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On The Cover

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Briefings

Gold Star Families Exhibit Dedicated at Pentagon



Army GEN Mark A. Milley, chairman of the Joint Chiefs of Staff, attends a ribbon-cutting ceremony for the dedication of the Gold Star Families display at the Pentagon, Oct. 26, 2020. Gold Star families are the families of military service members who have died in the line of duty. The display honors the service member's ultimate sacrifice while acknowledging the family's loss, grief and continued healing.

Cutchin Takes Command of ARAC



BG H. Allan Cutchin (left) receives the Army Reserve Aviation Command colors from MG A.C. Roper, deputy commanding general of U.S. Army Reserve Command, during a change of command ceremony on Oct. 31, 2020 at Fort Knox, KY. Cutchin, who most recently served as the commander, 244th Expeditionary Combat Aviation Brigade at Joint Base McGuire-Dix-Lakehurst, NJ, assumed command from BG(P) Jami Shawley (right) who has served in the position since July 2018 and takes command of the 81st Readiness Division at Fort Jackson, SC, Nov. 14.

CCAD Rolls Out First UH-60V



The first Victor model of the UH-60 Black Hawk utility helicopter produced at Corpus Christi Army Depot rolled off the line last month ahead of a 2021 fielding, according to the U.S. Army's program executive officer for aviation. The Victor model converts a Lima-model Black Hawk with an analogue cockpit to a new digital one. This replacement better matches the capability of the UH-60 Mike model, the latest variant of the helicopter. Success with the Victor model is part of an overarching focus on a modular open-system approach needed for future vertical lift technology.

Army-Navy Game to be at USMA

The 121st Army-Navy football game, originally scheduled to be played in Philadelphia in December, will now take place at Michie Stadium at the U.S. Military Academy in West Point, New York, The change is a result of Pennsylvania's coronavirus pandemic restrictions on outdoor events. The West Point statement also indicates fan attendance will likely not be allowed at the stadium beyond the Corps of Cadets and Brigade of Midshipmen. This will be the first time an Army-Navy football game has been played at a home stadium since the Naval Academy hosted the game in 1942 and West Point in 1943. Navy currently leads in the series 61 wins versus Army's 52. The game will be televised by CBS Sports at 3 p.m. EST on Dec. 12.

National Award Nominations are OPEN!

Suspense is January 1, 2021. Forms at *www.quad-a.org*

Take care of your Soldiers and Units by nominating them for Crew Chief of the Year, ARNG Unit of the Year, and more. Note: for Unit nominations, it is strongly recommended that you also nominate at least one associated Individual Award from the unit for recognition. Soldiers make your success possible!

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Adapting to Ensure Success

A s I write this "Cockpit" for our November issue of Army Aviation, our Army continues to soldier on and address head-on training, readiness and modernization challenges, in spite of the continued COVID related impacts around the world.

We at AAAA are doing so as well, although you probably are now aware that we have postponed our November Cribbins symposium until January 20-22 and rescheduled our ASE forum from December to this coming summer.

The reality is that we work together with Army Aviation senior leaders to make these events a success for the Army, and when Health Protection Condition (HPCON) limitations curtail or limit Soldiers' travel to the events, then we must reschedule. We remain committed to sponsoring high quality symposia that connect Army Aviation Soldiers and leaders, industry, media, and our members.

In this issue we cover down on unmanned aircraft systems, air traffic services, and fixed wing programs, providing our program managers and department leads the opportunity to update us.

Our Branch Chief, MG Dave Francis, highlights the criticality of both the Future Tactical UAS (FTUAS) and Airlaunched Effects (ALE) as we address the A2AD operating environment and Army Aviation's mission to penetrate and exploit within that construct. He also talks about the recent warfighting experimentation at Yuma Proving Grounds – Project Convergence – where the Future Vertical Lift CFT worked with other CFTs to try out new means and methods within a Multi-Domain Operations battlefield.

COL Joe Bishop, chief of the Aviation Division at the Army National Guard Directorate, National Guard Bureau, discusses recent organizational and staff function changes at the Directorate. The Director, ARNG implemented these changes "to focus on improving the functionality and effectiveness of the staff sections across the ARNG Directorate and to better serve the interests of the National Guard of the 54 States, Territories and the District of Columbia as well as better support the Army." With continued overseas deployments as well as assisting civil authorities with fighting wildfires and helping hurricane victims, it has been an especially busy year for our National Guard!

COL (Retired) Lou Bonham provides a superb update on incredible work done by the AAAA Scholarship Foundation, Inc: it's amazing to realize that since its inception in 1963, over 5,000 scholarships totaling \$8.6 million have been provided to our members and their families. Lou also thanks retiring Scholarship Foundation Program Manager Sue Stokes for her exceptional contributions to the foundation, its board, and all AAAA members. On the behalf of all AAAA members, let me add our own thanks and congratulations: Sue, you are a treasure! We also want to welcome incoming Program Manager Joanne Hansrote: we look forward to working with you, Joanne!

This month we also want to congratulate Army Aviation Branch CSM Brian Hauke on a job well-done, as he prepares to retire, and we welcome incoming Branch CSM Jimmy Wilson. CSM Hauke has made a huge positive impact on our Branch and its Soldiers, and we wish him the best in his future endeavors. We look forward to working with CSM Wilson as we strive to best meet the needs and expectations of our Enlisted Soldiers! Finally, we congratulate Mr. Don Nitti, civilian deputy to the AMCOM Commanding General, for his selection and recent recognition as the AUSA Region Three and Huntsville Chapter Civilian of the Year. Many of us have known and worked with Don over the past years: he is a true professional and has long made exceptional contributions to Army Aviation. Congrats, Don!

We at AAAA are always working to remain relevant to our membership and our branch. To ensure we are listening to and working with our younger generations of Army Aviators and Aviation Soldiers, we have added new board members to our National Board over the past year. Many of you have met and talked with SGT Ashley Sanchez and 2LT Chance Mathias who have made great contributions to the board already. At Ft. Rucker, Chance has been the lead in pulling together an informal team of peers and working with AAAA Director of Member Engagement, Laura Arena – they are giving us great new and exciting ideas to implement. One such idea that I am especially interested in is a mentorship program. More to follow on that in the next issue of our magazine!

Stay healthy! As always, I pledge to ensure that AAAA does its part to help YOU: our soldiers, families, and senior leaders!

> MG Jeff Schloesser, U.S. Army Retired 34th President, AAAA *jeff.schloesser@quad-a.org*

8

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Future Tactical Unmanned Aircraft System (FTUAS) and Air Launched Effects (ALE)

By MG David J. Francis



ayered stand-off is the real enemy in Multi-Domain Operations. Our adversaries employ it at all levels – economic, political and military – to separate us from our allies in order to achieve their strategic means short of igniting conflict.



An Air Launched Effects (ALE) system is launched from a UH-60L Black Hawk as part of capabilities testing during Project Convergence at Yuma Proving Ground, AZ, Sept. 15, 2020. The autonomous weapons system was designed to launch from in-flight aircraft at high tactical altitudes.

If conflict does come, they will employ multiple layers of stand-off in all domains to separate our forces in time, space, and function in an attempt to defeat us.

Our adversaries have established a robust Anti-Access/Area Denial (A2AD) capability. One of Army Aviation's significant missions, in conjunction with the rest of the Joint Combined Arms Force, is to find or create a gap and negate this capability. To prevail we must penetrate and disintegrate the threat's A2AD systems

An Air Launched Effects (ALE) system is loaded onto a UH-60L Black Hawk as capabilities testing commences during Project Convergence, at Yuma Proving Ground, AZ, Sept. 15, 2020.

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and exploit the resultant freedom of maneuver to defeat their systems, formations and objectives so as to achieve our own strategic objectives.

Within our innovative modernization strategy there are two prominent and complementary systems that address this mission set and provide reach, survivability and lethality – Future Tactical Unmanned Aircraft System (FTUAS) and Air Launched Effects (ALE).

FTUAS is a substantial increase of capability at the brigade combat team (BCT) level that provides ground forces the capacity to project power into the other domains to defeat our very capable adversaries. To fully enable these capabilities, FTUAS will require the ability to be runway independent and to interact with multi-role air vehicles that optimize manned-unmanned teaming for air and ground maneuver units across all environments. These systems are being optimized to generate overmatch and provide the ground commander with multiple options, specifically to enable joint force freedom of maneuver.

Air Launched Effects (ALE)

represents an asymmetric approach that will be part of the Future Attack Aircraft Reconnaissance (FARA) ecosystem, and the overall effort for Army Aviation to overcome our advisories' stand-off strategy. These small, air or ground launched loitering aircraft will provide Future Vertical Lift (FVL)/FARA optionallylethal and optionally-recoverable systems that enable us to regain the advantage in reach, protection, and lethality required in the execution of joint combined arms and maneuver operations. ALE provides a means for Army Aviation to extend its reach and lethality to conduct reconnaissance, security, and attack operations during the penetration, dis-integration, and exploitation of enemy A2AD systems in the close and deep maneuver areas. ALE is able to detect, identify, locate, and report threats, represent a credible decoy, disrupt threat communication, targeting and acquisition systems, and deliver lethal and non-lethal effects.

Currently the FVL Cross-Functional Team (CFT) is achieving significant successes with ALE at Project Convergence, which is ongoing at Yuma Proving Ground. Project Convergence brings all the CFTs to Yuma to test and experiment with their systems in an MDO environment to ensure that they function as desired, and that they function with each other.

The combination of FTUAS and ALE are game-changing capabilities that will undoubtedly have considerable impact on the joint force's ability to disrupt our adversary's layered standoff strategy and create windows of opportunity. However, Army Aviation - as part of the Combined Arms Team - must be ready to take advantage of these windows with the ability to maneuver across strategic distances, employ capabilities across all domains, and pose multiple and compounding dilemmas on the adversary.

Above the Best!

MG David J. Francis 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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Chief Warrant Officer of the Branch Update

This issue is focused on our Unmanned Aerial Systems (UAS) and the soldiers who operate the equipment. I have reached out to CW5 Rich Tiu, member of the USAREUR staff, and asked him to highlight UAS operations in our European theater. Developing innovative solutions to the complex problems we face will make us successful on the next battlefield. Above The Best! CW5 Koziol

Tactical Unmanned Aircraft Systems in USAREUR-AF By CW5 Rich Tiu

The United States Army Europe & Africa (USAREUR-AF) TUAS have been present and continue to be operational in Europe since the civil war in Bosnia-Herzegovina erupted in the early 1990s.

The USAREUR-AF's permanent forces include maneuver units such as the 2nd Cavalry Regiment (2CR) and 173rd Airborne Brigade (173d IBCT(A)). The TUAS platoons are assigned and stationed in the Federal Republic of Germany, where they conduct TUAS flight operations more frequently than any other European countries. The U.S. Army Europe & Africa has led the Department of Defense's Atlantic Resolve land efforts since April 2014, by bringing units based in the United States to operate in Europe for nine months on a rotating basis. There are three types of Atlantic Resolve rotational forces – armored, aviation, and the sustainment task force, which have organic TUAS platoons. These rotations are overseen by a Division (Forward) element, and a regionally aligned headquarters element based in Poland. These deployments of ready, combat-credible United States forces to Europe in support of Atlantic Resolve is irrefutable evidence of the firm and continuing United States commitment to NATO and our European partners.



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The United States Army and its NATO Allies continue to push the limits of tactical occupation and operation of the RQ-7Bv2 Shadow TUAS to be prepared for future challenges. During the maneuver units' Combat Training Center (CTC) rotation in Hohenfels, Germany, at the Joint Multinational Readiness Center, the TUAS Platoons, in conjunction with the unit's Engineers, broke new ground and set the standard on conducting flight operations during a CTC rotation by establishing an expeditionary airstrip. The expeditionary airstrip was constructed and followed by the tactical occupation and initiation of flight operations, a physical demonstration of the Shadow TUAS's capability as a true Reconnaissance, Surveillance, and Target Acquisition (RSTA) asset for the maneuver units, which meets the commander's intent.

Throughout the USAREUR-AF Operational Exercise in support of Atlantic Resolve, 2CR TUAS Platoon conducted the first tactical road march of more than 3,000 kilometers and successfully conducted flight operations in two countries (Poland and Lithuania). While operating in Poland, the TUAS Platoon conducted flights in host nation airspace controlled by a Joint Terminal Air Controller (JTAC) in an austere environment while operating from an expeditionary airstrip. Operating in Lithuania, the TUAS Platoon conducted flights in host nation airspace controlled by the local international airport tower and control center. Meanwhile, the Atlantic Resolve rotational forces had to establish a launch and recovery site while maneuvering in the European theater. In coordination with the host nations, the Shadow Platoons developed the Standard Operating Procedure for the Training Area with great success. The 1st Attack Reconnaissance Squadron, 6th Cavalry Regiment, 1st Combat Aviation Brigade, 1st Infantry Division, established a grass airstrip on the Polish Air Force base along the active runway, located near Powidz, Poland.

In Greece, the 6th Attack Reconnaissance Squadron, 17th Cavalry Regiment, 4th Combat Aviation Brigade, 4th Infantry Division established a Joint Standard Operating Procedures for Shadow TUAS operations at Stefanovikieo Airbase, Greece. Winter operations in northern Europe occasionally requires alternate training solutions when weather conditions do not support consistent training opportunities. USAEUR has now expanded training opportunities in Greece. The expansion of these flight operations in Greece allowed the maneuver units to exercise and practice complete unit movements while maintaining mission readiness on an annual basis. The USAREUR-AF and Rotational Forces TUAS continue to challenge the status quo successfully. They are continuously searching for methods to expand and conduct UAS flight operations here in Europe, enhancing the alliance with our NATO partners.

Above the Best!

CW5 Jonathan P. Koziol is the chief warrant officer of the Aviation Branch with the U.S. Army Aviation Center of Excellence, Fort Rucker, AL.

CW5 Rich Tiu is the USAREUR G-3 Aviation UAS Chief, stationed in Wiesbaden, Germany.



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Opportunities, Make the Most of Them!

By CSM Brian N. Hauke



A s I sign off the net and gather my thoughts for my final article as our Aviation Branch Command Sergeant Major, I thought it would be fitting to write about opportunity and making the most of those opportunities given to us.

With my pending retirement rapidly approaching, I find myself reflecting on the last 30 years of "opportunities."

In 1990, I was a wide-eyed, naïve young man who stepped off the bus at Fort Jackson, South Carolina for basic combat training. Never, and I mean never, would I have thought back then the Army and Army Aviation would afford me so many opportunities over the years. I suspect the experience is similar for everyone who has served, whether it is for 3 years or 30 years.

For most of us, there's no doubt the plan was to do far less than 31 years. I know it was this young man's plan, for sure. Then, bam it's 30+ years later! The Army and our branch gave me purpose and direction as a young man, and it gave me hundreds if not thousands of opportunities. Opportunities that allowed me to build lifelong skills in leadership, pride, professionalism, performance, and priorities, just to name a few. Rest assured I will use these skills for the rest of my life. I've been given plenty of opportunities to fail over the course of my career. Additionally, we all must be given opportunity to fail, as this is key to our development. In fact, Henry Ford stated, "Failure is simply the opportunity to begin again, this time more intelligently." Leaders, I urge you to give your Soldiers opportunity in training, so they are ready when it counts!

I'd like to publicly thank a few individuals and teams with whom I have served. First, MG William Gayler for giving me the opportunity to serve as the 16th Aviation Branch Command Sergeant Major and MG David Francis for allowing me the opportunity to continue to serve our branch. Both of these leaders are without a doubt the epitome of professional warriors. Thank you for allowing me the freedom of movement to serve all of our Soldiers, families, and their best interests. The Fort Rucker and Aviation Center of Excellence Team you astound me every day in everything you do for our Army, the Fort Rucker community, Army Aviation, and its Soldiers and their Families. MG (Ret.) Jeff Schloesser and the entire Army Aviation Association of America team thank you for allowing our senior NCOs across the branch to have this venue to share on a monthly basis. And, for having our Soldiers and their best interests at the forefront of all AAAA stands for. It is truly reassuring to know that you have our backs!

Many things in the Army are certain. The most certain of all is that the Army is full of opportunities! I will miss the opportunities! Over the years, I've had opportunities to serve on



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 2019 National winners were featured in the April/May AAAA Army Aviation State of the Union issue.



SPC Dolphise Colomb

Company A, Special Troops Battalion, 4th Brigade Combat Team, 1st Armored Division Fort Bliss, TX

Unmanned Aircraft System Soldier of the Year Award, 2013 *Sponsored by General Atomics Aeronautical Systems, Inc.*

SPC Dolphise Colomb demonstrated superior knowledge, professionalism and leadership as a tactical unmanned aircraft systems (TUAS) instructor operator. He quickly rose to the role of subject matter expert, mentor and role model to junior and senior operators alike. Setting the standard for work ethic, he heeded the call of excellence by working long hours to ensure accomplishment of all tasks during system deployment operations.

He has proved repeatedly that he is truly the backbone of the unit Tactical Unmanned Aircraft Systems operation. He excelled throughout the challenges of limited equipment, time and personnel. He constantly drives as a professional to perform every task and mission assigned well above the set standards. He meticulously trains and builds his 12 operators towards becoming fully readiness level progressed, totally mission ready and capable; all while maintaining a zero discrepancy and zero mishaps record as an instructor operator during this period. He motivates his subordinates by demonstrating genuine concern for their well-being, assisting them with solid solutions for personal problems.



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some incredible teams. These include the 3rd Squadron, 6th Cavalry; 7th Battalion, 227th Aviation Regiment; 498th Air Ambulance Company; the Montgomery Recruiting Company; 2nd Bn., 82nd Avn. Regiment; 601st Avn. Spt. Bn.; 2nd Bn., 3rd Avn. Regt.; 1st Sqdn., 17th Cav. Regt., 25th Combat Aviation Brigade, the Rheinland-Pfalz Garrison, and of course our very own Aviation Center of Excellence.

Lastly, a few years ago, I read an anonymous quote about opportunity that I'd like to share here; "Today is not just another day. It's a new opportunity, another chance, a new beginning. So, embrace it." As I sign off the net and move onto my next opportunity, it has been my honor to share the field of battle and serve this great nation with each one of you!

Make the most of your opportunities! Above the Best

CSM Hauke brian.n.hauke.mil@mail.mil

Editor's Note: We at ARMY AVIATION greatly appreciate the support from CSM Hauke over the years and wish him and his wife, Christi, all the best as they move into a well-deserved retirement! ata-G Is A Subsidiary of The Aleut Corporation (TAC)

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Combat Readiness Center Update



Success in Army Aviation Safety and the 4th Quarter Spike By BG Andrew C. Hilmes

During FY20, the Army continued seeing vast improvements in Aviation safety, especially in Class A mishaps.

For FY20, we recorded six Class A mishaps for the year, while still flying 90 percent of flying hours compared to FY19. Unfortunately, of the six mishaps in FY20, three were fatal and claimed the lives of seven Soldiers compared to two Army fatalities during FY19. The current manned Class A mishap rate for FY20 is .65 per 100K flying hours, the lowest rate and total number of Class A mishaps on record. However, while these statistics are promising, the Army must continue to strive to improve safety through awareness and overall unit culture.

There are several comprehensive initiatives that contributed to this reduction. Among them are a campaign to address the 4th Quarter Spike in Aviation mishaps that occurred over the past five years. Of all Class A mishaps from FY15 to FY19, 40 percent occurred in the fourth quarter, while flying hours remained relatively constant across the quarters. The USACRC and senior Army leadership launched an information campaign in March covering managing transitions, unit assessments, training management, environmental training, crew selection, fighter management, and maintenance.

The Chief of Staff, Army endorsed this campaign with a message to the Aviation force in June, reiterating the convergence of these complex factors. Additionally, we addressed both the Forces Command and Training and Doctrine Command commanders, who repeatedly reiterated and reinforced the importance of taking control of these risks through deliberate planning and action. By acknowledging and embracing these leading indicators,



U.S. Soldiers with Alpha Company, 2-104th General Support Aviation Battalion, 28th Expeditionary Combat Aviation Brigade, operating a UH-60 Black Hawk helicopter, conduct aviation operations around the Middle East in support of Operation Inherent Resolve.

the outstanding, proactive approaches by commanders resulted in a significant reduction in mishaps throughout the year, despite the changing COVID-19 environment.

