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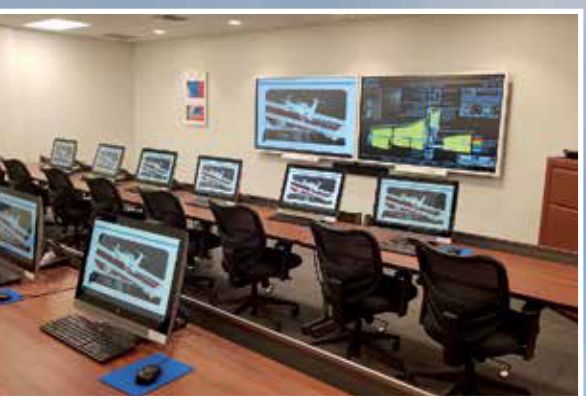

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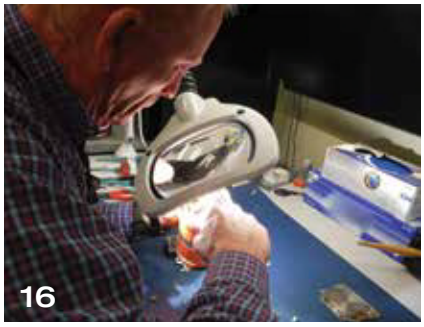

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TO THE FIELD

SPECIAL FOCUS — Training

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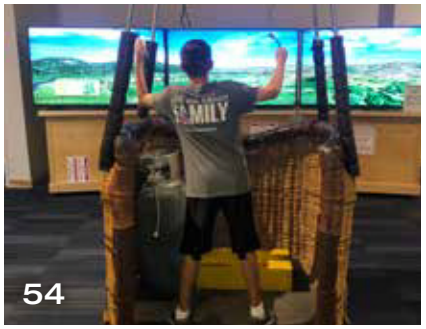

SPECIAL FOCUS - Simulation

FROM THE FIELD

DEPARTMENTS

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On The Cover

Briefings

Peterson New DCS G-8

U.S. ARMY PHOTO

LTG Erik C. Peterson was promoted virtually to his current rank and assumed the responsibilities of the U.S. Army Deputy Chief of Staff, G-8 on June 2, 2021.

Corporal Before Sergeant Mandatory

Beginning July 1, 2021, all active-duty specialists who have been recommended for promotion and completed the Basic Leader Course will be laterally promoted to corporal, according to an Army news release. Current corporals will need to qualify for promotion and complete BLC or be laterally reassigned as specialists. National Guard and Reserve soldiers will also be included in the change effective Oct. 1, 2021. New requirements for BLC were also announced in the news release. All soldiers attending BLC must first be recommended for promotion to sergeant. This change is effective June 1, 2022, for active-duty soldiers and Oct. 1, 2022, for reservists. It is not yet clear how much time soldiers must spend at the rank of corporal before promotion to sergeant.

DoD Extends Uniformed Services ID Card Expiration

DOD PHOTO

Department of Defense announced effective immediately, it is extending temporary Uniformed Services ID (USID) card expiration policy guidance for all USID cards with expiration dates between January 1, 2020 and July 31, 2021 as follows: through August 31, 2021 for all foreign affiliates and their dependents; through October 31, 2021 for the dependents of Active Duty uniformed Service members, and Reserve and National Guard uniformed Service members and their dependents; and through January 31, 2022 for retirees and their dependents, and all other USID card populations. ID cards that expired prior to January 1, 2020, have not been extended and must be replaced. ID cards with expiration dates after July 31, 2021, must be replaced by their expiration date. To schedule an appointment to have an ID card reissued, visit the ID Card Office Online website at *https://idco.dmdc.osd.mil/idco/.*

Officer Promotion Boards Now Review Restricted Files

As of June 2021, Army officer promotion boards have access to adverse information and restricted files when considering leaders for promotion, according to an Army release. The change affects selection boards for the rank of major and above in the active component and the rank of colonel and above for the reserve components, the Army said. Promotion boards previously only had access to information in an officer's performance folder. Now, boards will be able to see almost all substantiated adverse information, and anything filed as restricted in an officer's human resource record. Officers will be notified of applicable adverse information and will be given an opportunity to submit matters for consideration by the promotion board.

VA Adds Three Agent Orange Presumptives for Vietnam Vets

WIKIMEDIA COMMONS FILE PHOTO

Three conditions will be added to the list of those presumptively associated with exposure to Agent Orange. Those conditions are bladder cancer, hypothyroidism and Parkinsonism. Vietnam War era Veterans and their survivors, who previously filed and were denied benefits for one of these three new presumptive conditions, will have their cases automatically reviewed without the need to refile a claim. For more information go to *https://www.va.gov/.*

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On the Go at Full Throttle

By the time you read this I will have already visited with the leadership of over a dozen AAAA chapters.

LINDBERGH CHAPTER COURTESY PHOTO

MG (Ret.) Tim Crosby addresses attendees at the 60th Birthday Celebration of the Lindbergh Chapter in St. Louis, MO following the induction of chapter president, Mr. Dave Weller, into the Gold Honorable Order of St. Michael on June 5, 2021. See page 45 for more photos and info.

As I mentioned last month, my goal is to personally engage on site with all 78 chapters to directly hear of their concerns, and how we at the National AAAA may better support them, and through them, support you! Your local chapter is the key to the AAAA experience. Without a vital chapter experience we are bound to a path of irrelevance.

With each chapter that I visit, I am more and more impressed by the amazing range of our chapters' composition from nearly 100% active duty in some cases, to nearly 100% civilian industry and retired in others. Some are almost entirely National Guard centric, others Reserve, and a few are totally college and high school based. Truly an amazing breadth which represents our entire Army Aviation Community from the beginning of our careers at Junior ROTC, and Army schoolhouses to being retired/retired and everything in between. All of us share a common passion and love for Army Aviation.

Along with other members of the National Executive Group, I have also had the opportunity to present a number of Gold Orders of Saint Michael around the country. Last year we presented over 400 OSMs and Knights to the best and brightest in our formations; in this issue alone, there are 29 inductions – see page 46 for the coverage of those honored by this outstanding AAAA program in coordination with the Aviation Branch. AAAA is all about recognition ranging from our National awards program and Hall of Fame to the Soldier of the Month program in the local chapters.

Speaking of outstanding individuals, I have also recently had the opportunity to have a dinner meeting with the chairman of our AAAA Senior Executive Associates, GEN Scott Wallace. The objective of this meeting was to get his thoughts on key initiatives from the non-aviator, Big Army perspective and to initiate planning for future meetings of this group of retired non-aviator three and four star generals. These senior leaders volunteer their time to AAAA to help support you all and your interests to the very highest levels of our government, industry and national leadership. Our next meeting of the Senior Executive Associates will take place in mid-October right after AUSA in Washington DC.

We at the National Executive Group are also working on a number of other initiatives to include a hard look at the National Awards voting process and bringing new members onto all our board committees to best represent you our members, particularly looking at ways to engage and attract you younger and more junior ranking members.

P.S. if you have not heard already the NEG also authorized an additional $1,000 per chapter above the standard annual $5,000 allocation to help kick start their first in-person chapter meetings as we emerge from the COVID situation. The event has to happen within 90 days; the idea is to get everyone together following the pandemic. If your chapter has not held a meeting yet they will be in the near future.

As always, let me know your thoughts directly at *tcrosby@quad-a.org*. Your all volunteer AAAA board is here to serve you and your chapters… not the other way around.

Have a safe summer.

MG Tim Crosby, U.S. Army Retired
35th President, AAAA


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U.S. ARMY NATIONAL GUARD PHOTO SFC ROBY DI GIOVINE, SOUTH CAROLINA NATIONAL GUARD

Aviation Warrant Officer Transformation

By MG David J. Francis

Leader development is the most important thing we do, and we do it better than any Army in the world.

U.S. Army National Guard Soldiers with Det. 1, Company B, 2-238th General Support Aviation Battalion, South Carolina National Guard, complete their gunnery training, with a CH-47F Chinook helicopter at Poinsett Range Complex, South Carolina, May 10, 2021.

We find ourselves at a significant inflection point in our Army, one that requires us to change the way we develop leaders to be prepared for the future challenges of large scale combat operations (LSCO). And, in Army Aviation, we are beginning that change with our Warrant Officer Corps.

Army Aviation Warrant Officers are technical and tactical experts who provide critical and timely advice to the commander on the employment of aviation capabilities in support of the ground force commander. Since the first Aviation Warrant Officer Class graduated at Fort Sill, Oklahoma, in 1951, they have been on the leading edge of providing aviation maneuver capability to the ground force commander. They remain the foundational force in developing innovative training, creating technological solutions, and executing aviation operations that adapt at the rate of modernization, allowing us to retain the initiative and other asymmetric advantages that Army Aviation provides.

Refining PME

The Warrant Officer Corps is essential to the success of the Army Aviation Branch, and we must update the way we instruct and develop these critical leaders. The time is now to shape the current and next generation of aviators that will fight and win in a LSCO environment. As a branch, our charter is to synchronize across the entire enterprise to ensure the tactical and technical development of our warrant officers is tailored to meet operational requirements and future environments. In conjunction with U.S. Army Forces Command (FORSCOM), we have refined the knowledge, skills, and attributes required of our operational force, and are adjusting professional military education (PME) to meet these requirements. Harmonizing these two domains provides essential insight, interlocking professional experiences, and paves the way to ensure Army Aviation is effective on a LSCO battlefield in a MDO environment.

Over time, some of our Warrant Officer PME incorporated subjects that took away from the warfighting skills we need to instill in our technical and tactical experts. Our branch must undertake a complete Aviation Tactics transformation to meet future threats. We are tackling this through three Lines of Effort. First, we are revamping Warrant Officer PME to enhance their warfighting knowledge. These professionals are the core of Army Aviation and make up 75% of our aviators and we must immerse them in challenging tactics training and education. Our objective is to optimize all Warrant Officer PME to focus on improving the technical and tactical skill sets while minimizing staff officer training.

It is time to refocus on sharpening the tactical skills of junior Warrant Officers at an earlier point in their careers while reducing their time away from the unit. CW2s will attend a four-week Advanced Warfighting Skills (AWS) course focusing on the technical and tactical employment of aviation assets very similar to the Air Cavalry Leaders Course. Following this course these aviators will return to their units with a better understanding of tactical mission planning and execution at the platoon and company level. Following AWS, Aviation Warrant Officers will attend will be a track-specific course in lieu of the current nine-week Aviation Warrant Officer Advanced Course (AWOAC).

UT/E Program

Our Second Line of Effort is the Unit Trainer/Evaluators (UT/E) program designed to enable the commander to create additional instructors and evaluators at the unit level. Creating UT/Es to conduct basic aviator training and evaluations will free up school-trained instructor pilots (IP) consumed with readiness level (RL) progressions and evaluations. Our IPs are our most experienced aviators and we need them to focus on tactically transforming our current and next generation of pilots for LSCO. Our top performing pilots in command (PIC) will earn the ability to be selected for the UT/E program. Having more trainers and evaluators in the formations will up the game and increase the readiness of all aviators in the unit. This process has already been kick started by the Directorate of Evaluations and Standardization (DES), and we are ready to come and help stand your program up now!

Weapons Tactics Instructor Course

Army Aviation requires a Weapons Tactics Instructor Course, our third line of effort. The Army does not have a formal tactics instructor course, and historically leveraged the most experienced aviators in the formation to teach and pass along tactics. Moreover, we are in the process of redesigning our existing Instructor Pilot Course by reducing the number of base tasks we train and instead progress toward tactical tasks and collective employment at the platoon and company level.

Our Warrant Officers are the center of gravity of our aviation force. Our deliberate transformation for these aviation leaders is concentrating on what our force requires to fight and win in a LSCO environment. Our end state with this transformation is LSCO mastery and a MDO capable force by 2028. This investment in our warfighters will drive the change we need today and will develop tactically superb aviators to lead and train our combat aviation brigades.

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.

I Have The Controls

By CW5 Michael Lewis

U.S. ARMY PHOTO BY LTC ANDY THAGGARD, USAACE

On May 27, 2021, on Howze Field, Fort Rucker, Alabama, CW5 Jonathan "Koz" Koziol transferred the controls as the Command Chief Warrant Officer of the Aviation Branch.

Incoming Chief Warrant Officer of the Aviation Branch, CW5 Myke Lewis inspects the Sabre just passed to him by MG David J. Francis, Aviation Branch Chief, while outgoing CWOB CW5 Jonathan Koziol (back to the camera) looks on at Howze Field, Ft. Rucker, AL, May 27, 2021.

During the ceremony we passed the Officer's Saber to symbolize the change of responsibility from the outgoing command chief warrant officer to the incoming command chief warrant officer. The passing of the saber is the ceremonial standard for command chief warrant officer changes of responsibility within the Aviation Branch.

The Commander of Troops on the field that day, CW5 Steve Donahue, eloquently penned and contributed this very fitting narrative for the passing of the saber.

The Saber is one of the most enduring weapons on the battlefield, symbolizing and enabling the commander's reach and lethality. Its use requires technical and tactical skill, the same fundamental talents of today's Warrant Officer. The sheath is basic, without decoration, representing the quiet profession. The blade's edge is meticulously honed, as is the knowledge and skill of those that hold its position. The Chief Warrant Officer of the Branch is charged with sustaining the blade's razor edge as Army Aviation's Senior Warrant Officer voice, advisor, and leader to the Commanding General.

As a champion for numerous Aviation Branch initiatives, Koz tirelessly honed the saber's edge. In his last ARMY AVIATION Magazine article, "You Have The Controls" (April/May 2021), Koz highlighted many of those initiatives and the incredible teams working together to prepare our branch for the future. I will take this opportunity to provide an update on some of those initiatives.

AWS

As MG Francis discussed, the transformation of Aviation Warrant Officer leader development is off and running. The first of two Advanced Warfighting Skills (AWS) pilot courses begins 19 July. Participation and response from all COMPOs has been excellent. The seats are full with a healthy mix of aviation occupational

specialties including Air Traffic and Air Space Management and Tactical Unmanned Aerial Systems Technicians, AH-64, CH-47, UH-60, and Fixed Wing aviators. The AWS course is led by experienced combat seasoned instructors who are hand-picked to instill the technical and tactical focus in our junior Warrant Officers. This is truly a cornerstone event that will help lead our formation to Large Scale Combat Operations (LSCO) readiness.

UT/E

In June, the Directorate of Evaluation and Standardization (DES) completed the initial validation of the Unit Trainer / Evaluator (UT/E) program (Day Module) with 1st Armored Division Combat Aviation Brigade. Authorized by DAMO-AV, DES trained five aviators, 2 x AH-64, 2 x UH-60, and 1 x CH-47, on all daytime 1000 series tasks and unit selected 2000 series tasks. DES recommended to the brigade commander that all five aviators be designated as UT/Es for the tasks trained. Initial feedback from 1AD CAB on the UT/E program was very positive. By the end of July, DES and 10th CAB will be nearly complete with the second UT/E validation. This crucial line of effort is raising the readiness bar among our aviators.

Weapons Tactics Instructor Course

The Weapons Tactics Instructor Course is on its way! With the AWS and UT/E programs serving as foundational building blocks, the developing Weapons Tactics Instructor Course will take full advantage of the tactical and technical experience of our aviators. Successful development of this course will be a team effort with input needed from across the branch. With the Weapons Tactics Instructor Course, the Army, like its sister services, will have a long awaited and formalized leader development program to teach and pass along tactics to future instructors.

Other Aviation Initiatives

The change in the Active-Duty Service Obligation for Initial Entry Rotary Wing (IERW) training, much needed to ensure a return on investment, has not slowed accessions. We continue to receive applications from top-notch candidates of character and commitment.

The "Army Aviator Conditional Appointment/Time-in-Grade Reset," also known as the provisional WO1 initiative, will most likely be approved this summer and go into effect on 1 October of this year. The start date of the two-year time-in-grade requirement for CW2 will reset to the date of Warrant Officer Basic Course (WOBC) graduation. This initiative was adjusted, removing Aviation Technical Warrant Officers from its application. When approved, the new Army Directive will only apply to Aviators (MOS 152-155 series).

When the saber was passed to me a few weeks ago I inspected it. The blade's edge is meticulously honed. The significance of the responsibility of sustaining the blade's razor edge, as the eight previous CWOBs were charged, is not lost on me. It is my honor and privilege to be a part of this team and to work with you all as we develop, adapt, evolve, and ensure our capability to fight and thrive on the LSCO battlefield.

Above the Best!

CW5 Michael "Myke" Lewis is the ninth chief warrant officer of the Aviation Branch with the U.S. Army Aviation Center of Excellence, Fort Rucker, AL.

Simulations and Training

By CSM James D. Wilson

U.S. ARMY AVIATION CENTER OF EXCELLENCE PHOTO

The Enhanced Tower Operator System (ETOS) training provided to the 15Q Soldiers during Advanced Individual Training enhances their ability to operate in a high stress environment prior to arriving at the first unit of assignment.

Simulations play a vital role in improving the skills, knowledge and proficiency in our Aviation Warfighters.

The ability to introduce Soldiers to a myriad of potential scenarios they may encounter in military operations other than war is crucial to building a foundation for technical and tactical proficiency. Throughout the evolution of aviation training, simulators have been heavily utilized in the initial entry rotary wing training to help streamline efficiency and to accelerate throughput to keep up with the demand of providing aviators to the operational force. Similar to the pilots in Army Aviation, simulators remain key to the successful training of enlisted Soldiers who serve within air traffic operations and crewmembers.

The Enhanced Tower Operator System (ETOS) training provided to the 15Q Soldiers during Advanced Individual Training is invaluable to their ability to operate in a high stress environment prior to arriving at the first unit of assignment. The mission of Army Aviation is, and will always, be inherently risky and why it is so important to ensure that all Soldiers are trained to the highest level possible. As part to their training Soldiers must demonstrate their ability to identify and sequence aircraft in and out of the air space while maintaining positive control and proper aircraft spacing. The ETOS simulator gives instructors the ability to progressively increase aircraft density adding to the complexity of mission profiles and increasing stress to place Soldiers in real-world scenarios.

Enlisted Aviation Soldier Spotlight

Each month we will feature a past AAAA National or Functional Enlisted or NCO Award winner as part of our ongoing recognition of the Best of the Best in our Aviation Branch. The CY 2020 National winners were featured in the April/May AAAA Army Aviation State of the Union issue.

AAPI FILE PHOTO

SGT Cameron P. Renth

Company F, Task Force 1-160th
Special Operations Aviation Regiment (Airborne)
Fort Campbell, Kentucky

Donald F. Luce Depot Maintenance Artisan Award, 2018

The work that SGT Cameron P. Renth has accomplished over the past year as an Airframe Structural Repairer in the F Company Allied Shops platoon of the 1-160th Special Operations Aviation Regiment (SOAR) (Airborne) is without compare and makes him the most sought after master of his craft in Army Special Operations Aviation. His company supports a rapidly deployable Special Operations Task Force with many non-standard aircraft modifications that require sheet metal and airframe skills far beyond the range of a typical aviation maintenance company worker. His duties require him to conduct numerous intermediate to depot level repairs and since arriving to his battalion four years ago he has provided world class structural airframe repair expertise. Within the last year, SGT Renth conducted over 100 Maintenance Engineering Calls (MECs) on more than 10 varieties of MEC, four separate depot level damage repairs (two of which resulted from battle damage and two from serious aircraft accidents), and countless unit level repairs while assisting others in his shop. Additionally, he deployed in support of Operation Inherent Resolve and participated on six temporary duty training exercises.

Mastering the fundamentals of aviation maintenance is the means by which we are able to deliver capability to the ground force. With the continued enhancements and modernizations of our existing aircraft, the requirements for improved training aids led to us investing in full motion and virtual training simulators to help increase the experience and knowledge of aviation maintainers graduating from Advanced Individual Training. Approximately 2,000 new maintainers are trained each year across 10 distinctly different MOSs. These maintainers are responsible for maintaining the operational readiness of aircraft assigned to their units and meeting the aviation demands of the operational force.

The use of full motion trainers and other simulation devices significantly increase our Soldiers' ability to understand the theory behind how various components of the aircraft are expected to operate. Over time, the use of simulators reduced the training time it would take a Soldier to troubleshoot a fault and learn the associated maintenance task improving the overall efficiency and effectiveness of the course. It may take Soldiers multiple years within their units before they have an opportunity to perform certain tasks on an actual aircraft. While attending AIT Soldiers repeatedly demonstrate their ability to diagnose and troubleshoot realistic practical scenarios using standardized procedures. Instructors are capable of programming real time faults replicating similar aircraft problems diagnosed at unit levels.

An important component in the success of Army Aviation is tough, realistic training at all levels geared towards increasing proficiency and lethality. However, not even the most well trained organization is able to fully train every Soldier on every task to the level required to be considered the most proficient, in many instances units are lucky to train to the level of currency.

For these reasons we must leverage, embrace and maximize all opportunities to supplement hands-on training to increase readiness. Across Army Aviation we have seen the great success simulators have on the initial training of our Soldiers and sustaining the readiness of the force.

As we look to the future force that is equipped with newer and more modern aircrafts, we must look to more modern innovative ways to deliver training to new Soldiers at a much faster rate and at much lesser cost.

Army Strong! Above The Best!

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

From Fathoms Below – Digital Forensics of a Black Box

By Melissa Gothard

In January 2020, a Navy MH-60S Seahawk on a routine training flight crashed into the Philippine Sea off the coast of Okinawa, Japan. All five crewmembers were rescued and survived, but the helicopter sank to the seabed about 19,075 feet below.

U.S. ARMY PHOTO BY JOSEPH MENDIOLA, CCDC AVIATION & MISSILE CENTER

Tim Ashcom of the U.S. Army Combat Readiness Center's Digital Collections, Analysis and Integration Laboratory opens the Crash Survivable Memory Unit from a U.S. Navy MH-60S Seahawk that crashed off the coast of Okinawa, Japan, in January 2020.

This past March, nearly 14 months after the mishap, the Navy was able to haul the aircraft to the surface. However, this record-breaking underwater recovery proved only to be the first challenge as the Navy attempted to determine what led to the mishap.

Following aircraft retrieval, a Navy vibrations technical expert/health and usage monitoring system (HUMS) team responsible for flight data recorder recovery reached out to the U.S. Army Combat Readiness Center's (USACRC) Digital Collections, Analysis, and Integration (DCAI) Laboratory for assistance. A flight data recorder — or black box, as it's often called — had never been retrieved from such a great depth. Data recovery from a black box submerged for such an extended period had never been successful either. In this case, information recovery would result in firsts for both the Navy and Army.

