tools to help us continue strengthening this partnership to meet the threats of 2030 and beyond. First, we must continue our robust dialogue and maintain open communications. Our national organizations sponsor conferences designed to promote communications between military and industry partners. These forums help to renew, cultivate, and improve relationships. Second, we must continue to streamline and gain efficiencies that increase speed, reduce risk, and hammer away at cost. Initiatives such as the Modular Open Systems Approach (MOSA) as a case in point. MOSA is both a requirement and an approach to develop a common architecture for our platforms. In other words, a more accessible and streamlined program that would reduce integration complexity,

cost, and time needed to inject new technology. Without this faster turn, we risk falling behind potential adversaries. Third, we must understand and appreciate that this relationship is symbiotic. Industry depends on the military, to clearly articulate our requirements. While changes to requirements happen, consistency and communication are paramount. On the other hand, the uniformed leaders expect industry to reciprocate and partner on risk, cost, and schedule.

As we forge the narrow path to maintain our Nation’s military advantage, our compass clearly points to continued collaboration. Based on where we have been and what we have done together before, we have a winning relationship that will continue to evolve and produce an effective combination for our Soldiers and Nation – our military and industry partnership!


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

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▶ This Is Your Army!

Army Futures Command

Land Warfare and the Air-Ground Littoral

By GEN Jim E. Rainey and Dr. James K. Greer



U.S. ARMY PHOTOS BY SFC JAMON SIEBES, 52ND COMBAT CAMERA COMPANY

Ground combat in Ukraine has proven just as lethal as it was in World War II or Korea. The same has been true in the air.

An Air Launched Effects (ALE) system is launched from a UH-60L Black Hawk as part of capabilities testing during Project Convergence at Yuma Proving Ground, Arizona.

Surface-to-air arsenals of both sides have made air operations – rotary and fixed-wing – very risky. The result has been a stalemate in the sky, as neither side wants to send manned aircraft across the forward lines of their own troops.

A Change In Land Warfare

Any serious professional concerned with ground warfare should be studying the use of drones in Ukraine. After the first invasion, in 2014, the Ukrainians started using small unmanned aerial systems (sUAS) for reconnaissance, targeting, and direct attack. After the full-scale invasion, in February 2022, there was an explosive proliferation of sUAS on both sides.

Today, they are used everywhere along the front for reconnaissance, targeting, attack, and communications.

What has emerged is a new arena of combat. The air-ground littoral is the airspace from the ground to a few thousand feet above it. This is where sUAS operate. It is where they engage and are engaged by ground forces. Increasingly, it is where sUAS fight one another. Today, above every Russian and Ukrainian unit along the 800-mile line of contact, there is a battle fought by and against sUAS, in the air-ground littoral. That contest is so intense the Royal United Services Institute (RUSI) estimated Ukrainians are losing sUAS at a rate of up to 10,000 per month.

This is just the beginning, and it is bigger than sUAS. About 25 years ago, new technologies began disrupting warfare in the air domain. About five years ago, this spread to the maritime domain. Now, technology has advanced to the point that we are seeing disruption in the land domain. Small UAS are important, but the air-ground littoral phenomenon is only the leading edge of how AI-enabled, robotic systems will allow human-machine integrated formations to change land warfare.

Implications of the Air-Ground Littoral for the U.S. Army

Ground formations must be organized, trained, and equipped to



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U.S. ARMY PHOTO BY SPC WILLIAM HUNTER, 8TH ARMY

Unmanned aerial systems, more commonly known as drones, like this one are becoming more capable, cheaper, modifiable, and potentially more dangerous.

attack and defend—including by air-to-air engagements—in the air-ground littoral. This requires changes to Army and Joint doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P). We do that kind of change best when we lead with doctrine.

In the past, U.S. Army maneuver commanders were concerned with airspace in a limited sense, to deconflict their fires and air movements. To a lesser extent, they understood air defense. Now, they need to be thinking about performing tactical tasks in three dimensions. Controlling terrain means also controlling the near-earth airspace. Managing terrain includes managing large airspace coordination areas (ACAs). sUAS give ground commanders new ways to attack, and new threats and avenues of approach to defend against.

Ground forces organized, trained, and equipped to exploit the air-ground littoral can sense and strike further and faster. They can gain and maintain contact with large numbers of attritable systems, communicate over wider

areas, and have new ways to achieve and sustain a vertical envelopment. The air-ground littoral is an exception to the rule that technology is making defense stronger. It is easier to attack through the air-ground littoral than to defend against attack from it. And, because action in the air-ground littoral will be continuous, action on the ground will be continuous.

Implications for Army Aviation

The air-ground littoral is a new term, but it is not a new space for Army aviators. This is where rotary wing aircraft have operated since their inception. But the space is now cluttered with friendly and enemy sUAS. Some sUAS will even hunt helicopters. Already, we see first person view (FPV) drones being employed in a counter-air mode. Rotary wing formations need protection against Group 1-3 unmanned aerial systems. And they should be able to employ sUAS in offensive counter-air operations while still piloting their aircraft in the performance of traditional Army aviation tasks. This may require AI-enabled systems, to

help identify and defeat sUAS threats without the intervention of air crew, or to reduce cognitive load during offensive operations.

Aviation units must be designed for continuous operations with systems that can be easily replenished. Because combat in the air-ground littoral is 24 hours a day, Army aviation formations, to include their command posts, forward arming and refueling points, and other sustainment elements will be under constant observation and in constant contact. Attrition for their own sUAS will be high. And they will need a steady resupply of counter-UAS materiel.

Adapting Faster

In the 21 months since the large-scale Russian invasion, sUAS operating in the air-ground littoral have gone through four generations of technology, from simple commercial off the shelf drones, to 3D printed bomblet-dropping drones, to sUAS semi-hardened against electronic warfare and FPV attack. This rapid evolution of tactics and technologies will continue and accelerate.

The U.S. Army must develop the ability to adopt and integrate technologies faster. Today, we are developing the Army Warfighting Concept for 2030-2040. That concept will set the avenue of approach for Army transformation. Within that broad approach, we need to be agile, especially in areas where technology is evolving rapidly. There is no better example than sUAS and their enabling information technologies. The Army needs to be able to integrate an existing technology into an operational unit as a holistic, DOTMLPF-P integrated capability, within about 18-24 months of recognizing an opportunity. This competence will be even more important and require even greater speed during war.

In many cases, we are allowing the aspirational to stand in the way of the doable. There are technologies that would be useful in our formations right now but are not yet fielded because we are waiting until they can do even more. New technologies with game-changing potential should be in operational units as soon as they are useful, even if only in small quantities of minimum-viable products. This accelerates development of the

technology. But it also lets us learn how to best employ it, and how to adapt our formations and training accordingly. Most importantly, it gives leaders experience using the technology as it evolves.

We can do this because one of our asymmetric advantages over any army in the world is our people. Our Soldiers and civilians are not only the best trained and educated, but they are the most innovative. This, if skillfully combined with our country's unparalleled civil innovation base – American industry and academia – gives us an innovation advantage no adversary can replicate. We have only to leverage it.

A Systems of Systems Approach

Warfare in the air-ground littoral will be systems of systems warfare. UAS are not employed independently. They are components of larger systems. Some sUAS are part of a fires system, acting as reconnaissance and targeting drones that show artillery and other systems where to strike and then allow battle damage assessments. Other sUAS are part of an intelligence system, providing intelligence, surveillance,

and reconnaissance. Others are the lethal part of a kill chain. These should not be separate systems –all should be integrated into a larger whole.

This extends from the battlefield all the way to the industrial base. We need a fully integrated, enterprise-level, system of systems that procures components, manufactures sUAS, and moves them through contested supply lines to the point of need. And we need a training pipeline for the Soldiers who operate or enable those systems.

Conclusion

Just as it has been since the inception of Army aviation, operations in the air-ground littoral are inextricably interrelated with operations on the ground. However, maneuver commanders, accustomed to thinking about the near-earth airspace in only a limited way, need to make the mental leap to all arms maneuver warfare in three dimensions. This is just one example of how technology is driving change in the character of warfare. And technology will punish unskilled commanders and untrained formations.

Transforming the Army for that future is about more than the technology. It is about fielding formations that are organized, trained, and equipped to fully exploit the potential of that technology. This requires action across DOTMLPF-P, and it requires a system of system approach. Most importantly, it requires embracing that changes in technologies relevant to land warfare will be rapid and continuous. By leveraging asymmetric advantages in our people and in our country's civil innovation base, we can adapt faster than any army in the world.

GEN James E. Rainey is the second commanding general of U.S. Army Futures Command headquartered in Austin, Texas; and James K. Greer, PhD, is a retired U.S. Army colonel and former armor officer who commanded through the brigade level. He is currently an associate professor at the U.S. Army School of Advanced Military Studies at Fort Leavenworth, Kansas, where he previously served as director.



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Bruce Melendez
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One Question, Two Answers

By Mr. Rodney Davis



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I am honored to serve as the Acting Program Executive Officer, Aviation. I don't take the responsibility lightly and I am committed to the continued success of PEO Aviation in providing unmatched Aviation capability to our Soldiers, Allies, and partners.

The PEO will continue to evolve to field the aviation capabilities needed for the Army of 2030 and to develop the innovative capabilities required by the Army of 2040. The question is, how do we position Army Aviation for success in 2030 and beyond?

The Program Executive Office for Aviation (PEO Aviation) began its Modular Open Systems Approach (MOSA) journey just over three years ago when we stood up the MOSA Tiger Team. It was tasked with developing a plan to integrate MOSA throughout the PEO.

Within three months, the team created an initial MOSA roadmap that spanned the technical and business aspects of the PEO Aviation mission. We later utilized the core of the team to create the MOSA Transformation Office

Our Future Vertical Lift programs have included MOSA from the very beginning. It is one of the key evaluation criteria as the Future Attack Reconnaissance Aircraft program progresses. This proactive approach aligns us with the broader aviation enterprise and increases efficiency and effectiveness in military systems acquisition.

to implement the roadmap. PEO Aviation then published a MOSA Policy and a MOSA Implementation Guide to educate the workforce and spur the on-going transformation. The policy and guidance clarified PEO Aviation's MOSA expectations and gave the project managers MOSA targets.

Our initial MOSA efforts were met with skepticism by the aviation industry, perhaps, rightly so. They have seen many great ideas come and go. But this time they quickly realized that our MOSA transformation was different. We have closely linked policy and governance with Congressional and Army senior leader support that may not have existed in past efforts. Our efforts are aligned, and we have clear momentum and energy towards implementing this very critical approach.



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MOSA is in our DNA and here to stay. It fosters innovation and competition while enabling rapid integration of new capabilities into our weapon systems. MOSA is critical to the affordable modernization of Army Aviation.

PEO Aviation leadership within the MOSA construct began with the identification of Enterprise Major System Components (MSC) and then developing Component Specification Models (CSMs) for each. Our top two MSCs, Aviation Mission Computing Environment and Comms/Datalinks/Controls, were the catalysts that started to align PEO and industry efforts. Around the same time, the Future Long Range Assault Aircraft PMO conducted a source selection that was heavily influenced by MOSA. While at the same time, PM UAS awarded rapid prototyping Other Transaction Agreements to multiple vendors for the Future Tactical Uncrewed Aircraft System. The awards solidified MOSA as one of the key evaluation criteria which the vendors would need to meet to be competitive for programs. These actions signaled to industry that Army Aviation is ALL IN on MOSA.

Finally, our MOSA methodology will enable us to rapidly integrate new capabilities into our weapon systems enabling them to evolve on the Large Scale Combat Operations battlefield. While MOSA reduces dependence on a single vendor to deliver all new capabilities to a weapons system, it simultaneously opens those systems to fresh, innovative ideas from across the spectrum of academia, industry, and our Soldiers.

We will continue to implement MOSA in all our programs and modification efforts. This proactive

approach aligns us with the broader enterprise and fosters increased efficiency and effectiveness in military systems acquisition. A well-coordinated and carefully tailored MOSA, and proper enterprise governance, not only positions the government for a more sustainable future but helps drive some needed changes inside the aviation Defense Industrial Base (DIB).

SCRM and the DIB

The Army relies on a robust DIB to develop, build, and maintain aviation capabilities for the current aviation fleet and the Army of 2030. While PEO Aviation has long recognized the need to manage industrial base issues, the coronavirus pandemic exposed previously unrecognized risks and issues with the nation's DIB and distribution system. The challenges that were exacerbated by the pandemic spurred our current DIB management efforts under a new Defense Industrial Base Team.

The DIB Team initially focused on building a Supply Chain Risk Management (SCRM) process to identify and mitigate potential supply chain risks. PEO Aviation manages a complex supply chain network that spans the globe, and managing risks to the supply chain is paramount. Events such as the global pandemic, conflicts in Ukraine and Israel, and tensions in the South China Sea create risks across our supply chain and create challenges in the execution of the PEO Aviation mission. SCRM helps

find solutions to ensure the timely and secure delivery of critical resources to support the nation's security.

PEO Aviation is using a multi-faceted approach to SCRM combining activities such as supply chain mapping to identify risk, proactively assessing risk and identifying mitigation opportunities, while rigorously applying cybersecurity measures. With more than 3,000 vendors supporting the Army's major aviation platforms, it is impossible to analyze the entire fleet using traditional methods. PEO Aviation is leveraging the latest technology to assist in quickly identifying areas of concern.

We are using an iterative process to develop a comprehensive understanding of the supply chain and to identify critical nodes, dependencies, potential weaknesses, vulnerabilities, and threats. By conducting extensive risk assessments in partnership with industry, we can effectively prioritize and allocate resources to mitigate risks or respond swiftly to disruptions.

In Closing

How do we position Army Aviation for success in 2030 and beyond? Through MOSA implementation and Supply Chain Risk Management.

MOSA is now part of our DNA. It is integral to our decisions, plans and actions. Both new programs and enduring systems continue to lean forward with tailored MOSAs and implementation concepts. PEO Aviation is continually refining our implementation guidance and rolling lessons-learned immediately into the programs to prepare Army Aviation to compete, fight and win on the battlefields of the future.

SCRM and DIB management are not as far along as our MOSA efforts. But they are rapidly growing and are being integrated into all that we do. We are looking at our enduring platforms to safeguard their existing capabilities and we are applying SCRM to the new capabilities that we are adding to them. PEO Aviation is applying SCRM to the future fleet starting at the beginning of the design phase to identify and mitigate potential issues before they occur. SCRM has become integral to our decisions, plans and actions.

Mr. Rodney A. Davis is the acting Army Program Executive Officer, Aviation at Redstone Arsenal, AL.



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PEO Aviation – Providing a Soldier’s Perspective

By CW5 John J. Ulmer

One of the privileges of my position as Program Executive Office (PEO) Aviation’s Command Chief Warrant Officer is providing Soldiers’ input and insight to the project managers (PMs) when they are designing, developing, and delivering future capabilities.



GE Aerospace T901 flight test engine designated for Future Attack Reconnaissance Aircraft (FARA) Competitive Prototypes.

As a UH-60 Maintenance Test Pilot, I’m excited to participate in the technological modernization of our fleet and to identify potential improvements in field maintenance and flight operations. As part of my responsibilities, I visit with aviation units and vendors to gain a clearer understanding of the state of Army Aviation, and bring that knowledge back to the PEO and PMs executing their missions every day.

The Aviation Turbine Engines PM recently invited me to visit the GE facility in Lynn, Massachusetts, to see the Improved Turbine Engine Program’s (ITEP) T901 engine in development. The U.S. Army has accepted the first two T901-GE-900 flight test engines to support the Future Attack Reconnaissance Aircraft (FARA) Competitive Prototype (CP) program. In October, Bell’s 360 Invictus and Sikorsky’s Raider X programs each received one of these engines and began integrating them into their aircraft.

The new engine boasts 3,000 shaft horsepower and improved fuel efficiency over existing T700 engines.

In addition to powering the FARA, the T901 will be used to update the UH-60 and AH-64 fleets. The T901 looks like the T700 series at first glance, but a notable visual design change is the one-piece front frame. This innovative and cost-effective design combines several parts into one, which reduces supply chain issues and hours allocated for field maintenance.

The ITEP manufacturing process uses additive manufacturing for the front-frame basic shape, then machines it during postproduction for critical dimensions and areas that need to be threaded for hardware. Seeing the complexity of the front frame up close highlights the value of the additive manufacturing process. The GE team explained that they leverage Laser Powder Bed Fusion, which uses specialized manufacturing techniques and laser guided machinery to help reduce time in the additive phase of the process.

In addition to additive manufacturing, GE uses Ceramic Matrix Composites on the T901 to reduce the overall weight while enabling the engine to

operate at hotter temperatures. Other T901 improvements include internal coatings to protect from erosion, an enhanced particle separator to cut down on sand particle ingestion, and built-in water wash ports for routine engine flushes.

Face to the Field

As the PEO Aviation Command Chief Warrant Officer, I also serve as the “face to the field” for the PEO. I recently traveled to the 82nd and 101st CABs to support the Aviation Ground Support Equipment (AGSE) Product Office conducting a special user evaluation (SUE) of the new Aviation Ground Power Unit (AGPU) 1.1. The purpose of the SUE is to obtain Soldier feedback on the new system and capture the daily usage data necessary for the product’s materiel release. Several improvements were made to the existing AGPU. AGPU 1.1 works with every aircraft in a standard CAB by using a new LCD touchscreen. From a maintenance perspective, one of the most convenient additions to the new AGPU is the ability to automatically

purify hydraulic fluid. This is especially helpful on the CH-47 and AH-64 platforms, which use hydraulics from the AGPU for daily maintenance operations.

I take every opportunity to visit the CABs for fielding opportunities and regularly participate in the FORSCOM Monthly Aviation Readiness Review meetings with the PM fleet managers. Recently, one of the major talking points has been RQ-7B Shadow logistics and operational readiness rates. Due to Shadow funding constraints, we are looking for new ways to approach logistics such as reducing customer wait time for parts.

My previous experience as a BAMO in Operation Atlantic Resolve gives me a solid understanding of the major class IX logistics challenges across Europe. I teamed with PM Uncrewed Aviation Systems (UAS) on a trip to Poland and Germany last June to develop a staging point for Shadow parts to reduce end user wait times. The trip included a visit with the UAS leadership of the current rotational CAB, USAREUR-AF G3/G4, V Corp Garrison HQ, and Theater Aviation Sustainment Management – OCONUS leadership in Germany.

All parties were extremely receptive to supporting a future staging point for Shadow UAS parts in theater. The Shadow team briefed several courses of action to the PM for short and long-term planning in theater. A future supply point will help cut down on wait times for “aircraft on ground” and hi-priority parts for deployed Shadow units in the European theater of operations.

Reflections

The first year in this seat opened my eyes to the acquisition world and highlighted how the truly talented teams within each PM dedicate themselves to providing Soldiers with the best equipment available. I sync with the PMs weekly and stay heavily involved in engagements with industry and vendors through events like Army Aviation Association of America summits, the recent Association of the United States Army annual meeting in Washington, D.C., and the Modular Open Systems Approach (MOSA) summit in Atlanta, GA. These are great events providing opportunities to collaborate with industry and military partners. I encourage those in the field

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to try to get out to these events, when possible, because your feedback is crucial. The SGM and I love to visit CABs for engagement and feedback. Please email/call us if you want our assistance in your footprint – john.j.ulmer2.mil@army.mil – (315) 921-5227.

CW5 John J. Ulmer is the command chief warrant officer for the Program Executive Office Aviation at Redstone Arsenal, AL.

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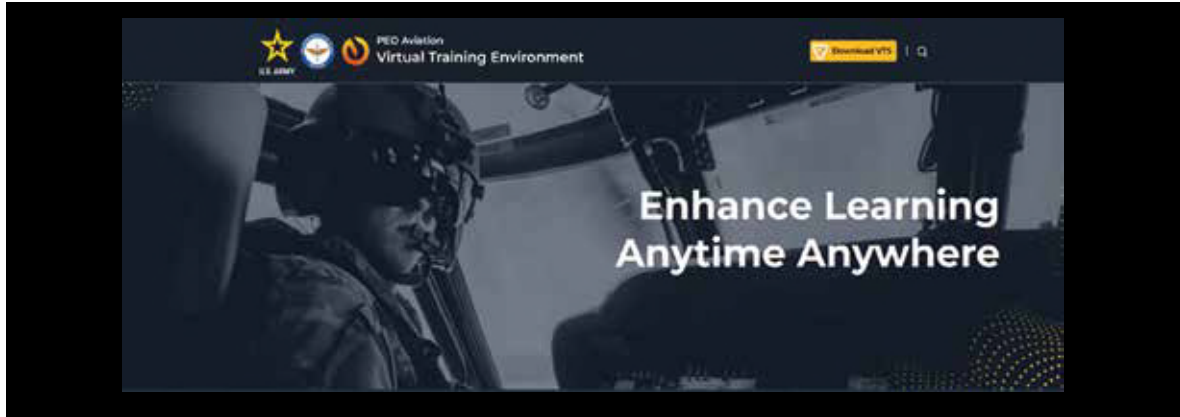
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► Sergeant Major of the PEO, Aviation

Training Soldiers for the Future

By SGM Carlos Loeza



U.S. ARMY GRAPHIC SCREEN SHOT

Today, new Soldiers join the Army having lived their entire lives in a digital environment. They play, learn, research, shop, communicate, and work in a digital, web and app-driven world.

Digital threads weave through every part of their lives. To engage, elevate, and empower them effectively, the Army must adapt to this societal change in everything we do – it's time to focus on training.

Training is the foundation of a mission-ready force. It provides Soldiers with the knowledge and skills to adjust to new technology, meet today's pressing technical needs, and adapt to the emerging threats of today and tomorrow. Since it was formed, the United States Army has delivered thorough and effective training to ensure Soldiers are competent, confident, and successful. The next evolution of training must focus on true-to-life instructional content, delivered digitally to our Soldiers, anytime, anywhere, securely, and on-demand.

The future of Army Aviation training is the Virtual Training Environment (VTE). Available at VTE.mil, the VTE is a government-owned, secure, cloud-hosted environment to store and disseminate Army Aviation training. The VTE platform provides a single, secure, and globally accessible library of current and relevant courseware and resources. The training content in VTE is downloadable to any computer with an internet connection. Authentication is performed via Common Access Card (CAC), meaning anyone with a CAC can access their VTE account and training content across all their devices. This cloud-based structure ensures that a user's profile, data, and progress move with them seamlessly from device to device.

The VTE houses rich, engaging, Interactive Multimedia Instruction (IMI) representing highly accurate digital models

and simulations of a variety of systems. This detailed virtual approach allows a student to train where and when they need to, unrestricted by limited equipment availability, school-house hours, or simulator time. Within the VTE, a student can perform a dozen or a hundred "digital repetitions" before moving to real equipment, reducing the time required to acclimate to the real-life system.

The training content for the UH-60, AH-64, UH-72, CH-47, MQ-1C, and basic electronics already hosted in the VTE is designed for both classroom instruction and the self-paced learner. Cloud distribution pushes content and updates immediately to all users when published, ensuring consistent access to the most current training materials and eliminating the configuration management issues associated with out-of-date training. Additionally, online review features made available to designated content reviewers allow rapid review and the option to comment on training materials. Comments and corrections are delivered instantly to the VTE management team through the secure Army cloud, enabling rapid review and response.

One key element within the VTE is the Virtual Training Suite (VTS), which is a downloadable, Windows-based application. It is a central access point for courseware within the Army Aviation Enterprise. Over 5,100 registered users have received immersive and engaging training via VTS. New users log in daily and ongoing courses out of Fort Novosel and Fort Eustis rely on VTS for access to their virtual training materials or IMI.