Through involvement of the full Army Aviation Enterprise, specific initiatives over the last two years include the Aviation Trends/Safety Brief the USACRC provides in person to Aviation units and, amidst pandemic concerns, via MS Teams. Additionally, the U.S. Army Combat Readiness Center provides safety focused briefings during Aviation pre-command, NCOES and warrant officer professional development courses. Furthermore, the U.S. Army Aviation Center of Excellence has developed and integrated Emergency Response Methodology Training designed to ensure appropriate responses to inflight emergencies, an area that led to a number of catastrophic mishaps the past five years. The FY19 Class A rate sits 39.8 percent below the five-year average (1.08), and at 6.12, the current Class A-C mishap rate is 16 percent lower than the five-year rate (7.30). Working together, rapidly disseminating analyzed information, and focusing on the deliberate application of risk management at all levels resulted in

these historically low mishap rates.

Throughout FY20, Army Aviation continued to fly almost 90 percent of the annual Flying Hour Program since 2015. Risk management at the battalion and company levels is the best mishap prevention tool available to the Army. The challenges associated with COVID-19 and maintaining readiness made commanders deliberate in their planning within all aspects of operations.

The Army Aviation Enterprise has completed the many challenges of FY20 in great shape and is postured for success as we start another fiscal year. We should all take pride in our efforts, but this is not the time to lessen our vigilance or assume we have a perfect system. We are at our best when we flatten comms, share information and trends (even when it hurts), and spot check critical functions to ensure adherence to the guidance we've issued. The USACRC exists to support you. Let me know what we can do to help with your loss prevention efforts. Fly safe!

People First – Winning Matters. Readiness Through Safety!

BG Andrew Hilmes is the commanding general of the Combat Readiness Center, at Fort Rucker, AL.



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Reserve Components Aviation Update



Army National Guard Aviation at the National Guard Bureau – Reorganizing and Evolving The Directorate Organization By COL Joseph W. Bishop

wanted to share with the greater Aviation community some changes here at the ARNG Directorate, National Guard Bureau (NGB) in the makeup and alignment of staff functions and organization.

The Director, ARNG implemented these changes to focus on improving the functionality and effectiveness of the staff sections across the ARNG Directorate and to better serve the interests of the National Guard of the 54 States, Territories and the District of Columbia as well as better support the Army.

The Aviation and Safety Division, which many of you are familiar with, along with the ARNG's Cyber Division and Missile Defense realigned to the newly formed Aviation and Information Warfare Directorate. The nature and high demand of the Aviation, Cyber and Missile Defense missions coupled with the visibility that these unique capabilities possess necessitated a focused Directorate (Aviation and Information Warfare) that can facilitate greater mission effectiveness.

The Directorate Personnel – Office of Primary Responsibility (OPR)

The reorganization of the ARNG Directorate was the impetus to establishing a new Aviation and Information Warfare OPR for personnel. The General Officers that serve as the OPR Leads direct the oversight, management and assignment of the Title 10 Active Guard Reserve (AGR) personnel populations within their respective OPR. Unlike the Active Army, which utilizes Human Resources Command to manage the career paths of Soldiers from initial entry to end of service, the ARNG Directorate OPRs bear the burden to recruit, career develop and manage the officer, warrant officer and enlisted Title 10 AGR personnel.

The new Aviation and Information Warfare OPR can segregate and stabilize the Aviation, Cyber and Missile Defense AGR Soldiers into a robust high quality and optimized OPR that can fulfill Directorate staffing demands. The OPR will provide a transparent career management construct by acutely overseeing the career management process from point of entry until end of service, balance AGR Soldier and organizational pulls and allow us to better focus on other places of assignments across the Army Aviation, Cyber and Missile Defense Architecture.

The Aviation Division

The mission and focus of NGB's Aviation Division is unchanged and targeted on supporting the ARNG Aviation Force and Army Aviation by establishing policies and priorities, allocating resources and facilitating commitments that support Army Aviation. The ARNG Aviation Division remains an advocate for ARNG Aviation as a whole, within the Army Aviation Enterprise. The Aviation Division oversees the better part of \$1.0 billion in programs and contracts; as well as other high value resources, in the coordination of training, equipping and sustaining the ARNG Aviation Force.

The NGB's Aviation Division performs roles and functions akin to Headquarters Department of the Army Aviation (DAMO-AV) and the Aviation Division in Headquarters U.S. Army Forces Command.

The ARNG Aviation Division is now organized with six distinct branch functions: Systems and Readiness, Training and Operations, Logistics, Safety / Standardization, Airfield Operations and Programs / Services. Each branch possesses staff expertise to fulfill the respective areas of operation and responsibility and serves as focal points working with other Army Aviation organizations while interacting with the States and their Aviation Staff. The Aviation Division Branches working across the Army Aviation Enterprise and with the States coordinate actions, guidelines, funding, safety, logistics, global force management and airfield support requirements. The success of the Aviation Division is a tribute to the Soldiers in the Aviation Division and their Aviation counterparts at the State level working harmoniously to meet ARNG Aviation objectives within the total Aviation Army framework.

The Future

The new Aviation and Information Warfare Directorate, the Aviation Division and the OPR together will strengthen NGB's interoperability and effectiveness across the Army, the Aviation Enterprise and the ARNG. The Army modernization priorities and the Aviation efforts to develop the future Multi-Domain operational force necessitates the ARNG having the appropriate supporting organizations as well as Soldiers and leaders possessing the right skills and education. I believe the ARNG is moving in the right direction to meet those future realities.

"Always Ready, Always There!"

COL Joseph Bishop is the chief of the Aviation division of the Army National Guard in Arlington, Virginia.

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Unity Through Community in the 128th Aviation Brigade By SSG Israel D. Lopez

This summer, as protests erupted across the nation, marches, stand-ins, and riots all began to coincide. America seemed to be at a reckoning, a moment where racial atrocities would no longer be acceptable, but the turmoil would be far-reaching.

The 128th Brigade, like every unit in the Army, could not escape this reality, as the towns surrounding Fort Eustis, Virginia, saw civil unrest become the norm. Many sat and wondered what could be done to heal this division. This brigade, however, prides itself in developing leaders not just in Aviation, or in the Army, but in the broader community. Great leaders are the agents of change the 128th seeks to lead through demonstrated, decisive action. It was with this in mind that our team decided our decisive action for change in the community would be helping to restore an overgrown African American Cemetery in $\bar{V}\mbox{irginia},$ in an event we called Unity Through Community.

These gravesites, where the heroes of generations past were buried, had been lost to time. Unsung heroes like Mrs. Mary Peake, a free black woman who taught slaves to read and write under the Emancipation Oak in Hampton, Virginia, laid to rest in the very community many members of the 128th Brigade call home every day. Another was Mrs. Janie Barrett, who established the first settlement home for black people of the time, and who would petition the court system to turn over abandoned black girls into her custody as she helped to create the



Members of the 128th Avn. Bde. help clean up the Elmerton and Bassette Cemeteries in Hampton, VA.

Virginia State Federation of Colored Women's Club. These heroes laid at rest in these places were once prominent, and some even affluent, members of the community and they now needed our help to restore their final resting places.

They and many others lay in fields overgrown and their tombstones were being swallowed by the forest. Their stories lost to time, with no one left to tell them. And so, on a cloudy Saturday morning in September, volunteers of all creeds, colors, religions, and national origin joined together with members of the 128th Brigade leading the way. Soldiers, with local support from teams like the Do-Gooders of Hampton Roads, the Barrett-Peake Heritage Foundation, and the Boy Scouts brought mowers, rakes, and all sorts of yard equipment to tackle the overgrowth. By the early afternoon, countless graves, once completely hidden in the brush, were visible again. American flags which had previously been invisible beneath the grass, now populated much of the cemetery in a poignant reminder that those buried, along with those present, all shared in the richness of America's history.

That physical progress at the cemetery was a testament showing that

with hard work and determination we can overcome this moment in history to write a better chapter for the generations to come. Martin Luther King Jr. once said that change is not inevitable, but that it comes through continuous struggle. His words have never been more exact. It is our influence on the micro-level that affects the world at the macro-level. That is what Unity Through Community ultimately is: a promotion of inclusion and tolerance that along the way unites people with a common goal by realizing that we are more significant than our differences. Not merely a project but a concept; a challenge even. We in the 128th Brigade are finding a way to accept that our differences are not divisive. They are what bond us as Americans and if we can acknowledge our differences and accept each other for them, together we can accomplish things we would not have imagined possible.

"Born Under Fire!"

SSG Israel D. Lopez is the battalion Equal Opportunity Leader for 1st Battalion, 210th Aviation Regiment, 128th Aviation Brigade at Joint Base Langley-Eustis, VA. Devcom 🕨 Tech Talk

Army Aircraft and Additive Manufacturing

By Michael J. Kane, Ph.D.

he U.S. Army Aviation and Missile Command (AMCOM) published a policy memorandum addressing additively manufactured (AM) parts for Army aircraft, components, and support products.

This policy provides clarity for potential applications of AM technology for use on Army aircraft while ensuring airworthiness. This is accomplished by a phased approach. Initially non-structural/non-critical parts that do not affect airworthiness or safety will be chosen. As AM technology matures and the industrial capabilities are established, more challenging applications will be identified for use on aircraft. However, at present and for the next several years, AM technology is not mature enough to be used for structurally significant applications that are fatigue sensitive, and/or critical safety items, as detailed in the AMCOM policy (Fig. 1).

There are at least seven families of AM technologies. There are a number of manufacturers offering machines for each type of AM technology. Essentially, materials combinations of metals, plastic and ceramics that can be additively manufactured are limitless. For each family of AM technology and material choice, process parameters need to be established and optimized. For any part of structural significance, mechanical performance needs to be demonstrated via testing. AM, being a generic all-encompassing term, is too vague to meet the stringent requirement for airworthiness review and approval.

Only a specific technology, process and materials can be considered for airworthiness approval. For example, a bell crank produced using laser powder bed fusion using Titanium 6AL-4V alloy powder has been fabricated and the mechanical properties were evaluated (Fig. 2).

While the results were promising, there are still issues with non-destructive inspection and fatigue performance that need to be resolved. While the bell crank is not a critical safety item, it is part of an assembly that is considered a critical safety item, should it fail in-service the results would be catastrophic. Putting an AM bell crank into service, even for limited demonstration purposes, would involve risk acceptance above baseline, as such a flight demonstration will not be conducted for this component. It is unlikely that applications of this nature will not involve risk acceptance above baseline with the limited data set currently available and for the next several years.

Presently, there is an effort underway to identify problems that can utilize the AM solution Army-wide. Once a part is

Fixtures, Jigs, Shop Aids, and Tooling	Category 1	, she
Aviation Ground Support Equipment (ASGE)	Category 2	9 G 2 G
Flight Parts - no safety, operation, or readiness impact	Category 3	g lev
Flight Parts - readiness impact, no safety or operation impact	Category 4	di se la constante da constante d
Flight Parts - operation impact, no safety impact	Category 5	nore
Flight Parts - safety impact to include Critical Safety Items	Category 6	♦ - 18

Figure 1. Qualification Requirements



Figure 2. Mechanical Test

Figure 3. Non-Destructive Inspection

identified as a candidate for AM, is "reversed engineered" and fabricated, and is approved for use, it is considered "qualified." The reverse engineering is typically just taking a number of geometrical measurements with no design input. This type of qualification may be adequate for a radio control knob or similar application to be installed on aircraft. However, any part that will potentially effect airworthiness and safety will require a much more extensive qualification, including, but not limited to: establishing material and process specifications, statistically validated mechanical properties (typically called allowables), design review and structural substantiation with original equipment manufacturer involvement, establishing quality control, and effective non-destructive inspections (Fig. 3).

There will be a small number of applications where a part may be suitable for use as additively manufactured without subsequent processing. The ability to provide a logistic benefit and improved readiness is unlikely to be realized for most Aviation parts.

There are several efforts in which the original equipment manufacturers have designed and developed AM into their programs over the past several years. They have been working with the Army to establish and meet the stringent requirements for airworthiness qualification. These efforts are not a short-term attempt to solve a logistics problem, but rather, a long-term effort to improve performance, reduce manufacturing costs, and reduce operation maintenance/cost. It is with these types of efforts that the Army will reap the greatest benefits.

Dr. Michael Kane is the chief of the Structures & Materials Division of the CCDC AvMC Systems Readiness Directorate at Redstone Arsenal, AL.



Osteopath, Chiropractor and Physical Therapist By CPT (Dr.) Frank C. Stafford

Osteopath, Chiropractor, Physical Therapist? What is the difference and who should I see?

FS: In the military, we have a wide variety of medical providers that use hands-on techniques such as stretching, gentle pressure and resistance in order to diagnose, treat and prevent illness and injury. These include osteopaths, chiropractors and physical therapists.

Osteopaths are licensed physicians who hold a four-year medical degree of Doctor of Osteopathy and bear a "DO" after their name. This degree is earned after completing a bachelor's degree. As with their "MD" physician colleagues, DOs have the broadest scope of practice of the medical practitioners discussed here. Both DOs and MDs generally have additional residency training beyond their medical school education and are board certified in a specialty such as family medicine, general surgery, aerospace medicine, etc. **Chiropractors** are designated by a "DC" for a Doctor of Chiropractic degree that is approximately 3-4 years in length

after completing a bachelor's degree. *Physical therapists* may have earned a DPT (Doctor of Physical Therapy) or an MPT (Masters in Physical Therapy) degree after completing college. Though chiropractors and physical therapists can decide to train further in a subspecialty, it isn't required. Unlike DOs, DCs and DPTs are not licensed to practice in all areas of medicine, are not permitted to write for prescription medications or perform surgical procedures and focus almost exclusively on musculoskeletal concerns.

What is the difference between these medical professionals?

In general, they all take a holistic approach to assisting the body in healing itself through physical manipulations of the muscles and joints and the soft tissues around them. Osteopathic physicians are trained to perform manipulation of the joints as well as target therapies for the fascia (tissue surrounding the muscles and joints). Treatments may include gentle stretching of the fascia (similar to a massage), deeper probing of tender points on the body, traction/stretching of the joints and associated muscles and finally mobilization/ manipulation of joints where cavitation's cause "pops" that



can be heard with the treatment.

Typically, chiropractors focus on using spinal joint manipulation to improve spinal nerve function to the body. Manipulations typically include small, high velocity, low amplitude (HVLA) thrusts into the joints. The thrust is not traumatic or aggressive and is typically tolerated well. This is usually called "adjusting." Some chiropractors will involve soft tissue work as described above as well as include core exercises, muscular exercises and other activities similar to what a physical therapist would use.

Physical therapists typically focus on muscular rehabilitation, reducing pain, preventing disability and promoting the ability to move. They work to increase strength, endurance and balance between muscle groups. This may involve treatments such as electrical stimulation, ice therapy and dry needling. Some physical therapists may perform mobilization, where they stretch the joints, as well as manipulation where they thrust into the joint. Due to differences in training and scope of practice, as well as practitioner preference, you may have different experiences depending on the type of provider seen.

Who should I see?

Musculoskeletal injuries may require medication, stretching, suturing or even surgical intervention. Osteopaths can provide all these services while both chiropractors and physical therapists are limited to non-invasive techniques. However, it is not uncommon that some conditions will require a team effort. Studies on low back pain as well as other pain syndromes have consistently demonstrated a synergy between manipulation or adjusting and physical therapy. Manipulation/adjustment helps the immediate area to regain its regular motion with some studies demonstrating a reduction in muscular tension of the affected area. Physical therapy complements the previous techniques by providing muscular training that improves strength, endurance and balance between affected areas and the rest of the body to support and maintain the motion that was returned. These combined interventions decrease the frequency and intensity of pain episodes, minimize down time, and help patients return to their usual activities sooner.

How does my flight surgeon participate in this type of care?

Musculoskeletal injuries and pain syndromes are distracting and can limit aviator functionality in flight. To address these concerns and help mitigate aeromedical risk, your aeromedical provider can coordinate referrals to an osteopath or chiropractor, if they do not already perform OMT themselves, and to physical therapy. You will be monitored by your aeromedical provider to assess the progress of your treatment and your ability to participate in flight duties.

Fly Safe!

Questions?

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.

CPT Frank C. Stafford, DO, DC, MPH is a flight surgeon at the United States Army School of Aviation Medicine.

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Special Focus > Unmanned Aircraft Systems

Unmanned Aircraft Systems (UAS) –

Evolving the portfolio to adapt to the future operational environment

By COL J. Scott Anderson



or more than twenty years, US Army UAS delivered tremendous capability for our Warfighters. UAS fundamentally changed the way Commanders see the battlefield. Increased situational awareness, improved intelligence preparation, extended communication, enhanced target acquisition and prosecution while doing it efficiently and by comparison far cheaper than manned platforms. UAS proved a key platform in the fight against those enemies who did not have borders, field armies or fight in traditional formations. The systems are less complicated to use, flew and maintained by Soldiers, and consistently exceeded operational availability and reliability standards.

Army UAS remain in high demand and execute missions at a tremendous operational tempo. Our UAS reached remarkable milestones, having flown over two million hours with the vast majority supporting combat operations. TRADOC developed doctrine for manned-unmanned teaming, increasing lethality and optimizing the attributes of both manned and unmanned platforms. We do not see this demand changing and envision an ever-increasing thirst for unmanned systems and optionally manned aircraft in future multi-domain operations.

However, it is important to realize we are at crossroads in the life of Army UAS programs. Past successes, based



General Atomics Gray Eagle-Extended Range Unmanned Aircraft System

largely on operations in a Counter Insurgency (COIN) environment, are not how we advance the portfolio. The Army is shifting from a COIN focus to a peer or near-peer adversary, and large scale combat operations are seeming more likely. Army leaders remind us we are in a period of great power competition. Multi-domain operations (MDO) (air, land, sea, cyber and space) can happen over a timeline that include peacetime operations and appear benign. Our systems (and related technologies) must continue to evolve based on required operational capabilities and emerging technologies.

Now is the time to invest in the technology to improve UAS. There are six cross cutting enablers; 1) autonomy, 2) distributed control, 3) payloads 4) Assured-Position, Navigation and Timing (APNT), 5) open architecture and 6) networks that are essential to increasing UAS survivability and lethality in MDO. By leveraging the Science and Technology communities, academia, and collaborating early and often with Industry, we can rapidly procure new technologies and modernize enduring platforms that will continue to allow us to fight tonight as we support our Soldiers in global operations.

Working alongside key stakeholders within the Aviation Enterprise, we are continuing the critical work of enhancing mission capabilities in five Army UAS capability areas: 1) Gray Eagle Extended Range (GE-ER); 2) Future Tactical UAS (FTUAS) 3) Air Launched Effects (ALE); 4) Small UAS (SUAS); and 5) Scalable Control Interface (SCI).

VTOMICS ABRONAUTICAL PHOTO

Gray Eagle Extended Range – The Endurance UAS team continues fielding and training activities associated with the improved GE-ER. This platform provides dramatically increased capabilities, expanding operational reach and payload capacity, while enabling a platform for future upgrades including: APNT, Avionics Re-architecture, Data Link modernization, Engine System Reliability, Link 16 integration, Alternate Munitions/Payloads, and ALE/ SCI integration. Designing, developing and delivering an MDO ready GE-ER must be a central effort in upgrading the Army's UAS portfolio.

FTUAS – The Tactical UAS Product Office continues to make important progress working with Army Futures Command on FTUAS program efforts. They are working closely with and observing four vendors who are participating in demonstrations with five Army Brigade Combat Teams. As these demonstrations proceed, the team is receiving feedback from Soldiers at key touch points informing the development of the requirement and shaping the Acquisition Strategy. One of the goals for the FTUAS is to take a modular open systems approach by establishing a common architecture and interface control documents. Our intent is to continue dialogue with industry regarding the latest information on strategies and required critical capabilities. FTUAS will provide an expeditionary and mobile system that can fight unencumbered from airfields or extensive Ground Support Equipment.

Small UAS - The Soldier UAS Product Office is focusing on the execution of the Army's echelon approach to small (Groups 1&2) UAS. This strategy develops capabilities aligned to units at the battalion level and below. The small Family of Systems provides essential situational awareness for the Army's maneuver formations. Our efforts throughout the last year primarily focused on delivering Short Range Reconnaissance (SRR) UAS. We are anticipating SRR production and fielding beginning in FY21. Other platforms in the family of systems are the Medium Range Reconnaissance and the Long Range Reconnaissance UAS. While developing these platforms, the SUAS team is working parallel efforts on the Handheld Ground Control Station (H-GCS), awarding production contracts for H-GCS kits

from two vendors this year. The H-GCS effort is an important component of the SUAS family of systems, providing common hardware and software tools across all small UAS platforms.

