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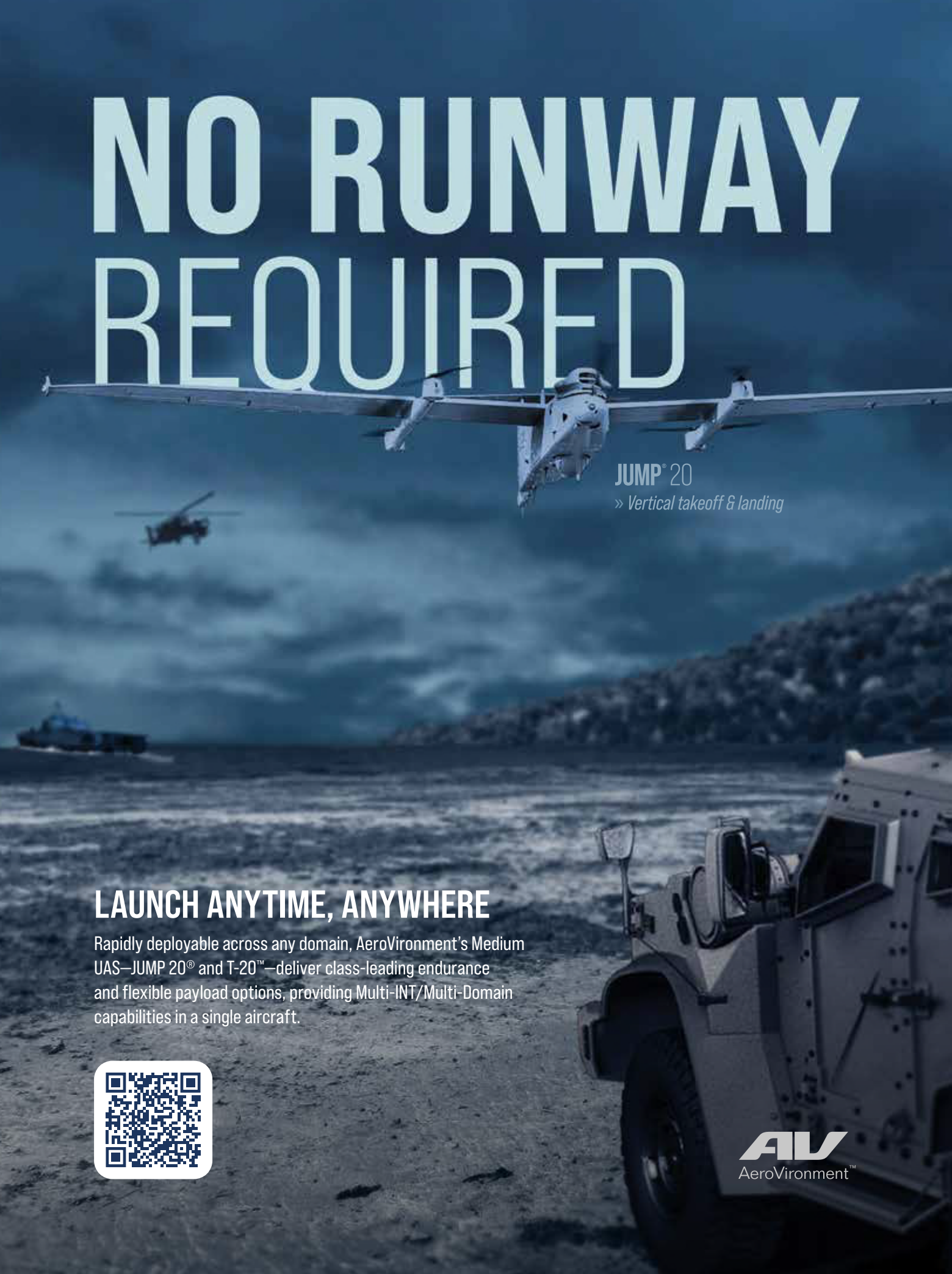
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ARMY AVIATION COMMUNITY NEWS

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On The Cover

Briefings

Temp Promotions for Enlisted to Continue Into FY2023

U.S. ARMY PHOTO BY SFC BRENT POWELL

Sergeant Major of the Army Michael Grinston announced on October 12, 2022 the continuation of a "temporary" promotion policy across the Army's enlisted force will continue into fiscal year 2023. That means the policy – which allows otherwise eligible enlisted troops to promote temporarily to the next enlisted grade with a one-year period to complete their required training – will continue. Backlogs in professional military education forced the Army to delay a new policy of training and educating the best-qualified NCOs before promoting them to the next grade.

U.S.-Mexico Border Mission Extended for Another Year

U.S. ARMY PHOTO BY SGT KYLE LARSEN

Federally activated National Guard troops are expected to continue to deploy along the U.S. southern border through summer 2023, a Pentagon spokesman confirmed on October 28, 2022. Defense Secretary Lloyd Austin approved a Homeland Security Department request to extend the mission through fiscal year 2023. Austin's approval keeps the number of authorized troops capped at 2,500. The extension sends the border mission into its fourth year, after former President Donald Trump first sent more than 5,000 troops to the border in 2018, followed by a national emergency declaration in early 2019. In addition to the federal presence, Texas has assigned 5,000 troops on state active duty to its border as part of Operation Lone Star.

FM 3-0 Update Available Now

U.S. ARMY GRAPHIC

An update to Field Manual 3-0, Operations, dated 1 October 2022, is available on the Army Publishing Directorate website at *https://armypubs.army.mil/epubs/DR_pubs/DR_a/ARN36290-FM_3-0-000-WEB-2.pdf.* The manual provides doctrine on how Army forces, as part of a joint team, conduct sustained, large-scale combat operations with current force structure and capabilities against a regional peer establishing multidomain operations as the Army's new operational concept.

8.7% Cost of Living Raise for Veterans and Retirees

U.S. SOCIAL SECURITY ADMINISTRATION GRAPHIC

Veterans and retirees will see an 8.7% cost-of-living increase in their Social Security benefits starting in December, the largest increase in 42 years, federal officials announced on October 13, 2022. In September, Congress approved legislation linking veterans payouts to the Social Security mark, a non-controversial but annual requirement for lawmakers. President Joe Biden signed the measure into law in the beginning of October. Although the increase is for 2023, some veterans and retirees will see their first increase in their December checks.

Tricare Drops Almost 15,000 Pharmacies

TRICARE GRAPHIC

Of the over 55,600 retail pharmacies in the Tricare network, 14,963 left on October 23rd after refusing to accept the terms for reimbursement and other conditions. Those pharmacies will now be out of network, and beneficiaries who continue to use them will pay full price for their medications then file for reimbursement, which is subject to the deductible as well as a higher out-of-network cost share. In mid-September, Express Scripts sent a letter notifying affected beneficiaries of the change. The letter contained a list of other network pharmacies nearby. As of Oct. 24, beneficiaries can also use the Find a Pharmacy tool, *https://militaryrx.express-scripts.com/find-pharmacy*, to find retail network pharmacies in their area. That online search tool will be updated by Express Scripts once the network changes go live, officials said.


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Happy Thanksgiving Everyone!

We at AAAA, the Army, and Army Aviation have a lot to be thankful for. While other organizations have struggled, our AAAA membership did not suffer the decline that so many of our brother and sister organizations did during the COVID-19 pandemic, maintaining pre-COVID-19 levels of more than 18,000 members.

AAPI PHOTO BY BILL HARRIS

LTG (Ret.) Joe DeFrancisco (center) is recognized by AAAA National President, MG (Ret.) Tim Crosby (right) and incoming Chairman, GEN (Ret.) JD Thurman, for his 20 years of service as a Charter member of the AAAA Senior Executive Associates.

Our financial position is at an all-time high. Thanks to your support and the support of our industry partners, along with the proceeds from our event cancellation insurance, we are financially poised to continue aggressive support to our AAAA Family.

Let me take this opportunity to thank the leadership of our chapters for their selfless efforts to promote and grow our professional organization. A thriving association is based on a strong foundation of membership and that is simply a result of the leadership and the initiative within our chapters. You are what makes AAAA the professional organization that it is. I am continuing my quest to visit all the chapters to personally garner your feedback but also just to say thanks for what you do.

Our Scholarship Foundation has awarded a record $550,500 to 347 students, and our various events like ASE Symposium, Luther G. Jones Forum and the annual Summit are back on track.

By the time you read this, we will have held the 2022 Cribbins Army Aviation Readiness Conference, and it looks like it will also set records in attendance and exhibit participation from our Industry Partners.

We have just finished our Senior Executive Associates (SEA) meeting in Washington, DC which was held right after the AUSA annual meeting. Remember that the SEA is a group of retired three and four-star non-aviators who believe strongly in Army Aviation and work hard to make sure our issues are known and help us evaluate our strategy from a different perspective. For this event, we were honored to have the Army Chief of Staff join us for dinner. I have to say I have never seen the Army Aviation leadership, the "Six-Pack plus one" as tightly coordinated as they are today. From modernization to training and doctrine and sustainment, we are thankful indeed for these great leaders.

I would be remiss if I did not thank GEN (Ret.) Scott Wallace, who has stepped down as chairman of the Senior Executive Associates, for his years of service on this all volunteer group. At the same time, I would like to welcome GEN (Ret.) JD Thurman, another long-time Associate, as the new chairman. We could not be in better hands with GEN Thurman at the controls.

I would also like to recognize LTG (Ret.) Joe DeFrancisco, our last still-serving charter member Associate who has decided to retire from the Associates after 20 years of outstanding participation. In all those years I think Joe missed only one meeting.

One sad note, LTG (Ret.) Don Parker's wife Judy passed away on October 15, 2022. She was quite a lady and amazing support to LTG Parker who took the baton from our founding Branch Chief, the late MG Carl McNair and really consolidated the Branch into what it is today. Judy was the picture of grace, strength, and courtesy. God Bless Don and Judy.

Finally, the holidays are upon us. Please cherish your friends and family and most importantly be safe. We all give thanks for this gift of freedom that you all help guarantee every day.

MG Tim Crosby, U.S. Army Retired
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Achieving Agility, Convergence, Endurance, and Depth

By MG Michael C. McCurry II

U.S. ARMY PHOTO BY SGT. JASON GREAVES

The October release of FM 3-0 "Operations" reinforces the integral role of Army Aviation in Multi-Domain Operations (MDO).

SPC Ryan Lemon, an Unmanned Aircraft Systems Repairer assigned to the 7-17th Air Cavalry Squadron, 1st Air Cavalry Brigade readies a RQ-7B V2 Shadow during Exercise Swift Response on May 11, 2022 at Krivolak Training Area, North Macedonia. Exercise Swift Response is an annual multinational training exercise, which takes place in Eastern Europe, the Arctic High North, Baltics, and Balkans from May 2-20. It aims to present combat credible Army forces in Europe and Africa and enhance readiness by building airborne interoperability with Allies and Partners and the integration of joint service partnerships. (U.S. Army photo by Sgt. Jason Greaves)

Army Aviation has been the cross-domain solution for the Ground Commander to simultaneously create and exploit relative advantages since our inception. As part of the land component operating in the lower tier of the air domain, Army Aviation is a decisive capability in domain interdependence – operating in the nexus between the air-ground-and-maritime domains to enhance the survivability and lethality of the combined arms team. This month's AAAA Magazine highlights how Unmanned Aerial Systems (UAS), Fixed-Wing, and Air Traffic Services (ATS) allow Army Aviation to provide the right mix of aviation capabilities to rapidly converge effects and present multiple dilemmas to our adversaries.

Army Aviation UAS, Fixed-Wing, and ATS provide the Division, Corps, and Combatant Commanders the ability to "SEE," "STRIKE," "MOVE," and "EXTEND" mission command, achieving the agility, convergence, endurance, and depth necessary to fight and win in large scale combat.

UAS enables the Joint Force to "SEE" outside of the range of enemy fires; respond quickly to "STRIKE" enemy targets with organic munitions or other fires assets; and "EXTEND" mission command over complex terrain. In the near future, we also see UAS providing a key "MOVE" capability to extend sustainment across the battlefield. The current UAS fleet of RQ-7, "Shadow," and MQ-1C "Gray Eagle" provide Soldiers on the ground with interoperable unmanned systems and integrated payloads to employ cross-domain effects to improve reach, survivability, and lethality.

Observations from the war in Ukraine are validating our assumptions for Army modernization investment priorities for Future Tactical Unmanned Aircraft Systems (FTUAS) and Air Launched Effects (ALE) in addition to our platforms. Ukrainian and Russian combat operations validate the requirement for FTUAS to be modular and mobile, with a minimal operator control footprint (away from large, fixed operator shelters), and capable of functioning without a runway. Future upgrades will set conditions to integrate and employ FTUAS and ALE to close capability gaps at echelon. Vertical launch and recovery capabilities of Army Unmanned Systems are also critical to enhancing the survivability of our UAS Soldiers and equipment.

In addition to modernizing the "launch," "control," and "recovery" of UAS, we are revolutionizing teaming concepts. The con-

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cept of manned-unmanned teaming employing "one aircraft and one munition to one system" used over the last twenty years must evolve for large scale combat operations now and in the future. The "Advanced Teaming" concept is the solution. Current investments in system autonomy and artificial intelligence will improve the ability of Ground Force Commanders to mass effects and expand the lethality of unmanned aircraft systems.

Modern, more capable UAS systems are on track to replace RQ-1 "Shadow" formations. Our UAS Program Managers are finalizing near-term plans for New Equipment Training and fielding of increment "one" systems, beginning in select units throughout Europe, with increment "zero" already in the field.

As we continue to develop and field unmanned aerial intelligence surveillance and reconnaissance (AISR), electronic warfare (EW), and kinetic capabilities beyond 2030, Army Aviation will continue our investment in fixed-wing training and readiness. Our current formations of AISR, EW, and Operational Support Airlift (OSA) aircraft provide Division, Corps, and Combatant commanders with a capacity to "SEE," "STRIKE," "MOVE" and "EXTEND" in the close and deep fight.

Developmental investments in the High Accuracy Detection and Exploitation System (HADES) expands ISR capability with a platform operating higher, faster, and farther with increased stand-off to replace our aging fleet of "Guardrail" turboprop aircraft. Manned Fixed-Wing ISR remains a critical capability, and the HADES platform enhances ISR performance in multi-domain operations.

For the last 30 years, our fixed-wing OSA forces have delivered an invaluable "SEE" and "MOVE" capability, performing time-sensitive ISR for intelligence collection and airlift of mission-critical personnel, equipment, and supplies. As the Army continues to resource our fixed-wing platforms, we must update command and control relationships and missioning priority to support our Soldiers on the ground at home and overseas to enable air movement of critical supplies and personnel.

Aviation operations in the future will be highly contested and complex in large scale combat operations. ATS will continue to enhance "SEE" and "EXTEND" mission command with technologies to enable a common operational picture of air space management at the tactical edge to respond to dynamic conditions.

The need to prepare our ATS Soldiers through tough, realistic training is essential for their role as airspace managers and air traffic controllers in austere environments for MDO. Training plans must be balanced to manage airspace at both installation facilities and in austere environments to train expeditionary tactical airspace command and control. Future ATS formations will be scalable to support theater airfield operations vital for safe aviation operations and the synchronization of airspace below the coordinating altitude within Division and Corps areas of operation.

The future of Army Aviation is exciting, and the talent and commitment of our Soldiers will transform the branch to modernize how we fight and what we fight with to defeat threats of today and tomorrow. The modernization investments in UAS, Fixed-Wing, and ATS are imperative as Army Aviation maintains our "Sacred Trust" with the Soldier on future battlefields.

Above the Best!

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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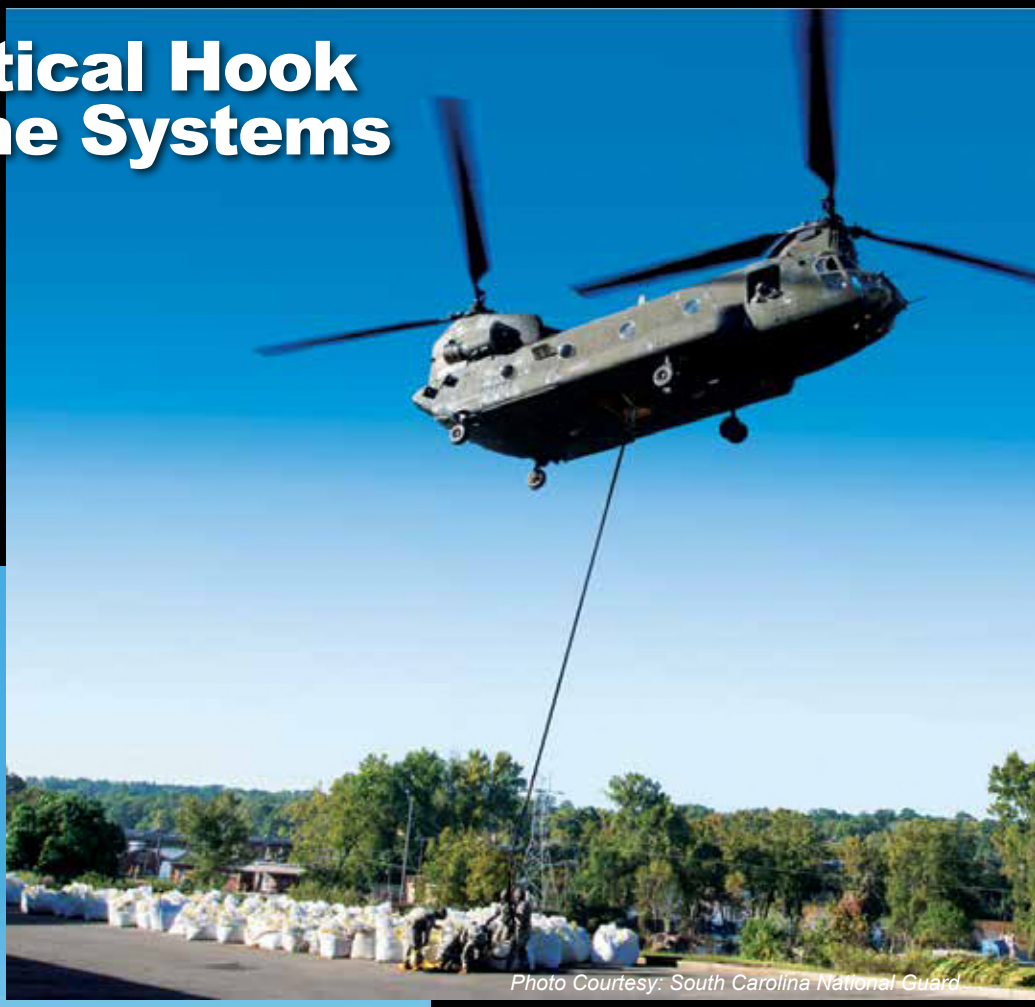

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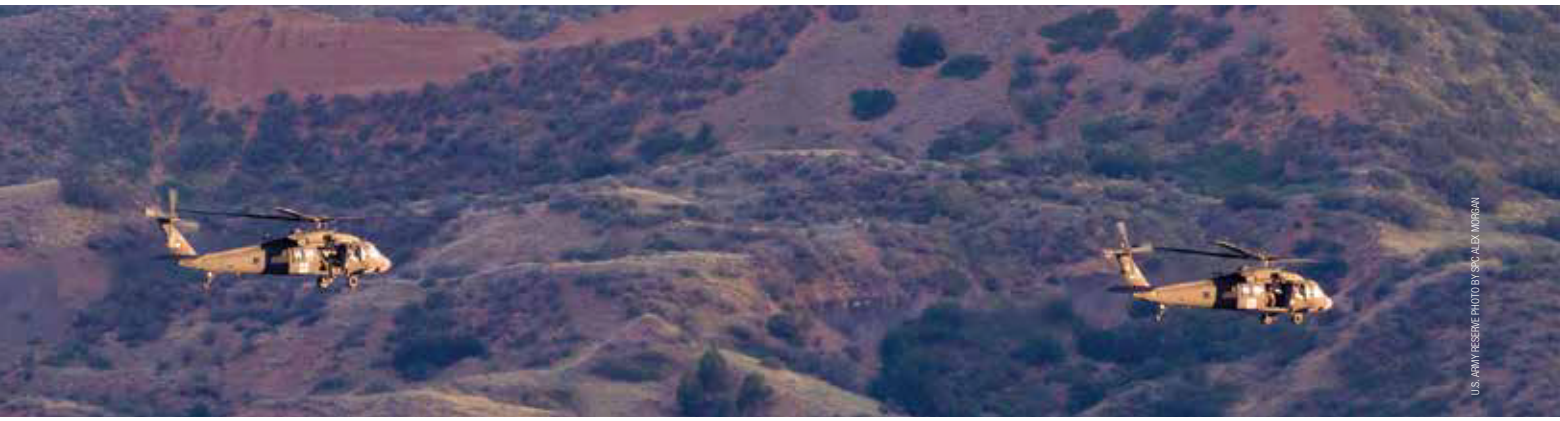

U.S. ARMY RESERVE PHOTO BY SPC ALEX MORGAN

FORSCOM Aviation:

Delivering Readiness –Today & Tomorrow

By GEN Andrew P. Poppas

Throughout my military career, Army aviation has always served with excellence as a critical element of the Army's warfighting capability.

I experienced this excellence while planning and executing complex air assault operations as an 82d Airborne Division Squadron Commander in Iraq and while building readiness at the Brigade and Division echelons in the 101st Airborne Division. Despite an increasingly complex and unpredictable world, I am confident our Aviation Community will meet future challenges with the same skill, confidence, and expertise I have personally experienced in past training and combat operations.

I recently completed my initial 90-day assessment as FORSCOM Commander. In doing so I had the opportunity to tour many installations, to include our Combat Training Centers, and meet with senior leaders inside and outside the command. One theme remained consistent everywhere I went: trust in the readiness of our Soldiers, especially our Aviators. Your professional skill -- as pilots, flight crews, maintenance professionals, and support personnel --resonates throughout the Army and Joint Force every day.

Looking ahead, the Army's priorities remain focused on our People, Readiness, and Modernization (i.e., Future Readiness). FORSCOM supports leaders' focus on People First initiatives for Soldiers and Families while building current and future readiness through hard, realistic training. We do this together across the Aviation Community and as a Total Army by incorporating the best technologies and concepts to deliver combat-ready, cohesive teams.

Winning Matters

To maximize our lethality and readiness to win, we must further integrate with Army National Guard and Reserve units, building multi-component and multi-echelon interoperability. A recent example of such cross-component integration occurred during Exercise Northern Strike, an exercise focused on the Army National Guard. Feedback from the 3-58 Airfield Operations Battalion, a Fort-Bragg based Active-Duty unit participating in the exercise, highlighted this as the best

U.S. ARMY NATIONAL GUARD PHOTO

Top photo: HH-60M Black Hawks from C Co 7-158th, 11th Expeditionary Combat Aviation Brigade (ECAB), Army Reserve Aviation Command (ARAC), pierce the sky as MEDEVAC air crews from the unit participate in Exercise Mountain Medic on Fort Carson, CO.

Left photo: An Ohio Army National Guard Soldier watches UH-60 Black Hawks, assigned to 1st General Support Aviation Battalion, 111th Aviation Regiment, carry M119A3 Howitzers, belonging to 1st Battalion, 134th Field Artillery Regiment, during Operation Northern Strike at Camp Grayling, Mich., Aug. 8, 2022. Participants of Northern Strike operate in a multidomain, combined joint environment to improve their Joint All-Domain Command and Control capabilities by integrating legacy and modern equipment with future innovation.

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U.S. ARMY PHOTO BY SPC ELIZABETH MACPHERSON

U.S. Soldiers, assigned to the 101st Airborne Division's (Air Assault) Headquarters element and their 2nd Brigade Combat Team as well as the 3rd Battalion, 227th Aviation Regiment (Assault Helicopter), 1st Air Cavalry Brigade, 1st Cavalry Division, participate with their Romanian counterparts in a combined land and air training, at Mihail Kogălniceanu Air Base, Romania, July 28, 2022, corresponding with a division uncasing ceremony.

training they have experienced.

3-58th Soldiers in the tower controlled Army and Marine helicopters, USAF C-17, C-130, A-10, UAS, and other aircraft. The airfield management cell coordinated the parking for all the aircraft types, hot and cold refuel, flight operations, and civil coordination. Soldiers operating Tactical Airspace Integration System (TAIS) were in the High Command (HICOM) / Division HQs coordinating airspace spanning all of Michigan, while our 94D and 91B maintainers received cross-training on and provided support to other units' equipment. This complex mission, enabled by activities in multiple domains, is exactly the type of training we need to conduct regularly to win future large-scale combat operations.

People First

To win without fail, we must always put people first. One way we are doing this is by ongoing support to address Aviator shortages stemming from past accession shortfalls. While the Army's aggregate number of pilots is healthier today, there remains an imbalance between junior, mid-level, and senior Aviators that we are working to reverse.

In FY20, the Army increased Aviation Incentive Pay (AvIP) for the first time in more than 20 years. Warrant officers with more than 10 years' experience benefit the most from the new rates. The Army also instituted an Aviation Bonus Program to retain Aviators, preserve mission readiness, and meet rated requirements. Programs have also been targeted for our enlisted population, stabilizing specific aviation skill sets for 24 months upon completion of an additional skill identifier (ASI) granting course or an assignment to a specifically coded billet.

Finally, to increase stability and foster professional development, trust, and team cohesion, rotary wing Aviators in CONUS-based Combat Aviation Brigades remain in their first unit of assignment for five years. FORSCOM will continue to support these initiatives to increase our collective readiness, preserve dominance in the skies, and reinforce the Army's capacity for large-scale combat operations.

Current and Future Readiness

As has always been the case, our Nation expects us to fight where we are told and win where we fight. As a critical element of current readiness within FORSCOM's Corps and Divisions, we rely on your mastery as pilots, maintainers, mechanics, and technicians. This will not change in the future. Your efforts to ensure the ability to "win tonight" are critical to deter adversaries and assure Allies and Partners today. Yet, when done with an eye to future requirements, they are also stepping-stones to future readiness. Your training -- today and always -- must resemble future conflict that will test your ability to deliver Soldiers, supplies, and effects at the point of contact in denied, degraded, and disrupted areas while coordinating with assets across land, maritime, space, and cyber domains.