As the Program Executive Office, Aviation (PEO AVN) and the Aviation Enterprise work to modernize the Army Aviation fleet, a new 'digital backbone' is a key component that will enable aircraft to be tailored to mission requirements and support changes to aircraft capabilities at the speed of technology. The VTE digitizes aviation training in the same way, empowering it to grow and adapt training material and profiles at the speed necessary to keep pace with the developments of the enduring and future fleet.

In 2022, MG David Francis, then the CG, Army Aviation Center of Excellence, published a memorandum directing that the virtual training for the Army Aviation Enterprise be stan-

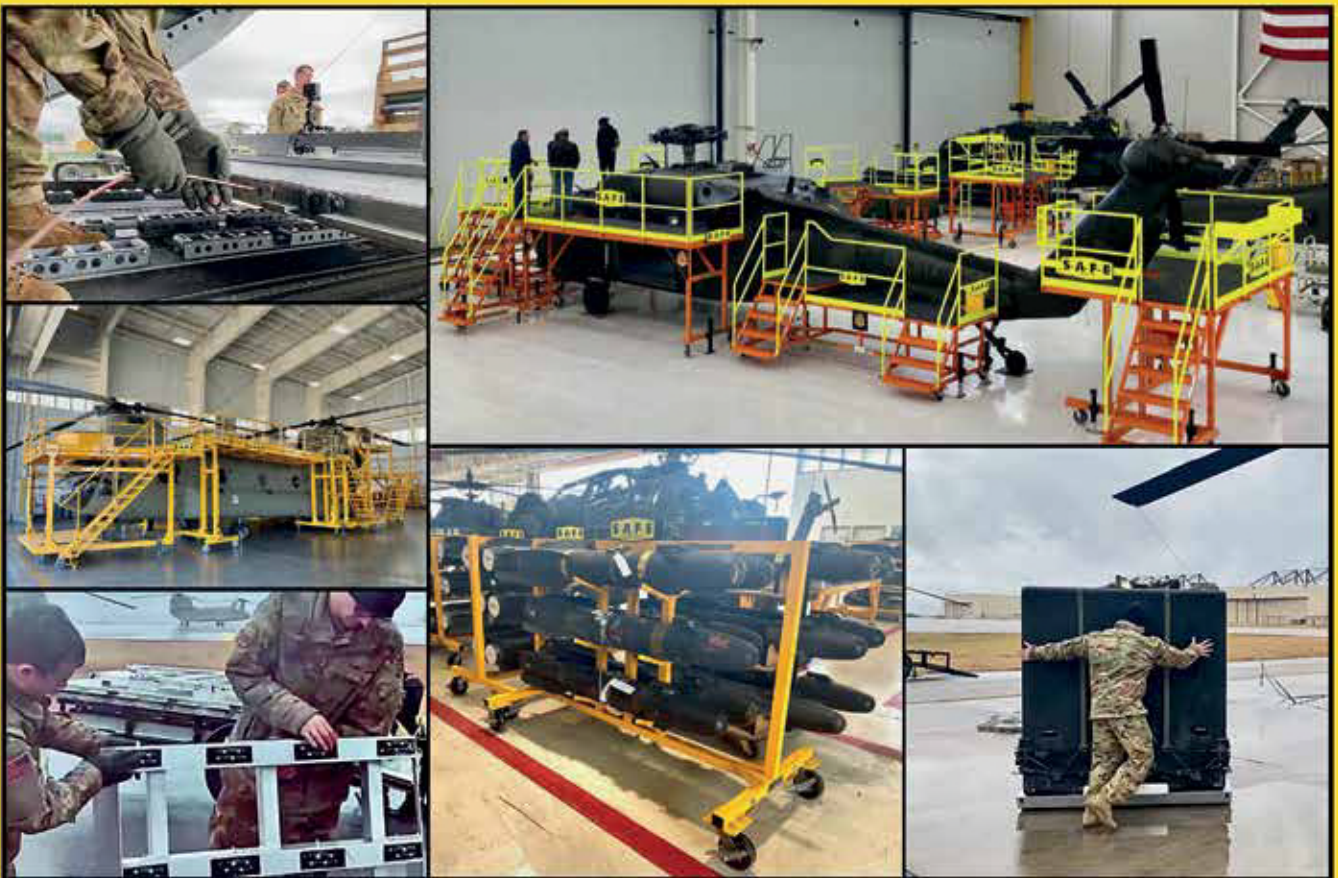
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▶ Enlisted Aviation Soldier Spotlight

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 Annual State of the Union issue.



SPC Benjamin E. Mingus Company D, 1st Battalion, 101st Aviation Regiment (Air Assault) Fort Campbell, Kentucky

Specialist Benjamin E. Mingus is unlike any aircraft maintainer in Army Aviation today. Throughout 2020, he propelled his AH-64E Armament shop to achieve feats that most units will never come close to surpassing. In just 12 months, the 1-101st executed three aerial gunnery exercises, two combat training center rotations, an Aviation Resource Management Survey, and a deployment in support of Operation Atlantic Resolve, logging 3,215 flight hours with an average readiness rate of 83.5%. This enabled the timely identification and remediation of critical aircraft faults by SPC Mingus. His efforts allowed for a 100% shop and hangar inspection rating, the launching of 10 fault-free aircraft during the National Training Center culminating event, and the qualification of all AH-64E pilots before and during deployment amid COVID restrictions. With technical knowledge unprecedented for his experience level, SPC Mingus was constantly sought after for his counsel. His recommendation for this award comes as no surprise to anyone in the unit as his reputation upholds him as a consummate expert in aviation maintenance. As the most proficient AH-64E maintainer and involved junior leader in his battalion SPC Mingus' drive, innovation and dogged pursuit of excellence identify him as the 2020 AAAA Aviation soldier of the year.

standardized. The memo describes the VTE as the best approach to develop and distribute consistent, efficient, economical,

and standardized IMI when and where the Soldier needs it most. In 2023, PEO AVN directed program managers to

coordinate all IMI development efforts through the VTE for configuration and data management.

As the Army continues to meet a new, digital generation of Soldiers, technological advancements, such as the Virtual Training Environment will enhance the maintenance proficiencies of future aviation maintainers.

U.S. Army training must adapt to this technical and societal change. The Virtual Training Environment represents the new Army Aviation standard for quality, timeliness, concurrency, distribution, and tracking IMI and training material. VTE is ready to meet the training and simulation needs of the current and future force.

As an aviation maintainer at heart, I vehemently believe that this capability will reduce maintenance backlog and improve Fully Mission Capable rates across the aviation enterprise. Please reach out to me with any questions or support you might need. I am just an email away (carlos.a.loeza.mil@army.mil). I am learning new things every day, and if I cannot answer your question, I will find someone who can.

VTS is available for download at VTE.MIL

SGM Carlos A. Loeza is the sergeant major of the Program Executive Office, Aviation at Redstone Arsenal, AL.



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The Aviation Mission Survivability (AMS) Course: An Imperative Need for Uncrewed Aircraft Systems (UAS) Operator Training

By CW3 Matt Tait

AMS Officers (AMSO) are the advisors to the commander, staff, and air crews regarding aviation survivability.

Army AMS has three tenets which are known as the AMS triad: Understanding Threat, Fused Mission Planning, and Evasive Flight Tactics. UAS lacks positions for AMSOs. The AMSO course is focused on crewed aviation however all three tenets of the AMS triad are applicable to UAS. AMS support is needed in UAS formations. The United States Army Aviation Center of Excellence should create an AMSO Course for UAS Operators to support uninterrupted Intelligence Surveillance and Reconnaissance (ISR) coverage, enable UAS Operators to inform crewed Army Aviation of threats, and preserve the finite fleet of Uncrewed Aircraft (UA).

The ability of UAs to provide persistent ISR coverage is a strength that is unmatched by crewed aircraft. The primary means of increasing survivability for UAs are understanding threat and fused mission planning. Fused mission planning is the integration of multiple sources and team members, including the S2 Officer, the electronic warfare officer, and the AMSO, to create a cohesive operational plan that meets the commander's intent while minimizing risks. A school trained UAS operator AMSO should lead the training and participate in fused mission planning to increase survivability of aircraft.

Processing, exploitation, and dissemination of ISR has primarily been through Brigade Combat Teams (BCT) and Divisions then further disseminated to units. Direct interaction between UAs and crewed aircraft through Manned Unmanned Teaming (MUM-



Soldiers assigned to the 7-17th Air Cavalry Squadron, 1st Air Cavalry Brigade perform routine maintenance on an RQ-7B V2 Shadow during Exercise Swift Response on May 10, 2022 at Krivolak Training Area, North Macedonia.

T), has primarily been focused on UAs scouting for attack helicopters, enabling remote missile engagements. The value of UAs conducting operations forward and keeping crewed aircraft out of the weapons engagement zone of enemy air defense is already recognized with recent MUM-T testing between AH-64 Apaches and MQ-1C Gray Eagles. A missing element in MUM-T tests are AMSO UAS operators participating in planning and operations. UA intelligence is valued by crewed aviation AMSOs conducting fused mission planning such as identifying enemy Integrated Air Defense Systems. The data is being used in the planning stage, not in real time. With additional training through a UAS AMSO course, UAS operators can further contribute to the survivability of crewed aircraft by collaborating with the flight crews during missions by providing real time analysis of threats.

The Army has a finite number of UAs, more so within individual units. The risk to the lives of the on-board crew when a crewed aircraft is downed is significant. The lack of risk of the loss of a UA crew during a UA downing does not negate the need to preserve the

UA fleet. Many of the sensor payloads exist in smaller numbers than the UAs and are transferred from UAs receiving maintenance to operational UAs. It is infrequent for a payload to be recoverable if the aircraft is not also recoverable. BCT commanders have four RQ-7B Shadows and Division Commanders have eight to twelve MQ-1Cs. An MQ-1C costs no less than \$4 million. UAs are a finite resource which must be shepherded from both a financial and continuity of operations standpoint.

Implementing a formal AMS course for UA operators is an essential step towards ensuring continuous ISR coverage of the battlefield. Formal AMS training for UA operators will increase the ability of UA operators to mitigate threat for crewed aircraft in real time. UA operator AMSOs will aid in maintaining the size of the fleet of UAs at the commander's disposal as well as steward limited financial resources.

CW3 Matt Tait is a UAS Operations Officer at the National Guard Bureau with focus areas of Group 4 UAS, Safety and Survivability.

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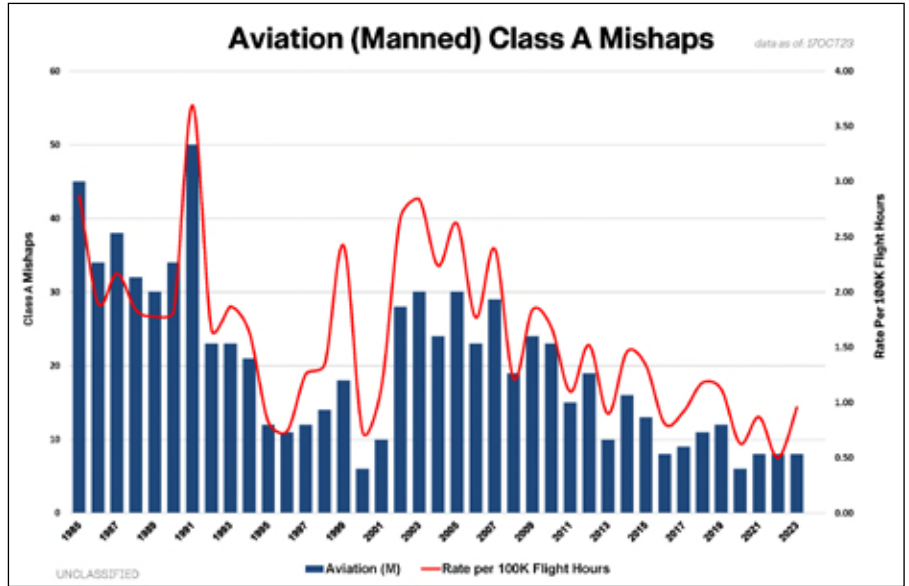
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Let's Learn From Last Year!

By Mr. W. Rae McInnis

As we look back on FY23 in Army Aviation, we must look at it from different perspectives. The most obvious and tragic is that we lost 14 aircrew members to flight mishaps after going almost two years without doing so.



Each of those losses was a tragedy for a family, a unit, and the Army, and it was the greatest loss of life in Aviation mishaps in over a decade.

From another perspective, for the fourth year in a row, we remained below a rate of one flight mishap per 100,000 flying hours, and the overall five-year rate of 0.89 is the result of four years

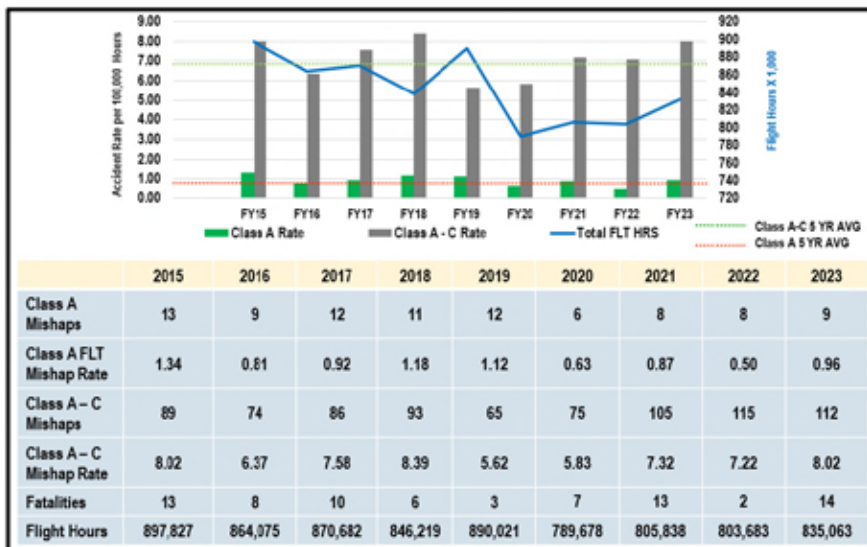
of single-digit Class A mishaps (FY20 = 6, FY21 = 8, FY22 = 8, and FY23 = 9). The 0.96 Class A flight mishap rate was the highest since FY19, but again, this is the first time in history that the Class A rate has remained below 1.0 per 100,000 flying hours for more than two consecutive years. The 0.96 per 100,000 flying hours in FY23

was the fifth time in the last eight years that the rate has been below the 1.0 mark. There were a total of nine Class A mishaps -- eight in flight and one environmental aircraft ground – reported in FY23, with approximately 835,000 hours flown.

Four Class A mishaps involved AH-64s: one involved loss of tail rotor effectiveness, one involved improper yaw control inputs, one was a whiteout event, and one was a midair collision involving two aircraft.

There were three H-60 mishaps: one involved spatial disorientation in instrument meteorological conditions, one was spatial disorientation from a whiteout event, and one was a midair collision involving two aircraft.

Additionally, there was one MH-47 flight and one CH-47 Aviation ground mishap. In total, all eight flight mishaps were attributed to human error. Contributing factors included crew selection, poor pre-flight planning, overconfidence, failure to follow procedures and lack of situational awareness. All of these were preventable.



UNCLASSIFIED

data as of: 17OCT23

With the continuing success of the Fourth Quarter Spike Campaign, we only saw one Class A mishap during the fourth quarter of FY23. Since the beginning of that campaign in FY20, we have had only two Class A mishaps. In comparison, in the fourth quarter of the last four FYs, there were four Class A mishaps in FY17, four in FY18 and five in FY19.

While Army Aviation has enjoyed great success in reducing Class A mishaps in the fourth quarter, there is still a lot of work to do in reducing the number of Class C mishaps year-round. Class C mishap rates have risen for the last three years, which is an indication that we are perhaps inches and seconds from even more catastrophes. Continued vigilance is needed during this period of elevated risk.

On the unmanned side of Aviation operations, Class A mishaps have significantly reduced year to year from FY22. MQ-1C Gray Eagles had a Class A mishap rate of 1.5 and a Class A-C rate of 3.0. This contrasts with FY22, which had a Class A mishap rate of 10.33 and a Class A-C rate of 11.8. Gray Eagles experienced one Class A mishap, which involved a lost link event caused by a dual generator failure. Total flight hours for FY22 were lower than the two previous years. In addition to the one Class A mishap, there was one Class B and four Class C mishaps reported. The Class A-C mishap rate of 3.01 is 74% lower than the FY22 average and 73% below the five-year level.

The RQ-7B Shadow flight mishap Class B rate increased from 19.59 in FY22 to 65.46 in FY23. Some of this is attributed to the ever-increasing costs of RQ-7 sensor packages, but a rate change that high is concerning. The Class B-C rate also increased dramatically. There were 18 Class B and 20 Class C mishaps during FY23.

Primary cause factors were associated with engine failures, improper site set up (arresting gear, Tactical Automatic Landing System spacing, etc.) and procedures not being followed correctly (checklist discipline).

In total, FY23 is a year we must learn from and apply the lessons we learned as we move forward. The mission approval process is the best deterrent available. It requires everyone in the process to fully understand their responsibilities and execute them rigorously. Only in this way can we avoid the losses we suffered last year.

Mr. W. Rae McInnis is the Director of Analysis and Prevention for the U.S. Army Combat Readiness Center, Fort Novosel, AL.

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▶ 128th Aviation Brigade Update

Critical Support for Every Army Aviator

By SFC Eric O. Rivera

Joint Base Langley Eustis is home of the 128th Aviation Brigade where we offer the Warrant Officer Basic Course and Advanced Individual Training (AIT) for the 15-Series (Aviation Maintenance) Military Occupational Specialties.

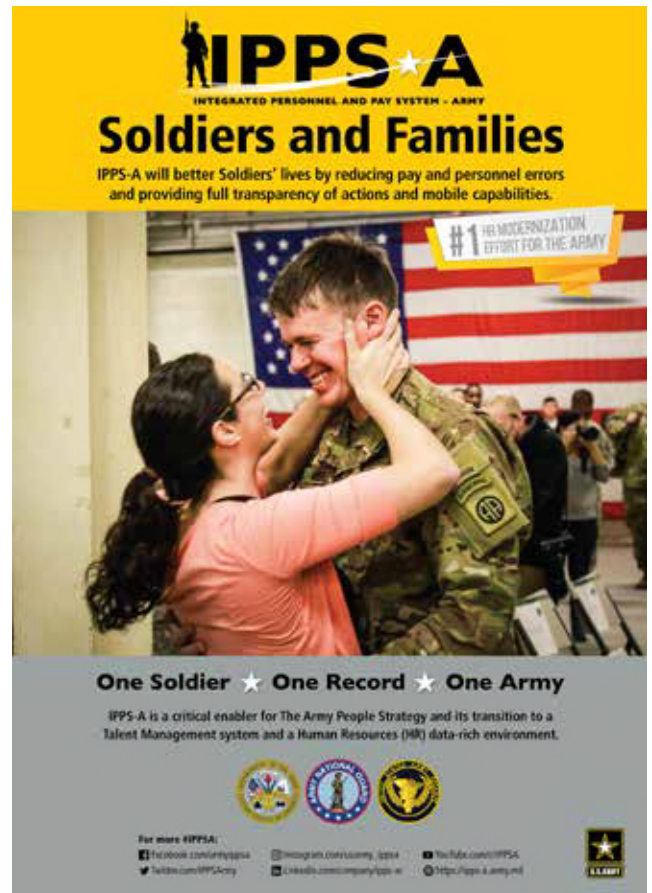
The 128th Aviation Brigade Human Resources Professionals manage and support the students and cadre including the Drill Sergeant and Instructor population. HR Professionals of all levels assist commanders in prioritizing their personnel.

Our HR teams aid their commanders in the planning, implementation, and execution of all human resources operations and support activities. What previously would have been managed within up to 45 unique systems is now consolidated into just one: IPPS-A. IPPS-A, Integrated Personnel and Pay System - Army, is the newly implemented HR system that provides a platform where a recently enlisted Soldier attending Advanced Individual Training or Brigade Commander can manage themselves in one common program. It is a 'DIY' model for Soldiers and S-1 teams across the Army.

It's true that Brigade's S-1 personnel are the subject matter experts for personnel administrative actions, talent management, evaluation reports, finance transactions, postal operations, promotions, and awards, but IPPS-A is ultimately a tool for the Soldier. We enable the cadre to take ownership of their own requests and in doing so also allow them to focus on their mission of providing Soldiers the training and education necessary to repair and maintain some of the Army's most effective combat helicopters used today.

Regardless of the requirement, we support the Army's greatest asset: its people. Our S-1 teams redefined the systems and procedures making the daily management of our personnel even easier, not only due to the USAACE headquarters being hundreds of miles away, but also to adapt to the changing times. With the introduction of Office 365 and especially Microsoft Teams, we were able to communicate and collaborate in real-time and provide updates from the companies all the way to Human Resources Command (HRC). This helps to give back time to our Soldiers, specifically the cadre.

The Human Resources Professionals at all levels maintain a situational understanding of competing priorities and assist the organization when shifting priorities, changes in operational plans, or other unforeseen events create situations where the personnel fill for an organization is no longer in synchronization with Army Manning Guidance. They plan



and coordinate with the United States Army Aviation Center of Excellence (USAACE) to fill authorized vacancies and develop personnel distribution plans within the organization. In doing so, commanders can ensure realistic and rigorous training enabling graduates to make an immediate and positive impact at their first duty assignment.

Human Resources support is a critical part of determining current strength and readiness and projecting future requirements to sustain or build readiness through all Military Occupational Specialties. The success of the 128th Aviation Brigade will depend, in part, on the effective execution of HR competencies. Through the execution of these competencies, essential personnel information is collected, analyzed, and used by commanders in the decision-making process to sustain the Program of Instruction taught by 1st Battalion, 210th Aviation Regiment and 2nd Battalion, 210th Aviation Regiment and the lessons of Army Values, Aviation Safety, Warrior Tasks, and Battle Drills, and physical fitness taught by 1st Battalion, 222nd Aviation Regiment.

"Born Under Fire!"

SFC Eric O. Rivera, Senior Human Resources Sergeant, 128th Aviation Brigade, Joint Base Langley-Eustis, VA.

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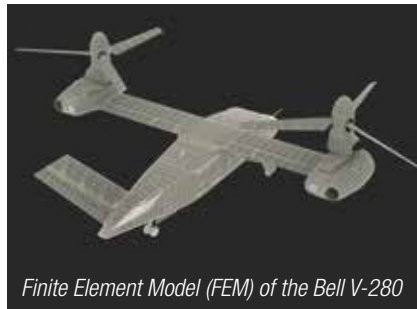
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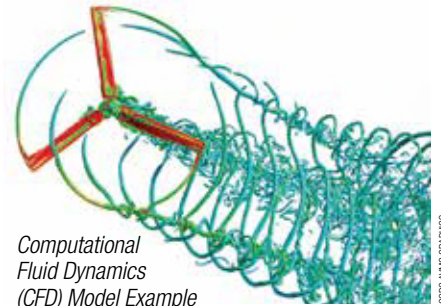
Models in Future Vertical Lift (FVL) Development

By Mr. Dave Cripps

The use of models in aircraft development is essential to ensure the safety, efficiency, and effectiveness of aircraft design.