ALE – The Command, Control and Effects (C2E) Product Office made great strides pursuing the rapid fielding of ALE and SCI capabilities. This year the team is executing technical assessments and maturation of ALE prototype air vehicles, mission systems, and payloads/sensors through the use of Other Transaction Agreements with multiple vendors. The acquisition strategy will leverage Commercial Off The (COTS)/Non-Developmental Shelf (NDI) platforms in the pursuit of the rapid fielding of initial ALE capabilities (FY24), while our future ALE family of systems will follow an open systems approach, enabling the implementation of interchangeable components and facilitating the integration of future sensor capabilities.

SCI has the potential to change the way we field, employ and fight UAS in the future. SCI enhances interoperability and operations in the MDO environment. For this reason, SCI remains a critical pillar of UAS capability

development . SCI can deliver a common interface for UAS command and control and will simplify UAS payload control to include management of complex multi-aircraft operations by a single operator. The concept of one to many is within reach. SCI is complex, touching many Program Offices and interfacing with several ground and air platforms. PM UAS will continue focusing on developmental efforts, working in close coordination with the SCI Software Integration prime contractor, our stakeholders and other industry partners.

We are at a crossroads in Army UAS, an essential weapon systems portfolio that is battle proven and Soldier ready. Investing in critical technology enablers will make the portfolio MDO ready and extend the Army's investment in crucial enduring platforms for years to come. Our enduring systems require targeted modernization, and our future programs require investment in key technologies to meet the Army's capability requirements.

COL Scott Anderson is the project manager for Unmanned Aircraft Systems assigned to the Program Executive Office Aviation at Redstone Arsenal, AL.

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Special Focus > Unmanned Aircraft Systems



Army Special Operations Aviation UAS Integration In Multi-Domain Operations

By MAJ Joshua Bell and MAJ Kristin Yampaglia

n preparation for the future fight, Army Special Operations Aviation (ARSOA) Unmanned Aircraft Systems (UAS) continues to exploit the MQ-1C Extended Range Gray Eagle capabilities and limitations through challenging, realistic training events and supporting U.S. Army Futures Command initiatives. Earlier this year, MQ-1C Gray Eagle Extended Range (ER) crews from the 160th Special Operations Aviation Regiment (Airborne) participated in two keystone exercises that highlighted the versatility and adaptability of ARSOA UAS. The first event was in China Lake, CA known as the Special Operations

Aviation-Advanced Tactics Training (SOA-ATT). SOA-ATT is a multiweek exercise created to train and validate combined ARSOA rotary wing and UAS tactics, techniques, and procedures (TTPs) for integration into multi-domain operations (MDO) while operating in a contested environment. Following SOA-ATT, ARSOA UAS crews participated in Project Convergence at Yuma Proving Ground, AZ. Spearheaded by the U.S. Army Futures Command, Project Convergence is a groundbreaking network integration exercise, unprecedented in scale and joint interoperability, with the goal of expediting the kill chain.

SOA-ATT

To be competitive in multi-domain operations against a near peer adver-

sary, the ARSOA UAS team had to shift their counter violent extremist organizations (C-VEO) training focus to large-scale combat operations. SOA-ATT provided ARSOA UAS with an excellent MDO training opportunity. At China Lake, the SOA-ATT Task Force consisted of special operations ground and intelligence personnel, rotary and unmanned aircraft from the 160th Special Operations Aviation Regiment and Air Force Special Operations Command tilt-rotor aircraft. The diverse and highly capable team conducted detailed mission planning, rehearsals, and execution of highly complex missions in a contested aerial environment. ARSOA UAS aircraft played a unique multi-operational role in this



An MQ-1ER taxiing at a forward staging base in Arizona.

environment by providing both ISR and fire support. For instance, in one of the scenarios, ARSOA UAS penetrated and neutralized a complex integrated air defense system (IADS) network while providing other air and ground enablers maneuverability to accomplish the mission. In another vignette, ARSOA UAS executed operations in an electronic warfare (EW)/anti-access area denial (A2AD) environment. Specifically, AR-SOA aircrews had to navigate a complex EW/A2AD using unconventional UAS TTPs to avoid detection and provide signals intelligence (SIGINT) along with a fires platform for joint enablers to accomplish their mission undetected in a denied environment against a nearpeer threat.

The UAS team conducted both single and multi-ship operations in a variety of environments to include aircraft low-level operations down to 500' AGL in a tactical flight profile. Utilizing one low level MQ and an MQ employing terrain masking in a hunter-killer team, the UAS multiship flight successfully defeated enemy air-defense weapon systems. Serving as an integral part of the pre-mission planning and briefings throughout the exercise, UAS crews focused on denied area intelligence preparation of the battlefield, spectrum management control, route analysis, environmental factor analysis, performance planning, individual threat analysis, and risk management. With broad and diverse tactical expertise, the ARSOA UAS team served as invaluable members of the greater SOA-ATT exercise.

Leading by example at the forefront of UAS operations during SOA-ATT, ARSOA UAS crews demonstrated their flexibility and tenacity in solving complex mission problems and mitigating risk while operating within the national airspace. Prior to participating in the exercise, ARSOA MQ-1C ER operators received academic instruction and conducted extensive mission planning in areas such as aviation mission survivability, offensive and defensive maneuvers, denied area planning, and passive defeat tactics. In order to capitalize on lessons-learned, UAS operators studied the after-action reports from previous exercises. Additionally, ARSOA UAS personnel navigated coordination challenges in order to conduct flight operations from an uncontrolled civilian airfield. Through the experience, ARSOA UAS developed critical pre-mission planning standards that required meticulously detailed coordination and integration with civilian rotary and fixed wing traffic operating within the area. With six months of advanced planning and coordination through the Federal Aviation Administration (FAA) and local authorities, ARSOA UAS made SOA-ATT UAS operations seamless with zero negative impacts to the local community.

Project Convergence

Following SOA-ATT, ARSOA UAS operators participated in Project Convergence due to the airframe's distinctive ability to provide autonomy in the air domain and sustain over-the-horizon network infrastructure. Once again, serving in a unique role providing critical capability within the multi-domain operational concept, ARSOA UAS conducted ISR, precision fires, and supported over-the-horizon network architecture simultaneously. Project Convergence validated the MQ-1C ER's ability to support a "sensor-to-shooter" network that communicates data between multiple systems, making the surfaceto-surface and air-to-ground kill chains more efficient and lethal.

At Yuma Proving Ground, ARSOA UAS crews supported the Army Futures Command Vertical Lift Cross-Functional Team and operated highly modified MQ-1C ER Gray Eagles to support the Architecture, Automation, Autonomy, and Interfaces (A3I) pioneered capability. The aircraft carried a variety of payloads designed to support network infrastructure, EW systems, and automation within the kill chain. The Gray Eagle played an integral role in supporting a variety of Air-Launched Effects (ALE) and facilitated the integration of space, cyber, air, and ground assets in support of joint missions. By providing unwavering support to Project Convergence and A3I, ARSOA UAS crews reaped valuable lessons-learned about the capabilities and limitations of the airframe, which will allow further network and effects integration in the future.

Both SOA-ATT and Project Convergence provided an excellent opportunity for ARSOA MQ-1C Gray Eagle ER aircraft and crews to validate TTPs while integrating with the joint force to conduct multidomain operations in a contested environment. SOA-ATT and Project Convergence highlighted the relevance of ARSOA UAS assets in meeting the demands of today's warfighter and tomorrow's emerging technology requirements. ARSOA UAS operators will continue to explore tirelessly the limitations and capabilities of the MQ-1ER Gray Eagle while working with industry innovators and stakeholders to employ the airframe in unconventional methods in preparation for the inevitable challenges of defeating a peer adversary in a contested environment.

MAJ Joshua Bell is the commander of E Co. and MAJ Kristin Yampaglia is the commander of F Co., 2nd Bn., 160th SOAR (A) stationed at Fort Campbell, KY.

Special Focus > Air Traffic Services



Army Air Traffic Controllers Support Operations in East Africa By LTC Keith A. Haskin



Cooperations Battalion (AOB)) into this area of operations initiated a cycle of Active Duty and National Guard forces to support the strategic goals of AFRICOM in East Africa: to enhance partner nation capacity, promote regional stability, dissuade conflict, and protect U.S. and coalition interests.

Pre-Deployment Activities

1-58th Avn. Regt. (AOB) was officially notified about the deployment in early 2019, directly on the heels of providing mobile tower support to Tyndall AFB as the base recovered from Hurricane Michael damage. The initial tasking from the Joint Staff was to provide landing zone safety officers (LZSO) to four airfields throughout Somalia and Kenya. Upon conducting mission analysis and conferring with the Air Force elements conducting the mission, the decision was made to deploy three of the unit's four tactical air traffic services systems: the Mobile Tower System (MOTS); Tactical Terminal Control System (TTCS); and the Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) in order to effectively enhance the safety of the aircraft at those airfields.

The Air Force requires an LZSO at any airfield supporting US Air Force aircraft without a control tower. The LZSO's primary responsibility is to provide advisory services to aircraft while ensuring the landing surface is safe for the type and number of aircraft inbound. As this is an Air Forcespecific requirement and Army controllers are not typically trained on these tasks, 1-58th AOB was required to send controllers to conduct landing zone safety officer certification training at Fort AP Hill in Virginia. The battalion then relied on these school-trained LZSOs to train the remainder of the controllers during the unit's mission readiness exercise (MRX) in July 2019. By the end of August 2019, the unit's controllers were fully prepared to assume the LZSO duties while concurrently preparing for the arrival and installation of the unit's primary systems.

Through continued mission analysis, and as the unit prepared for the LZSO mission, it was clear that airfield management was going to be a key task for battalion. In order to ensure the battalion's Soldiers were thoroughly trained on airfield management tasks, the majority of the unit completed the contingency airfield management (CAM) course. This course, conducted by the Army's Air Traffic Services Command (ATSCOM), provides the basics that a Soldier would need to manage airfield operations primarily in an LSCO environment.

Outcomes and Lessons Learned from Operations in East Africa

The battalion's primary mission while deployed was to provide 24/7 air traffic services in support of aircraft operating under visual and instrument flight rules (VFR/IFR) in austere environments at forward operating bases in East Africa to ensure safe continuous operations. As the battalion incorporated the ATS systems into airfield operations and transitioned away from LZSO duties at two of the four locations, it became clear that these ATS systems were vital to ensuring safe aircraft operations. The ATNAVICS provided the only airfield radar capability in the entire country of Somalia and the MOTS and TTCS controlled upwards of 60-70 aircraft



1-58th airport surveillance and precision approach radar system operating in Somalia in March 2020.



SGT Darius Robinson (left) and PFC Samuel Hodges use the TTCS to control a B-52 Stratofortress over Kenya in February 2020.

movements per day. These systems, along with highly-trained air traffic controllers, enabled safe aircraft operations and resulted in zero accidents or incidents. In order to build relationships with the local controllers and aid in the overall safety of two locations, 1-58th AOB controllers worked with their local Somali and Kenyan counterparts to train them on proper phraseology and International Civil Aviation Organization (ICAO) controlling standards.

As future airfield operations battalions prepare to deploy to both the East Africa theaters, as well as all worldwide locations, there are several areas of potential consideration. First, due to constraints on the number of personnel in theater, every leader needs to be a subject matter expert. Deliberate training and fundamental airfield management skills should be addressed prior to deployment for all senior leaders. This, combined with clear and concise commander's intent, will allow any leader within the organization to competently represent the unit. Additionally, training that spans all aspects of Air Force airfield management is vital as the majority of the air traffic customers in that area of operations belong to the Air Force. The Air Force Advanced Airfield Management Course would be invaluable for all flight operations (15P) personnel and for the senior leadership.

What's Next?

The demand for tactical air traffic controllers will always exist wherever aircraft are flying in support of combat operations. In theaters like East Africa, where air support is essential to all operations, safe and orderly control of the airspace is paramount. East Africa will continue to provide an excellent opportunity for Army Air Traffic Controllers to support combat operations and perfect their craft in an austere and challenging environment.

LTC Keith A. Haskin is the commander of 1-58th Airfield Operations Battalion headquartered at Fort Rucker, AL.

Special Focus > Air Traffic Services



PM Assured Access Airspace Systems Reorganization

By LTC Adam Moodie, CPT Scott Betancourt and SFC Eric Drabenstot

s of this time last year, PM A3S had just had a name change from PM Air Traffic Control (ATC). Since then, the office has absorbed additional responsibilities in order to provide updated capabilities so that Army Aviation can fight and win on the multidomain battlefield (MDB) of the future. In addition to the ATC Fixed Base and Tactical teams that composed PM ATC, PM A3S welcomes the addition of a Navigation and a Surveillance team. The Surveillance team is focused on upgrading APX-123 transponders to the APX-123(A), as well as evaluating next generation transponders. The Navigation team is focused on upgrading the Navigation capability of the Army Aviation fleet to enable resiliency on the MDB.

Navigation Systems

PM A3S initiated multiple efforts to implement aspects of Assured-Position, Navigation, and Timing (A-PNT). This includes development of a Military Code (M-Code) capable GPS receiver integration upgrade for the Enhanced Aviation Global Air Traffic Management (GATM) Localizer performance with vertical guidance (LPV) Embedded GPS Inertial Navigation System (EGI) (EAGLE) with M-Code (EAGLE-M), allowing Army Aviation to meet the Public Law M-Code mandate. The second part of this strategy includes the development and qualification of the Multi-platform Anti-jam GPS Navigation Antenna (MAGNA). These A-PNT upgrade programs will continue in subsequent years culminating with the fielding of these new capabilities across the enduring and future Aviation fleets. These technologies will enable continued Aviation operations in GPS denied and degraded environments across the Multi-Domain Battlefield (MDB).

The *Embedded GPS Inertial Navigation system (EGI)* is a tri-service program

that provides a combined GPS and inertial navigation capability for aircraft equipped with an MIL-STD-1553 digital data bus. The EGI also provides precise location, velocity, and attitude to the aircraft fire control computer or integrated system processor for processing targeting information and sensor prepointing. Current EGI is Instrument Flight Rules (IFR) compliant and certified for use of the GPS as a supplementary means of navigation for enroute, terminal, and non-precision approach when properly integrated. EAGLE is the upgrade to current EGI navigators and can operate in a Backwards Compatibility Mode until EAGLE-M is available. PM A3S completed efforts to obtain certification for use of GPS as a primary means of navigation, ADS-B Out, and LPV approaches using Precision Positioning Service (PPS) or Standard Positioning Service (SPS) with Wide Area Augmentation System for
the EAGLE. This year saw completion of the full EAGLE integration and continuation of fielding on Special Operations Aviation (SOA) platforms. Phase I of EAGLE-M development and platform integration is ongoing. The first Production Representative Assets will be delivered to the Army in early 2021, while initial flight testing is scheduled to begin in late 2021. EAGLE-M is essential for the Army's A-PNT capabilities in both CONUS/OCONUS Civil Airspace, and critical for the warfighter to be successful while operating in contested airspace on the MDB.

The MAGNA Small Business Innovative Research (SBIR) Phase III effort is a small adaptive GPS anti-jam antenna system comprised of a Controlled Reception Pattern Antenna (CRPA) and antenna electronics. MAGNA will be capable of receiving legacy and modernized (M-code) NAVSTAR GPS satellite signals. The MAGNA reduces the effect of GPS jamming, enabling the Warfighter continued access to GPS-provided position, navigation, and timing in a GPS degraded environment. This year saw the conclusion of the MAGNA development and qualification program, award of the SBIR III Production Contract, as well as the initial Production Contract Award, servicing multiple stakeholders to include the Navy.

The AN/ASN-128D Doppler GPS Navigation Set, provides a combined GPS and Doppler navigation capability for the remaining UH-60L Black Hawk fleet. The AN/ASN-128D is IFR compliant and certified for use as a supplementary means of navigation for enroute, terminal, and non-precision approaches using the Digital Aeronautical Flight Information File (DAFIF) non-corruptible database. PM A3S is obtaining certification to use the AN/ASN-128D as a primary means of navigation and an Automatic Dependent Surveillance-Broadcast Out (ADS-B Out) position source. PM A3S is also testing and preparing to field a new Computer Display Unit (CDU) with ruggedized graphical touch screen and moving map display. These additions will enable the UH-60L Black Hawk fleet with their first A-PNT capability, allowing them to operate more effectively on the Multi-Domain Battlefield.

Tactical Systems Transition to Sustainment

Tactical Terminal Control System (TTCS) and Mobile Tower Systems (MOTS) will transition from PM A3S to Communications-Electronics Command (CECOM) for sustainment. Additionally, Air Traffic Navigation, Integration and Coordination System (ATNAVICS) will transition CECOM by the end of 2021 upon completion of fielding. The Tactical Airspace Integration System (TAIS) will remain under a performance-based logistics contract through FY 21, at which time the hardware will transition to CECOM for sustainment. TAIS software is now managed by PM Aerial Communications and Mission Command (ACMC).

Fixed Base ATC

The fixed base ATC capabilities continue to realize on-going modernization. The Precision Approach Radar 2020 (PAR2020) will replace the Fixed Base PAR (FB PAR) at two locations, with the potential for more in the future. The PAR2020 resolves performance and obsolescence issues and improves cybersecurity. Installation of the first system at Cairns AAF was completed early 1QFY21. Follow on systems will be installed at Illesheim, Germany at a date to be determined.

Site surveys for upgrades to the Instrument Landing System (ILS) are also underway. The ILS replacement program provides the Army with an all-weather, ground based precision approach capability and replaces the current MK-20A. Fielding is planned to begin FY21 at approved locations. Once all upgrades have been completed, there will be 25 upgraded ILS at installation airfields worldwide. Additionally, the Digital Airport Surveillance Radar (DASR) is undergoing an upgrade to address System Control and Data Interface (SCDI) and wind turbine effects on the radar. Finally, PM A3S continues to field the NextGen Voice Switch, also known as Interim Voice Switch Replacement (IVSR). The IVSR provides interface and switching of all ATC communications and will be the common platform and baseline voice switch for the National Airspace System. The IVSR replaces the Small Tower Voice Switch (STVS) and Enhanced Tower Voice Switches (ETVS). Fielding is scheduled to complete in FY21.

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Special Focus > Air Traffic Services Army Airfields – Keeping Aviation Operations Safe

U.S. ARMY AERONAUTICAL

By COL Dan Morris, Mr. Sean Boger, and LTC Curt Byron



viators utilize Army airfields to fly countless hours to ensure aviation units and their supported organizations remain at a steady state of readiness to support home station training and deployment operations. Operations include Army crewmember and non-rated crewmember training, in and around the airfield environment, as well as the occasional USAF C-17 or C-130 flight. By and large, each airfield is different; however, design standardization remains the same to support safe aircraft operations.

Who is responsible for ensuring airfields operate safely and effectively?

Similar to any other installation training capability, an airfield provides a critical link to both the garrison and a unit's training and readiness. Airfield Managers, along with their team, are primarily responsible for providing safe environments for aviation operations. However, the users (aircrews) have a prudent responsibility to take part in this effort through communication and knowledge of what right looks like. During routinely scheduled training (i.e. pilot call, etc.), take a break from the classroom and visit base operations to get the airfield tour – walk the terrain, identify and learn the myriad of lighting, marking, obstacles and clearances, vegetation, and safety details. This benefits everyone so that during pre-flight, ground taxi, and flight operations, you as a crewmember can support the airfield management program.

Inspections – Regulatory Requirements and QAEs

A common misperception is that Army airfields are safe to operate because the Federal Aviation Administration (FAA) inspects them; however, the FAA does not have the authority to regulate airports operated by U.S. government agencies, including Department of Defense (DoD) airfields, beyond joint-use airfields where both parties are responsible to ensure operational and safety standards. Thus, the Army's program for ensuring compliance with applicable directives and safe airfield operations is the Quality Assurance Evaluation (QAE) program. In accordance with Army Regulation 95-2 (Air Traffic Control, Airfield/Heliport, and Airspace Operations), airfield owning commands are responsible for establishing a QAE program to maintain safe, efficient, and effective airfields and ensure enforcement of standards and compliance with DoD, Department of the Army, FAA, and other requirements.

As a framework for inspections, there is always criteria to establish the standard. During QAEs, Army regulations and training circulars provide standards for measuring airfield management and operations compliance. Additionally, airfield infrastructure is evaluated against Unified Facilities Criteria (UFC) found in the 3-260-01 (Airfield Planning and Design), 3-535-01 (Visual Air Navigation Facilities), and 3-260-04 (Airfield and Heliport Marking). The UFCs provide DoD-wide standards based on accident data, industry standards, and lessons learned that provide safety parameters to support airfield and aircraft operations. UFCs account for personnel and equipment protection, both on the ground and in the air.