To build warfighting advantages for the Army of 2030 and beyond, we must work with industry partners to modernize and enhance the Army's agility, depth, endurance, and ability to win across the spectrum of conflict. Last month during the annual AUSA meeting, I observed some of the innovative platforms on display that are designed to do just that. These included the Future Attack/Reconnaissance Aircraft (FARA) and the Future Long-Range Assault Aircraft (FLRAA) which are part of the Army's Future Vertical Lift signature modernization program. While the Army has yet to award a contract for these aircraft, the exposure to industry prototypes helped me gain an appreciation for the potential increase in range, speed, and convergence. After the eventual selection, it will be important that we develop the concepts to translate that improvement into greater operational depth for Divisions and Brigades, as well as increased lethality and survivability, contributing to our ability to win large-scale combat operations.

FORSCOM Aviators are also fully integrated with modernization opportunities in support of Combatant Commander requirements and Army Priorities like Project Convergence 22 (PC 22). For example, throughout September, FORSCOM units built combat power within the experimental JOA (Southern California) in preparation for the initial operational scenarios in October and November. At its height, a CAB (-) will be an integral part of close to 3,200 Soldiers supporting Army Future's Command (AFC) PC 22 campaign of learning experiment. The culmination will include multiple Division HQs and aviation assets decisively engaged in missions supporting EUCOM, AFC's PC 22, and Warfighting Exercise (WFX) 23-1. As these examples illustrate, Aviators are central to our ability to win as an Army and FORSCOM team.

This is an exciting time for Army Aviation, and I am extremely proud of you. Thank you for the dedication and high level of competence you bring every day to the Army, the Joint Force, and our Nation. You have my complete trust, as well as the confidence of our Soldiers, Army civilians, and Families. I look forward to getting out, meeting you, and watching your units excel as we prepare to win as a Total Army.

Freedom's Guardian!

GEN Andrew Poppas is the commanding general of U.S. Army Forces Command headquartered at Fort Bragg, NC.

Army Aviation:

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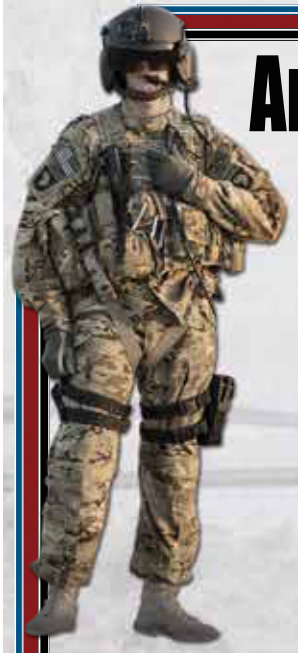

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Chief Warrant Officer of the Branch Update

For this issue, I have asked CW5 Luis Iglesias, Senior Warrant Officer Advisor for 1-145TH Aviation Regiment, to provide an update on the modernized development of our Unmanned Aircraft Systems Technicians. CW5 Myke Lewis

Refocusing the Professional Development of Unmanned Aircraft Systems Technicians

By CW4 Luis Iglesias

U.S. ARMY PHOTO BY CW5 LUIS IGLESIAS

The Advanced Warfighting Skills Course provides a deep dive into the aviation mission planning process.

The US Army is transforming into a more lethal force capable of fighting and winning in Large Scale Combat Operations (LSCO) within a Multi-Domain Operational Environment (MDOE).

This remarkable transformation comes with a robust doctrinal modernization that must keep up with current and future technological advances. An essential pillar of this modernization effort is the professionalization of the force, the ultimate capability of the U.S. military. The Aviation Branch is at the vanguard of such professionalization. It is realigning the Aviation Warrant Officer Professional Military Education (WOPME) to meet the Army's vision, developing a more tactical and technical Aviation Warrant Officer who is an expert in their craft and can provide sound advice to commanders.

A Gap in Professional Education

For more than a decade UAS technicians kept the UAS systems flying and supporting ground operations. Although successful, Unmanned Aircraft Systems (UAS) technicians have fallen into an educational twilight zone with no specific training plan, leaving a significant gap in these officers' professional education. With the transition to LSCO in mind, the UAS technicians' professional development in the institutional domain must begin its modernization, realigning specific military courses and developing more tactically and technically sound UAS technicians capable of critical and innovative thinking.

The future MDOE in LSCO demands a drastic refocus and transformation of the duties and responsibilities of UAS technicians, becoming systems integrators and expert tacticians capable of understanding doctrine and having an integral role during the mission planning process. These officers must know UAS capabilities and limitations, threats, composition, and disposition of enemy forces and how they affect the mission, clearly understanding the contested and denied operational environment.

Closing the Gap and Professionalizing the Force

The Aviation Branch provides a solid cognitive baseline on the different Army Aviation mission sets with the realignment of Aviation WOPME and by introducing the Advanced Warfighting Skills (AWS) Course. This course conducts a deep dive into the aviation mission planning

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process, providing the required tools to build expertise in the art of aviation mission planning. The course is not UAS-centric but provides junior UAS technicians with the skills needed to integrate assets into the scheme of maneuver along with other aviation assets.

Following a path to becoming a better tactician, UAS technicians should attend the Air Cavalry Leaders Course (ACLC). This course provides a more in-depth look into aviation mission planning. It expands the knowledge of attack and reconnaissance operations, allowing these leaders to better integrate their assets in a Manned-Unmanned Teaming (MUM-T) concept. In the self-development domain, and to better understand their role in integrating UAS with organic and joint fires, junior UAS technicians should take advantage of distributed learning courses such as the Joint Fires Observer Familiarization and the Joint Fires and Effect courses, available through the Joint Knowledge Online (JKO).

At the battalion and brigade levels, UAS technicians closely collaborate with joint fires and Air Traffic and Air Space Management (ATASM) technicians to integrate UAS into unit airspace plans. In preparation for these assignments, senior W2s and W3s should attend the Joint Fires Course (JFC) and the Air Defense Airspace Management/Brigade Aviation Element (ADAM/BAE) courses. These courses provide doctrinal and practical knowledge in airspace control procedures, unit airspace plan development, joint air tasking order cycle, and joint fire integration. The Aviation Warrant Officer Intermediate Level Education then closes the gap between these courses and other aviation-centric subjects that mid-grade aviation WOs need.

Senior UAS technicians should serve at echelons above brigade with expertise in planning in the tactical environment while thinking at the operational and strategic levels. These officers should attend the Army Space Cadre course and the Echelons above Brigade Airspace Control (EABAC) to gain the proper institutional knowledge and a clear understanding of their roles within the Division and Corps staff. With these courses, UAS technicians continue to expand their knowledge and sharpen the necessary skills to work with ATASM technicians and Fires Cells as members of the Joint Air Ground Integration Center (JAGIC). They also gain knowledge of space-based assets that are instrumental in the employment of UAS in tactical, operational, and joint operations.

Conclusion

It is vital to refocus and assist the development of the UAS professionals who are integrating new technology into operations at the tactical, operational, and strategic levels. With the expected growth in unmanned systems the UAS technician's professional development must be modified to include the institutional knowledge needed to integrate UAS assets into LSCO. The roles and responsibilities of UAS technicians have changed. We must develop a more coherent training, educational, and experiential pathway for these critical experts in the most disruptive new technology on the battlefield, Unmanned Aerial Systems.

Above the Best!

CW4 Luis Iglesias is the senior warrant officer advisor for 1-145th Aviation Regiment, 1st Aviation Brigade, United States Army Aviation Center of Excellence;
CW5 Michael "Myke" Lewis is the ninth chief warrant officer of the Aviation Branch; both located at Fort Rucker, AL.

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Branch Command Sergeant Major

Editor's Note: For this issue, the Branch Command Sergeant Major, CSM James D. Wilson, has reached out to the 3-58th Airfield Operations Battalion to relate their training experience.

Northern Strike:
Finding Unparalleled Training Opportunities For Airfield Operations

By LTC Steven C. Chetcuti

Just prior to midnight on 12 August 2022, twelve UH-60 Black Hawk helicopters from Tennessee's 1-230th AHB (TN ARNG) staged on the runway at Grayling Army Airfield (GAAF) for their battalion air assault in support of Ohio's 37th IBCT (OH ARNG).

U.S. ARMY PHOTO BY CW2 VICTOR ANDREWS

The 3-58th AOB AN/TPN-31 ATNAVICS set up alongside RWY14/32 with four UH-60s departing in the background.

3-58th Airfield Operations Battalion (AOB) Soldiers from Fort Bragg, NC, SPC Theophiluso Okrah and PFC Jessica Rushing, operated the GAAF Control Tower under the supervision of SFC Zachary Irwin, the ATC Operations Chief.

The young Soldiers, still in their readiness-level (RL) progression training earned their position qualifications in flight data and ground control in the GAAF Tower during the preceding weeks at Northern Strike 22-2 (NS22-2). That evening, PFC Rushing was working towards her position qualification for local control. Her voice was calm and clear as she flawlessly provided taxi instructions, takeoff clearance, and traffic advisories to the aircrews as they departed into the darkness.

SGT Joseph Whittington, SGT Austin Winicker, and PFC Gabriel Rudicel provided flight-following and advisories for the air assault utilizing their AN/TSQ-221 Tactical Airspace Integration System (TAIS) in the Airspace Information Center (AIC) co-located on Camp Grayling with the NS22-2 HICOM. Via an integration of the TAIS with the Air Defense System Integrator and one AN/MPQ-64 Sentinel Radar feed, the 3-58th AOB controllers provided a near real-time airspace picture. A few hours later, the aircraft returned to GAAF under the procedural control of PFC Rushing.

3-58th AOB NS22-2 participants outside of the Camp Grayling main entrance.

Unique Training Opportunity

Though Active Duty, 3-58th AOB does not normally have the opportunity to control this density and complexity of air traffic, particularly at night. Army Air

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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 2020 National winners were featured in the April/May AAAA Army Aviation State of the Union issue.

AAPI FILE PHOTO

UAS Soldier of the Year, 2019

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SFC Brandon B. Vilt

Company D, 326th Brigade Engineer Battalion,
1st Brigade Combat Team,
101st Airborne Division (Air Assault)
Fort Campbell, Kentucky

SFC Brandon Vilt is a true example of consummate, selfless professionalism. He was entitled to medical retirement in 2007 after he lost his left leg in the line of duty but fought to continue serving. Again, in October 2018, eight months after his third combat deployment, SFC Vilt was entitled to remain in garrison with 2-17 CAV. Instead, when he learned that D Co., 326 BEB needed a Senior Maintenance Chief for deployment to Iraq, he immediately volunteered. He found the company's UAS platoon had an incredibly young maintenance section that had recently failed an ARMS inspection. He enforced his "by the book" standard and turned that section into the best in the 101st Airborne Division achieving more than 3,000 incident-free combat flight hours and over a 95% Operational Readiness rate in seven months of operations targeting the Islamic State of Iraq and Syria. He was instrumental to the platoon's fully mission capable communications relay system, which provided extended communications for ground forces in Kirkuk, Iraq. Every Soldier in his section is a certified crew chief, he mentored multiple soldiers as technical inspectors, and he sets the standard for fitness.

Traffic Services (ATS) units, in general, have limited opportunities to train, gain proficiency, and maintain currency due to their complete reliance on external aircraft support.

Typically, the AOB conducts monthly training and controller progression by establishing their ATS equipment at local uncontrolled civil airports. It relies on the Civil Air Patrol (CAP) to provide the bulk of air traffic, supplemented by helicopters from the 82nd CAB and occasional general aviation aircraft. This training relationship with CAP is essential to the progression of controllers; it is a practice that should remain. However, NS22-2 provided the unit with a far more challenging environment that cannot be organically reproduced outside of a simulator.

In the preceding June, the 3-58th AOB sent two senior controllers with prior Control Tower Operator (CTO) ratings to GAAF. Thanks to the training and supervision of the Facility Chief, Bill Brannon, the senior controllers earned their GAAF CTO ratings in only 30 days. This preparation allowed the 3-58th AOB, in conjunction with Department of the Army Civilian controllers, to provide 24-hour tower operations throughout the duration of NS22-2, significantly reducing the risk for the multitude of aircraft.

The 3-58th AOB also provided AN/TPN-31 Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) Ground Controlled Approach (GCA) services. Following coordination with Minneapolis Center and a flight-check by ATSCOM prior to STARTEX, the system was certified for both VFR and IFR, which provided the means to recover aircraft with a precision radar approach in any conditions.

In total, 3-58th AOB tower controllers executed 2,878 aircraft movements and ATNAVICS controllers provided 26 GCA practice approaches, replete with a variety of military aircraft including HH-60s, UH-60s, CH-47s, C-17s, A-10s, C-130s and civilian IFR and VFR aircraft. The AIC facilitated 3072 aircraft movements and 62 OPFOR quadcopter UAS ROZs.

NS22-2 also provided unparalleled experience for the battalion's Airfield Management Element (AME) led by CPT Thomas Suddes. Under the mentorship of GAAF's Michael Bray, 3-58th's AME conducted 24-hour base operations, and received training on notices to airmen, weather forecasts, bird air strike hazard prevention, airfield security, airfield condition inspections, foreign object damage mitigation, and aircraft marshalling. The battalion commander also gained experience by acting as the Senior Airfield Authority under the tutelage of Scott Karner, the GAAF Airfield Manager. Because Army airfields are operated by IMCOM, AOB AME personnel have limited opportunities to exercise these responsibilities in garrison.

Lastly, the unit's ATC Equipment Repairers (94D) received invaluable training and FAA certifications on fixed-based ATC communications and navigation equipment from GAAF's Scott Florschuetz, a former 94D himself.

The exercise was a crucible-type event for the battalion; it emerged a different organization – better trained, more competent, and more cohesive. NS22-2 enabled the unit to train and evaluate five of six Battalion Mission Essential Tasks (METs). It was such an encompassing event that the 3-58th is planning to use next year's Northern Strike 23-2 to train all unit METs and as the mission readiness exercise prior to their FY24 deployment.

It is imperative to have highly proficient air traffic controllers for the safe, orderly, and expeditious movement of Army Aviation assets. Large exercises like NS22-2 are necessary to build real experience, and Army ATC units should actively seek to participate in them. The 3-58th AOB will continue to do so. We owe it to our controllers and to Army Aviation.

LTC Steven C. Chetcuti is the commander of 3-58th Aviation Regiment (Airfield Operations Battalion), headquartered at Fort Bragg, NC;

CSM James D. Wilson is the command sergeant major of the Aviation Branch at the United States Army Aviation Center of Excellence, Fort Rucker, AL.

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Leading Causes of Unmanned Aircraft Mishaps

By LTC Sean O'Connell

While the Army has made great strides in reducing manned aircraft flight mishaps, unmanned aircraft rates have climbed in the last three years.

U.S. ARMY PHOTO BY SSG.ANGIE DESINOR, 3/4BCT PUBLIC AFFAIRS

Soldiers of Company D, 588th Brigade Engineer Battalion, 3rd Armored Brigade Combat Team, 4th Infantry Division, launch an RQ-7B Shadow unmanned aerial system during combined-arms live fire exercises conducted by the brigade's combined-arms battalions at Rose Barracks, Vilseck, Germany.

In the last fiscal year 2021, the MQ-1C Gray Eagle Class A through C mishap rate was 13.96 per 100,000 flying hours, the highest since FY16 with the current rate even higher for FY22. The RQ-7B Shadow's mishap rate was at 82.20 per 100,000 flight hours and is higher this year. We tend to be less concerned with unmanned mishaps, mainly because there are no personal injuries, and the systems are designed to a lower airworthiness standard. Since October 2020, the Army has lost 16 Gray Eagles, at a cost of approximately $8M per aircraft, we can't expect unmanned aircraft to match the historically low manned aircraft rates. However, we owe it to the Army and U.S. taxpayers to reduce the human-error factors. Based on a five-year review, most of these errors are due to failure to follow established procedures.

Performance-based Errors

Failure to conduct by-the-book ground servicing and maintenance is the first performance-based error. Illustrating this point, the Shadow's leading cause of flight mishaps is engine failure caused by fuel starvation. Ensure personnel are conducting proper fuel system maintenance to ensure the fuel is free of contaminants and the aircraft is fully refueled prior to the next mission.

The second is improper mission planning. Unmanned aircraft frequently may contact objects during takeoff and landing due to operators not knowing the aircraft's limitations or improper obstacle/hazard reconnaissance. Crews must be aware of local terrain, line-of-sight limitations for missions and conduct site surveys in their area of operations. In the event the terrain is mountainous, ensure the aircraft ascends in an orbit to achieve an altitude over the highest terrain before continuing the mission.

The third is a failure to follow operating procedures, which is demonstrated by the number of lost links mishaps. Most mishaps involving lost link are caused by the unmanned aircraft not being set up to execute at an appropriate holding point and altitude. This is directly attributed to lapses in executing pre-mission checks prior to takeoff. Additionally, the system is equipped with the ability to ascertain datalink coverage within the mission area. To avoid those areas where the terrain may hinder the datalink line of sight, operators should utilize the full capabilities of the system when operating unmanned aircraft.

Training

Finally, there is a critical need to ensure personnel are trained for all aspects of the mission. This is apparent when there is a performance-based error related to the tactical automatic landing system (TALS) during landing due to incorrectly setting up the system, specifically failing to correctly input data into the ground control station and ensuring the TALS equipment is serviceable. When conducting a TALS site survey, operators must ensure the correct values are entered into the ground control station in accordance with the technical manual checklist. It is also recommended to have multiple personnel verify accurate values are entered for the distance and height from the TALS tracking subsystem to the touch-down point.

These may seem minor, but if not addressed they become major. Remember, the residual risk in a risk assessment assumes procedures are being followed to mitigate risk based on past experiences. Left unchecked, the residual risk for the mission increases.

LTC Sean O'Connell serves in the Aviation Division's Directorate of Analysis and Prevention for the U.S. Army Combat Readiness Center, Fort Rucker, AL.

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National Guard and Reserve Equipping Appropriation (NGREA):

Meeting ARNG Aviation Equipping and Modernization Needs

By COL Joseph Bishop

As we transition into another Program Objective Memorandum (POM) cycle, NGREA is also discussed when considering the ARNG Aviation requirements. The purpose and method to utilize NGREA is often misunderstood.

NGREA is a specific defense appropriation that complements the Reserve Component's base procurement appropriations and is not part of the Army's annual programming and budgeting process. The NGREA appropriation dates back as far as the early 1980s and allows the Army and Air National Guard to procure critical equipment shortfalls and modernized equipment that the Services' base appropriation does not fully fund. NGREA procurements are unique and must have a validated requirement, a sustainment plan as well as meet a designated procurement cost per item thresholds. Procurements utilizing NGREA must be administered within a three-year time frame from the year of published appropriation spend plans and cannot be used for ancillary items such as pay and allowances for training on new equipment.

NGREA needs are authenticated annually, through the National Guard Bureau's (NGB) annual Joint Capability Assessment and Development Process (JCADP). The States, as well as the NGB Staff, submit recommendations into the JCADP in pursuit of NGREA resourcing. The NGREA need must have a link to capability shortfalls for assigned Federal and non-Federal missions required to support the National Defense Strategy, National Military Strategy, and Department of Defense's Strategy for Homeland Defense and Defense Support of Civil Authorities.

U.S. ARMY PHOTO

SSG Tyler Hughes, CW3 Caleb Emery and CW3 Nathaniel Defenbaugh, Company A, 1-135th Assault Helicopter Battalion (AHB), Missouri ARNG, picking up a company aircraft after completing a civil communications modification at Joint Base McGuire Dix Lakehurst, NJ.

The Modernization and Equipping Requirements Conference is the vehicle for ARNG Aviation to adjudicate and validate Aviation specific NGREA requirements, which are then published in the NGB's Prioritized Capability Gap List (PCGL). The PGCL, in addition to informing the States, is used to inform the Department of Defense for use in planning and programming and ultimately Congressional Committees for developing future NGREA appropriations language. ARNG Aviation is not alone, as other entities across the ARNG compete for NGREA appropriations.

The ARNG Aviation and Safety Division is the Staff proponent for the ARNG Aviation NGREA. As procurement plans are published in the annual appropriation bills, the Aviation and Safety Division in coordination with NGB Staff and the States, develop allocation and fielding proposals. NGREA is NOT the "end all be all" for ARNG Aviation equipping as the ARNG relies on the Department of the Army to incorporate ARNG Aviation equities into the Aircraft Procurement-Army (APA) plans as well as other Aviation equipping modernization strategies. In years past, Aviation NGREA included a wide assortment of equipment and modernization such as UH-72A mission equipment, and UH-60 and CH-47 aircraft civil communications equipment and deployment support kits.

It is imperative that the ARNG's Aviation and Safety Division and the State Army Aviation Officers are in synch with a NGREA strategy each year. That proves to be challenging given the complexity, competition, and timeframes for recognizing JCADP requirements across the National Guard. To address those challenges, the Aviation and Safety Division, for fiscal year 2023, is instituting a more deliberative approach with the State Army Aviation Officers. Aviation representatives from across the 54 States, Territories and District will convene, in conjunction with the AAAA Cribbins Army Aviation Readiness Conference, to better synchronize ARNG Aviation NGREA requests. This new approach to developing NGREA demands will focus on holistically streamlining Aviation equipping requirements across the ARNG and therefore better utilize available NGREA funding. NGREA is a means to meet unique or "niche" equipping shortfalls. Again, NGREA is supplemental to Department of the Army procurement and not a replacement, however, it is a vital resource, as ARNG Aviation modernization and equipping evolves.

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COL Joseph Bishop is the chief of the Aviation and Safety Division of the Army National Guard.

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The TRADOC Organic Medical Structure (TOMS) in the 128th Aviation Brigade

By SFC Jesse Celko

Centers of Excellence across the Army are taking aim at improving and increasing access to medical and behavioral health care for trainees. It is estimated that 4,245,102 training hours are lost yearly in AIT populations due to wait times for medical and behavioral health care across the Army after taking the battle buddy system into account.

The primary goal of the TRADOC Organic Medical Structure (TOMS) program is to provide care to low threat medical issues within the Advanced Individual Training (AIT) student population before or after class time, resulting in reduced training hours missed and limiting the severity of issues through early intervention. The TOMS program will be rolled out in the 128th Aviation Brigade with the intent of decreasing missed instruction and reducing physical and mental health attrition with AIT students.

One issue identified prior to TOMS existence has been access to care for initial appointments as they are often scheduled far out, which become problematic in trying to provide a Soldier with early-stage injury protection. TOMS implementation seeks to increase access to same day care across the unit to treat injuries early. Early medical treatment along with medical education assist in limiting the severity of injuries, positively impacting young and new Soldiers still adapting to a more demanding lifestyle. Musculoskeletal injuries account for most AIT related medical issues, often a result of Army fitness requirements exceeding the physical preparation of previous civilian lifestyles. When managed early, musculoskeletal injuries are typically resolved without complications in a few days to weeks.

Increased access to a provider outside of periods of instruction is also expected to encourage Soldiers to seek help without feeling negatively impacted by missing crucial job information. A better plan for receiving care outside of instruction complements early detection of injuries and has far reaching positive potential. An injury or illness assessed and treated early along with increased leader communication can prevent medical issues from reaching a non-deployable status or a medical board now or later in their career.

Locally at Fort Eustis, without any on post emergency services, TOMS will seek to reduce the number of non-emergency patients being transported off-post to Mary Immaculate Hospital. Patient continuity and communication is difficult with the civilian medical systems that are frequently incompatible with military health systems. The reduction in Soldier transportation requirements will also lead to decreased cadre demands regarding both time and vehicle usage.

In addition to increased access to medical care, a behavioral health provider is also part of the TOMS program. Access to behavioral health care has been identified as an issue that TOMS can help address in the AIT population. Implementation of an organic behavioral health team in other units has shown significant reduction in off-post mental health referrals, inpatient hospitalizations, and Soldier risk behaviors. Having an embedded behavioral health team will provide consistent access to the same behavioral health provider increasing patient familiarity and comfort in times when it could be critical. Improved communication between an embedded behavioral health team and unit leaders will enhance access to and continuity of care.

U.S. ARMY COURTESY PHOTO

SFC Jesse Celko (the 128th AVN BDE Senior Medic) and Major Shinita Favors (the 128th Behavioral Health Provider) stand in front of the Brigade Headquarters.

The 128th Aviation Brigade TOMS program is still in its early phases and is expected to begin providing behavioral health services by December 2022. The medical section is expected to begin initial operations in 2023. All services offered are planned to be implemented in the 1-222nd (the AIT training Battalion) barracks footprint to provide easy access for Soldiers.

Born Under Fire!

SFC Jesse Celko is the senior medic for the 128th Aviation Brigade located on Joint Base Langley-Eustis, VA.

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Autorotation: Part 2 – Flare and Landing

By Dr. Thomas L. Thompson

Last month's article on autorotation (Part 1) emphasized the importance of recognizing a total loss of engine power quickly, reducing blade pitch, stabilizing rotor speed, and establishing a steady rate of descent.

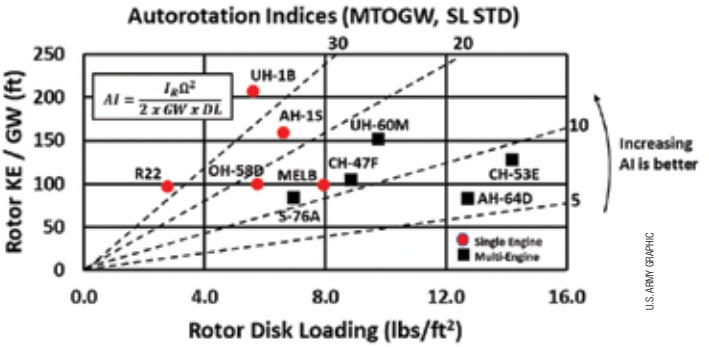

Figure 1.

We also covered some aerodynamic fundamentals of autorotative flight. In this month's article (Part 2), we'll focus on the final phase of the maneuver, which involves using the rotational energy of the rotor system to arrest the aircraft's kinetic energy (rate of descent and forward speed) and perform a safe landing (one in which there is no damage to the aircraft and no harm to its occupants).

After establishing a steady autorotative descent, the lateral and directional controls are adjusted to direct the aircraft along a trajectory to a suitable landing site. Collective and longitudinal controls may also be adjusted to maintain the rotor speed within recommended limits and to continue flying at the airspeed where descent velocity is lowest (which typically occurs at an airspeed between 70-80 knots). A flare maneuver, executed by pulling the longitudinal cyclic aft to raise the nose of the aircraft, is typically initiated between about 40 to 100 feet above ground level. The increased pitch attitude reduces the forward speed of the aircraft and increases the upward flow of air through the rotor, which increases the speed of the rotor blades and provides more energy for arresting the vertical rate of descent. At 15-20 feet above the ground, forward longitudinal cyclic is applied to reduce pitch attitude to a more level attitude and collective pitch is applied to increase rotor thrust and cushion the vertical impact with the ground. The Pilot's timing of control inputs, practiced in flight and simulator training, is critical to landing the aircraft within its design limitations. For example, if collective pitch is applied too late, the aircraft may contact the ground at a speed that causes damage to the aircraft or results in injury to the crew.