The aircraft's digital source collector (DSC) devices included an integrated vehicle health and usage monitoring unit (IVHMU), which is comprised of a HUMS compact flash memory card and a cockpit voice flight data recorder (CVFDR). In addition to the IVHMU, the DSC included a HUMS Personal Computer Memory Card International Association (PCMCIA) card. These devices were subjected to extreme pressures on the sea floor, so great consideration was given to protect them during recovery. If not protected, corrosion could form on the metal storage components, degrading their integrity.

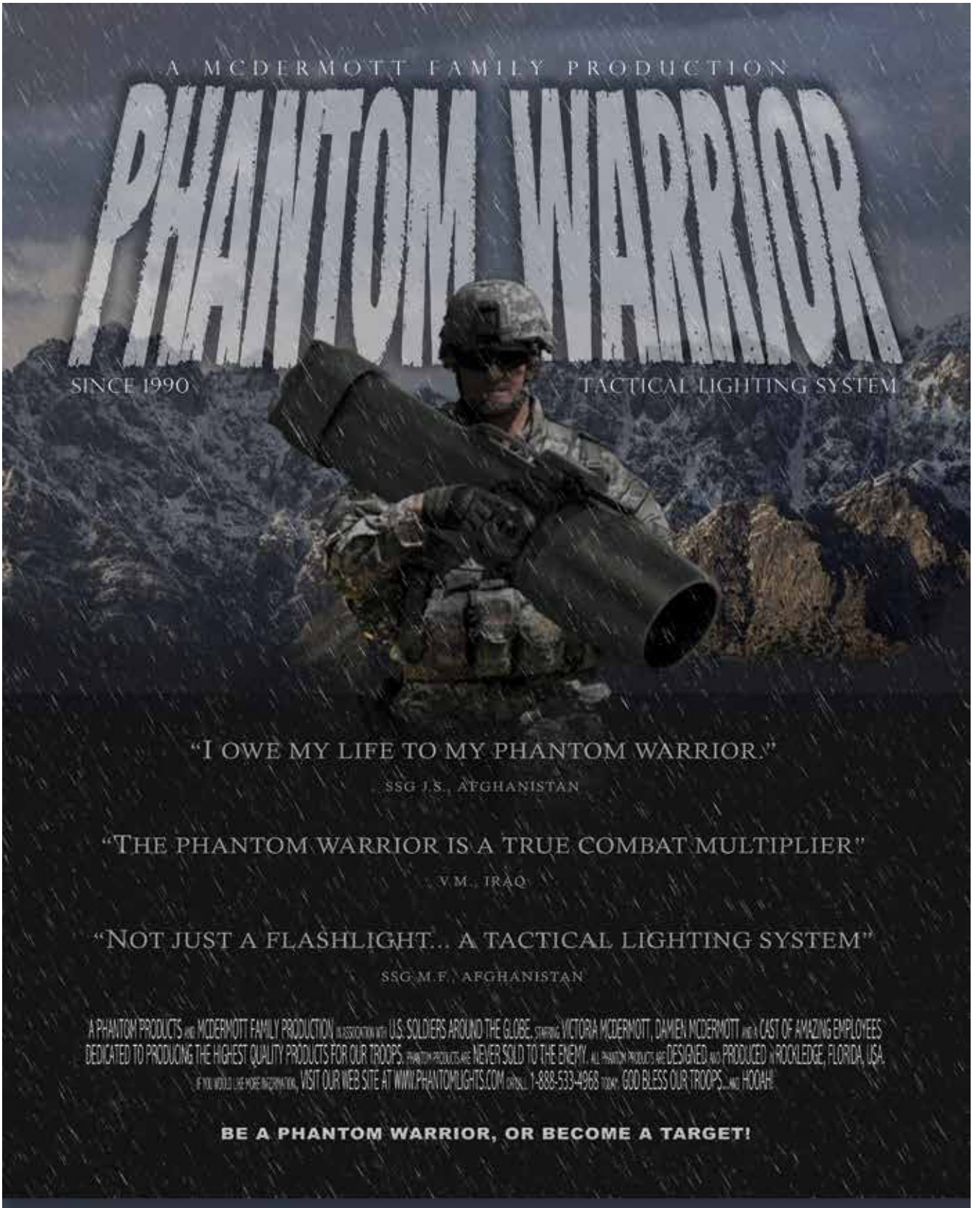
The key to preserving the data stored on a submerged DSC was limiting its exposure to oxygen, thereby reducing the chance of corrosion. To do this, the IVHMU was packaged in seawater and delivered to the USACRC in a leakproof container. Upon receipt, it was disassembled down to its circuit-board-level components, cleaned and dried in an oven for 72 hours.

Once dried, the time-intensive and delicate process of cleaning and testing for connectivity of components at the microscopic level was conducted. The Navy was appreciative of the collaboration and that the effort provided some data for its safety investigation board assessment into the mishap.

The DCAI Lab's mission to support recovery, analysis, and integration of device data for safety investigations is unique. It is the only laboratory in the Army that performs data recovery on analog and DSC devices. The lab supports Army wide Installation Army Investigations and Centralized Army Investigations conducted by the USACRC and continues to expand its services to ground programs of record as digital HUMS develop and replace analog systems.

Recovered data is a critical element in mishap investigations. In some cases, it represents the only witness to the event. Every recovery is unique, and the DCAI Lab team has learned to expect the unexpected. The analysis of data recovered from DSC devices provides readiness through analysis, training and the development of systems that support loss prevention programs and initiatives for our Army.

Melissa Gothard is the chief of the Digital Collections, Analysis and Integration Laboratory at the U.S. Army Combat Readiness Center at Fort Rucker, AL.



When using a Phantom Warrior flashlight, you are covert, you are agile. Your maps are easier to read, you are safer. With ordinary flashlights, you are easy to spot up to a mile away without NVGs, and FIVE miles away with NVGs. How far away does the enemy need to be to see YOU? Other flashlights are often a dangerous liability. You are more easily seen and your maps are harder to read clearly, making you vulnerable to even a novice sniper.

Aviation Safety Starts on the Ground

By CW5 Ian Mills

The National Safety Council defines a near miss as an unplanned event that did not result in injury, illness or damage but had the potential to do so.

Whether you call it a near miss or close call, the importance of systematically reporting, analyzing and disseminating near miss causal factors is another important tool for both aviation and ground operations. The Army Reserve Aviation Command (ARAC) uses these primary tasks when handling near miss events, including but not limited to incident identification and notification, rapid data collection and analysis of causal factors, incident and causal factor dissemination, and utilizing an approved safety management system to record the event.

Identifying near misses and reporting them to the chain-of-command can vary greatly depending on the severity of the near miss event. Each activity and leadership's specific reporting requirements will vary by equipment, personnel, and experience. As with all mishaps, when we identify an event as a near miss, we should notify the chain-of-command by whatever means the commander establishes.

Since 2018, the ARAC has steadily increased its near miss non-recordable tracking and trended increased physical training mishaps, gaps in maintenance special tool handling procedures, and aviation fuel handling techniques. The ARAC has not experienced a Class A through C aviation accident attributable to human error or material failures since 2017. While near misses may not be subject to typical accident time requirements, it's important to notify your safety officer or additional duty safety officer as soon as possible. This is key to capturing and trending potential hazards that may lead to a more severe event.

Accurate data collection and analysis for near miss incidents should typically be less intensive when compared to an actual accident. To emphasize, commanders and supervisors can utilize their experienced people to assist with identifying parameters for reporting near misses and establish procedures for timely dissemination of an event throughout the affected enterprise. This is especially important for those activities like the ARAC with down trace units spread throughout the United States. Rapid analysis of a near miss incident is critical to ensure mitigations are applied to other affected operations across your formations.

Dissemination of information of near miss incidents throughout your enterprise is a key mitigation strategy. Commanders, supervisors, and safety personnel can utilize various methods of communication to disseminate near miss incidents. However, the most effective method is the familiar one-page safety alert or safety action message. Standardized boilerplate formats assist with the timely preparation, staffing and distribution. One caveat to using this method is to ensure near miss safety alerts are properly staffed and sanitized prior to sending even within your own formations. Personally identifying information, specific unit or company identification must not be accidentally included.

Utilization of a standardized Safety Management System (SMS) of record is key to assist safety personnel with trend analysis and identification. The ARAC is currently directed to use the Safety Occupational Health (SOH) portion of the Reserve Component Automation System (RCAS). Whether you use RCAS-SOH or Army Safety Management Information System 2.0 (ASMIS 2.0) as your SMS, they are critical tools and repositories for not only safety and health purposes but typically improve compliance with regulatory requirements, overall program efficiencies, and potentially lower costs involved with near miss events and mishaps.

The first line of defense for mitigating hazards is to follow already established and standardized processes and procedures. Standards are safety. Whether in an Army regulation, Department of the Army Pamphlet, technical manual or standing operating procedure, these are the foundation of an effective safety and occupational health program.

Also key to having a robust safety and occupational health program is leadership at all levels. Leaders with an effective safety program consistently leverage their experienced personnel to help establish guidelines for timely and accurate notification, reporting and official recording of near miss events so safety personnel can identify potential trends.

Safety personnel who identified trends can then recommend further mitigations and risk reduction techniques either through equipment modification, adjusting processes or personal protective equipment. In the end, organizations that consistently engage in the tracking and trending of these events may increase their chances of identifying potentially serious mishaps before they happen.

CW5 Ian Mills is a member of the Army Reserve Aviation Command Safety Office located at Ft. Knox, KY.

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The Systems Integration Division

By SFC Jonathan Sheffield

Army Aviation is continuously modernizing, always adjusting to the various capability demands across the force. With this modernization comes a focus on the introduction of new systems and the modification of current ones.

U.S. ARMY 128TH AVN BDE PHOTO

SSG Douglas Herrera and SFC Rafael Orona conduct TADSS acceptance and development with SFC Jonathan Sheffield on one of the many AH-64E training devices within the 128th AVN BDE.

New technology requires training the operators and maintainers. Developing and managing capabilities, materials, and training are all managed by their respective MACOMs. It is up to the Soldiers and civilians assigned to the 128th Aviation Brigade's Systems Integration Division (SID) to integrate those development processes into Aviation maintenance.

SID is composed of a small group of senior Aviation maintainers. All the personnel assigned as Subject Matter Experts are senior non-commissioned officers, most of whom previously worked in the Brigade's training battalions, complimenting their already extensive operational experience. Department of the Army Civilians (DACs) serve as Training Specialists and are responsible for coordinating and prioritizing SID efforts. These professionals provide continuity, focus, and oversight for projects that will last for years to come.

The 128th AVN BDE SID provides maintainer perspective and brigade representation at all phases of the Joint Capabilities Integration and Development System (JCIDS) process, including development of the System Training Plan (STRAP) when required. The Soldiers and civilians of SID participate in events such as testing observation and evaluation events, technical manual verifications, instructor and key personnel training, and design and progress reviews. A key element to SID's success is the office's ability to help identify the skills and knowledge required to maintain new systems. SID provides feedback to the various government agencies and contractors regarding which skills and knowledge our maintainers already possess. Participation in these events provides the rest of the Brigade's training development staff easily digestible information on upcoming changes to our fleet. This information can then help the team anticipate needed changes to individual critical tasks and any needed changes to programs of instruction.

One of the major functions the SID office performs is Training Aids, Devices, Simulators, and Simulation (TADSS) development. Maintainer lesson plans require hands-on training and to accomplish that the 128th AVN BDE uses TADSS. The hundreds of individual tasks required for training and evaluation would place an inordinate amount of stress, wear, and tear on a real helicopter, making their use in a training environment impractical. Training devices provide that hands-on capability in a cost-effective manner that resists wear and tear. A thorough analysis of the selected maintenance procedures, conducted by SID, provides the foundation for what tasks each training device must support. SID personnel are then charged with inspecting each training device to make sure they all perform to the exact specifications required to support training. Hundreds of TADSS currently utilized throughout the Brigade are a result of this process. Another major function of the SID is New Equipment Training Plan reviews. Subject matter experts in the relevant military occupational specialty (MOS) review the training plans to provide feedback on the skills and knowledge required to perform tasks related to the fielded system. SID is currently reviewing training plans for systems such as the Improved Turbine Engine, AH-64E version 6, and the Advanced Precision Kill Weapon System.

Looking forward, SID will be invaluable to providing Future Vertical Lift and the dozens of other new systems with only the best training and products to operators and Soldiers for years to come.

"Born Under Fire!"

SFC Jonathan Sheffield is a member of the Systems Integration Division, 128th Aviation Brigade, Joint Base Langley-Eustis, VA.

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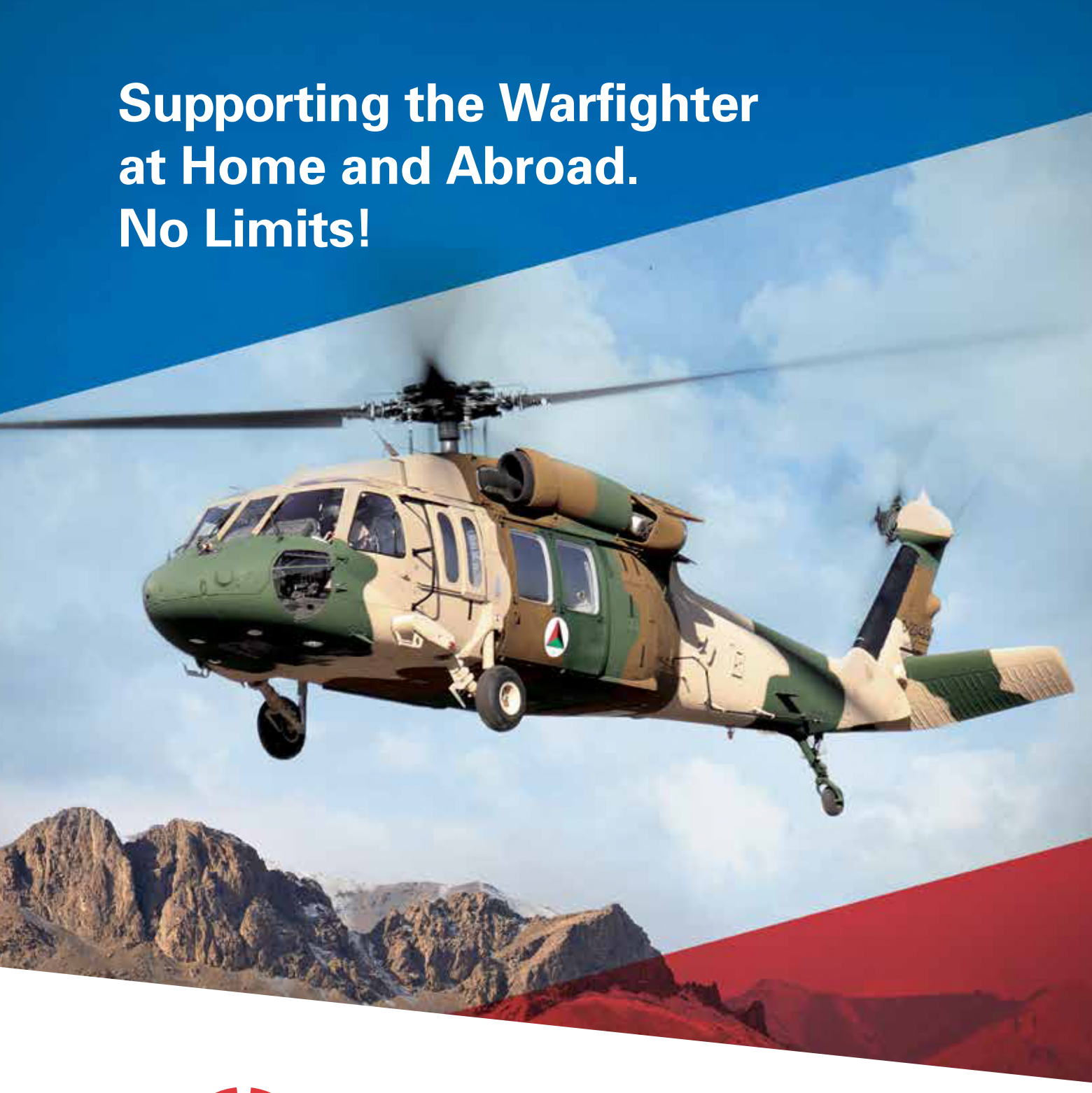

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Quiet Design

By Dr. Thomas L. Thompson

Airbus H145 helicopter with "fan-in-fin" design.

MD 520N NOTAR helicopter.

ALL PHOTOS WIKIMEDIA COMMONS PHOTO

The noise generated by a rotorcraft may limit its usefulness in military and civil operations.

Whether flying near enemy lines or descending for landing at a city heliport, operators do not want to draw unwanted attention from people on the ground. As a result, there has been considerable focus in recent years on designing and certifying rotorcraft to more demanding noise standards.

The U.S. Federal Aviation Administration (FAA) established the first noise regulations for airplanes in 1969. The standard, 14 CFR Part 36, was amended in 1988 to include certification requirements for helicopters. The new regulations set limits on external noise, as measured during takeoffs, approaches and flyovers, for new helicopter type designs. The purpose of these changes is to ensure that advancements in noise reduction technology are incorporated in new designs and that communities in the United States and around the world are exposed to less aviation noise. The most recent requirements for helicopters, called "Stage 3," were adopted in July 2014.

The regulations specify external noise limits in terms of Effective Perceived Noise (EPNdB), an acoustic metric that best characterizes human annoyance to aircraft noise. It accounts not only for sound intensity (decibels), but also the frequency and duration. EPNdB is calculated using acoustic signals acquired from an array of microphones positioned on the ground, and according to methods prescribed in 14 CFR Part 36. The Stage 3 helicopter limits are about 3 EPNdB lower than the Stage 2 limits. Also, the limits are adjusted as a logarithmic function of the weight of the aircraft (noise limits are higher for heavier aircraft). The FAA has published noise levels for all airplanes and

helicopters certified using these methods in Advisory Circular 36-1H.

The more stringent regulations have resulted in improved design methods and operational techniques to reduce external noise. Modern rotorcraft designers incorporate results and lessons learned from decades of research to reduce noise from main rotors and tail rotors, which are the major sources of noise perceived by observers on the ground (most of the engine noise is directed upward). In addition to reducing rotor tip speed, designers also shape the blades, particularly the tips of the blades, to maximize aerodynamic efficiency and reduce noise due to blade thickness, loading and transonic (shock formation) effects. For example, most rotorcraft designed within the last 30 years operate at tip speeds of about 720 feet/sec or less, and typically have a swept or tapered blade tip to increase aerodynamic efficiency and reduce noise in high-speed flight. Also, since tail rotors are a significant contributor to noise perceived by people on the ground, modern designs may also feature a ducted tail rotor, such as the "fan-in-fin" designs seen on many of the Airbus Helicopters. The duct eliminates or reduces some of the contributors to tail rotor noise, such as the interaction with the main rotor tip vortices. Also, since ducted designs have more blades than a conventional tail rotor, noise is radiated at higher harmonics, and therefore tends to dissipate more quickly in the atmosphere. NO-Tail-Rotor (NOTAR) helicopters, achieve similar acoustic benefits by enclosing a fan inside the tail boom. Finally, experimental flight tests conducted by NASA and others have demonstrated noise abatement landing procedures for different helicopters. These tests have shown that noise levels on the ground can be reduced by altering the flight profile to minimize the blade-vortex interaction (BVI) noise that occurs when a helicopter descends into its own wake.

The FAA reports that because of the more demanding standards and the development of low-noise technology, the number of people exposed to aviation noise has decreased significantly. As aviation authorities work to adopt more stringent noise regulations, development of our next generation of rotorcraft will continue to be influenced by "quiet" design practices.

Dr. Thomas L. Thompson is the chief engineer of the Aeromechanics Division for the Systems Readiness Directorate (SRD) at the U.S. Army Aviation and Missile Center, Redstone Arsenal, AL.

Hand Numbness and Tingling

By MAJ (Dr.) Joseph R. Adams

Q: I've begun to experience a pins-and-needles sensation in my hand while flying and for some time after shutdown. Should I be concerned?

FS: The medical terminology for numbness and tingling is *paresthesia*. Paresthesia of the hand is a common complaint among aviators, and especially among rotary-wing pilots. Symptoms of paresthesia can include numbness, tingling, itching, prickling, pins-and-needles sensation, and pain. While these symptoms may not be harmful and can be self-limited, there are a number of causes that can lead to permanent deficits and flight conditions that are potentially dangerous. Of particular concern to aviators are the potential for impairment of fine motor coordination, loss of strength, and changes or complete loss of sensation in the fingers and hands that are critical for safety of flight. Always inform your Flight Surgeon if you experience any paresthesia.

Causes

There are several potential causes, from nerves to blood vessels to certain disorders. Nerves can be affected anywhere along their path from the brain to the hand. Compressed nerves can be a cause and can result from your body position while flying or from entrapment of the nerves in the elbow, between vertebrae in the neck, or within compartments of the wrist such as in carpal tunnel syndrome. Restricted blood-flow to the hand due to tight clothing or equipment is also a potential culprit. Other possible reasons for paresthesia include autoimmune disease, endocrine disease, toxicity, and infection.

The most important consideration in determining the cause of paresthesia is the history, or background information, that you provide to your Flight Surgeon. Some important considerations are:

- How long have you been experiencing symptoms?
- Was there an injury or other trauma?
- What triggers the symptoms?
- Are the symptoms constant or intermittent?
- If intermittent, how long do they last?
- What makes your symptoms worse (certain positions, certain clothing, vibrations, certain medications, etc.)?
- What makes them better?
- How are your symptoms distributed (specific fingers, one hand, both hands, hands and feet, etc.)?
- Are there any other associated symptoms (weakness, numbness, loss of coordination, discoloration, cold sensation, neck pain)?
- If there is pain, does it radiate up your arm or does it stay in one place?
- Are you taking any medications?
- What do you do in your free time? (potential tick exposures, high-risk sexual activities, etc.)
- Do you have any medical conditions (diabetes, gastrointestinal disease, scoliosis, autoimmune disease, etc.)?
- Is there a family history of illness such as diabetes, Raynaud's, muscular dystrophy, or anything else?

The approach to diagnosing the cause of paresthesia depends largely on the answers to the questions above in relation to the symptoms. In some cases, the cause will be obvious based on the history. In many cases, however, it will be necessary to narrow down the list of potential causes by performing physical maneuver examinations or lab testing. The lab tests may include blood tests for thyroid function, presence of infections such as Lyme disease or Syphilis, vitamin levels, presence of heavy metals, and levels of inflammatory markers, among others. It may also be necessary to perform further nerve studies such as electromyography (EMG), nerve conduction velocities (NCV), and evoked potential tests. You may also be referred to a neurologist for further evaluation.