Similar to the FORSCOM Aviation Resource Management Survey (ARMS) or the Directorate of Evaluations and Standardization (DES) inspections, the QAE program helps to form the holistic triad of inspections, evaluations, and standardization in order to support overall safety and high levels of readiness throughout the aviation enterprise. Supporting both garrison and tenant aviation units' operations, the QAE program assesses the management, safety, effectiveness, and operations of airfields while identifying internal and systemic issues for resolution.

As with any inspection team, QAE teams are comprised of subject matter experts (SME). These SMEs include personnel from the respective airfield's command but are frequently augmented by representatives from all three components (Active, Guard, and Reserve). They are primarily seasoned Department of the Army Civilians and are selected for their years of experience, judgment, and demonstrated knowledge of their respective subject area. No single command has the in-house expertise or cal-



Example of Concrete Foundation Placement (must be flush with the ground). UFC 3-535-01 (Para 12-1.2)

endar free space to conduct every QAE; therefore, augmentation is required.

IAW AR 95-2, QAEs are conducted every 24 to 36 months, but may be surveyed more frequently based on the location, mission, or as directed by Headquarters, Department of the Army (HQDA), respective component, or command. To ensure an airfield is in compliance, evaluators use a QAE checklist built upon established safety standards and criteria from regulations and guidelines and again, years of lessons learned from both the DoD and civilian aviation best practices, engineering design, and accident investigations.

What if you cannot fix a violation or QAE finding?

Given the 24 to 36 month frequency of inspections, findings other than satisfactory can be rectified through processes, procedures, work orders, funding requests, or waivers. Many of the Army's airfields were constructed decades ago using design criteria for runway and taxi-





Example of Runway Marking Elements Based on Highest Intended Use UFC 3-260-04 (para 5-2.1)

way length and width, building construction, and the overall terminal area environment to support basic (i.e., historic) aircraft platforms. Today, aircraft are more modernized, buildings have aged, and vegetation has grown. Thus, with well-trained airfield personnel, aircrew member involvement, and QAE team mentorship, we can work through violations and mitigation measures, keeping in mind that safety is always paramount.

Airfields unable to meet requirements listed in the applicable UFC must submit a waiver to HQDA, Deputy Chief of Staff, G-3/5/7 (U.S. Army Aeronautical Services Agency [USAASA]) for approval. IAW AR 95-2, USAASA is the approval authority for such waivers and makes the final and consolidated position based on complemented assessments from the Air Traffic Services Command, Army Combat Readiness/ Safety Center, and the Corps of Engineers Transportation Systems Center.

Before a command submits a waiver, they must fully review all UFC compliance standards. If criteria cannot be met, the waiver is only processed when the violation has been fully adjudicated to ensure it poses little or no risk to aviation safety and there are no other alternatives. Additionally, when proposed objects or facilities will penetrate airfield imaginary surfaces or safety clearances, analysis must be conducted to determine potential impact and risks to aircraft operations, personnel, and infrastructure.

What does a waiver provide?

Regardless of the waiver's approval status, there is absolutely no substitute for continually assessing the risk associated with the respective violation. There are two types of waivers, permanent and temporary. Permanent waivers are established for violations that cannot be

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reasonably corrected and either pose little to no threat to flight operations and personnel or risks have been mitigated at the appropriate level. Permanent waivers are issued where no further mitigation actions are intended or necessary. Many airfields have permanent waivers because of geographical challenges such as natural or man-made obstructions.

Temporary waivers are established for a specified duration to provide commands an opportunity to fully comply with criteria or to obtain a permanent waiver. Temporary waivers must include the plan to correct the violation, risk assessment, project/work order number, and estimated completion date to bring the item into compliance. Routine follow-up inspections are required to evaluate the effectiveness of implemented risk mitigation actions, control measures, and identification of new risks for each temporary waiver granted.

Conclusion

Airfields, airfield owning commands, and USAASA work hand in hand to ensure fullest communication on changes to airfield criteria, emerging mission requirements, and ultimately brief QAE trends and analysis during the Quarterly Aviation Synchronization Meeting's Airfields Council of Colonels. Ensuring airfields operate safely is a joint effort across all organizations in the aviation enterprise. Again, communication is vital; knowledge of UFC criteria and airfield management expertise is essential; and follow-up actions to ensure compliance is imperative. As a member of the airfield community, we all contribute specific expertise to support safe airfield and flight operations. Take the time to reach out to your Airfield Manager to learn more about the day-to-day requirements to keep our airfields operating smoothly. As an aircrew member, you provide an additional operational perspective from a bird's eye view from the cockpit that is critical to airfield safety.

Questions and comments should be directed to your respective airfield owning command but can also be sent to *usarmy.belvoir.tradoc.list.usaasaaf@mail. mil* for additional support. Everyone is responsible for safety and continuing to make airfields great!

COL Dan Morris is the USAASA Commander, Mr. Sean Boger is an aeronautical policy specialist, and LTC Curt Byron is the Airfields Branch Chief at Fort Belvoir, VA.

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Special Focus > Fixed Wing



The Fixed Wing Project Office and Army Fixed Wing Aviation -

Revolutionary Teaming Between the U.S. Army and Industry Creates a High-Altitude Deep Sensing Capability

By COL James DeBoer and Ms. Tracey Ayres

s the operational domain moves from counter-terrorism to emerging near-peer conflicts, the technology used to support the battlespace must be tailored to this new environment. Because our near-peers now have technology comparable to ours, one need for this new environment is the ability to use aerial intelligence, surveillance and reconnaissance sensors from a greater stand-off distance, with more precision and provide real-time threat awareness and targeting across the battlespace.

Near-peer Technology

In September 2019, the Army Aerial Intelligence, Surveillance and Reconnaissance (AISR) strategy emphasized the need for the rapid development of modernized sensor and enhanced platform capabilities necessary to provide commanders with globally responsive and highly capable aerial sensing solutions. The strategy required a pressurized aircraft that could fly day and night, in near all-weather conditions with the capability of operating at or above 40,000 feet. Other require-

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ments for the Multi-Domain Sensing System/Multi-Domain Operations (MDSS/ MDO) were sufficient capacity to operate all of the sensor suites simultaneously, 10 hours of unfueled flight endurance and be self-sustainable should there be limited ground support at airfields.

By teaming with industry, U.S. Army aviation has added to its arsenal the high-altitude deep sensing capability: Airborne Reconnaissance Targeting Exploitation Mission-Intelligence System or ARTEMIS.

AISR Constraints

The Army's fleet of manned fixed wing intelligence, reconnaissance and surveillance aircraft have been twin engine, propeller-driven aircraft and most recently, these aircraft have filled AISR gaps in support of Central Command (CENTCOM) operations. The aircraft perform exceedingly well but they do have multiple critical constraints: lack of range, altitude, endurance and payload capacity. The lack of range and endurance means these aircraft require frequent fuel stops and will typically take several days to arrive in a theater of operations. Additionally, most require a robust set of ground support equipment and maintenance technicians to sufficiently maintain the platform and/or to connect into the military communications architecture. It is not uncommon to take upwards of 45-60 days to fully stand up a new deployment site for one of the current platforms in the Army's inventory. These time constraints severely limit the Army's ability to provide globally responsive AISR coverage to emerging requirements or joint missions and force our Soldiers to rely on other services' intelligence assets.

The shift to MDO requires the Army's AISR program to have a deep sensing capability. Deep sensing requires two things: the ability to fly higher and utilize more capable sensors. The ARTEMIS platform provides the capability to fly higher (40,000 feet), and will provide technical reports on the installed government-offthe-shelf (GOTS) and commercialoff-the-shelf (COTS) sensors that will inform future Army decisions on sensor investments. In addition to the technical reports, ARTEMIS will provide operational intelligence data into national databases for use by combatant commanders, fulfilling critical intelligence requirement gaps.

Revolutionary Teaming

The ARTEMIS effort is one of revolutionary teaming between the Army and industry. The teaming approach serves as a risk-reduction effort for future Army investments by providing a low-cost alternative to what have largely been expensive developmental efforts for the DoD's acquisition community. ARTEMIS is a Contractor Owned, Contractor Operated (COCO) asset, however, Soldiers have already flown several missions and are also processing and evaluating the sensor data at the Intelligence and Security Command (INSCOM) Processing Exploitation and Dissemination (PED) Network. The Soldiers' feedback will inform future development efforts of followon programs.

Leidos, in response to MDSS requirements and industry request for information (RFI), invested in the procurement of a Bombardier Challenger 650 aircraft, completed industry partnering for sensor system solutions, completed aircraft and sensor design, initial non-recurring engineering and basic airframe modifications to compete for the opportunity to support Army MDSS/ MDO manned aerial technology Industry's demonstration efforts. initial investment was at risk and provided the basic systems level configuration and capability while the Army buys the COCO manned AISR capability as a turnkey service to validate MDSS/MDO requirements.

ARTEMIS

The ARTEMIS modified Challenger 650 based system will provide nearly four-times the weight-carrying capability and more than twice the onstation time than our current Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) and Guardrail Common Sensor (GRCS) fleets. The extra capability delivered by ARTEMIS allows communications intelligence (COMINT), electronic intelligence (ELINT) and eventually synthetic aperture radar (SAR) sensors to operate simultaneously with over 10 hours of unrefueled flight time. The ability to automatically cross-cue sensors from a single aircraft providing persistent coverage with greater standoff range is a critical requirement for the Army's future platform and a key output of the ARTEMIS technical demonstration in FY20-21.

ARTEMIS will take advantage of the information-age and utilize open-architecture, software-definable mission equipment. The openarchitecture construct allows "on the fly" tech-insertions and the ability to rapidly update and/or modify signals intelligence (SIGINT) sensors to emerging threats and emitters. Not only does open-architecture allow for rapid innovation, but it also saves significant weight and power requirements the current fleet has with antiquated hardware architecture. The hardware-centric models of the Army's current fixed wing AISR fleet are not easily updated without substantial integration costs and modification timelines. These modifications remove aircraft from the operational fleet for long periods of time.

Deployment

ARTEMIS proved to be an effective force multiplier during its initial deployment to the Pacific Command (PACOM) Area of Responsibility (AOR). While deployed to the PACOM AOR, the ARETMIS program flew 137 flight hours of tasked missions and successfully demonstrated 10 hour, high altitude, mission endurance with the ability to support long range overwater reach. The program validated the tenets of MDSS stand-off, deep sensing requirements.

ARTEMIS again demonstrated its relevancy and MDO global responsiveness when it shifted AOR in mid-September. ARTEMIS rapidly transited across 4600 miles to support emerging AISR requirements in support of the European Command (EUCOM). The ability to travel halfway around the world in less than 24 hours, and arrive in EUCOM primed for missions, represents a significant advancement for the Army's ISR portfolio and demonstrates capability needed to keep pace with the tempo of high-intensity conflict.

Follow-on Program

Through its successful deep sensing, high altitude missions, ARTEMIS is opening the door for follow-on programs such as the High Accuracy Detection and Exploitation System (HADES). HADES is envisioned to provide targeting for long-range precision fire (LRPF), air launched effects (ALE), electronic warfare/ electronic attack (EW/EA), cyber, and command and control (C2). The Fixed Wing Project Office is currently tracking an Army Requirement Oversight Council (AROC) decision for May 2021.

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Special Focus > Fixed Wing



Delivering Capability Today: Pivoting to the Future By Mr. Dennis A. Teefy

roject Manager Sensors-Aerial Intelligence (PM SAI) has a long history of developing and delivering sensor capabilities for the Army's intelligence, surveillance, and reconnaissance (ISR) aerial fleet. As the Army's lead agency for lifecycle management of airborne ISR sensors, PM SAI partners with manned and unmanned platform program offices to provide layered solutions to the intelligence and tactical communities. Informed by its stakeholders, the platform program managers and PM SAI team together to field the Army's premier Aerial ISR systems, enabling timely dissemination of intelligence products to meet current and future warfighter needs.

The Army continues to transition from an asymmetric counter insurgency (COIN) battlefield to a more linear operational environment, against a near-peer adversary. This shift to Multi-Domain Operations (MDO) is not a new concept; however, its impact to the Aerial ISR community has been brought to the forefront based on the Army's 2028 strategy. Sensors are required to provide

the analytical and collection capability to support multi-domain situational understanding in support of the deep fight. Deep sensing is vital to maintaining information dominance. PM SAI's capability to engage in MDO will aid in rapid decision making in order to deliver kinetic and non-kinetic effects during both the competition and conflict phases.

The current Aerial ISR portfolio of systems are being adapted to the new Aerial ISR strategy. PM SAI and its partners have a three-pronged approach to maintain and expand the Army's Aerial ISR capability. The Army will maintain the current fleet of systems, field new or upgraded systems as a bridging strategy, and develop new systems optimized to meet the future threats.

Sustain and Modernize the Current Fleet

PM SAI will continue to sustain and modernize the sensors on the current fleet of manned and unmanned systems. PM SAI is methodically updating sensors on the Guardrail Common Sensor (GRCS) System and the Enhanced



ARL-E conducting test flights in preparation for final delivery to the Army

Medium Altitude Reconnaissance and Surveillance System (EMARSS) families to both address obsolescence and provide greater relevance in Multi Domain Operations. The new sensors incorporated on these currently fielded systems focus on both substantial increases in capability and allow rapid growth in the future through incorporation of a modular open system architecture. Through advancements in hardware and software improvements, PM SAI is also upgrading sensors residing on the both the MQ-1C Gray Eagle and the RQ-7 Shadow Unmanned Aerial Systems (UAS). The program office will use obsolescence of legacy sensors on these platforms as an opportunity to modernize the sensors and increase capabilities. As replacement systems are developed and fielded, the Army will also strategically divest legacy sensors and systems.

Bridging the Gap

The Army is the midst of testing and fielding systems that bridge the gap until the ideal solutions can be developed and fielded. The Airborne Reconnaissance Low-Enhanced (ARL-E), is the Army's newest manned multi-sensor, day and night, all-weather Aerial ISR system. PM SAI, in partnership with PM Fixed Wing, will deliver a platform with a reconfigurable payload and enhanced communications intelligence (COMINT) and imagery intelligence (IMINT) sensors, long-range ground and dismounted moving target indicator/synthetic aperture radar, high-definition electrooptical/infra-red full motion video, and hyperspectral imagery. The ARL-E program will begin fielding in 2021 and will provide the most integrated and capable Army Aerial ISR system in the fleet. It will provide both COIN capability and an advanced MDO capability during the competition phase.

The Army will also develop and field the prototype EMARSS-E system which will serve as a potential bridge to provide Electronic Intelligence (ELINT) capability to the EMARSS family until Multi-Domain Sensing System (MDSS) High Accuracy Detection & Exploitation System (HADES) system comes online. This capability is critical to support deep-targeting and early Indications & Warnings for Joint All Domain Operations (JADO). The addition of EMARSS-E to the fleet provides a near-term bridging capability to the Army. PM SAI provides the sensor systems to PM Fixed Wing in order to support fielding in 2023.

Pivoting to the Future

PM SAI is also in the middle of the Army's effort to pivot to the future. This pivot is codified in the MDSS concept. The MDSS lays out the vision for the modernized Army Aerial ISR needs. MDSS is not a single Aerial collection platform, but rather a family of integrated flying systems that will deliver relevant sensing through the entire depth and breadth of the multi-domain operations battlefield. The concept operates from tree-tops to high altitude and at low Earth orbit. MDSS will collectively provide sensing capabilities from the forward line of our troops through the operational deep fires area.

The first priority for MDSS development of Aerial ISR support is the MDSS HADES program. HADES is envisioned to take high technology readiness level sensors and integrate on a more survivable, higher altitude, and faster Aerial platform. A key underpinning to this program is the reliance on open architecture and standards to ensure the long term flexibility of the systems. Open architecture will allow the Army to effectively and efficiently modify sensor packages on the platform to address new or emerging threats. The Army is undergoing a campaign of learning to inform the proper combination of sensors and Aerial platforms to meet the Army's user requirements.

Additionally, PM SAI is partnering with the research and development community and the requirements community to establish science and technology sensor programs to support additional MDSS programs that will be integrated on Unmanned Aerial Systems, High Altitude Balloons, and Low Earth Orbit Satellites. Smart investments in these areas will provide the Army with flexibility and drive smart, long term acquisition decisions.

PM SAI is responsible for the delivery



MQ-1C Gray Eagle with STARLITE payload.

of the Army's premier Aerial ISR sensors to enable timely dissemination of intelligence products to meet current and future warfighter needs. To do this PM SAI fosters a culture that grows the capabilities of our workforce, embraces change, executes tactically, and looks forward strategically. Through the execution of the threepronged approach to sensor acquisition, PM SAI will continue to deliver capabilities to meet the current threat and provide focus on meeting the emerging threats and requirements through delivery of systems to the field.

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US Army OSA Fixed Wing Provides Direct Capability in Response to COVID-19

By LTC Scott Messare

s the saying goes, 'the Army keeps rolling along' or in this case flying along. Uniquely positioned, the U.S. Army Operational Support Airlift (OSA) non-executive Fixed Wing enterprise answered the call when our nation looked to the Department of Defense (DoD) and Army senior leaders (ASL) to continue to fulfill their roles in providing national defense and an effective response capability to the novel Coronavirus (COVID-19). The prevailing expectation was that an effective

response would include field hospitals, mobile assessment teams, treatment, and testing locations. A critical aspect of the Army's ability to respond in such a timely manner was the availability and responsiveness of the U.S. Army ÓSA fleet. The OSA fleet provided readily available and safe transport for key leaders across the nation to achieve critical milestones in the Army's response effort. Since March, a prevailing sentiment among ASLs has been that the travel made possible by the OSA MILAIR fleet, was instrumental

A C-12V from Operational Support Airlift Activity Flight Detachment (OFD) arrives at Ft. Bragg, NC on mission in support of COVID-19 movement requests.

in their ability to meet mission objectives. Between March and 1 Oct., 149 COVID-19 related Army OSA support missions were scheduled and executed.

As we can all attest, the global COV-ID-19 pandemic has permeated every aspect of our personal and professional lives since March 2020. Most would agree that



A UC35 Citation from the Operational Support Airlift Activity Flight Detachment (OFD) conducting COVID mission support from Andrews AFB, MD to El Paso, TX captures a glimpse of the closed runways at the Tulsa International Airport converted into a commercial air carrier parking ramp.

the normalization of a masked environment, maximum tele-work and the addition of social distancing have concurrently forced a tidal wave of change in a short time. These factors have systematically changed how we communicate, operate and integrate current and future plans into daily routines. Some of these changes were positive and removed workplace barriers. In other areas, it has stretched organizational limits, forcing innovation and adaptation across every facet of the OSA mission, as failure to do so risks functional obsolescence.

Another result of COVID that significantly affected many people across the United States, was the degradation of the transportation industry. As a result, this removed both the routine convenience and perceived safety of mass transportation. After losing commercial air options, the historic alternative to MILAIR, an unprecedented stateside mobility gap emerged which had previously never existed.

Traditional Mission

Traditionally, the U.S. Army operates a fleet of OSA aircraft to support globally aligned wartime mission requirements. Their mission is to transport high-priority and/or time sensitive passengers and cargo based on combatant commander requirements. As a bi-product of aircrew proficiency training intended to generate wartime readiness, the Fixed Wing fleet historically provided prioritized passenger movement for sensitive or time critical information/material in a CONUS environment. This support is provided through a centralized request, validation and scheduling process managed by two organizations. The first is at the joint level through USTRANSCOM at Scott Air Force Base, overseeing opportunity movements and courier missions.

The second organization is the Operational Support Airlift Activity (OSA-A) at Fort Belvoir, where Army operational requirements such as blood transport, OCONUS flight support, and ferry flights are managed. In our current environment, the Fixed Wing OSA fleet is operating in a high OPTEMPO where mission requests and requirements have the very real possibility of exceeding the limitations of available resources. All three Army components have an array of aircraft aligned as either single platform state detachments distributed across the country, or in small nodes tailored to meet various mission, training and support requirements.

While innovation was required to counter many of the COVID-19 challenges, the OSA Fixed Wing fleet was ready to provide immediate transportation capabilities as airports and airlines grounded their fleets. In this way, the U.S. Army OSA non-executive Fixed Wing fleet kicked into high gear, executing coast to coast and regional flight mission support. Some of these mission roles included non-executive MI-LAIR to enable critical COVID task force movements, critical senior leader engagements, COVID assessment and investigation, and priority deployment and redeployment movements. There were also COVID-19 movements that were simply associated with reducing exposure opportunities.