Through the years a variety of autorotation metrics, or indices, have been developed to estimate the rotor polar moment of inertia needed to allow for a safe landing for a given aircraft gross weight and rotor diameter. One of the more commonly used metrics is the autorotative flare index developed by Evan Fradenburgh of Sikorsky Aircraft (AHS Journal, July 1984). The autorotative index (AI), which is proportional to the energy available divided by the energy required for the flare-to-landing maneuver, is illustrated in Figure 1. The kinetic energy per unit gross weight for various single and multi-engine aircraft is plotted as a function of the rotor disk loading (gross weight divided by the main rotor disk area). Lines drawn through the origin correspond to constant values of AI. The figure implies that as rotor disk loading increases, the rotor kinetic energy per gross weight must be increased to maintain the same autorotation landing performance. For example, for the AH-64D, a twin-engine aircraft, the inertia of the rotor system would need to be increased by a factor of more than three for the aircraft to achieve the same landing performance as the single-engine R-22 helicopter, which has about the same rotor kinetic energy per gross weight but operates at only about one-fourth the rotor disk loading.

Tom Wood of Bell Helicopter discussed the outstanding performance possible with a high-inertia, low disk loading rotor in his 1975 AHS Forum paper on flight testing of Bell's "High Energy Rotor System" (HERS). For this experimental program, Bell added weights to the tips of the rotor blades of an OH-58A helicopter to more than double the polar moment of inertia. Wood reported that the HERS essentially eliminated the aircraft's height-velocity restrictions (those combinations of airspeed and altitude for which a safe autorotative landing is not possible). Wood also noted that with HERS "the normal nose-high cyclic flare was eliminated, and the ground remained in sight at all times." Although a doubling of rotor inertia has some disadvantages (increased weight, higher centrifugal loads at the hub, and less aircraft agility due to slower rotor blade response times), it might be a viable option to provide safer landing capability for aircraft that are required to perform missions at higher gross weights and higher density altitudes.

Dr. Thomas L. Thompson is the Chief Engineer for Aeromechanics in the Systems Readiness Directorate, U.S. Army Combat Capabilities Development Command Aviation & Missile Center Redstone Arsenal, AL

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Relieving and Preventing Back Pain

LT Tyler Grubic, PhD, CSCS; Joseph J. Pavelites, BS; Morey J. Kolber, PhD, PT; Albert J. Lee, DO, MPH, MBA; and LT Chad Milam, MS

Q: After a long day of flying, my neck and lower back are usually stiff and sore. Are there any stretches or exercises I can do to relieve this or prevent it in the first place?

FS: Unfortunately, back and neck concerns are common in our flight community.

Recent studies suggest that up to 97% of military Aviators experience back and neck pain at some point in their careers. Pilots and crew alike are exposed to conditions that may contribute to stiffness and pain along the whole of the spine: awkward sitting positions, the wear of helmets and weighty personal protective equipment, the impacts of positive Gs, performing maintenance procedures in cramped areas, moving cargo, total body vibration, etc.

Neck and back pain are not only personal health concerns but are a risk to safety in flight and can detract from unit readiness. Furthermore, pain medications are often contraindicated in flight due to negative effects on wakefulness, reaction times, and cognitive abilities. Therefore, it is a good idea to look for non-pharmacological methods of relieving back discomfort or, better yet, preventing it.

A properly designed exercise program can be a great way to prevent or negate back pain. Ideally, the program needs to incorporate strength training, aerobic endurance, range of motion and flexibility components. Overall body strength has been shown to have positive effects on mitigating neck and back pain. Flexibility is needed to assist with muscle-tendon and ligament range of motion. Aerobic capacity plays a vital role in the blood flow that delivers nutrients as well as growth and healing factors to the tissues. Movement

Figure 1.

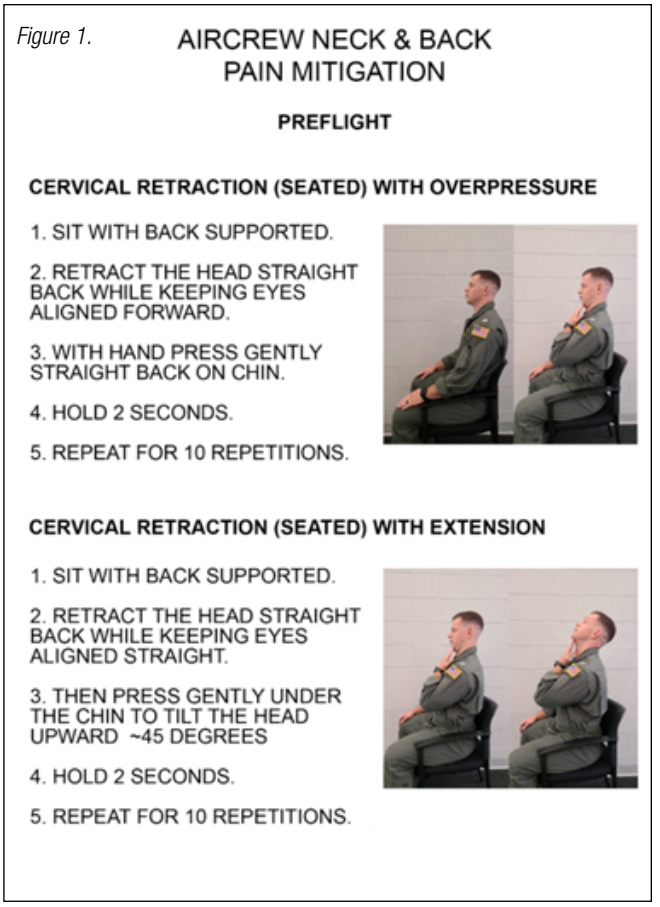
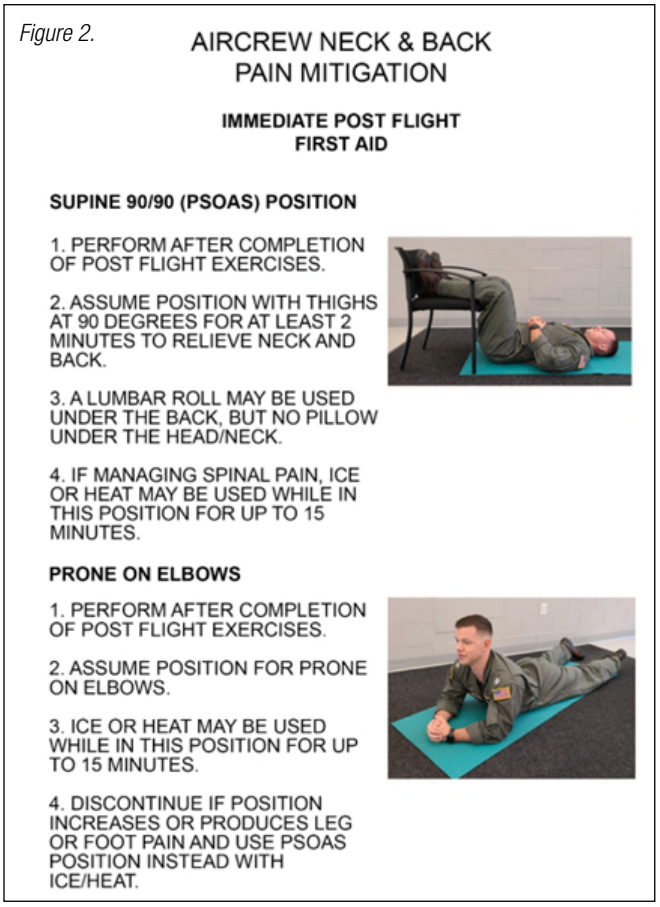


Figure 2.



is the key; even slow-paced walking has been shown to reduce chronic low back pain.

Finding a comprehensive program may seem daunting. Fortunately, we have an excellent place to start: *The Navy and Marine Corps Aircrew Back and Neck Pain Mitigation Kneeboard.* Authored by a board-certified Physical Therapist and a Navy Aviation Physiologist, this handy leaflet is available to download on MilSuite at *https://www.milsuite.mil/book/thread/261779.* (DoD site, requiring CAC access)

The "Kneeboard" is 32 pages of useful information formatted to 8 sheets. It can be printed, folded, placed on a kneeboard, or stowed in a cargo pocket or flight bag for easy reference. The Kneeboard is not meant to diagnose or treat a specific condition. However, it is a great educational resource to get you started and to discuss your needs with your aeromedical provider.

The Kneeboard covers exercises and stretches that can be performed pre- and post-flight as well as exercises to condition your spine. It lists the proper use of equipment like foam rollers and elastic bands. A particularly useful feature is the section on what not to do in your conditioning routines as well as a segment on back pain first aid. Excerpts from the Kneeboard are shown in the figures.

Please keep some caveats in mind with any program of exercise. First, any regimen that exceeds 20 repetitions in a set could lead to overuse injuries. High repetition ranges are generally reserved for advanced individuals with years of strength and endurance training. Avoid performing any exercise with incorrect form, avoid "over-training" with high intensity regimens, not resting in between sets, and not taking recovery days. Lastly, it is prudent to steer clear of jumping and landing from high levels or continuously for timed events as this can lead to muscle fatigue and injury. Performing any exercise of the back, spine and neck repeatedly for time could also lead to injuries.

Remember, before starting any new exercise regimen, see your aeromedical provider to fully address your specific needs. Not all neck and back pain is caused by musculoskeletal conditions. A full physical examination may be necessary to rule out other causes of back pain that require other care modalities.

Fly Safe!

Question for the Flight Surgeon?

If you have a question 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.

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U.S. ARMY UAS PMO PHOTO

Project Manager Unmanned Aircraft Systems (PM UAS) –

Future Tactical Unmanned Aircraft Systems (FTUAS) for Shaping the Future Battlefield

By MAJ David Jon Lilja and Mr. Jeremy W. Harlan

In 2018, tactical commanders requested a new generation of unmanned aircraft systems to increase and maintain situational awareness across expansive battlefields that are contested by our country's adversaries. Corps and division commanders submitted multiple Operational Needs Statements (ONS) highlighting the need to replace the Brigade Combat Team's (BCT) workhorse, the RQ-7B Shadow, with a vertical takeoff and landing (VTOL), runway-independent, and reduced acoustic signature aircraft. Additionally, commanders emphasized the need to organically transport the new system, as the future battlefield requires "on the move" employment of reconnaissance, surveillance, and target acquisition (RSTA) in austere environments. The ONS subsequently led to the approval for the development and delivery of a Future Tactical Unmanned Aircraft System (FTUAS).

U.S. ARMY UAS PMO PHOTO

FTUAS increment 1 version of Aerovironment's JUMP 20 system

FTUAS provides a distinct tactical advantage over the RQ-7B Shadow due to increased VTOL maneuverability, improved Command and Control with an on-the-move capability and a much-reduced logistical footprint. The FTUAS also significantly improves aircraft survivability due to its reduced sound signature, simply put – it's extremely quiet. When compared to the Shadow, the FTUAS has similar performance capability, but Soldiers can rapidly emplace it, in less than 45 minutes, and it requires fewer vehicles and ground support equipment. The full FTUAS complement deploys using a single CH-47 and provides over six hours of operating endurance across 100 kilometers.

An FTUAS increment 1 version of Aerovironment's JUMP 20 system being tested at Redstone Arsenal, AL.

Project Management Office Unmanned Aircraft Systems (PM UAS) is committed to quickly providing enhanced capability to Soldiers. Therefore, we are implementing the FTUAS development and acquisition programs in three distinct increments to give the Army the greatest amount of flexibility in programmatic decisions.

FTUAS Increment 0

The U.S. Army awarded a contract for one Increment 0 FTUAS on August 8, 2022, to AeroVironment/Arcturus in response to a validated unit submitted Urgent Operational Need Statement. The AeroVironment contract required the refurbishment of the Program Executive Office Aviation owned JUMP 20 FTUAS. The JUMP 20 system previously participated in a

year-long user test event, responding to the successful Future Vertical Lift Cross Functional Team "Buy-Try-Inform" effort. Soldiers from two operational units exercised the non-developmental JUMP 20 system over a year-long evaluation as part of a BCT's multi-domain RSTA evaluation. The FTUAS Increment 0 award enables the rapid fielding of the residual demonstration system in support of European Command operations. The JUMP 20 FTUAS system includes air vehicles, payloads, ground data terminals, and a ground control station. By the time this article is published the Increment 0 system will be fielded and operational in Europe.

FTUAS Increment 1

The Increment 1 system leverages lessons-learned from the year-long "Buy-Try-Inform" demonstration to quickly field matured technologies in response to an Army Futures Command endorsed Directed Requirement. The Increment 1 system is an improved version of AeroVironment's JUMP 20 system and it will be used to inform the Army's Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy (DOTMLPF-P) requirements for Increment 2 development and delivery to the Warfighter. The Army will continue testing Increment 1 within the DOTMLPF-P methodology.

The Army received its first Increment 1 system, consisting of six air vehicles, six data terminals, six control stations, and all associated ground support equipment, on September 12, 2022. The air vehicles and ground support equipment will undergo various environmental, transportability, and flight worthiness tests at Redstone Arsenal, AL. Once testing concludes, the residual system of four air vehicles, four data terminals, four control stations, and their associated ground support equipment, will be fielded to a single BCT for a final operational assessment. Test results and follow-on assessments will inform Army leadership decisions on possible future procurement and fielding of seven additional Increment 1 systems.

FTUAS Increment 2

Increment 2 is a separate competitive acquisition program currently executing in parallel with the Increment 1 testing program. The Aviation and Missile Technology Consortium released an Increment 2 Request for White Papers on October 1, 2021. Whereas Increment 1 allows DOTMLPF-P assessment, Increment 2 will fulfill all Abbreviated Capabilities Development Document requirements as a Program of Record.

Increment 2 will require a multi-year development effort with a fieldable solution available in Fiscal Year 2025. The Army will evaluate the Increment 2's overall performance as part of a competitive prototype competition. It will utilize Model Based Systems Engineering (MBSE) and other digital engineering techniques to implement the government's Modular Open Systems Approach (MOSA). MBSE and MOSA enable the Increment 2 to maintain alignment within the UAS Family of Systems and higher-level system architectures. The Increment 2 program will start with multiple vendors to promote robust competition and innovation to meet or exceed the A-CDD requirements and support the Army's decision for a program of record system. The Increment 2 will replace the Army's Shadow system within the BCTs and replace all Increment 1 systems prior to 2028.

With recent world events, the Army recognizes the need for the enhanced RSTA assistance is greater than ever. PM UAS' unwavering support to the mission helps to anticipate and to meet the Army's needs today and into the future.

Our Soldiers remain our top priority. We remaine focused to not only provide a FTUAS with advanced, cutting-edge technology, we are also driving to reduce the logistical footprint and associated burden to our Soldiers in the field.

MAJ David Jon Lilja is the assistant project manager for the Future Tactical Unmanned Aircraft Systems (FTUAS) Office, Project Office UAS; and Mr. Jeremy W. Harlan supports the FTUAS PO as the program integrator with Patriots International. Both are located at Redstone Arsenal, AL.

AP-RDD – UAS Requirements Update

By COL Bryan Jones and Mr. Patrick O'Brien

U.S. ARMY PHOTO BY MR. PATRICK O'BRIEN

AeroVironment Jump 20 System armed with Switchblade 300 at 2022's AAAA Summit.

GENERAL ATOMICS COURTESY PHOTO

General Atomics Mojave aircraft is designed for STOL on unimproved surfaces.

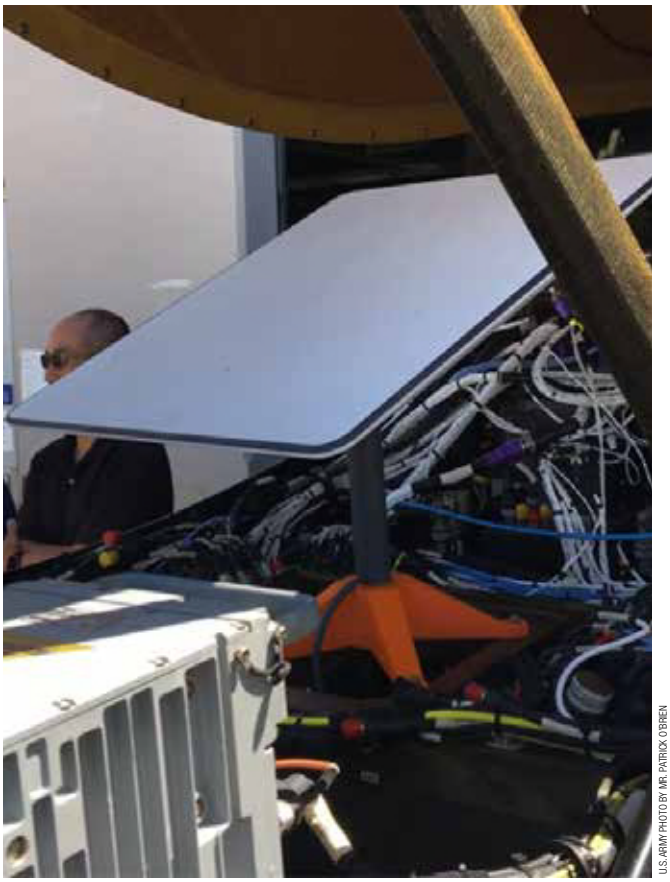
It is an exciting time to be involved in unmanned aircraft systems for the United States Army. Aviation Platform Requirements Determination Directorate (AP-RDD) is the capability manager for current unmanned aircraft systems (UAS) as well as the requirements writers for future UAS. AP-RDD has been keeping a close watch on emerging technologies, UAS employment methods, including counter and threat UAS. Taking lessons learned from Ukraine, Iraq, Nigeria, and Libya, UAS are creating new and innovative ways to shape the operational environment in a manner never seen in the history of UAS operational employment. Recent employment of the Phoenix Ghost and Switchblade 600 demonstrated these new capabilities in Ukraine by achieving BLOS kills on Russian armored vehicles while keeping Ukrainian Forces out of harm's way. This ability to destroy Russian tanks seems to be having tactical and operational success for Ukrainian forces and may even be affecting the morale of Russian forces. Given the pace of technological advancements in UAS, AP-RDD is helping write requirements with the Program Manager, Future Concepts Center, and Army Futures Command stakeholders centered on technological advancements. Through these collaborative efforts, AP-RDD's end state is advanced UAS tailored to meet the Army's needs within an MDO/LSCO operational environment. This includes legacy/enduring UAS platforms, like Gray Eagle and Shadow, which will serve as bridging solution through at least 2030.

While Gray Eagle requires an improved runway and the Shadow requires a large catapult for takeoff, future Army UAS will be runway independent to meet future operational environment demands. In February 2021, the Future Vertical Lift Cross Functional Team (FVL CFT), Product Manager Unmanned Aircraft Systems (PM UAS), and Aviation Platforms conducted the Future Tactical Unmanned Aircraft System (FTUAS) Rodeo at Fort Benning, GA. In that Rodeo, four different vendors presented their vertical take-off and landing (VTOL) aircraft as a solution to replace the Shadow in the Brigade Combat Teams (BCTs). The aircraft that was selected to serve as the interim solution (Increment 0) was the AeroVironment Jump 20. As of this writing, the Second Cavalry Regiment has received six of the Jump 20 aircraft used in the Rodeo as one FTUAS Increment 0 delivery. Additionally, the Army awarded the other transaction authority (OTA) for Increment 1 on 18 August 2022 to build one Jump 20 system. Increment 1 is intended to inform the doctrine, organization, training, personnel, and capability requirements for FTUAS Increment 2. Increment 2 is the program of record and projected to replace all BCT Shadow systems with FTUAS Increment 2 capability.

Upgrades

Recently, the USAACE Commanding General approved Aviation Platforms to go forward with a Capability Development Document Update (CDD-U) for the Gray Eagle program. The CDD-U will focus on modernizing the aircraft by improving reliability with a new engine, Heavy Fuel Engine 2.0 (HFE 2.0). It is expected HFE 2.0 will eliminate the majority of materiel induced mishaps in the Gray Eagle. This modernization will also increase expeditionary and MDO capability with the addition of the Gray Eagle Miniature Mission Interface (GEMMI), the MultiBand SATCOM Ground Data Terminal (MB-SGDT), and Architecture, Automation, Autonomy, and Interfaces capability (A3I). A3I will greatly increase the onboard computing capacity and allow advanced sensors that will enable the Gray Eagle to stand-off and look-in beyond enemy Integrated Air Defenses (IADS) Weapon Engagement Zone (WEZ). These upgrades will reduce the Gray Eagle platoon footprint by roughly

Starlink Antenna mounted in an MQ-1 Gray Eagle at the 16 Aug Demo.



U.S. ARMY PHOTO BY MR. PATRICK O'BRIEN

135,000 pounds and will be transportable via C-130 aircraft as opposed to C-17. The evolution of UAS and technology will ensure the relevancy of these platforms now and through the Army's modernization efforts as MDO matures and the Army focuses on LSCO.

The Gray Eagle upgrades in the CDDU will enable functionality and compatibility for MultiDomain Operations. Currently, Aviation Platforms is writing future requirements for the Army of 2030 and beyond. Some examples of this are the Vertical or Short Takeoff and Landing (S/VTOL) in unimproved area capability for group 3 UAS. Another is the use of low latency, ubiquitous, Low Earth Orbit (LEO) SATCOM control of future UAS. LEO SATCOM allows for over the horizon control of UAS that are very near line-of-sight (LOS) communications.

There are some truisms about the acquisition of new military systems and capabilities: technology is always changing, our peers are ever evolving, and we must compete for finite resources to close the capability gaps created by these changes. We at Aviation Platforms continue to keep our eyes on all three so that we can effectively Forge the Future.

COL Bryan Jones is the director, and Mr. Patrick O'Brien is the civilian deputy and engineer, of the Aviation Platforms Requirements Determination Directorate.

The 2-13th Aviation Regiment Flips the COIN to LSCO

By Mr. Charles Rossman, CW4 (Ret.) Matthew Roman, and CPT Alexander Vallington

In continual efforts to address the operational needs of the Army's Unmanned Aircraft Systems (UAS), several major improvements been executed within the 2nd Battalion, 13th Aviation Regiment. Over the last 24 months, the Battalion has redesigned the UAS Operator and Repairer Programs of Instruction (POI) to facilitate the split of these Military Occupational Specialties (MOS) that went into effect on 1 October 2020. The two UAS 15W and 15E MOSs have split into 4 MOSs centered on system-specific qualifications. In conjunction with preparing the POIs for the MOS split, the Battalion reorganized Course Management Plans for UAS Operator and Repairer Courses to align with U.S. Army Aviation Center of Excellence (USAACE) training. Additionally, under continuous efforts to expand capabilities for Gray Eagle UAS to conduct flight operations in Class A airspace without chase aircraft, USAACE directed an Instrument Flying Rules (IFR) expansion was added to the Gray Eagle UAS Instructor Operator (IO) Course. These parallel efforts have established a capability for improved management of UAS personnel, providing foundational UAS training synchronized with USAACE POIs, and the furtherance of National Airspace System (NAS) integration for Army UAS.

MOS Split

To accommodate the enlisted UAS MOS split, affected UAS MOS producing courses required significant revisions. Beginning in FY21, Shadow and Gray Eagle UAS qualification courses proceed through distinct training programs, based on system-specific qualifications, and will result in Soldiers being awarded one of four UAS MOSs. The 15W UAS Operator MOS was divided into the 15W RQ-7 Operator and 15C MQ-1 Operator MOSs. The 15E UAS Repairer MOS was broken out into the 15E RQ-7 Repairer and 15M MQ-1 Repairer MOSs. These MOS changes required a restructuring of the topics trained in legacy qualification courses to enable 4 separate MOS producing POIs. Under the previous 2 MOS model, 15W and 15E MOS training consisted of a common core phase at the beginning of the courses. Soldiers completed the common core phase and progressed to a system-specific qualification phase. Under the new FY21 training models, common core phases have been absorbed into the system-specific phases of the course. This results in a more seamless training flow for Soldiers, where the overall training received is specifically tailored to the UAS they become qualified to operate or repair. Coinciding with the redesign of these MOS qualification courses, the UAS IO Course POI has been revised to accommodate the MOS changes for Shadow and Gray Eagle Operators.

Photo left: Co. B, 2nd Bn., 13th Avn. Regt. RQ-7Bv2 wheeled out of Black Tower hangar to depart from Rugge-Hamilton Runway, Fort Huachuca, AZ.

Photo right: A C/2-13th Avn. Regt. MQ-1C taxis off the active runway at Libby Army Airfield after a successful training flight.

U.S. ARMY PHOTO BY DUANE AYERS

Aligning with USAACE Training Programs

As the Battalion worked through necessary changes to our POIs facilitating the MOS splits, we have embarked on a parallel effort to align the CMPs associated with these POIs to mirror USAACE training programs. These significant changes consisted of a complete restructuring of the sequence training events occurring within our UAS Operator and Repairer POIs. UAS course flows now synchronize with USAACE concepts applied to flight training. The reorganization of training events into contact and tactics stages have been applied to all UAS Operator qualification courses. The MQ-1 Operator Course contains an additional IFR stage, which occurs after Soldiers complete the tactics stage of the course. The contact stage is where a Soldier learns basic aviator knowledge topics and flight tasks associated with the UAS they are receiving a qualification to operate. Tactics stage introduces Soldiers to the doctrinal employment of the system in a combat environment and serves as a culminating performance stage in the course.

The IFR stage covers all of the IFR related academic topics and flight tasks which permit the safe integration of the UAS into the NAS. Proficiency Progression Points (P3) have also been associated with each flight task required to be trained in the Operator Qualification courses, in the same way these are applied to flight training courses under USAACE. The academic topics that were in the common-core phase of training have been embedded within the overall POI timeline which improves retention of critical knowledge, skills, and attributes throughout all stages of these courses.