Finite Element Model (FEM) of the Bell V-280



Computational Fluid Dynamics (CFD) Model Example

Models play a crucial role in various aspects of the aircraft development process, from initial concept and design to testing, validation, and continuous improvement. Computational models and simulations are used to explore various design concepts and configurations. These models help engineers analyze and compare different designs to identify the most promising options. Computational Fluid Dynamics (CFD) models are used to simulate the flow of air over the aircraft's surfaces. This helps in optimizing the aircraft's aerodynamics, reducing drag, and improving fuel efficiency. Finite Element Analysis (FEA) models are employed to assess the structural integrity of the aircraft components and ensure that they can withstand the stresses and loads encountered during flight. Models are used to simulate and test the integration of various systems, such as avionics, propulsion, and landing gear, to ensure they work harmoniously. Physical models of the aircraft are tested in wind tunnels to validate and refine the aerodynamic characteristics determined by CFD models. Fault tree and reliability models are used to assess and enhance the safety and reliability of aircraft systems and components. Models are used to optimize aircraft performance, including speed, range, fuel efficiency, and payload capacity. 3D models and simulations are used for virtual prototyping, allowing engineers to identify and rectify design issues early in the development process, saving time and resources.

The FVL family of aircraft has made extensive use of a vast variety of models in each aircraft's development not

only to accelerate the design and testing processes but also to reduce costs and improve safety. It has allowed engineers to simulate various scenarios and conditions, helping them make informed decisions at every stage of development. As technology advances, the accuracy and capabilities of these models continue to improve, contributing to the ongoing innovation in the Aviation industry.

But models need to accurately represent what they are intended to represent, so therefore validation, verification, and accreditation (VVA) are critical processes in the development and use of models. These processes help ensure that models are reliable, accurate, and fit for their intended purpose.

Verification is the process of assessing whether a model is implemented correctly and faithfully represents the intended mathematical or computational logic. It involves checking that the model's code or equations have been correctly translated into a software program or hardware system. Verification ensures that the model is free from coding errors, bugs, or other implementation-related issues.

Validation is the process of determining whether a model accurately represents the real-world system it is intended to simulate or represent. It assesses whether the model's predictions and results match real-world observations and data. Validation is crucial to ensure that the model's behavior aligns with reality and is suitable for its intended application. Key parts of validating a model are comparing model outputs with experimental or observational data, identifying discrepancies,

and making necessary adjustments to the model, and conducting sensitivity analyses to understand the model's response to changes in input parameters.

Accreditation is a formal process that certifies the trustworthiness and reliability of a model for a specific purpose or application. It is particularly important in fields where safety, security, and regulatory compliance are critical, such as aerospace. Accreditation is often required by regulatory authorities. Key activities in accreditation include documenting the verification and validation processes to demonstrate model reliability, assessing the model against established criteria and standards, and obtaining official approval or certification from relevant authorities.

It's important to note that the VVA processes are not always sequential; they can be iterative, as adjustments and improvements to the model may be necessary based on verification and validation results. The level of scrutiny and formality in these processes can vary depending on the intended application and potential consequences of model inaccuracies. The VVA processes help ensure that models are trustworthy, accurate, and capable of providing meaningful insights or predictions, which is particularly crucial when decisions, safety, or significant financial investments are reliant on model outputs.

Mr. Dave Cripps is the Chief Airworthiness Engineer for the Systems Readiness Directorate, DEVCOM Aviation and Missile Center at Redstone Arsenal, AL.



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Vertigo

By CPT (Dr.) Yiwei Jiao

Q: I have been having recurrent episodes of vertigo. What could cause this symptom, and will it disqualify me from flight status?

FS: Vertigo is a symptom of a false sense of movement. It could be a sensation of spinning, swaying, or tilting when a person is not undergoing that type of motion. Almost everyone has had the experience of vertigo usually after they were briefly spinning rapidly. Vertigo is only a symptom, not a diagnosis. This symptom usually implies that there is some dysfunction in the vestibular system, the organs located in our inner ears to help us with our orientation to our environment.

One of the most common forms of vertigo is called benign paroxysmal positional vertigo (BPPV), which accounts for nearly 50% of patients with vestibular dysfunction. The risk for developing BPPV increases with increasing age. BPPV classically presents as recurrent episodes of vertigo lasting less than one minute. It is triggered by specific types of head movements, such as looking up while standing or sitting, lying down, getting up from bed, and rolling over in bed. There might be associated nausea and vomiting, but these symptoms usually do not last very long. Episodes recur periodically for weeks to months. BPPV is caused by an abnormal presence of calcium debris within the posterior semicircular canal, which is part of the vestibular system. The semicircular canals are useful for detecting head motion. Heavy debris in the canal causes a false sense of spinning motion to the brain.

Q: How is BPPV diagnosed?

FS: BPPV is diagnosed based on the specific set of symptoms: episodes of vertigo lasting less than one minute that are provoked by specific types of head movements described above. This symptom is confirmed by performing a maneuver in clinic designed to provoke an episode of BPPV and by observing the presence of nystagmus, which is a repetitive horizontal eye movement.

Q: My flight surgeon says BPPV might be the cause of my vertigo, how do I proceed from here?

FS: BPPV can be treated effectively in most individuals using specific techniques aimed to reposition the calcium debris particles. These include the Epley maneuver, modified Epley

maneuver, the Semont maneuver, and the modified Semont maneuver. These techniques aim to help migrate calcium debris particles out of the posterior semicircular canal into another cavity that will not cause symptoms of vertigo, and they have been shown to be highly effective in large scale research studies. Specifically, the Epley maneuver has been shown to be effective in 85% of patients. These treatment maneuvers can be performed readily in the clinic and can be repeated as necessary. Patients can also be instructed to perform them at home. However, studies have shown that if performed correctly, more than three repetitions are rarely needed for a successful treatment.

Q: How does this affect my flight status?

FS: According to the Aeromedical Policy Letter (APL) from the United States Army Aeromedical Activity (USAAMA), vertigo caused by BPPV are less likely to recur and since recovery from BPPV is usually complete, a waiver is very likely after a full recovery. However, since there are other less benign causes of vertigo, such as Meniere's Disease, a consultation with an ear, nose, and throat (ENT) specialist who are experts in diagnosing and treating these conditions is necessary for initial waiver consideration. The goal of the consultation is to rule out other more serious causes of vertigo and to perform the treatment maneuvers in clinic as appropriate. Full symptom resolution from treatment maneuvers is strongly indicative of BPPV as the underlying cause of vertigo. An Aviator may perform full flight duties once a favorable waiver request is submitted. To maintain the waiver on yearly flight physicals, the Aviator will need to attest to the absence of aeromedically significant symptoms of vertigo. Annual follow up with an ENT specialist is needed only if deemed necessary by the treating specialist.

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.

CPT Yiwei Jiao, DO, MPH is an Aerospace Medicine physician at the United States Army Department of Aviation Medicine, Fort Novosel, AL.

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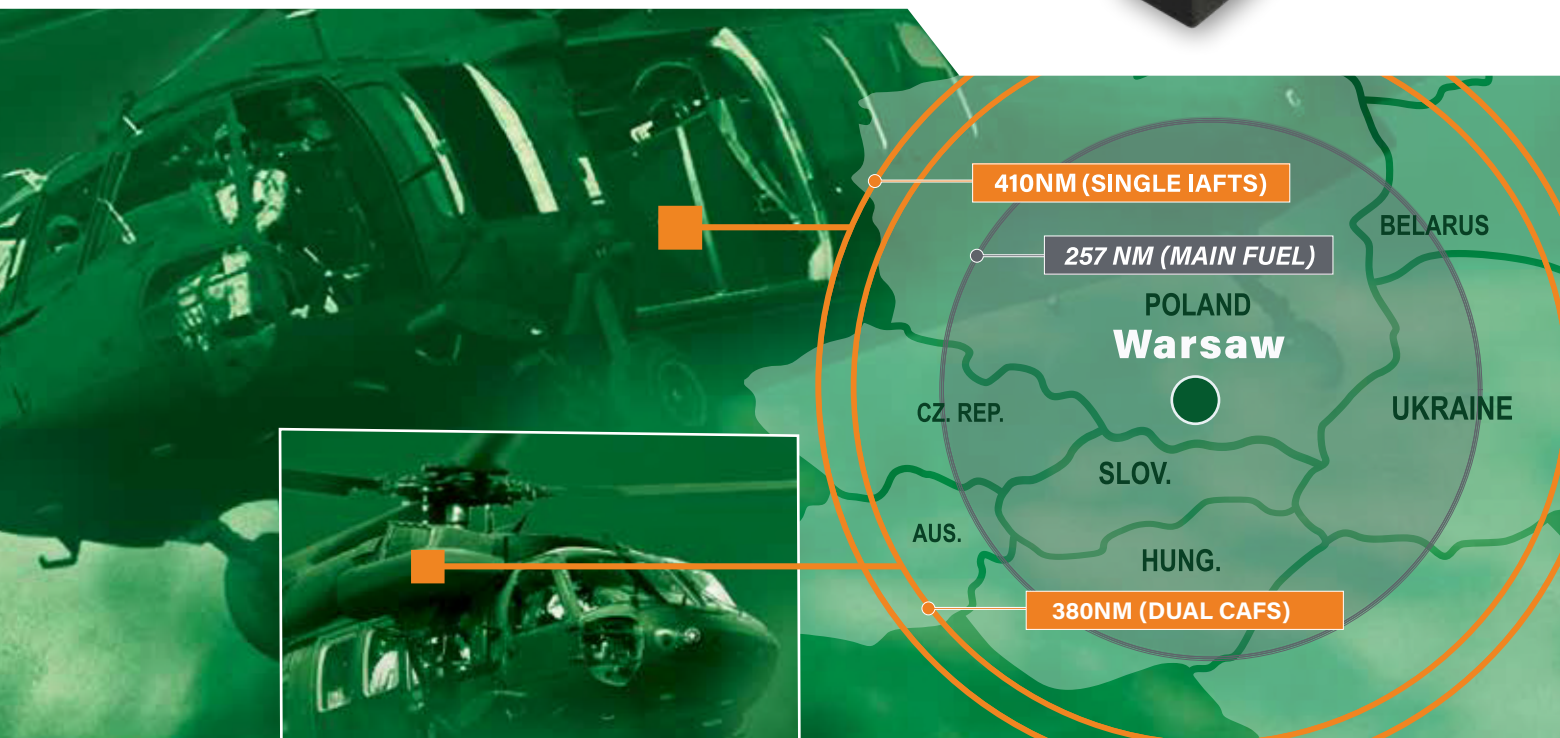
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Open Architectures Facilitate Speed, Flexibility for SNC's RAPCON-X™ A-ISR Jet

By Ms. Lisa Godenick



The current environment is shifting to near-peer threats with increased lethality, range and speed, requiring a service-wide pivot to long-range, deep-sensing intelligence capabilities. As this threat rapidly evolves, DOD systems need to be created, modified, adapted and improved upon at an exceptionally rapid pace to make them viable in a high-threat environment against an enemy who is also able to adjust quickly.

SNC's RAPCON-X Family of Systems innovation takes the concept of open architecture to the next level by applying scalable, modular hardware combined with interoperable, open software. SNC's development of the RAPCON-X Army Aviation future aerial-intelligence, surveillance and reconnaissance (A-ISR) solution is a prime example of this fast-paced business approach. Thanks to an extensive internal research and development program created to proactively develop tools of the future, SNC's advanced digital engineering capabilities have created cutting-edge approaches to post-production modifications. Free from the constraints of vendor lock, digital engineering enables faster development of the innovative, cost-effective solutions our warfighters need to succeed.

Starting with customer requirements, SNC systems are designed in a digital engineering environment, then tested and matured using model-based systems engineering (MBSE) to ensure full modular open system approach (MOSA) alignment.

"It's important to create an open architecture (OA) environment that promotes scalable growth to get the most effective tools in the hands of the warfighter as quickly as pos-

The U.S. Army's ATHENA-S program aims to move the service's fleet of fixed-wing ISR aircraft from propeller-driven platforms to converted business jets. Sierra Nevada's Rapcon-X proposal is a modified Bombardier Global 6500 aircraft with a suite of signals intelligence systems and radars.

sible," said Stu Wildman, senior vice president of strategy for SNC's MST business area. "Over the last two decades, we've invested significantly in learning and in building modular designs that have key interfaces and non-proprietary, truly open industry standards not only to benefit the warfighter, but the Army as a whole, to free them from vendor lock."

With this approach, the company redefined SNC software as plug-and-play and developed modular hardware. This increased platform and warfighter readiness through commonality in hardware and compliance with industry standards. The company now offers a complete portfolio of OA products, just one of which is the RAPCON-X Family of Systems.

Currently in production, RAPCON-X is the newest addition to SNC's turnkey, A-ISR as-a-service model for contractor-owned contractor-operated (COCO) capabilities. Built for the U.S. Army, the RAPCON-X solution is a fully shaped aircraft with a functional mission interior that features workstations, galley, lavatories and crew berthing quarters. The RAPCON-X baseline configuration utilizes a Bombardier Global 6500 jet, and the aircraft will collect and process signals intelligence, electro-optical reconnaissance, and ground moving-target signatures using a synthetic aperture radar.

The RAPCON-X modular design was created using MBSE, significantly reducing the time required to engineer

modifications, integrate systems and add new capabilities. This rapidly configurable design makes RAPCON-X one of SNC's most prominent examples of how SNC embraces MOSA technology. RAPCON-X includes an OA hardware, software and sensors package that's configurable for multiple aircraft, missions and applications. It can be easily reconfigured without aircraft redesign by switching out on-board equipment to match tactical needs. Further, exterior modifications are also easily transferable. Depending on individual customer needs, reconfiguration and modification of the aircraft can occur in as little as hours. RAPCON-X is delivered ready for aircraft survivability equipment (ASE) installation to create an operational envelope that enhances survivability and the ability to operate in peer-to-peer and near-peer environments.

It's worth mentioning that SNC took possession of its two RAPCON-X jets in early 2022 - before issuance of any formal RFPs - which means the aircraft have been undergoing engineering integration for more than 20 months through internal investment. This demonstration of SNC's commitment to stay ahead of customer needs means both aircraft are poised to be operational in 2024.

"We are investing in SNC's commitment to warfighter safety and the military's need to modernize its intelligence capabilities," said Tim Harper, SNC's senior director of business development. "The last 10 years of investment in innovative ideas and developing open architecture paved the way for RAPCON-X. This product is designed to put the Army in a position of strength during conflicts."

SNC is dedicated to a MOSA business model because it enhances competition as well as innovation across the indus-

try. The OA systems component to RAPCON-X also reduces supply chain dependency through software-driven, available-system architecture, common data models and reduced hardware dependencies, improving lifecycle affordability.

"The bottom line is this: At SNC, we see what needs to be done and we do it; because it's the right thing to do," said Harper. "We saw the life-threatening gaps approaching as the battlespace evolved. We advanced our efforts early on to deliver an in-production solution that prioritizes high-altitude sensing, high-accuracy detection and exploitation, and a connected battlefield. That is where the future fight is and we want to be ready alongside our Army partners."

In addition to being central to RAPCON-X, MOSA is also a hallmark of the Mission Systems Integration that SNC is developing for Invictus, Bell's Future Attack Reconnaissance Aircraft (FARA) offering, as well as for SNC's industry-leading High-Altitude Balloon (HAB) initiatives. And with 60 years of innovation under its belt, SNC is committed to always remaining one step ahead.

Nobody can predict exactly what the battlespace will look like in the next 10 years, but SNC is encouraging a future where the United States remains dominant. Success will require speed, agility, adaptability and rapid reconfiguration of platforms and tools. SNC is confident RAPCON-X is that solution. It offers high reliability, superior range, endurance and quick reaction capability that enhances survivability regardless of when or where the mission takes the nation next.

SNC *Ms. Lisa Godenick is Senior Vice President of Strategy, Sierra Nevada Corporation*

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A medical evacuation helicopter from the 82nd Combat Aviation Brigade lands as paratroopers from the 82nd Airborne Division's 1st Brigade Combat Team secure the area.

U.S. ARMY PHOTO

Essex Industries: Components and Interfaces Soldiers Rely On By CW2 (Ret.) Robert Hale

Since the inception of Aviation, aircraft have become progressively complex, requiring an increasing number of systems and components. To meet the growing demands, new manufacturers emerged, ushering in an era of precision and innovation.

Essex Industries was established in 1947 with a strong commitment to develop manufactured solutions that serve, assist, and safeguard our military forces. Through their work, Essex has built a legacy of products, with over 260,000 fielded products serving the warfighter. The company prioritizes safety, reliability, and ease of use, critical elements for military personnel in high-pressure situations. The motivation for work goes beyond

manufacturing high-quality designs. It is about the brave men and women who rely on these systems in the most crucial moments.

Platforms

A platform that many heavily rely on is the UH-60 Black Hawk. Essex manufactures over 500 parts, assemblies, and subassemblies on this aircraft and all variants, from cyclic and collective control assemblies, cockpit control panels, and bulkhead structural components to tail rotor control pedals, medical oxygen systems, and other control assemblies. The interfaces and subsystems that Soldiers interact with every flight are created with human-machine interface (HMI) design as a priority. When inside

a Black Hawk, you are likely interacting with something produced by an Essex technician, who takes great pride in knowing they support Army Aviation.

While the UH-60 Black Hawk has been a lynchpin to the Army Aviation's success over the last couple of decades, another rotary-wing aircraft from that era is still in service as well, the AH-64 Apache. Essex is working closely with a defense contractor on an improved weapons system controller for the Apache. This will replace the current control system and provide much-needed stability, flexibility, and digital capability to change system functionality based on mission parameters easily. Retrofitting these already robust aircraft is cost-effective and keeps the aircraft in service longer.



PHOTO BY BRAND GREEN

The interior of a UH-60V Black Hawk helicopter



ESSEX INDUSTRIES PHOTO

Essex Industries Milford, Connecticut manufacturing location.

Future Vertical Lift

Looking to the future of Army Aviation, Essex Industries is at the forefront of Future Vertical Lift programs and committed to ensuring all future Army Aviation platforms have the best control systems and logistical support required. With its history and experience, Essex can provide digital technologies and remote-operated capability as battlefield tactics advance. HMI controls will also need to continue to develop new multi-functional controllers for weapons, communications, and remotely operated vehicles.

While air superiority is key to success, there will always be a need for ground advancement. Using the experience from manufacturing complex HMI controls in the most advanced fighter jets and helicopters, Essex took those standards and applied them to ground-based combat vehicles. Both the current M1A2 Abrams tank platforms and the M2A2 and M2A3 Bradley fighting vehicles are equipped with Essex Commander's and Gunner's control assemblies. Other design contributions extend to critical components within the ground combat vehicles, and Essex will continue to support them into the foreseeable future.

Experience in the battle-tested, mission-ready military arena and knowing our customer's requirements with the associated standards is an advantage in the extreme Mil-Spec aircraft testing environment. This knowledge base spans the product offerings in control sticks, throttles, fuel system valves, hydraulic system valves, pulsation dampeners, flame arrestors, and related DOD build-to-print components and assemblies.

Operations

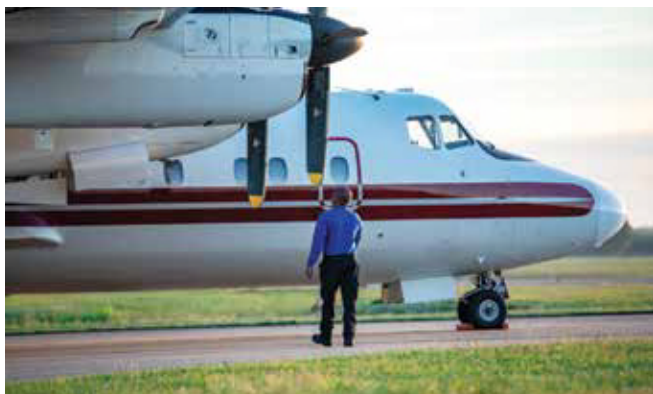
Essex Industries understands that all our Military's weapons platforms operate in a myriad of mission profiles and atmospheric environments. The team tailors designs and manufacturing processes accordingly to accommodate these demands. Employees strictly adhere to our AS9100 procedures during product design and manufacturing. Essex operates its own CNC machine shops, plating lines, painting lines, and NDT testing to keep costs down and turnaround times up. Service does not end when a customer's finished product leaves the facility. Customer Care and Engineering teams are always available to provide ongoing support, troubleshoot problems, offer in-field servicing, and provide anything else our customers

request to maximize aircraft uptime.

With Continuous Improvement at the core of the business, there is an ongoing effort to improve HMI designs in response to evolving military requirements and changing technology. Building on the history and experience, Essex collaborates to deliver vital improvements on weapons controllers for other Army Aviation platforms. These efforts will lead to more flexibility and digital capability to change system functionality based on mission parameters.

Essex Industries has over 450 dedicated employees in St. Louis, MO, Milford, CT, and Huntington Beach, CA. Energized by a continuous improvement culture and core moral values, Essex builds solid connections within the company, the aerospace industry, and the Military. Essex is proud of the service given to Army Aviation; we remember our products are vital to the safety of individual Soldiers, and they are honored to be a small part of their journey.

CW2 (Ret.). Robert Hale is the Aerospace & Defense Business Segment Manager at Essex Industries.



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Finding Root Causes of Intermittent System Failures

By Mr. Kevin Steidel

The continued evolution of electronic and electrical systems is inevitable. However, the tools and skills needed to maintain these systems are falling further and further behind, turning many items of modern life into discardable components when usefulness or functionality is lost. In the past, when consumer products

experienced problems, a trip to a local repair shop was the solution. But how often does anyone repair a TV or home stereo anymore? This axiom pertains mostly to consumer level electronics where the modern expectation is that these items will simply be replaced every few years.

This is not the case with modern

day transportation (i.e., aircraft, ships, vehicles, trains, etc.) where the cost of short-term replacement far exceeds financial feasibility and therefore must be maintained for much longer periods of time. And yet, today the maintenance technology gap continues to widen. The result has been a slow but continuous decline in systems reliability causing a reduction in available assets. Some maintenance data suggests that electrical and electronic faults result in hundreds of thousands of asset availability days lost annually.

According to the Government Accountability Office, “DOD did not meet its mission capable goals for fiscal year 2021 for 47 of the 49 aircraft we reviewed. Further, mission capable rates for most aircraft decreased from fiscal years 2011 through 2021.”

Rising to the Challenge

The Automatic Wire Test Set (AWTS) was developed through a joint Eclipse International and DOD collaboration to address the shortage of technology capable of supporting modern maintenance activities. Since 2010, the U.S. military has been acquiring Automatic Wire Test Set (AWTS) units for use as a fieldable common test equipment to improve electrical system maintenance capability throughout the fleet. The application of AWTS testing has shown solid results and has begun to gradually shift maintenance postures from purely reactive to a proactive stance. More importantly these efforts have led to increased aircraft mission readiness.

The initial mission of AWTS was to detect and identify electrical faults and expedite the repair processes. However, some of the biggest impacts made by AWTS thus far has come from integrating these test procedures into scheduled maintenance intervals. The gains realized by the US Army Aviation units at Fort Campbell, KY have already demonstrated notable improvements with scheduled maintenance events utilizing AWTS.



A 10th Combat Aviation Brigade technician runs a functional test on a panel next to a CH-47 helicopter with the Automatic Wire Test Set (AWTS) – Tests More Than Wiring.