Transformative Impacts

During COVID-19, OSA-A Quality Assurance Office (QA) assumed the lead role in scheduling COVID-19 related support requirements. For the first time ever, OSA-A QA began scheduling nearly all U.S. ARMY MILAIR requests due to their operational nature. Equally impressive, this transition occurred in a 100% telework environment with tremendous effectiveness and responsiveness to ASLs, often supporting short notice high priority missions. From March to October 2020, OSA-A QA in conjunction with Joint Operations Scheduling Airlift Center (JOSAC) at USTRANS-COM has scheduled 1,149 COVID-19 related missions (CONUS only). This translates to 125 missions flown by the Operational Support Airlift Activity Flight Detachment (OFD), the only stateside COMPO-1 non-executive entity, 326 missions flown by detachments of the Army National Guard (ARNG) fleet, and 698 missions by the US Army Reserve fleet. The OSA COVID designated main effort was recently designated to COMPO-1 and COMPO-3 fleet which resulted in increased funding to ensure this tremendous success.

The transformative impact of CO-VID-19 has made common activities difficult. It has changed our lexicon to include "see you on TEAMS" and "send it on GEARS" while simultaneously employing maximum telework and the mindset of "preserving Combat Power" in a stateside environment.

Our organization's aim during this unprecedented time was to not only meet mission requirements, but truly seek ways to improve, increase efficiency, efficacy, and connectivity, while operating in this dispersed environment. Positive growth and change come from meeting challenging situations head on and the OSA Fixed Wing fleet across all COMPOs has proven this fact in recent months with superior results.

"Wartime Readiness!"

LTC Scott Messare, is the commander of the Operational Support Airlift Activity (OSA-A) of The Army Aviation Brigade (TAAB), Fort Belvoir, VA.

Special Focus > Fixed Wing





By COL Roger Deon, LTC Wayne Schaitel and MAJ Dan Sears

n March 13th, 2020, the US Army needed immediate solutions to the emerging COVID-19 pandemic. A key capability that proved vital to the air movement of key leaders, essential personnel and vital equipment was the US Army Reserve (ÚSÂR) Fixed Wing Battalions. With a reach across the entire continental United States, two USAR Theater Aviation Battalions, equipped with both C-12U/V and UC-35A/B aircraft, provided vital capacity to move medical teams, senior leaders, and first responders with point-to-point air movement. The exceptionally capable fixed wing command teams, combined with their professional aircrews and staff, worked tirelessly to execute this critical mission with a positive impact felt throughout the Army and the Department of Defense. To date, both USAR Theater Aviation Battalions have flown 800+ missions and 4,500+



B Company 2-228th Theater Aviation Battalion (TAB) enables BG Kris Belanger, deputy commanding general of Human Resources Command (HRC) to continue critical mission requirements during COVID-19 pandemic. Pictured from left to right are 1LT Derek Slaughter and BG Kris Belanger.

flight hours, to enable movement of 2,200+ passengers, in direct response to the COVID-19 requirements.

When the US Army mobilized the Urban Augmentation Medical Task Force (UAMTF) to fight COVID-19 throughout the United States, the USAR Theater Aviation Battalions (TAB) were invaluable to the immediate deployment of medical teams. This effort prevented the need to quarantine these highly sought after teams, allowing their skills and resources to ensure immediate medical capability to some of the most affected communities throughout America. Urban centers such as New York City, Chicago, Seattle, and Los Angeles all received critical assistance with the direct assistance from USAR TABs.

"The ability to move medical teams from their hometowns, to the urban centers around America, with immediate capacity to provide assistance, was imperative to



Crewmembers from B Company 2-228th Theater Aviation Battalion (TAB) deliver MG Diana Holland (center left), Commanding General US Army Corps of Engineers, Southern Atlantic Region, and her aide, CPT Hannah Matthews (center right), for the opening of a 450 bed field hospital at the Miami Beach Convention Center. Aircrew members of the UC-35B include CW4 Curtis Miller (left) and CW4 Adam Stein (right).

the overall success of the Army's campaign to combat COVID-19," said Brig. Gen. Jami Shawley, Commanding General of the Army Reserve Aviation Command.

COVID-19 even interrupted the Department of the Army Secretariat (DA SEC) Promotion and Selection Boards, held regularly at the Human Resources Command complex, Fort Knox, Kentucky. The Army could no longer risk the possibility of spreading the virus via the standard domestic travel apparatus. The USAR TABs provided a solution that enabled promotion and selection boards to resume, which is imperative to the ongoing talent management initiatives that impact virtually every formation.

The precision required to plan, coordinate, and execute the many Fixed Wing Air Missions associated with the COVID-19 response was daunting at first. The United States Army Reserve Command (USARC) G3/5/7 Aviation Directorate stood up a Mission Command node called the "Double Eagle Express" to ensure the timely, effective, and cost efficient manner to meet the many competing priorities. The Double Eagle Express has direct liaison to the Army Reserve Aviation Command (ARAC) and both Theater Aviation Battalions (6th Battalion, 52nd Aviation with headquarters at Los Alamitos California, and 2nd Battalion, 228th Aviation, with headquarters at Joint Base McGuire-Dix-Lakehurst, New Jersey). This liaison enabled the coordination and approval process imbedded in the Joint Operational Support Airlift Center (JOSAC) at Scott Air Force Base, Illinois, and the Operational Support Airlift Activity (OSA-A) at Fort Belvoir, Virginia, for timely mission approval.

Brig. Gen. Brian R. Bisacre, USARC G3/5/7, described the effort when he said, "The entire USAR Fixed Wing community has worked together to optimize Fixed Wing capabilities to meet the demand in the current operational environment. Like all great units, we will continue to train, build readiness and leverage capabilities to enable our Army during this global pandemic while ensuring the health and protection of our Soldiers and families. This remains our top priority."

The most critical requirement right now is to reduce the threat of exposure to the virus by eliminating the contact experienced throughout conventional ground and air travel. Senior leaders, medical teams, and students alike can arrive at a local airfield and walk directly to a U-12U/V "Huron" King Air or a UC-35A/B Citation Jet. After initial screening, and a COVID-19 tailored passenger brief, the aircrew will deliver the passengers to their destination with little risk to expanding the negative impact of the pandemic. By reducing the risk to viral contact, these passengers avoid the crippling impact of quarantine or isolation requirements upon arrival and immediately begin their follow-on missions. Missions such as saving American lives, directing fundamental elements of our National Security, or simply training for the future and building individual readiness across the force.

The COVID-19 pandemic revealed the strategic importance of maintaining the capability to safely and efficiently conduct fixed wing air movement of critical personnel to vital operating environments during a national emergency. No other Army transportation asset (both ground and air) could provide the advantages of Army Fixed Wing travel. The ARAC remains committed to a cost effective, highly responsive, and always ready solution for safe and effective air movement of indispensable resources, whether it is within the Continental United States, or beyond.

Army Reserve aviators continue to demonstrate their commitment to provide theater-level Aviation support to COCOM Commanders engaged in extending critical assistance to adversely impacted local communities by the ongoing pandemic. Fixed wing aircrews perform their Mission Essential Tasks to daily ensure command, control, and communications (C3), staff transport and liaison, and air movement of critical equipment, supplies, parts and personnel, always maintaining the highest levels of unit readiness.

The USAR fixed wing capability reduces risk to force, offers cost savings to our operational combined budgets, and enables a reliable alternative to commercial air travel. USAR Fixed Wing Aviation remains resilient, ready, and prepared for today's mission and stands ready to increase the demanding capabilities of Fixed Wing requirements long in the future. We have proven that we are the transportation choice for Senior Leaders, Medical response teams, and mission essential personnel during a pandemic. And during future national emergencies, USAR Fixed Wing Aviation remains ready - anytime, anywhere.

COL Roger Deon is the Director of the USARC Aviation Directorate, LTC Wayne Schaitel is the Commander of the US Army Jet Training Detachment, and MAJ Daniel Sears is the Officer in Charge of USARC Air Operations Cell.



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Special Focus > Fixed Wing



Army National Guard Fixed Wing Training



By CW2 Jim Smith and LTC Wade Johnson

An FWAATS C12U Huron catches a ride aboard the USS Essex, at Naval Air Station (NAS) North Island, Coronado, CA, July 25, 2020, enroute to its new home with the Hawaii Army National Guard's Fixed Wing Flight Detachment.

For nearly four decades, the Fixed Wing Army National Guard Aviation Training Site (FWAATS), located in Bridgeport, WV, has served as the fixed-wing element of the Army National Guard's Army Aviation Training Site (AATS) network; and in some cases, the sole source provider for nonstandard fixed wing aircraft training within the United States Army Training and Doctrine Command's (TRADOC's) One Army School System (OAAS). As one of four National Guard Army Aviation Training Sites, the AATS collectively provide a tremendous multi-component training resource to Army Aviation, conducting a wide variety of initial and graduatelevel training, to include Aircraft Qualification Courses, Instructor Pilot Courses, Instrument Examiner Courses, Maintenance Test Pilot Courses, and numerous Nonrated Crew Member (NRCM) Standardization Courses as well.

Mission

The primary mission of the FWAATS is to conduct individual aircrew member qualification training for all three Components of the United States Army (Active Duty, Reserve, and National Guard); to provide aviation quality assurance by performing flight evaluations and developing courses of instruction that standardize flight procedures; to operate flight simulators in support of both courses of instruction and regional training requirements as directed by the Chief, NGB; to conduct individual enlisted crew member training; and to provide medical services and crash rescue capability in support of the FWAATS mission. Upon mobilization, the FWAATS augments the TRADOC aviation training mission as an activity under command and control of the United States Army Aviation Center of Excellence (USAACE).

For more than two decades, the Instrument Examiner Course (conducted in both the C-12 Huron, and C-26 Metroliner) has been the mainstay in the unit's catalog of courses. Others, such as the KA-300/350 Qualification Course for Task Force Observe, Detect, Identify and Neutralize (TF ODIN), and the Task Force Communications Electronic Attack with Surveillance And Reconnaissance (TF CEASAR) C-12R Qualification Course, emerge on demand from the DoD for special purpose missions, or to meet surge requirements in support of contingency operations worldwide.

Accreditation

The FWAATS is a four-time TRADOC Learning Institution of Excellence, having successfully maintained its triennial accreditation for more than fifteen consecutive years. Much of its success is owed to its ability to recruit and retain the very best instructors the Army has to offer. While the team is primarily comprised of Title 32 Active Guard and Reserve (AGR) personnel, supported by its Title 32 Traditional Guardsmen and women, the cumulative experience level of the FWAATS's cadre eclipses that of many of its contemporary fixed wing organizations. In fact, several of its senior instructors came directly from the Active Army or Army Reserve, having proven themselves as highly qualified instructors, instrument examiners, and standardization pilots. The diversity of experience spans the gamut of nearly every fixed-wing aircraft and mission set the Army has to offer. Likewise, their previous assignments span a sundry of positions, from State-level Detachment Commands, to the NGB, the Operational Support Airlift Activity (OSA-A), Army Aviation's Directorate of Evaluations and Standards (DES), and the Army Capabilities Management (ACM)(formerly TCM) office, just to name a few.

With unique capabilities, come unique opportunities. Over the years, FWAATS team members, past and present, have assisted countless units in the field, and have provided solutions on short suspense leveraging the composition of the unit, and the programs they manage. For example, when a new Army mission set arose to operate under the Air Force Special Operations Command, FWAATS's cadre not only conducted the C-12R qualification training for deploying personnel, they also participated in equipment testing, ferried aircraft to theater, and spent several weeks with the deployed unit as the fledgling program was established.

"Although some of the ideas brought to us don't come to fruition, FWAATS is always willing to assist in everything from ad hoc mission training development, to providing highly seasoned trainers to execute the training when required," said Operations Officer MAJ Kevin Herlihy. "While our primary mission revolves around regularly scheduled training courses, we are always happy to lend our expertise to find innovative solutions with field units."

Exportable Training

Although the preponderance of its courses are designed to be conducted at its training facility in Bridgeport, WV, the FWAATS team has, when dictated by mission or geographical necessity, exported its training packages when and where needed. In 2017, members of the FWAATS team traveled to Wiesbaden, Germany to conduct Maintenance Test Pilot and Standardization Pilot Training for several members of Echo Company, 214th General Support Aviation Battalion (GSAB) in their C-12U aircraft. Recently, instructor pilots from the FWAATS assisted the Hawaii Army National Guard after receiving a replacement C-12U (previously a C-26 unit) following a more than two year period without an aircraft assigned to the unit. "Assistance from FWAATS personnel conducting qualification training on site here in Hawaii was critical to standing our program up in a timely manner", said Detachment Commander, CW5 Darren Dela Vega. "The ability to have their personnel on site not only allowed us to establish currency for our crews including our Instructor Pilot and Maintenance Test Pilot, we were also able to pull from their experience re-establishing our programs after a lengthy hiatus from operations. Over the years FWAATS has always been an outstanding resource and have been extremely supportive of the needs of our program."

As Army Aviation marches forward with its Future Vertical Lift (FVL), Future Attack Reconnaissance Aircraft (FARA), and Future Long Range Assault Aircraft (FLRAA) programs, the fixed wing community anxiously awaits a future decision on its Future Utility Aircraft (FUA) program. In the interim, it may be more important than ever to continue using existing equipment and personnel in increasingly innovative ways to continue shaping the Army Aviation Enterprise and ensure mission success. As Thomas Edison once said, "There's a way to do it better, find it."

UAS Instrument Flight Training

Currently, members of the FWAATS team are entering new territory in an effort to assist Active Duty (and eventually National Guard) Gray Eagle Unmanned Aircraft System (UAS) aircrews with standardizing their instrument flight training programs, to better educate their pilots and prepare for further future integration of unmanned systems in the National Airspace System. There is excitement about the possibility of expanding FWAATS capabilities to support the Unmanned ISR Community. While the FWAATS will retain its core mission of training the Army's fixed wing aviators for years to come - particularly as we look to become even more integrated with the Intelligence Surveillance and Reconnaissance (ISR) communities - there is still a general sense of trepidation in the commercial aviation community when it comes to operating unmanned aircraft above the coordinating altitude. Our highly qualified instrument examiner instructors will ensure Gray Eagle aircrews are sufficiently prepared to operate in the National Airspace.

For more information on existing courses offered at the Fixed Wing Army National Guard Aviation Training Site, or for contact information to discuss other potential capabilities, visit *https://www.wv.ng.mil/FWAATS*.

LTC Wade Johnson is the commander and CW2 Jim Smith an instructor pilot at the FWAATS located in Bridgeport, WV.

An FWAATS C-12R on the ramp in El Paso, TX, July 16, 2020, after delivering COVID-19 test kits and support personnel for redeploying National Guard Soldiers.



From the Field >



597th Support Maintenance Detachment – Providing Below-Depot Support to the National

Guard Bureau By CW3 Marvin De Ocampo





The 597th Support Maintenance Detachment (SMD) is the only unit of its type in the United States Army. It provides belowdepot sustainment maintenance and other technical assistance to Active, National Guard, and Reserve Air Traffic Services (ATS) units around the globe. The 597th SMD's uniquely large concentration of MOS 94D (Air Traffic Control Equipment Repairer) Soldiers and Department of the Army Civilian (DAC) ATS maintenance experts makes the unit a valuable asset for all Army compo ATS units to meet their logistical and readiness requirements.

Case Study

Recently, F/1-111th General Support Aviation Battalion (GSAB) from the Maryland Army National Guard (MDARNG) enlisted the help of 597th SMD to provide below-depot sustain-

ment maintenance support on their Mobile Tower System (MOTS). Their MOTS had been non-mission-capable for months due to water intrusion and was deemed by the unit and depot as beyond the capability of F/1-111th's organic 94Ds to repair. A team of experts from 597th SMD and Air Traffic Services Command (ATSCOM) traveled to Maryland and assessed the extent of the damage on the MOTS to determine the level of repair it required. The team determined that the repairs could not only be performed by the 597th SMD, but also done at a significant cost savings to the National Guard Bureau (NGB) compared to a depot repair. After a few weeks coordinating for funding and maintenance release authorizations, the NGB and F/1-111th GSAB made the decision to send the MOTS to the 597th SMD at Fort Rucker, AL for repair.

Above left: SSG Castillo and SPC Coffe conducting initial inspection of the 1-111th GSAB MOTS.

Above right: SPC Reynoso and SPC Sherrod removing the damaged safe as part of the teardown of the 1-111th GSAB MOTS.

Upon arrival of the MOTS at 597th SMD's maintenance facility in late June 2020, Mobile Maintenance Contact Team (MMCT) #3 immediately went to work using the phase maintenance approach. It became the perfect opportunity for the Soldiers and DACs to demonstrate their ability to perform below-depot sustainment maintenance. The team first reviewed the maintenance work packages and drawings to ensure that they were prepared for anything out of the ordinary. They then removed the radios, safe, servers, workstations, and other components for cleaning and testing, documenting and tagging each component. MMCT #3 cleaned and sanitized the MOTS interior to remove every trace of mold that developed because of the damp environment and addressed all corrosion concerns to ensure the water intrusion did not compromise the integrity of the chassis.

The 597th SMD's Production Control (PC) office acted as the central hub for all work and provided priority and oversight of F/1-111 GSAB's MOTS repair. The PC office assigned the radios, workstations, and other components to the 94D Soldiers for cleaning and testing. Soldiers conducted The initial inspections and cleaning tasks prior to testing their assigned component. They then replaced hub batteries and other authorized repairs that they found during their testing process, and conducted software reloads and upgrades on workstations to address synchronizing issues during testing. Upon completion of the component repair, the 94Ds returned their assigned work to the Production Control office for installation to the MOTS.

MMCT #3 began installation of

tested components upon completion of sanitation and corrosion tasks. They tested the MOTS to identify additional faults and maintenance issues, and conducted fault localization and isolation during component or system failures. The DACs worked alongside the Soldiers to provide technical assistance when needed. When the Soldiers and DACs were asked about the most challenging part of performing the repair, they said that it was availability of repair parts. The Production Control office leveraged the item manager, life cycle manager, depot, and acquisition office for expedient receipt of the repair parts to minimize delay. In addition, the Production Control office worked directly with outside sources to ensure timely delivery of repair parts.

The MOTS was then prepared for one final test upon completion of all repairs: the water intrusion test. The Soldiers and DACs simulated a storm scenario by spraying large amounts of water and high force winds to determine if the repairs were sound and if water continued to leak into the MOTS. The test determined there was no water intrusion inside the MOTS. With all repairs completed, approval was given to return the MOTS to F/1-111th GSAB providing the unit with a fully mission capable MOTS for their next training event when the equipment arrives at their unit in October 2020.

Conclusion

597th SMD's below-depot sustainment maintenance on F/1-111th GSAB's MOTS is one example of the unit's continued effort to support the NGB, and also demonstrates the National Guard's level of trust in the knowledge and skills of the unit's Soldiers and civilians. National Guard ATS units continue to call on 597th SMD for support on ATS system repair and readiness, and the 597th remains ready to support Army ATS organizations at every level with below-depot sustainment maintenance and other technical assistance.

CW3 Marvin De Ocampo is the commander of the 597th Support Maintenance Detachment, 164th Theater Airfield Operations Group, Air Traffic Services Command at Fort Rucker, AL.

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Historical Perspective 🕨

55 Years Ago, la Drang – Part I: LZ X-Ray By Mark Albertson

Helicopter of MAJ Bruce Crandall. commander of the



Editor's Note: This is the first of two articles commemorating the 55th Anniversary of the Battle of Ia Drang, Vietnam

ifty-five years ago, 1st Cavalry Division (Airmobile) went on the attack. Division commander, MG Harry W.O. Kinnard, ordered COL Thomas W. Brown, commander, 3rd Brigade, 1st Cavalry Division, to send units south of the Ia Drang River, within the shadow of the Chu Pong mountain range. Brown's units were the 1st and 2nd Battalions, 7th Cavalry Regiment and 2nd Battalion, 5th Cavalry Regiment. To the east, some six or seven miles at LZ Falcon, two batteries of 105 mm howitzers would be set up for fire support. 1st Battalion, 7th Cavalry, commanded by LTC Harold G. Moore, was to be inserted by helicopter into LZ X-Ray, 1030 hours, November 14. Objective: Engage in search and destroy operations in the Ia Drang Valley.



LTC Harold G. Moore, on his phone, during the battle of LZ X-Ray, November 14-15, 1965.

The Initial Assault

1017 hours, artillery loudly opened the debate, bombarding Landing Zones X-Ray and Tango for eight minutes; followed by a twenty minute shelling of the former. Once lifted, UH-1B helicopters from the Aerial Rocket Artillery battalion continued the softening up process. The above remained on standby for continued support. Helicopter gunships escorted troop-carrying Hueys. The gunships lent suppressive fire with machine guns and rockets. Incoming lift copters saw their door gunners add to the suppressive fire as they landed Moore's cavalrymen, with Company B making the initial assault.1

Sixteen helicopters inserted Bravo Company onto X-Ray. The clearing was expansive enough for 8 to 10 helicopters at a time. Turn-around time for helicopters to bring in A, C and D Companies had been planned for no more than thirty minutes.

