ARMY AVIATION

NETWORK | RECOGNITION | VOICE | SUPPORT

February 28, 2022

AVIDYNE HELIOS™
MULTIFUNCTION FMS

Avidyne Helios is a NextGen dzus-mount SBAS FMS designed specifically for use in military and special mission helicopters. Avidyne Helios simplifies flight planning with a Hybrid-touch™ user interface that incorporates a full set of buttons and knobs plus a touch-screen that is glove friendly. One-button access to Jeppesen™ electronic approach charts and airport diagrams dramatically reduces pilot workload and enhances situational awareness. Integrated wireless connectivity allows pilots to transfer flight plans from tablet Apps including ForeFlight™.

- **3D Synthetic Vision**
- **Visualization of high-tension powerlines**
- **NVIS Compatible**
- **TSO-c194 H-TAWS providing visual and aural alerts**

Made in the USA.

AVIDYNE®

avidyne.com/helios

Contents

February 28, 2022, Vol. 71, No. 2

TO THE FIELD

10 **Aviation Branch Chief's Corner**
By MG David J. Francis

14 **PEO Aviation Update**
By BG Robert L. Barrie

16 **PEO Aviation Command Chief Warrant Officer Update**
By CW5 Travis Dixon

18 **Sergeant Major of the PEO Aviation Update**
By SGM Carlos A. Loeza

22 **Combat Readiness Center Update**
By COL Ronald L. Ells

24 **Reserve Component Aviation Update**
COL Jay McElveen and CPT James Smith

25 **128th Aviation Brigade Update**
By SFC Hector E. Esquilin

26 **CCDC Avn Tech Talk**
By Mr. Rob Peter, Mr. Mark Anthony Gonzales & Mr. Scott Gray

27 **Ask the Flight Surgeon**
By MAJ Devon Greer, MD

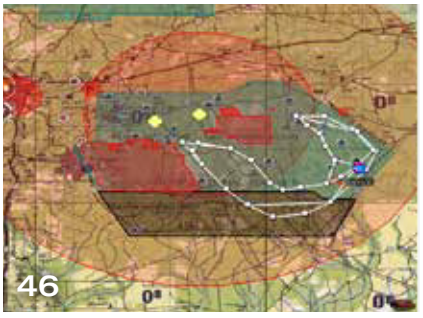
SPECIAL FOCUS — Rotary Wing PM Updates

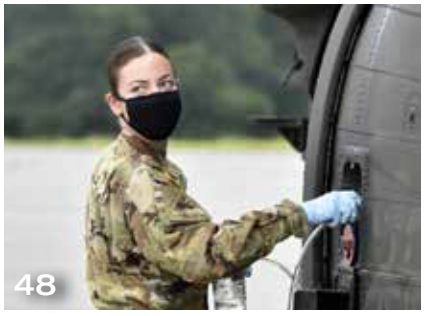
28 **AH-64 – Relevant, Relational, Resilient & Safe**
By COL John (Jay) Maher

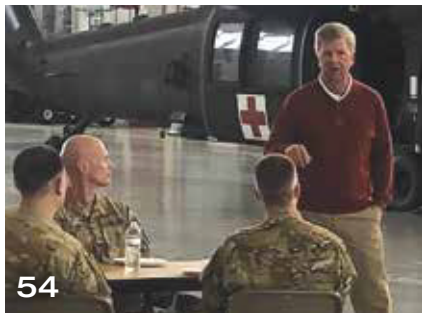
30 **PM Cargo Update**
By COL AL Niles Jr.

32 **MASPO: Meeting Operational Requirements in a Dynamic Environment**
By COL Tim McDonald, Dr. Wayne Hudry, Mr. Andy Greer & Mr. Blake Anderson

34 **Utility Helicopters Project Office Update**
By COL Calvin Lane







Contents

February 28, 2022, Vol. 71, No. 2

SPECIAL FOCUS — Rotary Wing PM Updates *continued*

36 **Future Attack Reconnaissance Aircraft (FARA) Program Updates**
By COL Kevin S. Chaney

38 **FLRAA: Adaptive in its Acquisition Approach**
By COL David C. Phillips

40 **Delivering Open Hardware and Software Capabilities for a Common Architecture**
By COL Burr Miller

SPECIAL FOCUS – Army Capability Managers Update

42 **Army Capability Manager-Lift Update: Targeted Modernization of the Enduring Fleet**
By COL Barton (Bart) Johnke, LTC Mary Beth Scott & Mr. Bill Jones

44 **Continue to Dominate: AH-64 Capability Improvement for Multi-Domain Operations**
By COL Ryan K. Welch