Treatment of paresthesia is entirely dependent on the underlying cause. Given the broad range of potential causes, it is crucial to first identify the exact cause. Once a diagnosis has been made, treatment may range from wearing a brace or discontinuation of a medication to the surgical decompression of an entrapped nerve or use of antibiotic medication.

WIKIMEDIA COMMONS GRAPHIC

Carpal Tunnel Syndrome

Prognosis

Due to the potential for complications or progression of symptoms, grounding is frequently required until the cause of a paresthesia can be identified or until symptoms have resolved to conserve safety of flight. The good news is that the prognosis for recovery is very good once the correct treatment is provided. In some cases, it may be necessary to demonstrate full recovery through simulator evaluation, cockpit egress testing, or other functional testing prior to return to full flight duty.

Fly Safe!

Questions?

If you have a question you would like addressed, email it to *AskFS@quad-a.org;* we'll 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 authors and researchers and should not be construed as an official Department of the Army position unless otherwise stated

MAJ (Dr.) Joseph R. Adams is a flight surgeon at the School of Army Aviation Medicine, Fort Rucker, AL.

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U.S. ARMY PHOTO BY 1LT AUSTIN LACHANCE

U.S. Soldiers assigned to 2nd Squadron (Air Cavalry), 17th Cavalry Regiment utilize a vertical unmasking technique in order to search for and engage targets within their assigned priority fire zone on April 22, 2020 at Fort Campbell, KY.

Special Focus ▶ Training

Aviation Doctrine and Training – Tactical Employment in Large Scale Combat Operations

By COL Brian T. Watkins and COL Jimmy L. Meacham, U.S. Army Retired

Army Aviation is decisive in land warfare, conducting air ground operations as the aviation maneuver force of the combined arms team. Aviation doctrine continues to focus on the combat aviation brigade's role during the execution of large scale combat operations (LSCO). While FM 3-04, Army Aviation, focuses primarily on the employment of aviation in LSCO, it also includes information on aviation support to all unified land operations. Higher level doctrine revisions in the future will address the implementation of multi-domain operational concepts. Army Aviation will not be left behind, FM 3-04 addresses near peer threats, multi-domain operations (MDO), anti-access and area denial, integrated air defense systems, cyber, and electronic warfare. Aviation doctrine will continue to be reviewed and revised in line with higher level doctrine, fielding of future vertical lift and other modernization efforts, and the incorporation of multi-domain operational concepts captured through exercise and experimentation.

In keeping with the Chief of Staff of the Army's guidance to focus training on gaining proficiency at the company level and below, aviation has laid the doctrinal foundation for junior leaders with the publishing of ATP 3-04.1, Aviation Tactical Employment. While our capstone publication, FM 3-04, provides "who Aviation is" and "what Aviation does," ATP 3-04.1 describes, "how we do it." Complementing this publication is the recently released ATP 3-04.23, Aviation Platoons, which provides techniques for planning, preparation, and execution of aviation tasks, offering problem solving guidance using troop leading procedures (TLPs) for company level leaders and below.

Aviation maintenance support has never been more critical than in today's operating environment, where personnel and aircraft remain in high demand due to current and increasing operational tempo (OPTEMPO). Today's complex aircraft demand technically competent and experienced aircraft maintainers and maintenance managers. After all, the ability of an aviation unit to perform its wartime mission is numerically represented by its aircraft operational

readiness rates. Doctrinal execution of aviation sustainment operations was highlighted last year with the release of both the ATP 3-04.7, Army Aviation Maintenance, and the TC 3-04.71, Commander's Aviation Maintenance Training Program. ATP 3-04.7 provides guidance concerning aviation maintenance structure, organization, responsibilities, and functions focused from the aviation brigade to the platoon level. The principal audience for ATP 3-04.7 is aviation maintenance commanders, leaders, officers, technicians, noncommissioned officers (NCOs), and aircraft repair and maintenance personnel.

TC 3-04.71 shapes the way the Army trains and develops aviation maintainers and leaders. Aviation maintenance influences the ability of an aviation unit to execute the mission and to provide overwhelming combat power in support of ground forces. It is critical for a commander to evaluate the readiness of maintenance personnel as a significant component in the unit's ability to perform the required level of maintenance to keep aviation assets in the fight.

In addition, both ATP 3-04.13, Helicopter and Small Aircraft Battle Damage Assessment, and ATP 3-04.17, Techniques for Forward Arming and Refueling Points (FARP) are currently under review with the intent to incorporate planning considerations for execution of operations in large scale combat.

Training

The Directorate of Training and Doctrine (DOTD) in conjunction with aviation enterprise partners continue the development of Training Support Packages (TSP) based on command feedback, observed trends, and anticipated requirements resulting from the fielding of new systems, capabilities, or procedures. These TSPs provide a training path for aircrews to seek proficiency in various tasks. Recent releases include Emergency Response Methodology with the inclusion of Flight Reference Cards (May 20) and updates to Radio Frequency (RF) Threat Maneuver (March 21) expanding single aircraft response/actions to include unmanned aircraft systems and fixed wing platforms and incorporating multi-aircraft considerations for rotary wing aircraft.

In an effort to provide more tactically focused training at Fort Rucker and its associated training locations, and to develop the institutional and operational capabilities ensuring effective Army aviation operations on a LSCO battlefield in a MDO environment, the United States Army Aviation Center of Excellence has initiated an Aviation Tactics Initiative focused on three lines of effort:

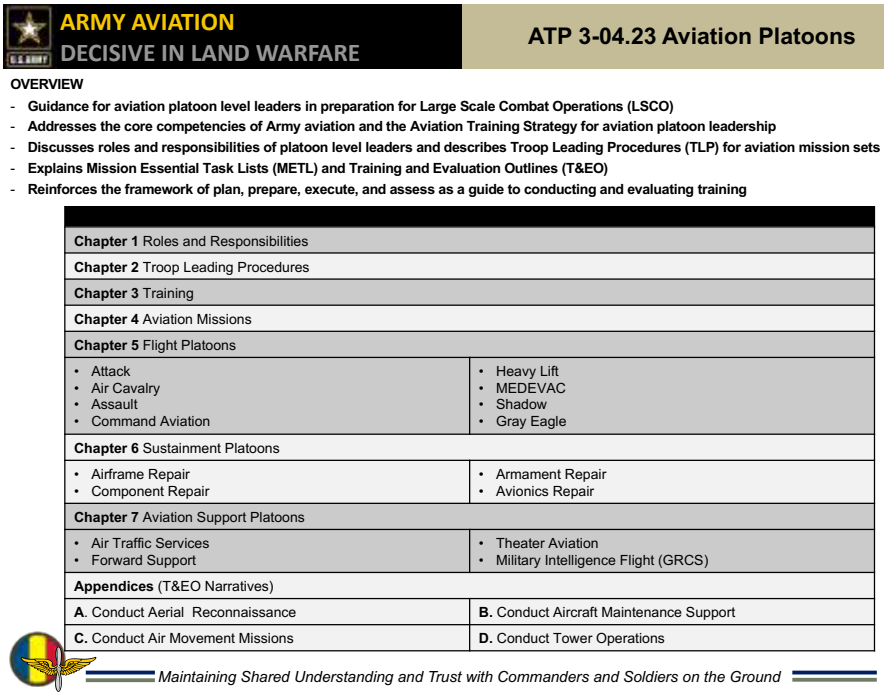
Unit Trainer/Evaluator (UT/E) TSP – This product provides aviation commanders with the tools to create Unit Trainer/Evaluators to conduct basic aircrew training and evaluation enabling company and platoon level instructor pilots to focus on training the tactical employment of Army aircraft. It gets instructor pilots out of the traffic pattern and into the fight. UT/Es will be able to train and evaluate base, tactical, and instrument tasks. It is open to both warrant officers and officers, and it is career specialty (track) immaterial. The TSP is trained at the unit level using five independent modules (Day, Night, Tactical, Instruments, and Gunnery).

Warrant Officer Professional Military Education Review – This review focuses on technical and tactical skillsets of all Aviation Warrant Officers. It incorporates the addition of an intermediate warrant officer education course focused on Advanced Warfighting Skills (AWS) for eligible CW2 pilots-in-command. AWS provides a tactical planning focus increasing aviation warfighting knowledge. Participation in AWS will generate a tactically and technically proficient CW2 that has a firm understanding of the aviation core competencies and how to plan at the company level.

Instructor Pilot Course (IPC) Redesign – This adjustment takes advantage of increased training and evaluation experience within the incoming student population resulting from implementation of the UT/E program, this redesign will refocus current Instructor Pilot Courses from base tasks to tactical tasks and collective employment at the team and platoon level. The Tactics Instructor Course (TIC) will increase tactical focus with greater than 70% of course content focused on mission and multi-ship tasks, providing instruction on the training and standardization of multi-ship employment at the team and platoon level (both similar and mixed mission design series). In order to transition to the TIC, USAACE will execute incremental changes to its current IPCs.

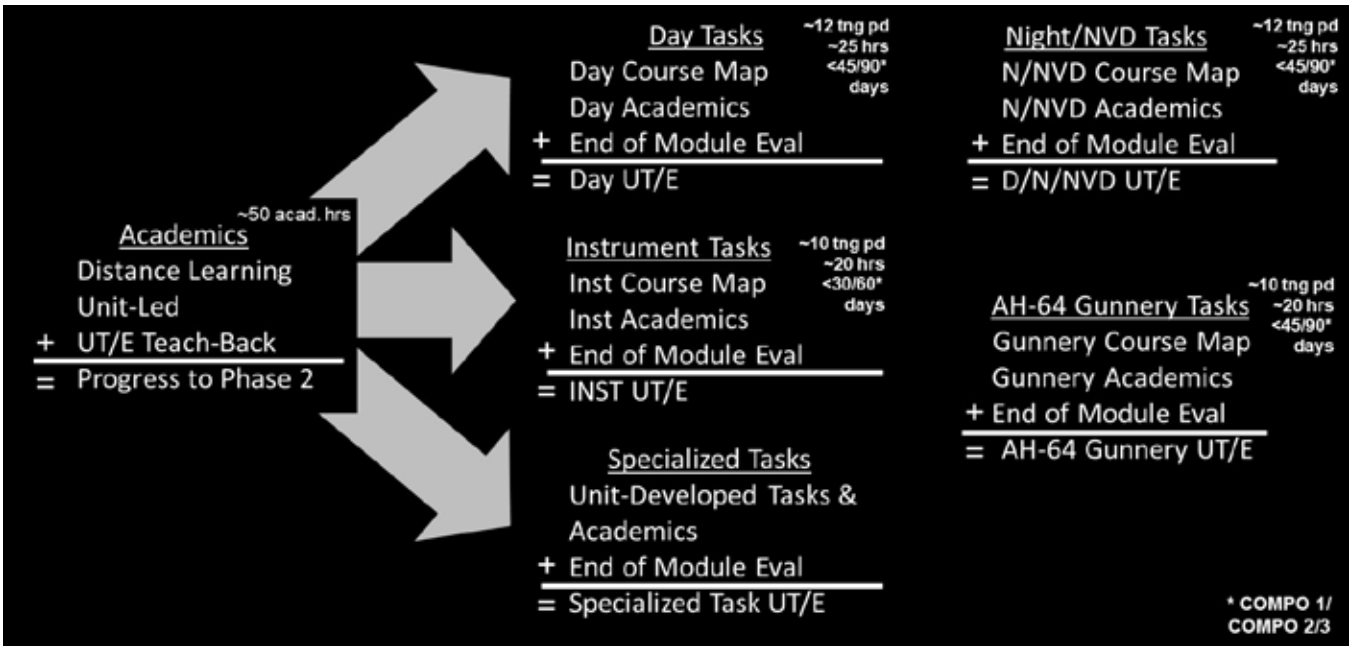
The end state for the Aviation Tactics Initiative is to achieve LSCO Mastery with MDO Capability by 2028, ensuring the tactical employment of Army aviation is the centerpiece of aviation instruction, training, and evaluation.

COL Brian T. Watkins is the director and COL (Ret.) Jimmy L. Meacham, the deputy director of the U.S. Army Aviation Center of Excellence Directorate of Training and Doctrine, at Ft. Rucker, AL.



Raising the Bar: Army Aviation Unit Trainer/Evaluator

By MAJ Brian Silva



The UT/E TSP modules provide standardized training while providing units flexibility and quickly building capability.

This past April, five pilots-in-command (PC) from the 1st Armored Division Combat Aviation Brigade (1AD CAB) completed training to become the first-ever Army Aviation Unit Trainer/ Evaluators (UT/E). Over the course of the approximately 13 training days and 25 flight hours each, the five candidates successfully demonstrated their ability to train and evaluate basic handling for their respective airframes in the Day Tasks module of the UT/E Training Support Package (TSP). Standardization instructor pilots (SP) from the Directorate of Evaluation and Standardization (DES) as well as the 1AD CAB SP delivered the training for the candidates, comprised of AH-64, UH-60, and CH-47 Aviators. Upon completion of training, each of the candidates was recommended for UT/E duties according to special authorization granted to DES from DAMO-AV.

The UT/E TSP, which is currently undergoing a validation review prior to initial publishing, will enhance and standardize the Unit Trainer (UT) program that has existed in Army Aviation for decades. Compared to traditional UTs, UT/Es will be able to train and evaluate many tasks in a role currently reserved for instructor pilots (IP). This will allow our unit IPs to focus more on tactical warfighting tasks – something leaders throughout Army Aviation have recognized we must prioritize to be successful in any engagement with a peer-level competitor, such as Russia or China.

The primary goal of the UT/E program is to enable unit instructors to shift focus to tactical employment at section and platoon levels. It will allow units to capitalize on all the Aviation talent and expertise resident within the formation, rather than over-burdening a small fraction of personnel who are responsible for every training or evaluation flight. Additionally, a deeper bench of trainer/evaluators throughout each unit will provide commanders with more options to match expertise with individual training or evaluation requirements.

Training Support Package

The UT/E TSP is composed of selectable standardized modules that provide a flexible training path based on individual candidate proficiency and unit needs. Following completion of a standardized "instructor common core" academics phase, candidates may progress into one of three initial TSP modules: Day Tasks, Instrument Tasks, or Specialized Tasks. These modules are "bite sized" compared to current IP course programs. This enables units to provide focused training and mentorship in a specific area in a shorter period. Certain modules have pre-requisite requirements, meaning one phase must be completed prior to progressing into another. Rotary wing UT/Es must complete the Day Tasks module prior to moving into the Night/NVD Tasks module; similarly, AH-64 UT/Es must complete the Night/NVD Tasks module prior to entering the Gunnery Tasks module.

Each standardized module has a Course Map and Flight Training Supplement to guide completion of the module, while units will create their own Specialized Tasks modules depending on mission requirements. Each module provides flexibility to progress UT/E candidates through training while maintaining a "minimum satisfactory iterations" threshold which must be met by the end of training. The modules are time-limited to emphasize primacy and frequency of training, however initial

DES execution of the TSP modules proved they are achievable in about 1/3 of the maximum time with a dedicated SP/IP training one UT/E candidate. The final flights of any TSP module include simulated UT/E-led evaluations appropriate for the phase of training (i.e., the Day Tasks module concludes with a simulated aircraft PFE, while the Night Tasks module concludes with a simulated Standardization Flight Evaluation), followed by two mentorship flights from unit IP/SPs. Upon completion of any of these modules, UT/Es may immediately conduct training and evaluation for any tasks they have been certified for.

It is important to note that UT/E training is not limited to individuals who desire to one day be tactics instructors. On the contrary, the UT/E program recognizes there is a tremendous amount of knowledge and instructional capability throughout our formations; it is designed to allow commanders to take full advantage of it. Candidates and leaders from 1AD CAB recognized the value of the program, highlighting how it would enable crews to train "IP only" tasks, such as emergency procedures, more frequently. This will increase proficiency of all Aviators and reduce the risk of performing those maneuvers. Additionally, unit instructors throughout 1AD CAB remarked on the professional development they noticed in themselves as they observed and delivered UT/E training. Overall, the UT/E program raises the bar for all crewmembers in our formations.

The Way Ahead

As mentioned above, the UT/E TSP is currently undergoing a validation review prior to initial publishing, expected late in the fourth quarter of FY21. This will include all modules for the AH-64, CH-47, and UH-60, and will coincide with an updated version of AR 95-1 containing authorities for units to train their own UT/Es. A follow-on publishing will add TSP modules for UH-72, UAS, and Fixed Wing UT/Es.

While there will be a startup cost to train the first UT/Es in each unit, USAACE is developing "jump start" plans to help get the program running. Units can expect to receive initial roll-out instruction for selected UT/E candidates from DES over the next 18 months. This will include DES instructors running UT/E candidates through elements of the TSP at home station, off-loading the initial burden from units. Over time as UT/E numbers increase throughout the Army units will eventually receive UT/Es qualified from a previous duty station, like PCs today. Units will be able to train new UT/Es with current UT/Es, however unit SP/IP/IEs must complete the final evaluation flights for any modules.

The UT/E program will enable units to capitalize on all the aircraft handling expertise in their ranks, while instructors focus on standardizing tactical employment. We have, for too long, relied on a non-standard approach to preparing our crews to fight and win on the modern battlefield, and UT/Es will help transition that focus within our Instructor Pilot corps. UT/Es will unburden our IPs from routine instruction and evaluation requirements we place on them now, getting them out of the traffic pattern and into the fight. This program will allow us to raise the bar for all crewmembers in the formation by providing more opportunities to train, while we prepare our formations to fight and win our nation's wars.

MAJ Brian Silva is the deputy director of the Directorate of Evaluation and Standards at the United States Army Aviation Center of Excellence, Fort Rucker AL.

Aviation Planning During Large Scale Combat Operations

By LTC Derek Smith, MAJ Tito Carrion, and MAJ Brian Haas

The Eagle Team continues to improve the Decisive Action Training Environment (DATE) at the National Training Center (NTC). The modern battlefield presents numerous challenges for our Aviation Battalion Task Forces (ABTF). The airspace is congested, longer range enemy artillery, the proliferation of UAS, new enemy tactics, techniques and procedures (TTPs), improved integrated air defense systems (IADS), and electronic warfare (EW) all contribute to the challenge. We have the right systems to compete, but lack the knowledge; routine access to classified systems, and a standardized planning process must accompany them to thrive in this new environment. After observing this trend, the Eagle Team is leading an effort, joined by the Department of Evaluation and Standardization, and Aviation's Directorate of Training and Doctrine, to address the Aviation planning process.

Aviation Mission Planning Tools

The tools at our disposal to conduct in-depth analysis of Aviation missions has expanded dramatically over the last 20 years. Many of these tools are classified, limiting access during both home-station training and institutional schooling. The preponderance of aviation battalion task force (ABTF) staffs that come to NTC have either had no exposure or cursory exposure to these systems. Most company planning cells haven't accessed systems beyond the Aviation Mission Planning System (AMPS). This is leading to a knowledge gap about what type of analysis is necessary to survive on the modern battlefield.

The Knowledge Gap

Without routine access to classified information about friendly systems, enemy systems, and terrain analysis, our Aviation population cannot build a force ready to combat near peers. Our Aviation Mission Survivability Officer

NTC EAGLE TEAM COURTESY PHOTOS

A UH-60 prepares to hook up a sling load during an NTC rotation.

(AMSO) schoolhouse is on the leading edge of closing this knowledge gap. However, the limited number of AMSOs by MTOE in any organization creates a funnel for information. Every aviator must understand a great deal about the topics taught in Ft. Rucker's AMSO Course. Simply put, the level of analysis an AMSO can provide to planning must be spread to the greater formation if we are going to successfully operate Large Scale Combat Operations. While access is more difficult than many would like, it is incumbent upon our units to incorporate this information and the systems during daily operations.

Aviation Mission Planning Process

Our current construct below the Military Decision-Making Process is Troop Leading Procedures and Aviation Planning cells. Neither construct sufficiently educates and guides the company planning process. At NTC, the majority of ABTF headquarters are failing to provide sufficient orders issuance to companies. The process details Aviation mission planning through 4 distinct steps: COA Analysis, RP Inbound, Routing, and Post MSN. Each step lists the expected inputs, outlines the process, describes the systems used, and details the expected output. We believe this product will drastically educate our aviators and assist them with the detailed planning necessary to succeed in the Denied, Degraded, Disrupted, Space Operating Environment (D3SOE) presented during Large Scale Combat Operations. We hope that this planning process will become institutionalized to assist in driving DTOMILPF for the entire Aviation enterprise. While this will be a long process, units can begin better implementing these steps at home station training.

Training at Home-station

We must find ways to better leverage our facilities on post to support our training. Units should identify all the systems that contribute to successful Aviation planning and begin incorporating their use in weekly training. All threat training should be conducted at the classified level. Companies should train with decision support matrices, EXCHECKs, synchronization matrices, intelligence collection products, terrain analysis systems, and others.

If we do not understand the level of analysis required to operate in Large Scale Combat Operations, we cannot advise the rest of the Army on mission timelines, risk assumption, and the targeting process. As always, the Eagle Team is excited to continue to coach and train our force in the upcoming year. We stand ready to help in any way we can as you prepare for your missions, so please feel free to reach out for anything you may need.

Above the Best in the Desert!

LTC Derek Smith is the senior Aviation trainer, MAJ Tito Carrion, the deputy Aviation trainer / XO mentor, and MAJ Brian Haas, the senior Aviation operations trainer at the National Training Center at Fort Irwin, CA.

U.S. ARMY 10TH CAB PAO COURTESY PHOTO

Training For Large Scale Combat Operations - Aviation Training at JRTC

By LTC Adam S. Camarano

The Joint Readiness Training Center (JRTC) is back to operating at full capacity as the Army emerges from the constraints of COVID 19. We are fully executing Decisive Action rotations tailored to meet the training units assigned mission. In accordance with FORSCOM Training Guidance, JRTC has taken the lead as the Army's premier Air Assault training venue with a focus on preparing infantry brigade combat teams (IBCT) to conduct Joint Forcible Entry operations via vertical envelopment. In addition to our focus on Air Assault Operations we have made great strides in advancing the complexity and reality of training Aviation formations across all core competencies.

The following are highlights of JRTCs initiatives to increase training realism for rotational units.

More Realistic Command and Support Relationships

After studying the requirements of Aviation in Large Scale Combat Operations (LSCO), we have adjusted the task organization so that the Aviation Battalion Task Force (ABTF) is now a Division asset allocated by the JTF Commander for specific missions to either conduct Division level missions or in response to BCT requests. This construct better replicates Aviation's role as a Division asset and enables better tailored and focused training for both the BCT and the ABTF.