Gray Eagle UAS IO Course IFR and Gunnery Training

Beginning with the first class having graduated the Gray Eagle Qualification Course in FY18, and with every graduation since, MQ-1 UAS Operators have received a UAS IFR Qualification as part of their training. This training allows operators to conduct Gray Eagle flight operations in Class A airspace under a Certificate of Authorization or Waiver (COA) issued by the Federal Aviation Administration without the need for chase aircraft. While this first step was critical to establishing a capability inherent with the MQ-1C UAS, more was required to sustain this capability. Starting in FY17, the Battalion was directed by the USAACE Commanding General to develop the MQ-1 IO Course IFR training program in conjunction with adding an IFR qualification to the MQ-1C Qualification Course. The initial form of this training consisted of an internal training program, approved by the Directorate of Evaluations and Standardization under USAACE authority, to facilitate IFR training in the qualification course. The critical skills, knowledge, and tasks identified in this training were used to develop the formal MQ-1 IO Course IFR training program. The end result is a 3 week IFR expansion to the MQ-1 UAS IO Course, which is covered over the last 3 weeks of the course. In addition to the 3 weeks, 2 days were added into the first 4 weeks of training to capture more robust Aviation Gunnery training requirements that remain a persistent demand for MQ-1 UAS Operators across the U.S. Army. The 3 week expansion for the MQ-1 IO Course permits the sustainment of critical capabilities at the unit level through their UAS IOs, while ensuring a standardized baseline of performance across MQ-1 UAS units.

These initiatives establish a strong U.S. Army Aviation foundation, fostering progress for these UAS programs and enabling efficient management of UAS personnel. Improvements in the critical training elements presented here, facilitate greater degrees of performance at the unit level, including improved integration and employment across multiple domains.

Mr. Charles Rossman is the supervisor for the UAS Training Committee; CW4 (Ret) Matthew Roman is a platform instructor for the 150U Certification Course; and CPT Alexander Vallington is the commander of Co. C, 2-13th Aviation Regiment, 1st Avn. Bde., U.S. Army Aviation Center of Excellence at Fort Huachuca, AZ.

A Decade of Army Special Operations Aviation UAS: Where Do We Go From Here?

By MAJ Jennifer West

Since the establishment of the first Army Special Operations Aviation (ARSOA) Unmanned Aircraft Systems (UAS) Company in 2013, the 160th Special Operations Aviation Regiment (Airborne) has seen significant integration of its organic UAS assets in exercises and training events across the Special Operations Enterprise. Within this same decade, the aviation community has seen a deliberate shift towards maintaining a competitive edge in multi-domain operations (MDO) against near peer adversaries and away from the global war on terror mission to counter violent extremist organizations. This shift has provided ARSOA leaders and UAS aircrews the opportunity to assess the continued relevance of UAS within the Army and Special Operations, its potential capabilities, and how we meet the demands of the warfighter and emerging requirements.

The First Step in Night Stalking

With the upcoming addition of the UAS Basic Mission Qualification Course, full integration of our UAS aircrews starts with the same foundation as their rotary wing counterparts. This course not only instructs the Readiness Level Progression required to perform at a collective level upon arrival to the company, but also provides students with an introduction to the ARSOA mission and the Night Stalker culture. A majority of the courses are taught by former Night Stalkers with unparalleled UAS experience that provide mentoring and culture immersion to the Regiment's newest, and generally, youngest, members. Most importantly, this course allows for aircrews at the company level to focus on advanced individual and complex collective training in support of ground forces and the Army at large.

Furthermore, the Regiment's rigorous assessment and selection process of 150U Warrant Officers, with dedicated mentoring and training, contributes significantly to the organization. Within the last year, select technical warrants have attended the Basic Navigation Skills course required of all rotary wing pilots, another layer of integration unique to the 160th SOAR (Abn). UAS warrants hold positions as platoon leaders and within operations, standardization, and safety billets at the company level while simultaneously deploying to OCONUS or various CONUS TDY locations. As they progress in seniority, they take on battalion or regimental billets, becoming incorporated into the staff at each level, in addition to research and development positions with the Systems Integration Management Office.

U.S. ARMY PHOTO

MQ-1C ER

GE COURTESY PHOTO

An MQ-1ER strike

Bridging the Gap

UAS integration and innovation continues to be a focal point of the 2nd Battalion, 160th SOAR (Abn) command. Over the last four years, the employment of UAS in joint and Regiment-internal events has appreciably increased, demonstrating the growing contributions of UAS assets in the evolution of MDO. Annual participation in exercises such as Project Convergence and Edge showcase the advancements made by ARSOA UAS to integrate robotics, improve battlefield situational awareness, and accelerate decision-making for Army leaders.

One of the key implements that 160th SOAR UAS aircrews use to build proficiency is the incorporation of proven tactics, techniques, and procedures learned from Night Stalker pilots within the organization. UAS crews routinely receive missions, conduct troop leading procedures, negotiate the inputs and outputs required, and culminate planning with the delivery of an Air Mission Brief prior to flight execution. The MQ-1C (Extended Range (ER)) Gray Eagle aircrews have developed robust planning processes adapted for its ISR and fires roles within the organization, learning detailed mission planning and how to work collectively within a planning cell with the end state of producing highly competent, precise UAS operators.

The ARSOA UAS community has seen remarkable advances in solving complex mission problems, development of unconventional UAS TTPs, and achieving time on target. With each year, our UAS continue to expand their capability and response to the next future threat, in addition to resolving how the MQ-1C (ER) Gray Eagle can assist in filling the critical Army reconnaissance gap.

Integration with Rotary Wing Operations

Aviators within the Regiment have the unique ability to work side-by-side with UAS aircraft commanders, warrant officers, and planners. These collaborations mutually broaden the knowledge and experience of both groups and increase interoperability within the organization. Within the last year, substantial expertise and manpower has been invested into special projects that allow for full sensor integration between the helicopter assault force. When employed in tactical scenarios, the use of the MQ-1C (ER) Gray Eagle allows for increased situational awareness and improves the Flight Lead, Ground Force Commander, and the Air Mission Commander's ability to see, target, and destroy the enemy. The isolated practice of launching and recovering UAS in training does little to build mastery in combined arms maneuver. Exercises such as Sage Eagle, National Training Center rotations, and other force generating events provide a unique training opportunity for all UAS operations and maintainers to further refine the synchronization required for optimizing available combat power.

Additionally, the Regiment's vertical integration of UAS Standardization and Fires into battalion and regimental positions provides leaders and decision makers direct access to UAS capabilities and future potential initiatives. This recent inclusion now allows a streamlined conduit for the community to address concerns, resourcing, and extend influence beyond the UAS company level to the SOCOM enterprise.

Realizing the Full UAS Potential

The Regiment continues to exploit the capabilities and potential of the MQ-1C (ER) Gray Eagle, the technical warrant officers corps, and its aircrews through challenging and complex events supporting Special Operations and Army Futures Commands initiatives. As UAS across the Department of Defense takes a more prominent role in MDO and large-scale combat operations, the 160th SOAR will continue to challenge the community and build upon its foundations to realize the full potential of UAS. Across the Army Aviation UAS enterprise, this will likely require increased Fires, Master Gunner, and Aviation Mission Survivability training for operators – with the exact solution to fill that gap yet to be formulated. But by fostering adaptive, creative thinkers who generate solutions to unknown challenges, UAS leaders enable the continued tactical employment of an aircraft capable of maneuver, fires, and multi-intelligence information collection across diverse environments in support of the Ground Force Commander.

MAJ Jennifer West is an assistant operations officer and a fully mission qualified MH-47G Pilot in Command in 2nd Battalion, 160th SOAR (Abn) stationed at Fort Campbell, KY.

Air Traffic Services Aviation Resource Management Survey –

A Guide to Preparation and Success

By Mr. Johnny D. Hatten

The successful completion of an Air Traffic Services Aviation Resource Management Survey (ARMS) is one of the more difficult and challenging events to a Foxtrot Company assigned to a General Support Aviation Battalion (GSAB) or an Airfield Operations Battalion. This article outlines recommendations and best practices units can implement to addresse all sub-sections of the Air Traffic Services (ATS) functional area daily.

Nine months prior to any ARMS we recommend that the unit request a Staff Assistance Visit (SAV) from the Air Traffic Services Command (ATSCOM) Quality Assurance (QA) section. SAVs can be conducted in person on-site, or virtually through MS Teams. Both methods are effective, but the on-site SAV is by far a more thorough visit. Several Combat Aviation Brigades are now formally scheduling SAVs through the FORSCOM G3/5/7 ARMS team and are already being published in the annual ARMS Operational Order (OPORD).

There are three critical factors every ATS unit must adequately address to be successful on the ARMS – properly maintained and operational equipment, an adequate number of Readiness Level (RL) 1 controllers for each assigned system, and a maintenance management program that accurately reports all assigned systems in the Global Combat Support System - Army (GCSS-A).

U.S. ARMY PHOTO BY SFC. JOHNSON, 3-58 AOB

ATSCOM flight inspection aircraft conducting an approach during a 3-58 AOB FTX

ARMS Inspection Trends

■ Operator Preventative Maintenance Checks and Services (PMCS) while performed regularly are often sub-standard and are not properly input into the GCSS-A. Platoon leaders and platoon sergeants must ensure PMCS documentation is complete and that an effective reliable relationship is established with the supporting Echo Company or Combined Support Maintenance Shop (CSMS). A DA Form 5988-E, Equipment Maintenance, and Inspection Work Sheet must be produced that accurately indicates all equipment deficiencies and the correct mission capable status of each assigned system.

■ Units frequently have not established a detailed and comprehensive long term RL progression strategy. This is critical for controllers and maintainers to adequately progress to RL1. Leaders must commit to a two-pronged strategy to achieve adequate RL numbers. First, units must implement an aggressive training program that completes

Tactical equipment emplacement for 3-58 AOB FTX.

Phase 1 of the Commander's Task List (CTL) within 90 days of assignment to the unit. This can be easily achieved with a combination of technical manual driven academic training and hands-on equipment setup exercises. Provide controllers with the required equipment setup training and hands-on application to establish a base proficiency and then complete associated tasks on the CTL. Second, RL progression requires live traffic training events. Active and reserve component units frequently have limited access to live aircraft support. CAB flying hours programs are often limited and may only provide minimal support for controller RL progression. One way to address this is with installation fixed base (FB) facilities. AR 95-2 states that installation FB facilities will provide support to ATS units to ensure controllers gain adequate live traffic training to meet the required experience gates for tactical equipment ratings. Units can use letters of agreement (LOAs) with FB facilities which allow unit ATCS examiners to conduct evaluations of controllers while performing duties in like facilities. Air Traffic Control Equipment Repairer (MOS 94D) assigned to the unit must also have an RL progression strategy which leads to certification on all assigned systems. The ATSCOM S4 section manages the tactical equipment certification program and is prepared to support units with theory examinations and tests for technicians. The 597th maintenance detachment of the 164th TAOG has mobile training teams that can assist with equipment training and certifications.

■ An effective maintenance management program must include Test Measurement and Diagnostic Equipment (TMDE) that is properly modernized and calibrated to conduct effective technical inspections. Technical inspections validate that radios, amplifiers, and antennas perform at the established specifications. Specifically, inadequate power output by radios and amplifiers often cause difficulty with communications which is critical to Air Traffic Control. High Voltage Standing Wave Ratio (VSWR) often causes radio transmitter and amplifiers to burn out and significantly degrade communications. Only an effective maintenance management program will prevent undetected high VSWR and equipment damage. Hold Up Batteries (HUBs) must be regularly replaced, or the radio will lose all power and enter "Black Data Reset" causing the radio to lose its secure capability and then default to "Software Invalid" mode. This simple maintenance task must be completed, or it will result in significant unsatisfactory findings during an ARMS evaluation. Tactical ATS systems are pacing items and must be reflected as such in GCSS-A with equipment readiness code (P) which assigns an (02) priority to replacement and repair work orders. AR 700-138, paragraph (2-5) sub-paragraphs (f, g, & h) specifically state that "all authorized sub-systems referenced in the Master Maintenance Data File (MMDF) must be on hand and Fully Mission Capable (FMC) for the system to be FMC". Inspections have revealed that most units do not have ATS systems properly structured in GCSS-A by linking required sub-systems to the associated pacing item. This deficiency results in inaccurate reporting of pacing items and will significantly hinder a successful rating on the ARMS evaluation.

Flight Inspection (FI) of the Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) is also a significant challenge for ATS units. To complete a successful FI, the unit must submit a completed documentation package which contains a DA Form 3501-1, Precision Approach Radar (GCA) Data, DA Form 7870, Minimum Vectoring Altitude Obstruction Documentation, and a Minimum Vectoring Altitude Chart. The completed package must be sent to the Department of the Army Representative (DAR) and ATSCOM QA for review at least 30 days prior to the ARMS. Temporary mobile/tactical radar facilities used during the FI must also be coordinated with the air traffic agency or agencies responsible for the airspace in which the facility will operate. This coordination should go through the DARR to the FAA and culminate in an LOA or some form of written approval.

The ARMS process provides ATS Leaders an opportunity to focus on readiness and improve training. The ATSCOM stands ready to assist units in any way possible to enhance mission readiness to ensure their successful ARMS.

Mr. Johnny D. Hatten is a member of the Quality Assurance Division for Air Traffic Services Command (ATSCOM) located at Ft. Rucker, AL.

New Systems Improve ATC Functionality

By Paul Aymond, Lyle Voyles, and Rebecca Lunsford

The success of any U.S. Army mission is dependent upon effective, timely, and secure communications, Communications are also vital for the safety of personnel and protection of mission assets. In Army aviation operations, reliable, mission critical communications infrastructure in the Army Air Traffic Control (ATC) environment must include a robust, voice communications platform for ground-to-ground and air-to-ground communications and a system that can grow with requirements and the evolution of technology.

The Assured Airspace Access Systems (A3S) Product Management Office (PMO) at Redstone Arsenal, Alabama, is supporting the Army's effort in enhancing the communications environment. It is approaching the completion of fielding the Interim Voice Switch Replacement (IVSR) program and is in full swing with the fielding of the National Airspace Voice Recorder (NVR) program. Both programs have moved forward despite the COVID-19 travel restrictions and quarantine challenges for entering OCONUS locations such as Honduras, Korea, Japan, Kuwait, Germany, and the Marshall Islands.

IVSR is the latest integrated voice switching communication system for Federal Aviation Administration (FAA) and Army air traffic control towers. The system provides air traffic control specialists and traffic managers with access to all communications circuits necessary to safely steer aircraft throughout the U.S. national airspace. The IVSR system connects incoming and outgoing communication lines via a non-blocking switching matrix to the controller's workstation using innovative user interface design to optimize controller efficiency. The IVSR provides a no-single-point of failure architecture, featuring full redundancy for all critical system parts, thus providing ATC controllers with vital communications capabilities even during degraded operations. The system uses the latest digital signal processing to provide best voice quality and real-time user experience with intuitive user interface that improves controller efficiency and reduces risk of user errors.

U.S. ARMY PHOTO

National Airspace Voice Recorder(NVR) program is in initial fielding.

U.S. ARMY PHOTO

Interim Voice Switch Replacement (IVSR) program is in full swing.

The IVSR has replaced all the obsolete Army Enhanced Terminal Voice Switches and Small Tower Voice Switches with the first IVSR installed at Allen Stage Field, Fort Rucker, Ala. in December 2015, and the final at Bucholz Army Airfield, Kwajalein, Marshall Islands, in October 2022. The A3S PMO sponsored 21 Army IVSR courses, training 119 Army ATC maintenance personnel and ensuring that at least one maintainer per location had received training prior to the installation at their airfield. The success of the program reflects the collaboration of many

organizations and personnel such as the A3S PMO, United States Army Information Systems Engineering Command, Air Traffic Services Command (ATSCOM), Installation Management Command (IMCOM), FAA, and the many personnel at 79 Army Airfields worldwide who have worked closely together throughout the entire fielding.

In its continued effort to modernize communications equipment at airfields worldwide, the A3S Product Management Office is currently replacing the Digital Audio Level Recorder (DALR) with the NVR via an FAA contract vehicle. The DALR began divestiture in 2019 and the current plan is to have all NVR systems installed by 2027.

The NVR provides the functionality to record all Air-to-Ground (A/G) and Ground-to-Ground (G/G) communications at air traffic controller work positions as well as other A/G and G/G sources for use during accident /incident investigations, training, search and rescue operations and to respond to Freedom of Information Act requests. The NVR will replace legacy voice recorders with a VOIP-capable system at Army ATC sites.

A3S PMO completed the first NVR installation and training event at Redstone Army Airfield in April 2022 with no issues. Since then, the A3S PMO has completed 11 additional successful installations with thanks to the support of USAISEC, ATSCOM, IMCOM and the FAA despite challenges arising from the COVID-19 pandemic.

Upcoming NVR installations include Kuwait, Joint Base Lewis-McChord, Fort Carson, Colo., and Fort Polk, La. When complete, the A3S Product Management Office will have installed 77 NVRs across the Army to include CONUS and OCONUS locations.

The U.S. Army is equipping its Fixed Base ATC fleet with IVSRs and NVRs to improve efficiency and benefit from ongoing logistics support with reliable technology.

Paul Aymond is the acting assistant product manager and logistics management specialist for the Fixed Base Product Team; Lyle Voyles is the IVSR systems acquisition manager; and Rebecca Lunsford is the NVR program integrator assigned to the Assured Airspace Access Systems Product Office, Redstone Arsenal, AL.

Department of the Army Representative to the Federal Aviation Administration –

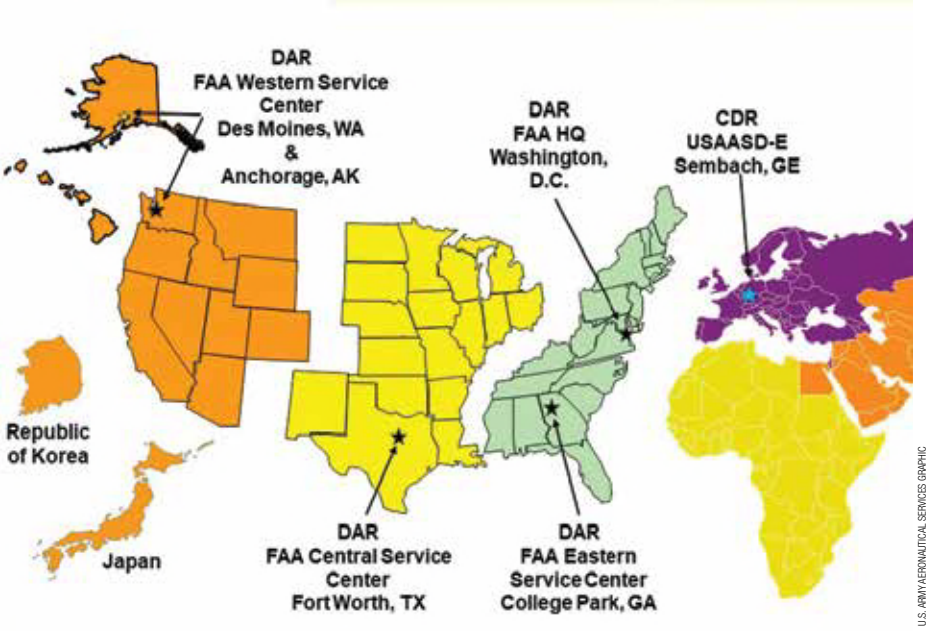
Your Advocate and Support in the Field

By LTC Derrick A. Peters

Example of Special Use Airspace

The Department of the Army Representative (DAR) is the Army's front-line, subject matter expert, and on-the-ground advocate conducting routine engagements with the Federal Aviation Administration (FAA) related to Army airspace, air traffic services, UAS operations, and operational waiver and airspace exemption requirements. This article gives a brief overview of who the DARs are and many of their responsibilities to provide support to the field. Inquiries should be directed to the DAR office covering your specific area.

The Army has four DAR teams strategically positioned across the United States and located within the FAA's three service centers (Western, Central, and Eastern), while one team serves at the FAA National Headquarters in Washington, D.C. Additionally, the United States Army



Map of USAASA Coverage

Aeronautical Services Detachment – Europe (USAASD-E) conducts similar functions overseas, supporting two Army Service Component Commands across Europe, Africa, and the Middle East. The DAR teams are typically composed of one lieutenant colonel and two to three senior non-commissioned officers. All DAR teams and USAASD-E are assigned to the United States Army Aeronautical Services Agency (USAASA), a Field Operating Agency assigned to Headquarters Department of the Army, G-3/5/7.

The DARs have been integral to the Army Aviation Enterprise for decades, ensuring all components (Active, Guard, and Reserve) have access to the National Airspace System (NAS) and overseas airspace. Though not an all-inclusive list, a small sampling of the breadth of their responsibilities is described below. Units are highly encouraged to seek out their regional DAR early in the airspace planning process for assistance.

Regional DAR Areas of Advocacy/ Support Assistance Visits

DARs routinely travel throughout their areas of operation (AO) to COMPO 1, 2, & 3 Aviation units. These visits help familiarize the DAR with the AO while engaging with local Army airspace stakeholders. Additionally, DARs provide one-on-one discussions about current issues and future projects. Furthermore, these visits establish critical relationships with military airspace users which reinforce how the DAR can assist in achieving unit mission and training requirements.

UAS Operations (AAAs and COAs)

DAR offices are the first reviewer for Army Airspace Access Authorization (AAA) requests and FAA Certificates of Authorization (COA). DARs help to ensure accuracy and provide oversight as AAAs and COAs are processed to the USAASA Commander or the FAA for approval.

Exemptions

DARs are directly responsible for assisting Army units attempting to conduct operations requiring exemptions to Federal Regulation. Although there are many types of exemptions, the most common DARs process are for lights-out training or parachute operations outside DoD delegated airspace. Army units are encouraged to reach out to their regional DAR office early in the planning process due to the lengthy staffing required for exemptions.

Airspace and NAVAID Protection/ Decommission

The FAA is in a constant state of NAS improvement, ground-based NAVAID reduction, and unused/underused airspace reconciliation. The DARs regularly participate in FAA engagements to decommission NAVAIDs and/or delete enroute structure. Some of these changes would have significant operational implications for Army users if enacted. In this case, the DAR acts as a gatekeeper, justifying Army needs for airspace and NAVAID requirements to prevent impacts to training and testing.

Special Use Airspace (SUA) Requests

Available SUA (e.g., Restricted Area, Prohibited Area, Military Operations Area, etc.) may no longer meet the operational and training requirements of a unit's mission. If an Army organization wants to request an adjustment to a block of SUA to meet mission requirements, the DAR office advises commands and facilitates coordination with the appropriate FAA office.

USAASD-E Additional Areas of Advocacy/Support

Airspace Access Overseas

This specialized DAR team facilitates Army access to a complex network of airspace through liaison with the European Union, NATO, national civil and military Aviation authorities to support training and real-world operations.

Advise Army Units Overseas

Because of USAASD-E's unique mission, it is staffed with subject matter experts who advise military commanders, staffs, and aircrews on several topics including providing direct technical assistance in the areas of airspace, airfields, and instrument flight procedures; providing support for Air Traffic Management, Aeronautical Information Services, and Air Traffic Services; and assisting with Host Nation regulations, policies, and procedures; waivers and exceptions; and UAS operations.

HQ FAA Areas of Advocacy/Support Link-16

The HQ FAA DAR typically works Army-wide issues that require oversight and advocacy at the national headquarters level. One such issue was a Link-16 prohibition by the FAA on uncertified terminals in the NAS. The FAA was concerned about the potential impact on NAVAIDs that operate in a similar electromagnetic spectrum band. The HQ DAR provided access, placement, and regular reporting for Army leaders to resolve the issue.

5G C-Band Implementation

The deployment of 5G C-Band cellular towers by the major telecommunication companies was followed by the FAA warning of possible radio altimeter interference. This caused an immediate impact on commercial carriers and DoD aircraft. The DAR is engaged to ensure Army equites are protected and provide early warning to the USAASA Commander for higher level engagement if necessary.

NOTAM

DARs work side-by-side with FAA NOTAM specialists within the FAA's Air Traffic Services Command Center ensuring Army airfields have access to relevant, timely information affecting the NAS. Additionally, they ensure Army airfields have the necessary user access to the FAA's national NOTAM Manager system to input and manage NOTAMs at the installation level.

As Army Aviation rapidly soars into the future with modernized platforms, greater sensor capabilities, lethal and non-lethal weapons requiring greater standoff ranges, and an array of unmanned systems, the DARs are there to support your requirements to gain NAS access for Army operational needs. The DARs are your advocate. Reach out to them early and often with any issues or concerns when planning your next training event.

Points of Contact

FAA HQ – *derrick.peters@faa.gov*
Eastern Service Center - *9-ASO-ESADAROffice@faa.gov*
Central Service Center - *9-ASW-DAR-ArmyMILREP@faa.gov*
Western Service Center - *9-ANM-DAR-ArmyMILREP@faa.gov*
USAASD-E - *usarmy.sembach.hqda.mbx.usaasd-e@army.mil*

LTC Derrick A. Peters is the DAR to the FAA National HQ.

The Fixed Wing Project Office and Army Fixed Wing Aviation –

Moving Forward and Remaining Relevant in Multi-Domain Operations

By COL Joe Minor and Ms. Tracey Ayres

U.S. ARMY COURTESY PHOTO

Above left: ARES first deployed to the INDOPACOM AOR in April 2022 and has over 800 flight hours supporting the Army Service Component and Combatant Commands.

Above right: ARTEMIS has demonstrated deep-sensing capability and validated an operational use-case, flying over 2,300 flight hours in support of real-world collection objectives and tasked missions.

The Fixed Wing Project Office is an agile and innovative team, and I am extremely fortunate to have joined the team this past summer. From my previous position as the commander at the Aviation Flight Test Directorate at the Redstone Test Center, I had the opportunity to observe the Fixed Wing team's dedication to the mission over the last several years. I was able to witness the Fixed Wing transport aircraft fleet change its mission in March 2020 to support COVID-19 relief efforts by transporting Soldiers, medical professionals, and medical equipment to areas heavily impacted by the pandemic.

I was also greatly impressed by the speed at which the Special Electronic Mission Aircraft product office was able to build two technology demonstrators and deliver them into operational theaters to provide intelligence to combatant commanders. It's an exciting time as the Army looks to expand the use of aerial technology demonstrators to provide Multi-Domain Operations relevant collection assets around the globe, while also modernizing its Aerial Intelligence, Surveillance and Reconnaissance (A-ISR) fleet and data sharing capabilities.

Need for Superior Technology

The Army needs A-ISR platforms that can rapidly deploy globally and provide high altitude long-endurance deep sensing to support Long Range Precision Fires with actionable intelligence collection. The Airborne Reconnaissance and Targeting Exploitation Multi-Mission Intelligence System (ARTEMIS) and Airborne Reconnaissance and Electronic Warfare System (ARES) technology demonstrators are currently filling this gap with exceptional depth of sensing and geographical reach across multiple combatant commands. Soldiers are participating in these missions and beginning the process of transformation of the enterprise. Over the next few years, these platforms will be joined by the Army Theater Level High-Altitude Expeditionary Next-Generation A-ISR (ATHENA) aircraft that further augment Army intelligence collection requirements while the Army develops the program of record High Accuracy Detection and Exploitation System (HADES).