Beginning in 2014, a Joint Office of the Secretary of Defense (OSD) project was commissioned to study a problem involving intermittent functionality of the Full Authority Digital Engine Control (FADEC) system. Units had been experiencing 2-6 Pilot Reported Discrepancies (PRDs) per month. This resulted in numerous unnecessary Line Replaceable Unit (LRU) removals. Many of which were returned as No Fault Found (NFF). Up to this point, using all known existing maintenance practices, ground testing of wires in the FADEC system had failed to detect any potential causes. Since the introduction of AWTS, Army maintainers have indicated FADEC PRDs have been reduced to 2-3 per year.

Traditional maintenance techniques involve taking a single measurement of each circuit and determining a pass or fail condition based on a common threshold value. Meaning, regardless of conductor gauge or length, good or bad circuits are determined through a one-size-fits-all ideology. All too often, a degraded conductor can pass these common thresholds and remain in service until future problems occur in flight. Further, intermittent system failures are usually caused by very detectable degraded conditions in conductors. However, detection requires a closer look.

New Ways to Evaluate Old Problems

A new test protocol was developed by Eclipse International for use with AWTS in an effort to resolve FADEC issues. Working closely with Fort Campbell technicians, a measurement technique was developed, tested, and refined. Now designated the Certified Test Protocol (CTP), this new approach more accurately characterizes the condition of conductive paths beyond what single measurement techniques could previously provide.

At its core, CTP involves performing multiple measurements on each circuit under test, then using comparative analysis to evaluate the measurement consistency of each circuit. It is expected that properly designed, well maintained wiring will have consistent conductive qualities over a series of multiple measurements. What has been discovered via CTP is that degraded circuits actually yield noticeably inconsistent measurement data. In many cases, these degraded circuits (i.e., bad

wire crimp, conductor corrosion, poor contact retention, etc.) have been directly linked with reported intermittent system functionality (a.k.a., in-flight failures). As maintainers at Fort Campbell have found, when these degraded conditions are actioned upon, the intermittent symptoms are resolved.

Owing to the successes experienced while solving previous FADEC issues, maintainers have already begun to expand AWTS to additional systems and platforms. To facilitate this rapid expansion, Eclipse was requested to provide Field Service Representative (FSR) personnel on-site at Fort Campbell. The purpose of on-site FSR technicians is to expedite test development by augmenting local activities. More recently, to satisfy mission readiness standards established by the DOD, the U.S. Army is now deploying AWTS capability to the broader aviation fleet beyond the special operation units.

The Army is now expanding the use of AWTS technology throughout the rotary wing fleet, ultimately leading to increased reliability and availability of weapon systems. Key advantages of AWTS are through the use of automated test procedures which streamline maintenance activities, increase test

accuracy, and provide methods to collect actual test data. The benefit of collecting test data is that it can be further evaluated to identify trends which can improve test procedures. Additionally, engineers can analyze test data over larger periods of time to further improve system designs.

Aviation wiring can no longer be evaluated under basic single threshold philosophy. CTP is now providing a comprehensive evaluation of wiring interconnect conditions to root out degradation before it becomes a reliability issue. To meet the maintenance demands of modern electronic systems, circuits need to be evaluated at tolerances closer to designed performance criteria. Under any scenario, discovering and repairing degraded conductor paths during a scheduled maintenance event will lead to reductions in future system failures. There is no question that technology will continue to evolve, the only question is how well it will be maintained.

Mr. Kevin Steidel is Technical Director of Eclipse International Corporation.



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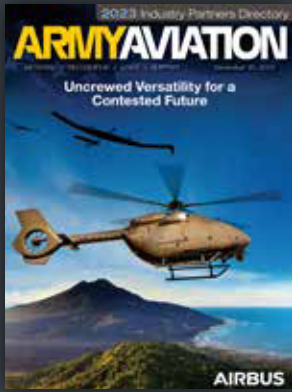


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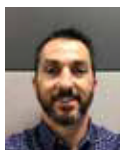
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Research & Development/Science & Technology



Supporting Army Aviators Paramount to Aviation, Missile Center Mission in 2023

By Dr. James Kirsch

The U.S. Army Combat Capabilities Development Command Aviation & Missile Center is celebrating another successful year of working tirelessly to transform and sustain the Army Aviation branch for the battlefields of today, 2040 and beyond.

As a part of Army Futures Command, DEVCOM AvMC is focused on delivering the Army of 2030, investing in our people, and developing new technologies that will allow the Army to maintain superiority over any potential adversary.

Our current environment with near-peer adversaries is driving Army modernization and the need for rapid, flexible, and innovative solutions to address an ever-evolving threat. No one can know precisely what the future holds, but we know the character of warfare is changing rapidly alongside

advances in technology. The Army has made significant strides in driving down the timelines for developing and demonstrating technologies and in ensuring investments in the right technologies to regain our competitive advantage.

The Army is embracing modern tools and practices such as model based systems engineering, agile DevSecOps, modular open system approaches, and digital engineering to both increase the pace of development and enable continuous improvements. Adopting MOSA not only shortens test and developmental times but enables easier aircraft upgrades while removing the tyranny of time to upgrade systems at the speed of technology and innovation.

As we invest in new technologies, we must also invest in understanding and developing approaches to certify those new technologies for use by our

The technical expertise and experience resident in U.S. Army Combat Capabilities Development Command Aviation & Missile Center civilians, coupled with strong partnerships with industry and academia, will demonstrate the technologies necessary for the future fight.

Soldiers. Soldiers have had more input to the development and selection of the Army's next weapons than at any other time in our history. These Soldier engagements can help pinpoint end-user issues that may otherwise be overlooked and confirm or dispel the need for development teams to address real or perceived technological challenges. Autonomy, advanced manufacturing, and increased electrification are just a few of the technologies that will require new approaches to understanding and accepting the potential risk in their use. We are investing now to develop

air worthiness approaches to enable incorporation of these new capabilities when they are ready.

The Army cannot stop at just speeding up the development process – it must also revolutionize the way it tests, fields, and sustains future force capabilities. It does no good to speed up the technology side if we do not also change the way we do business on the material release and airworthiness side of the equation. Our legacy airworthiness and material processes have served us well but are not designed to keep up with the anticipated pace of future capability enhancements to address an ever-evolving threat. We must adapt these processes to enable informed, risk-based decisions which keep pace with capability developments.

At the heart of all of this is the talent residing within the Department of the Army civilians in the DEVCOM Aviation & Missile Center, and truly across all DEVCOM. People are our number one priority because they are at the core of everything we do. They are our clear advantage against any adversary and the most important component of our transformation efforts.

The technical expertise and experience resident in these remarkable civilians, coupled with strong partnerships with industry and academia, will demonstrate the technologies necessary for the future fight. The key to success is a trained and ready workforce, as well as constant collaboration across all the relevant stakeholders. This is a culture change, but one that we must embrace to deliver the Army of 2030 while we also design the Army of 2040 and beyond.

It was an honor and privilege for me to take over as AvMC Director from Mr. Jeff Langhout earlier this year, and I assure you, under my leadership the DEVCOM AvMC workforce will continue to strive to give our Soldiers the technological advantage to deter, and if necessary, fight and win our Nation's battles.

Above the Best!

Dr. James Kirsch is the director of the U.S. Army Combat Capabilities Development Command Aviation & Missile Center at Redstone Arsenal, AL.

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Army Aviation S&T – Shift Right: Technology and Talent for Army 2040

By Ms. Christi H. Dolbeer and Mr. Carvil E.T. Chalk

The Army of 2040 is closer now than it ever has been, and the U.S. Army Combat Capabilities Development Command Aviation & Missile Center is poised to shape its aviation Science and Technology (S&T) resources to deliver the technology and talent vital to success in what will be a new Army Operating Concept. Of the many thrusts across the Army that will be undertaken, several are already at work in aviation S&T: autonomy, electrification, and modeling & simulation tools that will help leaders and research scientists envision and achieve the weapon systems of the future sooner and with lower risk.

Autonomy

Autonomy will be a key combat enabler for the Army of 2040. Army Aviation must utilize a wide spectrum of autonomy capabilities across both manned and unmanned platforms. Rather than a binary “on or off” function, advanced autonomy will provide a continuum of increasingly valuable capability for the warfighter to increase situational awareness, maneuverability, and decision making across a wide spectrum of operations. Three areas of autonomy are foremost: cognitive, single-ship, and teaming. Cognitive autonomy investments will advance holistic mission management to lower cognitive workload by implementing automation and Artificial Intelligence (AI) in an integrated environment where human ingenuity can make the best use of available resources to make real-time effective decisions faster than our adversaries can react. By leveraging current flight autonomy efforts across government and industry, combined with advanced fly-by-wire technology and sensing, we can deliver autonomous air vehicles capable of operations in denied or contested environments...



U.S. Army Combat Capabilities Development Command Aviation & Missile Center experimental test pilot conducts initial evaluation flight of the BETA ALIA 250C, an eVTOL aircraft developed by BETA Technologies.

doing the dull, dirty, and dangerous work while preserving our true combat power, the Army Soldier. Combined with what we have learned from our advanced teaming efforts for launched effects, aviation system teams can be positioned to interact collectively in ways that increase survivability and lethality by employing assets in tactically advantageous groups.

Electrification

Another promising area of interest for Army aviation S&T is air platform electrification. The term ‘electrification’ is used broadly in this

context as a general descriptor for more-electric, all-electric, and hybrid-electric technology as applied to UAS, manned platforms, and electric Short/Vertical Takeoff and Landing (eS/VTOL) aircraft. Largely driven by commercial industry’s foray into advanced air mobility, electrification comprises propulsion, electrical power architecture, subsystems, and actuation across a variety of novel configurations. The potential benefits of this burgeoning technology include improved affordability, operational energy management, and perhaps even lower maintenance. However,

there are many technical challenges that must be overcome for this technology to 'buy its way' onto Army platforms, not the least of which are improvements in specific power and energy, system efficiency, and reliability. Systems also must be suitable for harsh operational environments. To assess and develop these new technologies, the workforce must have the right tools and skillsets to inform requirements, write specifications, assess designs, and understand the safety and airworthiness aspects of electrification

our understanding of where they may fit into Army formations and provide operational advantage.

Modeling and Simulation

Another important effort within aviation S&T is the alignment of our modeling and simulation capabilities. As we consider the next generation of vertical lift systems, the demand for a harmonized set of M&S tools for design and analysis is clear. Developing an integrated design environment is necessary to fully understand not just

and linkages of current methods in a digital engineering environment must be achieved so that conceptual design tools flow into detailed design or analysis processes that carry airworthiness and performance quality data throughout the acquisition process. Elements of this approach are already in progress. The utilization of these integrated M&S capabilities will enable AvMC to focus our research investments as well as integrate with other M&S exercises and capabilities across the Army S&T enterprise as part of holistic Digital Engineering environment.

But there is no one technology to accomplish these goals, holistically. The best tool we have to achieve such success is our people. As Secretary Wormuth has stated, "...we've got to take the long view to determine what foundational investments in people, doctrine, and technology are needed today so that we can prepare for tomorrow." Indeed, people are our collective priority. For aviation S&T that means the inclusion of more Electrical and Computer engineers alongside the classic disciplines of Mechanical and Aerospace engineers, Physicists, and Engineering Research Psychologists. Moreover, we will need teammates to join us who have knowledge in areas like cyber security, data science, advanced communications, directed energy weapons, AI and machine learning, and Model Based Engineering. We want a workforce dedicated to researching, planning, and executing efforts with industry, academic, and tri-service partners that deliver the state-of-the-art capability for Army Aviation platforms and the Soldier. We also need engineers with the enthusiasm for determining how to capitalize on the latest commercial technologies and to envision how the Army can leverage and use these systems for new Army capabilities. Designing the Army of 2040 brings exciting prospects for innovation...and we look forward to melding our current workforce with the next generation of research scientists and engineers who join our ranks! Won't you join us?

Ms. Christi H. Dolbeer is the director and Mr. Carvill E.T. Chalk is the deputy director for Aviation Technology, at the Technology Development Directorate, DEVCOM Aviation & Missile Center, located at Redstone Arsenal, AL.



U.S. Army Combat Capabilities Development Command Aviation & Missile Center conducts autonomous Black Hawk flight demonstration over Camp Dawson, WV using Mission Adaptive Autonomy.

technology. Efforts are already underway to strengthen modeling and simulation capabilities and the groundwork is being laid to enhance facilities for hands-on component and system integration testing. The desired end-result is a workforce with engineers and technicians paired with a modeling, simulation, and test validation capability to support future integration of electrification technology into the Army fleet. Demonstrations and experimentation with this new eS/VTOL class of aircraft will allow pilots and CONOPS developers to work with emerging technology in ways that aid

the performance of new manned and unmanned platforms, but also the impacts of new technologies across the portfolio. The future operating environment will likely require movement of equipment and personnel at a scale and speed that can only be achieved with long-range high-volume vertical lift assets. The combination of high-efficiency rotors, large-scale composite structures, and distributed propulsion and power systems will demand integrated M&S tools that support concept design through high-fidelity computations for aerost-structural dynamics. Harmonization



Reimagining Talent Management for Army Airworthiness Engineers

By Dr. Yolanda Powell-Friend

How the acquisition community responds to the modernization of weapon systems is driven by the rapid proliferation of emerging technologies and their impact on the Army's posture in responding to global threats. Agencies need the autonomy, flexibility, processes, and systems in place to rapidly assess human capital needs in parallel with the modernization of weapon systems.

The Army's modernization acceleration shifts the focus from disparate legacy processes and systems to the transformation of systems, which require innovative data management capabilities, the adaptation of employee skills, the overhaul of supply chain management techniques, and infrastructure alignment that simultaneously connects systems, personnel, and applications. The injection of critical technologies and concepts like digital engineering, additive manufacturing, modular open systems approach (MOSA), air-launched effects, model-based data management, and artificial intelligence into the workforce leads to "personnel upskilling" through new talent management techniques.

With the demands on talent enabled by the Army's modernization and sustainment objectives, the U.S. Army Combat Capabilities Development Command Aviation & Missile Center's System Readiness Directorate (DEVCOM AvMC SRD) determined that a talent management system was essential in defining and cultivating the core capabilities required for technical assessments of complex systems. The value of developing a comprehensive talent management system is that it provides an in-depth assessment of capabilities within our core competencies. The hard realization that the Army's traditional civilian personnel systems lag in their ability to systemati-

cally track all domains of talent management affirms the need for a system that is capable of aligning talent. Strategically aligning talent allows SRD to forecast areas where skills have not yet been developed in light of emerging requirements, which decreases our overall mission effectiveness. With a comprehensive "Talent Operational Picture," SRD skillsets are cultivated from initial onboarding to offboarding, capturing every aspect of an employee's technical profile to include skills, experience, and job assignments tracked through the Total Employee Talent Management System (TETMS).

While building a functional talent management system for airworthiness engineers is key to the Aviation Enterprise's effectiveness, we cannot lose sight of understanding the relationship between technologies required to advance the Army's modernization priorities and employee skillsets. Thus, the demands on SRD to provide highly skilled talent continue to evolve as systems become more complex due to technological advances. For example, MOSA required Sammie Smith, who is our MOSA lead, to upskill her capabilities by understanding system architectures that share information across multiple domains, improving system inoperability and scalability. MOSA is critical for the Army's engagements in global environments where rapidly reconfigurable software provides weapon systems with a competitive advantage.

Talent Management Backbone

SRD's talent management system structure leverages critical skills at hierarchical levels below each core competency level by identifying, analyzing, structuring, and maintaining human capital inputs to support the success of current and future weapon system

upgrades. One of the most apparent challenges for SRD is documenting an employee's "derived skills" that were developed through on-the-job technical assessments. SRD has found that these independently learned skills are essential in critical technology assessments. Currently, SRD's talent management efforts have shifted to comprehensively understanding talent gaps, strategically recruiting, and successfully implementing succession planning by formulating the "Talent Backbone," which provides the data needed to make informed decisions. In data-driven environments like this, the deployment of digital engineering applications becomes the backbone for talent management, and SRD engineers like Tony Still, Digital Engineering expert, is critical for fundamentally changing our approach to innovation. The impetus to formulate a digital engineering strategy was in response to our growing need to support new Army aircraft systems like Future Vertical Lift (FVL). Due to the rapid response required to support the FVL family of aircraft, SRD engineers must be able to actively participate in intra-complex modeling environments to provide real-time assessments. Thrusting our engineers into the digital engineering environment forces SRD to develop new airworthiness substantiation methods that support rapid real-time integration. Thus, the real-time reliance on collaborating in a model-based digital engineering environment makes digital engineering a core capability for reforming airworthiness, upskilling the capabilities of the SRD talent, and enabling rapid innovation.

What's Next?

Heavily impacted by talent wars, leveraging talent successfully is crucial to the Army Enterprise's ability to meet

demands for engineers with experience in the Life Cycle Engineering and Airworthiness Competencies. With the competitive nature of our environment, the acquisition, onboarding, and development of engineering talent are critical to SRD's ability to meet the demands of modernization efforts. In this unprecedented war for talent, the artificial boundaries that limit the utilization of talent across government and industry sectors must be removed to formulate new collaborative frameworks for talent management. The road to leveraging these technical competencies is nested in collaboration with Industry Partners, to develop a unified approach for the recognition of next-generation engineering skills.

Digital Badging

Competency-based certification methodologies provide a universally consistent approach for the recognition of skills required to assess airworthiness. Competency-based certification through the recognition of Digital Credentialing can be the tipping point in defining universal technical standards for evaluating the next generation of weapon systems. Digital Credentialing offers a path for shared growth, allowing more flexibility to expand, obtain, and leverage skills, thus advancing the airworthiness footprint. The agility of Digital Badging through an accredited credentialing process provides TETMS with the necessary anchors needed to reskill and upskill the workforce in a consistent manner. Talent management must become embedded within every technical domain to leverage every aspect of our core competencies, leading to greater levels of success. A credentialing-based approach to competency tracking provides the backbone for TETMS and will enable increased productivity and

cross-utilization of talent. To gain the benefits of mutually recognized talent, SRD is currently discussing opportunities to establish a pathway to Digital Badging with industry partners.

Digital Data Decisions

The backbone of the SRD talent management system is maintaining an authoritative source of truth and leveraging competency related data to execute decision-making in support of the mission. SRD data architect, Rashanda Kennamore, becomes critical in the establishment of cloud-based architectures that allow the availability, sustainability, and reliability of data. SRD realizes that data analytics and the growing Artificial Intelligence trends have propelled SRD into the adaptation of digital engineering applications and a real time workflow culture. As the Army's modernization priorities change, SRD will continue to adapt and rebalance our workforce to support emerging technologies. Looking through the data management telescope, cloud-based connected systems, digital engineering, data analytics, and intentional talent management allow SRD to responsively meet the increasingly complex demands of the Aviation Modernization Enterprise well into the foreseeable future. SRD's new talent management approaches and tools will comprehensively ensure the Directorate's engineering workforce is fully prepared to assess the advanced technologies being integrated into the Future Vertical Lift aircraft.

Dr. Yolanda Powell-Friend is the deputy director of Acquisition and Performance in the Systems Readiness Directorate, U.S. Army Combat Capabilities Development Command Aviation & Missile Center, located at Redstone Arsenal, AL.



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Special Focus ▶

Research & Development/Science & Technology

Aviation Turbine Engines Project Office Supports Continuous Transformation and Targeted Modernization

By Gina Bublitz and Cindy Mitchell



U.S. ARMY PHOTO BY ALC MONICA FOTBEL

The Aviation Turbine Engines (ATE) Project Office (PO) provides affordable and reliable power solutions for Army Aviation, supporting today's Soldiers with quality T700 and T55 engines. ATE is also positioning the Army of the future for success by developing the T901 engine under the Improved Turbine Engine Program (ITEP) and Electrical Power Systems (EPS) initiatives.

Supporting Continuous Transformation Through MOSA

On 21 Sept. 2023, in his Senate confirmation hearing to become the 41st

Chief of Staff of the U.S. Army, General Randy George included continuous transformation in his four identified focus areas designed to maintain the Army's edge. Continuous transformation enables the Army to modernize and transform current equipment while simultaneously building its Multi-Domain Operations-ready force.

ATE meets the Chief's call for continuous transformation by applying Modular Open Systems Approach (MOSA) principles. MOSA accelerates future innovation by making components more readily removable, upgradeable, and interoperable. ATE is applying a rigorous MOSA strategy to designing and developing the T901 engine. A modular approach to the engine design and engine controls allows for the engine design to simultaneously support multiple platforms. In October 2023, ATE provided two flight test engines to the Future Attack Reconnaissance Aircraft competitive prototype vendors and is on track to provide flight test engines to support Black Hawk integration in spring, 2024. Additionally,

The T700 engines have provided reliable power to Army Aviation for nearly 50 years, and they will continue to power the current airframes for decades into the future.

from a MOSA perspective, ATE continues to execute current EPS initiatives that include developing a Component Specification Model (CSM) update – which is essentially a Technical Data Package (TDP) that the Army can provide to industry for future acquisitions. The CSM provides a detailed definition of the required design configuration, performance requirements, and procedures to effectively develop the components. Implementing MOSA in the EPS detailed design phase will result in a smarter, more capable power system to address current electric power gaps and meet future power requirements at reduced costs.

Targeted Modernization of Current Engines

ATE remains committed to modernizing the existing fleet of T700 and T55 engines by upholding rigorous



U.S. ARMY PHOTO BY SFC RYAN SHELDON

The T55 engine, shown during an engine inspection, is the reliable workhorse that powers CH-47 Chinook helicopters.

quality standards while addressing obsolescence, reliability, and safety issues in future product upgrades.

Quality improvements this year for the T700 include establishing a new Critical Safety Item instruction, which requires more on-site supplier audits. The Product Office also received approval for the Engineering Change Proposal of the Stage 1 ruggedized blisk that eliminated containment hazards, correcting a reliability shortfall that spanned ten years. Efforts were also completed to enable distribution of an updated version of the enhanced digital electronic control unit which addresses obsolescence issues, ensuring parts availability through 2050.

PM ATE continues to focus on affordably and reliably powering Army Aviation. The engines and power management solutions provide continuous transformation by incorporating MOSA strategies. Executing the targeted modernization of enduring engines supports the Army Modernization Strategy. ATE's reliable power solutions enable both current and future generations of Army aircraft to compete, deter, fight, and win.



The EPS team is supporting modernization of electric power systems in the enduring and future fleet of Army aircraft. Photo by Aviation Turbine Engines Project Office.

Ms. Gina Bublitz is the Aviation Turbine Engines Project Manager within the Program Executive Office for Aviation, Red-

stone Arsenal, AL; Cindy Mitchell is an Avion Solutions, Inc. employee supporting the ATE Project Office in operations.

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Why ITEP?

By Ms. Cindy Mitchell

U.S. ARMY PHOTO BY CAPT FRED SWENBERG

The Army's Improved Turbine Engine Program (ITEP) provides Army Aviation the power to operate in Multi-Domain Operations (MDO) with longer range and endurance, providing ground forces the opportunity to fight when and where they choose by regaining lost high/hot capability along with delivering improved operational performance in a modular design.

A UH-60 Black Hawk helicopter over Kunar Province, Afghanistan, Oct. 17, 2013. The T901 will reengine UH-60M and UH-60V model helicopters.

ITEP is developing the T901-GE-900 (T901) as the next generation replacement engine for the AH-64E Apache and the UH-60M/V and HH-60M Black Hawk aircraft as well as the engine to power the Future Attack Reconnaissance Aircraft (FARA).

Critical to MDO: Regained High/Hot Capability

Growth of aircraft weight has increased as survivability and capability have been added in the past four decades of T700 operation. This weight has led to growth in power of the T700, culminating with the current T700-GE-701D engine. The T901 is an entirely new engine design that will enable the platforms to regain lost capability by providing 50% more shaft horsepower at sea level standard conditions and expanding the aircraft envelope to allow full mission performance up to 6K/95F high and hot conditions.