"Once on the ground, Alpha and Bravo Companies were to assemble in attack formation just off the north and northeastern sectors of the landing zone, prepared to search east and northeast on order, with Alpha Company on the right. Designated first as a reserve force, Charlie Company would assume the security mission from Bravo Company on order, with a prepared task to move west and northwest, searching the lower portion of the Chu Pong, located just west of the landing zone. Bravo Company had priority of fire at the start, but once the westward push from the landing zone began, priority would shift to Alpha Company."2

The Battle Develops

During the course of the battle, November 14 and 15, the UH-1 Huey helicopter proved invaluable. MAJ Crandell commanding the 229th Assault Helicopter Battalion lifted Moore's cavalrymen into action. During the fourth round of landings, the NVA took X-Ray under fire, increasing the intensity as the Communists awoke to the danger. General Chu Huy Man attacked the cavalrymen from all sides, while raining 60 mm and 81 mm mortar rounds onto X-Ray. By 1330, Bravo Company was being heavily attacked by two NVA companies, supported by rocket and mortar fire; and its right platoon was in danger of being cut off.³

Alpha Company was ordered to protect the left flank of the heavily engaged Bravo Company; in addition to assisting Bravo to come to the relief of the beleaguered right platoon threatened with encirclement.⁴ Tube artillery and ARA began a pummeling of the Chu Pong foothills and enemy infiltration routes.⁵

Meanwhile, as Bravo Company was in a thick of a fight, Charlie Company was making its entry into a hot landing zone. "In fact, as the last elements of C Company landed, lead elements of D Company landed. "As they landed, the helicopters took numerous hits, but none were shot down."⁶ However, "one radio operator was killed before he could dismount from a helicopter and the door gunner and pilot were wounded. "Colonel Moore stopped the other eight UH-1-Ds from landing. "Those who landed from D Company immediately became engaged in a fire fight near A Company. "The fighting became more intense. "Colonel Moore decided to pull back A and B Companies under cover of heavy supporting fire and smoke to the fringe of the landing zone and set up a tight defensive perimeter for the night."⁷



The battle of the la Drang, 14-20 November 1965; LZ-X-Ray in the center of the map.

Sustaining the Fight

MAJ Crandall asked for volunteers to fly in needed supplies, evacuate wounded and bring in reinforcements. "Tactical air flew missions throughout the night and the Air Force flare ship maintained constant illumination of the battle area. "Pilots of lift ships braved the dangers of the fire-swept L-Z to bring in reinforcements and re-supply and carry out wounded and dead."⁸

As night fell, attempts to break through to the "lost platoon" had come up short, though communication was maintained. The NVA conducted probing attacks against Moore's perimeter. Attacks against the isolated platoon, as well as X-Ray, were repulsed. Defense was bolstered by gun batteries at Falcon. More than 4,000 rounds of ordnance had been expended in close support.

To be continued.

ENDNOTES:

1 - See page 78, Chapter IV, "The First Airmobile Division and the Buildup, 1965: The Ia Drang," Vietnam Studies: Air Mobility, 1961-1971, Lieutenant General John J. Tolson.

2 - See pages 7 and 8, "Ia Drang Valley Campaign Oct.-Nov.1965," by MSG Erik Wilson, MSG Jeff Noe, MSG June Pugh, MSG James Wells and MSG Shannon Boyer.

3 - See page 26, "Battle of LZ X-Ray," by Captain Robert H. Edwards.

4 - See page 5, "After Action Report, Ia Drang Valley Operation, 1st Battalion, 7th Cavalry, 14-15 November 1965," Commanding Officer, 3rd Brigade, 1st Cavalry Division (Airmobile).

6 - ibid page 7

8 - See page 141, "14 November, 1. Operations Summary, Operations Report, Lessons Learned, Report 3-66, The Pleiku Campaign." The reference to MAJ Bruce Crandall asking for volunteers to maintain that lifeline of supply and reinforcements was in response to LTC Moore closing down the landing zone so as to prevent Army Aviators from incurring heavy losses which would threaten the continuing operation of the lifeline. This can be found on page 128, "Landing Zone (LZ) X-Ray –desperate times, conspicuous heroism," A History of Army Aviation, by Dr. James W. Williams.

For greater detail on MAJ Crandall asking for volunteers to continue flying into LZ X-Ray, go to page 117, Chapter 9, "Brave Aviators," We Were Soldiers Once . . . And Young, by LTG Harold G. Moore (Ret.) and Joseph L. Galloway. In addition, refer to pages 114 and 115, explaining how "slick crews," those trained to fly in troops and supplies were also ferrying wounded. Transportation of wounded was the province of MEDEVAC; but, at this stage of the war, MEDEVAC commanders were denying their aviators and helicopters from landing in hot zones. Again, refer to Williams, page 128, as well with regards to commitment of MEDEVAC: "Casualties mounted quickly. The need for MEDEVAC was urgent, but the recent experience of losing these helicopters came into play. The unit called for MEDEVAC, but the new division policy for MEDEVAC required a cold LZ for five minutes. That was impossible. This left the lift unit to carry out wounded."

Finally, we see Moore faced the prospect that without preserving Landing Zone X-Ray, he faced defeat.

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

^{5 -} ibid page 6

^{7 -} See page 78, Tolson.



AAAA Scholarship Foundation

Phenomenal Work Behind the Scenes

AAA Scholarship Foundation, Incorporated (SFI) has awarded more than 5,000 scholarships and over \$8.6 million to its members, families and soldiers since its inception in 1963.





Sue Stokes

Joanne Hansrote

This outstanding achievement was made possible by the 44 members of its Board of Governors who are all volunteers and receive no compensation. Due to the growth of the organization over the years, the SFI coordinated with AAAA's National Executive Board (NEB) to fund a full time program manager to assist with the daily management functions required in the organization. In early 2013, Ms. Sue Stokes joined the SFI and immediately became a highly effective member of the organization. Simply stated, we could not have enjoyed the remarkable success achieved over the last seven years without her selfless performance of duty.

On September 30, 2020, Sue Stokes retired as SFI Program Manager. She was always professional, dedicated and willing to look for improvements in efficiency and functionality. Encompassed within her responsibilities included scholarship application development, verification of application data, coordination of applicant evaluation, notification/ disbursement of scholarship funds, data/ historical tracking and interfacing with donors, chapter representatives, dignitaries, and industry partners. She has supported the AAAA SFI Board of Governors (BOG) in numerous areas from working with investment consultants to establishing marketing campaigns.

As a strong advocate for the program, Sue was always looking to enhance the program and pursued outside the box solutions. In 2015, she implemented an electronic system that took the voting process from its inception as a committee that met at the National Guard Readiness Center in Arlington, Virginia to a highly sophisticated system. This progressive change has significantly improved the composition and diversity of the selection review committee. Scholarship evaluators no longer needed to travel to vote scholarship files and were able to remotely complete their reviews at a time that fit their schedule. By 2020, the scholarship selection pool was comprised of a diverse group of 141 evaluators that represented the BOG, NEB, chapter officers, Vietnam Helicopter Pilots Association, spouses, and AAAA members.

Impressive Growth

The past seven years has been a period of impressive growth. In this relatively short period of time, Sue has overseen the processing of 4,140 applications, comprising 1,765 freshmen, 1,941 underclassmen, and 434 graduate students. More than 2,300 scholarships were granted to these applicants during this timeframe totaling \$3,788,250. As the applicant pool increased, so did the funding requirements. Individuals, Chapters, industry partners, and heritage associations have risen to the occasion!

- *Perpetual Grants* and *Perpetual Chapter Matching Funds* have increased from 44 scholarships totaling \$94,500 in 2013 to 74 scholarships totaling \$145,500 in 2020. Perpetual

scholarships are those that are "Permanently Restricted" grants that are endowed by or on behalf of individuals, living or deceased or institutional entities and awarded in perpetuity according to the wishes of the donor/proponent, consistent with Foundation policy. Each of the perpetual scholarships receives a pro-rata share of Foundation investment earnings.

- *Matching Funds Scholarships* from corporations, heritage associations and individuals expanded from 45 scholarships totaling \$63,250 in 2013 to 68 scholarships totaling \$113,500. Matching scholarships are matched dollar for dollar up to specified limits on a tiered basis based on gross earnings, chapter size, donation, etc. (See Scholarship Policies and Procedures on *quad-a.org* under the donate tab for additional details.)

- *Chapter Scholarships*, the largest single funding category, have risen from \$214,000 in 2013 to \$255,000 in 2020.

As Sue transitions to retirement, we have welcomed Joanne Hansrote to the SFI as our new Program Manager. Joanne has seamlessly transitioned to the SFI team in recent months and we are well positioned to continue our stellar support to our deserving AAAA members and their families.

> COL (Ret.) Louis Bonham President AAAA Scholarship Foundation, Inc.



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 2019 through October 2020. 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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AAAA Scholarship Foundation, Inc.,

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AAAA Chapter Affairs By LTC (Ret.) Jan Drabczuk

I greatly appreciate the support from LTC John McElveen, the Jimmy Doolittle Chapter President for authoring and sharing this information with our membership.

The Jimmy Doolittle Chapter

The Jimmy Doolittle (JD) Chapter serves the state of South Carolina, consisting of Active Duty, South Carolina Army National Guard, Industry and Community partners.



The majority of the units supported by the Chapter are those in the South Carolina Army National Guard and assigned to 59th Aviation Troop Command and its subordinate units, 1-151st Attack Reconnaissance Battalion, 2-151st Security/Support Aviation Battalion, and 351st Aviation Support Battalion. The Chapter also supports Army Aviation Flight Facilities in the state located in Columbia and Greenville respectfully and two active-duty bases, Ft. Jackson and Shaw AFB. Membership historically in the JD Chapter has hovered around 200 members.

"Jimmy" Doolittle James was a pioneer in Aviation known for countless contributions to the field. Following the Japanese attack on Pearl Harbor, Lt. Col. Jimmy Doolittle led a daring raid over the skies of Tokyo that dealt the first blows to Japan's mainland. The Doolittle Raiders, as they became known, trained for the daring raid over Tokyo in South Carolina and would often visit the area for reunions later in their life. With the blessing of the surviving members, the Jimmy Doolittle AAAA Chapter continues to carry his name.

Provide Vision to Chapter Members

The Chapter's mission is to provide meaningful support to South Carolina Army Aviation Soldiers and their Families by creating an environment that fosters interdependent growth and a platform to share ideas, experiences, and innovations. Safeguarding and creating history while ensuring the local Chapter has a voice. Their vision is to have a robust unified presence in Army Aviation built through comaraderie and deep relationships that bolsters their role in America's interest and way of life.

Get the Word Out

The JD Chapter, like most Chapters, has not had much of a social media presence; they recognize in today's digitally connected world, social media platforms like Facebook can be one of the most efficient and effective ways to reach current, past, and potential members while staying connected and communicating the Chapter's message. The Jimmy Doolittle Chapter now hosts a Facebook page that has enabled the Chapter to communicate with their members, friends, and families more so than ever before without physically being together. Through posts, pictures, and shares, they are now able to bring their Aviation history directly to their current and potential members within their community.

Build Community Partners

The JD Chapter has a new partner helping them reimagine their history while connecting with the Chapter's namesake. The South Carolina Historic Aviation Foundation (SCHAF) was formed to preserve South Carolina's valuable contributions to Aviation. Their members are currently restoring an original B-25 that crashed in 1944 in Lake Greenville, SC. The airplane sat on the bottom of the lake for 39 years before being brought to the surface. The aircraft was used to train the Doolittle Raiders in South Carolina and now provides Chapter members with a new appreciation of their Chapter's namesake. The foundation acquired the aircraft just nine years ago and worked hard to bring the warplane back to life. Located at Hamilton-Owens Airport, in Columbia, SC, the Chapter is happy to be partners with SCHAF and they look forward to building a great relationship going forward.

Future Plans

The JD Chapter has plans to conduct several events and meetings over the next year. They are currently planning a Golf Tournament, Bowling Tournament, 5K Run, and more. The Chapter is excited about bringing the Aviation community together while growing their membership base. Their core belief is that these events and connections will grow the Chapter, which will lead to their ability to help their Soldiers and their families more so than ever.

Summary

The Jimmy Doolittle Chapter maintains a name that is rich in history. They plan to become a Super Chapter in the coming years. We look forward to helping them grow their Chapter.

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*.



ORDER OF ST. MICHAEL and OUR LADY OF LORETO INDUCTEES

Aviation Center Chapter



CW3 Michael D. Sirmans, air traffic and airspace management technician for 1-58th Avn. Regt., is inducted into the Bronze Honorable Order of St. Michael by battalion commander, LTC Keith Haskin, during an Aug. 6, 2020 ceremony at Fort Rucker, AL. Sirmans was recognized on the occasion of his PCS to Camp Humphreys, Korea for his service to Army Aviation as a 15Q, Air Traffic Controller since 2003 and most recently in support of the battalion's 9-month deployment to the Horn of Africa as the senior air traffic controller and standardization officer.



Ms. Ann Nollett, chief of the Military Personnel Division, U.S. Army Aviation Center of Excellence, is inducted as a Knight of the Honorable Order of St. Michael, by USAACE Chief of Staff, COL Chad Chasteen, during a Sept. 3, 2020 ceremony at Ft. Rucker, AL. Nollett was recognized for over a decade of service to the aviation community, enterprise and family working for the branch at Human Resources Command and USAACE G1. She will serve as the Director of Human Resources at Ft. Bragg, NC.





LTC Greg Gabel (2nd from right), commander of 1st Bn., 212th Avn. Regt., 110th Avn. Bde. inducts (left to right) CW3 Barry L. Mathias. CW4 Michael Hutka and CW5 Jonathan Miller into the Bronze Honorable Order of St. Michael July 31, 2020 at the 1-212 Avn. headquarters, Lowes Army Heliport, Ft. Rucker, AL. Each was recognized for their sustained service to Army Aviation as UH-60 Black Hawk instructor pilots and standardization officers as they continue training aviators at the U.S. Army Aviation Center of Excellence.



CPT (P) Justin L. Stewart and DAC Jason **A. Gerstner**, research pilots assigned to the U.S. Army Aviation Research Laboratory (USAARL) at Ft. Rucker, AL, are inducted into the Bronze Honorable Order of St. Michael by USAARL commander, COL Mark K. McPherson during a ceremony on July 16, 2020 at USAARL. Both were recognized for their sustained contributions to Army Aviation with Stewart taking command and Gerstner continuing his work as a research pilot.



CSM (Ret.) George W. Evans is inducted into the Bronze Honorable Order of St. Michael by COL Marcus A. Gengler. Director of the Aviation Enablers-Requirements Division, Army Futures Command, during a

ceremony on Sept. 25, 2020 at Ft. Rucker, AL. Evans was recognized for his outstanding support while serving as the aviation user representative for Aircraft Mission Command and Networks Division, and ensuring operational architecture requirements are developed to meet user needs. He was instrumental in the development of the strategy to modernize and digitize Aviation Flight records operations and maintenance and key to the development of the Centralized Aviation Flight Records System (CAFRS).

Colonial Virginia Chapter



CW5 Bill Barfknecht poses with (I to r) daughters Morgan, Jamie, and wife Lisa, following his induction into the Silver Honorable Order of St. Michael during a ceremony on Sept. 24, 2020 at Joint Base Langley-Eustis, VA. He was recognized by his battalion commander, LTC Clif Causey, for 31 years of Aviation service, 8,000 flight hours, 2,800 combat hours, including a Distinguished Flying Cross from his actions in Iraq, an Air Medal with Valor device from Afghanistan, and serving as project lead on two multimillion dollar aircraft platforms.

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AAAA Membership Update By CW4 Becki Chambers The Membership Corner

'm sure you've heard the saying that mighty things can come in small packages. There is no one that this saying applies to more than 1SG Holly Cano. While she might be short in stature, her personality, determination, and can-do attitude are larger than life.

Holly grew up in Northeast Ohio in the city of Elyria, which is about 20 miles west of Cleveland. While she did not have a strong family influence to join the Army, she knew she wanted to be a part of something bigger than herself.

Her original plan was to work in the medical field. However, becoming a medic was not available to her at the time, so Holly signed up to be an Aviation Operations Specialist (15P). After attending Basic Combat Training at Fort Leonard Wood, MO, and Advanced Individual Training at Fort Rucker, AL, Holly's first duty assignment was Camp Humphreys, Korea, where she was a base operations dispatcher at the airfield. After Korea, Holly went to Fort Campbell, KY, where she would spend the next 15 years as a member of the 160th Special Operations Aviation Regiment (Airborne). During her time there she moved between HHC Regiment, the Special Operations Aviation Training Battalion (SOATB), and 2/160th SOAR (ABN). Holly held positions as an Aviation Operations NCO, Flight Operations NCOIC, Training NCOIC, Regiment S3 NCOIC, and the 2/160th S3 NCOIC. For the past year, Holly has served as the First Sergeant for Foxtrot Company 1-222D Aviation Regiment, an Advanced Individual Training Company, in Fort Eustis, Virginia. Her Company is responsible for the MOS specialties of 15U (CH-47 Helicopter Repairer) and 15H (Helicopter Hydraulics Specialist).

Holly is also part of a dual military family. Her husband, CW2 Cesar Cano is a technical Warrant Officer (151A), and they have three children, Abigayle (15), Aiden (11), and Ashton (9). The kids are all avid baseball/softball players, so they spend most of their free time at the ball diamonds or at Nashville Predators hockey games.

The most difficult time for Holly over the last 18 years was when she was trying to come off a permanent profile. She spent 7 years on a no-run profile and had hip surgery. At this point in her career she was getting looked at for E-7. Five months after the hip surgery, Holly started doing things to help strengthen the muscular imbalances to attempt running again. It took almost a year of diagnostic APFTs to convince the medial team to remove her profile. Now she is competing recreationally in fitness events and is running again! She says



1SG Cano participates in the "Murph" memorial workout at Ft. Eustis.

that while she might not be the fastest runner, the fact that she is running again is a win! Holly said that if it wasn't for her leadership at that time believing in her and pushing her, she would still have a profile and wouldn't be where she is today. And for that, she will always be truly thankful. Holly would like to thank some individuals that have had a direct impact on her. CSM Jim Etheridge is her longest mentor. He has always given her constant advice, even when she did not want to hear it. Also, her leadership during that difficult time transitioning off her profile were CSM Billy Webb and CSM Julio David.

Holly's advice on finding mentors is to seek out those that make you better, whether it be as a person, physically, and/or professionally. "They are out there and if you find the right one(s), you are truly blessed; I know I am."

Why do you believe it is important to join a professional organization such as AAAA? "I believe it is important to be a part of a team. Being a good teammate is the best thing you can do for any organization. That is how we get stuff done. That is what AAAA is, It's a big team working together to make Army Aviation better."

CW4 Becki Chambers AAAA Vice President for Membership

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New AAAA Life Members

Aviation Center Chapter LTC Donald Kirk **Black Knights Chapter** MAJ Ronald Braasch **Colonial Virginia Chapter** MAJ Joe A. Leming, Ret. **Delaware Valley Chapter** CW4 Greg Fleming Greater Atlanta Chapter David G. Hofstetter **Griffin Chapter** MAJ Ross Ridge High Desert Chapter CSM Devon M. Weber Idaho Snake River Chapter **CSM Robert Jenkins** 1LT John T. Martz **Iron Mike Chapter** COL Matthew R. Weinshel Jack H. Dibrell/Alamo Chapter LTC David L. Sheets, Ret. **Keystone Chapter** CW4 Bryan Young Land of Lincoln Chapter CPT Thomas E. Nollner, Ret. **Mount Rainier Chapter** LTC Kenneth J. Himmelrick. Ret. **Northern Lights Chapter** William Kelle Savannah Chapter CW4 Richard Caetano **Tennessee Valley Chapter** Michael J. Hall Voodoo Chapter CW4 Stephen Maldonado Washington-Potomac Chapter COL Joseph A. Durso, Ret.