ARTEMIS

The ARTEMIS platform is a modified Bombardier Challenger 650, owned and operated by Leidos, and is equipped with several sensors capable of answering Army and Joint forces collection requirements.

ARTEMIS first deployed in July 2020 to the INDOPACOM Area of Responsibility (AOR), it then deployed to EUCOM AOR in May 2021. In October 2021, ARTEMIS returned CONUS to participate in Project Convergence 21 but was pulled early from the joint exercise

for real-world missions in response to the crisis in EUCOM. ARTEMIS has remained in EUCOM supporting collection requirements since last fall.

Specific to the EUCOM AOR, ARTEMIS has demonstrated deep-sensing capability and validated an operational use-case, flying over 2,300 flight hours in support of real-world collection objectives and tasked missions. Considering the stand-off capability and airspeed, ARTEMIS provides up to three times the collection coverage area when compared to the legacy turboprop fleet.

ARTEMIS II

The ARTEMIS II aircraft will be a duplicate of ARTEMIS I with the same capabilities and sensor suite and is expected to be completed in early 2023. Utilizing lessons-learned during the integration, test and deployment of the original asset, the ARTEMIS I and II series of aircraft will work in concert to meet collections requirements in the EUCOM AOR.

ARES

The ARES platform is a modified Bombardier Global 6000, owned and operated by L3Harris. ARES is also equipped with several sensors, however, they differ from those on ARTEMIS to meet specific collection needs.

ARES first deployed to the INDOPACOM AOR in April 2022 and has over 800 flight hours supporting the command. ARES returned stateside in September 2022 and recently participated in Project Convergence 22, a campaign of learning where emerging technologies are placed in the hands of Soldiers to mesh sensor-to-shooter capabilities. During Project Convergence 22, ARES provided intelligence targeting information. This data that enabled real time sensor-to-shooter data for combined joint fires and effects and combined tactical maneuvers during the multi-domain operations exercise.

ATHENA

The ATHENA platform will be a large cabin business jet of two varieties to help meet global A-ISR requirements until the HADES program of record becomes operational towards the end of the decade. There will be two different ATHENA mission equipment packages, each tailored to support Army and Joint force commanders with required real-world collection missions. These platforms are scheduled to be completed in 2024.

HADES

ARTEMIS, ARES, and ATHENA are not going to be fielded systems; they are assets to meet global A-ISR collection requirements for our Army and Joint force commanders. However, they will also be learning tools helping the Army determine what the HADES should look like to ensure the Army has a viable, long-term program of record to provide intelligence and targeting support in Multi-Domain Operations.

Through experimentation with the ARTEMIS, ARES and ATHENA platforms and the sensors they carry, the Army will be able to make more informed decisions about the HADES program of record while reducing costly technical risks. These technology demonstrators are providing data about platform performance, sensor integration, sensor performance and data distribution to both the Army and the Joint Force. The demonstrators also allow the Army to better understand the doctrine, training, personnel, facilities and sustainment required to employ these more capable sensors and aircraft that HADES will provide.

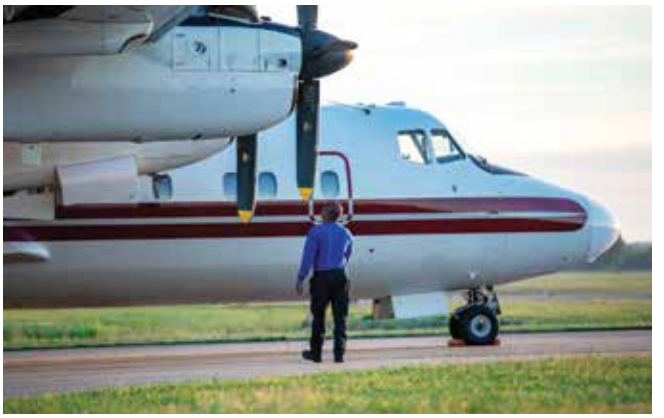
The HADES program of record emphasizes the need for the rapid development of modernized sensors and enhanced platform capabilities to provide commanders with globally responsive and highly capable deep sensing systems to contribute in an MDO environment.

Strong Future through Teamwork

It takes a team to be successful, no individual organization ~~is more powerful than the collective synergy of a community.~~ Incredible and herculean efforts are being executed by HQDA G2's ISR Task Force, PM Fixed Wing, PD SAI, INSCOM, ACM IS, and the operational units employing these capabilities.

The future is exciting. The Army is executing its long-standing missions in innovative ways that is not possible with its legacy fleet of ISR turboprop aircraft.

COL Joe Minor is the Project Manager for the Fixed Wing Project Office, Program Executive Office, Aviation; and Ms. Tracey Ayres supports the Fixed Wing Project Office as a Strategic Communications Lead with KBR, located at Redstone Arsenal, Alabama.



Project Director Sensors-Aerial Intelligence –

A Trusted Partner in the Army's Aerial, Intelligence, Surveillance, Reconnaissance Community

By Mr. Dennis A. Teefy

The Project Director Sensors-Aerial Intelligence (PD SAI) leads the procurement of state-of-the-art equipment and aerial sensor technology to deliver on the Secretary of the Army's priority to provide the ability to see more, see farther ***and*** see more persistently ***than our enemies*** and build the Army of 2030. An integral component of the Army's Aerial, Intelligence, Surveillance, Reconnaissance (AISR) community and the Army's lead agency for lifecycle management of AISR sensors, PD SAI partners with platform program offices such as Project Manager Fixed Wing (PM FW), Project Manager Unmanned Aircraft Systems (PM UAS), and Product Director (PD) Aerostats, to support material development in support of the AISR Task Force intelligence modernization strategy. These teams are supporting the Army's investment in systems that will provide deep sensing for Multi-Domain Operations (MDO) and contribute to Joint Force modernization. PD SAI's leverages its expertise to ensure that the end users have a safe and effective weapon system.

U.S. ARMY PHOTO

SS-4000 Electronic Intelligence Sensor

Common Signal Intelligence Chassis-Army (CSC-R) Communication Intelligence Sensor

Sensor Lifecycle Management

PD SAI is responsible for the lifecycle management of the sensors that are integrated on the Army's fleet of AISR systems. For more than 20 years, PD SAI has developed, tested, procured, trained, fielded, and sustained the Army's AISR sensors. PD SAI provides the necessary sensor hardware and software along with the technical expertise to ensure the highest quality data is gathered against relevant threats and disseminated to combatant commanders and decision makers around the globe.

Risk Management Framework (RMF)

PD SAI understands the need to balance security, system capabilities, and the warfighters' ability to operate sensor systems effectively to support real-world missions. It's imperative that the networks that the AISR systems connect to are not vulnerable to malicious activity and personnel. With increased cybersecurity, PD SAI uses the RMF process to protect the Army's AISR aircraft and sensor systems. This layered process embeds system security and risk management activities into the system development lifecycle.

Sensor Integration

The integration of sensors on a weapon system platform has a large impact on the ability to collect relevant data. Antenna location, interference, cabling, calibration, masking, and architecture all has significant impacts on performance. Sensors that are highly successful in a sterile laboratory may be ineffective if improperly integrated. A deliberate and scientific approach is necessary to maximize sensor capability. Haphazardly integrating sensors on weapon system platforms is the quickest way to fall short of meeting expected capability.

System of System Testing

To validate and confirm the effectiveness of intelligence sensors integrated on any platform, it is necessary to thoroughly test the entire system against relevant threats. PD SAI supports the validation and verification testing of the capabilities of AISR systems. This provides the Army a baseline understanding of the capabilities and limitations of the system.

Intelligence Distribution

One of the most critical components of AISR is the ability to collect, collate, synthesize, analyze, and distribute sensor data to the Army's intelligence analysts. PD SAI helps ensure that the data collected by sensors is easily moved off the weapon system, analyzed, and developed into a useful intelligence package in a timely manner.

Supporting Future Requirements

The Army is currently undergoing a campaign of learning to support the Multi Domain Sensing System (MDSS) user requirement. MDSS is a layered approach to address the Army's Aerial ISR needs using a variety of platforms to host intelligence sensors.

MDSS High Accuracy Detection and Exploitation System (HADES)

The Army is pursuing HADES as the solution to the mid-tier aerial ISR layer. HADES provides a multi-faceted deep sensing capability at higher altitudes, longer ranges, and with longer endurance to address the demands of future MDO against peer and near-peer adversaries based on a commercial large cabin business jet platform. The first iteration of HADES will host Electronic Intel-

ligence (ELINT), Communications Intelligence (COMINT), and Synthetic Aperture Radar (SAR) Sensors.

PD SAI is partnered with PM FW to provide sensors for a variety of technology demonstrators used to satisfy Army and Joint commander collection requirements today, as well as inform the HADES program of record. The Aerial Reconnaissance and Electronic warfare System (ARES) and the Airborne Reconnaissance & Targeting Exploitation Multi-Mission Intelligence System (ARTEMIS) have been operationally deployed to multiple theatres and have participated in the Army's experimental technology events.

High-Altitude Extended-Range Long-Endurance Intelligence Observation System (HELIOS)

HELIOS is the stratospheric AISR layer codified in the Deep Sensing annex requirement of the High-Altitude Platform A-CDD. It is envisioned that the HELIOS program will consist of a variety of deep sensing sensor payloads hosted on a low signature high altitude platform stratospheric balloon/solar fixed wing platform. These platforms will provide low cost or attritable penetration into highly defended threat operational area and will serve as individual platforms or, a formation of platforms, to provide sustained sensor collection of targets. Ultimately, the HELIOS family of stratospheric platforms could be provisioned with initial sensor capabilities such as SAR, ELINT, and (Electro-Optical/Infra-Red (EO/IR), with additional sensor payloads being developed and fielded in the future.

High Efficiency Radio Frequency Monitoring and Exploitation System (HERMES) and Aerial Geospatial Intelligence System (ArGoS)

The HERMES requirement document is one of two requirement documents that are focused on the sensor development, independent of the platform it will be integrated upon. The HERMES requirement provides PD SAI the ability to develop and mature COMINT and ELINT sensors to comply with the Size, Weight, and Power (SWAP) requirements of many platforms that can be used to collect intelligence. The ArGoS requirement document provides PD SAI the same ability to develop Geospacial Intelligence (GEOINT) sensors such as EO/IR, Light Detection and Ranging (LIDAR), Hyper Spectral Imagery, and SAR. The HERMES and ArGoS requirements are still maturing and have not started Army staffing. To inform the requirements as they are written and staffed, the Army has made limited and targeted investments in demonstrations to support a campaign of learning.

Conclusion

PD SAI continues to evolve to deliver Army Intelligence modernization capabilities by providing AISR leaders with additional sensor capabilities to address known and emerging threats and will enable current and future warfighters on the battlefield. This success is achieved through their innate ability to collaborate with internal stakeholders and external partners. The seamless organizational partnerships with PM FW, PM UAS, and PD Aerostats allows for the rapid integration and testing of sensors on host platforms and will enable the accelerated delivery of capabilities.

Mr. Dennis A. Teefy is the project director, Sensors-Aerial Intelligence in the Program Executive Office Intelligence, Electronic Warfare & Sensors at Aberdeen Proving Ground, MD.

FWAATS- Excellence in Fixed Wing Training

By CPT Aaron M. Wood

U.S. ARMY COURTESY PHOTO

The Fixed Wing Army Aviation Training Site (FWAATS) team.

The Fixed Wing Army Aviation Training Site (FWAATS) is in beautiful, wild, and wonderful north central West Virginia. FWAATS is where Army aviators from all three components (Active Duty, National Guard, and Reserves) have been coming to receive unparalleled top tier flight instruction for over 20 years. Accredited through the United States Army Aviation Center of Excellence (USAACE), the FWAATS provides the highest level of instruction to entry level pilots or to the most senior and experienced pilots. The FWAATS is successful in accomplishing this through experienced staff and instructors. They have perfected their specific technical skills built from a career filled with varying backgrounds and experience throughout Army Aviation. Each team member shares a constant desire to expand their own skills and further increase their professional knowledge. Throughout this article, courses offered, operational function, and opportunities of the FWAATS will be discussed.

Most of the courses taught at the FWAATS revolve around two different fixed wing aircraft. Those aircraft are the C-12 and the C-26, both being twin-engine turboprop aircraft. These aircraft are very well known throughout the Army, as they have been in service for multiple decades. The C-26 specializes in the transport mission, providing rapid movement of troops and personnel throughout the country. The C-12 has a diverse mission set consisting of VIP, cargo, troop movement, and disaster relief. No matter the mission, the pilots must be proficient with flying the aircraft in all flight modes and weather conditions. FWAATS offers initial aircraft qualification, Instructor Pilot (IP), Senior Instructor/Instrument Flight Evaluator (IFE), and Instructor Pilot Standardization courses in both the C-12 and C-26. This instruction ensures pilots meet the standard in all flying conditions and will return to their units confident, standardized, and ready to be a force multiplier.

The C-12 is the Army's most utilized and active fixed wing aircraft. However, with an aging fleet of aircraft, it's expected that maintenance issues will occur. The FWAATS offers the only C-12 Maintenance Test Pilot (MTP) course in the Army. While this is managed by the National Guard Bureau (NGB), it is open to, and recommended for, Active Duty and the Reserves as well. This course will provide students the opportunity for an in-depth review of the aircraft systems, learn maintenance test flight maneuvers, the usage of maintenance forms and publications in a professional academic setting. Students will fly and apply what they learned in a controlled environment and be able to perform these maneuvers under the supervision of adept instructors. Upon graduation, students will be proficient in complex maintenance procedures and prepared to meet their commander's maintenance needs to keep their aircraft flying safely.

A recent addition to the FWAATS course catalog was the Instrument Flight Examiner Preparatory course. Once again, although managed by NGB this course is open to all IP's regardless of their assigned airframe. As the title of the course implies, the intent of this course is to build a student's instrument knowledgebase while demonstrating the skills necessary to attend an IFE course. The course consists of academic instruction and scenario-based flights in a UH-72A simulator. Students do not need to be qualified in a UH-72A to attend, as the course begins with an overview of the cockpit and simulator. This simulator provides an excellent opportunity for any attendee to hone their raw data instrument skills. Scenarios are designed to enhance a student's ability to operate under degraded GPS conditions. These scenarios also aid to refresh those instrument skills neglected due to mission OPTEMPO.

The FWAATS primary mission is to perform as a schoolhouse and focus on teaching students valuable skills in the most professional fashion. Outside of instructing courses the FWAATS has many other capabilities. The onsite contract maintenance team has proven itself by providing fast, methodical, and reliable work in the demanding environment of constant aircraft use. When the instructors are not actively instructing a course, they often support Joint Operational Support Airlift Center (JOSAC) missions through the request of the Operational Support Airlift Activity (OSAA). This often includes aircraft ferrying support due to fleet upgrades, modifications, upper-level maintenance, or aircraft relocation. At a commander's request, the FWAATS, can support the force with the ability to conduct a student's validation check rides. This allows the examinee to return to their home station and immediately execute the assigned duties of their newly acquired skillset. Before leaving the schoolhouse, each student is encouraged to maintain contact with the staff and their instructors. This allows each alumnus to receive the most up to date regulation and policy information while providing operational feedback from the fleet. This feedback is then incorporated into existing course material thus maintaining relevancy.

The FWAATS prides itself on keeping a professional reputation developed through years of dedicated instruction. This extraordinary organization will continue to instruct courses and conduct business as usual in the future, but also has endless opportunities for growth on the horizon. If you have ambitions of taking your Army Aviation career to the next level, FWAATS is looking for new team members. If you desire to instruct and would like to join the FWAATS team, there's an open IP Active Guard Reserve (AGR) announcement posted on ftsmcs.ngb.Army.mil. If becoming a team member is a future goal, several IP openings are projected over the next 15 months. The FWAATS family would be happy to accept all applications from motivated fixed wing pilots from all three components. Come join the tradition of producing the best fixed wing Army Aviators.

CPT Aaron M. Wood is The Army School System (TASS) Commander at the Fixed Wing Army Aviation Training Site (FWAATS) located in Bridgeport, WV.

Special Focus ▶ Fixed Wing

United States Army Reserve Fixed Wing Aviation –

Decades Long Tradition of Support

By MAJ Alex Koroll and MAJ Dallas Austin

Fixed wing aviators under the Army Reserve Aviation Command (ARAC) continue to support daily real-world mission sets across the Continental United States (CONUS) and around the globe. The ARAC's fleet of Fixed wing aircraft are organized into two theater fixed wing battalions (TFWB); the 2-228th is headquartered at Joint Base Dix-McGuire-Lakehurst (JBMDL), New Jersey and the 6-52nd is based at Joint Force Training Base Los Alamitos, California. These battalions provide support to Theater Army and Combatant Commands across the Homeland and overseas in various AORs that includes an enduring commitment to ARCENT/CENTCOM dating back to before the September 11th, 2001 terrorist attacks.

Force Composition

The two Army Reserve TFWBs are organized under ECABs for ADCON, have an OPCON relationship with Operational Support Airlift Activity in CONUS and commonly the Theater Army overseas. The 2-228th TFWB is organically attached to the 244th ECAB based at Fort Knox, Kentucky and 6-52nd TFWB is aligned to the 11th ECAB at Fort Carson, Colorado. Both ECABs fall under the ARAC at Fort Knox, Kentucky.

The TFWBs are comprised of three geographically dispersed theater fixed wing companies and a battalion headquarters & headquarters company (HHC) commanded by an O-4. Each battalion has a mix of C-12 Huron turboprop and UC-35 Citation jet aircraft. The units are manned by a combination of junior and senior warrant officers, regular line officers, enlisted Soldiers, and Department of the Army Civilians. Soldiers are either Troop Program Unit (TPU) or Active Guard & Reserve (AGR). Our pool of TPU pilots of diverse civilian backgrounds are the most seasoned fixed wing Aviators in the Army. Fixed wing maintenance is provided via a civilian contract.

2-228th TFWB

HHC & Alpha Company – JBMDL, New Jersey (KWRI) consists of C-12Vs and UC-35s

Bravo Company – Clearwater, Florida (KPIE) also provides UC-35Bs for the U.S. Army Jet Training Detachment (USAJTD) & Fort Rucker, Alabama (KOZR) consists of C-12Vs.

Charlie Company – Pope Army Airfield, North Carolina (KPOP) consists of C-12Us.

6-52nd TFWB

HHC & Bravo Company – Los Alamitos, California (KSLI) consists of C-12Vs and UC-35s.

Alpha Company – Naval Air Station Joint Reserve Base Fort Worth, Texas (KNFW) consists of C-12Us and UC-35s.

Charlie Company – Fort Knox, Kentucky (KFTK) consists of C-12Vs.

U.S ARMY PHOTO BY MAJ DALLAS K AUSTIN

Czech Air Force CASA-295, U.S. Army Reserve C-12U, and U.S. Army UH-60 staged at North Camp, Sinai Egypt, August 30, 2020

Enduring and Evolving Commitments

Our TFWBs provide enduring rotational detachments in support of ARCENT TF SPARTAN / OPERATION INHERENT RESOLVE (OIR) in Kuwait and MULTINATIONAL FORCE & OBSERVERS (MFO) in Egypt. The combined history of these deployments spans more than two decades. Both detachments are comprised of 2-3 aircrews supported by Aviation Operations NCOs.

UC-35 support of TF SPARTAN / OIR is based out of Ali-Al-Salem Airbase, Kuwait, servicing key leader movement. Recent missions have been flown to Iraq, Jordan, Saudi Arabia, Bahrain, Germany, Italy, Cypress, and Croatia. The UC-35 is vital in providing critical rotary wing parts movement into Iraq.

The MFO C-12 fixed wing Detachment is based at Sharm El Sheikh Airport near South Camp located at the most southern tip of the Sinai Peninsula in Egypt. They are responsible for the movement of key personnel between North Camp, South Camp, Tel Aviv, Cairo, MFO HQ in Rome Italy, and various military bases supporting the 40-year peace treaty between Egypt and Israel. The detachment enables Civilian Observer Unit low-flight missions to account for Egyptian military positions and equipment located on the Sinai Peninsula, and serves as a backup CASEVAC platform to get patients from North or South Camp to a Level 1 Trauma Hospital in Israel.

Prior to providing movement for key personnel and supplies during the COVID-19 relief efforts in 2020-2021, the TFWBs supported exercises in multiple AORs. In 2022, the TFWBs continued their direct support for RED FLAG RESCUE, the premier DoD Joint/Combined Combat Search and Rescue Exercise held at Davis-Monthan Air Force Base, Arizona; SOUTHERN STRIKE, a Joint Forces Exercise hosted by the Mississippi National Guard at the Gulfport Combat Readiness Training Center (CRTC); and PROJECT CONVERGENCE, the Army Futures Commands Joint Forces new technology demonstrations at various proving grounds across the southwest U.S.

The TFWBs are preparing to support the U.S. Army Southern European Task Force-Africa through the AFRICA LION and JUSTIFIED ACCORD training exercises in the AFRICOM AOR, as well as continued support for EUCOMs DEFENDER-Europe.

Other Contingency Operations & Joint/Interagency/Multinational Support

Prior to the withdrawal of U.S. Forces from Afghanistan in 2021, Army Reserve Aviators operated in the Afghan Special Mission Wing (SMW) Special Operations Advisory Group (SOAG) in Kabul, Mazar-i-Sharif, and Kandahar. These Army Reserve Aviators provided leadership, flight instruction, and executed combat missions with our Afghan Partners in the UH-60, Mi-17, and PC-12 in a Train, Advise, Assist role. Army Reserve PC-12 IPs provided ground school, simulator instruction, and aircraft qualification for Afghan and American students in the SMW PC-12 Aviator Qualification Course. Army Reserve Aviators were also instrumental in facilitating the safe evacuation of Afghan SMW personnel and their families during and after the fall of Kabul in August 2021.

Select Army Reserve Aviators currently serve as C-12 IPs within the Defense Attaché Service. Supporting Chief of Mission and Combatant Commander requirements, these IPs provide fixed wing Standardization and Government Flight Representative (GFR) duties, regularly operating at austere airfields around the globe.

The large demand for Army Reserve fixed wing Aviation will ensure that assignments within our TFWBs remain highly desirable. The community is well poised to continue supporting Theater Army and Combatant Commands. If you are interested in joining our team, reach out to the co-authors below.

MAJ Alex Koroll is a battalion S-3 and C-12 aviator assigned to 2-228th TFWB; MAJ Dallas Austin is a staff officer & C-12 aviator assigned to 6-52nd TFWB.

U.S ARMY PHOTO PROVIDED BY LTC MARVIN "LEE" CHASE

Special Missions Wing (SMW) Fixed Wing Special Operations Advisory Team (SOAT); Army Reserve Instructor Pilots (L – R) LTC Lee Chase, CPT Chase Chatterton, and COL Derrick Hart, standing between an Afghan SWM UH-60 and PC-12 at Hamid Karzai International Airport (HKIA), Kabul Afghanistan..

Aviation Incentive Pay – Answers to Common Questions

By MAJ Ryan Whipple

HRC
U.S. Army Human Resources Command
"Soldiers First!"

$212,000 is enough money to buy a new Lamborghini Huracan, pay for college for a handful of students, or purchase a small house. Coincidentally, it is about how much a commissioned rated aviator will make in Aviation Incentive Pay (AvIP) over the course of a 25-year career; warrant officers can earn even more. Of course, there are requirements that must be met to ensure aviators remain eligible for AvIP. There are times that an individual's career decisions, or assignments based on the needs of the Army, can prevent an officer from receiving all the pay they might receive otherwise; these career decisions should only be made after the individual is well informed of all the potential consequences. This article discusses the requirements, how they are calculated, and what some of the unintended consequences might be of career changes. To gain a full understanding of AvIP it is necessary to reference AR 600-105 (Aviation Service of Rated Army Officers), but some of the most salient points are highlighted below.

Who Receives AvIP?

Rated aviators who maintain a valid flight physical and remain in the aviation branch (67J and acquisitions also apply) are eligible to receive AvIP until their 12th year of aviation service based on their Aviation Service Entry Date (ASED) that they receive at the beginning of IERW. If an aviator has not accumulated 96 months of Total Operational Flying Duty Credit (TOFDC) by their 12th year, they will no longer be able to receive AvIP unless they get a waiver as outlined in AR 600-105, or are serving in a position where they are integrated into an aircrew training program and are actively flying to receive conditional AvIP. To receive AvIP after the 18th year, they must accumulate a minimum of 120 months of TOFDC to continue AvIP until the 22nd year of aviation service and 144 months to receive AvIP until the 25th year.

What Jobs Qualify for TOFDC?

Assignment to an operational 15 series position on the MTOE/TDA does NOT automatically qualify an aviator for TOFDC. The easiest way to know if an aviator will qualify for TOFDC is if they are integrated into an ATP and meeting the requirements set forth by the Commander. TOFDC is not awarded to aviators that are FAC 4, or FAC 3 with all ATP requirements waived. An aviator will not receive TOFDC if they are not integrated into an ATP. Some examples of assignments that may be operational aviation positions, but might not earn TOFDC are BAO, CTC OC/T, G3 Aviation, HRC Branch Manager, and TRADOC Instructor.

What System Does HRC Use to Calculate TOFDC?

The most common source documents used by the Incentives Pay Branch at HRC to determine TOFDC months are the flight physical found in AERO and OERs. To receive AvIP, a current and qualified flight physical must be recorded every year. Any gap in flight physicals can result in recoupment of AvIP in addition to lost TOFDC.

An OER, duty descriptions and/or comments on performance often reflect if an officer has been flying or maintaining FAC requirements. During the audit, these comments give a solid indication if the aviator will receive TOFDC for the rating period. When it is not clear if an aviator is integrated into an ATP based on their evaluation, the officer may submit appropriate CAFRS records indicating the require-

Table 3–1
Gate criteria for career aviation incentive pay when not performing operating flying duty

Gate	Months TOFDC required	Continuous AvIP to—
12-year gate	96 months or greater	18 years of aviation service
18-year gate	120 months through 143 months	22 years of aviation service
	144 months or greater [1]	25 years of aviation service

Note. Warrant officers who pass their 18-year gate and have accumulated at least 144 months of TOFDC will be paid AvIP in accordance with paragraph 3– 1b.

USAHRC GRAPHIC

ments have been met and the audit will be updated accordingly.

Why Are the Audits Conducted a Year Early?

HRC conducts audits a year early so officers have time to verify the results of the audit, move into a position where they can accrue more credit for TOFDC, or prepare for the loss of AvIP. In addition, TOFDC waivers take up to a year to process. The timing of the audit allows time to submit a waiver.