Combat Aviation Brigade Headquarters Integration

JRTC successfully validated the concept of training a CAB Headquarters in conjunction with an ABTF during the 21-06 rotation in April. This capability greatly increases the realism in training as well as fills a gap in the current training methodology where CAB HQs are able to Command and Control (C2) their organic units in a live free play training environment with all of its associated friction that warfighter exercises struggle to replicate.

Expanded Training Areas

As the Army prepares to fight Large Scale Combat Operations (LSCO), it is essential to replicate the depth of a division battle space to prepare ABTFs for the level of planning to operate across the breadth and depth of an area of operations. JRTC's land expansion program has opened new training areas which enables Aviation Operations in both the deep and close fights. The new training areas include the entirety of the Warrior Military Operations Area with over 100kms of terrain flight routes connecting three Restricted Areas to conduct Force on Force and Live Fire Training. The terrain flight routes will enable tactical route planning and maneuvering consistent with the TTPs required to survive on the modern battlefield.

JOINT Integration

In partnership with USAF Green Flag East, JRTC TF Aviation has significantly increased the level JOINT integration to build realism and unique training opportunities

incorporating layered ISR and CAS. Live ISR sorties including RC-135, MC-12, U-28 and MQ-9s provide the full spectrum of collection capabilities. This capability enables ABTFs to train the full IPB process on how to request Information Collection to answer PIRs as well as train Air Mission Commanders to manage real time reporting to make decisions on tactical employment. In addition to ISR, we are now employing live CAS in the Live Fire Events. Recent rotations have seen F-16s, F-18s, and F-15s integrated into both force on force and live fire. These CAS missions are scalable to meet both the BCT and ABTF training objectives for Attacks in and out of contact. We have seen tremendous success in integrating CAS into Aviation deliberate attacks with the CAS platform both providing Forward Air Controller-Airborne (FAC-A) and Joint Air Attack Team TTPs.

Live Fire Training

An initiative is currently underway to expand live fire to better replicate AH-64 employment shaping the Division fight. In cooperation with the USAF Claiborne Bombing and EW range, JRTC TF Aviation is currently developing a live fire attack out of contact that will stress detailed planning at the ABTF and Company level. The Live Fire Attack builds on JRTCs force on force out of contact attack training to create a culminating event that will lead to a quantifiable increase in readiness for the unit. Execution will entail movement over 100km at terrain flight to engage an enemy high payoff target in an active air defense environment. Due to the distance involved, success will require precise planning and execution to meet destruction criteria in a time constrained environment. Additionally, the scenario will meet all the requirements for advanced gunnery tables so units can build training readiness based on objective standards.

Left: UH-60L from TF 2-10 AHB "Knighthawk" 10th CAB conducts Air Volcano emplacement of inert mines at Peason Ridge Range 18 April 2021.

Center: Flight Medic from TF 4-3 AHB "Brawler" Conducts Patient Care for simulated Casualty on board HH-60M 16 March 2021.

Right: UH-60M from TF 2-10 AHB "Knighthawk" 10th CAB conducts Air Assault of 3/10 IBCT Soldiers 8 April 2021

I encourage any unit scheduled to train at JRTC to reach out early and discuss training objectives and ideas with TF Aviation. We can accommodate a host of training options across all warfighting functions to meet the needs of the unit. While our major initiatives discussed above primarily deal with collective training of maneuver and C2, we are prepared and capable of generating individual crew, team, and low density MOS specialized training as well. Examples include but are not limited to Downed Aircraft Recovery Team training utilizing the UMARK kit to recover a UH-60 hulk, Inert Volcano minefield emplacement, Personnel Recovery Training integrated with Special Operations Forces, JUMP/ Airborne FARP events, base defense, CBRNE, and convoy operations. With sufficient notice we can tailor your JRTC rotation to include any training event a Commander requests.

JRTC's TF Aviation looks forward to another great year training the world's best Aviators. The Alpha Team is always available to discuss current trends and techniques to enhance home station to prepare for a combat training center rotation or your next mission.

LTC Adam S. Camarano is the senior Aviation trainer at the Joint Readiness Training Center, Fort Polk, LA.

Simulation Development and Accreditation Division (SDAD) subject matter experts conduct accreditation testing and evaluation.

U.S. ARMY USAACE DOS PHOTO

Revisiting Simulation Accreditation and Implications for Training

By COL Jason C. Caldwell and Mr. Kevin Hottell

The Directorate of Simulation (DOS) spent the past year learning how to operate in a COVID environment. The effects of the pandemic touched almost every aspect of daily operations across the directorate. One of the most severely impacted activities was simulator accreditation that fell behind schedule for testing and accreditation due to a temporary inability to travel. Beginning late-summer, the Simulation Development and Accreditation Division (SDAD) resumed their accreditation plan, coordinating with Program Managers (PM) and units across the Army to reduce the backlog and ensure each device's capabilities and limitations are clearly annotated.

In the July 2018 issue of Army Aviation, COL(R) John Ferrell provided an update on the Aviation Combined Arms Tactical Trainer (AVCATT). The article provided an overview of the methodology employed by DOS to accredit the AVCATT version 17 for training. Over the past year, it appears that there is some confusion about what a device accreditation provides commanders and trainers. This article seeks to expand upon COL(R) Ferrell's previous work, provide an update on simulator accreditation backlog, and explains what accreditation does, and does not do, for the training community.

All models are wrong, but some are useful!

– George E.P. Box

Verification, Validation, and Accreditation Review

Describing statistical models, George Box explained that no simulation perfectly replicates the actual behavior of a live system, but they provide learning opportunities for specific, intended purposes. While perfection is unattainable, simulation developers seek to get as close as possible to the characteristics and capabilities of the actual equipment being modeled. The verification, validation, and accreditation process tests against this standard and provides commanders and unit trainers a level of confidence that the simulator performs as it should under well-documented conditions.

Governed by AR 5-11, Management of Models and Simulation, the verification, validation, and accreditation (VV&A) process ensures that engineers built the right system, and that each system performs correctly. DOS enters the process to accredit each of these systems for training. DOS's Simulation Development and Accreditation Division has the lead for this mission, partnering with our USAACE teammates from DOTD and DES. DOS SMEs, standardization pilots (SP), and maintenance pilots (MP) evaluate all aircrew training manual (ATM) tasks and assess a simulator's ability to effectively train those tasks. After initial accreditation, subsequent reaccreditation must occur after three (3) years, there is a new application for an existing simulator, or with a new software/hardware version release. The same team of SMEs execute all accreditation activities for the directorate.

SMEs test each ATM task across two (2) dimensions. First, the team assigns a Training Value Code (TVC) to each task [See Figure 1]. The TVC determines how well the simulator functions like the actual aircraft. Tasks assigned an "A" code are exceptional replications of the actual aircraft. Tasks evaluated as a "D" code have great potential to result in negative habit transfer and are not recommended for training. It is important to note that the accreditation memo is not a prohibitive document. The words "not certified" mean that SMEs do not recommend those tasks be trained in the simulator.

The second dimension evaluated during an accreditation are suitability ratings across seven (7) areas – Instructor Operator Station (IOS), Concurrency, Replication, Motion Cueing, Aural Cueing, Vibration, and Visuals [See Figure 2]. COL (Ret.) Ferrell's July 2018 article covered each of these ratings in detail, and every accreditation memorandum contains a description of each rated area. The ratings are on a scale of 1 to 5. In a simulator, a "1" is good and a "5" would indicate significant shortcomings. Depending on the task, a "5" may not prevent the task from being trained, so SMEs document potential limitations in the comment section.

Accreditation Status

Beginning in October of 2020 with driving-only (no airplane flights), and now by air travel, DOS SMEs have worked diligently to get the simulator accreditation backlog reduced. FY21 saw 66 simulators needing accreditation – 20 AH-64, 21 UH-60, 13 CH-47, and 12 UH-72. As we near the end of the FY, DOS completed 5, 10, 11, and 12 respectively, and we have 25 accreditations to catch up.

If a simulator requires reaccreditation because it has been 3 years, the Director of Simulation has the authority to sign an extension to the current accreditation. DOS has utilized this concession in a few cases to help ease the burden to units as SDAD travels to reaccredit devices. The Director extended the accreditations for 2 CH-47 and 1 UH-60 this year, and those devices remain in the queue. These specific devices are "low-risk", and commanders should feel comfortable utilizing them for their intended purposes.

Training Value Code (TVC)	Training Value Code Definitions
A	Functions like the UH-72A. Hardware and software configured to allow the specific training task to be accomplished the same in the simulator as in the aircraft.
B	Functions like the UH-72A, but with design limitations (visual, motion, and function.) The hardware and software are configured in accordance with the training system design specifications and allow the task to be executed and trained. However, one or more of the components of the environment are not available. For example, hovering flight can be accomplished with the limited display. However due to the lack of overhead greenhouse and limited scene density an accurate altitude and speed estimation is difficult when in unusual attitudes.
C	Inadequate design, appearance, fidelity, or operation but has neutral training value. No positive training benefit associated with the task, but there is no negative training or habit transfer. The hardware and/or software are configured different from the aircraft but in accordance with the training system design specifications and the task cannot be trained but can be used. For example, while in hovering flight the visual display fidelity is not sufficient to recognize drift. Care would have to be exercised when assigning this training value code to ensure the SFTS provided a reasonable amount of training.
D	Negative training value – not certified. Training system capability does not meet training requirements. For example, the radio suite installed in the simulator is so different from the radio system installed in the aircraft that negative transfer of training occurs.
NS	Task outside the design specification of the SFTS (Not Simulated.) An example would be that rappel operations could not be fully completed because the original system design specifications did not require this fidelity.

USAACE DOS GRAPHIC

Figure 1. Training Value Codes with Definitions.

If my only tool is a hammer, then every problem is a nail. – Sholem Asch

How do I use the Accreditation Memo to Plan Training?

Units should have copies of the accreditation memos on-hand and available for use as part of the training management process. Commanders, standardization pilots, instructor pilots, and all leaders should refer to these accreditation letters as they crosswalk training objectives with the tools they intend to employ for training events.

Leaders should make note of and carefully weigh the risks of training objectives that fall outside the scope of accreditation memos and forms. For example, if a simulator's accreditation memorandum says it's an A and 1s for startup tasks, instruments, and most emergency procedures, but a C due to motion cuing in modeling of the struts during a slope landing and replication of handling characteristics during other high-gain tasks, a commander and SP can use this information to determine which medium to use most effectively for specific task training, and where preliminary training in the simulator can (or should) be used to make the live aircraft training as productive as possible.

Conclusion

Accreditation certifies a simulator for training and confirms that a device meets its intended training purpose. An accreditation memo focuses on the tasks that a simulator is able to accomplish and to what level of performance. Trainers at all levels should consult this documentation when determining what tasks to perform in each simulator. DOS welcomes questions, concerns, or requests for additional information by reaching out to the following points of contact:

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Mr. Tim Commerford (DAC),
timothy.r.commerford.civ@mail.mil

UH-60

Mr. Russ Schmidt (DAC), *russell.d.schmidt.civ@mail.mil*
CW4 Dennis Snyder, *dennis.c.snyder.mil@mail.mil*

AH-64

Mr. Jack Bartol (DAC), *john.p.bartol.civ@mail.mil*
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CH-47

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UH-72

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COL Jason C. Caldwell is the director and Mr. Kevin Hottell, the deputy director of the U.S. Army Aviation Center of Excellence Directorate of Simulation at Fort Rucker, AL.

Operation BOLD QUEST:
USSOCOM, Exploring Strange New Worlds

By LTC Clinton Underwood

A 160th Special Operations Aviation Regiment (Airborne) MH-60 Black Hawk helicopter conducts engagement during training.

160TH SOAR (ABN) COURTESY PHOTO

160th Special Operations Aviation Regiment (Airborne) (SOAR (ABN)) follows the U.S. Special Operations Command (USSOCOM) and the Joint Staff J6 on its voyage to fully networked, live, virtual, and constructive (LVC) training capabilities

Bold Quest (BQ) is a collaborative joint and multinational enterprise in which nations, services, and programs pool resources in a recurring cycle of capability development, demonstrations and analysis allowing participants to assess new systems and future capabilities in a realistic operational environment.

The solutions will ultimately allow the 160th Special Operations Aviation Regiment (Airborne) (SOAR (ABN)) to connect its Combat Mission Simulators (CMS) to all other Joint-Networked training devices and conduct multi-national collective training. However, there are some gaps to close first.

The truth is that creating interoperability between the 160th SOAR (ABN) CMS and other service simulators is a painful process hampered by lengthy bureaucratic obstacles including risk man-

agement frameworks and cybersecurity.

The 160th SOAR (ABN) and simulations program offices are required to negotiate these obstacles before gaining access to the USSOCOM SOF Training Exercise Network (STEN) and its joint partners.

"Getting the Authority to Operate (ATO) on the network was a huge leap forward," said Will Ellison, PdM-STS SETA, one of two Distributed Mission Operations (DMO) integrators at the 160th SOAR (ABN). "The ATO allowed us to do local testing with AFSOC (U.S. Air Force Special Operations Command) and identify shortfalls early in the game. BQ 21.1 will reveal 'the holes in our swing' and allow the command group to set priorities on future training development."

The 160th SOAR (ABN) and AFSOC maintain a close testing relationship and are co-leads for BQ tactical scenario development. Common databases, visual models, and simulations Distributed Information State formatting will allow the 160th SOAR (ABN) CMS to lead multi-ship, Special Operations Aviation mission sets within all the USSOCOM STEN LVC environments.

The 160th SOAR (ABN) and AFSOC successfully confirmed flight visuals and radio transmissions across the STEN, and the 160th SOAR (ABN) will participate in the March 2021 BQ test by executing a virtual two ship assault flown from our simulators.

Who Boldly Goes Where No Person Has Before?

Providing the staff structure, organizational coordination and support for such a complex system requires HQ USSOCOM and the Joint Staff's (JS) brightest stars.

Leo Venckus, USSOCOM J3 Training and Education Division, along with Kevin Seavey and Emile Reitz, JS J6 Joint Fires Integration Division, are ushering USSOCOM, JSOC, U.S. Air Force (USAF), and the U.S. Army's Synthetic Training Environment Cross Functional Team (STE CFT) toward "The Final Frontier."

Recent success during the JS's BQ 20.2 event at Camp Atterbury, Indiana has many partner forces focusing on the development of capabilities reminiscent of Captain James T. Kirk's Quarterdeck on the Starship Enterprise.

At Camp Atterbury, the JS J6 integrated close-air support, tube artillery, rocket artillery, naval gunfire and more. With an ambitious goal, the JS focused STEN first contact on total integration of combined intelligence from observers with binoculars, unmanned aerial vehicles, manned platforms and satellites.

The STEN provides a common arena for Joint and Coalition Forces to conduct data standardization, collection, and application on its command and control (C2) networks to ensure a common operating picture (COP). It allows for analysis of essential information, streamlined decision-making cycles, and total interoperability of Coalition warfighting functions.

This places the 160th SOAR (ABN)'s capabilities in position to leverage its Advanced Tactical Training programs to drive rapid decision making cycles regrading rotary wing delivery of personnel and close air support munitions. Perfecting these tactics within a Distributed Mission Operations/Training (DMO/T) environment will soon be a reality. Having the SOF training systems networked will provide a data-rich environment ripe with opportunity for exploration.

Currently, USSOCOM focuses data collection priorities in two major areas.

First, to determine C2 efficacy of a Joint network designed to control joint fires and integrate all critical sensor data into our Fire Support planning and execution.

Second, to ensure USSOCOM's STEN is capable of high fidelity DMO/T in a blended reality of live training assets, virtual properties, and fully computer based semi-automated forces. This includes a laser-like focus by the JS to capture all the data required to inform the engineering of future hardware/software applications for its customers.

SOAR Commander's Vision:

Nesting Training Developments with Higher's Modernization Strategy, and Positioning the 160th SOAR (ABN) to Exploit STEN Capabilities

COL Andrew Graham, commander of 160th SOAR (ABN), continues to push the vision of executing DMO/T at warp speed. He and his predecessors have championed the team's efforts to place the 160th SOAR (ABN) in position to leverage USSOCOM's network with fully synthesized training and mission rehearsal support systems.

The 160th SOAR (ABN) Regiment Simulations Office continues refining requirements with USSOCOM Deputy, PEO rotary wing in order to acquire an organic LVC EW Range as soon as possible. This system will realize unprecedented Electronic Warfare training capability.

Combining EW training and the power of simulations software will provide the means to practice Full Spectrum contingencies and enemy system exploitation during rehearsals.

The tactical relevance of enemy system data, derived from the Regiment's advanced analytical tools, will be exported to the Joint Force writ large. That is the power behind the USSOCOM modernization strategy to "Use Data as a Strategic Asset" across a fully networked training system.

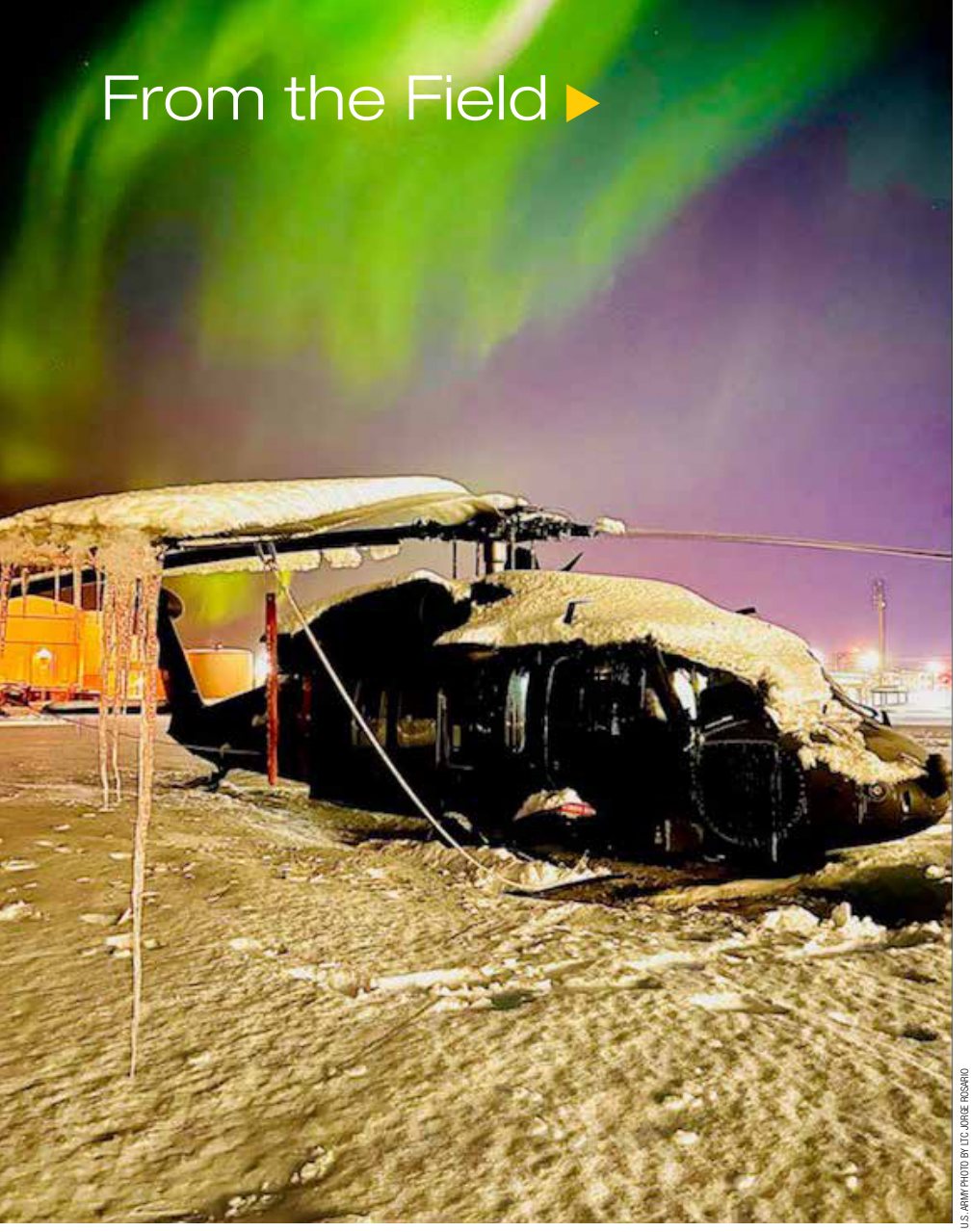
Essentially, each component's advanced tactical systems can analyze data and provide organized, relevant information to the critical point of need; i.e., another networked system. This system of systems will essentially bring order to volatile, uncertain, complex, and ambiguous enemy encounters.

Networked data-sources and training platforms will allow experimentation across manned, unmanned, and autonomous weapons at the proper levels of command. The 160th SOAR (ABN) is on an approach path to land the Enterprise where 'integrating levels of autonomy' are embedded in our training. However, there is a long journey before reaching Full Operational Capability.

The 160th SOAR (ABN) understands that its ability to execute rotary wing operations within a full spectrum electronic warfare environment will require a fully networked COP capable of driving sensor-to-shooters engagements.

Enabling and controlling the priorities of engagements, that include our systems' data, will enable critical contingencies designed to leverage the unit's precision, its lethality, and its 'Night Stalkers Don't Quit' ethos.

LTC Clinton Underwood is the Regimental Simulations Officer (RSO) for the 160th Special Operations Aviation Regiment (Airborne) located at Ft. Campbell, KY.



U.S. ARMY PHOTO BY LTC JORGE ROSARIO

Aviation Operations in Extreme Cold Weather

By LTC Jorge A. Rosario

Left: A / 1-52 Avn Regt (GSAB) Tomahawks UH-60L covered in ice and snow, February 2021 by CW4 Jason Ingraha

Below: B / 1-52 Avn Regt (GSAB) Sugar Bears CH-47F Conducting Operations at Denali Base Camp 7,200' in support of the National Park Service, 22 April 2021.

Earlier this year, United States Army Alaska (USARAK) conducted the Arctic Warrior 21 exercise aimed to prepare for and test the limits of operational capability in an extreme cold weather (ECW) environment. Shortly thereafter, the Army published the Arctic Strategy – "Regaining Arctic Dominance." This article focuses some of the inherent challenges of Arctic Aviation Operations in extreme cold weather.