Aircraft equipped with the T901 will have the ability to operate in the most austere conditions to enable Army Aviation to continue supporting Soldiers where needed and bring them home safely.

Improved Operational Performance

The T901 brings improved operational performance. Greater range and endurance is achieved without increasing the logistics footprint. Aircraft will have more time on wing between maintenance cycles because of the engine's use of high-performance materials, the extensive array of sensors equipping each to communicate engine health, and a design that is better equipped to eliminate ingested sand.

Engine performance is increased while weight remains essentially the same, which is facilitated by using high performance materials including Ceramic Matrix Composites (CMCs) and



LTG Robert Marion, MILDEP ASA(ALT) discusses with Aviation Turbine Engines Project Manager Ms. Gina Bublitz the displayed T901 engine components that General Electric additively manufactures, as ITEP Product Manager LTC Kelley Nalley and ITEP Assistant Product Manager MAJ Wes Paulsen observe.

U.S. ARMY PHOTO BY CINDY MITCHELL

Additive Manufacturing (AM). CMCs serve to reduce total weight while enabling more efficient engine operation. CMCs are made through a combination of silicon carbide and coatings, for much lighter engine components that can withstand higher pressures and hotter temperatures than metals. AM also serves to increase engine performance, offering a more complex part geometry that can be optimized for performance with less constraints from the manufacturing process.

The T901 Engine Health Management System (EHMS) monitors engine system and component performance through an extensive array of sensors to support the U.S. Army's Prognostic and Predictive Maintenance (PPMx) program. EHMS will increase the time on wing for any life-limited components by monitoring actual life consumption of the part during operation rather than using an assigned number of flight hours to determine replacement. These PPMx insights will support the Soldier by enabling proactive engine maintenance planned around critical missions and reduce the logistics burden, while the PPMx attributes will help improve reliability and maintenance effectiveness on both the enduring and future fleets of helicopters.

Engine ingestion of sand can become problematic in certain areas of the world. Sand erodes engine components, resulting in decreased engine power and increased engine overhauls. The T901 design incorporates improvements focused on more efficient sand elimination. Engine components will last longer because the engine more effectively expels the sand it will inevitably ingest while operating in certain parts of the world.

Modular Design

The modular hardware architecture of the T901 allows for the removal, repair, or replacement of engine modules and components at the field level. This concept will allow Soldiers to quickly repair the engine and reduce the number of whole



U.S. ARMY PHOTO BY PAUL STEVENSON

The 3D model of the GE T901 engine was additively manufactured and served as a fit check model for both AH-64E Apache and UH-60M Black Hawk aircraft during FY20. The engine's modular design allows for quick field disassembly into major functioning components, or modules.

engines sent back for repair. In the field, combat flexible modular maintenance means aircraft can be re-engaged faster.

ITEP

The Army's T901 engine provides Soldiers the MDO capabilities needed to fly farther and higher and with a reduced logistics footprint. With the T901, Army Aviation will be prepared to operate in any environment, regaining 6K/95F flight capability which support worldwide operation while allowing for greater range and endurance along with improvements to logistics.

Ms. Cindy Mitchell works in the operations section of the Aviation Turbine Engines Project Office at Redstone Arsenal, AL.

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Special Focus ► Future Vertical Lift

Forging the Army's Future Vertical Lift Roadmap to 2030 and Beyond

By BG Philip "Cain" Baker



In these first few months of my tenure as the Director of the Future Vertical Lift Cross-Functional Team (FVL CFT), I have been constantly amazed with the tremendous team effort across our stakeholders to support Army Aviation's Future Vertical Lift (FVL) transformation. This effort remains critical to supporting our ground forces as part of the combined arms team and spans the Army, our Joint Force teammates, industry, academia and our international allies and partners.

Our unifying FVL tenets that guide Army Aviation's transformational efforts remain:

Reach – Achieving speed, range, endurance, and endurance at range.

Lethality – Ensuring Army Aviation maintains vertical lift dominance and overmatch against adversary threat.

Survivability – Competing against near-peer threats and winning in complex, highly contested and demanding Large Scale Combat Operations.

Affordability – Staying within our means while enabling the timely development, production, fielding, operation, and support of transformational systems.

A charter established on October 6, 2017, outlines the mission and purpose of the FVL CFT: to engage in expert analysis, focused experiments, and technology demonstrations to inform the requirements and handoff of technology to the Defense Acquisition System. The FVL CFT also has the responsibility to inform technology transition, research, and development, and to ensure Soldier-informed assessments are nested with capability development efforts. The CFT must additionally ensure that integration and synchronization activities improve the speed, capability, deliverability, and cost-effectiveness of materiel solutions to meet the Army Chief of Staff's priorities and warfighting requirements.

In alignment with this charter and the Army Vision, the FVL CFT continues to provide refined requirements to the Army's FVL program and signature efforts to include the Future Attack Reconnaissance Aircraft (FARA), Future Long

Above: FLRAA Capability Development Document validation occurred in July 2023 and progressed to Joint Requirements Oversight Council in November. Weapon System Preliminary Design Review is set to occur in Fiscal Year 2024 and Prototype Production in FYs 2025 and 2026

Range Assault Aircraft (FLRAA), Future Unmanned Aircraft System (FUAS) [including Future Tactical Unmanned Aerial System (FTUAS) and Launched Effects (LE)], and Modular Open Systems Approach (MOSA) across all platforms. MOSA provides the most significant technological advancement and overmatch to our systems by enabling the Army to efficiently integrate upgrades at the speed of threat, environment, and technology.

The Army successfully consolidated gains over the past five years by transitioning new concepts and technology to the Program Executive Office-Aviation (PEO Aviation). We are currently crafting a new roadmap for the next five years of the FVL CFT. In the meantime, we continue to further technology and warfighting concepts, increments, and upgrades, while also conducting analysis and setting the conditions for the possibilities of other clean sheet designs.

Five-Year Plan Focus Areas:

Modeling and Simulation - Building on multiple iterations of High-Fidelity Modeling, partnered with PEO Aviation, the FVL CFT is about to embark on another phase of focused modeling and simulation to demonstrate how FVL ecosystem concepts are applied – and maximized – to relevant, classified threat-based scenarios as key components of the Army's combined arms fight, directly supporting the National Defense Strategy. This modeling will further inform requirements and the ways in which these systems will be employed.

Studies - Spanning internal Army analytics and Federally Funded Research and Development Centers, think tanks, academia and consulting firms, studies remain

an instrumental component for leveraging expertise and informing a multitude of areas, to include gap analysis, system requirements and affordability. As part of formalized study plans, near-term study focus areas include advanced teaming, network optimization, autonomy, digital transformation and the rotary-wing defense industrial base.

Science & Technology - A critical component of defined requirements selected for development is the



BELL COURTESY PHOTO



SIKORSKY COURTESY PHOTO

FARA Competitive Prototypes simultaneously received Improved Turbine Engines in October 2023. First flight tests are scheduled for FY24.

technology underpinning – Joint Multi-Role Technology Demonstration is a great example. Continued focus areas include Human Machine Integrated Formations; advanced teaming behaviors, payloads and sensors; survivability; autonomy; mission systems; and network. Science and technology efforts continue to focus on maturing technology readiness levels and their subsequent integration into Army Aviation signature efforts.

Experimentation & Demonstration - The FVL CFT is looking forward to participating in Army Futures Command's Project Convergence Capstone 4 and experimenting with nine FVL-related technologies and subsystems. The capstone builds off efforts at Experimental Demonstration Gateway Event (EDGE) 23, including a focus on FARA warfighting concepts and kill web integration, sensors, mission planning, airspace deconfliction, LE behaviors and payloads, and autonomous resupply. As part of Army Futures Command's persistent experimentation model, the FVL CFT is planning FVL experimentation at various events throughout the year, simultaneously moving to an 18-month cycle for EDGE execution to allow for more detailed analysis and deeper industry involvement.

Soldier Touchpoints - Soldier-informed requirements remain integral to Soldier-centered FVL designs. Soldier touchpoints inform a variety of systems and processes, including the FLRAA medical interior, degraded visual environment, scalable control interface, FLRAA and FARA maintenance and a yearlong FTUAS touchpoint with five Brigade Combat Teams. User assessments remain an integral part of the five-year plan and are expected to grow in frequency as more FVL tech demonstrators and prototypes become available.

Requirement Documentation

The FVL campaign of learning continues with the capture of data and knowledge conversion to inform requirement developments. Currently, five documents are undergoing

review and approval. These include the FLRAA Capability Development Document (CDD), which is at the Joint Requirements Oversight Council (JROC); updated FTUAS and separate LE Abbreviated Capability Development Documents (A-CDDs), which are at the Army Requirement Oversight Council (AROC); and an Aerial Tier Network Extension (ATNE) Directed Requirement with Annex to Integrated Tactical Network (ITN) A-CDD.

2040 Design

The FVL CFT's overarching goal is to deliver transformational capability to the Army now and through 2030. Its second priority is to conduct the required analysis and research necessary to provide Army Senior Leaders with options for new capabilities to Design the Army of 2040. Enabling the U.S. Army with the ability to overcome critical capability gaps is the cornerstone of the requirements that we design. Future adversaries will not stop advancing their own systems and tactics, so Army Aviation must work, in partnership with other warfighting functions, to maintain our advantage to enable credible deterrence and lethality. Aviation stakeholders must continue to explore additional capabilities in the FVL Family of Systems.

Conclusion

The Army is at a pivotal stage in its efforts to field and integrate next-generation Aviation capabilities to support ground commanders. The efforts to date have been herculean, and although many envisioned early concepts are nearing reality, we must not relent in our pursuit. We remain committed to enabling a combined arms transformational approach – one that sees our enduring fleet adapt to innovative technology. The vision, charter and tenets laid out for the FVL CFT in recent years are more valid now than ever. The threats and challenges our nation faces are increasingly more complex. We must remain bold and resolute with how we forge the future force to compete and win.

BG Philip "Cain" Baker is the Director of the Future Vertical Lift Cross Functional Team at Redstone Arsenal, AL.



ARMY PHOTOS BY AUBREY CANDALES

Ready Now and Preparing for the Future – The Cribbins Readiness Conference!

The Army Aviation Association of America sponsored the Annual Cribbins Readiness Conference 13-15 November 2022 at the Von Braun Center in Huntsville, AL. This year's event brought both Army Aviation and industry together in record numbers to focus on the state of Army Aviation and its future.

The event began on Monday afternoon with a Foreign Military Sales Systems Sustainment Discussion moderated by past Army Aviation Branch Chief, BG (Ret.) E.J. Sinclair which was followed by a ribbon cutting and opening of the exhibit hall and a reception.

On Tuesday morning, AAAA President, MG (Ret.) Walt Davis, opened the event officially welcoming all the friends and partners in Army Aviation and reiterating our mission of support to the Soldiers and families of Army Aviation.

MG Thomas O'Connor, AMCOM commanding general, delivered the keynote address for the first full day and congratulated the winners of the 2023 AAAA National Functional Soldier and Unit Awards together with the Aviation Branch Chief Warrant Officer of the Branch, CW5 Mike Corsaro, and Branch Command Sergeant Major Kirk Coley.

The at-capacity crowd listened to MG Wally Rugen, the director of Army Aviation, give detailed updates about the current and future focus areas critical to Army Aviation from both

the DA and Branch perspective, filling in for Branch Chief, MG Mac McCurry, who was mission diverted from the event.

The afternoon working groups were well attended. The Aviation community was on hand to hear the functional leaders' thoughts in the areas of Predictive Logistics, chaired by MG (Ret.) Todd Royar; as well as from the capability managers from the Attack Helicopter, Future Attack Reconnaissance Aircraft, Unmanned Aircraft Systems, and Aviation Mission Systems and Architecture project offices, their industry counterparts, moderated by MG (Ret.) Walter Golden, and the discussions moderated by BG (Ret.) Tim Edens with PMs Utility Helicopter, Cargo Helicopter, Future Long-Range Assault Aircraft, and Fixed Wing project offices and their industry representatives and ACM Lift. The afternoon ended with a Supply Chain Management working group chaired by MG (Ret.) Jim Myles.

That same evening, the Army Aviation Scholarship Foundation held its second scholarship fundraising dinner dance (see page 96 for more details).

Wednesday morning began with an update from Mr. Rodney Davis, the Acting Program Executive Officer, Aviation. Mr. Joseph Giunta, a Senior Executive Service member and the Director of the Army Contracting Command at Redstone Arsenal, provided an update on the contracting efforts underway for Aviation. He was followed by COL Clint Cody, 101st



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Combat Aviation Brigade commander with an in-depth look at readiness from the CAB perspective; and the morning sessions wrapped up with an update from the Future Vertical Lift Cross-Functional Team director, BG Cain Baker.

The working groups were standing room only for panels on Advanced Composites chaired by CSM Bradford Smith; followed by another on Engineering, Sustainment and Supply Chain, within PEO Aviation, moderated by BG (Ret.) Steve Mundt; and the Aviation Future Technology Panel, with Mr. Keith Darrow, a Senior Executive Service member and the U.S. Army Combat Capabilities Development Command's Aviation and Missile Center Director, moderating.

During the Early Bird reception on Monday afternoon, the AAAA Tennessee Valley Chapter presented their seven Mission Area awards for outstanding service to the various project management offices of the Program Executive Office Aviation.

The expanded format for the Cribbins Conference has proven to be a great success! Mark your calendars and we will see you on 11-13 November 2024!



7



8

1. Mayor Tommy Battle welcomes the attendees to Huntsville.
2. MG Tom O'Connor provides the keynote address on the opening day.
3. Mr. Rodney Davis and MG Wally Rugen cut the ribbon officially opening the exhibits at the 2023 Cribbins Aviation Readiness Conference with AAAA National Executive Group Members (l to r) MG (Ret.) Wally Golden, MG (Ret.) Walt Davis, MG (Ret.) Todd Royar, LTC (Ret.) Jan Drabczuk, and BG (Ret.) Tim Edens observing.
4. Working groups in the exhibit hall theater generated much interest and were well attended.
5. Tennessee Valley Chapter presented their Mission Area Awards during the opening reception ending with the posthumous induction of Mr. Bob Vlasics into the Silver Honorable Order of St. Michael for his more than 57 years of service, including membership in AAAA for 54 years. Shown are Bob's widow, Katherine "Jeanne" Vlasics and close friends Tom Geoffrey (left) and Matthew Boenker (right), MG (Ret.) Walt Davis and chapter Sr. VP, COL Jay Maher.

6. 119 exhibitors filled South Hall at the Von Braun Center
 7. CW3 Rudy R. Mendez, Jr., Co. B, 404th Avn. Spt. Bn., 4th Cbt. Avn. Bde., Fort Carson, CO, winner of the Logistics Support Technician of the Year award is congratulated by (l to r) CW5 Corsaro, CSM Coley, MG O'Connor, and MG (Ret.) Davis.
 8. MAJ Jeffrey Frantz, CW5 John Holmes and 1SG Karl Kurz, commander, senior WO Advisor, and senior noncommissioned officer, respectively, of Co. D, 3rd Bn., 160th Spec. Ops. Avn. Regt. (Abn.), Hunter Army Airfield, Savannah, GA, accept the Outstanding Logistics Support Unit of the Year award for the second year in a row.



9

9. Mr. Kenneth "Buddy" Auten of DigiFlight, Huntsville, AL, accepts the 2023 Material Readiness Award for an Individual.



10

10. DigiFlight CEO and President, Mr. Stan Oliver (holding plaque) accepts the 2023 Industry Team, Group or Special Unit and Small Business Material Readiness Awards together with Mr. Buddy Auten and Mr. Kevin Belden from the DigiFlight Apache New Equipment Training Team.



11

11. For the fourth year in a row, Ms. Kathy Hildreth, managing director and principal of M1 Support Services, L.P., accepts the Material Readiness Award for a Major Contractor for their operations at Ft. Novosel, AL!



12

12. SPC Tyler A. Schafer, Co. E, 3rd Avn. Regt., Hunter Army Airfield, GA, accepts the UAS Soldier of the Year award. Helping to congratulate him is Mr. Don Cattell (2nd from right) representing the award sponsor, General Atomics Aeronautical Systems.



13

13. CW3 Daniel C. Pearson, Co. F, 2nd Bn., 160th SOAR(A) at Ft. Campbell, KY, accepts the UAS Operations Technician of the Year award.



14

14. MAJ Hunter M. Thornal and 1SG William K. Kingdollar, commander and senior NCO respectively of Co. F, 2nd Bn., 160th SOAR(A) at Ft. Campbell, KY, accept the UAS Unit of the Year award. Helping to congratulate them is Mr. Jim Ryan, Sr., (2nd from right) representing the award sponsor, Textron Systems.



15

15. LTC Brent J. Pafford and CSM Timothy J. Bevis, commander and senior NCO respectively of 15th Military Intelligence Bn. (Aerial Exploitation), from Ft. Hood TX, accept the UAS Unit of the Year award for the second year in a row! Helping to congratulate them is Mr. Bunky Litaker (far right) representing the award sponsor, CAE USA Defense and Security.

The Army's Aviation Flight Test Directorate

By CW4 Todd Wolfe

I found myself in a T-6 Texan flying 3-disk separation from a C-17 as we approached Ft. Bragg's Sicily drop zone at 1,000 feet AGL. The mission for the day was to video an experimental light armored vehicle being low-level paradropped for the first time. The Flight Test Engineer (FTE) in my backseat must video everything from the moment the vehicle exits the C-17 until it hits the ground, and this is where things get complicated for me. As soon as the drogue chutes deploy, I must start a dive and a 2.5g turn to keep the load viewable in the FTE's camera. With the armored vehicle now under canopy, there is an aerial debris field in its wake as a piece of plywood, various chunks of blocking and bracing, and the three drogue chutes float down. As I complete the first 270 degrees of my spiraling turn, I choose a path through the floating garbage field and go for it. *Success!* After that, it is simply a matter of keeping the orbit down to 100 feet before blasting back to the start point to video the next run.

How did I, a Warrant Officer who began my career as a rotary wing Aviator, end up there? The simple answer is I applied for the Army Experimental Test Pilot (XP) program despite feeling underqualified. Every December, the Army Human Resources Command publishes a MILPER inviting Army Aviators to apply to become an XP. I would read the MILPER message each

year; but I did not have an engineering degree, nor much of the other "highly desirable" academic experience. I would later learn this kind of self-elimination is very common. A successful XP is an operational Aviator who can understand the technical material and mission impacts, then clearly communicate the issues. Fortunately, I met an XP who told me "The board looks at the whole candidate, not just academics, so if you are interested in applying- just go for it."

I took his advice and after graduating United States Naval Test Pilot School I joined the Aviation Flight Test Directorate (AFTD) in Huntsville, Alabama. AFTD performs test and evaluation for Aviation platforms and systems fielded by the Army. AFTD is part of the U.S. Army Redstone Test Center (RTC) which falls under Army Test and Evaluation Command (ATEC), our motto is "Truth in Testing." Tests can range from flight tests of one-off experimental aircraft such as the upcoming Future Vertical Lift Platforms, to testing electronic countermeasures, weapons systems, Aviator gear, and much more. There is always a new test on the horizon and the variety of test missions makes each day interesting. AFTD tests all variants of aircraft in the Army's inventory and utilizes a small fleet of T-6D Texan IIs, C-12s, and MD-530Fs for safety chase, captive-carrying sensors, and other special applications. Furthermore, with Future Vertical Lift testing on the horizon, all XPs are encouraged to maintain currency on at least one fixed wing and one rotary wing platform. In fact, it's common for an XP to maintain currency in more than one variant of each.



The author and FTE conduct photography rehearsal ahead of scheduled air drop.

U.S. ARMY/AFTD PHOTO



CW4 WOLFE PERSONAL PHOTO

CW4 Wolfe was named the 2021 National Defense Industrial Association Army Military Tester of the Year.

Though its XPs are the most visible portion of flight test, AFTD is predominately manned by civilian employees. The FTEs are the backbone of the organization and are integral to the planning, execution, and reporting of all AFTD tests. These engineers are often riding aboard test aircraft or in telemetry rooms closely monitoring real-time data. The FTEs are critical to the safe and successful execution of flight tests and a close-knit working relationship with the XPs is essential. FTEs are often called upon for creative solutions to complex issues spanning multiple engineering disciplines. They are technical experts who can rapidly digest complicated and voluminous data sets and provide timely, relevant, and critical feedback to the flight crew.

AFTD is unlike any other organization in the Army. XPs and FTEs working in small teams testing the latest Aviation hardware is a special capability for the Army, and it's an awesome experience for those of us who have the privilege to work there. Whenever I'm asked about the job, I echo the advice of the XP I spoke to long ago: "if you are interested in applying, just go for it."

CW4 Todd Wolfe is an experimental test pilot assigned to the Aviation Flight Test Directorate at Redstone Arsenal, AL.

If you are interested in learning more about becoming an experimental test pilot or flight test engineer, scan the QR code. Active-duty pilots can email the AFTD team at usarmy.redstone.atec.list. rtc-xp-recruiting@army.mil





Behavior Health Services in Aviation

By CW2 Jennifer Smith

Significant life changes throughout an aviation career are inevitable. Duty station relocations, deployments, marriages, divorces, deaths, and other major events can interrupt the aircrew member's daily equilibrium. Some who have these experiences adjust and achieve normal functioning. Others may experience adverse effects from life changes, including fatigue, irritability, and feelings of despair and sadness. Counseling and therapy can provide extra support while navigating these issues or presenting problems. Aircrew members who fall into this category are encouraged to seek behavioral health services. By addressing stressors early, the aircrew member can minimize negative outcomes, such as mood and depressive disorders. Behavioral health professionals (BHPs) stand ready for those who seek assistance. This article will orient aircrew members to the resources available to them and how seeking behavioral health services impact Flight Duty Medical Examinations (FDMEs).

Who Can Help Me?

First, aircrew members should understand the roles and functions of different BHPs. Under the clinical umbrella of behavioral health, there are psychiatrists, clinical psychologists, clinical social workers, and licensed professional clinical counselors. Psychiatrists are Doctors of Medicine who specialize in different aspects of behavioral health. Psychiatry licensure privileges them to prescribe psychotropic medication. Clinical psychologists hold an advanced degree in their field, yet they are not medical doctors. Instead, they receive specialized training and education to provide behavioral health services in different settings, such as hospitals, clinics, and community organizations. Clinical social workers can provide similar services as clinical psychologists. Additionally, clinical social workers

will integrate other welfare services and programs to increase overall client wellness and reduce external factors impacting behavioral health. Lastly, licensed professional counselors are master's or doctorate degree-level practitioners who provide behavioral health services within clinics and other social service organizations. While they serve most populations, many licensed professional counselors specialize in substance use.

There are non-clinical BHPs as well. One example is the Military Life and Family Counselor (MLFC). MLFCs do not assess, diagnose, or treat mental disorders as clinical practitioners do. However, they provide confidential non-medical counseling. Crisis hotlines are another source of typically non-clinical practitioners who address immediate behavioral health concerns. Clients who call crisis hotlines, such as 988, can expect to interact with crisis counselors. Non-clinical BHPs have different levels of training and educational requirements than at the clinical level.

What Can I Expect?

Although there are several types of BHPs, encounters with them will follow the generally same format. At the first appointment with the BHP, the aircrew member can expect to undergo an intake to gather background information. Some may feel uncomfortable disclosing such personal information and can disclose as they are willing to share. Keep in mind the more information shared, the better the BHP can address needs. The BHP will ask the aircrew member to identify presenting problems and goals. Goals are important during the process as these will help keep the services on track.