New AAAA Members Air Assault Chapter

SSG Robert Smith Arizona Chapter A1C James Walter Olinda Aviation Center Chapter COL Jason Caldwell PVT Matthew Shay Congdon WO1 Earl Echevarria SGM Morgan Evans WO1 Ian Fajardo CPT Bryce Greenwood 1SG Eric Kahle CPT Jair Mayorga SSG Jeffrey Tobin Badger Chapter SPC Jason Kevon James PFC Daniel Ronal Wilewski **Battle Born Chapter** PFC Jameson Patrick Gates **CPT** Daphne Piper PVT Cody Quint CW3 Sylvester P. Wilson Bavarian Chapter Khristin Lee **Cedar Rapids Chapter** CW4 Cory Crain Central Florida Chapter CW4 Martin Baynes Thomas Dannenhoffer PV2 Luis N. Echemendia Ramon PV2 Riley Scott White **Colonial Virginia Chapter** CW4 Jeremiah C. Bradley SSG Stephanie Fulir

SSG Joshua Gordon **Connecticut Chapter** John Boscia Steve Maturo **Russ Richter Corpus Christi Chapter** Robert Price **Embry Riddle Eagle Chapter** PFC Jeffrey Powel Flint Hills Chapter Steven Williams **Flying Gator Chapter** PV2 Karleigh Tiller Gold Standard Chapter MAJ John Flanagan **Great Lakes Chapter** PVT Jonathan Tyler Tysen Greater Atlanta Chapter SSG Cody Mccormick Grizzly Chapter SGT Lucas Kniep Matt O'Brien **Idaho Snake River Chapter** 1LT John T. Martz Jimmy Doolittle Chapter SFC Brian Richards LTC Robert Spafford MSG Marc Steele **Keystone Chapter** SPC Michael S. Grampp Paige Koser SSG Joshua Patsey Erik Sandbakken Lindbergh Chapter PV2 Jacob Logan Cathers MacArthur Chapter Fredric Robins **Mid-Atlantic Chapter** CW4 Jeremy Williams Morning Calm Chapter 1SG Ryan K. Caudill SSG Neil Gscheidle CPT Kyle Kilroy CW3 Christopher Perkins SSG Brian Proenneke **Mount Rainier Chapter** PV2 Justin Tyler Biddle SSG Dallen Vance **Narragansett Bay Chapter** PVT Benjamin Michael Sonnenburg PV2 David Acton Williams **North Star Chapter** SFC Christopher J. Dordal LTC Dan OMeara CSM Todd Sudheimer **North Texas Chapter** PVT Sean Mitchell Weiss **Northern Lights Chapter** Catherine Moore **Oregon Trail Chapter** PFC Simon Henry Linnebach MAJ Dan Quinlan 1LT Nolan S. Rader BG Michael E. Stencel **Phantom Corps Chapter** SFC Jason LeValley Pikes Peak Chapter CW2 Timothy Glass 1SG Desiree Lynne Kaminski SFC Vlademir Yazzie **Prairie Soldier Chapter** PV2 Eli James Stubblefield

Rio Grande Chapter

Adalberto Rodriguez

SFC Brett Erick Weaver Savannah Chapter SSG Ricardo J. Martinez CW2 Mark A. Rhoads COL Byron Risner ShowMe Chapter SPC Terry Jarboe CW4 Aaron Kellner Jeff Paulic PV2 Hunter G. Van Drunen Southern California Chapter PV2 Mason Rvan Lesperance Stonewall Jackson Chapter WO1 Alexander Adkins **Tarheel Chapter** Shawn Herrmann **Tennessee Valley Chapter** Dakota Millsap Rhonda Sutton Steve Willard **Thunderbird Chapter** CW3 Daniel De La Cruz **Utah Chapter** PVT Roy James Epling MAJ Robert Heightman 1SG Michael Steven Holm SPC Jordan Powell Alberto Javier Sandoval **Volunteer Chapter** Christine Johnson Ben Skipper Voodoo Chapter PFC Harri N. Tran Washington-Potomac Chapter Quentin **AVEROUS** PV2 Andrew Lee Knapp Bronte Montgomery CPT Benjamin Parrish Winged Warriors Chapter SFC Nelson Arismendy Abreu Jr. CPT Gabriel W. Beck SGM Festus F. Dokyi CPT Jose F. Elizabeth 2LT Pahola Gonzalez MAJ Jose A. Haro LTC Jeehun M. Kim COL John D. Litchfield LTC Raul M. Medrano CPT Jade Messam SGT Charles Messer LTC James R. Ritch LTC Peter A. Thayer 2LT Jason David Toguchi Wright Brothers Chapter Mark Gruber PFC Cassidy Ann Loughman Nate Schuster Alex Trouten

No Chapter Affiliation

Anish Anthony CW4 Jeffrey Bledsoe SPC Gabrielle Davidson Michael Duvall Ken Jackson 1LT Kenneth Rau Michael Reynolds Lisa Thornhill PV2 Liam Vantonder

Lost AAAA Members

Help AAAA locate a lost member from this list and receive a FREE one month extension to your AAAA membership. CPT Robert S. Boham Walter D. Bowden Harold V. Bowie Jr. COL Fred E. Brown, Ret. LTC Jeffery D. Brown Rickey J. Brown MAJ James E. Bruckart MAJ James E. Bruckart E. W. Cavanaugh LTC Richard G. Cercone Jr. LTC Tzu-Shan Chang COL James A. Coar, Ret. MAJ Harry L. Connors Jr. Ret. Bruno Cussigh SCT Travis Ranham Darpal SGT Travis Bonham Darnell 2LT Arthur W. Galloway William H. Gillispie Michael F. Glass MAJ Gregory W. Glover LTC William T. Goforth Mary H. Gorman COL Gerhard Granz, Ret. Stan Hawk COL Jose L. Hinoiosa. Ret. Dave Hudson CW4 Delbert Jackson. Ret. LTC Randy K. Jackson Allen E. Jants 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. SPC Robert W. Miller CSM Vernie Nance, Ret. MAJ Darrel B. Nerove Fred A. Newcomb SFC Henry R. Rathbone, Ret. Tony Sanchez LTC Martin Scheld Thomas R. Schiltz LTC Jerry D. Scott LTC Jay Q. Smith MAJ James F. Speelman LTC Friedrich Stern Jean K. Tinsley WO1 Armando B. Torres

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AAAA Family Forum By Judy Konitzer



Sharing the Gratitude for 2020 AAAA Scholarships

This year AAAA awarded 313 Scholarships totaling \$537,000 to deserving students, spouses, and Soldiers. Many showed their appreciation with thank you notes, and I want to share some excerpts from a few who captured the essence and gratitude of all for these awards, AAAA, and military life as well.

Lorie A. Hanna (Lawrence 'Larry' D. Bell Memorial Scholarship)

My husband is celebrating 20 years of service in the TX Army Aviation National Guard. Other than motherhood, being a military spouse has been the greatest honor of my life. I have met true patriots, selfless heroes, and phenomenal human beings throughout our military experience. We have endured the tragedies of war and the hidden beauty that lies within the hardships. We began my husband's first days of flight school at Fort Rucker, AL, and met fellow servicemen and women who left a lasting impression in our lives.

AAAA is more than a professional organization; it is an extension of our military family, helping to cross our paths with one another and reminding us that we are not alone in this mission. Lorie shared that years ago they attended an AAAA sponsored Christmas event near Dallas which allowed them to emotionally greet Chaplain Sonny and Martha (now deceased) Moore's daughter. The Moore family "showered us with love and support as we entered Army life. Miss Martha battled cancer and through her journey I learned the indescribable role of a military spouse, mother, sister, and friend. 'Military Family' took on new meaning." I am not sure what our future holds, but the memories, the legacy, and the stories that my husband helped to create is priceless, and I am thankful to be a part of it.

We continually seek opportunities for our five children to participate in opportunities that help to recognize their contribution to serving our nation as military kids. It is a wonderful feeling to be recognized for my service as well in supporting my Soldier and receiving this honor to help me continue my education and professional career in education.

Aurora Trani (Joseph P. Cribbins Memorial Scholarship)

This generous scholarship is helping me cross the biggest barrier between me and attending college, and I am endlessly grateful. I appreciate AAAA and the work and time invested in helping students like me move on to the next stage of life with fewer limitations. After reading about the accomplishments of Mr. Joseph P. Cribbins and his unparalleled dedication to organizing the Army Aviation logistics personally, I felt that as a recipient of his memorial scholarship it is my job to go into the next four years of school with the kind of dedication and devotion he exemplified.

Harriett H. Marshall for Rebecca Dillon (Otter-Caribou Heritage Scholarship)

My husband, David, would have been so very happy to know that one of our grandchildren was honored in this way. It is wonderful that you all are carrying on such good work for the children and grandchildren of those who served. May God richly bless you all.

Walter Harper (Air Assault Chapter Ted Crozier Scholarship)

As a child of an Army Aviator, I cannot truly express how much it means to have such an amazing community of people and organizations, like AAAA, that provide us with relentless support. Thank you for this generous gift and fantastic opportunity.

Major Brian J. Haley (Washington-Potomac Chapter Scholarship)

The scholarship was an absolute blessing during a difficult time for me and my family. I was planning on taking the semester off until the award letter arrived as we were not going to be able to make it work financially. I will be forever grateful to AAAA for their help in completing my graduate degree!

Hannah M. Massar (Don Munsch-Jimmy Doolittle Chapter Scholarship)

As I begin my senior year at the University of South Carolina...I am especially thankful looking back upon the continuing support of everyone at AAAA over the last four years...as a recipient of this specific award on multiple occasions. The exceptional generosity of this fine organization has made a significant impact during my academic career, and I will forever be grateful.

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







Order of St. Michael Inductees

Silver

CSM Bernard Brooks Jr. COL Lee D. Hyder 1SG Eric D. Kahle CW4 Joe D. Osborne Jr. CW5 Larry W. Peterson CW5 Shawn P. Robinson CW5 Jeffrey D. Starritt CW5 Blaine A. Tirendi CW5 Frank G. Volpe

Bronze

CW3 Daniel Borisov CW4 Richard J.Caetano CW3 Jacob D. DaMatteo SFC Catlin Danick CW2 Robert Duncan LTC Matthew P. Fix SFC Jeffrey Haynes MSG Devon John MAJ Brandon J. Loonev SSG Vincent P. Marketta CW4 Karl H. Metz CW5 Heath Mitchell CW4 Matthew P. Murphy CW5 Charles Ott **CPT Brad Pearson** MAJ Nathan E. Ribelin CPT Allen M. Sewell SGT Tyler M. Shelton



Janice Braman Jeni Fix Joni (Dauenhauer) Melland Mrs. Kathryn Rigdon



Knight Inductees

CPT Casey Moore CW4 Brandon S. Morris CW4 Donald J. White

Spotlight > Army Aviation News Army Aviation Heritage Foundation & Flying Museum





The Army Aviation Heritage Foundation and Flying Museum (Foundation) (AAHF) was founded in 1997 when a small group of patriotic citizens, many of whom were veterans, came together with the intent to take the story of Army Aviation to the public and to commemorate the service of our nation's veterans and their role in the growth and success of Army Aviation.

Now in their 24th year, the AAHF, as a flying museum, has grown in flyable fleet size over the years and they currently operate the UH-1 Huey, AH-1 Cobra, OH-58 Kiowa, and O-1 Bird Dog aircraft. The aircraft are restored to original Army specifications and maintained to operational and safety standards in accordance with FAA regulations. The fleet is maintained and operated by veterans and their families, civilian supporters, and only a few employees. Operating the largest concentration of flyable legacy Army Aviation aircraft in the nation, and the only organization authorized to provide ride experiences in the Cobra, the Foundation takes the Army Aviation story to millions of spectators each year and has safely flown hundreds of thousands of veterans and civilians. These flying experiences truly connect the public with veterans, their service, and Army Aviation.

From its original location just outside of Atlanta, Georgia, the Foundation has grown to include chapters and volunteers in Mesa, Arizona and St. Louis, Missouri. In each location and across the U.S., they reach out to veterans who are experienced with Army Aviation aircraft to lead a group of volunteers in the restoration, maintenance, and operation of the fleet.

Initially flying only demonstrations for the public, the Foundation later developed the opportunity to provide ride experiences to the public in their Huey and Cobra aircraft under the FAA's Living History Flight Experiences program. In addition to these ride experiences at air shows and the flying demonstrations, the Foundation also provides static displays for schools and veterans organizations, participates in Science, Technology, Engineering, and Math (STEM) initiatives, offers flyovers for funerals and race events, such as the recent NASCAR race in Atlanta, and even participates in the film industry where history comes to life in the scenes supported by actual historical aircraft.

Taking the aircraft to the public allows the Foundation to reach out and touch thousands of hearts and minds each year. For some veterans, the ride experience allows them to reconnect with a piece of their past and to share that with family members. Imagine the connection of a widow of a Vietnam Veteran KIA and her family experiencing a flight in the front seat of a Cobra. The AAHF is asking for your help in preserving the Army Aviation heritage and keeping the story alive for future generations. They are a 501(c)3 charitable organization with most of their revenue coming from flying operations. Despite their implementation of many cost reduction measures, the COVID-19 pandemic and the restrictions on large gatherings has had a dramatic effect on their 2020 operations. Visit *armyav.org* to become a member/volunteer, purchase AAHF branded merchandise, and/or donate.

Help keep the Army Aviation Heritage story alive for future generations!



AAAA Legislative Report

By LTC Kevin Cochie, Retired AAAA Representative to the Military Coalition (TMC) *kevin.cochie@quad-a.org*

Happy Thanksgiving; How about some Lame Duck with the Turkey!

As this month's AAAA hits your mailbox around Thanksgiving, much uncertainty will be the topic of Thanksgiving post-Presidential election conversations. At the time of this writing, the election is still a couple weeks away so we can only speculate what uncertainties will result from the Presidential and Congressional elections which will determine who will hold power in the House of Representatives. Senate and the White House. Regardless of the outcome, the DoD continues to operate in a Continuing Resolution (CR) and now faces potential effects of policy and budget decisions made during the "lame duck" session of Congress. The fact that Congress did not get a budget passed prior to the end of the fiscal year is lame enough, but now the Army Aviation Enterprise is at the mercy of Congressional power plays during a period in which Congressman and Senators that retire or are defeated are relegated to temporary offices in the basement of Congress (i.e., the "lame duck" session). The FY21 NDAA and Defense Appropriations are on hold until after the election which means, either this current Congress gets the legislation done by early January or they extend negotiations into the new year and a whole new Congress determines 2021 legislative decisions.

NDAA 2021

The House and Senate passed their respective NDAA versions back in July and both versions support the authorization of DoD funding in alignment with Army Aviation goals. House and Senate staffers have worked for months to resolve the differences in the two pieces of legislation and if they pass the bill by end of year, it will be the 60th straight year that the NDAA passed before the end of a Congressional cycle. The bad news is this is no routine year, and the political divide has never been worse. The good news is that the Chairmen of the two Armed Services Committees, Senator Jim Inhofe-R and Representative Adam Smith-D are both deeply committed to a successful passage during their tenures as Chairmen. Both face challenges from colleagues inside and outside their own parties on funding levels and force structure levels of the DoD. As we mentioned, both will have to work hard to pass the NDAA during a lame duck session of Congress, post-election power grabs, and an impending government shutdown on 12 December when the current CR is set to expire.

Continuing Resolution 2020

At zero dark thirty on 30 September, President Trump signed into law the Continuing Resolution that averted a government shutdown. This CR was signed with bi-partisan support and effectively extended government funding through 11 December so the hundreds of politicians hitting the campaign trail through the 3 Nov election were not damaged or distracted by the government coming to a complete halt. The CR is an all too familiar "groundhog day" for the government and the DoD. Historically, the CR always "sees its shadow" thus thrusting us into weeks of dreary concern regarding the stability of funding that ultimately impacts our aircrews and maintainers on the flight line. Why is this the annual groundhog day? Congress has not passed a budget by the end of the fiscal year since the 1996-1997 cycle. Between 1998-2019, Congress passed over 100 Continuing Resolutions (stop gap budget funding for the government). Each time Congress pumps the brakes on the budget process, perturbations snowball through government agencies. In our case these concerns manifest in the DoD, through the Army, and all the way down

to the aircrew and mechanics on the flight line. The funding uncertainty also snowballs through the industrial base. From OEMs to suppliers, production and assembly lines are all impacted by funding uncertainties.

The Way Ahead to 2021

The budget process will be plaving out as you read this and as stated, the current CR funds the government through 11 December. Despite the uncertainty surrounding the 2020 election results, we should maintain optimism that Congress will pass the annual NDAA and provide for policy provisions and funding authorizations through 2021. It's unlikely that Congress will fail for the first time in 60 years to pass this piece of legislation by the end of the year. The real wildcard will be defense appropriations drives how long we have to operate under Continuing Resolution. With post-election uncertainty, a lame duck Congress, and holiday scheduling, it is unlikely Congress will get a full year appropriations funding bill passed by the 11 December deadline thus another CR is likely which will pass the budget ball to the new Congress in January, Army G3 Aviation Director BG Mac McCurry will have his hands full trying to mitigate the impacts to our operational forces. PEO Aviation BG Rob Barrie and Futures Command Future Vertical Lift CFT Director BG Wally Rugen will also be busy stabilizing the CR impacts to our modernization programs while our industry partners will be faced with assessing the impacts to their workforces and the production of our aviation systems. Next month we will summarize the winners and losers from the election and potential impacts to Army Aviation.

UPCOMING EVENTS

DECEMBER 2020

12 – The 121st Army-Navy Game, Michie Stadium, U.S. Military Academy, West Point, NY

JANUARY 2021

20-22 – AAAA Joseph P. Cribbins Training, Equipping and Sustainment Symposium, Huntsville, AL NETWORK | RECOGNITION | VOICE | SUPPORT



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

Viasat and AeroVironment Team to Develop Enhanced Type 1 Encrypted Comms for UAS

Viasat AeroVironment

Viasat Inc., a global communications company, and AeroVironment, Inc., a global unmanned aircraft systems (UAS) manufacturer, announced on Oct. 15, 2020 they will collaborate on a contract awarded under the U.S. Army Reconfigurable Communications for Small Unmanned Systems (RCSUS) initiative. The project will provide U.S. military customers flying small UAS platforms the ability to deploy a robust, on-demand, highly-secure communications network that will address the growing electronic warfare capabilities of peer and near-peer adversaries.

Army Chinook Takes Flight With GE Aviation T408 Engine



The U.S. Army Combat Capabilities Development Command Aviation & Missile Center achieved its first flight of a Chinook

AeroVironment (AV, Inc.) ALKAN Angelus Corporation Avlite Systems Bombardier Coastal Seat Cushions, Inc Collins Aerospace Mission Systems Columbia Helicopters, Inc Dallas Avionics David Clark Company DynCorp International Essex Industries	2 39
DynCorp International Essex Industries General Atomics Aeronautical Systems,	15 12 Inc 1

with GE Aviation's T408 engines on Sept. 22, 2020 at Joint Base Langley-Eustis, VA, a milestone that could expand the capabilities of future Chinook heavy-lift missions. This first flight is the culmination of a five-year effort under a Cooperative Research and Development Agreement (CRADA) between AvMC, Boeing and GE Aviation to evaluate the feasibility and benefits of higher-power engines while assessing and reducing the technical risks of integrating advanced engines in a Chinook aircraft. The project is also meant to show how the integration of more powerful engines on the CH-47 Chinook helicopter supports future cargo helicopter capability needs and supports the Army Future Vertical Lift modernization priority.

Avlite Systems Selected for Portable Airfield System Upgrade



Avlite Systems was selected, via the Special Operational Equipment (SOE) Tailored Logistics Support (TLS) program, as a key partner for the rapid delivery of an upgraded Airfield Lighting System (ALS). The ALS will be delivered to the Florida Army National Guard (FLARNG) in Starke, Florida. The ALS, a component of the AN/MSQ-135 Mobile Tower System (MOTS), is a variant of Avlite's High Mobility Airfield Lighting Systems (HMALS). HMALS is a fully transportable, autonomous airfield lighting system ready for rapid deployment, flexible maneuvering, and storage in support of temporary or long-term operations.

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Army Launches Research Effort to Develop Hybrid-Electric Engines for Aircraft & Vehicles

The Combat Capabilities Development C o m m a n d



Army Research Laboratory, or ARL, at Aberdeen Proving Ground, Maryland, awarded an \$11.5 million contract to the University of Wisconsin for a research effort to develop hybrid-electric engines for the Army's future aircraft and ground vehicles. Part of the effort, which will begin this fall, will focus on novel oil-less bearing technology that could result in new, lightweight compact electric generators using exhaust waste energy, according to an ARL news release. UW researchers will develop, validate and apply tools that will be integrated into a comprehensive modular Hybrid-Electric Optimization and Integration Tool, which will then be used to configure future Army hybrid-electric air and ground vehicles, said Mike Kweon, program manager for ARL's Versatile Tactical Power and Propulsion Essential Research Program. The research effort will also help identify new technologies that could allow the service to use multiple fuel types for manned and unmanned aircraft.