SPECIAL FOCUS – Army Futures Command Update

46 **Ensuring Network Interoperability & Survivability for Army Aviation**
By COL Marcus Gengler, LTC Gerardo Dominguez, & Mr. Glen Woodard

FROM THE FIELD

48 **Finding the Best Method for Learning**
By WO1 Kaleb Petry

50 **Aero App – Your Free DOD-Owned EFB**
By Ms. Alexandra M. Marks

DEPARTMENTS

AAAA NEWS

AAAA President's Cockpit....8
AAAA VP Chapter Affairs....54
Chapter News....55
AAAA VP Membership....58
New Members....59
AAAA Family Forum....60
AAAA Legislative Report....64

ARMY AVIATION COMMUNITY NEWS

Advertisers Index....65
Art's Attic....70
Briefings....6
Calendar....61
Enlisted Spotlight....20
Historical Perspective....52
Industry News....65
In Memoriam....57
News Spotlight....37
People on the Move....66
SFI Scholarship Donors....63

ARMY AVIATION is the official journal of the Army Aviation Association of America (AAAA). The views expressed in this publication are those of the individual authors, not the Department of Defense or its elements. The content does not necessarily reflect the official U.S. Army position nor the position of the AAAA or the staff of Army Aviation Publications, Inc., (AAPI). Title Reg® in U.S. Patent office. Registration Number 1,533,053. SUBSCRIPTION DATA: ARMY AVIATION (ISSN 0004-248X) is published monthly, except May and September by AAPI, 593 Main Street, Monroe, CT 06468-2806. Tel: (203) 268-2450, FAX: (203) 268-5870, E-Mail: aaaa@quad-a.org. Army Aviation Magazine E-Mail: magazine@quad-a.org. Website: http://www.quad-a.org. Subscription rates for non-AAAA members: $30, one year; $58, two years; add $10 per year for foreign addresses other than military APOs. Single copy price: $4.00. ADVERTISING: Display and classified advertising rates are listed in SRDS Business Publications, Classification 90. POSTMASTER: Periodicals postage paid at Monroe, CT and other offices. Send address changes to AAPI, 593 Main Street, Monroe, CT 06468-2806.

TELEDYNE FLIR

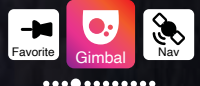
SUPERIOR MISSION SUPPORT

The 380X features a new user interface, de-scintillation filter, encoded video, multi-tile video, improved auto tracking and Moving Target Indicator (MTI) in a single LRU. Make informed decisions faster with advanced imaging from 380X.

VIEW MULTIPLE VIDEO SOURCES SIMULTANEOUSLY

SEE MORE DETAILS WITH DE-SCINTILLATION FILTER

IMPROVED MOVING TARGET INDICATOR (MTI)



NEW CUSTOMIZABLE ICON BASED GRAPHICS (GUI)

FLIR.COM/AA380X

ARMYAVIATION

Founders /Art and Dotty Kesten

Publisher / William R. Harris Jr.

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

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

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

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

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

Advertising Director / Robert C. Lachowski
bob@quad-a.org

Advertising Manager / Erika Burgess
erika@quad-a.org

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

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

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

Web Master / Mary Seymour
mary@quad-a.org

Circulation Department
Deb Cavallaro
Debbie Coley
Jackie Harris
Elisabeth Mansson

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

ARMYAVIATIONmagazine.com

On The Cover

Briefings ▶ *Late Breaking News - Announcements*

Kurilla Nominated to Head CENTCOM

DOD PHOTO

LTG Michael E. Kurilla was nominated by the president on Jan. 7, 2022 for appointment to the rank of general, and assignment as the 15th commander, U.S. Central Command, MacDill Air Force Base, FL. Kurilla is currently serving as commanding general, 18th Airborne Corps, Fort Bragg, NC. If confirmed by the Senate, Kurilla will replace U.S. Marine Corps GEN Kenneth F. McKenzie, Jr. who has served in the position since March 2019.

Robinson Moves to DCG 2 ID

DOD PHOTO

The Chief of Staff of the Army announced on Jan. 27, 2022 the assignment of BG Lori L. Robinson, Deputy Commanding General (Support), 10th Mountain Division (Light Infantry), Fort Drum, NY to Deputy Commanding General (Support), 2nd Infantry Division (Combined), Eighth Army, Republic of Korea.