Once the intake is complete and goals are established, behavioral health services will begin. The BHP will implement therapeutic modalities, medication, and additional resources over several

sessions. As encounters progress, the BHP will continue to monitor changes in behavior and adjust treatment, as necessary. Services will conclude when BHP determines therapy goals are met or the aircrew member declines to continue therapy. Both scenarios yield to a final assessment of additional supportive resources recommended for the transition.

Anything Else I Need to Know?

There are additional considerations when seeking behavioral health services. Whether seeking services through a call line, a text message service, or a practitioner's office, the information disclosed is confidential. There are a few scenarios that will result in a mandatory reporting of a disclosure, such as immediate danger to self or other people. Most BHPs will provide you with information about mandatory reporting prior to the first appointment or you can request information. The DA Form 8001 outlines confidentiality limitations when receiving behavioral health care through military providers. Also, civilian behavioral health practices may have specific policies on accepting insurance when paying for care. This is an important question to ask prior to the first appointment to avoid a surprise bill in the mail. Insurance companies, such as Tricare, can provide a list of practitioners who accept their insurance policies. Lastly, there should be some expectations regarding progress during behavioral health services. For example, one may experience new or intensified feelings. Or someone may feel they are "stuck" and not seeing any improvement. Each person is different in their progress with presenting problems. Communication with the BHP is critical to get through the cause of these feelings.

What About My Flight Physical?


The Aeromedical Policy Letters (APLs) remain the authority to assist flight surgeons in determining

behavioral health impacts on FMDEs. The APLs have sections that discuss behavioral health and associated support. For example, “Conditions that May Be of a Focus of Clinical Attention” defines aspects of the aircrew member’s life that can negatively impact wellness and outlines guidance to approach these concerns. Another example involves supplemental services to support medical treatment. The APL discusses how behavioral health services can enhance tobacco cessation. Counseling may be integrated into cessation medication therapy under the supervision of the flight surgeon as an option. These policies address circumstances that can impair the aircrew member’s focus and judgement while performing flight duties.

When undergoing the FMDE, any behavioral health concerns are a conversation between the aircrew member and the flight surgeon. Medical history forms, such as the Periodic Health Assessment (PHA) or the DD 2807 (Report of Medical History), give the aircrew member the opportunity to communicate information to the flight surgeon. In addition to reviewing this information, the flight surgeon examines medical records and any BHP records for conditions, such as post-traumatic stress disorder (PTSD), depression, and anxiety. Consulting the APLs, the flight surgeon will make a final clinical determination. The flight surgeon may request further documentation in order to determine if the aircrew member can continue to fly.

How Can I Advocate for Myself?

You are your most important advocate. Remaining involved in your behavioral health care is crucial for the best outcome possible. Ask questions if unsure of the process for behavioral health services or the type of care you are receiving. Several resources can assist, such as BHPs and aeromedical personnel. In the case you do not feel your BHP is addressing your concerns, initiate a conversation to explore the issue and express needs. Be aware that most behavioral health practitioners outside of aeromedical teams may not understand the stringent requirements and restrictions that comes with Army aeromedical certification.




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TOP GUN Recruiter!**

**and win \$1,000
plus an expense paid trip to the
2024 AAAA Annual Summit.**

Annual prizes will also be awarded for
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2nd - \$400	3rd - \$300
4th - \$200	5th - \$100

Monthly recruiters are now also eligible for the
\$100 prize for recruiting efforts!
Prize winners will be recognized in
ARMY AVIATION Magazine and AAAA social media.
**To find out more, go to [quad-a.org](#)
and click on MEMBERSHIP FAQs.**



Where Do I Start?

The U.S. Army provides resources to assist in times of need. Embedded behavioral health clinics and brigade behavioral health officers can provide clinical support. Current military mental wellness support programs include: the Military Life and Family Counselors (MLFC), Military OneSource, Army Community Service (ACS), Army Wellness Center (AWC), and behavioral health units in Military Treatment Facilities (MTFs). Using insurance, to include Tricare, may

present availability of private behavioral health providers. Lastly, flight surgeons remain a great resource for behavioral health questions.

CW2 Jennifer Smith is a UH-72A MEDEVAC aviator assigned to Company D, 1st Battalion, 224th Aviation Regiment of the District of Columbia Army National Guard and is currently a Licensed Graduate Social Worker in the District of Columbia.



Memories of a TAC Officer

Excerpt from Honorable Intentions

By Russell Jones

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

In late 1969, after release from the hospital and a few months of rehabilitation, I was assigned to Ft. Wolters, 1st WOC, as a TAC Officer.

When the candidates were in their last two months of training, the workload for the TAC was light. By then, on average, 30 percent of the candidates had been dropped from the program. Most eliminations occurred during Pre-Flight training, which was usually a result of the TAC officers' decisions based on dishonesty, continued lack of attention to detail, or inability to comprehend and follow orders. Many more Candidates were lost in the early stages of flight training, and others failed due to academics. But after three months, the remaining candidates were doing fine, passing flight checks, getting good grades academically, and earning weekend passes.

My wife kept occupied working part-time on base as a beautician. When I had time off, we spent hours at the local park or lake Possum Kingdom. I bought a BSA 650cc motorcycle and, with other officers who had cycles, would occasionally ride through the countryside.

I couldn't help but be proud of my Flight Platoon as I watched them march off to classes one Friday afternoon. Their appearance was up to the strictest military standards, and they felt good about themselves. They no longer had to run at double time. TACs weren't accompanying them everywhere, and they'd call their cadences. This day, they marched to their song. When they reached the cadence's end, they threw their arms in the air and shouted, "Whoopee! We're all gonna die."

They were aggressive, brash, cocky, confident, and intelligent men. Maybe they were not wise enough, however, to realize that they would be involved in the most dangerous job there was in Vietnam. Yet they were willing to serve with honor, and I couldn't help but think that they had faith in their political leaders who were sending them off to war and confidence in their military trainers. They had faith in me and that I was doing right by them. Was I?

When they returned from the flight line, they immediately changed into their dress uniforms and formed with the rest of the company. I met with them briefly before they headed off for a weekend pass. They seemed giddy, anxious to get away.

"Enjoy the weekend. Company dismissed," I said.

"Big. Red. One," they shouted and then quickly departed.

I should have noticed that the barracks were empty, and not one candidate remained behind. I gave last-minute instructions to the unfortunate candidate who had Officer of the Day duty and headed for my motorcycle to go home. Except it wasn't where I usually parked it.

What the hell? Did I park it out front? I walked around the front of the building, but it wasn't there either. I walked into the front office and confronted the Officer of the Day. "Candidate, you know anything about my motorcycle?"

He jumped to attention. "Sir, Candidate Roberts, sir. No, sir."

I eyeballed him for ten seconds. He's not lying. Damn, someone's stolen my motorcycle.

I didn't want to call the military police in the candidate's presence, so I walked upstairs to my office where, two floors up, was my motorcycle, all polished up. Not a single candidate was around to help me bring it back down the stairs. I couldn't use the duty officer as he was required to stay in the office, so I headed to 2nd WOC where I knew plenty of candidates would be in the barracks. I shanghaied three, and we safely returned my motorcycle to ground level.

When I saw my Flight the following Monday morning, I said and acted as if nothing had happened, but I had my plans. That week went smoothly, and when Friday came around, they were all dressed up for their weekend pass. I wasn't scheduled to be on duty, but I was there.

"Candidates, we have a problem," I said as I held a small matchbox. "During the inspection of your rooms today, I found a dead aviator on a windowsill. You'll pass by and pay your respects on your way back to your rooms. We'll have a proper burial for this lost brother in the morning."

There was a collective moan as they had anticipated a weekend pass. Then they marched by, quietly looking in the box in my hand that contained the body of a fly that had buzzed itself against the glass all day, dying legs up. After giving out a few assignments for the ceremonies in the morning, I quickly left. They were angry. I couldn't help but think back to the night I was in pre-flight when the TAC harassed us into the wee hours.

The following morning, they were in their dress greens. Six candidates were pallbearers. One candidate was assigned a shovel, and he wore fatigues. Another candidate had the task of giving the eulogy, and several other candidates volunteered to say something about the departed. We marched across the street to a spot in the wooded field, the six pallbearers lugging a medic's litter, which carried only the tiny matchbox. Where they found the medic's stretcher, I didn't know and didn't ask.

It's impressive how soldiers, because of their training, will come together even in ridiculous circumstances. The eulogy was at least five minutes long and fitting for any soldier. The several candidates who gave remembrances sounded like

they had known and flown with the departed aviator for years. The candidate with the shovel had his little ceremony as he shoveled a bit from the four points of a compass.

With instructions to change into their fatigues, the company returned to their barracks. There were moans again as they thought they'd have the rest of the weekend off. They had no way of knowing that the TAC officer wives had been busy bringing all the candidates' wives, girlfriends, and family members living in the area to one of the picnic sites on base. The TACs brought beer, sodas, hot dogs, and chips, and all had a good time. The candidates were ready to graduate from the Army Primary Helicopter School and move on to Fort Rucker.



Army Aviation Association of America Award Nominations Are Open



Recognize Outstanding Soldiers through our AAAA Awards Program!

AAAA Functional Awards

Suspense: July 1

- AMSO Award
- ASE Award
- Avionics Award
- Donald F. Luce Depot Maintenance Artisan Award

Suspense: August 1

- Logistics Unit of the Year Award
- Materiel Readiness Award for a Contribution by a Small Business or Organization
- Materiel Readiness Award for a Contribution by an Individual Member of Industry
- Materiel Readiness Award for a Contribution by a Major Contractor
- Materiel Readiness Award for a Contribution by an Industry Team, Group, or Special Unit

- UAS Soldier of the Year
- UAS Unit of the Year
- Fixed Wing Unit of the Year

Suspense: September 1

- Air/Sea Rescue
- ATC Facility of the Year
- ATC Unit of the Year
- ATC Technician of the Year
- ATC Controller of the Year
- ATC Manager of the Year
- DUSTOFF Medic of the Year
- Medicine Award
- Trainer of the Year

AAAA Hall of Fame Inductions

Suspense: June 1

Presented at the Annual Army Aviation Mission Solutions Summit

All AAAA Nomination forms are available on the AAAA Website: quad-a.org



Historical Perspective ▶ 70th Anniversary of Army Aviation Magazine

Editor's Note: Throughout 2023 we have been celebrating the creation of Army Aviation Magazine in March 1953 by Founders, Art and Dotty Kesten, with articles about the 70-year history. We close out this year's celebratory issues most appropriately by giving Art the final word.



From page 31, ARMY AVIATION Magazine, Vol. 3, No. 10, Westport, Connecticut, October 1955.

Randoms

By Art Kesten

It finally happened! We've been sailing blissfully along for two-and-a-half years and thirty-two consecutive issues with news copy to spare. Always present was the horrible thought that this is a 100% voluntary publication and that perhaps one month the volunteers would submit insufficient copy to fill the issue. As we said, it happened! We clawed at the mailbox every day and it yielded nothing but Change of Address Cards.

We sweated more profusely each passing day. By layout time, we had about seven pages of copy and were faced with twenty-five stark naked pages to fill. Would you like to be in our shoes? We've accepted good cold American cash in exchange for a monthly issue and even the screams from Formosa would be heard if we returned you to a 7-page Bulletin.

Where is the unit pride we've tried our best to instill? Where are our missing correspondents? Where is the official news this publication badly needs? Everybody can't be on leave or can they?

We will repeat our often made promise to you. We are here to serve you in whatever way we can. If in publishing your unit report we raise the morale of those mentioned—well good. If we happen to reunite two-widely-separated friends by extensive use of unit stories—well and good. But we can't do either if the poop isn't submitted.

The alternative – and it is a horrible one – is that your editor will have to fill ALL blank pages with his personal brand of information, and I use the word, "information," reservedly. Eventually, I would have to draw upon some personal WW II experiences and I have no desire to enlighten if not displease, The Publisher in this respect.

So please – let us know what YOU are doing in your unit and WHO is doing it.

This publication was established on a "personal" basis; don't let the PIO's, manufacturers, Public Relations men, and SR's take over the entire publication . . .

Your editor, Art Kesten.



AAAA Awards

Order of St. Michael Inductees

SILVER

CW5 Jeffery J. Caniglia Jr.
CSM Christopher T. Doss
Corpus Christi Chapter
LTC Thomas Bamford, Ret.
Oregon Trail Chapter
COL Geoffrey G. Vallee
Rio Grande Chapter
CSM Jermaine Baldwin
Tennessee Valley Chapter
CW5 Carlos Acevedo
Gregg A. Deetman

BRONZE

Air Assault Chapter
SSG Anthony Lombardo
Aviation Center Chapter
SFC Thomas Appelhans
SFC Tabatha N. Farmer
CW3 Charles M. Graham
SSG Deanna M. Lucchesi
CW3 Justin D. Patterson
CW3 Brandon R. Pinero
CW5 Lemuel "Scott" Proffitt
CW3 Travis W. Schaures
SFC Daniel A. Smith
CW3 David J. Wier
Colonial Virginia Chapter
SFC Roberto Canales
SSG Mathew D. Ellis
CW3 Andrew Hunter, Ret.
SSG Caylon S. Madison
SFC Maurice L. Nanton
MSG Steven R. Reynolds
SFC Camille Zagaja
Gold Standard Chapter
COL Matthew Handy
LTC Robert M. Jendzio
CSM James R. McConnell, Ret.
COL Lawrence "Larry" Muennich
Griffin Chapter
1SG James T. Bryant
1SG Taofegauiai P. Cajina
LTC Rhian A. Hudson
CW4 Joseph E. Lorman
CW4 David A. Murray
Iron Mike Chapter
CSM Vincent Mannion
Mid-Atlantic Chapter
LTC Teresa M. Parrotta
Morning Calm Chapter
CPT Jared Habel
CPT Trevor Hendrickson
Prairie Soldier Chapter
CW4 Brent A. Brozovsky
ShowMe Chapter
CW5 Patrick F. Boudreau
Tennessee Valley Chapter
Elisha Screws
Thunder Mountain Chapter
Marc E. Boudreau
SSG Bryant A. Dooley
Volunteer Chapter
SFC Randolph Scott
Washington-Potomac Chapter
SGM Derrick S. Kuhns

FALLEN HEROES

AAAA is saddened to announce the recent loss of five Aviation Soldiers.

OCONUS

The U.S. Army Special Operations Command announced the loss of five aviation Soldiers on November 10, 2023 when their MH-60 Black Hawk helicopter experienced an in-flight emergency and crashed in the Mediterranean Sea while conducting aerial refueling training. All Soldiers were assigned to Company C, 1st Battalion, 160th Special Operations Aviation Regiment (Airborne), stationed at Fort Campbell, Kentucky.



CW3 Dwyer



CW2 Barnes



SSG Grone



SGT Southard



SGT Wolfe

Killed were:

Chief Warrant Officer 3 Stephen Roy Dwyer, 38 of Clarksville, Tennessee
Chief Warrant Officer 2 Shane Michael Barnes, 34, of Sacramento, California
Staff Sergeant Tanner Wolf Grone, 26, of Gorham, New Hampshire
Sergeant Andrew Paul Southard, 27, of Apache Junction, Arizona
Sergeant Cade Michael Wolfe, 24, of Mankato, Minnesota

The accident is currently under investigation.



A memorial service was held on Friday, December 1, at the F&M Bank Arena in Clarksville, TN.

May they rest in peace.

(Information from Defense Department news releases and other media sources.)

Winged Warriors Chapter
CW4 Torrey Callum

Honorable Knight Inductees

Gold Standard Chapter
1SG William Baker
SFC Thomas Dorsey
MAJ Christopher Rees
SSG Michael Wood
Phantom Corps Chapter
1SG Larry L. Young

Tennessee Valley Chapter
Dr. Wayne R. Hudry
Winged Warriors Chapter
MSG Adam Heins
No Chapter Affiliation
CSM Johnny M. Brown

Our Lady of Loreto Inductees

Gold Standard Chapter
Jamie Sampsel

Pikes Peak Chapter
Cassie Gamez
Tennessee Valley Chapter
Elizabeth (Beth) Downer

AAAA Salutes the Following Departed...

COL Carl C. Johnson, Ret.
Deceased 8/28/2023
Charter member



AAAA Chapter Affairs

By LTC (Ret.) Jan Drabczuk

I greatly appreciate the support from COL Marcus Gengler, Aviation Center Chapter President, CW5 (Ret) Sam Baker, Senior VP, and CW3 (Ret) Michael Monaghan, VP Publicity for sharing this information with our membership.

The Aviation Center Chapter

By LTC (Ret) Jan S. Drabczuk

Greetings from the Home of Army Aviation, located at newly redesignated Fort Novosel.

The Chapter's executive board has been reorganized in the last year, with many new faces stepping up and volunteering to support the various activities of the Chapter. The Chapter supports events, inside and outside the Ft. Novosel gates to remain relevant for the diverse membership that they support, from newly pinned aviators, seasoned NCOs, Aviation instructors, and retirees.

Network

The Aviation Center Chapter prides itself in providing opportunities for members and non-members alike to network and socialize during key Fort Novosel events. This year, the Chapter sponsored social events during the Aviation Senior Leader Forum, the Quarterly Aviation Synchronization Meetings, and Industry Days in addition to their quarterly membership meetings. These events provided their members the opportunity to interact with branch senior leaders and other movers and shakers within Army Aviation. This summer the Chapter held membership meetings in conjunction with the renaming of Mothers Rucker's to Big Mikes BBQ & Grill as well as the 60th Anniversary of the 145th Aviation Regiment attended by nine former battalion commanders of the unit ranging from the Vietnam Era to the present.

Membership

The Aviation Center Chapter seeks to include the newest members of our branch, the young warrant, and commissioned officers at Ft. Novosel for flight training as well as those attending the NCO Academy, in all their Chapter events. Given the Chapter's very diverse demographic, they strive to have representation from each of these groups at their quarterly membership meetings as well as their board meetings to ensure they are meeting their specific needs. The Chapter engages students that are at Ft. Novosel for flight school early in their training. Thanks to a partnership with the national office, the Chapter VP for membership distributes free flight logbooks to each new flight student and invites them to join AAAA with a discounted membership. The Chapter encourages flight school students to transfer their memberships once they arrive at their first duty station.



Chapter officers pause for a photo while setting up the annual AAAA Scholarship Fundraiser Golf Scramble on Aug. 8, at Silver Wings Golf Course, Fort Novosel, AL.

Recognition

The Aviation Center Chapter processes dozens of nominations for recognition each month. The VP for Awards heads up a diverse committee that evaluates these nominations and ensures that those who are awarded Bronze Order of Saint Michael, Our Lady of Loreto, and the Knight of the Honorable Order of Saint Michael have made significant or long-lasting contributions to the Army Aviation community. The Chapter has also supported several Silver awards and this year a couple of Gold awards, recognizing life long and significant contribution to Army Aviation and AAAA. The Chapter has recently begun to sponsor the recognition of the USAACE Instructors of the Quarter and USAACE Instructors of the Year from Ft. Novosel, Ft. Eustis, and Ft. Huachuca.

Support

The Aviation Center Chapter supports several community organizations, members, and causes that enhance their exposure within the Wiregrass area. The Chapter is the chartering organization for the Ft. Novosel Boy Scouts of America Troop 50 and supports them with volunteers and funding to a local organization that provides Thanksgiving meals to on-duty Soldiers, contractors, and needy local community members. The Chapter's largest fundraising effort however is for the AAAA Scholarship Fund, which provided \$22,500 in scholarship money for students of members in their Chapter. The Chapter annual AAAA Golf Scramble held in conjunction with Fort Novosel Industry Days in August brings many of their industry partners and Aviation senior leaders together to help raise funds for this effort.

Feel free to contact me if you need help for 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
Air Assault Chapter Quarterly Meeting



CHAPTER PHOTO BY SCOTT HOLLINGSWORTH

Left to right, COL (Ret.) “Hawk” Ruth, Chapter President; COL Chris Cook, Deputy Regiment Commander, 160th SOAR; COL Mohammed Daud Sakhi, Deputy Commander, Special Mission Wing, Afghanistan; COL Jeffrey Poquette, PM Future Long Range Assault Aircraft and guest speaker; and COL Clint Cody, commander, 101st CAB at the 4th quarter meeting of the Air Assault Chapter held on October 19, 2023 at Fort Campbell, KY.

Morning Calm Chapter Supports 2CAB Event

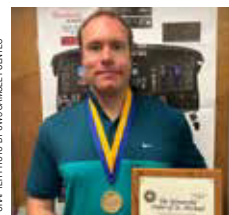


CHAPTER COURTESY PHOTO

COL Benjamin S. Boardman, commander, 2nd Combat Aviation Brigade, hosted an annual brigade Organization and Family Day on July 28, 2023. He opened the event with an entire brigade formation and then proceeded to hand out several AAAA chapter awards including MTP of the year, Safety officer of the year, and Helicopter Maintainer of the year.

AAAA Order of St. Michael Inductees

Colonial Virginia Chapter



CHAPTER PHOTO BY GWIS-SAMUEL PUENTES

MSG Ryan W. Ford is inducted into the Bronze Honorable Order of St. Michael by CW5 Tony Koseлке, standardization pilot, on October 30, 2023, at Ft. Eustis, VA. Ford has been a project lead on numerous ASE and communications upgrades to both RW and FW aircraft. His efforts have provided cost saving measures in excess of \$300,000 and led to many

safety upgrades to numerous US Army Air Frames. His next assignment is as a research and development special projects NCO.

Oregon Trail Chapter



CHAPTER PHOTO BY TISC ZACH HODDER

COL Geoffrey G. Vallee is inducted into the Silver Honorable Order of St. Michael by LTC Nathan P. Edgecomb, 2nd Bn., 641st Avn. Regt. commander, on October 15, 2023 at AASF #1 in Salem, OR. Vallee was recognized for his career-long support of Army Aviation to include as commander of the 82nd Combat Aviation Brigade and serving as the Oregon National Guard G-3.

Tennessee Valley Chapter



CHAPTER PHOTO BY FEGOR S. MCGRIER

Mr. John Van Houten is inducted into the Bronze Honorable Order of St. Michael on October 18, 2023 at Redstone Arsenal, AL by COL Burr Miller, manager of the Aviation Mission Systems and Architecture project office, Mr. Arturo Medellin, AMSA deputy project manager and CSM (Ret.) Randy Wise. Van Houten was recognized for his critical support to PM AMSA for over 17 years on the occasion of his change of duty to chief engineer for the Program Executive Office, Aviation.

Washington Potomac Chapter



CHAPTER PHOTO BY GWIS MICHAEL ZANDERS

LTC Tyler Eikenberry, Aviation safety and standards branch chief, National Guard Bureau, is inducted into the Bronze Honorable Order of St. Michael by COL Brendan Cullinan (left), AAAA Washington Potomac Chapter member, on Septem-

ber 28, 2023 at Davison Army Airfield, Ft. Belvoir, VA. Eikenberry was recognized for outstanding contributions as brigade logistics officer and fixed wing aviator during his assignment at The Army Aviation Brigade (TAAB).



CHAPTER COURTESY PHOTO

MSG Warren Johnson was inducted into the Bronze Honorable Order of St. Michael by COL Aaron Schilleci (left), Army National Guard Aviation and Safety Division Chief, and Mr. Stephen Burns (right), Deputy Division Chief and Washington-Potomac Chapter Vice President for Scholarships, on October 12, 2023 at Arlington, VA. Serving as the Senior Aviation Training NCO on the Aviation and Safety Division, MSG Johnson was recognized for his outstanding management of over 24,000 enlisted and officer training seats in over 99 courses across 7 different Aviation schoolhouses involving all components.