If an aviator does not pass their initial audit but accumulates enough additional credit over the course of the year to qualify for that gate, the audit will be updated at the request of the aviator to ensure they receive the appropriate amount of pay.

What Happens If I Do Not Meet the Requirements for the Gate Audit?

It is not uncommon for an aviator to fail to meet the requirements for the 12- or 18-year audit. In these cases, there is a waiver process approved by the Secretary of the Army. Aviators can only receive one waiver over the course of their career and must meet all the requirements of AR 600-105 to apply. The decision to grant the waiver is based on positions the aviator held that did not qualify for TOFDC. It does not matter whether the non-qualifying position was sought by the officer or directed by the branch. Lastly, the officer's potential for continued service in Aviation positions throughout their career is also taken into consideration.

Occasionally, an aviator may be ineligible for a waiver, or the request for a waiver will be denied due to voluntary assignments outside of aviation, or lack of potential for continued service in flying assignments. In these cases, they are still eligible to receive conditional AvIP while they are in positions that require them to fly, and they accumulate an average of four hours per month. Conditional AvIP requirements are also laid out in AR 600-105.

How Does the "48 Month Rule" Affect Me?

It is possible to pass a gate audit, and still lose AvIP. In the latest publication of AR 600-105 it states that officers that are past their 12th year of aviation service in other career-enhancing assignments outside of aviation for a period of more than 48 months will lose their AvIP until they are assigned to an aviation position. Exceptions to this rule are joint assignments or positions on the JDAL, attending resident PME, or attending a fully funded graduate degree program authorized by the SECARMY. Aviators are responsible for ensuring they do not leave any one of the above listed jobs for more than 48 months.

What Other Reasons Could Cause a Loss of AvIP Eligibility?

Another common occurrence that results in the loss of AvIP is changing branches or primary functional areas. To be eligible for AvIP, aviators must remain part of the rated inventory. Voluntary Transfer Incentive Program (VTIP) is a way for officers to switch to a new specialty or branch. Doing so will result in the loss of AvIP when the aviator departs their final aviation assignment to attend training for the new functional area or other training or assignments that are no longer aviation specific. An officer is ineligible for AvIP even if the aviator's primary branch is aviation, but their control branch is other than aviation. They are not considered part of the rated inventory and are ineligible to receive AvIP. One exception to this is when an officer transfers to the Acquisitions functional area. Those officers will continue to receive AvIP and undergo audits just like other aviators. Additionally, there are a small number of Foreign Area Officer positions that allow officers to fly fixed wing aircraft as part of their job, these positions qualify for conditional AvIP. When the officer departs that position, they will no longer receive AvIP.

What Do I Do If I Have More Questions?

Of course, there are a plethora of different scenarios that arise when discussing AvIP. If more information is needed feel free to contact the HRC Incentives and Compensation Team at 502-613-8527 or *usarmy.knox.hrc.mbx.tagd-pdpi@army.mil* or visit the official website at *https://www.hrc.army.mil/content/Incentives%20and%20Compensation%20Branch*.

MAJ Ryan Whipple is the chief, Incentives and Compensation Branch (ICB), U.S. Army Human Resources Command (HRC), Fort Knox, KY. *He acknowledges the input from Ms. Angie Watkins and Ms. Rose Fast in the creation of this article.*

DEVCOM Aviation, Missile Center Explores eVTOL Applications

By Amy Guckeen Tolson

AFWERX COURTESY PHOTO

MAJ Wes Ogden completed his initial evaluation flight of the Beta Alia, the 1st Army aviator to fly an electric aircraft.

Reduced maintenance. Lower operations and maintenance costs. Fewer emissions to secure a sustainable, cleaner future. Electric vehicles aren't just the wave of the future for the automotive industry – the concept is taking to the air as well, with more than 700 designs now being tracked in the Vertical Flight Society's World Electric Vertical Take-off and Landing (eVTOL) Aircraft Directory, according to VFS.

But what about applications for Army aviation?

As the Army's focal point for aviation research, the U.S. Army Combat Capabilities Development Command Aviation & Missile Center is dedicated to exploring emerging technologies to modernize the Army fleet, to include the utility of electric aircraft to fulfill missions.

"We often talk about '10X' – meaning 10 times farther, 10 times faster, or 10 times more survivable, but in this case 10X could mean 10 times reduced flying hour costs," said Jeff Langhout, DEVCOM AvMC director. "Science and technology also supports sustainment needs to include finding ways to reduce our long-term sustainment costs. Electrification in aviation is one area to work where, in the right application, we could see significant reduction in flight hour costs."

Making History

DEVCOM AvMC Experimental Test Pilot MAJ Wes Ogden made history on July 13, 2022, when he completed his initial evaluation flight of the BETA ALIA 250C, an eVTOL aircraft developed by BETA Technologies, becoming the first Army aviator to fly an electric aircraft. The 1.6 hour flight included an assessment of performance and handling qualities in conventional (airplane) mode.

"Flying the electric aircraft was very similar to flying a traditional airplane," Ogden said. "The control strategies were a little different, but in general, there were quite a few times that I had forgotten that it was an electric aircraft – it was just another airplane to go fly. There's a lot of potential utility for an aircraft like this in the military. It is incredible to observe the ingenuity and innovation of all of the eVTOL developers, including the BETA team, as they revolutionize aviation."

While Ogden's accomplishment garnered attention, AvMC scientists and engineers have been researching aspects of electric vertical takeoff and landing for some time. Within the last year AvMC has increased emphasis and begun to explore the technology more comprehensively, in part by partnering with AFWERX, NASA and university and industry developers in eVTOL enabling technology areas.

The July test flight was part of a collaboration with AFWERX Agility Prime that is focused on advanced technology development, with the ultimate goal of having a fully flight certified aircraft. AFWERX is the innovation arm

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SPECIAL FEATURE:

80th Anniversary of Army Aviation

Army Aviation in 1983-1992: The Modern Era Arrives

By Joseph P. Cribbins

AAPI FILE PHOTO

Mr. Cribbins joined the Army in 1940 as an enlisted man in the 101st Cav Div. Commissioned a 2LT in 1942, he was assigned to the 1st CAV Div. He served for over three decades on the Army staff as the focal point on all matters pertaining to aviation logistics, most ecently as Chief, Aviation Logistics Office, ODCSLOG.

Editor's Note: In celebration of the 80th Anniversary of Army Aviation, we continue reprinting a series of articles from the December 1992 50th Anniversary issue of ARMYAVIATION Magazine penned by many of the original pioneers in each of the remaining issues this year.

On 6 June 1992, Army Aviation completed 50 years of dedicated service to the U.S. Army. During the fifth decade, Army Aviation matured greatly and realized a potential that had been developing since 1942. From the beginning, Army Aviation struggled for identity, first with the USAF, then in-house among the combat arms and logistic branches. There were sharp debates on whether to form a branch. Supporters believed Army Aviation needed the identity and cohesion of a combat arm like Infantry, Armor and Artillery. Aviation had proven capable in the air maneuver dimension of battle; the Army struggled to understand how to harness this new dimension of battle.

There were concerns among others that Army Aviation would become another Army Air Corps. To prevent this, aviation should remain integrated with the combat arms and logistic branch to which it belonged. On 12 April 1983, General "Shy" Meyer, then the Army Chief of Staff, approved the Army Aviation Branch. A major feature of the new Branch was the integration of American Logistics.

Today, Army Aviation has assumed a significant role in the land component's combined arms team. Army Aviation breaks friction with the ground, operates in the ground regime, and greatly enhances the capability of the force. Reconnaissance, attack, assault, SEMA, SOF, MEDEVAC, and medium lift aviation resources are powerfully combined to give the ground commander increased agility, firepower and versatility.

A major innovation in this decade was establishment of the PEO/PM concept. The Army has had PMs for a number of years, and the Program Executive Officer is not peculiar to aviation, but PEO now has a significant impact on selection, production, testing, and support of all new aircraft. The PEO Aviation is now responsible for an aircraft as a total weapon system from the time it is a gleam in the eye of the designer until it is completely fielded and no longer in production. This responsibility has not removed the Army Material Command (AMC) and appropriate Major Support Commands (MSC) from a major role in management and support of Army aircraft.

The PEO and AMC/MSC work closely together as a team with a mutual goal of fielding and supporting safe, reliable, and maintainable aircraft weapons systems. The interface and work relationship between PEO and the Aviation Systems Command—now the Aviation and Troop Support Command (ATCOM)—has been outstanding and has given us first line Army aircraft that performed so superbly in DESERT SHIELD/STORM.

Growing Emphasis on Safety

In 1987, the U.S. Army Safety Center, located at Fort Rucker, Alabama, became responsible for all safety matters across the total Army. Many significant events took place during this decade. Here are some of the major events, not necessarily in chronological order or in order of importance. A major accomplishment during this decade has been the wonderful progress made in aviation safety.

For example, in the late 1950s, Army Aviation was experiencing over 50 major accidents per 100,000 flying hours. During the past three years, with the exception of DESERT SHIELD/STORM, Army Aviation experienced less than two major (Category A) accidents per 100,000 flying hours. What a great accomplishment and tribute to the Safety Center, the Aviation center, the Aviation PEO, the PMs, ATCOM, and all members of Army Aviation and the Army who have attained this record of aviation safety.

Actions and Initiatives

As the Aviation Branch matured, a number of important initiatives were developed, and actions taken. The RAH-66 Comanche helicopter, to be powered by the T-800 engine, was selected and is now in the process of testing and development preliminary to production. The selection of these two systems was unique in that reliability, maintainability, MANPRINT, and

training constituted about 50% of the selection criteria – a first. Army Aviation received its first true jet aircraft, the C-20 Gulfstream and C-21 Learjet. The Reserve Components began receiving their first line aircraft; that is, Black Hawk and Apache. The National Guard (NG) established Eastern and Western Area Training Sites, and the four NG Transportation Aircraft Repair Activity Shops were formed into four Aviation Classification Repair Activity Depots (AVCRADs), dedicated to support of the total Army in peace and war.

To accurately portray what has happened in the fifth decade is not practical without revisiting Vietnam, where the helicopter proved its great worth in operations and support of the U.S. Army in combat. Some examples follow:

The Cobra was developed, tested, fielded and became the first attack helicopter. The OH-6 and OH-58 initially procured and fielded as light observation helicopters became aerial scouts. The CH-47A/B/C series Chinook and the CH-54 Tarhe provided air mobility and support. The UH-1 Huey, which was the mainstay of Army Aviation during Vietnam, did all the above in some measure, with missions of air mobility; as a gunship; command and control; observation, scout, and reconnaissance; logistics support; and medical evacuation, proving itself to be the true work horse of the helicopter fleet. The Huey is now viewed with the same affection, respect, and regard as the C-47 Gooney Bird was during and after World War II.

Following Vietnam, the UH-60 Black Hawk was selected in the late 1970s and fielded in large numbers early in this decade. The AH-64A Apache was selected and fielded in the mid-1980s. The OH-58D – now the OH-58D Kiowa Warrior – was selected as the follow-on to the OH-58A/C series, and fielding began in the late 1980s. The CH-47A/B/C Chinook was modified into the more effective CH-47D model throughout the decade. These four aircraft systems are now known as the "Big Four." They will carry Army Aviation into the 21st century, and with the addition of the RAH-66 Comanche, they will become the "Big Five."

The fixed wing fleet was also upgraded with the addition of C-12 pressurized airplanes. The C-12 will replace the U-8 and U-21 aircraft as well as a conglomerate of airplanes of many mission/design/series sometimes known as the Confederate Air Force. The topper in the decade was Army Aviation's too long delayed entrance into the jet age with the advent of the C-20 Gulfstream and C-21 Lear jet. One major loss to the fixed wing fleet will be the phase out of the OV/RV-1 Mohawk, a true performer for Army Aviation for over three decades.

Concepts and Policies

By 1970, with some 4,500 aircraft (4,000 helicopters) deployed, Vietnam was also a proving ground for Army Aviation in combat. Since then, in addition to new developing and fielding aircraft systems, many initiatives have been taken in operations and support/sustainment with important concepts and policies initiated which have been improved and exercised over the years. These have made the recent support in DESERT SHIELD/STORM possible.

Examples are:

- Flying helicopters Nap of the Earth (Noe).
- Using Aircraft Survivability Equipment (ASE) and maneuvers.
- Developing Night Visions Devices (NVD).
- Nighttime operations and maintenance.
- Using contractor support with large numbers of contractor people devoted to aviation on the battlefield.
- A dedicated air transport with Desert Express, a C-141 airlift initiated by AVSCOM and adopted by all the Services.
- Three level maintenance.
- On condition maintenance.
- Weapons systems management.
- Special Repair Activities (SRA—known in Vietnam as KD teams).
- Integration of fighters and supporters as now witnessed in the Aviation Branch.

Some of these were not readily accepted.

Army Aviation has frequently been accused of stove-piping; i.e., using support systems not standard to the U.S. Army Development of many of these initiatives that was the result of having an emergency, taking appropriate action to cope with emergency, and then when the emergency was over and the management system worked, they became a normal way of doing business.

Army Aviation can take great pride in the fact that, over the years, it has been in the forefront in coming up with new ideas, developing new operational and support/sustainment systems, making them work to the overall benefit of Army Aviation; and now, to the total Army.

Emerging Threats

In November 1989, with the fall of the Berlin Wall and the rapid demise of the Soviet Union and the Warsaw Pact with which the United States had lived for 45 years, it was widely viewed that our enemies had disappeared. However, in December 1989, Army Aviation was a principal player in OPERATION JUST CAUSE in Panama. In August 1990, Army Aviation began deploying large numbers of aircraft to the Persian Gulf. In Southwest Asia, Army Aviation trained as a member of the combined arms team with the U.S. Army; with the joint forces, i.e., the U.S. Navy, Marines and Air Force; and with coalition forces of the United Nations. This was not a 100 hour war as portrayed by some, but truly an eight or ten month engagement in training, conducting operational and support maneuvers, and fighting and supporting a fleet of about 2,000 Army aircraft over an area nearly one-third as large as the United States in the toughest environment in which the Army has ever operated.

Other Missions

During DESERT STORM, Army Aviation became a principal player in Operation: PROVIDE COMFORT, a humanitarian mission, in an equally tough environment in Southern Turkey and Northern Iraq. Humanitarian relief missions can further prove Army Aviation's value not only to the total Army for war and contingency operations, but also to the Nation supporting national disasters where the helicopters can be such an important player. For example, during Hurricane Andrew, XVIII Airborne Corps—with its aviation supported by AMC and ATCOM—spearheaded the Army disaster relief mission.

A Great Success

Army Aviation has come a long way in five decades from the first "Cub" observation aircraft authorized in each Artillery battalion on 6 June 1942, and now recognized as the birth of Army Aviation to the "Big Four"—soon to be the "Big Five—supplemented by a fleet of C-12 fixed wing Operational Support Aircraft (OSA) and C-20/C-21 jets. Who could have foreseen that the horse

cavalry, still in existence in 1942 in the 1st Cavalry Division, would become the Air Cavalry of the late 20th century?

There have been many great success stories associated with Army Aviation over this 50 year period. The Army Aviation Branch has the potential for attractive career opportunities for all its personnel – officers, warrant officers, enlisted soldiers, and civilians, operational and support people alike. The high technologies embodied in aviation attract bright minds who have the spirit and will of valuable members of the combined arms team.

As the Army considers restructuring alternatives and assumes its rightful role in national security forces, Army Aviation, with its great capability to enhance warfighting and support of the force, must be a central player in power projection – trained, ready, and capable of decisive victory for conflict in the remainder of this decade and into the next century.

Moving forward with high technology, safe, reliable, and maintainable aircraft as a total weapons system and taking care of Aviation's most valuable asset – its people – will make this happen.

Source: See pages 51, 52, 54 and 55, Army Aviation, Vol. 41, No. 12, Army Aviation Publications, Inc., Westport, Ct., December 31, 1992.

eVTOL *continued from page 60*

of the Department of the Air Force. AvMC is looking to leverage the data and lessons Air Force engineers have learned from partnering with eVTOL developers such as BETA.

LTG Thomas Todd, deputy commanding general for acquisition and systems, Chief Innovation Officer, Army Futures Command, recognized the opportunity to collaborate and leverage investments made by AFWERX and others, and identified seed funds to begin to explore eVTOL possibilities for the Army.

"It's great to see the Army looking at these new, potentially disruptive technologies," said David Friedmann, an aerospace engineer with the AvMC Technology Development Directorate, who is helping coordinate and accelerate AvMC's eVTOL efforts.

Future Capabilities

In addition to supporting the Army's Climate Strategy efforts, eVTOL is of interest to the Army science and technology community because of its potential for cost savings, capability enhancements and operational energy benefits. Potential applications for the Army's current fleet, as well as emerging Future Vertical Lift aircraft, must be taken into consideration, Friedmann said, when researching the risks and rewards of electric flight.

"We have a lot to learn – we're at the very beginning of really understanding this technology Friedmann said. "But here's an opportunity to look at new technology and see if it offers advantages for the Army. It's worth a look. It may not pan out, but it doesn't make sense to just look away. Our job is to develop data to support future decisions."

Next up for Ogden and the team is vertical takeoff and landing of the BETA ALIA 250C. Ogden is particularly interested in the pilot experience when it comes to things like airspeed and altitude maintenance, takeoff and landing, as well as the impact of vertical lift on energy storage.

"There are a lot of different elements of the vertical takeoff that I want to have a close look at," Ogden said. "When you're hovering an aircraft you're not as efficient as an airplane, so the battery and motor temperatures have the potential to rise as all of that energy is converted to vertical thrust. As you're hovering, how much of your endurance and range are you eating up, and what are your other limitations?"

Ms. Amy Tolson is a public affairs specialist with the U.S. Army Combat Capabilities Development Command Aviation & Missile Center, Redstone Arsenal, AL.

AAAA Chapter Affairs

By LTC (Ret.) Jan Drabczuk

I appreciate the support from, Michael S. McFadden, Col (Ret) the Savannah Chapter President and Chris Cashell, 1SG (Ret), VP Awards & Events for providing and sharing this information to our membership.

The Savannah Chapter

CHAPTER COURTESY PHOTO

(l to r): CSM Quentin V. Fenderson, 3ID Command Sergeant Major; BG (Ret.) Michael Flowers, AAAA Scholarship Foundation President; Davis Purdom, Gulfstream Military Outreach and Sr. Recruiting Analyst; COL (Ret.) Michael McFadden, AAAA Chapter President; Dennis Boatright, Gulfstream HR Director; and 1SG (Ret.) Chris Cashell, Chapter VP of Events and Awards.

The Savannah Chapter, like many Chapters, has struggled over the years to maintain Chapter membership due to numerous deployments, operational requirements, and COVID restrictions.

The Savannah Chapter's current membership is at 192 members. The challenge for the Chapter is to grow the membership through low-cost, high-impact events that encouraged patronage and participation without taking away from desirable family time. The Chapter's aspirations are to increase its membership across the local community and business around the area. In 2022, the Chapter was recognized with the Top Chapter Award for the Senior Chapter Category for its activities during the 2021 calendar year.

Programs and Activities

The Savannah Chapter is fortunate as members are comprised of Soldiers and family members from the 3rd Combat Aviation Brigade, 3rd Battalion of the 160th Special Operations Aviation Regiment, 224th Military Intelligence Battalion, the Georgia Army Air National Guard, in addition to local industry members and civilians. The Chapter is known to host an annual golf tournament on one of Savannah's premier golf courses to kick off the Veteran's Day Weekend in addition to social gatherings in the beautiful historic coastal city of Savannah. They have been graced with several guest speakers that shared memories of what Army Aviation means to them and how the future will be shaped from the memories we make today. The Chapter became a member of the Veterans Council of Chatham County at the beginning of 2022 to be a more active group in the community and support the local veterans.

Transition Phase

The Chapter now enters a transitional phase as the impact of future Army force reorganization initiatives have yet to be fully understood. While this transition period presents distinct challenges, it also offers unique opportunities. The members of the Savannah Chapter look to take advantage of AAAA's Post Career Employment Program. This is a great opportunity that connects our individual members retiring or leaving active service with industry members seeking highly qualified individuals. This program is another amazing benefit for not only Savannah Chapter members, but all members of AAAA.

Awards and Recognition

The Chapter would like to recognize several individuals and events over the recent years. CW5 Jon Corey, CW5 Brent Melland, COL Michael McFadden, CW5 Brandon Helms, CW5 Allen Raye, and 1SG Chris Cashell were recognized with the Silver Order of Saint Michaels over the past 3 years. Since Chris Cashell has taken over the Awards Program for the Chapter, Savannah has awarded over 78 Bronze Order of Saint Michael Awards, 3 Knight Awards, and 20 Lady of Loretto Awards. The Chapter implemented the Soldier, NCO, and Aviator of the Month/Quarter/Year program to recognize deserving members serving on Hunter Army Airfield.

The Savannah Chapter would also like to thank AAAA for their generosity as they offered forward deployed members a complimentary year of membership during the 3rd Combat Aviation Brigades rotation to Europe in support of Atlantic Resolve in 2019 - 2020. The Chapter looks to boost its numbers again with a membership drive prior to the Brigades departure again in the spring of 2023.

During the 2021 AAAA Scholarship Golf Tournament, which kicked off the series of weekend events for Veterans Day, the Chapter raised over $12,000. The golf tournament was the largest the Chapter has had in recent years with 144 players coming out and several local businesses sponsoring the event. The key donation was made by Gulfstream Aerospace with $5,000 towards the Scholarship Foundation.

Summary

The future of the Savannah Chapter looks bright. With the Chapter President, Michael McFadden COL (Ret) and VP Awards & Events, Chris Cashell, 1SG (Ret) both retiring in the area, the Chapter looks to maintain continuity in the future and continue to spread its presence across the local community. The Chapter is eager to greet additional new faces in the coming months. The Chapter would like to thank all of its members for their support and patronage over the years and look forward to seeing everyone at their next golf tournament this fall. It will be another perfect opportunity to create memories amongst our Aviation professionals and local partners.

Feel free to contact me if you need help for your 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

Southern California Chapter Annual Pacific Airshow

CHAPTER COURTESY PHOTO

The Southern California Chapter held their 3d quarter, 2022 meeting at the Los Alamitos Army Airfield, JFTB, Los Alamitos, CA, on Saturday, October 1, 2022, in conjunction with, and in order to enjoy viewing, the flying of the various military aircraft from the annual Pacific Airshow, conducted off of and over the Pacific Ocean coast at Huntington Beach. Viewing the staging, servicing, taking off and landings of various military aircraft at the airfield, was enjoyed by all while in a complete "social" setting. Featured aircraft enjoyed by the attendees included the U.S. Air Force's "Thunderbirds" and the U S Army's Golden Parachute demonstration teams.

ORDER OF ST. MICHAEL INDUCTEES

Aviation Center Chapter

CHAPTER PHOTOS BY CPT EDWARD "PJ" BENEDICTUS

CW5 Carolos Rosado is inducted into the Bronze Honorable Order of St. Michael and CW3 Carl Puckett is inducted as a Knight of the Honorable Order of St. Michael on September 15, 2022 by chapter president, COL (Ret.) Hawk Ruth, assisted by the 101st Combat Aviation Brigade command team (left to right) CW5 Steve Dermer, CCWO, COL Clint Cody commander, and CSM Latevia Williams-Green, CSM. Rosado was recognized for his accomplishments in support of Army Aviation while serving as the CAB Aviation Safety Officer; Puckett was recognized for his support of Army Aviation while serving as the CAB Human Resources Tech.

Colonial Virginia Chapter

CHAPTER PHOTOS BY ROBERT TAMPLET

Mr. Wesley R. Easley (center left) is inducted into the Silver Honorable Order of St. Michael by chapter president, LTC (Ret.) Ryan Miedema, during the 128th Avn. Bde. Ball at the Virginia Room in Colonial Williamsburg Sept. 30, 2022. Assisting in the induction are (l to r) COL Jake Miller, 128th Avn. Bde. commander, Easley, Miedema and LTC Sam Redding. Easley was recognized on the occasion of his change of duty for significant contributions to Army Aviation from 1979 to 2022, culminating as the Deputy Brigade Operations Officer. His next assignment is as deputy director of the Security Assistance Training Field Activity (SATFA), Training and Doctrine Command.

CHAPTER PHOTOS BY ROBERT TAMPLET

Ms. Connie Creech is inducted as a Knight of the Honorable Order of St. Michael by 128th Aviation Brigade commander, COL Jake Miller on Sept. 7, 2022 at the brigade headquarters, Ft. Eustis, VA. Creech was recognized for 20 years of dedicated and outstanding work she performed, directly supporting thousands of Army aviation maintainers and logisticians that passed through the Brigade.

Gold Standard Chapter

CHAPTER COURTESY PHOTO

CW5 William J. Kail and his wife, **Elizabeth Kail,** are inducted into the Silver Honorable Order of St. Michael and the Honorable Order of our Lady of Loreto, respectively, by chapter president, COL (Ret.) Andrew Doehring on July 23, 2022 at the American Legion Hardin Post 113, Elizabethtown, KY. Kail was recognized for more than 38 years of dedicated service to Army Aviation culminating as United States Army Reserve Command (USARC), Aviation Directorate, G-3/5/7, Division Chief of Aviation Maintenance, and Logistics Team and Senior Army Reserve Aviation Maintenance Officer. Elizabeth was recognized for her tireless efforts in support of her military families among various aviation units spanning her husband's 38 year career.

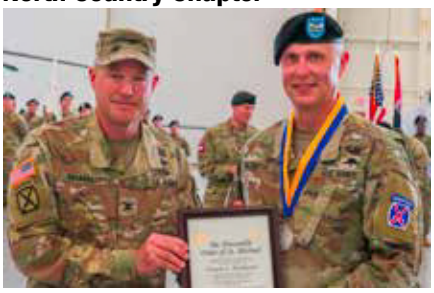
Want to change your AAAA Chapter Affiliation? EASY!

Contact us at quad-a.org

CHAPTER PHOTOS BY GEOFFREY WILLIAMS

CW4 Christopher J. Thunder is inducted into the Bronze Honorable Order of St. Michael by chapter president, COL (Ret.) Andrew D. Doehring, on Aug. 28, 2022 in Orlando, FL. Thunder was recognized on the occasion of his change of duty, for his significant contributions to Army Aviation while serving as the Aviation Safety Officer, U. S. Army Security Assistance Training Management Organization, U. S. Army Security Assistance Command. His next assignment is C-12 Pilot, C Company, 6th Battalion, 52nd Aviation Regiment, Fort Knox, KY.