People On The Move

Aviation General Officer Promotions/Assignment



BG Andrew J. Chevalier was promoted to his current rank on August 14, 2020 at the Rhode Island National Guard Joint Force Headquarters in Cranston. Pinning on his new rank are his wife, Carol (right), father, Robert, and his daughter, Melanie (far left partially hidden). He serves as the Director, Joint Staff and Land Component Commander for the Rhode Island National Guard and is the current Narragansett Bay AAAA Chapter President.

Transfer of Authority Task Force Anvil Assumes **USCENTCOM Mission**



The 28th Expeditionary Combat Aviation Brigade, operating as Task Force Anvil, formally took control of the aviation mission in the U.S. Central Command region during an October 8, 2020 transfer of authority ceremony in Kuwait. The 28th ECAB is taking over the mission from the 34th ECAB who is preparing to return home after being deployed to the Middle East since late-2019. Pictured following the ceremony are the command teams: (I to r) CSM Sean Livolsi and COL Howard Llovd (28th ECAB); COL Greg Fix and CSM Mitchell Hellkamp (34th ECAB).

Awards Nitti Named AUSA Third Region and Huntsville Chapter Civilian of the Year



Kris McBride, AUSA third region president, presents Don Nitti, AMCOM deputy to the commanding general, with an award during a Facebook town hall meeting Sept. 24. Nitti received the Dick Rhodes Huntsville AUSA Chapter Civilian of the Year Award and also won at the third region level.

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.

49 Officers September 10, 2020 **Commissioned Officers**

- 2LT Clinebell, Cody J. DG 2LT Lynch, Kaela F. * - HG 2LT Balding, Kenneth C. * 2LT Canan, Riley A.
- 2LT Curletta, Graham C. *
- 2LT Dolitsky, Sarah M.

2LT Eberhardt, Mackenzie J. 2LT Habekost, Benjamin O. * 2LT Hughes, John P. 2LT Hunt, Andrew W. * 2LT Keithline, Joshua J. * 2LT Kline, Reilly A. 1LT Mahle, Samuel A. 2LT Mehanja, Valdeta 2LT Pluhar, Garret J. 2LT Whittaker, Thomas G. * Warrant Officers CW2 Kray, Jonathan D. * - DG WO1 Graham, Justin D. - HG WO1 Magee, Benjamin R. * - HG WO1 Owen, Kenneth D. - HG

WO1 Spivey, Zacory C. * - HG WO1 Bilby, Joshua T. WO1 Blackmon, Christian D. W01 Carroll, Alan M. + WO1 Davis, Nicholas A. * WO1 Depaulo, Rachael A. WO1 Edwards, Reginald C. WO1 Fiore, Joseph J. WO1 Gutierrez, German W01 Hardy, Hunter R.* WO1 Hastings-Smith, Maya C. W01 Houston, Cody L. WO1 Hunnewell, Amy N. W01 Izbicki, Dylan T. WO1 Krol, Joseph IV *

- - WO1 Lawrence, Steven W.* WO1 McKechnie, Michael W. W01 McWilliams, Christian S. * W01 Navarro, Paul WO1 Newkirk, Maro A. W01 Puchalsky, John D. * W01 Reburn, Joseph A. * WO1 Rendahl, Randy B. WO1 Satcher, Kevin L. WO1 Smith, Demetrius R. WO1 Thornell, Brandon J. -DG: Distinguished Graduate -HG: Honor Graduate = AAAA Member + = Life Member



People On The Move Flight School Graduates







W01 Tyler, Jeffrey C. * W01 Wagner, Steven P. W01 Wissel, Chad E.

38 Officers September 24, 2020 Commissioned Officers

2LT Smith, Megan G. - DG 2LT Caudill, Joseph V. - HG 2LT Alexopoulos, Joseph C. * CPT Allen, Jacob J. 2LT Barreras, Carlos A. 2LT Cristiano, Ryan M. * 2LT Cupit, Anthony M. * 2LT Fox, Jordan R. 2LT Pedroza, Steven R. * 2LT Phelps, Daniel R. 2LT Trenary, Erik H. **Warrant Officers** W01 Carroll, Andrew S. - DG W01 Brooks, Jordan D. - HG W01 Driskell, Tucker J. * - HG W01 Henry, Dylan M. * - HG W01 Martinez, Jesse R. - HG W01 Bacus, Robert M. W01 Barrett, Stephanie G. W01 Bigelow, Cory M. * W01 Boland, John M. W01 Bretana, Raymond C. W01 Britten, Joshua S. * W01 Clark, Matthew G. * W01 Cutler, Daniel R. W01 Erb, Thomas C. W01 George, Gordon D. * W01 Gilpin, Jacob C. W01 Hesse, Zachary V. W01 Mikkelson, Joshua R. W01 Morgan, Stephen R. * W01 Multani, Kristina W01 Peterson, Jeffery S. F3AAI Class 20-023 - Sept. 10, 2020

W01 Ramsey, Corby T. W01 Ricketts, Daniel W. * W01 Ridings, Harold W., Jr. W01 Roszkowski, Adam A. * W01 Spann, Nathan T. W01 Trakel, Jarin S. +

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

People On The Move

Unmanned Aircraft Systems (UAS) Graduations

UAS REPAIRER

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

Shadow UAS Repairer Course 8 Graduates, 17 September

2020 PVT Justin R. McCarn - HG PV2 Aaron J. Wiscott PVT John E. Caltrider PVT Cutter A. Doerr PVT Breana R. Ducev PVT Chad W. Hicks PVT Raymond A. Van Houten PVT Eduardo Veloz

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

35 Graduates, 24 August 2020 PV2 Chase T. Veler - DG PV2 Jacob A. M. Mendoza - HG SPC Giovanni Arroyo Reyes SPC Sean S. Rende PFC Patrick J. Bousselot PFC Daniel Gonzalez PFC Jordan D. Holguin PFC Dawson J. Vanmanen PV2 Joseph D. Briseno PV2 Ross A. Buster PV2 Caleb R. L. Cline PV2 Christian C. Dewitt PV2 Christopher I. Essien PV2 Jason T. Lopez PV2 Daniel B. Martin PV2 Hunter J. Redmon PV2 Garrett R. Stokum PV2 Christian L. Thomas PV2 Jonathan Tirado PV2 Antoine D. Williams Jr PVT Astrid A. Garciadiaz PVT Maximillian Z. Jin PVT Kenneth Johnsonsturdivant PVT Gage H. Knowles PVT Jelani A. H. Lucas PVT Adam Malpass PVT Dominic J. Mercado PVT John D. Padgett PVT Marlon D. Roberts Jr PVT Calitri A. Roebuck PVT Derrick L. Steele PVT Nicholas V. Vang PVT Joshua H. Vining PVT Brandon J. Wade

PVT Dustin D. Wehunt

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 028-20 PV2 Roy Epling-DG

PV2 Joshua Brewer PFC Patrick Cho PV2 John-Michael Cosby PV2 Dillion Dimery PV2 Wesley Galloway PV2 Destiny Morgan SPC Maria Fechristine PV2 Brianna Wells *Class 029-20* PV2 Jonathan Tysen-DG PV2 Chance Cook PV2 Jacob Grieser PFC Hong Jun Kim PV2 Angel Martinez PV2 John Matlock PV2 James Stewart PV2 Hunter Thayer PV2 Mitchell Trentcosti Class 201-20 PFC Jeffrey Powell-DG PVT Nathaniel Cromartie PVT Fernando Lepiz, Jr PV2 Francis Malik, II PV2 Maxwell Mrochinski PVT Osvaldo Reyes PFC Brandan Sanchez PVT Christian Smith PV2 Emmanuel Tanner Class 031-20 PV2 Karleigh Tiller-DG PFC William Borcherding PV2 Richard Collazotorres PV2 Charles Daniel **PVT Joseph Fournier** PVT Gregory Jones PV2 Devahndre Moore SPC Tyler Rains PVT Dwight Salmon SPC Tingting Wang PV2 Brian White, Jr. Class 032-20 PV2 Cody Quint-DG PV2 Anthony Abato, Jr PV2 Deja Fraser PV2 Brooke Merchant SGT Jared Young Class 033-20 PVT Leahcim Powell-DG PVT Waldemar Alicemuniz PV2 Terrance Coates **PVT** Nathaniel Contreras **PVT** Austin Gardenier PVT Eric Gardner PV2 Steven Hogan PVT James Hose PV2 Corey Miller PVT John Rojo **CH-47 Medium Helicopter**

Repairer (15U)

Class 028-20 PFC Daniel Ronald Wilewski-DG PV2 Summer Rain Anthony PV2 Michael James Bramhall PV2 Anthony Joseph Caccavale, I PFC Meagan Ashley Cano PV2 Austin Kent Chancellor PV2 Dylan Anthony Colvin PV2 Austin Tyler Custer PFC Francise Ezequeil Deleon PFC Brendan Andrew Guinn PV2 Caden Riley Hanning PFC Kylie Jennifer Martin Class 029-20 PV2 Luis Nolber Echemendia-Ramon-DG PV2 Brandon Alexander Godwin PFC Kadarius Latrell Grayson PV2 Thomas Kurtis Hookjaskowak PV2 Delvin Alonzo Hutson

PV2 Quenton Otto Kruse PV2 Hunter Robert Lake PV2 Osvaldo Lopez Martinez PV2 Scott G Morehead PV2 Timothy Mitchell Reed PFC Joseph Stanley Richardson Class 205-20 PV2 Jacob Logan Cathers-DG PV2 Dakota James Edwards PV2 Ryan Daniel Endrizzi PV2 Tahric Odane Johnson PV2 Payton Lee Riffle PFC Colton Chance RoDGers PFC Gerardo Rosales Audelo PV2 Jonathan Darrell Samuels PV2 Seth Michael Seidle PV2 Christian Korbin Spears PFC Jonathon Adrian Tutiven PV2 Keaton Robert John Wriedt Class 206-20 PV2 Andrew Lee Knapp-DG PFC Stephen A. McCord Bowen PFC Shawn Michael Goodwin PFC Elix Juarez Gonzalez SPC Stephone Jerell Leaks PV2 Salomon E Manriquez PV2 Oscar Martinez Ramirez SPC Brian Derrick Odero PV2 Jonathan Ray Serrano **UH-60 Helicopter Repairer** (15T) Class 061-20

A1C James Walter Olinda-DG AB Jace Randall Hagedorn A1C Kaeson Deshawn Lewis AB Jeremy Stephen Mooney A1C Kai Matthew Ritter AB Lucas Alyn Seney AMN Aryn Jamal Taylor *Class 062-20* SPC Jason Kevon James-DG SPC Marc Richard Arguello PFC Austin Reed Banks PFC Dillon John Bouvier PFC Ebin Alanfletcher Ford SPC Colton Michael Griffey PV2 Colton Ray Harp PV2 Brian Scott Hess, II PV2 Charles Tanner Lotz PFC Ezekial Caleb Myers SPC Gary Wayne Oliver, Jr SPC Kolby James Wetch Class 063-20 PFC Cassidy Ann Loughman-DG PV2 Catherine Rose Crumpton SGT Wolfgang James Jubell PV2 Juan Jeronimo Morales PV2 Benjamin Jesse Mowers PV2 Juan Manuel Pernas PV2 Austin Thomas Rednour PV2 Jessie Lamar Simms PV2 Max Alexander Sundvall PFC Madeline Zadora Taylor SPC Jacob Michael Wise Class 064-20 PV2 Justin Tyler Biddle-DG PV2 Douglas Edward Billings, II PV2 Tyler Cem Britain PV2 Caiden Daniel Bullard PFC Ronnie James Carter PV2 Luis Castillo, Jr PFC Nathan Thomas Cowart PV2 Johnathan David Ellis PV2 Jason Thach PFC Colin Anthony Walkington PFC Leif David Weston Class 065-20 PV2 Mason R. Lesperance-DG PV2 Natalie Renee Bumm

SPC Shannon Marie Cherpak PFC Noah James Compton PFC Ivan Contreras PV2 Matthew Odell Estabrook PFC Benjamin Joseph Gartlan PFC Suthin Edward Goloversic PV2 Jarritt Niklas Grimes PV2 Diquan Tikey Jones PV2 Khristopher Allen Krahl PFC Jackson Scott Lee Class 066-20 PFC Harri N Tran-DG PFC Jorge Alexander Alfaro PV2 Patrick Tierney Green PV2 Micah Andrew Lemoine PV2 Brent Emanuel Merritt PV2 River Jordan Miller PV2 Daniel Aleiandro Nelson PV2 Jordan Glen Nichols PFC Robert S Passmore PV2 Kyle Andrew Reichert PFC Ryan Shawn Tidwell PV2 Kyle Blake James West Class 067-20 PV2 Eli James Stubblefield-DG PV2 Mason Alexander Bourne PV2 Ryan Neal Casey PFC Cheolsu Jeong PVT Tristan Scott Lindsey PV2 Ethan James Loeb PFC Brandon Lawrence Nichols SPC Mark Stephenlee Poehlein PV2 Eric J. Rodriguez Garcia Class 068-20 SPC Michael S. Grampp-DG PFC Aaron Alan Arps PV2 Mark C. Mart Claudio PV2 Dylan Andrew Davis SPC Miguel A.Del Rosario Ramirez SPC Albachir Dicko PV2 Ryan Edward Dowling PFC Matthew John Dunn PV2 Conway Steven Garner PV2 Jacob F Giefer PV2 Christopher C. Paul Hall PVT Weslee Zane Turpin

Aircraft Powerplant Repairer (15B)

Class 012-20 PV2 Liam Vantonder-DG PV2 Jason Alan Anderson PV2 William Andrew Deese PV2 Kemy Gilles PV2 Kyle David Haines PV2 Nathan Maldonado PFC Abraham Moore PV2 Justin Tyler Ottman PFC Rowan Nguyen Phan PV2 Donovan Michael Rodela PV2 Dillan Edward Tenpenny PVT Xylar Roger Hodge PFC Mariam Masuddramani PV2 Kalan J Nelson

Aircraft Powertrain Repairer (15D)

Class 007-20 PVT Benjamin Michael Sonnenburg-DG PV2 Carson Robert Brown PV2 Devin John Bush PV2 Luke Isaiah Luzader PV2 James Aaron McCulley PV2 Carlos Moreno-Mejia PV2 Justin Shaine Young

Aircraft Electrician (15F)

Class 018-20 PFC Simon Henrty Linnebach-DG

PFC Braydon Rylee Coker PFC Kyle David Ebdrup PV2 Dominique Elice Garza PV2 Joel Nathaniel Gilbert PV2 Marvin Terique Lloyd, III PFC Tyler Tenun Naruse SPC Derrick Lamar Woods, Jr Class 019-20 PV2 David Acton Williams-DG PV2 Blayke Anthony Axnix PV2 Matthew Taylor Funk PV2 Brian Jacob Kraus PV2 Robert Matthew Lloyd PV2 Chayce Chyloe Lucca PV2 Jacob Angel Rios **Aircraft Structural Repairer** (15G) Class 008-20 PVT Matthew Shay Congdon-DG PVT Jorge Stewart Barrera PV2 David Linn Bass, II PVT Jalen Kavon Burns PFC Kelvin Cabrera PV2 Andrew Jacobvaldi Cantrell SPC Michael Brian Cross PV2 Kaleb David Drennen PV2 Anthony Aaron James PVT David Richard Liebler PVT Braedon Daniel Monzo Class 009-20 PV2 Riley Scott White-DG PV2 Devan Kaige Dozier SPC Tosin Anthony Oshisanya PVT Roy Thomas Parish PV2 Cristian Ramirez-Rodriguez PVT Edward John Wilson PVT Tommy Hampton Yeargin, III SPC Feixiang Zuo

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

Class 015-20 PFC Jameson Gates-DG PVT Maximiliano Avalossanchez PV2 Matthew Balmer PVT Donovan Hill PVT Larry Hunt PFC Ovidio Jacques PVT Peyton King PVT Hans London PVT David Miramontes **PVT Samuel Porter** Class 016-20 PVT Sean Weiss-DG SPC Steven Clouston PV2 Dasan Hoggard PFC Bailey Koch PV2 Edward Ostavitz, lv PVT Dennis Richard **PVT Warren Vineyard** SPC Jarred Walker PFC Kenneth Waterwest

PVT Isaiah White

DH - Distinguished Graduate HG - Honor Graduate * = AAAA Member + = Life Member



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, 1995

"Army Aviation—Continuity and Change for Force XXI," by General William W. Herzog with Major Neville S. Vanderburg.

This article, written as a forecast, is to be read from the perspective that knowledge is power. That besides weaponry and training, up-to-date intelligence as to your

enemy is every bit as pertinent to success as battle itself. The authors reinforced their arguments with quotes, one of which was from Carl von Clausewitz, from his, On War: "Knowledge must become capability." To read the entire article, refer to pages 6, 8, 10 & 12, Army Aviation, November 30, 1995.



Lift Study

In 1994, the Army commenced a lift study to identify the Army's total lift requirement for the utility and cargo helicopter fleets and to substantiate the basis for developing new Operational Requirements Documents (ORDs) for both systems. The above study was concluded in July 1995. The Army Aviation Warfighting Center's Directorate for Combat Developments has been working to refine modernization strategies for both the cargo and utility fleets. The study is to enhance the lift capabilities of the Black Hawk and Chinook



AAAA Locator

Ms. Layna Ann McConkey, daughter of Captain Wayne Allen McConkey, deceased, seeks anyone who knew her father. Captain McConkey was an L-19 Bird Dog pilot in Vietnam. Born June 8, 1943, Captain McConkey was killed when he was shot down on 15 September 1970.



in aircraft recovery missions, throughout Military Region I. The pictured action took place October 16.

Washington, D.C.

Three of four former "Army Aviator of the Year" pilots, attending the recent 12th AAAA Annual Meeting in the



Nation's capital, are pictured together. From left-to-right: LTC Emmett F. Knight ('62-'63); Major Patrick H. Brady ('68-'69) and Major Marquis Hibert ('63-'64). Absent was CW4 Michael J. Madden ('60-'61).

Fort Worth, Texas

The new model 214 Huey Plus boasts a new 50-foot diameter

main rotor system. Includes swept tip rotor blades that reduce power in highspeed flight; the absence of the normal stabilizer bar, and an improved drive system with a 2,000 hp transmission and 1,900 shp Lycoming T53 engine. Bonus: A forty percent boost in payload lifting capability.



More Than One

The September 1970 claim of Colonel J. Elmore Swenson, Hq AMC, of being the "sole Army Aviator, now on active duty who served in combat as an aviator in three wars," generated responses: LTC Charles V. Craft, Jr., Springfield, Virginia and LTC Ralph O. Bennett, Fort Rucker, Alabama, rivalled Colonel Swenson's announcement of having served in WWII, Korea and Vietnam as combat aviators.







50 Years Ago

A CH-54 Skycrane, from

the 101st Airborne Division

(Airmobile), hoists a Navy jet

fighter over the Phu Bai aerial

port in northern Military Region

November 30, 1970

Phu Bai, Vietnam



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 2022 induction is June 1, 2021

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

Army Aviation Hall of Fame

Chief Warrant Officer Three Jon A. Iseminger

Army Aviation Hall of Fame 1992 Induction – Atlanta, GA

CW3 Jon A. Iseminger was twice awarded the title of World Champion Helicopter Pilot by the Commission Internationale de Giraviation (the International Helicopter Commission)



acting for the Fédération Aéronautique Internationale (FAI), the worldwide sponsor of air and space records and contests. His successes led the United States Precision Helicopter Team to two consecutive World Helicopter Championships in 1986 and 1989.

In 1986 at Castle Ashby, England, CW3 Iseminger topped a field of 26 crews from West Germany, the Soviet Union, Great Britain, Poland, and the United States of America. In 1989, at Chantilly, France, competing in a field of 38 crews representing West Germany, the Soviet Union, Great Britain, France, South Africa, and the USA, he won with an astounding 796 points of a total possible 800. The highest scoring foreign competitor had 757 points. For his efforts, CW3 Iseminger was congratulated in person by President Ronald Reagan in 1986 and at the Oval Office in 1989 by President George Bush.

The scores achieved by CW3 Iseminger in international competitions are recorded permanently with the Fédération Aéronautique Internationale, Paris, France, and will stand as a formidable challenge to future competitors. His outstanding accomplishments gained world-wide recognition while representing the United States Army's magnificent corps of Warrant Officer Aviators.

In 1990, he was presented the prestigious Harmon Trophy by Vice President Dan Quayle for his outstanding achievements as a pilot. With the award CW3 Iseminger joined the select ranks of the world's great aviation pioneers, pilots, and astronauts. In winning, he is the first member of the U.S. Army to win the Harmon Trophy since General James H. Doolittle won it in 1946.

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