1st Battalion, 52nd Aviation Regiment (General Support Aviation Battalion (GSAB)) "Flying Dragons," 16th Combat Aviation Brigade operates in the most extreme cold weather environment in Army Aviation, conditions only rivaled by other arctic countries. Aircrews, maintainers, and support personnel operating within USARAK confront unique temperatures that test the engineering limits of available equipment and the training readiness of its Soldiers. ECW involves continuous operations in subzero temperatures, including regular dips as low as -30F to -40F, for eight months. The perpetual cold is compounded by six months of persistent darkness with moderate icing, and degraded visual environment (DVE) conditions, and a level of remoteness that is also distinctive to "the final frontier". While most Aviation units may be familiar with seasonal cold weather,

Soldiers in Alaska must constantly train to prepare for the prolonged harsh arctic winter.

The "Flying Dragons" must account for arctic conditions throughout everyday planning, reflected in the pillars of readiness – *Personnel, Training* and *Sustainment*.

Personnel

The Army's number one priority is people, therefore, it's essential to outfit our Soldiers with gear that is not only adequate for survival but also facilitates thriving, fighting, and winning in the extreme cold. Our Aviation Fire Resistant Environmental Ensemble, a.k.a. the "FREE system" does a phenomenal job accounting for these challenges, however there is a shortfall with the issued gloves. The unit has yet to identify a material solution that provides both the requisite dexterity with sufficient warmth. The current HAU-15 gloves are only rated to 15 degrees Fahrenheit which is insufficient in the extreme arctic environment. These gloves are generally appropriate for pilots, but do not provide adequate protection for crewchiefs and flight engineers whose duties expose them to lower temperatures and increased wind chill.

Training

Alaska's unique characteristics demand a distinctive requirement for training, the second pillar of readiness. Some of the necessary training includes environmental tasks such as high altitude, mountain, glacier operations, DVE (white-out and brown-out), and qualification training to land in muskeg low lying marshes. The battalion is also expected to sustain a firefighting capability that requires Bambi bucket proficiency. While many of these tasks are not specific to Alaska, 1-52 GSAB is in a unique position to conduct such continuous annual and progression training to onboard incoming personnel while supporting year-round operations.

Another significant challenge distinctive to Alaska is the impact of the cyclical sun cycle on Aviation operations. Aircrews spend nearly four months without the ability to fly one hour for currency with Night Vision Googles (NVGs) because the sun does not set. Conversely, during the remaining eight months, Soldiers are challenged with insufficient daylight to perform initial rated and non-rated readiness level progressions and maintenance test flights. During two of the eight months of darkness, the weather is predominately instrument flight rule (IFR) conditions. The sun's position on the horizon often presents a two-hour period between sunset and end evening nautical twilight (EENT) (NVG dark) when the unit is the least proficient with NVGs. These illumination challenges prompted the unit's Aircrew Training Program to require annual versus semi-annual NVG flying hour minimums.

Commanders must ensure their crews achieve a full year of NVG training in less than 40% of the time. Some aircrew members will have two different calendar windows for their Annual Proficiency and Readiness Test (APART) evaluations. One window is for the standardization evaluation and another for the annual NVG evaluation. Other OCONUS and lower 48 units can align both evaluations into a single flight. The USARPAC Supplement to the USARAK 95-1 Flight Regulation allows the ATP commander to reduce minimum NVG hours from 18 to 12. This correlates to a 25% reduction from Army Aviation standards. The Commander's Aviation Training and Standardization Program TC 3-04.11 allows for extending NVG currency once using the simulator, affording 120 days of NVG currency during the summer

Indiana Guard Mother, Wife, Pilot Shares Her Dance

By SGT Tackora Hand, Indiana National Guard

PHOTO BY SGT TACKORA HAND, INDIANA NATIONAL GUARD

MAJ Katherine Mauer from the Indiana National Guard 38th Combat Aviation Brigade conducts pre-flight procedures prior to a currency training flight Mar. 30, 2021 at the Shelbyville flight facility.

Indiana National Guard MAJ Katherine Mauer with the 38th Combat Aviation Brigade has many titles. One probably not used as regularly is woman. Not only has she climbed the ranks in her 25-year career but raised five children with her equally established husband, who also serves in the Indiana National Guard, CW5 August William Mauer III.

The Mauers serve as helicopter pilots with the 38th Infantry Division's aviation brigade. Augie serves as the survivability officer for the Brigade. "It's like a dance," said MAJ Mauer. "We both have equally demanding careers. And between the kids and our jobs, we are constantly dancing, one day I take lead and the next he might."

While humbled and thankful to be identified by her command as someone to represent their unit during Women's History month earlier this year, MAJ Mauer was hesitant to share the spotlight. "So many females think to be successful in the Army they have to act like a man," she said. "I feel differently, I want to be knowledgeable and successful in my position and still seen as the woman that I am."

Often referred to as Kate by her peers, she serves as the Liaison officer for the brigade. "This is a time to recognize women that take pride in doing a job that was once occupied by only men," she said. "It's also a time to recognize the outstanding achievements that women do as well as the other roles we naturally take on in life."

The Mauers have 55 years of service to the Indiana National Guard between the two of them. And while dancing is not exactly a career specialty in the Indiana National Guard the Mauers are a prime example of what it takes to make the civilian solider look light on their feet.

months. Managing this program can be exceedingly difficult as there remains a residual risk to proficiency when Aviators resume night flying.

Sustainment

Personnel and training programs are clearly stressed in the arctic, but the most significant hurdle to conducting extreme cold weather Aviation Operations involves sustainment. There is very little information in operators or maintenance manuals referencing ECW. Our aircraft are engineered for resiliency and if properly warmed and prepared to start they will fly. However, ATP 3-04.7 Appendix E *Cold Weather Environment*, states that flights at -50 Fahrenheit and below should not be attempted. At -48F JP-8 begins to congeal, with a freezing point of -52.6F. Science and chemistry get a vote, at colder temperatures the properties of metal change and become more brittle. A normal routine act of scheduled or unscheduled maintenance could damage the aircraft.

Extreme cold weather Aviation Operations can to some degree be analogous to CBRNE Operations – we can survive and fight in such conditions, but everything takes longer, and requires increased training. At times, ECW operations can take up to five times longer, requiring a much more deliberate approach for all activities. Arctic Aviation operations require an increased diligence and attention to detail above the usual levels expected of maintainers. With temperatures often below 0°F, even the simplest tasks become difficult, requiring considerably more time to complete. Additionally, aircraft operating in extreme cold weather require arctic grade hydraulic fluid and lubricants throughout the aircraft.

The "Flying Dragons" also rely heavily on commercial off-the-shelf Herman Nelson heaters to warm aircraft that remain "cold-soaked" outdoors prior to operations. Alaska based Aviation units are highly reliant upon fixed structures to conduct any significant maintenance task. As temperatures drop into the sub-zero range, preheating requirements for cold soaked aircraft can take up to five hours. Snow and ice buildup are also major considerations when preheating, Soldiers must clear as much snow off the aircraft as possible. As the aircraft warms, melted snow and ice flow into areas such as driveshaft cups, engine inlets, flight control paths, and air vents and immediately refreeze. This presents hazards including flight control binding, damage to engine compressors, drive shafts and drive shaft components, and the overheating of components with restricted airflow.

The unique challenges 1st Battalion, 52nd Aviation Regiment faces while continuously operating in the most extreme cold weather conditions also present unique opportunities to learn and thrive in this environment. Even the most highly motivated and resilient Soldiers require specific training, equipment, and support materials to be effective in the arctic. With the announcement of the Army Arctic Strategy, and the region's increased strategic importance, Alaska based Aviation units must clearly identify and advocate for the necessary resources to support ground forces in extreme cold weather conditions. As Army Aviation continues its perpetual effort to be prepared to fight and win – we must account for the challenges inherent to the arctic, and ensure optimal investment in our personnel, training, and equipment.

LTC Jorge A. Rosario is the commander of 1-52 Avn Regt (GSAB) at Fort Wainwright, Alaska.

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Michael C. Flowers
President

quad-a.org/scholarship

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160 Years Ago – Lincoln & Lowe, Part II

By Mark Albertson

Editor's Note: This is the final article of a two part series commemorating the 160th anniversary of the establishment of the Balloon Corps.

June 18, 1861

Enterprise, fully inflated from gas mains at the Columbia Armory[1], prepared to ascend from the Armory grounds. In the basket with Thaddeus Lowe were George McDowell of the American Telegraph Company and Herbert C. Robinson, a local telegrapher. Robinson manned a telegraph, which was powered by batteries supplied by the War Department. Wires connecting the participants with the outside world, ran from the telegraph, down the static lines of Enterprise, to a receiving station in Alexandria, Virginia and, to the White House.

Enterprise rose to an altitude of 500 feet. Lowe jotted down a brief for Robinson, concerning his observations of the Nation's capital; a history-making transmission far more emblematic of Lowe's public relations abilities than it was about discerning pockets of Confederate troops across the Potomac.[2] Upon receipt of the missive, Robinson tapped out the following:

To the President of the United States

Sir: This point of observation commands an area nearly 50 miles in diameter. The city, with its girdle of encampments, presents a superb scene. I have the pleasure in sending you this first dispatch ever telegraphed from an aerial station, and in acknowledging indebtedness for your encouragement for the opportunity of demonstrating the availability of the science of aeronautics in the military service of the country.

T.S.C. Lowe[3]

WIKIPEDIA COMMONS PHOTO

WIKIPEDIA COMMONS PHOTO

Joseph Henry, of the Smithsonian Institute, paved the way for Thaddeus Lowe's audience with President Lincoln and the later establishment of the Balloon Corps.

Long-time commander-in-chief of the Army, General Winfield Scott, was emblematic of the Army's reactionary attitude towards Thaddeus Lowe, the Balloon Corps and aerial observation and reconnaissance.

Lowe's brilliant stroke at military appeal and salesmanship made him the man of the hour. He also vaulted ahead of his rivals, John Wise, John La Mountain and John Steiner.[4]

Following his history-making ascent, Lowe and Enterprise were pulled closer to the ground and then towed to the White House. The balloon was moored on the front lawn, in full view of passersby as well as by President Lincoln from the second story of the Presidential Mansion.

Lowe was invited by the President to stay the night. The two conversed long after the sun had set, with Lowe advising the President on how aerial observation and reconnaissance could transform the battlefield, perhaps even direct artillery fire.[5] And, of course, the significance of aerial electronic communication with the telegraph.

Appearances dictated that Thaddeus Lowe was in the driver's seat. His messages had also gone to the War Department and Philadelphia, with other cities contracting "balloon fever" as well. The following day, Lowe was back in the basket, providing demonstrations for Lincoln's cabinet, members of Congress and, Captain A.W. Whipple, subordinate to Major Hartman Bache of the Topographical Engineers. Among the newspapers was the New York Herald, which reported, "With this telegraph apparatus and the means of making an aerial reconnaissance, a general may be accurately informed of everything that may be going on within a long day's march in any direction."[6]

Yet, many in the Army displayed incredulous attitudes towards aerial observation, among them were Major Bache and Captain Whipple. In July, Thaddeus Lowe spent another night in the White House, lamenting to the

President on his failure to crack the blue line of reactionary intransigence at the War Department. The President, then, arranged for an audience between Lowe and General Winfield Scott.

July 26, Thaddeus Lowe went to the War Department. Four times the aeronaut was rebuffed; for General Scott had little interest in these infernal gas bags.

Lowe withdrew to the White House. Upon hearing of Lowe's misfortune, Lincoln grabbed his stovetop hat, "C'mon." According to Lowe, Lincoln called for a carriage and moments later the President and the aeronaut were speeding through the streets of the Capital to the War Department. As soon as they reached the general's office, the sentry at the door called out, 'The President of the United States!' The same orderly who had rebuffed Lowe previously, quickly emerged from the office. Upon entering, Lincoln and Lowe discovered the old general seemed rather startled by the unexpected visit.

"'General,' Lincoln began, 'This is my friend Professor Lowe, who is organizing an Aeronautics Corps for the Army and is to be its Chief. I wish you would facilitate his work in every way, and give him a letter to Admiral Dahlgren, Commandant of the Navy Yard, and one to Captain Meigs, with instructions for them to give him all the necessary things to equip his branch of the service on land and water.'"[7]

The Commander-in-Chief had spoken; but… the blue line of reaction would eventually prove dominate. Entrenched bureaucratic interests in the War Department, seasoned on the Napoleonic/Jomini tradition of war, still saw the horse (cavalry) as the arm of shock and reconnaissance. And despite such notable firsts as electronic communications from the air to the ground, aerial direction of artillery fire and ascending from a flat-top carrier[8], all in 1861, by the summer of 1863, that immovable, dubious monolith of reactionary thought had refuted a glimpse into the future.

Yet Lincoln and Lowe had helped to set a trend; a future that will see airpower eventually take its place alongside ground and naval power to decide the course of Man's oldest locomotive of change . . . War.

Endnotes

1. Now the site of the National Air & Space Museum.
2. See page 346, Chapter 12, "The Civil War Aloft: Origins," The Eagle Aloft, by Tom D. Crouch.

There is some confusion as to Lowe's date of ascension. Charles Evans, on page 73 of his War of the Aeronauts, fixes the date as June 17, and the altitude at 1,000 feet. On the "T.S.C Lowe" website, which has been curated by Lowe's great grandson, Lance C. Ferm, displays a copy of the message as found at the Library of Congress, dated June 16, in opposition to Lowe's memoirs and the newspaper coverage expressing June 18. Indeed, on page 256, of Lowe's correspondence during the Civil War, June 18 is the date noted in The War of the Rebellion, A Compilation of the Official records of the Union and Confederate Armies, Series III – Volume III.

3. See page 346, Tom D. Crouch.
4. Steiner would eventually join Lowe in the Balloon Corps.
5. Such would come on September 24, 1861, at Falls Church, Virginia.
6. See page 72, Chapter Four, "Creating an Army in the Air," War of the Aeronauts, by Charles M. Evans.
7. See pages 86 and 87, Charles M. Evans.
8. Thaddeus Lowe ascended from the George Washington Parke Custis, on Mattawoman Creek, November 11, 1861.

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

AAAA Chapter Affairs

By LTC (Ret.) Jan Drabczuk

I greatly appreciate the support from CW3 *Steve Atencio, the Cowboy Chapter President for authorizing and sharing this information to our membership.*

The Cowboy Chapter

The Cowboy Chapter is affiliated with G Co 2/211 Aviation which is a MEDEVAC detachment, A Co. 2/149 a CAC detachment, and a detachment of B Co. 834 ASB.

CHAPTER COURTESY PHOTO

Chapter members helping Boy Scout Connor Fisbeck with his Eagle Scout project to remodel the Black Dog Animal Rescue in September 2020.

The primary focus of these units is maintaining and providing flight operations for the UH-60L and HH-60M. The chapter is in the state capital, Cheyenne, WY. In the past 3 years the Cowboy chapter has gained 40 members to increase membership to 72 members. The Cowboy Chapter is full of hardworking, dedicated people who are committed to improving community.

Chapter Activities

One of the main focuses of the Cowboy chapter is to raise money for local or national scholarships. This year they are allocating $4,000 for two scholarships. By 2022 the Cowboy Chapter wants to offer three $3,000 scholarships. To raise funds for scholarships, in 2020 the Cowboy Chapter started what will become an annual gun raffle. The raffle exceeded expectations on amount earned. Currently the Cowboy Chapter is on its second gun raffle to raise funds for next year's scholarships and unit events. The Chapter also takes a huge interest in unit events to support Soldiers and their families. The Cowboy Chapter recently co-hosted the unit's dining out with the Family Readiness Group (FRG). This event is used as a recruiting event, as well as to bring retired aviators and current aviators together.

Volunteer Work

The Cowboy Chapter strives to take a very active role in the community. The Christmas Angel Tree program is one of their larger volunteer programs. This is a Salvation Army program where families can come and pick out presents for children as well as get food for a Christmas dinner. The Chapter also participates in the Salvation Army bell ringing at various locations during the holidays. In 2019 the Cowboy Chapter also took on meal delivery services for holiday meals to those that could not leave their house to get a meal. These activities earned Cowboy Chapter the top volunteer organization award from Salvation Army in 2019.

The Cowboy Chapter has many other Volunteer projects all year. In the Fall and Spring, the chapter cleans trash and debris from a section of the Green Way bike path in Cheyenne. Cowboy Chapter has also assisted with an Eagle Scout project of renovating the Black Dog Animal Rescue building. When the units have a group deployed, the Cowboy Chapter takes a special interest in the families of the Soldiers. One way that the Chapter helps is in doing yardwork in the Spring/Summer months for the families as well as any kind of maintenance that the homes may need. In the winter months the Chapter has done snow removal for service members and most recently a local church of elderly so they could attend Easter Sunday services. Recently the Cowboy Chapter has sponsored two little league baseball teams to help offset the cost of the teams' expenses.

Continued Momentum

The Cowboy Chapter has worked very hard the last 3 years to improve its impact on the community. The Members are constantly bringing in new ideas and possible events. The chapter isn't the largest, but it is striving to do as much work as it can with the current number of members. With the continued push on recruitment, the Cowboy Chapter hopes to gain many more members and be able to take on more events. The Chapter has a long way to go to reach its goals, but with the members' hard work and strong sense of community, the Chapter will continue to grow and expand their influence.

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

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

AAAA Chapter News

Air Assault Chapter Meeting

CHAPTER COURTESY PHOTOS

The Air Assault Chapter held a regularly scheduled meeting on June 10, 2021, at Fort Campbell with AAAA National President, MG (Ret.) Tim Crosby as the guest speaker. During the meeting SGM (Ret.) Jesse Ruth was inducted as a Knight of the Honorable Order of St. Michael by Crosby (left) and chapter president, COL (Ret.) Hawk Ruth in recognition of his over 20 years of dedication and support of Army Aviation.

Lindbergh Chapter Celebrates 60 Years!

CHAPTER COURTESY PHOTOS

AAAA National President, MG (Ret.) Tim Crosby (center), and National Vice President for Chapter Affairs, LTC (Ret.) Jan Drabczuk (right), assist Lindbergh Chapter president, Mr. Dave Weller, cut a cake during the chapter's 60th Birthday Celebration at the Creve Coeur Airport in St. Louis, MO on June 5, 2021. The Gateway Chapter of the Army Aviation Heritage Foundation & Flying Museum helped the chapter host the Birthday celebration in their hangar and offered helicopter rides to the more than 100 AAAA members and their families. The entire event was free to all attendees. During the celebration, Weller was inducted by MG Crosby into the Gold Honorable Order of St. Michael for his dedicated long-term support to Army Aviation over the span of 52 years of civil service.

Savannah Chapter Memorial Day Golf Scramble

CHAPTER COURTESY PHOTOS

The Savannah Chapter held a Memorial Day Golf Scramble on May 27, 2021, at the Hunter Golf Course on Hunter Army Airfield, GA. CPT Justin Hall (Savannah Chapter Treasurer), CPT Ryan Hinkley, CPT Luke Martin, and SFC Rory Bermudez-Castro were the winning team with a team score of 68.

Order of St. Michael Inductees

Aviation Center Chapter

CHAPTER PHOTO BY MAJ BRIAN SILVA

CW5 Pedro Gutierrez, Fixed Wing Branch Chief for USAACE DES was inducted into the Silver Honorable Order of Saint Michael at Ft. Rucker, AL at his retirement farewell by the Director, USAACE DES, LTC James LaValley. Gutierrez served 25 years in a multitude of positions with endless contributions to the Branch.

CHAPTER PHOTO BY

DAC Bryan D. McClendon, battalion maintenance examiner and instructor pilot, is inducted into the Silver Honorable Order of St. Michael by CPT Vincent M. Franchino, commander of D/1-14th Aviation on May 20, 2021, at Hanchey Army Heliport, Ft. Rucker, AL. McClendon was recognized for more than 10,000 accident and incident free flying hours in the Apache and instructing multi-national pilots and senior ranking officers. He is being stationed at Redstone Arsenal, AL

CHAPTER PHOTO BY SAM BAKER

Chapter Executive Vice President, COL Marcus Gengler, inducted **1SG Edna R. Vargas** into the Silver Honorable Order of Saint Michael at the USAACE NCO Academy on May 28, 2021. 1SG Vargas served as the deputy commandant of the Academy and is moving to Ft. Bliss, Texas to attend the United States Army Sergeant Major Academy.

CHAPTER PHOTO BY SAM BAKER

USAACE and Fort Rucker Commanding General, MG David Francis (center), inducted four members of the Directorate of Evaluation and Standardization into the Honorable Order of Saint Michael for their support and dedication to Army Aviation on June 2, 2021. **LTC(P) Jamie LaValley** (far right), the DES Director, was inducted into the Silver Honorable Order of Saint Michael and (left to right) **MAJ Brian Silva,** deputy DES director; **CW4 Sean McLane,** DES UAS Branch Chief; and **SFC Jay Kenney,** DES Assault Branch Medical Standardization Instructor were inducted into the Bronze Honorable Order of St. Michael.

CHAPTER PHOTO BY SAM BAKER

During 1st Bn., 14th Avn. Regt. Aviator Academics at Hanchey Army Heliport, Ft. Rucker, AL, LTC Michael Shaw, battalion commander, inducted five battalion standardization officers into the Bronze Honorable Order of Saint Michael. Inducted were: (top row left to right) **CW3 Garrett Waldbeiser, CW5 Paul Wilson, CW4 Harold Ivy, CPT Aaron Long** and **DAC Barry Tuttle.** Assisting in the inductions were: (front row left to right) CW5 James Small, LTC Michael Shaw and the incoming Chief Warrant Officer of the Branch, CW5 Michael Lewis.

On May 14, 2021, COL Joshua Ruisanchez, Human Resources Command Aviation Branch Chief, inducted five USAACE officers attached for duty to HRC into the Bronze Honorable Order of St. Michael for their dedicated support of Army Aviation. Inducted were: **LTC Sean R. Stapler,** XO and MAJ Career Manager (CM); **CPT (P) Austin T. Moore**, Post Key Development CPT CM; **CPT (P) Glenn W. Ryman**, Future Readiness Officer; **CW4 Chad E. Kohrs**, Apache CM; and **CW4 Sang Pom "Alex" Pae**, 154/153A Career Manager.


LTC Stapler


CPT (P) Moore


CPT (P) Ryman


CW4 Kohrs


CW4 Pae

Colonial Virginia Chapter


CHAPTER PHOTO BY CW5 SAMUEL PUENTES

MSG Aaron Rosenblum, Fixed Wing Detachment NCOIC at Joint Base Langley-Eustis, VA, is inducted into the Bronze Honorable Order of St. Michael by CW5 John A. Erickson, detachment standardization pilot on May 2, 2021. Rosenblum was recognized for his support of Army Aviation as he changes duty to serve as Research and Development Special Projects NCOIC.