North Country Chapter



CHAPTER PHOTOS BY CPT MARK MCGINNIS

COL Travis L. McIntosh is inducted into the Silver Honorable Order of St. Michael by COL Matthew Braman, 10th Mountain Division deputy commander-support, on July 21, 2022 at Fort Drum, NY. McIntosh was recognized for his outstanding support of Army Aviation while serving as the commander, 10th Combat Aviation Brigade; his next assignment is in the Pentagon as Chief, Force Development-Aviation.

CHAPTER PHOTOS BY CPT MARK MCGINNIS

CW5 Rolando Sanchez is inducted into the Silver Honorable Order of St. Michael by COL Travis L. McIntosh, 10th CAB commander, on July 19, 2022 at Fort Drum, NY. Sanchez was recognized for his accomplishments in support of Army Aviation while serving as the 10th CAB Command Chief Warrant Officer; his next assignment will be as an AH-64D Maintenance Examiner for the CAB.

CHAPTER PHOTOS BY CPT MARK MCGINNIS

MAJ Melissa Bell is inducted into the Bronze Honorable Order of St. Michael by COL Travis L. McIntosh, 10th CAB commander, on June 23, 2022 at Fort Drum, NY with her husband, LTC Joseph Bell at her side. MAJ Bell was recognized for her support of Army Aviation while serving as the 10th Mountain Division historian and a pilot in command in the National Guard.

CHAPTER PHOTOS BY CPT MARK MCGINNIS

LTC Phillip Cain is inducted into the Bronze Honorable Order of St. Michael by COL Travis L. McIntosh, 10th CAB commander, on June 23, 2022 at Fort Drum, NY. Cain was recognized for his accomplishments in support of Army Aviation while serving as the commander, 1st Bn., 10th Avn. Regt. (Attack), 10th CAB on the occasion of his change of command.

Tennessee Valley Chapter

CHAPTER PHOTO BY KRISTEN SHELTON

1SG (Ret.) Eddie Barber, product support manager and logistics chief in the Utility Helicopter Project Office, is inducted into the Bronze Honorable Order of St. Michael by chapter president, Mr. Gary Nenninger and COL Calvin Lane, project manager UHPO, on Sept. 19, 2022 at Redstone Arsenal, AL. Barber was recognized for his significant and lasting contributions to Army Aviation since 1983, serving 21 years on active duty, 2 years as a contractor with AEPCO, and since 2007 (15 years) a U.S. Government civilian (NH4) in the Utility Helicopters Project office (UHPO), all in support of aviation service.

CHAPTER PHOTOS BY DAVID SWAIN

Mr. Rick I. Hubert, branch chief of programs planning and controls in the Utility Helicopter Project Office, is inducted into the Bronze Honorable Order of St. Michael by chapter president, Mr. Gary Nenninger and COL Calvin Lane, project manager UHPO, on Sept. 28, 2022 at Redstone Arsenal, AL. With his wife Donna at his side, Hubert was recognized for his significant and lasting contributions to Army Aviation for 41 years, 26 years of which were in the UHPO.

Voodoo Chapter

CHAPTER PHOTO BY TOBY VALADIE

CW5 Kevin P. Dares, with wife, Dawn, at his side, is inducted into the Gold Honorable Order of St. Michael by AAAA National President, MG (Ret.) Tim Crosby, on Sept. 16, 2022 at Hammond, Louisiana. Dares was recognized for his significant and long-lasting contributions to Army Aviation through various positions within the Louisiana National Guard, to include instructor pilot in multiple aircraft, to State standardization pilot, and culminating as State Command Chief Warrant Officer.

OSMs *Continued on page 76*

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 from October 2021 through October 2022. 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 and loans. Donors marked with an * are partially or totally donating to the newly established Families of the Fallen Scholarship. Every penny donated to the Scholarship Foundation goes directly to a grant or loan as a result of the Army Aviation Association of America subsidizing ALL administrative costs!*

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

AAAA Membership Update

By CW4 Becki Chambers

This month's article highlights a member from our Air Traffic Controller Community – CW2 Delandrius (Dee) Allen.

The Membership Corner

CW2 Dee Allen grew up in Sheffield, AL and enlisted in the Army in 2007. Dee joined the military to serve his country, to travel the world, and to further his education.

Since joining the military, Dee has visited multiple countries and completed his Associates and bachelor's degree. He is currently pursuing a Master's in Business Administration. CW2 Allen chose to become an Air Traffic Controller because he found the career field interesting, and he felt that being an Air Traffic Controller would make him marketable in the civilian sector.

Dee has served in several positions throughout his career to include ATC Training Supervisor, Facility Chief, Senior Drill Sergeant, ATC Platoon Leader, Airfield Manager, and Airspace Manager. He has two overseas tours (Germany & Korea) and multiple combat deployments to Iraq and Afghanistan. The proudest moments of his military career came from transforming civilians into Soldiers as a drill sergeant and leading Soldiers in combat as an ATC Platoon Leader.

He applied to become a warrant officer because he felt that it would increase his level of responsibility and allow him to advocate for the Army ATC community. Dee quickly learned that his sphere of influence far exceeds the Army ATC community. One of his career goals is to leave a lasting impact on the Army and the people that he encounters daily. Since becoming a Warrant Officer, Dee has had the opportunity to lead and mentor Soldiers in the ATC community and advise/educate commanders and staff on matters regarding Army ATC/Airspace. He currently serves as the Airspace Manager for the 101st Combat Aviation Brigade in Fort Campbell, KY. CW2 Allen's future goals are to continue to serve his country, complete his master's degree, and retire from the Army as a CW5.

CW2 DEE ALLEN PERSONAL PHOTO

CW2 Dee Allen

Dee is married (dual military) with three children (Alexiya, Jada, and DJ). His spouse, MSG Jamila Allen, is currently in Fort Bliss, TX, where she is a student of Class 73 of the Sergeants Major Academy. Dee and Jamila met when they were both stationed at Fort Benning and have been married for 6 years. Jamila is a 42A (Human Resource Specialist). They have found that being career Soldiers while raising young children can be a challenge at times. Over the years, they have learned that teamwork and effective communication can assist with mitigating those challenges. They both enjoy serving in the military and they look forward to continuing to serve for several more years.

Q: Why do you think it's important for Soldiers to belong to professional organizations?

CW2 Allen thinks it extremely important for Soldiers to belong to professional organizations like AAAA. AAAA is an organization that strengthens the Army Aviation by giving Soldiers the opportunity to network with other professionals in the Army Aviation community. Becoming a AAAA member has not only contributed to CW2 Allen's professional development, but it has also opened his eyes to the number of great things that AAAA does for Army Aviation. AAAA contributes to the education of Army Aviation professionals by publishing a monthly magazine (ARMY AVIATION) and hosting several events to include Aviation symposiums and Aviation summits. AAAA has several other resources available for Army Aviation professionals and there are active chapters on most Army installations (CONUS & OCONUS). Dee recommends that all Soldiers within the Army Aviation community become a member of their local AAAA Chapter and experience all the great things that this great organization has to offer.

CW4 Becki Chambers
AAAA Vice President for Membership

New AAAA Life Members

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Aviation Center Chapter
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COL Joe Degliuomini
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Old Tucson Chapter
PV2 Jorge L. Moreno
Oregon Trail Chapter
Mrs. Clara Cook
Mrs. Kinzer Hough
Phantom Corps Chapter
CW3 Bradley C. Young
Pikes Peak Chapter
Mr. Michael Everist
Prairie Soldier Chapter
CW3 Lewis Messier
Rio Grande Chapter
Mr. Felix Herold
Savannah Chapter
CAPT Duane Caswell
1SG Karl N. Kurz
Southern California Chapter
Mr. Nabil Abdou
Mr. Youssef Adib
Mr. Ryan Ferraro
Ms. Ashley Loveless
Ms. Julie Ann Phinney
Ms. Sherry Sidarous
Stonewall Jackson Chapter
MAJ Zachary Sinnen
Tennessee Valley Chapter
Mr. Marcel Benoit
Mr. Michael W. Cook
Ms. Jeanine Cudahy
Mr. Julie Flatt
Ms. Abby Frady
Mr. Luis D. Garcia
Ms. Callee Hoffman
Mr. Randall Kline
Mr. Steve Leverette
CW4 David Schmiechen
CW5 John Ulmer
Mr. Ron Unger
Thunderbird Chapter
Mr. Barry Douglas
Mr. Jimmy Warren
1LT Justin Wolzen
Utah Chapter
Mr. Jamie Lecker
Voodoo Chapter
Mr. Joseph Calandra
Mr. Dusty Moore
SPC Alyssa Holmes Pellegrin
Washington-Potomac Chapter
Mr. Patrick Biddinger
Ms. Heather Bonds
Mr. Peter Flora
Mr. Wil Myrick
Ms. Alexandria Oliver
Ms. Mariana Rutherford
Wright Brothers Chapter
Mr. Nick Ernest
Mr. Roger Gaul
Yellowhammer Chapter
COL John Gunter

Lost Members

Help AAAA locate a lost member from this list and receive a FREE one month AAAA membership.

CPT Robert S. Boham
Mr. Harold V. Bowie, Jr.
COL Fred E. Brown, Ret.
LTC Jeffery D. Brown
Mr. Rickey J. Brown
MAJ James E. Bruckart
Mr. E. W. Cavanaugh
LTC Richard G. Cercone, Jr.
LTC Tzu-Shan Chang
COL James A. Coar, Ret.
MAJ Harry Connors, Jr. Ret.
Mr. Bruno Cussigh
1LT Jimmy Joe Doe
2LT Arthur W. Galloway
Mr. William H. Gillispie
Mr. Michael F. Glass
MAJ Gregory W. Glover
LTC William T. Goforth
Ms. Mary H. Gorman
COL Gerhard Granz, Ret.
Mr. Dexter Henson
COL Jose L. Hinojosa, Ret.
CW4 Delbert Jackson, Ret.
LTC Randy K. Jackson
CW3 Jeffrey J. Jelonek
MAJ Gregory R. Jenkins
MAJ David A. Jobe
LTC Peter D. Kowal
CW3 Vladimir Kultschizky
CW3 Timothy J. Larz
MSG David W. Little, Ret.
SGM Ivonne Morrison, Ret.
MAJ Darrel B. Nerove
Mr. Fred A. Newcomb
SFC Henry R. Rathbone, Ret.
LTC Martin Scheld
Mr. Thomas R. Schiltz
LTC Jerry D. Scott
LTC Jay Q. Smith
MAJ James F. Speelman
LTC Friedrich Stern
Ms. Jean K. Tinsley
WO1 Armando B. Torres
MAJ L.D. Walker
Mrs. Rose Weast

AAAA Family Forum Compiled by Judy Konitzer

A Time to Give Thanks

Thanksgiving is a perfect time to reflect on our many blessings, and this month AAAA and AAPI leadership have graciously shared their personal reflections with us.

MG Tim Crosby (Ret), ***President AAAA:***
Our forefathers started Thanksgiving to thank God for the harvest bounty they enjoyed, inviting their native American friends to participate in the celebration. We in the Army have been many places in the world and appreciate the "bounty" and the freedoms that we Americans enjoy. Thanksgiving is a time for friends and family to come together and reflect on all that we must be thankful for, and yes, thank God for it, just as our forefathers did.

BG Mike Flowers (Ret), ***President Scholarship Foundation, Inc.:***
Thanksgiving many times had been duty, deployments, and hardship. I remember being deployed to Grenada and we had our first hot meal after 30 days of C rations and MREs only to have many in the troop suffer gastrointestinal problems in the middle of the night. We can laugh about it now. Experiences like the above make it much more enjoyable when you spend time with family and friends. It is such a blessing to be able to host friends and family to include grandkids for a day to reflect and be thankful.

BG Steve Mundt (Ret), ***President Trade School, Licensing, and Certification Foundation, Inc.:***
Thanksgiving is very special to me and my family. While we celebrate it in the United States on the fourth Thursday of November, it is also an international celebration in many countries around the world. The significance for me and my family is based on it being a time to stop and give "Thanks to God" for his amazing love and mercy in creating these United States of America. It is also special as my parents were married on November 25th, 1952, I was born November 25th, 1953, and my eldest sister of three was born November 25th, 1955. It is truly a time of thanks and celebration.

Bill Harris, ***Executive Director AAAA:***
First, I am thankful to live in the Land of the Free where we can still worship as one nation under God. Second, to my immediate family and my larger AAAA family…what an honor to serve you. Finally, to everyone who is or ever has worn the uniform, thanks for making our freedoms possible through your and your families sacrifices. God Bless you and keep you all safe. Above the Best! Now let's eat some turkey.

Janis Arena, ***AAAA Awards Director:***
When someone asks me what I am thankful for, my immediate thoughts go to my family. I am so blessed that all are healthy, kind, and caring people. In particular, my beautiful grandchildren…. four granddaughters and one grandson, all who bring such joy to this "Granny Jannie". I am also blessed to have found a job that means so much to me. I have had the honor of meeting amazing men and women who serve in our Army and dedicate themselves to protecting our nation. I have been particularly blessed to have met the Cub Club members and called them my friends. Amazing men who will forever be etched in my heart.

CW4 Joe Pisano (Ret), ***Editor:***
I am thankful for every minute that I have been and may be given on this planet; for the love, strength and support of my wife and my extended families; for the men and women of our Armed forces who dedicate themselves to defend with their lives our way of life and their families that sacrifice so much, and for the first responders who stand ready to be there when needed. May God Bless you and keep you.

Anne Ewing, ***Director of Design and Production:***
I am thankful for my wonderful family and friends and for God's many Blessings on this road called life. I am also so greatful to be a minor part of AAAA in a supporting role working with so many dedicated people. Let's all try to take time every day, not just at Thanksgiving, to recognise and thank someone for something, no matter how trivial it may seem. Happy Thanksgiving!

Judy Konitzer, ***Family Forum Editor:***
I thank God daily for each new day. I am blessed with "my Rock" of 54 years, our 7 children and their spouses, and 12 grandchildren who are all lovingly there for us and each other. As a proud 'Army Brat" and Army wife I greatly appreciate the sacrifices made by our Soldiers and our families allowing us to enjoy our many freedoms. And sharing this column with you for 16 years while working with and getting to know so many families and organizations who support us is a privilege for which I am beyond grateful.

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

AAAA **Awards**

Order of St. Michael Inductees

Gold

Voodoo Chapter
CW5 Kevin P. Dares

Silver

Colonial Virginia Chapter
SGM Robert Petree
CW4 Corey Reeves
Connecticut Chapter
CW5 Michael W. Behuniak
CSM Paul S. Garofolo
CW5 John R. Weaver
Iron Mike Chapter
CW5 Michael R. Blain
Old Tucson Chapter
CW5 Charles L. Folk
Savannah Chapter
CW5 Matthew D. Triplett
No Chapter Affiliation
COL David R. Doran

Bronze

Air Assault Chapter
CW4 Jesus M. Carnet
SSG Timothy C. Medina
Aloha Chapter
CW3 Hermann Bautzmann
CW4 Joel Garzelloni
MAJ Brandon Gilles
CSM Justin Webb
Aviation Center Chapter
MAJ Michael R. Brabender
1SG John M. Cunningham II
LTC Gerardo Dominguez
CW4 Elden E. Engelhard
SGM Morgan L. Evans Jr.
CPT Robert J. Ferrianolo
CW3 Christopher M. Lee
CW4 Bradley D. Lindgren
CW4 Johnny A. Moncayo
CW4 Foster Oates, Ret.
CW4 Brandon L. Robinson
1SG Natalie N. Showers
SSG Dustin M. Torrez
CPT Nicholas T. Tubbs
SFC Joseph Wichowski Jr.
Big Sky Chapter
SSG Will Barber
CW4 Steve Mckenzie
SSG Anthony Michaelson
SPC Braylee Stone
SFC Randy Tetrault
Colonial Virginia Chapter
SFC Corrie M. Ferrin
MAJ Russell D. Zayas
Flint Hills Chapter
CW3 David L. Marschall
CW2 Aaron M. Van Alstine
Grizzly Chapter
COL Alan R. Gronewold
Iron Mike Chapter
LTC Phillip J. Ewell
1SG Charles E. Fellers
SFC Justin H. Runion
Jimmy Doolittle Chapter
CW4 Timothy D. Troutman
Mid-Atlantic Chapter
CW4 Patrick C. Fisher
Morning Calm Chapter
MAJ Anthony L. Bulaclac, Jr.
CPT Kelsey L. Evans
1SG Miguel Guzman, Jr.
MSG Julio W. Larios
SFC Teddy J. Lopez
1SG Christopher K. Minson
MAJ Kyle R. Murray
CPT Mark Myers
CW2 Jonathan A. Reed
1SG Todd E. Sherman, Jr.
CW3 Adam Stalvey
CW2 Brendyn R. Sullivan
MAJ Travis Tarbox
MAJ Stephen M. Townsend
Oregon Trail Chapter
SSG Elana M. Cleveland
SFC Brandon W. Names
Phantom Corps Chapter
CW3 Brian M. Lazzara
Savannah Chapter
CW3 Ian J. Foote
MAJ Sean R. Richardson
1SG Luke A. Ware
Stonewall Jackson Chapter
SFC Wayne J. Abrams
CW3 Darrell M. Busquets
MAJ Charles D. Byrd IV
CW3 Matthew J. Carbaugh
MAJ Charles A. Cavender
CW2 Jennifer L. Gaulton
SSG Heather R. Hunt
MAJ Benjamin S. Zahm
Tennessee Valley Chapter
Eddie Barber
Thunderbird Chapter
SSG Gerald G. Houston
Washington-Potomac Chapter
LTC James Bell
James E. Boyd
CPT Nathaniel D. Cumming
SFC Timothy Huggins, Ret.
Winged Warriors Chapter
SFC Kenneth G. Martin
CW3 Steven A. Martin

Knight Inductees

Tennessee Valley Chapter
Rick Hubert
Michael B. McRae
Washington-Potomac Chapter
Korie M. Beale

Our Lady of Loreto Inductees

Aloha Chapter
Susan R. Katz
Barbara J. Shealey
Aviation Center Chapter
Theresa Barrett
Kristle K. Roen
Bavarian Chapter
Abigail L. Lugo
Jessica Romaneski
Connecticut Chapter
Lynette Astolfi
High Desert Chapter
Cherisa Angel
Phantom Corps Chapter
Martha E. Honeycutt
Jenny Hunt
Savannah Chapter
Dr. Erin Paulus
Tennessee Valley Chapter
Amy Anderson

AAAA Award Nominations Are Now Open !

Awards To Be Presented at the Annual Army Aviation Mission Solutions Summit:

DAC of the Year
McClellan Safety Award
Soldier of the Year
NCO of the Year
Crew Chief of the Year
Aviator of the Year
Leich Award
USAR Unit of the Year
ARNG Unit of the Year
Active Unit of the Year
Outstanding Unit of the Year

Nominations Due: January 1, 2023
quad-a.org/awards

ARMYAVIATION ▶ Advertiser Spotlight

SKEDCO INC.

SKEDCO INC.
RESCUE EQUIPMENT

Skedco was founded in 1981 for the purpose of manufacturing the SKED stretcher. Skedco immediately targeted the Military and Fire Service as the obvious market. They very quickly found that cavers, industry and wilderness rescue teams needed the Sked too.

It took Skedco a very long time to create the necessary confidence within the rescue community for them to spend their resources on a SKED because it was so different than other stretchers.

During "Operation Just Cause" the U.S military deployed a very large number of SKED systems. SKED performed very well during that operation and many lives were saved. The U.S. Army Rangers were the first to use the SKED to haul equipment. They would drag many critical items and sometimes a patient faster and easier than carrying them.

In the early 1990's OSHA mandated that industry be able to respond and execute a confined space rescue in a very short time. SKED was the natural choice for confined spaces as it will bring victims through smaller, more confined areas than any other stretcher, even when the patient is immobilized.

SKEDCO now produces over 200 products some of which are focus on the army aviation community including the Helicopter Medic Bag, Crew Chief Bag, Universal Litter Tie-Down Strap, Patient Litter Strap, SKED Stretcher and Oregon Spine Splint II. SKEDCO also offer a wide array of Military rescue and emergency medical products. The company and its' employees remain dedicated to saving lives throughout the world.

Catergories: Manufacturing,Women-Owned Business, Minority-Owned Business
Size of Company: Small, 0-99 Employees

https://www,skedco.com

AAAA **Legislative** Report

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

Clear the "APU!!"

The Congressional weather hold is quickly passing as the mid-term elections should be complete by the time this update is published. So, it will soon be time to crank the engines and see how critical Aviation programs and initiatives fare during Conference activities. Conference conditions were relatively "set" for the NDAA and Defense Appropriations bills prior to the mid-term elections. Most recently the Senate Armed Services Committee (SASC) passed their version of the NDAA in October. Their passage of the NDAA was a bit unique in the fact that the Committee Members agreed to a limited "manager's" package of Bill amendments that were coupled with their version of the funding tables. The package consists of over 50 Amendments that are primarily focused on policy related matters ranging from Ukraine to Cyber Security. There were no Amendments that directly called out Army Aviation programs. However, some of the Amendments could be promising for future sales of Army Aviation capabilities internationally. Of note there is a provision directing the DoD to highlight, and potentially fill, existing capability gaps in Taiwan. This could potentially lead to additional sales of Army Aviation capabilities in support of INDOPACOM initiatives. The Senate version of the NDAA will still require a "floor" vote for formal passage. As a reminder the House passed their version of the NDAA on 14 July.

We can expect the Authorizations and Appropriations committees to conduct conference or "conference like" activities when the Hill returns to Session in the mid to late November timeframe. The Appropriations conference will be interesting to watch when considering that SAC-D only provided a "Chairman's position" and not a full committee Mark. It's expected for SAC-D to use that "position" to negotiate with HAC-D (the appropriations differences were highlighted in last month's article). Neither the House nor Senate versions of the Defense Appropriations Bill were tabled for a "floor vote." It will certainly be fascinating to see how the Bills proceed following the elections. The good news is that there is an expectation to see an overall increase to the Army's budget. The particulars of how Army Aviation programs fall out will only be told after conference.

We need to remember that Congress will also have to contend with the current continuing resolution (CR) following the elections. The current CR expires on 16 December. That means that Congress will either have to pass the FY23 Appropriations bills or enact a follow-on CR. The latter is expected which will be damaging considering the Army's reduced buying power due to inflation. Furthermore, the CR will leave FY22 funding caps in place that could interfere with key program schedules as they transition in to 2023. FLRAA comes to mind when considering the program down select is expected before the end of this calendar year.

Congress and the FLRAA Down Select

There was much "buzz" surrounding the potential announcement of the FLRAA down select at this year's AUSA symposium in Washington, D.C. There was plenty of conjecture amongst the booth "pundits" throughout the Washington D.C. Conference Center. As with any major weapons system down selection rumors abound. However, what was clearly messaged by our Senior Leaders is that the announcement will be some time later this calendar year. Here is what we do know. The Army is executing a detailed and rigorous assessment of the FLRAA competitors' offerings. Those being Bell's V-280 "Valor" and Sikorsky-Boeing's SB-1 "DefiantX."

When considering the gravity of the selection it's a sure bet that ASA(ALT), PEO Aviation and the FLRAA Project Office are executing to the letter of the Defense Federal Acquisition Regulations (DFARS). It's certain that the Hill is peppering ASA (ALT), PEO Aviation and PM FLRAA with requests for information on the program. What is highly doubtful is that Congress would try to influence the down select announcement, or moreover, try to influence the eventual winner. Afterall, Congress codifies the Federal Acquisition Regulations to ensure that competitions are fare and ultimately lead to the best capability for the Army. The FLRAA down select is without question a significant matter of Political interest. Defense committees clearly demonstrated their support for the Army's FLRAA budget requests over the years dating back to the Joint Multi-Role Tech Demonstrator Program (JMRTD). The strategic difference that FLRAA will bring to the Army Aviation fight isn't lost on the Hill. The down select decision will absolutely impact key States with respectable delegations. Notables include Connecticut, Pennsylvania, Arizona (Sikorsky-Boeing) and Texas (Bell Textron). If FLRAA repeats the history of its predecessor the UH-60, it will be in the Army Aviation inventory for 30+ years. Domestic and International sales will keep the production line and associated jobs in place for years to come. Contribution to National Defense, jobs, revenue, and pride in manufacturing are key attributes that Members desire for their states and districts. FLRAA will be a wind fall for Army Aviation, Members and their constituents.

UPCOMING EVENTS

DECEMBER 2022
6-7 AAAA Luther G. Jones Army Aviation Depot Forum, Corpus Christi, TX
10 The 123rd Army-Navy Game, Lincoln Field, Philadelphia, PA
15 Submission Deadline – Scholarship Applications

JANUARY 2023
1 Submission Deadline – National Awards
15 Submission Deadline – Scholarship Application Supporting Documents

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.

Tucker To Take Over Pinnacle Solutions

PINNACLE SOLUTIONS INC. PHOTO

Founder and outgoing CEO Mike Durant announced on October 6 the Pinnacle Solutions' Board of Directors appointment of Tina Tucker as its new President and Chief Executive Officer effective 1 January 2023.

Mathias Joins GKN Aerospace

GKN AEROSPACE PHOTO

GKN Aerospace has appointed Steve Mathias as Senior Vice President of Strategy and Growth for the Defense Airframe business, effective December 1.

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

Allied Technologies Group Inc.,* Huntsville, AL, was awarded a $9,146,194 hybrid (firm-fixed-price and time-and-materials) contract for logistic support services for the Utility Helicopters Project Office; work will be performed in Huntsville, with an estimated completion date of Oct. 21, 2027.

Kiewit Infrastructure West Company, Honolulu, HI, was awarded a $53,148,000 firm-fixed-price contract to construct a concrete rotary-wing aircraft parking apron, concrete taxiways with helipads and a concrete parallel taxiway at Wheeler Army Airfield; work will be performed in Wahiawa, with an estimated completion date of Dec. 31, 2024.

Advertisers Index

ARMYAVIATION Editor's Mailbox

We encourage you to send your comments and suggestions to editor@quad-a.org. Submissions should be exclusive to ARMY AVIATION – we do not publish open letters or third-party letters. Submissions should be 150 to 175 words, should refer to an article that has appeared in the current or most previous issue, and must include the writer's name, address, email address, and phone numbers. No attachments, please. We regret that because of the volume of submissions, we cannot acknowledge unpublished letters other than by an automated e-mail reply. Writers of letters selected for publication will be notified within a week. Letters may be edited and shortened for space.

Joe Pisano, Editor

I just read Kinnard's article in the Blue Book issue. He was a true visionary to be sure. My first war was in Vietnam with the 101st starting with Hamburger Hill. During that year we fought exactly as LTG K described in his article.