CHAPTER COURTESY PHOTO

Mr. John “Jack” Daniels is inducted as a Knight of the Order of Saint Michael award by COL Travis McIntosh, HQDA G-8 Aviation Force Development Division Chief, and Ron Lukow, Washington-Potomac AAAA Chapter President on September 29, 2023, in Arlington VA, during the chapter’s monthly membership meeting “Final Friday.” Daniels was recognized for his 21 years of selfless service and significant and long-lasting impact on not only the Army at large, but on Army Aviation, it’s Soldiers, and their families. Pictured (from left to right) are Lukow, Daniels, Mrs. Emmy Daniels, wife, and COL Travis McIntosh.

OSMs Continued on page 101



AAAA

NETWORK | RECOGNITION | VOICE | SUPPORT



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

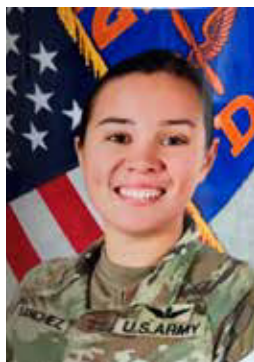
The Membership Corner



One of the joys of writing this article is all the wonderful people I have had the pleasure of meeting since I started in this position in 2018, many of which I now consider to be good friends.

I've reached out to a few to share updates on what has happened in their life since their profile article was published. Here is Part 1. Part 2 will be in next month's issue.

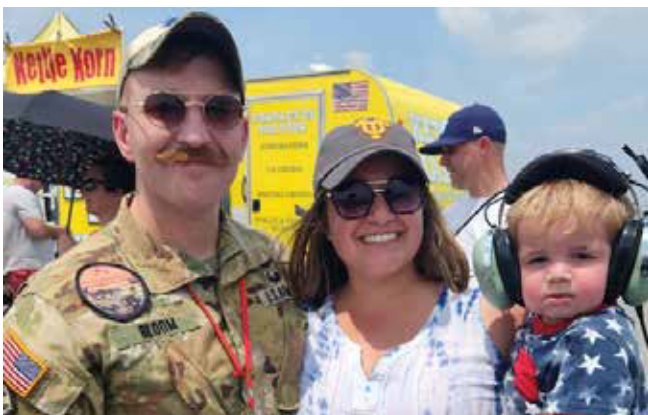
Ashley Sanchez – January 2020



PERSONAL PHOTO

I'm currently in Wiesbaden, Germany working as a technical inspector as NCOIC of Quality Control shop part of D/1-214 GSAB. I picked up SSG in November 2020. I am currently enrolled in Airframe and Powerplant classes, hopefully obtaining my license in a few months. All is well, Derek my husband is doing good as well. I miss all of you and hope all is good with you and the team!

Aubrey Bloom – October 2020



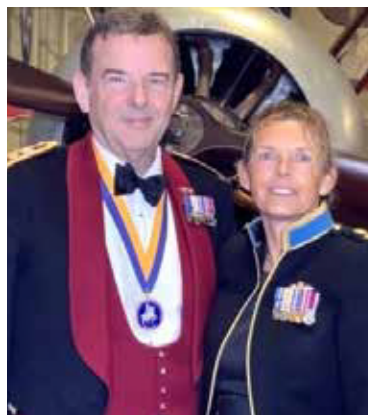
PERSONAL PHOTO

Emily and I bought our first house in July of 2021, and now live just outside of Huntsville, AL. I am working as a Contract Flight Test Engineer for ERC at AFTD, RTC full time, on the AH-64D/E MUMT project. I am also a UH-60L, soon to be 60V line pilot for A CO 1-230 AHB out of Nashville, TN, for the TNARNG. I am still a member

of the NEB and have recently (August) been elected as the Region III representative to the WO Board for NGAUS.

Emily and I now have our first child, a son, Bennett. He just turned 2 in September. Life is very busy, and full of surprises, but we are grateful for where we are, and the blessings God has provided.

Claire & Ian Curry – March 2021



PERSONAL PHOTO

When this article was written, Ian was Consultant Advisor Aviation Medicine. Claire worked in the joint helicopter command in the UK. Aug 2021, as UK came out of COVID, we returned to Fort Rucker where Ian took up his previous Aviation Medicine Research post at USAARL. Claire was fortunate enough to be selected as the British

Liaison Officer again - this time as a Lt Col instead of Major. One of previous tasks in 2015-18 was setting up UK conversion to Echo training with USAACE G3 so on the return tour it has been rewarding to see the final AQC(T) and have 25 initial Apache AQC students & a handful of IPs & MTPs pass through Rucker (now Novosel). We almost feel like locals & it will be hard to leave Alabama and the US military to head home at the end of our tour. Other than that, adopted a stray dog off the Street - now a set of Bose Noise Cancelling Headphones & an AAC beret lighter due to "teething." Get to work with a great bunch of US and fellow foreign LNOs from Europe, Canada, and Australia. We consider ourselves most fortunate to be back here every day.

Please be sure to read Part 2 in next month's issue. – Becki

CW4 (Ret.) Becki Chambers
AAAA Vice President for Membership



New AAAA Life Members

Arizona Chapter
MAJ Shannon Lancaster
Aviation Center Chapter
CW4 Scott Morgan
Idaho Snake River Chapter
SGT Jack R. Knutson
WO1 Logan T. Lusk
SGT Allen L. Roberts
SSG Jason S. Woods
Jersey Chapter
Mr. Aaron Schuler
Tennessee Valley Chapter
LTC John Brooks
Washington-Potomac Chapter
LTC John O'Sullivan, Ret.

New AAAA Members

Air Assault Chapter
CW2 Colton Thompson
Arizona Chapter
Ms. Reece Max
Ms. Susan McAdams
Mr. Dominic Rigo
Aviation Center Chapter
CSM Jean Pierre Alcedo
CPT Samuel Arreguin
Mrs. Ann Carr
CW3 Joshua DeWitt
Mr. Kevin Goodwin
SFC Robert Riley
MAJ Deserae Wood
Badger Chapter
Dr. Mark Cotteleer
Ms. Karen Grimes
Ms. Siliyija Papka
Battle Born Chapter
SFC James Fletcher
Bluegrass Chapter
Ms. Angela L. Brand
Mr. Travis Carpenter
Central Florida Chapter
Mr. Christopher Berry
Mr. Don Gorman
Ms. Erika Hursey
Mr. Pierre Iskandar
SPC Kierstann Lee Knowles
Mr. Chris Marot
Ms. Arrabella McDermott
Colonial Virginia Chapter
Mr. Joshua Boisselle
Ms. Monica Bryant
Ms. Latosha Davis
Ms. Sharonda M. Downing
Dr. Rokasha T. Edmondson
Mr. Johnathan Guadalupe
LTC Cameron Keogh
Mrs. Latoya D. Rivers
Connecticut Chapter
Mr. Andy Hamelynck
Mr. Daniel Harrington
Mrs. Kimberly Proto
Corpus Christi Chapter
Mr. Riley Futrelle
Mr. Steve Garza
Mr. Richard Perez Medrano
Mr. Curtis F. Titus
Delaware Valley Chapter
Mr. Dave Blake
Mr. Maurizio D'Angelo
Mr. Richard Dukes
Mr. James Palmieri
Mr. Geremia Puccini
Mr. Lawrence Wasnock
Desert Oasis Chapter
CW5 Jay Pofcher
Flint Hills Chapter
CPT Joseph Ellison
Frontier Army Chapter
Mr. Francis Dillon

Great Lakes Chapter
WO1 John S. Votzke
Greater Atlanta Chapter
LtCol David Cooperman, Ret.
Grizzly Chapter
Mr. Matthew Nichols
High Desert Chapter
1LT Brandon Walker
Idaho Snake River Chapter
Mr. Chris Collins
SPC Conor Lee. Cook
Mr. Jacob Hart
Ms. Ashley Hosoda
SGT Allen L. Roberts
SSG Jason S. Woods
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AAAA Family Forum

Updates from 2023 AUSA Family Forums

By Judy Konitzer

Attendance, both live and virtual, skyrocketed this year for the AUSA 2023 Annual Meeting and Exposition in Washington D.C. on 9 -11 October.

The following are some takeaways from the four Family Forums I participated in on-line at <https://www.ousa.org/2023-annual-meeting/live-streams>.

Army's Secretary Christine Wormuth, Chief of Staff GEN Randy George, and SMA Michael Weimer fielded questions about "Wicked Hard Problems" during a Senior Leaders Town Hall Meeting.

Concerns surfaced about the "My Army Post" smart app not being user friendly or relevant. GEN George said he appointed a team of Army software engineers to interview hundreds of Soldiers and spouses at different levels to determine what information and resources would be most helpful to build into the app. He gave them 30 days to provide a working solution but welcomed more input to implement further improvements.

Oversite and accountability issues with contractors for housing and PCS moves are ongoing. Wormuth asked for additional patience as the Service takes all the recommendations provided by GAO (Government Accounting Office) in September concerning poor quality of life in the barracks, as well as those to be generated when Weimer hosts a future Barracks Summit.

The audience was asked what factors most affected the decision to continue serving. Salary and Operational Tempo were answers provided via smart phones. George indicated he is in the process of reviewing current practices and requirements with the intent of "clawing back time from unnecessary maintenance hours and training that could be better spent at home..... We must learn to say no to certain things!" while families need to know what to expect in relation to OPTEMPO.

Negative comments surfaced about landlords raising their rent in relationship to the increase in BAH. Surveys from local levels will help to determine how to improve the situation.

State rules vary for families wanting to homeschool their children and it can be troublesome, so George agreed to "look at" them.

Recurring themes throughout the four forums focused on spouse employment opportunities and health care. Recent surveys indicate unemployment declining among spouses, but still nuanced. Last year a quarter of Army spouses lost their jobs; a third started working; and 10% went from full-time to part-time. PCS moves, living off-post, and having children at home contributed to spouse unemployment. Programs like MY SECO (Military Spouse Education & Career Oppor-



Army Secretary Christine E. Wormuth, Chief of Staff GEN Randy A. George, and SMA Michael R. Weimer provide updates and answer questions from the audience as well as from virtual attendees during the Senior Leaders Town Hall, Family Forum IV at AUSA's 2023 Annual Meeting and Exposition in Washington D.C, October 9-11.

tunities), and MSCAP (Military Spouse Career Accelerator Program) can be instrumental in obtaining employment with info on www.MilitaryOneSource.mil.

The Services have the largest child-care program in the world, but more innovative ways are always needed and continually being worked.

Most States are implementing License Reciprocity, according to George, but getting the word out to those needing it, taking advantage of reimbursements provided, and working with local communities is still required.

TRICARE is competitive, but finding providers to accept it remains an ongoing challenge. This, along with a nationwide health care worker shortage, is causing a turn to virtual care options and traveling clinicians and is becoming available through many installations.

Working within the Enterprise Exceptional Family Member Program (E-EFMP) program can be challenging; however, families should still enroll at efmp.army.mil.

Coordinating medical records through GENESIS, an electronic health database, which shares clinical notes from providers within the Military Health Care System is an ongoing process, while not perfect, is getting better.

Suicide rates are still troubling, but Wormuth advocated "Living must carry value and more than preventing suicide is the need to create lives that are worth living and it does not just mean calling 911 or getting a referral for therapy."

Educating Soldiers and their families to the myriad of resources available is vital, and while each community has different needs, there are Family Life and Clinically Trained Chaplains and Military Life Counselors at each to help.

Commanders have the tools to get families and Soldiers ready, but empowering leaders at lower levels to do the same can be the first step to helping young Soldiers not understanding teamwork connect with our Army Family and make a difference in their acquiring resiliency.

Judy Konitzer is the family forum editor for ARMY AVIATION; questions and suggestions can be directed to her at judy@quad-a.org.



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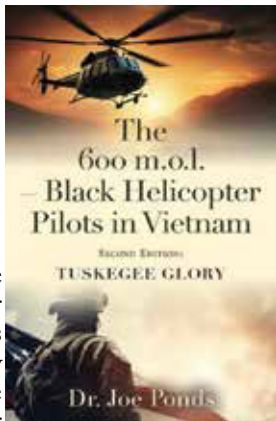
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COVER ARTWORK PROVIDED BY JOE PONDS

UPCOMING EVENTS

JANUARY 2024

- 1 Submission Deadline – National Awards and Top Chapter
- 12 ARMY AVIATION Magazine 2023 Photo Contest Deadline
- 15 Submission Deadline – Scholarship Application Supporting Documents

MARCH 2024

- 6-9 HAI Heli-Expo 2023, Atlanta, GA
- 21-23 35th Annual International Women in Aviation Conference, Orlando, FL
- 26-28 AUSA Global Force Symposium & Exposition, Huntsville, AL

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AAAA Scholarship Foundation, Inc.

Oh, What A Night... Mid-November 2023!

By COL (Ret.) Karen Lloyd



ALL AMPHOTOS BY AUBREY CANLIES

The '60s and '70s came alive at the AAAASFI Dinner Dance. Led by our Army Aviation Hall of Famer, the ever shy and retiring CW5 (Ret.) Dave Cooper, Master of Ceremonies extraordinaire, the attendees grooved to the fabulous music and generously supported the SFI's Scholarship Fund.

Our event was made possible by the generous support of our entertainment and table sponsors. Our fabulous entertainment, "Party on the Moon," was sponsored by Amentum. Our Diamond event sponsor, for the second year in a row, was System Studies & Simulation, Inc, under the brilliant leadership of CEO Jan Smith. Followed closely by our Platinum sponsors, the Vietnam Helicopter Pilots Association, Bell Helicopter and Airbus.

Over the years, AAAA has spent millions of dollars supporting the Scholarship Foundation which has resulted in a huge impact on many, many AAAA families. A special thanks goes to the AAAA President, MG (Ret.) Walt Davis, along with Executive Director, Bill Harris, and the entire AAAA staff for their hard work.

We had 3 special guests, Mr. Jon Graft, Mrs. Jessica Bailey Lallier, and Ms. Catherine Sendak. Last year the Scholarship Board created a National Memorial Grant in honor of our very first scholarship recipient, Joel Graft. Joel's brother Jon and his wife were able to join us and Jon shared with us the importance of the SFI to his family. We were also joined remotely by Mrs. Jessica Bailey Lallier, sister of 1LT Kathryn Bailey, a Black Hawk pilot who lost her life in a training accident in 2017. Jessica runs an event every year in honor of her sister and has donated over \$100,000 to the Scholarship Foundation. Lastly, we had the pleasure of hearing from Ms. Catherine Sendak, a scholarship recipient and daughter of COL (Ret.) Ted and Chris Sendak. She is currently the Director, Transatlantic Defense and Security for the Center

Left: Revelers of all ages danced the night away to the sounds of premier party band "Party on the Moon!"

Top Right: System Studies and Simulation senior vice president, Bob Johnson, filled in for CEO Jan Smith who was unable to attend, formally presenting the S3 Diamond sponsorship check to AAAASFI President, COL (Ret.) Karen Lloyd.

Left: AAAASFI President, COL (Ret.) Karen "Flower Power" Lloyd is flanked by Dinner/Dance Master of Ceremonies, the groovy CW5 (Ret.) Dave Cooper (left), and AAAA Executive Director, Bill "Far Out" Harris.

for European Policy Analysis. We enjoyed learning what the scholarship meant to her and her family.

To sustain the great work of this Foundation, the Scholarship Foundation conducted our first Silent Auction. We are thrilled to report it was an amazing success and exceeded our modest expectations due to the generosity of the item donors and our bidders.

During dinner we accepted cash donations and WOW, did the attendees come through for the SFI General Fund. A generous donation of \$30,000 helped us set a new fund raising record of over \$57,400 from the online live giving donation platform and more than \$8,230 from the Silent Auction. Additionally, table sponsorships added \$31,000 to our revenue, bringing our grand total to over \$96,600!

The SFI Dinner/Dance clearly demonstrated that for the last 60 years, the AAAA Scholarship Foundation has helped recognize excellence, keep memories alive, and support Soldiers' families. And we couldn't do it without your generous support – Well done, everyone!

COL (Ret.) Karen Lloyd is the 21st president of the AAAA Scholarship Foundation, Inc. Board of Governors.



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 November 2022 through November 2023. 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 to a grant as a result of the Army Aviation Association of America subsidizing all administrative costs (minus investment brokerage fees).**

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AAA Legislative Report

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

The Drama Continues... and so does the Continuing Resolutions

Good news first – there is a new Speaker of the House following REP McCarthy's (R-CA) ousting. Speaker Mike Johnson (R-LA) took the gavel following yet another dramatic Congressional exhibition akin to when REP McCarthy was voted in as the previous speaker. Numerous votes for various candidates failed yet the House finally arrived at Mike Johnson. One would think a new non-partisan alignment would energize support for Speaker Johnson thus permitting conference and passage of the Defense Bills. Unfortunately, that isn't the case. Many Republican hold outs object to a "lather, rinse, repeat" pattern of continuing resolutions, and moreover, continued passage of bloated appropriations bills. The push for fiscal responsibility in light of an ever growing deficient seems to be the anchoring point for House Republicans challenging the status quo. Politics aside, the real and present need for Government, i.e. Army Aviation, funding stability is crucial in a time of ever-growing global conflict in various regions- Ukraine, Israel... and possibly Taiwan. Much like the old soap opera star "Stefano" from "Days of our Lives" – just when we think Continuing Resolutions (CR) are dead they come back to life.

Continuing the Continuing Resolutions

The DoD is conditioned to expect CRs to show up much like Dad's receiving socks and ties for Christmas. Year after year it's the same undesired, and underwhelming gift. There was a glimmer of hope that Speaker Johnson would get the House in order, conference the Defense Bills, conduct floor votes then send them to the President prior to 15 November 2023 (expiration of the previous CR). That didn't happen. What did happen is the House and Senate facilitated yet another CR that is in effect until 02 February 2023. This means that critical Aviation programs are beholden to CY23 spending limits. Which further challenges critical Aviation programs/initiatives. The question that remains is if

the House and Senate can find common ground during Defense Bill conference activities. As a reminder, the House and Senate versions of the National Defense Authorization Act (NDAA) are holistically different from a policy perspective. The House version directly counters many Senate policy items.

The bigger challenge, and risk, to DoD appropriations has nothing to do with Defense. It has everything to do with the Appropriators agreeing on top lines for "other" committees such as Health & Human Services, Judiciary, Transportation and Agriculture. In short, the aforementioned Committees need to agree on funding "top lines" before any sub committees (HAC-D/ SAC-D) can begin conferencing. All too often Defense is held hostage due to domestic initiatives. This case is no different. The total Defense "top line" budget isn't an issue. As seen in a previous article, the Army Aviation marks are "pretty close" between the House and Senate Appropriations Committees for Defense. Hopefully, the conference thereof will be smooth. Another key watch item will be what happens with the Ukraine, Israel and US Border Security Supplemental Bill. This bill could be a leading indicator on how Members will proceed with Domestic Defense related matters. So far, it's not going well. Many House Republicans are viciously attacking the supplemental bill for a myriad of reasons. The domestic Defense Bills may receive the same vitriol.

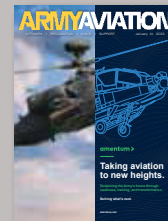
Will Santa Come this Year for Army Aviation?

It's unfortunate that the Army Aviation budget is caught up in Political in-fighting and dysfunction. Army Aviation Branch continues to carry a mantle for the country through selfless sacrifice, dedication and relentless work ethic. Aviation Branch was on its best behavior and deserves timely passage of policy and funding bills in order to carry out its mission. The continuation of critical programs such as FARA, FLRAA, FTUAS and Launched Effects (LE) are absolutely critical to Army Aviation's lethality and survivability in an MDO conflict. CRs are stunting programs. Delayed contract/funding awards to critical industry partners

impedes progress, or in some cases, puts them at risk. With that, the best hope at this point is that Members quickly address the Defense Bills and have them on the President's desk prior to 02 February 2024. The National Security implications of further delays is clear. The other implication to Members is the reality of a pending election year in 2024. No Member wants a bad rap for NOT supporting National Defense while up for re-election. That will often garner bi-partisan support for Bill passage. Selfish as it may seem, it's a reality. In conclusion, let's hope that Santa arrives early, and Aviation Branch receives the Legislative Authorities needed to execute the current mission and plan for the future. In the meantime, we can't forget our Army Aviation service Members deployed globally. We wish them and their families a wonderful and safe Holiday season!

ARMYAVIATION

Upcoming Special Focus



January 2024
Aviation
Maintenance
/Sustainment



February 2024
Rotary Wing Project
Managers Update
Army Capability
Managers
TRADOC Capability
Managers

Contact:

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203.268.2450
ARMYAVIATIONmagazine.com



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.

AT Systems Awarded AWR for In-Aircraft Helmet Mounted Degraded Visual Environment Visor Training System on CH-47F



AT SYSTEMS PHOTO

AT Systems, LLC., a veteran owned small business, announced on October 4, 2023 that the company has received an airworthiness release (AWR) for the ATS electronic helmet mounted degraded visual environment (DVE) hood on CH-47F Chinook aircraft. Tyson Phillips and Andre Lavallee, both CW4 National Guard combat veterans with over 20 years of service, own AT Systems, along with retired CW3 combat veteran and UH-60 pilot Kevin Axton. Lavallee flies CH-47 Chinooks, and Phillips flies UH-60, which was awarded an AWR earlier this year.

Lockheed and Northrop Tapped for Launched Effects Program Contracts



U.S. ARMY PHOTO BY PATRICK EVERHART

On November 29, 2023, the Army Program Executive Office for Intelligence, Electronic Warfare and Sensors (PEO IEW&S) named

Lockheed Martin and Northrop Grumman as the winners of other transaction authority deals for a launched-effects program “within the infrared and electronic warfare realms.” The initial awards are worth hundreds of thousands of dollars and are aimed at maturing existing technologies to develop spying and jamming payloads for drones that can be catapulted from a moving vehicle or aircraft. No further information about planned payloads was provided.

Pentagon's First Industrial Base Strategy



U.S. DOD GRAPHIC

U.S. Department of Defense

The Defense Department's first ever national defense industrial strategy, slated for release in December, will create a roadmap for the department on how it plans to prioritize and modernize its industrial base as it learns from Russia's invasion of Ukraine. According to an October 19, 2023 statement by Laura Taylor-Kale, assistant secretary of defense for industrial base policy, the strategy – the first of its kind for DoD – is expected to be released by mid-December, 2023.

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

Breeze-Eastern LLC, Whippany, NJ, has been awarded a maximum \$11,589,413 firm-fixed-price, indefinite-delivery/indefinite-quantity contract for cargo hooks; this was a sole-source acquisition with a three-year contract with no option periods and a performance completion date of Oct. 25, 2026.

Inter-Coastal Electronics LLC, Mesa, AZ, was awarded a \$92,272,836 firm-fixed-price contract to fabricate, test, qualify, deliver, install, train, troubleshoot, repair, and support the Aviation Training System; work locations and funding will

be determined with each order, with an estimated completion date of Nov. 2, 2028.

Leidos Inc., Reston, VA, was awarded a \$15,000,000 cost-plus-fixed-fee contract for Mission Systems Flying Test Bed integration and testing requirements; work locations and funding will be determined with each order, with an estimated completion date of Nov. 14, 2028.