Savannah Chapter


CHAPTER COURTESY PHOTO

MAJ James R. "Beau" Robinson, XO for 3rd Cbt. Avn. Bde., is inducted into the Bronze Honorable Order of St. Michael, by brigade commander, COL Michael S. McFadden, on Jun 9, 2021, at Hunter Army Airfield, GA. Robinson was recognized for his support of Army Aviation as he changes duty to Human Resources Command at Ft. Knox, KY.


CHAPTER PHOTO BY ANDREW S. MCNEIL

Mrs. Heather P. Robinson is inducted into the Honorable Order of Our Lady of Loreto by 3rd CAB commander, COL Michael S. McFadden (not pictured), while her husband, LTC Guyton L. Robinson, applauds. Robinson was recognized for her work as the Soldier and Family Readiness Group Leader for her husband's unit, the 603rd Avn. Spt. Bn. on the occasion of their reassignment at West Point, NY.

Tennessee Valley Chapter

COL Calvin Lane (left), Project Manager Utility Helicopters Project Office and chapter president, Gary Nenninger (right) inducted three members of the project office into the Honorable Order of St. Michael on June 7, 2021, at Redstone Arsenal, AL – (left to right) **MAJ Eric Lewis**, APM Lakota Helicopter Product Office. inducted as a Knight; **Charles Strowbridge**, Product Support Manager, inducted as a Bronze, and **Steven Kelley,** Deputy Project Manager, also inducted as a Bronze.


CHAPTER PHOTO BY MICHELLE MILLER

Mr. James R. Tyler, Program Executive Office Aviation Chief of Staff, is inducted into the Silver Order of St. Michael, by BG Robert L. Barrie Jr., PEO Avn., while his son, CPT Harrison Tyler looks on during a May 26, 2021, ceremony at Redstone Arsenal, AL. Tyler was recognized for more than 25 years of dedicated service to Army Aviation.

OSMs Continued On Next Page

OSMs Continued

CHAPTER COURTESY PHOTO

1SG (Ret.) Michael E. Bulkley, is inducted into the Silver Honorable Order of St. Michael by Chapter VP Veterans Affairs, CSM (Ret.) Tod L. Glidewell, on June 3, 2021, at Redstone Arsenal, AL with his wife **Myong** at his side. Bulkley was recognized for more than 49 years of combined Federal service culminating as the G33 Branch Chief for the U.S. Army Aviation and Missile Command.

CHAPTER PHOTO BY BRANDON LANGLEY

CW4 (Ret.) Brent Huntsman is inducted into the Bronze Honorable Order of St. Michael by Chapter President, Gary Nenninger, and Ms. Kathy Drysdale, deputy product manager for Development and Modernization, Apache Project Office, on May 27, 2021 at Redstone Arsenal, AL. Huntsman was recognized for his support of Army Aviation over 33 years culminating as the AH-64E Apache Version 6 (V6) Assistant Product Manager (APM) in the Development and Modernization Product Office within the Apache Project Office, Program Executive Office (PEO) Aviation.

LTC Tyronne G. LaStrapes, product manager for Aerial Communications & Mission Command product office, is inducted as a Knight of the Honorable Order of St. Michael with his wife, Yuliya Kashapova, at his side by BG Robert L. Barrie, Jr., May 14, 2021, at Redstone Arsenal, AL. LaStrapes was recognized for his support of Army Aviation over the course of his more than 26 years of service.

CHAPTER PHOTO BY TRACI BOUTWELL

Ms. Patricia Vittatow is inducted as a Knight of the Honorable Order of St. Michael by Chapter Vice President for Veterans Affairs CSM (Ret.) Tod Glidewell, on April 23, 2021, at Redstone Arsenal, AL. Vittatow was recognized for her dedicated support of Army Aviation throughout her career and while serving as the Director of Safety for the Aviation and Missile Command.

AAAA Salutes the Following Departed...

COL Roger Andrew Perkins - Deceased 5/24/2021
CW4 Jerry H. Tannhauser - Deceased 3/26/2021

CHAPTER PHOTO BY MICHELLE MILLER

Mrs. Kimberly-Lynn Jablonski and her husband, LTC Jeffrey J. Jablonski, deputy chief of operations for PEO Avn., celebrate following her induction into the Honorable Order of Our Lady of Loreto by BG Robert L. Barrie, Jr., PEO Avn., (not pictured) on April 29, 2021, at Redstone Arsenal, AL. She was recognized for her leadership of family readiness groups during peace and war and for sewing over 1,500 masks for high-risk people during the COVID-19 pandemic.

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AAAA Membership Update

By CW4 Becki Chambers

The Membership Corner

U.S. ARMY PHOTO

It's not very often that you meet a Specialist in the U.S. Army who also has a Ph.D.

Specialist Ajay Raghavendra is one such Soldier.

Born and raised in Mysore, India, he attended Embry-Riddle Aeronautical University from 2011-2016, graduating with a BS in Computational Mathematics and a BS in Meteorology and was selected as the Outstanding Honors Program Graduate. During his undergraduate tenure, Ajay also earned his Federal Aviation Administration (FAA) Commercial Pilot (ASEL/AMEL/IR) and Flight Instructor (CFI-A/I) certificates. He has logged over 750 hours of flight time and also flew a Cessna 340 for a summer cloud seeding program over west Texas.

From 2016-2020, Ajay worked as a graduate research assistant under Prof. Liming Zhou's advisement, and graduated with a Ph.D. in Atmospheric Science. He was also presented the Distinguished Doctoral Dissertation Award from the University at Albany for his work.

Here is a "short" list of some of his academic achievements: 15B Aircraft Powerplant Repairer Advanced Individual Training, Fort Eustis, VA; Ph.D. in Atmospheric Science (Distinguished Doctoral Dissertation Award); BS in Computational Mathematics (with Honors); BS in Meteorology (with Honors); American Meteorological Society Summer Policy Colloquium (2-week course with funding from the U.S. National Science Foundation (NSF)); International Centre for Theoretical Physics (ICTP) Summer School on Theory, Mechanisms and Hierarchical Modelling of Climate Dynamics (2-week course with funding from the NSF and ICTP); Math in Moscow Program (Semester Abroad with funding from the NSF); and National Center for Atmospheric Research Summer Colloquium: The Interaction of Precipitation with Orography (2-week course with funding from the NSF).

During his time at Ft. Eustis, Ajay volunteered over 150 hours and taught three iterations of a 5-week-long course during the weekends to help Soldiers prepare for the FAA small Unmanned Aircraft System (sUAS) Part 107 Aeronautical Knowledge Test. The material covered during these classes included aerodynamics and performance, aeronautical decision making, airspace, Aviation weather, and rules and regulations. Since all AIT Soldiers assigned to 1-222d Avn. Regt. are pursuing an Aviation related MOS, many Soldiers were interested in this opportunity to advance their military and professional career. Approximately 50 Soldiers passed the knowledge test and received their FAA sUAS certificate. Ajay was recommended for and awarded an Army Achievement Medal (AAM) for this work, and he thanks his company commander, CPT Sean J. Wynot, for the mentorship and encouragement.

Ajay attributes his success to the opportunities in the U.S. and the mentorship he received from both family and professionals, including his professors who previously served in the U.S. Military. While he was always interested in the military, Ajay finally found an opportunity to enlist and expand his horizon thanks to his recruiter, SSG John A. Auletta. Ajay believes that it is his duty to serve given his specialized skills and education, assist fellow Soldiers to excel, and work towards advancing the best interests of the U.S.

Ajay's wife is just as impressive. Heather S. Sussman graduated with a BS in Atmospheric Science from Purdue University in 2017. She is presently completing a Ph.D. in Atmospheric Science from the University at Albany and is funded by the DoD SMART Scholarship Program. Upon completion of her Ph.D., Heather will be working as a research scientist with the U.S. Army Engineer Research and Development Center's (ERDC) Geospatial Research Laboratory (GRL) in Alexandria, VA.

Why do you feel it's important for people to join professional organizations like AAAA?

Ajay believes that societies such as AAAA help build a professional network and propagate opportunities. As a member of other professional societies such as the American Meteorological Society and the FAA Safety Team, Ajay believes he is better informed and integrated in the fast-paced changes we encounter in our respective professions. Joining these societies also helps you identify leaders in the field, understand their success story, and seek their mentorship.

CW4 Becki Chambers
AAAA Vice President for Membership

New AAAA Lifetime Members

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North Country Chapter
SSG James David Serrano

Lost Members
Help AAAA locate a lost member on this list and receive a FREE one month extension to your AAAAmembership.

2LT Edwardo S. Alviso
CPT Robert S. Boham
WO1 Concordio Borja III
Mr. Harold V. Bowie, Jr.
CW3 Craig A. Brown
COL Fred E. Brown, Ret.
LTC Jeffery D. Brown
Mr. Rickey J. Brown
MAJ James E. Bruckart
Mr. E. W. Cavanaugh
LTC Richard. Cercone Jr.
LTC Tzu-Shan Chang
COL James A. Coar, Ret.
MAJ Harry Connors Jr. Ret.
Mr. Bruno Cussigh
SGT Travis B. Darnell
1LT Jimmy Joe Doe
Mr. Kirk Flitte
SPC Nicholas C. Ford
2LT Arthur W. Galloway
Mr. William H. Gillispie
Mr. Michael F. Glass
MAJ Gregory W. Glover
LTC William T. Goforth
Ms. Mary H. Gorman
COL Gerhard Granz, Ret.
Mr. Dexter Henson
SPC Ellen Hickman
Mr. Stephen Hill
COL Jose L. Hinojosa, Ret.
CW4 Delbert Jackson, Ret.
LTC Randy K. Jackson
Mr. 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
WO1 Joshua Link
MSG David W. Little, Ret.
2LT Alex Mcdonald
MSG Joe Moreira, Ret.
SGM Ivonne Morrison, Ret.
CSM Vernie Nance, Ret.
MAJ Darrel B. Nerove
Mr. Fred A. Newcomb
CDT Dion Perinon
SFC Henry Rathbone, Ret.
1LT James Salters
Mr. Tony Sanchez
LTC Martin Scheld
Mr. Thomas R. Schiltz
Mr. Wesley Schroeder
LTC Jerry D. Scott
LTC Jay Q. Smith
MAJ James F. Speelman
LTC Friedrich Stern
Ms. Jean K. Tinsley
WO1 Armando B. Torres
MAJ L.D. Walker
Mrs. Rose Weast
2LT Erich Zwelke

UPCOMING EVENTS

AUGUST 2021

1 Award Submission Deadline – Logistics Support Technician & Unit of the Year; Materiel Readiness Awards; Fixed Wing Unit of the Year; UAS Soldier, Technician & Unit of the Year
3-6 VHPA annual reunion, Charlotte, NC
16-19 AUVSI XPONENTIAL 2021, Atlanta, GA

September 2021

1 Award Submission Deadline – Air/Sea Rescue; ATC Controller, Maintenance Technician, Manager, Facility, and Unit of the Year; DUSTOFF Flight Medic of the Year; Medicine, Trainer of the Year Awards
9-12 NGAUS 142nd General Conference & Exhibition, Charlotte, NC
13-14 Aircraft Survivability Equipment (ASE) Symposium, Kissimmee, FL

AAAA **Family Forum** By Judy Konitzer

Blue Star Families Empowering Military Families

I am not sure how many of our readers are familiar with Blue Star Families, a non- profit organization created in 2009.

BLUE STAR FAMILIES COURTESY PHOTO

The Anderson-Abruzzo Albequerque International Balloon Museum is one of over 2,000 museums, zoos, and nature centers offering free admission thru Labor Day to currently serving military personnel and their families thru the Blue Star Museum summer program.

However, over the years this organization has made great strides in supporting military families by identifying the most important challenges and issues facing our community. They have made recommendations and initiated necessary policy shifts to DoD, Congress, and local government, as well as guidance to business partners and non-profit organizations on how to best support them.

Their 11th Military Lifestyle Survey captured responses and experiences from 11,000 respondents from active duty, National Guard and Reserve service members, veterans, and their families. Findings, insights, and recommendations from the report were made possible with support from partner organizations who shared the survey and encouraged worldwide participation.

What is important is that in validating experiences by the respondents, the survey provides reassurance that when you live an experience like struggling with employment after a move, struggle with mental health issues, must accept time away from your spouse, deal with children's educational challenges, and many others which preexisted before COVID, but intensified during the pandemic, you are not alone. There is a community of others who are experiencing these same things. And it is in joining and working together as a community where there is strength.

Findings reported in this year's survey include:

- Families still experience barriers to mental health care including scheduling appointments, getting time off from work for treatment, and difficulty in obtaining childcare.
- Military spouse under/unemployment intensified partly because of the responsibility of managing their children's education through supervising virtual learning or home schooling. It also shed light on the importance local schools provide families including supplemental food assistance to a variety of therapies and assistance for children with special needs. The survey showed families had more difficulty accessing IEP and 504 Plan support, and so many chose to live apart to avoid the problem. For military families finding housing that fulfills both location and family needs is also a costly balancing act.
- Work flexibility alternatives with care options and increasing childcare affordability were active-duty families' preferred solutions for addressing childcare and schooling concerns.
- Active-duty service members of color, females, and LGBTQ service members recognize discrimination in the military that their peers do not. Throughout the military life cycle, female service member respondents faced greater challenges with balancing military and family life and reported more negative experiences associated with service than their male counterparts.
- During COVID-19, National Guard families reported higher rates of activation and less time to prepare than their active duty and Reserve peers. Despite protection by federal labor laws, both National Guard and Reserve service members reported negative employment consequences after an

AAAA **Awards**

Order of St. Michael Inductees

GOLD

MG Daniel J. Dire, *Jack H. Dibrell/ Alamo Chapter*
CW5 Austin T. Norton, Ret.
CW3 Alfred J. Cargen, Ret. (post-humous), *Jack H. Dibrell/Alamo Chapter and Washington-Potomac Chapter*

Silver

Air Assault Chapter
CW5 Daniel Jason Lax
LTC Clinton B. Underwood
Aviation Center Chapter
COL Tammy L. Baugh
CW5 Michael A. Boley
COL Chad E. Chasteen
COL Brett D. Criqui
CW5 Pedro Gutierrez, Jr.
CW5 Bernd H Knox
CW5 Daniel G. Lynn
Bryan Denman McClendon
CW5 Brian Pankey
CSM Bradford L. Smith
1SG Edna R. Vargas
Bayou Chapter
CW5 James B. Smith
Colonial Virginia Chapter
COL Bryan Morgan
Gold Standard Chapter
LTC Michael J. Milio
Iron Mike Chapter
CW5 James Harris, Ret.
CW5 Trent M. Johnson
Keystone Chapter
COL Gregg T. Clark
Northern Lights Chapter
LTC Jorge A. Rosario
Pikes Peak Chapter
CW5 Steve O. Crandall
Rio Grande Chapter
LTC Andrew J. Brown
Savannah Chapter
COL Michael S. McFadden
Tennessee Valley Chapter
LTC Bryan M. Bogardus
LTC Rodney A. Davis, Ret.
Thunder Mountain Chapter
LTC Alissa A. McKaig

Bronze

Air Assault Chapter
CW2 James Bell
CW3 Quinton Boddie
CW4 Travis Bohannon
SFC John Brode
MAJ Logan "Grant" Cloaninger
CW4 Matthew J. Episcopo
CW3 Joel Favre
CW3 Thomas L. Flaherty
CW4 Ronald Dean Garcia
SFC Andrew Keith
CW2 Jacob Kingdollar
CW2 Daniel Parker
MSG Daniel Willis
Aviation Center Chapter
MAJ Brandon Lee Andreasen
SSG Charles C. Burton
SFC Stephen S. Carey
MAJ Justin Goldman
CW4 Chong "Anthony" I. Kim
CPT Aaron C. Long
CW4 Joshua A. Meyers
CW4 Bryce G. Peery
Corpus Christi Chapter
Clayton D. Vance
Mark E. Wagner
Flying Gator Chapter
SGM Robert L Wilson Jr.
Griffin Chapter
SFC Moises L. Santiago
Grizzly Chapter
CW5 Anthony A. Montano
High Desert Chapter
CPT Michael P. Cavalier
SFC Ashley T. Johnson
CPT Kim C. Matthew
CPT Jay C. McWilliams
CPT Randall G. Nordlund
CSM Julio T. Santos
Keystone Chapter
CW3 Mitch Raho
Magnolia Chapter
CPT Justin Schade
Morning Calm Chapter
1SG Jesus Arboleda
CPT Shaun A. Asaro
1SG Kevin G. Burleson
1SG Robert J. Carroll
CW3 Kirkland H. Coffee
MSG Jason Coon
SGT Jason Franciscocano
CW3 Danny Craig Gable
CPT Matthew G. Gallop
1SG Christopher Givens
CW3 Nathaniel Harries
CPT Brian Keefer
1SG Chad E. Keirns
CW3 Jake Kennedy
CPT Kyle J. Kilroy
CW3 Brandon Kite
1SG Michael Lamb
CW3 Jimmy Lamon
CPT Blake Mitchell
MAJ Thomas Moentmann
CPT Allan Newman
SFC Heese Penaflor
CW3 Christopher J. Perkins
CPT John David Polczynski
CW4 David Rierson
CW3 Stephen Rimmer
CW4 Greg Seribert
MAJ Robert Spara
CW3 Whitney Taylor
SFC Matthew Teleha
SFC Joefrey Tomas
CPT Ryan Tschosik
Mount Rainier Chapter
1SG Jakob A. Klawitter
MSG Brian J. LeClair
LTC Seneca Pena-Collazo
CW4 Sean Wells
Phantom Corps Chapter
CW4 Jeremy Cruz
SFC Warren M. Garth
CPT Daniel Hanks
1SG Paul M. Kiil
CW4 Michael R. Smith
Rio Grande Chapter
CW2 Michael Scott Bailey
CPT Zachary S. Haynes
CPT Benjamin H. Isaacs
CPT Jonathan I. Magee
CPT Daniel K. Nix
SFC Samantha Marie Recker
MAJ Sara Victoria Turinsky
CW4 Paul Van Loan
Rising Sun Chapter
CW3 Ryan Becker
1SG Demetrious W. Hughey
CW3 Brad Nelson
CW3 Ian Shaffer
CW3 Ray Smith
MAJ Brian Smith
Savannah Chapter
CW3 Phillip R. Bogard
CW4 Robert L. Dearman
CW3 Tyler J. Dodds
LTC Kyle E. Duncan
CW5 Brian M. Edwards
CW4 Ryan T. Grant
MAJ Donovan D. Groh
CW2 John M. Jones
CW4 Charles Kronenberger
CW3 Jaime B. Mishler
CW3 Jorge R. Parrarios
MAJ James R. Robinson
CW3 Christopher D. Rucker
CW4 Nathan R. Whitman
Tennessee Valley Chapter
MAJ Simon Beattie
LTC William H. Cabaniss
Brent Huntsman

Knight Inductees

Air Assault Chapter
CW3 Jeffrey J. Perry
1SG Walter S. Veazey
High Desert Chapter
Joshua M. Mills
CPT Amanda K. Moore
SFC Martin Rivera Jr.
Keystone Chapter
Laurence Chaky
1SG David Emerick
SFC Jeffrey R. Moore
Morning Calm Chapter
CPT Mario Naranjo
CPT Joshua A. Rock
CPT Joyce Smith
Mount Rainier Chapter
CW2 Thomas J. Fitzgerald
SFC Christopher Ponce DeLeon
CW3 Stephen Sikorski
Tennessee Valley Chapter
MAJ Eric D. Lewis

Our Lady of Loreto Inductees

High Desert Chapter
Margrette Jeanette McWilliams
Morning Calm Chapter
Sarah F. Keefer
Lindsay Kennedy
Amanda Kilroy
Aleksandra Kojic Bullets
Sheri Spara
Stephanie Taylor
Chelsey B. Tschosik
Phantom Corps Chapter
Lorrie Chavez
Jenna Houston
Rio Grande Chapter
Jenny Bailey
Rising Sun Chapter
Erica Hughey
Nikki Smith
Savannah Chapter
Tenika Baldwin
Chrystal Cunningham
Tamra C. Duncan
Heather P. Robinson
Tennessee Valley Chapter
Darcy J. Duus
Laura Griffin

activation or mobilization.

Through Blue Star Families' virtual Town Halls, chapter events, continuously updated online resources, and by convening military community and family organizations and experts, they have been able to identify and advance best practices and policy solutions.

By partnering with the Association of Defense Communities (ADC) they launched the COVID-19 Military Support Initiative (CMSI), which established a clearinghouse for vetted, official information both to and from military and veteran families about the benefits, evolutions in the pandemics progress, and our fight to stop it. They have also created a repository which captures and documents best practices, lessons learned, and other frequently asked questions.

Their Blue Star summer programs include Blue Star Summer Camp, a free summer program with virtual field trips to museums and parks, and Blue Star Museums which provides families free admission to Museums and Parks throughout the country. And by collaborating with Sesame Street, educational and entertaining programs for children, especially over the summer, are readily available.

Maintaining connection and access to self-care are critical needs to support families of deployed or activated service members and remember "You are not alone."

For more information visit Bluestarfam.org or on Facebook at www.facebook.com/BlueStarFamilies.

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

AAAA **Legislative** Report

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

FY22 DoD Budget Released

On May 28th, President Joe Biden sent his first budget request to Congress three months later than the normal timeline for the annual government budget process. When we talk about the "the budget" going over to Congress, recall that this is much more than financial numbers. It's how much the DoD will ask for research and development (R&D), sustainment of our legacy helicopters, and procurement of existing systems. AH-64 Apaches for example – the DoD is asking Congress to appropriate the purchase of 30 aircraft in this budget which will make Boeing very happy if approved at over $800M for just that one line item. The FY22 budget request for DoD totaled $715 billion dollars which is $11B more increase from the FY21 request. You would think this is good for DoD, but you have to consider what makes up the $715B and what "kind of money" totals that top line number. The DoD and this Administration have their eyes on future technology as indicated by increased spending on R&D with a request of $112B. The bill payer for this increase is in procurement of weapon systems that are currently in production by our defense industry partners.

Also, in a normal budget request that goes to Congress, the on-year (FY22) is in the budget request, but also the DoD lays out the next 4 years (out-years) of planned spending for various programs. This part of the budget was not included in the FY22 budget request and it's acknowledged that this budget will set the baseline for follow-on year priorities set by the new Administration. The omission of the out-year information presents unique challenges to the defense industry who rely upon that information for long term planning and long-term influencing. This budget is still based upon a keen eye on the threats from the Pacific region, specifically countering technology from China which was a Trump administration priority. It's safe to say that the new administration will develop a new National Defense Strategy (NDS) in the coming year, and we could see further changes and impacts to defense spending in 2022 and beyond.