As a new Captain and new to fighting a war I took our tactics as a given. I did not give a second thought as to how and who developed them. I flew C model Huey gunships and Cobra gunships in Vietnam. I also flew for MACV-SOG.

My second war was Desert Storm where, as a colonel, I commanded the 1st Armor Division Combat Aviation Brigade (CAB). During our verbal AAR while still in the desert our 1AD CG stated that the biggest lesson he learned from the war was with Apache helicopters he did not have to keep a ground force in reserve. He could commit his full division. Like what Kinnard said in his article.

Thanks for including the LTG Kinnard article in the Army Aviation August/ September edition.

Warmest Regards,
Dan Petrosky

Editor's Note: LTG Dan Petrosky, U.S. Army Retired, is a former Army Aviation Branch Chief, Commanding General, Eighth U.S. Army, Chief of Staff, U.S. European Command, and a past president of AAAA.

People On The Move

Deployments/ Redeployments

ORARNG Lakota's Headed to Southwest Border Duty

WA ANG PHOTO BY MSGT. JOHN HUGHEL

A delegation of Oregon National Guard boards a UH-72 Lakota ahead of their departure from the Warm Springs Reservation. The Oregon National Guard held a deployment ceremony Friday, Oct. 7, 2022, for Lakota helicopters and crews that are going to Southwestern states to support the U.S. Border Patrol. The Lakota detachment will serve under Joint Task Force North, a multi-service, counter-drug and anti-terrorist operation by the U.S. Department of Defense. JTFN's headquarters are at Biggs Army Airfield, Fort Bliss, Texas. Aviators from seven states and the U.S. Virgin Islands are providing rotary wing aviation support to Customs and Border Protection for fiscal year 2023.

Awards

Wildcard Battalion Recognized

The Department of Defense announced on September 26, the 2022 winners of the Secretary of Defense Maintenance Awards. These awards are presented annually to recognize outstanding achievements in weapon systems and military equipment maintenance. 2nd Battalion (Assault), 2nd Aviation Regiment, K16 Airbase, South Korea was selected in the large unit category.

U.S. ARMY GRAPHIC

From the six field-level winners, one will be selected as this year's recipient of the Phoenix Award identifying that winner as the top-performing field-level maintenance unit in the DoD. The Phoenix Award winner will be presented at the annual Department of Defense Maintenance Awards Banquet December 13, 2022, at the Orange County Convention Center in Orlando, Florida.

Flight School Graduates

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

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

55 Officers September 22, 2022
Class 22-023
Commissioned Officers
2LT Scott, Ethan D. * - DG
1LT Beaty, Garrett H. - HG
2LT Mahoney, Jack P. - HG
2LT Matus, Brian J. * - HG
2LT Turner, David A. - HG
CPT Bassett, Christopher M.
1LT Belden, Tyler A.
1LT Bickus, Jacob E.
1LT Brecheen, Olivia N.
2LT Bunce, Elizabeth K.
2LT Cohen, Benjamin H.
2LT Dueffert, Jade O. *
2LT Fonteneau, Etienne R.
1LT Guthrie, Gabriel V.
2LT Hasslen, Hope L.
2LT Hylton, Justice B.
1LT Joles, Caleb P.
2LT Maier-Costanza, Emily P. *
2LT Manderfeld, Ellie M. *
1LT Peck, Jayden K.
2LT Raynor, Audrey N.
2LT Regan, Connor R.
2LT Resendez, Zachary A.
2LT Saenz, Patrick J.
2LT Saheed, Ian S.
2LT Stokes, Leslie T.
1LT Wobbleton, Devin L.
Warrant Officers
WO1 Gross, Jeffrey W. * - DG
WO1 Golden, Jason T. -HG
CW2 Hampton, Spencer K. - HG
WO1 Laing-Taylor, Jack - HG
CW2 Paddock, Benjamin T. * - HG
WO1 Acosta, Daniel H.
WO1 Carmichael, Hunter A.
WO1 Cole, Dean A. *

FSXXI Class 22-023

WO1 Curtiss, Chad
WO1 Dahl, Alec A.
WO1 Daniels, Mitchell B. *
WO1 Delph, Jacob A.
CW2 Dunlap, Garrett C. *
WO1 Evans, Joshua A.
WO1 Faughn, David L. *
CW2 Ladolcetta, Nicholas C.
WO1 Mejia, Michael G.
WO1 Messmer, Alexander M.
WO1 Nasuti, Nolan P.
WO1 Padgett, Michael S.
CW2 Pavlak, Daniel J.
WO1 Perry, Christopher J., VI *
WO1 Pettiford, Matthew T.
WO1 Presley, Kevin M.
WO1 Sepulveda, Jason A.
WO1 Trujillo, Catherine R.
WO1 Weeks, Richard L.
WO1 Winters, Brandon D.

29 Officers October 6, 2022
Class 22-024
Commissioned Officers
2LT Springer, James R. * - DG
2LT Baker, Sydney N. - HG
WO1 Cunningham, Joshua M. - HG

FSXXI Class 22-024

ALL PHOTOS U.S. ARMY PHOTO, FORT RUCKER PUBLIC AFFAIRS

2LT Abshire, Cody M.
1LT Ayer, William B.
2LT Lipton, Kyle A. *
2LT Maguire, William B.
2LT Morton, Brandon C.
CPT Shuler, Franklin G., III *
2LT Stevenson, Kendrick J. *
Warrant Officers
WO1 Howton, Dalton R. - DG
WO1 Hoose, Shawn M. - HG
WO1 Storment, Jacob M. - HG
WO1 Barton, Jacob L. *
WO1 Boudia, Griffin T.
WO1 Butler, Ledarius D.
WO1 Dirar, Farras S.
CW2 Fontanez, Joey R. *
WO1 Gibbs, Aaron K.
WO1 Hastings, Walter J., V

People On The Move

WO1 Mason, Zachary R.
WO1 Nance, Zerrick D.
WO1 Olson, Lars P.
WO1 Perkins, Anthony L.
WO1 Smith, Ellison M., IV
WO1 Wall, Joshua D.
WO1 Waters, Michael A.
WO1 Wright, Eric M. *
WO1 Yarworth, Christopher S. *

40 Officers, October 20, 2022
Class 22-025
Commissioned Officers
2LT Fortier, Alexander H. * - DG
2LT Mills, Samuel C. - HG
2LT Cao, Nam N. *
2LT Dalle, Alexandra M.
2LT Diebenow, Christian J.
2LT Kazmierczak, Thomas J. *
2LT Pinson, Charnelle C. *
2LT Ureno, Jared T.
Warrant Officers
WO1 Baswell, Zachary D. - DG
WO1 Case, Shelby L*. - HG
WO1 Eveleth, Joshua D. - HG
WO1 Linville, Joseph T. - HG
WO1 Mackey, Jared D. - HG
WO1 Adams, Robert B. *
WO1 Anselm, Ewald
WO1 Bailey, Jonathan M. *
WO1 Brauneis, William J.
WO1 Carr, Justin L. *
WO1 Feuerborn, Sarah A. *
WO1 Gore, Chase W.
WO1 Graham, Grant D.
WO1 Hamilton, Nicolas D.
WO1 Healy, Aaron M.
WO1 Howell, Jeremy C.
WO1 Krinke, Danielle M. *
WO1 Kydd, Nicholas C.
WO1 Matticks, Jaime L.
WO1 McCoy, Bryan S. *
WO1 Myers, Scott T.
WO1 Radebaugh, Gavin S.
WO1 Ray, Deven T. *
WO1 Rios Crespo, Jonathan
WO1 Schultz, Jonathan T.

WO1 Schutzman, Adam J. *
WO1 Smith, Andrew D.
WO1 Smith, Cody L. *
WO1 Smith, Darrin
WO1 Smith, Wyatt L. *
WO1 Still, Olivia C.
WO1 Tabor, Joshua J.
-DG: Distinguished Graduate
-HG: Honor Graduate
* = AAAA Member

ADVANCED INDIVIDUAL TRAINING (AIT) GRADUATIONS

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

AH-64 Attack Helicopter Repairer (15R)
Class 032-22
PV2 Jorge Luiz Moreno-DG
PV2 Richard Owusu Afrifa
MSG Abdulrahman Al Mohammadi
SPC Dhia Boukari
PV1 Krystle Marie Cook
SPC Case Ryan Eldridge
PV2 Caden James Halsey
PV1 Jordan Joshjames Hazle
CPL Rickie Robert Keese
PV2 Aidan Taylor Ostler
PFC Edgar Sebastian Sosamarquez

CH-47 Medium Helicopter Repairer (15U)
Class 030-22
PFC Samuel Aaron Hohn - DG
SPC Thomas Donald Capps
SPC Jason Andrew Hawkins
SPC Watcharit Kucinski
SPC Jesse Sterlingrushh Lindvig
CPL Matthew Lawrence Marven
SPC Jesus Enrique Menarenteria
SPC Jordan Matthew Rivers
PFC Luke Anthony Shaffer
Class 031-22
PFC Dipesh Awal
PFC Jacob Bertrang
PFC Abimael Delgado
SPC Dillan Hinterman
PVT Anna Huseman
SPC River Jones
PV2 Mario Palmer
SPC Joshua Rivello
PVT German Rojeroherrera
Class 032-22
PV1 Zachary Luke Albright-DG
MSG Sami Mohammed A. Asiri
PFC Pieter Booysen
SPC Kurt Allen Davis
SPC Dakota Alexander Dean
SPC Mason Ryan Jones
PFC Rachael Kite Poloa
PV1 Benjamin Stewart Potter
PV1 Robert Joseph Saddig

UH-60 Helicopter Repairer (15T)
Class 066-22
PV1 Elizabeth Lynn Flannagin-DG
PV2 Joshua Michael Barnes
PV2 Austin Jameswilliam Bronec
SPC Kyle Brennan Christy
PV2 Casin Robert Downwilson
SPC Payton Olivia Johanneson
PV2 William Zachary Kennedy
PV2 Mariano Lopezblanco
PFC Giavanna E Marchesani
PFC Donald Henry Mcglone
PFC Ali Sokri
PFC Madelyn Kate Yoder
Class 067-22
PFC Matthew Allen Rankin-DG
PFC Christopher Ryan Miller
SPC Hery Luis Oliveravalentin
PFC Adedayo O Owode
PFC Xavier Matthew Powell
PV2 Matthew Donald Rankin
PFC Ewen M Riordan
PV2 Matthew Isaiah Rodriguez
PV2 Rafael Oma Rodriguezvazquez
PV2 Connor Peyton Shank
PV2 Christian Emmanuel Valencia
PV2 Daniel Vicovan
Class 068-22
PV2 Zane Michael Nelson-DG
PFC Joshua Andrew Ackerman
SPC Joseph Lee Carpenter
PFC Marcos Adrian Catano
SPC Tristin James Elizondo
SPC Tyler Paul Phillip Griffith
SPC Timothy Allen Mccrary
SPC Thomas Jacob Nash
SGT Derrick Austin Pearson
SPC Dustin Scott Tabbert
PV2 Andres Junior Vasquezvaldez
PV2 Austin Blake Watts
Class 069-22
PV2 Alexander Matthew East-DG
PV2 Shawn Allen Ayers
PFC Ryan A Bourgeois
PV2 Sawyer John Carson
PFC Alexander Sean Egan
PV2 Roger Enrique Gutierrez
SGT Katelynn Renee King
PFC Mathew Ray Schermerhorn
PV2 Bryce Dale Sviland
PV2 Dawson Benjamin Vick
PV2 Brian Yi
PFC Robert Zaragoza
Class 070-22
PFC Andrew J. Rademacher-DG
PFC Terry Durand Lewis III
PV2 Jacob William Mashburn
PV2 Joseph Hasani Ogarro
PFC Oscar Javier Pueyo
Class 071-22
PV2 Konrad Daniel Duncan-DG
PV2 Marisol June Brinkman
PV1 Jeremiah Edward Clark
PV1 Daniel Elliot Geoghan
PV1 Christian Elias Gonzalez
PFC Jacob Taylem Jones
CPL Michael Kanizaj
SPC Eric Okello Onyango
PV1 William Patrick Peltzer
Class 073-22
SPC Timothy W Momaney-DG
PFC Jalin Nevaeh Edwards
PV2 Carter Ray Fortune
PV2 Leron Grayson
PV2 John George Hennessy
PV2 Zachary Dale Kenderes
SPC Chance William Knight
CPL Michael Kanizaj
SGT Gregory Mendoza
PFC Travis Jay Puleo
PV2 Shane Daniel Sennett
Class 074-22
SPC Alyssa Holmes Pellegrin-DG
PV2 Jonathan Isaiah Allin
PFC Adriona Lei Brandenburger
SPC Saul N Caceresmatos
PV2 Brendan Christopher Giles
SPC David Gonzalezquintana
PFC Michael Thomas Josefson
PV2 Ryan Martin Mackenzie
PV2 Noah Michael Ocasio
SGT Adam Samuel Ziebelman
Class 075-22
PV2 Ethanabraham C.Osborne-DG
PV2 Juan Sebastian Acevedo
CPL Cristian Aguirre
SPC Jonathan Max Greene
SPC Adam James Lipman
SPC Jack Iben Peru
SPC Jarrod Blane Pippins
PFC Kierian Javie Rosariotorres
SPC Luis Salgado, Jr
SGT Evaldo Spaho
PFC Joshua Raylewis Walton
PV2 Daniel Vicovan
Class 076-22
PFC Chelsey Rene Santellanes-DG
PV2 Michael Jon Giacona, Jr
PV2 Gavin Amon Hall
SGT Arnis Jagza
PV2 Jordan Domonigue Jarvis
PV2 Isaiah Maurice Kief
PV2 Christopher Maurice Latson
PFC Brandon Rosas
SPC Megan Christine Rourke
PFC Megan Elizabeth Traver
SPC Heongjin Yoon
Class 077-22
PV2 Clark Decastro Aquino-DG
CPL Joshua Joseph Bollinger
PV2 Kyle David Brubaker
PV2 Robert Joseph Bruce
PV2 Andrew Mark Coolman
SPC Jesse J Cortes
PV2 Luis Anthony Escoto
PV2 Gavin James Severeide
SPC Nathan Jeremiah Taylor
SPC William Edward Thielking
PFC Silas Roman Vandam

Aircraft Powerplant Repairer (15B)
Class 015-22
PV2 Isaiah Eliublas Eseroma-DG
1LT Mohammad A A A A Almuwail
2LT Abdulqader Y A O Y Alothman
PV2 John Michael Benson
SGT Ryan Glenn Dowell
PV2 Ricardo Hernandez
CPT Abdelkawy M. Sangak
PV2 James Mitchell Tutor

Non-Rated Warrant Officer Graduates

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

5 Graduates, 9 September 2022
Class 002-22
CW2 Michael J. Razo * - DG
CW2 Walter Edwin Adul
CW2 Neil Alan Crawley
CW2 Ryan Paul Ebbers
CW2 Logan Samuel Oravetz

Aircraft Structural Repairer(15G)
Class 010-22
PFC Derrick Austin Schmied -DG
SSG Abdullah Saad M Al Subaie
PV2 Joshua Kyleclifford Henry
SPC Rodrigo A Herrera
SPC Charles Julian Jackson
PV2 Luther Shane Silvey

Avionic Repairer (15N)
Class 014-22
SGT Saeed Ahmed M Al Muntashiri
PFC Owen Branford
MAJ Antonio Knez
SGT Mark A. De Guzman Laylo
Class 011-22
PFC Calum Xavier Rowley -DG
PFC Matthew Christopher Oneill
PFC Kaitlynn Marie Ray
PFC Caden Michael Sell
SPC Lydia Jeanene Smith
Class 012-22 No Honors
PFC Hans Roberto Almanzar
SPC Calvin John Holtom
SPC David James Shaffer

People On The Move

Aviation Operations Specialist (15P)
Class 22-024
PFC Amethyst Reddin-DG
PFC Miciah Digiacomo
PFC Tristan Cruz
PFC Samantha Enriquez
PFC Riley Kelley
PFC Jakobi Loring
PFC Argenis Miranda
PFC Braelee Mueller
PFC Liliana Rodarte
PFC Kaiden Stack
PFC Bradley Stallings
PFC Logan Taylor
PFC Emily Woosley
Class 22-025
PFC Johana Aguillonordonez-DG
PFC Jakob Hart
PFC Ian Dunn
PFC Annika Hernandezpadin
PFC Christopher Oudhoff
PFC Elizabeth Ramirez
PV2 Coleton Davis
PV2 Dorian Davis
PV2 Shemar Mcclintock
PVT Cassidy Edwards
PVT Obed Hernandez
PVT Zachary Mintz

Air Traffic Control Operator (15Q)
Class 22-018
SPC Brooklyn Pasceri
PFC Jessica Berry
PFC James Joe
PFC Brandon Miller
Class 22-019
SPC Joshua Belcher-DG
SGT Philip Phuong
SPC Aaron Nguyen
PFC Ryan Joyner
PFC Bryan Klekar
PFC Troy Reuther
PV2 Karley Scioneaux
Class 22-026
PFC Payton Beckholt-DG
PFC Elizabeth Bui*
PFC Randall Clark
PFC Nicole Yoos
PV2 Elijah Cardorna
PV2 Elvis Carmona
PV2 Jaiden Koecher
PV2 Jordan Runnels
PV2 Veronica Ryan
PV2 Daniel Westervelt
PVT Timothy Clark

Unmanned Aircraft Systems (UAS) Graduations

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

Shadow UAS Operator Course 8 Graduates, 7 October 2022
Class 22-021
SPC Bluth, Bryton
PV2 Bastin, Kristopher
PV2 Bueno, Jeremy
PVT Diaz-Rodriguez, Ferdinand
PV2 Killough, Elena
PFC La Torre, Michael A.
PFC Westoby, Brandon Q.
PVT Zaldivar, Samantha

Grey Eagle UAS Operator Course 24 Graduates, 15 March 2021
Class 22-011
SPC Schmidt, Tara -DG
PV2 Cruz, Miguel
PV2 Hernandez, Ivan
PVT Jeppe, Nicholas
PFC Reyes, Adam
PVT Moraes, Noah
SPC Prapungurn, Navapun
PV2 Santiago, Pizarro
SGT Frimpong, Phillip
PFC Griffin, Nathan
PVT Auces, Paco
PV2 Vazquez, Juan
Class 22-012
SPC Polo, Dare -DG
PVT Josey, Brenden
PV2 Karnes, William
PFC Brotherton, Austin
PVT Haywood, Isaac
SPC Linares, Jose
PFC Musac, Stephan
PVT Nelson, Benjamin
PVT Sachse, Joseph
PV2 Stewart, Daizhawn
PVT Guerrero, Christian
PV2 Brinamen, James

DG - Distinguished Graduate
HG - Honor Graduate

AAAA Salutes the Following Departed...

LTC Jack E. Cooper, Ret.
Deceased 4/27/2022

CW4 Michael S. Harris
Deceased 7/7/2022

SGM David P. Rouffy
Deceased 4/10/2022

Matthew J. Clark
Deceased 2/7/2022

Mr. Raymond Mayton
Deceased - date unknown

OSMs

Continued from page 66

Washington Potomac Chapter

CHAPTER COURTESY PHOTO

COL Winfield (Win) A. Adkins is inducted into the Silver Honorable Order of St. Michael following his last flight with The Army Aviation Brigade (TAAB) on August 31st, 2022 at Davison Army Airfield, Fort Belvoir, Virginia by chapter president, Ron Lukow, and (from left to right), LTC James Bell, TAAB Deputy Commander, LTC Dave Crocker, OSA-A Commander and chapter VP for Programs, and CW5 Scott Nalley, TAAB Command Chief Warrant Officer. Adkins was recognized for over 26 years of distinguished service where he has had long lasting impacts at the command and staff levels. Adkins was joined by his wife, Tracy and their son Mitchell.

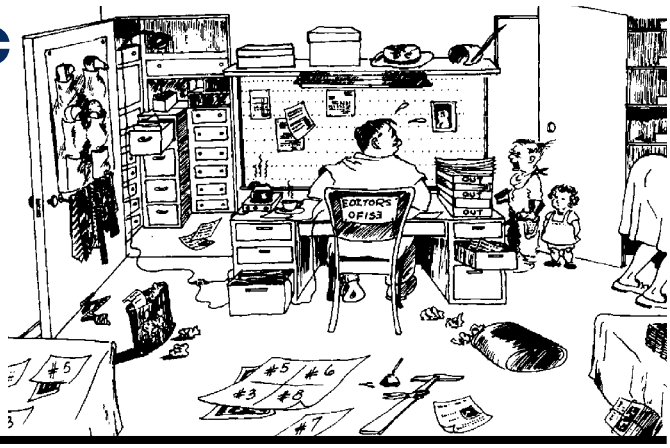
CHAPTER PHOTO BY CW5 MICHAEL R. ZANDERS

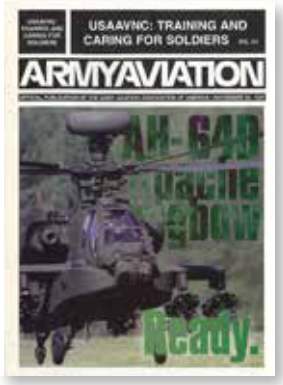
Mr. Brian Mann, Vice President, of David Mann Jewelers, is inducted as a Knight of the Honorable Order of St. Michael by chapter vice president CW5 (Ret.) Dan Curry on Sept. 16, 2022 at the Pentagon in Washington, DC. Mann was recognized for continued support of the Washington-Potomac Chapter and DoD, through the Pentagon location store. A Certificate of Excellence was also presented to David Mann Jewelers. Pictured are (l to r) Kevin English, Brian Mann, Dan Curry, Vicky Lemus, Conrad Mann.

Art's Attic

By Mark Albertson

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





25 Years Ago

November 30, 1997

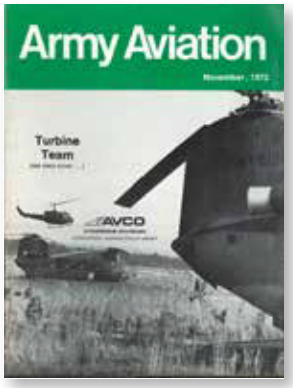
Announcement. . .

Dear Readers:

We are pleased to share with you the exciting news that the January 1998 issue of ARMY AVIATION will premier our new, standard-size format. After 45 years of the familiar digest size, our moving to standard size will offer more visual impact area for our editorial material and represents our commitment to becoming an even stronger voice of the Army Aviation community and a more dynamic forum for the exchange of ideas. We are pleased to welcome Stephen Harding to the staff as Editor. Steve served in the U.S. Army during the Vietnam period. He later attended the University of California, where he earned his BA and MA degrees in military history. A former staff historian for both the Army and Air Force, he later became a defense journalist. Steve has authored numerous articles and books on aviation and defense topics, including his most recent, "U.S. Army Aircraft Since 1947." Bill Harris, currently serving as AAAA's Acting Executive Director, has been named Editor-in-Chief. Sincerely, Lynn Coakley, Publisher

Test Flight Status

The first Comanche prototype resumed flight operations on August 27, 1997. The aircraft has been undergoing a schedule of systems updates since March 1997. The aircraft has so far completed 47 flights, accumulated 50.9 flight hours, attained a top speed of 167 knots (TAS) and by mid-October is expected to demonstrate a 170 knot dash speed.



50 Years Ago

November 30, 1972

Double-teaming!

AAAA Executive Vice President "Art" Kesten (left) and Norman C. Taylor, President of AAAA's Delaware Valley Chapter, brief some 200 Delaware National Guard aviators and crewmen in a joint AAAA-Boeing UTTAS presentation held at New Castle Airport on October 14. The combined film-oral presentation took place in the main hanger after completion of a weekend drill.

Fort Rucker

Recently unveiled was a new aircraft maintenance building at Guthrie Field. Construction cost of the 123,444 square foot facility came in at $2,494,000. Colonel Earl W. Fletcher (right), Assistant Commandant of the USAAVNS discusses the building with SFC Charles F. Piper, a maintenance course instructor. The facility boasts of 67,000 square feet of shop space and, 28 air conditioned classrooms. Thirty aircraft and mock- ups can be housed. Indeed, when packed into crates, the floor space could accommodate 21,000 compact cars. There is $8,000,000 in training aids and equipment.

Helicopter Pioneer Dies. . .

Russian-born helicopter pioneer, Igor Sikorsky, died in his Easton, Connecticut home, on October 26. He was 83. As far back as 1908, the young Sikorsky had theorized the helicopter, inspired, in part, by the likes of Jules Verne.[1] And by 1943, he was beginning to produce the R-4, history's first production helicopter. During his life, such helicopters as the H-19, CH-34, CH-37, CH-54 and CH-54B served the Army. He was interred, October 30, St. John's Cemetery, Stratford, Connecticut.

1. See pages 14 and 15, Chapter 1, "Igor as a Boy," Igor Sikorsky, by Frank J. Delear.

Army Aviation Hall of Fame

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 Rucker, Ala.

The deadline for nominations for the 2024 induction is June 1, 2023

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

Colonel Claude L. Shepard, Jr.

Army Aviation Hall of Fame 1977 Induction - Fort Rucker, AL

Lieutenant Colonel Claude L. Shepard, Jr., is cited for his enthusiastic championship of organic Army Aviation at the national level during the '42-'49 period, his personal impact upon the careers of many of the then active Liaison Pilots, and his innovative contributions to the growth of Army Aviation.

As Seventh Army Artillery Air Officer during WWII, he devoted himself completely to the problems, needs, and interests of the combat pilots and worked unceasingly to expedite the supply, repair, and replacement of Seventh Army aircraft, and to provide the most favorable R&R facility for his combat pilots, an Air OP Rest Camp at a resort hotel in Grenoble, France.

As Aviation Officer with Army Ground Forces during 1946-1949, he counseled and encouraged the relatively few Liaison Pilots to remain on active duty, recruited new talent, and negotiated the initial assignment of Army Aviators to the DA Staff.

While at DA, he designed a career ladder for aviators which established a pattern of rotation from flight duty to ground duty and professional education. In another action, he defined the roles and missions of organic Army Aviation when the USAF became a separate service in 1947.

He played a key role in introducing rotary-wing aircraft into the Army by coordinating the initial procurement of H-13 helicopters, and by arranging a contract to train the first contingent of Army helicopter pilots. Through his efforts, authority was given for the Army to procure its first multi-passenger liaison aircraft, the L-17 Navion, an action that enhanced the stature of organic Army Aviation throughout the Army.

SUPPORTING WARFIGHTERS WORLDWIDE

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

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