Science Applications International Corporation, Reston, VA, was awarded an \$18,894,694 firm-fixed-price contract to develop airfield operations policies and maintain instrument flight procedures; work will be performed at Fort Belvoir, VA, with an estimated completion date of Nov. 26, 2028.

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People On The Move

Flight School Graduates

AAAA provides standard aviator wings to all graduates and sterling silver aviator wings to the distinguished 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, Ft. Novosel, AL.

61 Officers June 15, 2023

Class 23-016

Commissioned Officers

- CPT Shea, Stephen R. * -DG
- 1LT Bueno, Jacob R. -HG
- 1LT Harrington, Johnathan M. -HG
- 1LT Knill, Bruce W. -HG
- 1LT Barassi, Mario C.
- 1LT Breunig, Zachary P.
- 1LT Burtelow, Thomas A., III
- 2LT Cloutier, Kyle D.
- 1LT Giachin, Bethany J.
- 1LT Gist, Madeleine H.
- 1LT Gray, Emily D.
- CPT Howard, Sarah E.
- 1LT Hunt, Darla D.
- 1LT Johnson-Bey, Kaleem A.
- 1LT Leist, Alexander P.
- 1LT Martin, Genevieve M.
- 1LT Powers, Jacob R.
- 2LT Richart, Olivia R. *
- 1LT Suprobo, Kesuma M. *
- 1LT Taylor, Joseph S.
- 1LT Vitale, Andrew R. *
- 1LT Watson, Joseph C.

Warrant Officers

- WO1 Lazaretti, Anthony V. -DG
- WO1 Bonham, James V. * -HG
- WO1 May, Kevin C. -HG
- WO1 Shadron, Jeremy M. -HG
- WO1 Ackerson, Corey A. -HG
- WO1 Anderson, Clayton M.
- WO1 Anderson, Frost L.
- WO1 Bagley, Nathaniel
- WO1 Ballard, Jeremy K. *
- WO1 Beams, Layne C.
- WO1 Brunner, Jordan K.
- WO1 Catano, Manuel
- WO1 Cherry, Carson A.
- WO1 Cranford, William C.
- WO1 Creamer, Alexander S.
- WO1 Ferrara, Randall J.
- WO1 Furlong, Tanner R.
- WO1 Gillum, Remington B.
- WO1 Matson, Sean R. *
- WO1 Murray, William A.
- WO1 Navarro, Christopher M.
- WO1 Neumeister, David S.
- WO1 Ockman, Emily E.
- WO1 Peterson, John W.
- WO1 Pitman, Hannah L.
- WO1 Powell, Annelise H.
- WO1 Revell, Kennedy C.
- WO1 Seoighe, Peadar E.
- WO1 Sharp, Jacob T.
- WO1 Spears, Aaron D.
- WO1 Tam, Sean N.
- WO1 Taylor, Jacob A.
- WO1 VanAlstyne, Shane R.
- WO1 Van Pelt, Zachary J.
- WO1 Wilkerson, Marcus D. *
- WO1 Wilson, Merril R.
- WO1 Wilson, William N.
- WO1 Wolfe, Tyler N.
- WO1 Yi, Jong B.

55 Officers October 19, 2023

Class 23-025

Commissioned Officers

- 2LT Kirkman, Logan K. * -DG
- 1LT Fisher, John W. -HG
- 2LT Jakab, Michael J. -HG
- 2LT Welsome, Jack T. * -HG
- 2LT Abbasi, Shawn A. *
- 2LT Alexander, Colton L. *
- 2LT Arel, Adam M. *
- 2LT Duyst, Timothy J. *
- 2LT Fallentine, Nathan M.
- 1LT Gaines, Nathanael E. *
- 2LT Hunt, Knoll M. *
- 2LT Martin, Zachary R. *
- 2LT Nicholson, Corbin A. *
- 1LT Owens, Grady A. *
- 1LT Patterson, Vincent T., Jr. *
- 1LT Porterfield, Nathaniel L. *
- 2LT Rothschild-Shea, Gracyn L. *
- 2LT Rushing, Matthew T. *
- 2LT Stone, Adam K. *
- 2LT Wilson, Sean L.

Warrant Officers

- CW2 Hayhurst, Kristopher J. * -DG
- WO1 Batty, Scott D. * -HG
- CW2 Bednarick, Matthew R. * -HG
- WO1 Buttrick, Michael * -HG
- WO1 McNally, Michael F. * -HG
- WO1 Bratko, Jennifer S. *
- WO1 Burkhart, Ashley R.
- WO1 Cabral, Jeudy *
- WO1 Collins, Kristen R.
- WO1 Cumbo, William H.
- WO1 Firmin, Craig M. *
- WO1 Francis, Colton T.
- WO1 Gomez, Christopher D. *
- WO1 Graham, Kyla J. *
- WO1 Harris, Robert J. *
- WO1 Hoffman, Alexyss B.
- WO1 Holloway, Corey C. *
- WO1 Holmes, Michael T. *
- WO1 Kohler, Brian J. *
- WO1 Krempe, Wallace G.
- WO1 Mackay, Trapper J.
- WO1 Martin, Corey R. *
- WO1 Martinez, Adam A.
- CW2 McKinley, Brendan *
- WO1 O'Reilly, Victoria G. *
- WO1 Prince, Jeremy E. *
- WO1 Ridenour, Daniel F.
- WO1 Risenhoover, Andrew N. *
- WO1 Russell, Danielle N.
- WO1 Schiff, Benjamin A.
- WO1 Smith, Colton C.
- WO1 Staab, Mark D. *
- WO1 Tanner, Zachary R. *
- WO1 Uyesaka, Jake J. *
- WO1 Warren, Samuel D. *

49 Officers November 2, 2023

Class 24-001

Commissioned Officers

- 2LT Bartley/Morales, Jonathony -DG
- 2LT Meegan, Brian T. -HG
- 2LT Peterson, Carl A. * -HG
- 2LT Carver, Brayden A. *
- 1LT Dufresne, Thierry E. *
- CPT Dukes, Christopher D. *



FSXXI Class 23-016



FSXXI Class 23-025



FSXXI Class 24-001

- 2LT Handel, Hayden M. *
- 1LT Huynh, Andrew
- CPT Leech, Kenneth W., Jr. *
- 2LT Minson, Austin G. *
- 1LT Oliver, Kacie K.
- 2LT Pengelly, Luke A.
- 2LT Petellin, Cody S.
- 2LT Somers, Andrew J. *
- 2LT Stewart, Jonathan T. *
- 2LT Valle, Finnian E. *
- Warrant Officers**
- WO1 Johnson, Hunter W. * -DG
- WO1 Roy, Brandon P. * -HG
- WO1 Len, Norman M. * -HG
- WO1 Riggins, Matthew R. * -HG
- WO1 Scott, Andrew J. * -HG

- WO1 Caudill, Dylan M. *
- WO1 Christian, Jason *
- WO1 Glaser, Christopher R. *
- WO1 Gonzalez, Jacob C. *
- WO1 Good, Anaid A. *
- WO1 Gorrell, Kyle D. *
- WO1 Granados Terrazas, Enrique *
- WO1 Jansen, Daniel A. *
- WO1 Johnson, Alexander C.
- WO1 Lancaster, Austin B.
- WO1 Lay, Adam M.
- WO1 Lopez Garcia, Guillermo
- WO1 Mahler, Jacob M. *
- WO1 Menegos, Stephen J.
- WO1 Miller, Dormaine A.
- WO1 Mills, Cory P. *

- WO1 Murphy, Makenzie L.
- WO1 O'Brien, Andrew R. *
- WO1 Penny, Mackenzie R. *
- WO1 Phaup, Paeton M.
- WO1 Piccirilli, Ashley M. *
- WO1 Ray, Robert L. (CL)
- WO1 Rosado, Mathew *
- WO1 Roundtree, Trase M.
- WO1 Scherer, Zachary E.
- WO1 Stokely, Tyler C.
- WO1 Tucker, Joshua J. *
- WO1 Winters, Carter S. *

-DG: Distinguished Graduate
-HG: Honor Graduate
* = AAAA Member



People On The Move

Unmanned Aircraft Systems (UAS) Graduations

AAAA congratulates the following Army graduates of the Warrant Officer Aviation Maintenance Technician and 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 007-23
 WO1 Joshua Ramos * -DG
 WO1 James Blackwell
 WO1 Kyle Casteel
 WO1 Quarterio Lilly
 1Lt Ali Naem
 Class 008-23
 WO1 John Votzke * -DG
 WO1 Stephen Scott
 WO1 Quinton Thompson
 WO1 Sara Valdiviezo

AH-64 Attack Helicopter Repairer (15R)

Class 040-23
 PV2 Sarah Mcsweeney * -DG
 PFC Dakota Allard
 PFC Ronisha Allen
 PV2 Samuel Ambrose
 PV2 Jaymyrn Anaya
 SPC Nicholas Doyle
 SPC David Estevane
 SPC Grant Gunnarson
 PV2 Charles Holton
 PV2 Angel Martinez
 PV2 Gianni Moore
 SPC Ryan Szoke
 Class 042-23
 PFC Cooper Ross -DG
 PFC Jamai Bryant
 PFC Aj Dunn
 PV2 Wesley Finneyfrock
 PV2 Chance Sims
 SPC Dammyrn Tuller
 PV2 Cristian Vargas
 PV2 David Watson
 PVT Jaise Wright
 Class 044-23
 PFC Louis Thomas Bandlow, II * -DG
 PFC Jamai Dashone Bryant
 PV1 Brandon Xavier Ciprian Rivas
 SPC Aung Zaw Moe *
 SPC Luis Ernesto Ramirez, Jr

CH-47 Medium Helicopter Repairer (15U)

Class 033-23
 PFC Brandon Charles Austin
 SGT Donnaven P Blue
 SPC Moboya Jermain Forbes
 SPC Gabriel John Guzman

SPC Danstan Waruinge Ndura
 PV2 Allen Emerson Vandeborne
 PV2 Michael Murray Zimmerman
 Class 035-23
 PFC Camryn Nicole Countryman
 CPL Jesus Calvin Escudero
 SPC Duncan Mckinney Herr
 CPL Israel Jared Herrera
 PFC David Alexander Reynolds
 PV2 Marcos Raul Rosales
 SPC Aidan Gabe Sellers
 SPC Angel Domingo Ventura
 Class 036-23
 SPC Ethan James Baker
 SPC Austin James Bertwell
 PV2 Carson Alexander Butts
 SPC Ethan Cole Carter
 SPC Nigel Semaj Dallas
 SPC Hunter Paul Pritchard
 PFC Casper Elijah Schadler
 CPL Brandon Matthew Soltero

UH-60 Helicopter Repairer (15T)

Class 081-23
 SPC Anthony Richard Filante * -DG
 PFC Dalton M. Nguyen Andreshak
 PV2 Angel Arreola-Rivera
 PV2 Brayton James Bishop
 SPC Emily Michelle Brien
 PV2 Elijah Fabien Butterfield
 PFC Alexander Joseph Collins
 PFC Mason Stiles Ellam
 PFC Micah Alan Hofman
 PV2 Isaac James Pontius
 PFC Phillip Lee Rager
 SPC Dany Mauricio Romero Varon
 Class 082-23
 SPC Connor Edward Musial-DG
 SPC Nickolas Ryan Boykin
 SPC Johnathen Ivan Halliday
 SPC Chandler Blake Howell
 PV2 Colin Andrew Joseph
 SPC Angelo Loskota
 PV2 Joseph Elliott Mccoy
 CPL Manuel Jose Munoznunez
 PV2 Trenton Shane Nicholson
 SPC Noah Michael Rooker
 SPC Eric Ted Werlinger
 SPC Corey Gene Woods
 Class 084-23
 SPC Joseph Michael Doria-DG
 SPC Tanner A. Laakeaoka Atiburcio
 PV2 Kaden Michael Back
 SPC Richard Joseph Bochanski
 PV2 Will Henry Driscoll
 SPC Kailani Kaua Fannin
 SPC Hector Steven G. Merchan
 SPC Matthew Scott Mcwilliams
 PV2 Charm Kuu W O Koolau Meinei
 SGT Mark Randall Potter
 PV2 Alonso Sotelo Calleros
 Class 085-23
 SPC John Devon Roy Skaggs-DG

PV2 William Louis Held
 PV2 Tyson Lee Holdman
 PV1 Cooper Garion Johnston
 PFC Jacob Franklin Lemay
 PFC Joveci Nasalia Madraitabua
 PFC Sabdiel Mendez Romero
 PV2 Vinicius Petiz Delgado
 PV2 Jeremy Allen Reilly
 SPC Nathanael Lucas Sorell
 PFC Elliott Hyrumnuttall Walker
 Class 086-23
 SPC Kierstann Lee Knowles-DG
 PV2 Ethan Reese Fleming
 PV2 Ava Sidel Diane Gomez
 CPL Corey David Keathley
 SPC Wesley Mitchell Magnan
 SGT Jordan Deshon Morrow
 SPC Christopher Scott Poole
 SPC Taylor Paul Pritchard
 SPC Taylor Scott Purvis
 SPC Jose Sanagustin Reyes, II
 SPC Zachary Ryan Thompson
 SGT Nicholas Byron Wagner
 Class 087-23
 SPC Connor Lee Cook-DG
 PFC Rafael Amparan Duran
 PFC Yadiel Cardona Zeno
 PFC Tyler Scott Connolly
 PFC Abdu Andrew Cruz
 PFC Ronnie Lyn Edwards
 PFC Tyler James Harris
 PV2 Aidan Nicholas Hulsizer
 SPC Sergio Luperdi Quintana
 SPC Trevor Bradley Mccubbin
 SPC Joseph Jared Mejia Cruz
 PFC Mason Walker Pasniak
 Class 089-23
 PV2 Ryan Andrew Van Loan-DG
 PV2 Ellis Wayne Patterson
 PV2 Thomas Linton Ridge, III
 PFC Richard Edmanuel Rivera, Jr
 PV2 Logan Mitchell Roe
 PFC Dawa Tamang
 PFC Peyton Summer Truslow
 PV2 Gavin Joseph Fraser Webb
 PV2 Brandon Lloyd Wiggins
 SPC Caitlan Micaela Willis
 PV2 Justin Ray Winkelman
 PFC Carmen Elise Witters
 Class 090-23
 PV2 Daniel Jacob Patterson-DG
 PV2 Jose Luis Chavez Espinoza
 PFC Andrew John Chicoine
 PFC Cameron C. Deluise
 PV2 Sebastian R. Gi. Garcia
 SPC Brandon Ray Hatch
 PV2 Patrick Robert Held
 SPC Zachary Nathaniel Jones
 PV2 Roberto Carlos Lopez
 PV2 Jordan Darnell Ogle
 PFC Christian P. Patrizio-Russo
 SPC Matthew Ryan Willis

Aircraft Powerplant

OSMs *Continued from page 91*

PV2



CHAPTER COURTESY PHOTO

COL Matthew L. Rowland was inducted into the Silver Honorable Order of St. Michael by LTC Allen Buckhalt, Future Vertical Lift Military Evaluator, Aviation and Fires Evaluation Directorate, U.S. Army Evaluation Center, on September 27, 2023 at Fort Belvoir, VA. Rowland was recognized for his significant and long-lasting contributions to Army Aviation over a 25-year career. His assignments included commander of the United States Army Priority Air Transport (USAPAT) and culminated as the Director of Aviation and Fires Evaluation Directorate, U.S. Army Evaluation Center.

Repairer (15B)

Class 013-23
 PV2 Alejandro Sosa- DG
 PVT Eric Xavier Ball
 PFC Christopher M.Kathurima
 PV2 Carlos Osorio
 PFC Jungjae Park
 PV2 Ethan Arron Pierce
 PV2 Nathen Chanley Un
 PV2 Lucjan Wong

Aircraft Structural Repairer (15G)

Class 010-23
 PV2 Angel Reyna- DG
 SPC David Ricardo Arias
 PV2 Brandija Briayjordan Bostic
 PV2 Randy N Cifuentes
 PV2 Ethan Joseph Dixon
 PV2 Iker M Dorta
 PV2 Alexander Jay Estrada
 PVT Brian Matthew Gold
 PFC David Joseph Lowe
 SPC Jeffrey Ortiz
 PV2 Edgar Vasquez

Avionic Repairer (15N)

Class 015-23

James Thomas Brooks
 SPC Marcus Lashar Burger
 PFC Grace Mary Beth Daley
 PV2 Gwendolyn Marie Furney
 SPC David Joseph Gallego
 SPC Max Junior Magli
 Class 016-23
 SPC Manny Magsayo Aradanas
 SPC Nhomarnicole Barbosa Ines
 PV2 Armando Marinespinoza
 PV2 Jonas William Pingel
 PFC James Christopher Plath
 PV2 Jonathan Porter
 PFC Victor Hugo Quezada, Jr
 PV2 Ryan Alejandro Valencia

AH-64 Armament/Electrical/Avionic Systems Repairer (15Y)

Class 021-23
 PFC Uriah Kane Walton-DG
 PFC Dylan Charles Beck
 PFC Brenden Daniel Carroll
 SPC Luis Ramon Diaz
 PFC Abdiel Medina Carrasquillo
 PFC Matthew Lewis Miner
 PV2 Angel Oregon
 PFC Darien Manuel Tupas
 PV2 Gabriela Concepcion Valdez
 PV2 Jalen Jamahl Young
 Class 023-23-
 PV2 Chase Willem Darnetz
 PV2 Jacob Ashton Mangas
 SPC Brian Jamesterry Slattery

-DG: Distinguished Graduate
 -HG: Honor Graduate
 * = AAAA Member



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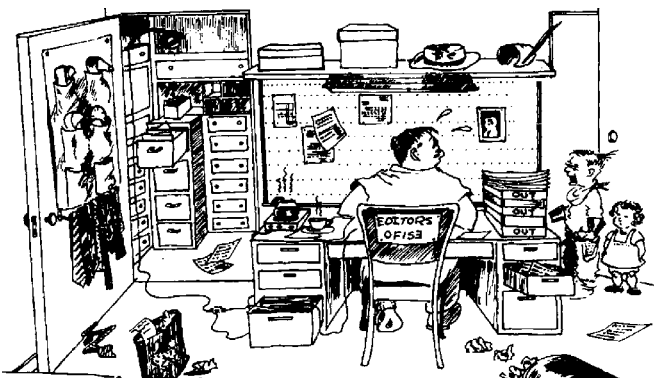
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ARMY AVIATION Magazine

Art's Attic

By Mark Albertson

Art's Attic is a look back each month 25 years ago and 50 years ago to see what was going on in ARMY AVIATION Magazine. Art Kesten was our founder and first publisher from 1953 to 1987. He was also the founder of the AAAA in 1957 and served as its Executive Vice President. Each month contributing editor Mark Albertson selects a few key items from each historic issue. The cartoon, right, was done 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 December 31, 1998

Briefing: "Connecticut ARNG"

The Connecticut Army National Guard's 1109 Aviation Classification Repair Activity Depot reopened in October; that is, in the wake of an \$18 million renovation and expansion. The specialized helicopter maintenance facility,

located adjacent to the Groton-New London Airport, is one of only four such facilities. The two-year upgrade featured a 75,000 square-foot hangar addition; new engine test and spray paint buildings; new parts annex, a new arms room and unit supply area; additional administrative offices; class rooms; a modern dining hall and locker facilities.



Obituary

It is with the greatest of regrets to inform the readership of the passing of General Hamilton H. Howze (Ret.), December 8, 1998. General Howze graduated the Point in 1930; served in World War II; and, became, following 1945, one of those farseeing officers who understood the decisive importance of the Third Dimension as an arena for ground forces mobility. Chosen as the first Director of Army Aviation proved a boost politically in the fortunes of a fledgling Ground Forces aviation movement; for Howze was Army Establishment, a significance still underappreciated today. In 1962, Hamilton Howze chaired the U.S. Army Tactical Mobility Requirements Board, which set the



stage for the decisive employment of the helicopter in the Second Indochina War. He retired from the Army in 1965. General Howze was a former president of AAAA, 1967-1969, and was a Chairman of the Army Aviation Hall of Fame.

AAAA National Awards

Solicitation now under way for CY98 AAAA National Awards: Nominations due at the AAAA National Office on or before January 15, 1999. Nomination forms may be obtained from any chapter secretary or by calling the AAAA National Office, (203) 226-8184.



50 Years Ago December 31, 1973

Outstanding Unit for 1972-1973

The 307th Aviation Company (Heavy helicopter), Alabama Army National Guard, was selected as AAAA's "Outstanding Reserve Component Aviation Unit" for 1972-1973, during ceremonies held at the Fifteenth National Convention of the Army Aviation Association at the Shoreham Hotel

in Washington, D.C. In the presentation photo are, left-to-right, Lieutenant General John J. Hennessey, CORC; General Creighton Abrams, Jr., Chief of Staff; Major General Delk M. Oden, AAAA President; and SP6 Jerry B. Towry and Major Arthur E. Fleet.



Another First for Army Aviation

Army Chief of Staff, General Creighton W. Abrams, administers the oath to new Warrant Officers from Candidate Class 73-33 at Fort Rucker, Alabama.



11th AAAA President

Installed at a National Board meeting held at the conclusion of the 15th AAAA National Convention, a new AAAA National Executive Board looks forward to increased Regional activities as the Association's main effort during the forthcoming 1973-1974 membership year. Colonel Edward L. Nielsen, U.S. Army (Ret.), Program Manager for the Advanced Scout Helicopter at the Boeing Vertol Company, and the Association's National Secretary-Treasurer for the past two years, was elected as the 11th National President of AAAA. He succeeds Major General Delk M. Oden, U.S. Army (Ret.). Lieutenant General John M. Wright, Jr., of Trenton, New Jersey, was elected as Senior Vice President.





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 2025 induction is June 1, 2024

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

Chief Warrant Officer Four William “Willie” L. Ruf (Deceased)

*Army Aviation Hall of Fame 2018 Induction -
Nashville, TN*



A product of our nation’s “Greatest Generation,” CW4 (Ret.) Willie Ruf (Deceased) dedicated his life in the service of our country and contributed directly to the heritage of Army Aviation. He began military service in 1941, enlisting in the Army as an Infantryman. By the age of 22, he had risen to the rank of regimental sergeant major after serving 34 months in the Pacific.

His aviation career began in 1955 as the first warrant officer candidate to graduate from flight school at Fort Rucker, AL. He flew in excess of 16,000 hours, of which 1,200 hours were flown in combat in Korea, Vietnam, Lebanon and the Dominican Republic. In 1958, he was selected for assignment to the newly activated Presidential Flight Detachment. During this assignment, he flew Presidents Eisenhower, Kennedy, Johnson and Nixon. He also became the first pilot to fly a Presidential helicopter outside the continental United States during President Eisenhower’s 1959 world tour.

Upon retiring from active duty, CW4 Ruf continued his career as a civil service instructor pilot, retiring in 1993 with 52 years of total federal service. Always wanting to contribute more, he remained active as a civic volunteer and a tour guide for the Army Aviation Museum. He also served as the principal instructor for all Aviation Branch history classes, instilling in the next generation of Army Aviators their heritage and traditions.

As a pioneer, CW4 Ruf’s contributions are inextricably woven into the very fabric of Army Aviation and his legacy will live on forever.

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Collins Aerospace unlocks the power of MOSA with Mosarc™, our latest, open systems solution for enduring and future fleets. With flexible building blocks to simplify integration, Mosarc invites rapid, third-party collaboration. When it comes to optimizing fleet performance, while minimizing life cycle costs, Mosarc helps you modernize your mission.

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