Another notable difference in this year's budget request is the omission of a request for Overseas Contingency Operations funding (OCO). For over a decade, previous administrations have asked for a separate pot of money to fund operations abroad; mainly combat operations. In recent years, lawmakers have accused the Pentagon of using this as a slush fund. The FY22 budget request eliminates OCO funds and requires the DoD to put all funding requests into their base budget request.

Fortunately for Army Aviation, the future vertical lift (FVL) budget request totals $1.12B and includes more funding focused on the future long-range assault aircraft (FLRAA) category which is set to replace the Black Hawk and Apache. Collectively, the Army did not fare as well as the other services in this budget request and then-Army G-8, LTG James Pasquarette has stated that the Army is "down to the bone" on cuts to non-priority programs so if we see further budget cuts down the road, we will start cutting into our main priorities which includes FVL. We should feel confident with this budget request that our Army Aviation enterprise will remain healthy over the coming year, but we will have to work diligently in the coming year to protect our interests with our law makers. The new G-8, LTG Erik Peterson, is a seasoned Army Aviator and has long developed relationships with Capitol Hill and what better person to carry the message of Army Aviation needs than an Army Aviator himself.

The Military Coalition

The Military Coalition (TMC) will serve as a key influencer for our interests in the year to come. The TMC is a group of 35 military, veterans and uniformed services organizations that share the common goal of preserving a strong national defense, DoD capabilities, and advocating for military families. The TMC monitors every piece of legislation related to DoD, veteran, and military affairs. Routinely, the AAAA leadership is reviewing letters of support by the TMC that we sign onto to influence congressional lawmakers to support various issues. The 35 non-profit and trade organizations represent over 5.5 million members, so working together on grass roots efforts often results in a positive outcome for our servicemen and families to include our AAAA members. In the coming year we will use this as another channel to communicate with our member base on some of these issues.

Industry News

Announcements Related to Army Aviation Matters

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

Elbit to Upgrade U.S. Army Pilots Night Vision Systems

ELBIT SYSTEMS COURTESY PHOTO

Elbit Systems Ltd. announced on June 18 that Elbit Systems of America, LLC, was recently awarded two orders with an aggregate value of approximately $29 million by the U.S. Army's Program Executive Office (PEO) Soldier under an Indefinite Delivery/Indefinite-Quantity (ID/IQ) contract issued in 2020. The orders will be executed from the Elbit Systems of America facility in Roanoke, Virginia with deliveries through September 2021. Under the orders, Elbit Systems of America will upgrade the U.S. Army active duty and National Guard rotary-wing aviation units' AN/AVS-6 Aviator's Night Vision Imaging Systems (ANVIS) by replacing the existing green image intensification with high performance white phosphor image intensifier tubes. White phosphor enhances the ANVIS goggles as it presents visuals in black and white detail, which may appear more natural to the eye. The new image intensification tubes will also provide better contrast, along with high image resolution at greater distances for pilots.

Army Awards OTA Contracts for Next Gen ISR Sensors

The Army Project Director for Sensors-Aerial

U.S. ARMY COURTESY PHOTO

Intelligence awarded other transaction authority (OTA) contracts on June 11 to both L-3 Communications Integrated Systems and Raytheon Applied Signal Technology to design and build prototype sensors for its next-generation airborne intelligence, surveillance and reconnaissance system, according to a June 14 announcement. Each company will develop, build and integrate a suite of electronic intelligence and communications intelligence sensors for the airborne ISR platform High Accuracy Detection and Exploitation System, or HADES. Although the Army has not determined what platform will host the sensor system, it is currently projected as a manned fixed-wing jet that can operate "at altitudes and ranges beyond those of existing platforms," including the Enhanced Medium Altitude Reconnaissance and Surveillance System, Guardrail's King Air, and Airborne Reconnaissance Low DHC-8, according to a spokesperson for the aerial intelligence project director. HADES is a joint effort between that office, which is acquiring the sensors, and Project Manager Fixed Wing, which is developing the aircraft.

AeroVironment Relocates Corporate Headquarters to Arlington, Virginia

AEROVIRONMENT GRAPHIC

AeroVironment, Inc. announced the relocation of its corporate headquarters from Simi Valley, Calif. to Arlington, Va., effective June 15, 2021. Said Wahid Nawabi, AeroVironment president and chief executive officer, "Our recent acquisition of Progeny Systems ISG and our new Artificial Intelligence Innovation Center expand our footprint near the Beltway and build on our momentum as we continue to grow our portfolio and global scope." AeroVironment will maintain its presence and existing operations in Simi Valley, CS and other existing sites across the United States and in Germany.

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

Airbus U.S. Space & Defense Inc., Arlington, VA, was awarded a $119,788,924 modification to contract W58RGZ-17-C-0010 for an extension of contractor logistics support services for the UH-72 Lakota; work will be performed in Grand Prairie, TX, with an estimated completion date of June 30, 2022.

DigiFlight Inc.,* Columbia, MD, was awarded a $13,802,929 modification to contract W31P4Q-21-F-D003 for programmatic support for the Apache Attack Helicopter; work will be performed in Columbia, with an estimated completion date of May 23, 2022.

Stark Aerospace Inc., Columbus, MS, was awarded a $56,087,580 firm-fixed-price contract for sustainment services of the Shadow Plug-In Optronic 300 series payloads in support of product manager Aerial Enhanced Radar, Optics, and Sensors; work locations and funding will be determined with each order, with an estimated completion date of July 25, 2026.

The Boeing Co., Mesa, AZ, was awarded a $39,657,700 modification to contract W58RGZ-16-C-0023 for new-build AH-64E aircraft; work will be performed in Mesa, with an estimated completion date of Oct. 31, 2025.

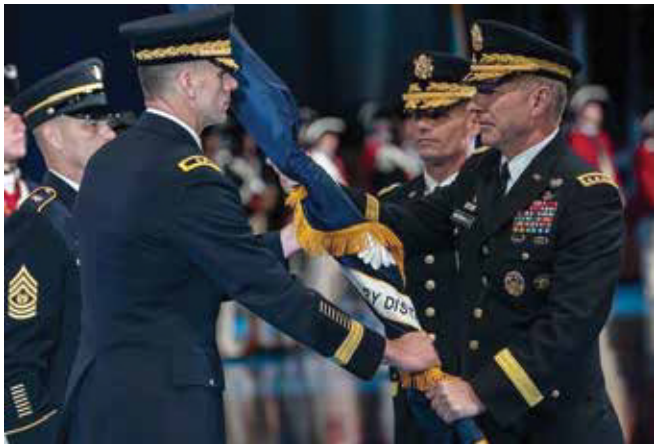
Zodiac-Poettker HBZ JV II LLC, St. Louis, MO, was awarded a $56,295,000 firm-fixed-price contract for the construction of a six-bay maintenance hangar for rotary wing aircraft; work will be performed in Hunter Army Airfield, Georgia, with an estimated completion date of June 15, 2023.

Advertisers Index

People On The Move

Aviation General Officer Promotions/ Assignments

Pepin Assumes Command of JFH-NCR/MDW



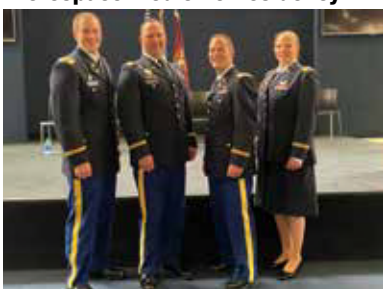
U.S. DOD PHOTO BY SGT GABRIEL SILVA

MG Allan M. Pepin (left) assumes command of the Joint Force Headquarters-National Capital Region and the United States Army Military District of Washington during a change of command ceremony at Conmy Hall, Joint Base Myer-Henderson Hall, Virginia, June 8, 2021. The ceremony was hosted by GEN James C. McConville, 40th Chief of Staff of the United States Army (right) and Gen. Glen D. VanHerck, Commander, United States Northern Command and North American Aerospace Defense Command. Pepin succeeds MG Omar J. Jones IV, who served as the commanding general since June 2019.

Aerospace Medicine Residency Graduates

AAAA congratulates the following officers graduating from the Aerospace Medicine Residency Course at the U.S. Army School of Aviation Medicine, Fort Rucker, AL.

Aerospace Medicine Residency



MAJ Matthew Cooper
CPT Robert Gingerich
MAJ Douglas Hogoboom
LTC Emily Simmons

Occupational Medicine Residency

MAJ Joseph Adams *
MAJ Christopher Grace *
LTC Theresa Long *
MAJ Sarah Snyder *
MAJ Karl Swinson *

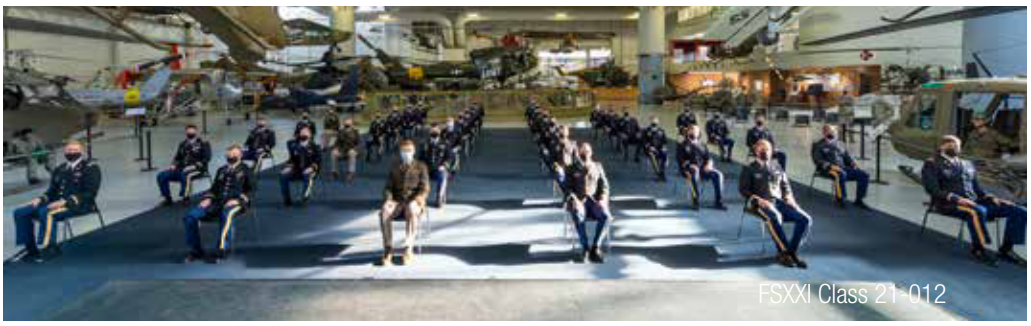
* = AAAA Member

Flight School Graduates

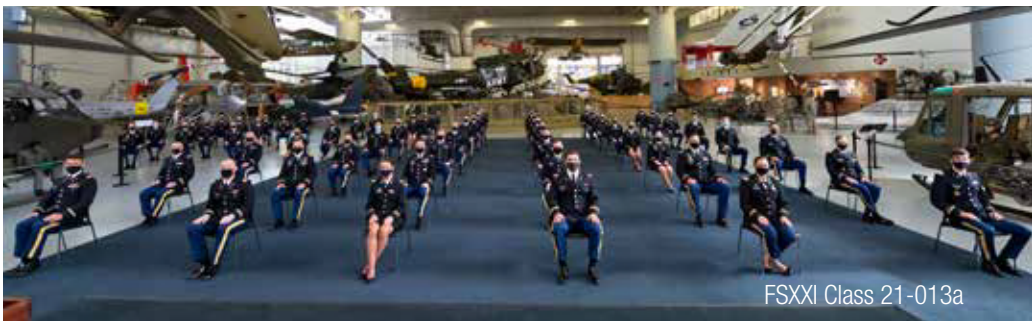
AAAA provides standard aviator wings to all graduates and sterling silver aviator wings to the distiguished graduates of each flight class ...
*another example of AAAA's **SUPPORT** for the U.S. Army Aviation Soldier and Family.*

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

43 Officers April 22, 2021
Commissioned Officers
1LT Curtin, Brian H. - DG
1LT Coppinger, Gabriel A. - HG
1LT Augustine, Justin D.
1LT Beauchamp, Kyle R.
2LT Buchanan, Parker T. *
1LT Holscher, Grant E.
1LT Musgrave, Jonathan W.
2LT Phelps, Elijah-Ty A.
2LT Reilly, Brian P.
1LT Roddy, Knight P., III *
1LT Shelton, Eric A. *
Warrant Officers
WO1 Simpson, Jacob M. - DG
WO1 Apter, Adriel J. - HG
WO1 Jonkman, Mattheus D. - HG
WO1 Lull, Andrew P. - HG
WO1 Palazzola, Michael P. - HG



FSXXI Class 21-012



FSXXI Class 21-013a

People On The Move

Flight School Continued
WO1 Barrett, James B.
WO1 Bearson, Brandon W.
WO1 Bennett, Carey M.
WO1 Cantu, Juan A., Jr.
WO1 Dixon, Harry W., III *
WO1 Dry, Casey A.
WO1 Flowers, Mitchell E. *
WO1 Franklin, Kevin M. *
WO1 Fraser, Christopher N.
WO1 Gibbs, Ashley M. *
WO1 Goldsby, Stuart E.
WO1 Goodyear, Aaron J.
WO1 Katz, Landon J.
WO1 King, Tyler J.
WO1 Luke, Robert J., II
WO1 Mitchell, Brinton M.
WO1 Palmer, Timothy J. *
WO1 Penland, Cody A. *
WO1 Purtell, Steven P. *
WO1 Reeff, Jonathan D.
WO1 Rodgers, Clifton R.
WO1 Saldana, Donald J. *

64 Officers May 6, 2021
Commissioned Officers
CPT Janssen, Rob J. - DG
1LT Sexauer, Emily B. - HG
1LT Skaar, Noah A. * - HG
1LT Sullenger, Samantha P. - HG
CPT Tertychny, Jacob P. - HG
1LT Aaron, Jon F.
1LT Baumgartner, Benjamin M.
1LT Bordeaux, John M. *
1LT Botz, Riley S.
1LT Burke, Meghan M.
1LT Clark, Michael S.
1LT Dalrymple, Jennyfer K.
1LT Downs, Jake C. *
2LT Evink, Mitchell A.
2LT Griffith, Alyssa J.
2LT Hendry, Celia E.
1LT Hulgan, Joshua P.
2LT Lenderman, Mary Jane E.
2LT Milam, Austin B.
1LT Newman, Stephen C.
1LT O'Malley, John C.
1LT Riccoboni, Nena A. *
1LT Salazar, Ian H.
2LT Skornia, Brandon D. *
2LT Sperry, Shannon J. *
2LT Veliz-Caicedo, Jonathan
1LT Walker, Joseph A.
Warrant Officers
WO1 Ziober, Cody J. - DG
WO1 Brown, Keenan A. - HG
WO1 Mills, Matthew L. - HG
WO1 Moody, William A. - HG
WO1 Peugh, Logan W. * - HG
WO1 Ashford, Jeffrey W.
WO1 Bim-Merle, Mitchell E.
WO1 Bower, Drake M. *
WO1 Buckley, Alex R.
WO1 Cantrell, Colton W.
WO1 Carl, Jared J.
WO1 Elliott, Brandon D.
WO1 Eveland, Maggie A.
WO1 Foster, Joshua K.
WO1 Gray, Christopher E.
WO1 Hardison, Joseph W.
WO1 Helmick, Alison M.
WO1 Herman, Scott R. *
WO1 Hernandez, Nadia A.
WO1 Jenkins, Christopher B.
WO1 Kengott, Kevin M.
WO1 Maddox, Tabatha L.
WO1 Marshall, Shay M.
WO1 Meyer, Joshua R.
WO1 Moody, Morgan M.
WO1 Parker, William T. *
WO1 Reitler, Jesse M.
WO1 Rodriguez, Joshua S.
WO1 Steffenhagen, Uriah L.
WO1 Tanner, Jonathan L., II
WO1 Taylor, Philip M.
WO1 Velasco, Robert C.
WO1 Wilkerson, Edward B.

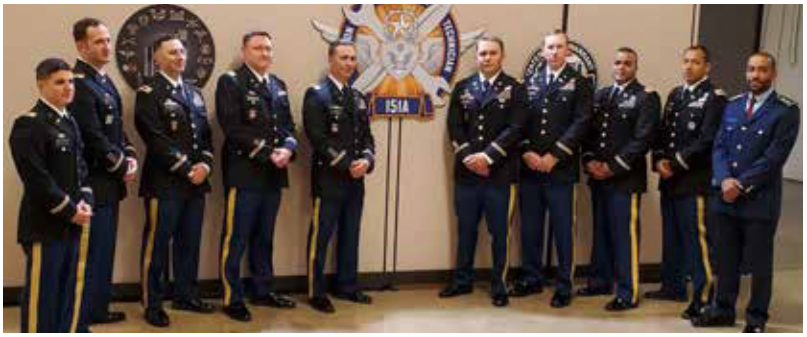
57 Officers, May 20, 2021
Commissioned Officers
1LT Valdez, Isaiah L. - DG
1LT Donahue, Nicholas A. - HG
1LT Johnson, Joshua N. - HG
1LT Linke, Sawyer E. * - HG
1LT Peterson, Sawyer H. - HG
2LT Atwood, John N.
1LT Carrillo, Dante M.
1LT Chapman, Jacob R.
1LT Chebat, Zachary L. *
2LT Christian, Daniel L.
1LT Clark, Casey L. *
1LT Delvaux, Mary E.
2LT Eide, Samuel H.
1LT Guarneri, Morgan A.
1LT Harry, Austin C.
2LT Kim, Alex Y.
1LT Lewis, Ryan A.
2LT McBride, Austin C.
1LT Millsap, Dakota B. *
2LT Murray, Jonathan R.
1LT Murua, Patricio S.
1LT Naquin, Grayson B.
2LT Riehl, Troy M.
1LT Roques, Joseph T.
1LT Shelton, Holden-Reagan C. *
1LT Vance, Theo T.
2LT Zweibel, Zachary M.
Warrant Officers
WO1 Stockton, Elliott M. * - DG
WO1 Hiebner, Matthew D. - HG
WO1 Mason, David E. - HG
WO1 Turner, DeJohn M. - HG
WO1 Yothers, Jordan M. - HG
WO1 Barkas, John M.
WO1 Barr, Brent B.
WO1 Cross, Bruce A.
WO1 Day, Zachary A.
WO1 Dickens, Maria S.
WO1 Haught, Jack L.
WO1 Huesing, Christopher A.
WO1 Johnson, Leonard A.
WO1 Johnson, Shawn T.
WO1 Leventhal, Melanie S.
WO1 Makin, Kyle D.
WO1 McHugh, Benjamin A.
WO1 Melanson, Andrew J.
WO1 Murdock, James A.
WO1 Norman, Alexander R.
WO1 Parker, Dustin F.
WO1 Reith, Wyatt J.
WO1 Rothman, Jordan K.
WO1 Shafer, Gerhardt P.
WO1 Stewart, Matthew R.
WO1 Suders, Ryan N.
WO1 Thacker, Jason D.
WO1 Trujillo, Christian
WO1 Tuialii, Levaai
WO1 Wiggins, Kyle P.

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

Non-Rated Warrant Officer Graduates

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

10 Officers May 27, 2021
WO1 Frank Delacruz *
WO1 Christopher Chiodo
WO1 Paul Croteau
WO1 Michael Cummins
WO1 Brian Tenace
WO1 Cody Russell
WO1 Jonathan Lenahan
WO1 Hector Villegas
WO1 Roeut Theam *
CPT Sultan Al Ibrahim
* = AAAA Member



U.S. ARMY PHOTO

Advanced Individual Training (AIT) Graduates

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 015-21
PV1 Joshua Wodarski * - DG
PFC Hyrum Anderson
PV1 Gabriel Bongiorno
PFC Errington Cameron
PV2 Trevor Faulk
SPC Michael McVey
PV1 David Mitchell, Jr
PV1 Aladin Umar
PV1 Melvin Warner, III
PV2 Kane White
PV1 Mohamed Yusuf
PV2 Ryan Zukowski
Class 016-21
PV2 Carter Moore * - DG
PV2 Lacie Frost
PV2 Shundarius Jackson

AIT Continued on next page

People On The Move

AIT Graduates Continued

PV1 Kristoff Linton
PV2 Chance Mitchell
PV2 Boris Rodriguez
PFC Nathan Rubadeau
PV2 Steven Simpkins
PV2 Elijah Spada
PV2 Jennifer Zimmitti
Class 017-21
PFC Jesse Neilson * - DG
PFC Jarryd Allen
PFC Austin Bangerter
PFC Seth Burroughs
PV2 Dorothy English
SGT Marvynjay Guillermo
SPC Zane Heller
PV1 Santino Nunez
PFC Daniel Patinolievano
SGT Lauren Symon
PV1 Cristian Tapia
SPC Andrey Tripp
Class 018-21
PVT Samuel Alexander Hein * - DG
PFC Adam Christopher Alexander
PFC Miguelandrei Pena Cabanes
PFC Rasson Devon Carr
PV2 Hunter MichaelHall
SPC Alexander Scottyate Hartley
PVT Jacob Keith Jones
PVT Ishmael John Lopez
PVT Noah Andrew Mazzarella
PVT Julio Cesar Morenomalubay
PVT Jonathan Andrew Sleeker
PVT Dylan Lamar Wood

CH-47 Medium Helicopter Repairer (15U)
Class 011-21
PFC Ajibola B. Okewusi * - DG
SGT Justin Carson Betz
PFC Cameron Brock Burdeshaw
CPL Kenneth Josephlee Cassidy
PFC Brayden Travess Chandler
SPC Dalton Jack Clark
SPC Benjamin Maxwell Cooper
SPC Sebastian Christian Foster
SPC Matthew Mead Lenhart
PV2 Preston Cody Lundell
PV2 Brent Louis Snyder
Class 012-21
PFC David Alejandro Neri * - DG
PV2 Braden Garrett Austin
PFC Mark Thomas Baldwin
PFC Carmen Andrea Cherry
PV2 Aiden Noel Crews
PV2 Markie Malyn Frye
PFC Korban James Galyon
SPC Kevin Musyoka Mului
PV2 Jonathan Robert Petzak
PFC Christian Guadalupelo Reyes
Class 013-21
SPC Hayden Jay Forbus * - DG
PFC Ethan Scott Crone
SPC Andrew Harrison Exum
PV2 Johnathon Patrick Girten
PV2 Jacob Aaron Gutwein
PV2 Colton B Leseman
PFC Eric Thomas Nulty
SGT Christopher Cody Powell
PV2 Fronoush Noah Schuler
PFC Pavel Sherman
SGT Ronnie Calvin Wilson

UH-60 Helicopter Repairer (15T)
Class 023-21
AMN Kabel Dale Moore * - DG
AB Ryan James Alexander
AB Christian Alexander Bill
AB Caleb Robert Bragan
AB Trenton Travis Chapman
SSGT Victor Thomas M.Ditanna
AB Colton James Fey
SSGT Carlos Alberto Frota
A1C Verlon Eric Gooding
SSGT John Jairo Marin
AMN Ellison Jonte Taylor
SSGT Uri Daniel Tripp
Class 024-21
SPC Michael S.McClaskie*- DG
SPC Lionel Ayala
PFC Derek Gregory Baluha
PV2 Eli Edward Boufford, III
PFC Yonatal Garcia
PV2 Seth Bradley Gress
PV2 Plinio J. Heredeaportorreal
PFC Steven Bobby Hoang
PV2 Nathan Eric Jumper
SPC Jonathon S. Leland
PV2 Cody Matthew Lheureux
SPC James Daniel McDuffie
Class 025-21
PFC Jacob I. Reitzel * - DG
CPL Belvis Edward Ekwu
SPC Chadd Leland Huddon
PFC Joel Brett Johnson
PFC Jordan Ann Maschmann
PFC Emily Nicole Powers
SPC Elina Rai
PV2 Matthew James Slater
PFC Alec Scott Thompson
PFC Skylar M. Thompson
PV2 Oscar Villasenor
PFC Eric Frans Vreken, Jr
Class 026-21
SPC Nathan D. Werner * - DG
SPC Alan Michael Aubuchon
SPC Michael Jr Carrillo
PFC Corey Dawson Gay
SGT Eric Dale Gerst
PV2 Cohan Paul James
SPC Steven Garrett Lacey
PV2 Joshua Martin Lamberti
SPC Parrish Allen Matthews
SGT Christian Pliego
PV2 Jack Dylan Walling
SGT Dustin R. Westerman
Class 027-21
PFC Hasan A.Farttoosi * - DG
PFC Austin Lee Anderson
PFC Khalil Jmodd Anderson
PV2 Ryan Joseph Berg
PV2 Ryan Joseph Cakerri
PFC Cayleb Joe Coker *
PV2 Dandre Travon Craig
PFC Denver Lee Davis
SSG Dejan Matica
PVT Aaron Yadiel Soliscruz
PFC Darrin Youn Suon
PV2 Yuriy Yegorov
Class 028-21
PV2 Ty Jae Fox * - DG
SPC Dylan Andrew Adams
SPC Michael Robert Burt
SPC Jacob Ambrose Davis
SPC Kyle Glenn Lacy, II
PV2 Gabriel A.Lowden
SGT Matthew G. McIntyre
PFC Carter Nelson McKissick
PV2 Braxton Allen Nelson
PV2 Steffano A Pallotta
SGT Philip Edward Perkins
SPC Nicholas F. Stanton
Class 029-21
PFC Thomas G. Logan * - DG
PV2 James Barsaleau
PV2 John Ed Bourne, III
PV2 Jacob Richard Evans
PFC Eric Lee Griswold
PFC Casey Colten Justice
PFC Ethan A. Kennedy
PFC Lucas Gabriel Kropp
PFC Mason Aaron Lasco
PV2 Ryan Nathaniel Olsen
CPL Rudolf Rusnak
PFC Sydney W. Stephenson
Class 030-21
PFC Hayden C. Zimmerman*-DG
SPC Ian Thomas Anderson
SPC Kareif Taje Campbell
SPC Sean Michael Carey
SPC James Cuadrado, Jr
SPC Nicolas Deleon Gomez
SPC Ernest Andrew Hayward
SPC Justin Alexander Long
SPC Laquan Cyrique Quinton
PFC Andrew Bracken Stone
PFC Mickael B Vicente
PFC Sunhyun Jay Yu

Aircraft Powerplant Repairer (15B)
Class 005-21
PVT Jordan L. Baldwin
PVT Daniel Connor Batt
PV2 Braden Parker Foxley
PV2 Gavin L. Gardner
PFC Alejandro Gonzalezsoto
PV2 Mason Andrew Klug
PV2 Kristopher Dean Phelps
PFC Jonathan R. Ramirezmora
PFC Jose S. Reyes, II
PV2 Camrine A. Schuey
PV2 John Patrick Simpson
PFC Emil Dumitru Smochina
SGT Ryan Christopher Tyler
SPC Quest Hunter Williams
Class 006-21
PFC David Lee Trull * - DG
PV2 Marc Olivier Bobia
PV2 Matthew Ray Chandler
PV2 Kyle William Fields
SSG Heriberto Irizarry
PFC Austin M Nicefaro
SPC Ajay Raghavendra *
SPC Harrison James Ysbrand

Aircraft Powertrain Repairer (15D)
Class 003-21
PV2 Zachary D. Johnson * - DG
SPC Mahmoud I.Ali
PFC Daniel Vincent Ardellini
PV2 Dustin Jacob Blackmon
PV2 John David Freeman
PV2 Kyle William Garren
PFC Timothy J Guysayko
PFC Megan Grace Haagsma
PV2 Marschal J. Hipsag
PV2 Kyle Aaron Holt
PFC Levente Illes
PV2 Tyler Lee Lloyd
PFC Bryce Martin Redmon
PV2 Nathaniel A. Ritchie
PFC Sebastian Rodrigueztroche
Class 004-21
PV2 Kevin Sandoval * - DG
SPC John Eric Lopez
SPC Aidan Christian Murphy
PV2 Christian W.Schelske
PFC Tyson Robert Schultz
PFC Brandon Micheal Smith
SPC Daniel Takeshi Suzuki
PV2 William Trevor Tuggle
PV2 Deandre K Williams
PV2 Devon Dean Woodhouse

Aircraft Electrician (15F)
Class 004-21
PV2 Kyryl Melnyk * - DG
PFC Emily Morgan Avery
PV2 Vanjovi Metran Bibandor
PV2 Trenton Lee Cantlon
PFC Nathalia Gabbay
PV2 Andrew Tyler Marklowitz
PFC Carmen Lynn Noll
PV2 Brayden M. Watkins
Class 005-21
PV2 Collyn Alec Lima * - DG
PV2 Christian Cruzreyes
PFC Kevin Debusja
SGT Patrick Jeffery Delva
PFC Jonathan K. Hurst
PV2 Carson Taylor Malloy
PVT Ian Christopher Nally
PFC Carmen Lynn Noll
PFC Patrick James Sowell
SPC Paul Frederick Taylor, II
PV2 Noah A. Thornbury

Aircraft Hydraulics Repairer (15H)
Class 001-21
PFC Charles J.Jackson * - DG
PFC Patrick A. Cabrera Jr
PV2 Rhiannon A.Corsette

People On The Move

PVT Cameron Joseph Dykes
PVT Nilly Robert Gaines
Class 002-21
PFC Anthony C. Jones Jr * - DG
SPC Mdasad Binmannan
PV2 Evan Daniel Evans
PVT Kody Ira King
PV2 Brett Nathaniel Merkel
PVT William A.Robinson
PV2 Kyle Reed Westbrook

Avionic Repairer (15N)
Class 001-21
PFC Mason D. Miller * - DG
PFC Samantha Aceves
PV2 Elayna Victoria Balingit
PV2 Dean Andrew Hernandez
Class 002-21
PV2 Jacob A. M.Shuck * - DG
PV2 Ryan William Ast
PFC Damon Paul Jennings
PFC Brian Austin Kirtlink
PFC Robert W. Loveless, III
PV2 Justin Michael Lewis Pulliam
Class 003-21
PFC Ryan Andrew Beaulieu * - DG
PFC Trent Elijah Banaski
PV2 Hunter James Gauthier
PFC Alexander Rodriguez
Class 004-21
SFC Santiago A. Castan
2LT Anete Ceica
PFC Braden T. Eichenseer
CPT Jan Farber
PV2 Brett Andrew Hock
SPC Darlene A. Lawrence
PV2 Dmitrijs Lodins
CPL Vjaceslavs Pantepajevs
Class 005-21
PV2 Yuri Archipov * - DG
SPC William Garrett Barefoot
PFC Steven T. Clevenger
PV2 Julius Anthony Griego
Class 006-21
PFC Jeffery J. Olszewski * - DG
SGT Deonne Joseph Hopkins
PFC Ejuan Taije McKellar
SPC Eric Anthony Powell
PV2 Braedon William Spencer
PV2 Devion Alexander Webb
PV2 Marcanthony B. Wilks

Aviation Operations Specialist (15P)
Class 21-012
PFC Tyler Kendall - DG
PFC Brendan Gacheny
SPC William Meza
SPC German Velez
PFC Jorge Giron-Sanchez
PFC Tommie Steed
PFC Jacoria Tillman
PV2 Bailey Kimble
PVT Allen Alvarado
PVT Donovan Jackson
PVT Brandon Keller
Class 21-013
PFC Kayla Turpin - DG
PV2 Migual Wiggins
PFC Kassaine Jean
PFC Owen Kitchen
PV2 Vince Kyle Alcantara
PV2 Derrick Degraff
PV2 Andrew Edwald
PV2 Joanna Mulliken
PVT Jose Cintron
PVT Brittini-joi Mcneill
PVT Spencer Pierre
PVT Jose Ruiz
PVT Joshua Williams
Class 21-014
SPC Travis Summey - DG
SPC Jessica Thompson
PFC Logan Clark
PFC Whitney Curry
PFC Ryan David
PFC Precious Omweri
PFC Alondra Trueba
PFC Christopher White
PV2 Dylan James Ada
PV2 Nicholas Manzi
PV2 Amalia Mccoskey
PV2 Jada Thornton
PVT Devon Barker
Class 21-015
PFC Nelson Rodas - DG
PFC Makainy Larson
PFC John Alexander
PFC Sydney Burkes
PFC Kaci Lizarraga
PFC Lane Mullins
PFC Samuel Rodriguez-Hernandez
PFC Radi Stafford
PV2 Isela Flores
PV2 Luis Negron-Rosa
PVT Jackson Calef
PVT Kristoffer Hunter
PVT Taefon Lee
PVT Cole Mcpherson
PVT Isacar Pena-Peralta
Class 21-016
PFC Derek Mikish - DG
PFC Rigl Stout
SPC Jasmine Johnson
SPC Joshua Rierser
SPC Ricky Sawyer
PV2 Emily Nickelson
PV2 Jermaine Nixon

AIT Graduates Continued on next page

People On The Move

AIT Graduates Continued

PV2 Thorsson Quimby
PV2 Andres Reyes
PVT Caleb Forest
Class 21-017
PV2 Joshua Feeheley
PV2 Jorge Aviles
PV2 Brandon Malogorski
PV2 Ashley Moody
PV2 Elijah Taylor
PVT Angelica Palacios
PVT Antwuan Stacy
PVT Thomas Stanger

Air Traffic Control Operator (15Q)
Class 21-009
PFC Derek Mikish - DG
PFC Rigl Stout
SPC Jasmine Johnson
SPC Joshua Rierser
SPC Ricky Sawyer
PV2 Emily Nickelson
PV2 Jermaine Nixon
PV2 Thorsson Quimby
PV2 Andres Reyes
PVT Caleb Forest
Class 21-010
PFC James King - DG
PV2 Destiny Hanson
SPC Larson Gooch
PFC Aaron Knight
PFC Ares Marks
PV2 Cristian Hattaway
PV2 Gerardo Mejia-Araujo
Class 21-011
PFC Anthony Franco
PFC Chad Klink
PFC Jose Roman-Lopez
PFC Asher Tobey
PV2 Marquise Givhan
PV2 Jacob Moran
PVT Caden Brogan

AH-64 Armament/Electrical/ Avionic Systems Repairer (15Y)
Class 031-20
PV2 Image Reesman * - DG
PFC Brandon Aguilar
PV2 James Baughn, V
PFC Ricardo Carrasco
PFC Daniel Chavezpaz
PV2 Dylan Dowling
PFC Addison Edwards
PV2 Brandon Fielders, II
PV2 Blake Gladders
PFC Cole McNabb
PV2 Logan Parker
Class 032-20
PV2 Joseph Garcia
SPC Daniel Hernandez
PV1 Matthew Jones
PFC Anthony Landrum
SPC Chesten McDonald
SPC Devyn Midgett
PV2 Shaun Nichols
SPC David Ray
PFC Jayven Sechler
PFC William Wilkinson
PV2 James Wilson, III
Class 001-21
PFC Devlin Dart * - DG
SGM Almaloud, Maloud Ramzi M.H.
PFC Garrett Bridges
PV2 Parker Dejong
PFC Reynaldo Delagarza
PV2 Gabriel Gilbert
PV2 Jonathan Gonzalez
PFC Hunter Hamblin
PV2 Ethan Hendrickson
PFC Quinton Hill
PFC Musa Kareem
PV2 Caledon Krebs
Class 002-21
PV2 Caden Clark * - DG
PV1 Luca Cordon
SPC Timothy Decipeda
SGT Eric Holliday
PV2 Hayden Lieneke
PFC Chase Loubriel
PFC James Perry
PV2 Brayden Sliszkrewson
PV2 Brandon Sprouse
PV2 Eeon Vaillancourt

Unmanned Aircraft Systems (UAS) Graduations

Warrant Officer
AAAA congratulates the following Army graduates of the Tactical Unmanned Aircraft Systems Operations Warrant Officer Technician Course, MOS 150U, at Fort Huachuca, AZ.

Tactical Unmanned Aircraft Systems Operations Warrant Officer Technician Course
4 Graduates, 4 MAY 21
WO1 Charles Burton
WO1 Stephen Carey
WO1 Joseph Maynard
WO1 Nathan Shea

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

Shadow UAS Repairer Course
8 Graduates, 27 APR 21
PFC Ian Tobin (HG)
SGT Andrew Carrick
SPC Hunter Grassman
SPC Henri Rutledge
PV2 Timothy Hegarty
PV2 Levi McKeever
PVT Dante Chevalier
PVT Landen Matlock

6 Graduates, 11 May 21
PVT Jerron Woods (HG)
SGT Xgard Flores
PFC Blake Bergeron
PV2 Jacob Sanchez
PV2 Nathaniel Vest
PVT Dylan Swenson

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

9 Graduates, 21 April 2021
PFC Rebekka Zuhn (HG)
PFC Zakir Akber
PFC Michael Russell
PFC Julian Valdez
PV2 Noah Burton
PVT Jonah Boles
PVT Angelica Cole
PVT Tykedrick Edwards
PVT Alexander Trott

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
24 Graduates, 29 APR 21
PVT Austin Fearn (DG)
SPC Megan Rosano (HG)
SGT Terrance Blandford
SPC Bryant Magnum
SPC Fabian Rodriguez
SPC Attlee Simmons
PFC Gabriel Caruso
PFC Braydon Chandler
PFC Codi Frew
PFC Dylan Lewis
PFC Salvador Lopez
PFC Diego Mendoza
PFC Adam Rose
PFC Michael Williams
PV2 Dylan Derouchey
PV2 Zeb Edens
PVT Anya Broussard
PVT Braydon Burkhart
PVT Patrick Doughty
PVT Edmond Falk
PVT Cortland Finfrock
PVT Deandre Thompson
PVT Kameron Tweedle
PVT Westen Sylvester

23 Graduates, 18 May 21
PVT Jerry Gowen (DG)
SPC Jaymes Crain (HG)
SGT Joshua Shaffer
SGT Deodrich Williams
CPL Justin Pond
SPC Joshua Brown
SPC Cayce Copeland
SPC Yobany Cruz
SPC Justin Haynes
SPC Rayan Notice
SPC Steven Rivera
SPC Robert Steht
SPC Nway Nway Win
PFC Jack Pacheco
PFC Micheal Vargas
PV2 Eric Hersh
PV2 David Huddleston
PVT Gregory Kealey
PVT Adam Jauregui
PVT Earl Marshall
PVT Ellysa Pennington
PVT Alyssa Schultz
PVT Shemarr Victor

Gray Eagle UAS Operator Course
12 Graduates, 27 Apr 21
PVT Lucas Davis (HG)
PFC Jesse Cortez
PFC Parker Grogan
PFC Zachary Isreal
PV2 John Cotto
PV2 Chance Culver
PV2 George Depew
PVT Logan Boe
PVT Jacob Clark
PVT Abel Cuevas
PVT Daniel Fielder
PVT Marcus Graves

12 Graduates, 30 Apr 21
PVT Lucas Shlapak (HG)
SPC Ethan Dorval
PFC Kylie Crane
PFC Bailey Goudnough
PFC Anthony Kerr
PV2 Katelyn Kitchens
PV2 Jason Loebrick
PV2 Michael Owens
PV2 William Ray
PV2 Daniel Solis
PVT Dalton Lewis
PVT Andrew Reina

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

Thank You to Our Scholarship Fund Donors

AAAA recognizes the generosity of the following individuals, chapters and organizations that have donated to the Scholarship Foundation, Inc. from June 2020 through June 2021. The list includes donations received for all scholarships, as well as the General Fund which provides funding to enable the chapter, corporate, heritage and individual matching fund programs as well as national grants. Every penny donated to the Scholarship Foundation goes directly towards scholarships as a result of the Army Aviation Association of America subsidizing all administrative costs (minus investment brokerage fees).

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Michelle Yarborough-IHO CW5 Lee Tutin, Ret.
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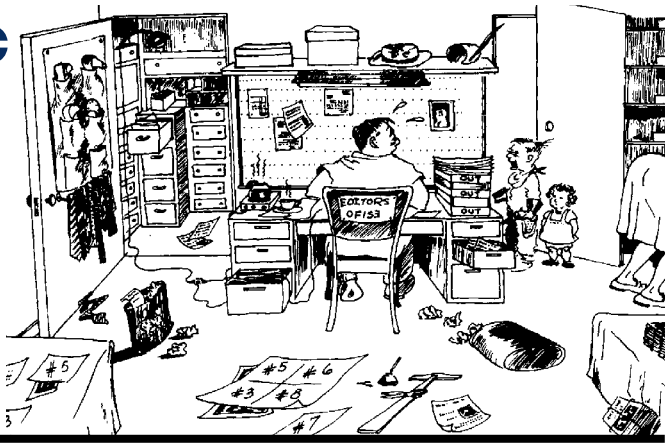
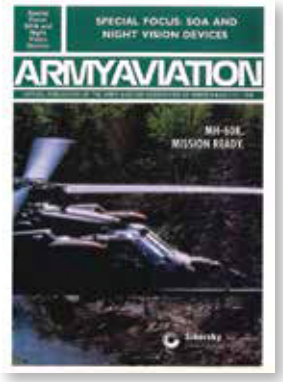
Art's Attic

By Mark Albertson

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





25 Years Ago

July 31,1996

Briefings

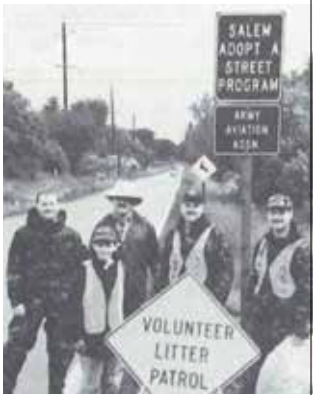
July 4, 1996: The USNS Gordon (T-AKR 296) was christened at Newport News Shipbuilding, Newport News, Virginia. T-AKR 296 is a Large Medium Speed Roll-on, Roll-off Transport containerized cargo vessel, attached to the Navy's Military sealift Command. USNS Gordon (T-AKR 296) is named in honor of Medal-of-Honor recipient, MSG Gary I. Gordon, a USASOC sniper killed-in-action, October 3, 1993, in Mogadishu, Somalia.

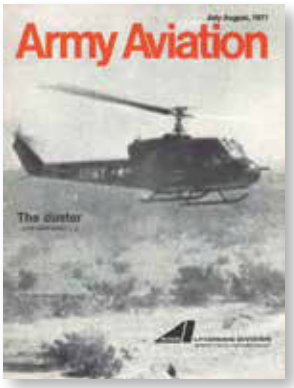
Wings for Master Aviator

Major Thomas J. Kee III receives his Master Army Aviator wings. Pinning them on is Major General James D. Cravens, Deputy Chief of Staff for Combat Developments. Ceremony was held on February 9, 1996, at HQ TRADOC, Fort Monroe, Virginia. Major Kee has over 5,000 hours in both rotary wing and fixed wing aircraft.

Giving Back to the Community

Members of the Oregon Trail Chapter of AAAA pose for a photo, during one of the myriad of community projects in Salem, Oregon, June 1, 1996. From left-to-right is: Joseph Molohan; Ryan Jackson; Major Robert E. Payne, Chapter Senior V.P.; Dan McCarron and CW3 James O. Jackson, Chapter V.P. Membership.





50 Years Ago

July-August 1971

Sotto Voce

A standard, four-place Cessna Cardinal recently made a flight with a new engine: A Curtis-Wright rotating combustion (Wankel) power plant. Such was the initial flight under an experimental program, "Quiet Engine," conducted by Curtis-Wright and Cessna. The plane featured a three-bladed, 100-inch diameter, wide-chord prop with an extensive exhaust system, which were decided aspects of the Cardinal's muffled flight.

New Training Aid

A model-maker at Fort Wolters, Jim Tork, has constructed a new hover simulator, based upon plans drawn up by Maurice Julian (left). The director of training aids explains the device to Major David Boivin (right) of DOT and USAPHS. The new trainer will be used to familiarize students with helicopter controls, offering a safer, less expensive approach to hover training.

Future A.J. Foyt?

Twelve-year-old Keith Grant, son of Major Horace E. Grant, member and V.P. of AAAA's Latin America Chapter, stands beside his chapter-sponsored racer. The young chauffeur bested 23 competitors in July, to take the Canal Zone soapbox competition. In addition, his racer took first prize for best design. Keith will represent the Southern Command at Akron, Ohio, in August, in the renowned Soapbox Derby Finals.

Army Aviation Hall of Fame

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

The actual Hall of Fame is located in the Army Aviation Museum, Fort Rucker, Ala.

The deadline for nominations for the 2023 induction is June 1, 2022

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

Colonel Ted A. Crozier

Army Aviation Hall of Fame 1989 Induction - Atlanta, GA

During his 32 years of service Colonel Crozier served continuously in aviation and infantry units from company through brigade levels. He commanded the 76-aircraft 101st Aviation Company, that utilized the Army's first UH-1As for field testing, a unit that was later reorganized into the Army's first aviation battalion.

His Company was the first to demonstrate troop-rappelling from the UH-1A, to use multiple refueling points, and to use camouflage-painted UH-1As. The 101st Aviation Battalion (Prov) became the model for future battalions in SOPs, ATTs, etc.

As a LTC(P), Crozier was selected to command and reorganize the division's aviation assets along with the US Army Vietnam assets into the 160th Aviation Group (later the 101st Aviation Group), while maintaining its combat commitments to include the five-division assault into the A Shau Valley. This one-year task took six months and included a successful Command Maintenance Management Inspection. During this period, the 101st Airborne Division (AASLT) was selected as AAAA's "Aviation Unit of the Year."

He then became Chief of the 16,000-member Aviation Warrant Officer Branch, his many innovative approaches improving many aspects of AWO management. Later, he served as President of the Army portion of the DoD Close Air Support Study, which prevented the Army's attack helicopters from being placed under USAF command and control.

The first Aviator to serve as Chief of Staff of the 101st Airborne Division (AASLT), he was responsible for all facets of training and the 101st's deployment to Europe for REFORGER 1976. Crozier served as the first "Honorary Colonel of the 101st Aviation Regiment" until his death in January 2017.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