Congress Authorizes Medal of Honor for Fujii and Four Others

ARMY AVIATION HALL OF FAME PHOTO

Army Aviation Hall of Fame inductee, SP5 Dennis M. Fujii, a medical evacuation helicopter crew chief who was left behind, wounded, in Laos amid a massive enemy attack in Feb. 1971, is among five soldiers who may receive the nation's highest award for valor, the Medal of Honor, as a result of the president signing the Fiscal Year 2022 National Defense Authorization Act into law on Dec. 27, 2021. And four other Soldiers from the 1993 Battle of Mogadishu could see their awards upgraded to the Distinguished Service Cross. In the bill, Congress formally waived time limits on presenting the awards – a final administrative step necessary for Biden to present them. Fujii received the Distinguished Service Cross after coordinating U.S. airstrikes and artillery in defense of a South Vietnamese base there for two days before he could be safely evacuated (see page 71 for more details).

Sexual Harassment Now a Crime in the Military

U.S. AIR FORCE PHOTO BY SSGT. JOSHUA MAGBANUA/U.S. AIR FORCE

Sexual harassment was formally added to the Uniform Code of Military Justice on Jan. 26, 2022. The executive order from President Joe Biden also ends some legal questions about whether military officials could prosecute the crime directly or would need to use other misconduct charges to effectively punish violators. The language outlined in the FY 2022 National Defense Authorization Act defines harassment under the new code as making an unwanted sexual advance, demanding sexual favors or other inappropriate conduct of a sexual nature where victims are led to believe that refusal could endanger their career or safety. The new language also specifies that harassment can occur in person or online, to include the unwanted sharing of intimate or pornographic imagery.

GI Bill Housing Stipend Protections Enacted For Vets

DOD PHOTO

President Joe Biden signed into law on Dec. 21, 2021, legislation that will ensure full GI Bill housing stipends next semester for students forced into online classes because of the pandemic. Post-9/11 GI Bill benefits students receive money for tuition plus a monthly housing stipend. Individuals enrolled in traditional in-person classes receive the full financial benefit, while students in online-only classes get half of that housing stipend. Congress passed emergency legislation called the REMOTE Act allowing VA administrators to keep paying out the full, expected housing stipends through the summer of 2022 instead of cutting the support checks by half.

CORRECTION:

On page 33 of the January 31, 2022 issue, author Richard Lewis is chief of the Engineering Branch, AMCOM G-4. We apologize for the error.

EXTREME

Advanced thermal management for extreme military environments

Meggitt has developed cooling solutions for the most challenging flight conditions, missions, and extreme environments. From low supersonic flight, to high hot wet hover, to desert and arctic operations, our thermal management systems and components, including fans, pumps, and compressors are proven and ready to meet the challenge of the more electronic platform and battlefield.

For more information please contact:

Meggitt Defense Systems
9801 Muirlands Blvd.
Irvine, CA 92618
Tel: +1 949 465 7700
E-mail: gerry.janicki@meggitt.com

Enabling the Extraordinary
To Fly To Power To Live

www.meggittdefense.com

Our Chapters – the Soul of AAAA

Can you believe we are two months into 2022 already? The AAAA Annual Summit is just weeks away now and everyone is leaning forward as we get into the execution phase. I hope you are making plans to join us in Nashville.

AAPI PHOTO BY BILL HARRIS

AAAA National President, MG (Ret.) Tim Crosby (second from right) poses with Iron Mike chapter officers during a January 3, 2022 visit. Pictured are (left to right): VP Awards, Julia Frassetto; VP Scholarships, Shaun Collins; Chapter President, EJ Irvin; VP Marketing & Development, Kerry Irvin; Crosby; and Chapter Secretary, Ann Nollett.

While the staff is laser focused on preparing for the Summit, I am still on my mission to visit all 79 chapters. Just after the new year, I hit five in one week: Iron Mike, Jimmy Doolittle, Savannah, Greater Atlanta, and Follow Me! My next swing will be through Louisiana and Mississippi. Each time I go to a chapter, I get invigorated by the enthusiasm of the chapters' leadership teams. While the AAAA staff prepares a pre-briefing packet for me that has several key statistics on the chapter's activities, when I meet with the chapter leadership I get great feedback and learn how each chapter is truly unique. To remind us of that "uniqueness" I have asked the staff to coordinate and include an article in each magazine that highlights a different chapter. This is to be an article authored by the chapter and the topic will be at their discretion, ranging from their chapter history, to membership, to activities, etc. Again, focusing our attention on the reason we exist, our chapters.

As part of our chapter recognition, this time of year, we begin to gather individual chapter stats and rack and stack them all by category (Super – over 500 members; Master – 175-499; Senior –75-174; and AAAA – 74 or fewer members). We then use a metric-based system to evaluate each chapter as Red, Amber, or Green depending on their relative health and then pick the Top Chapters in each category. The metrics are all about your local experience and are designed to recognize and reward the chapter most successful in attaining the goal of motivating all to strive for the annual recognition.

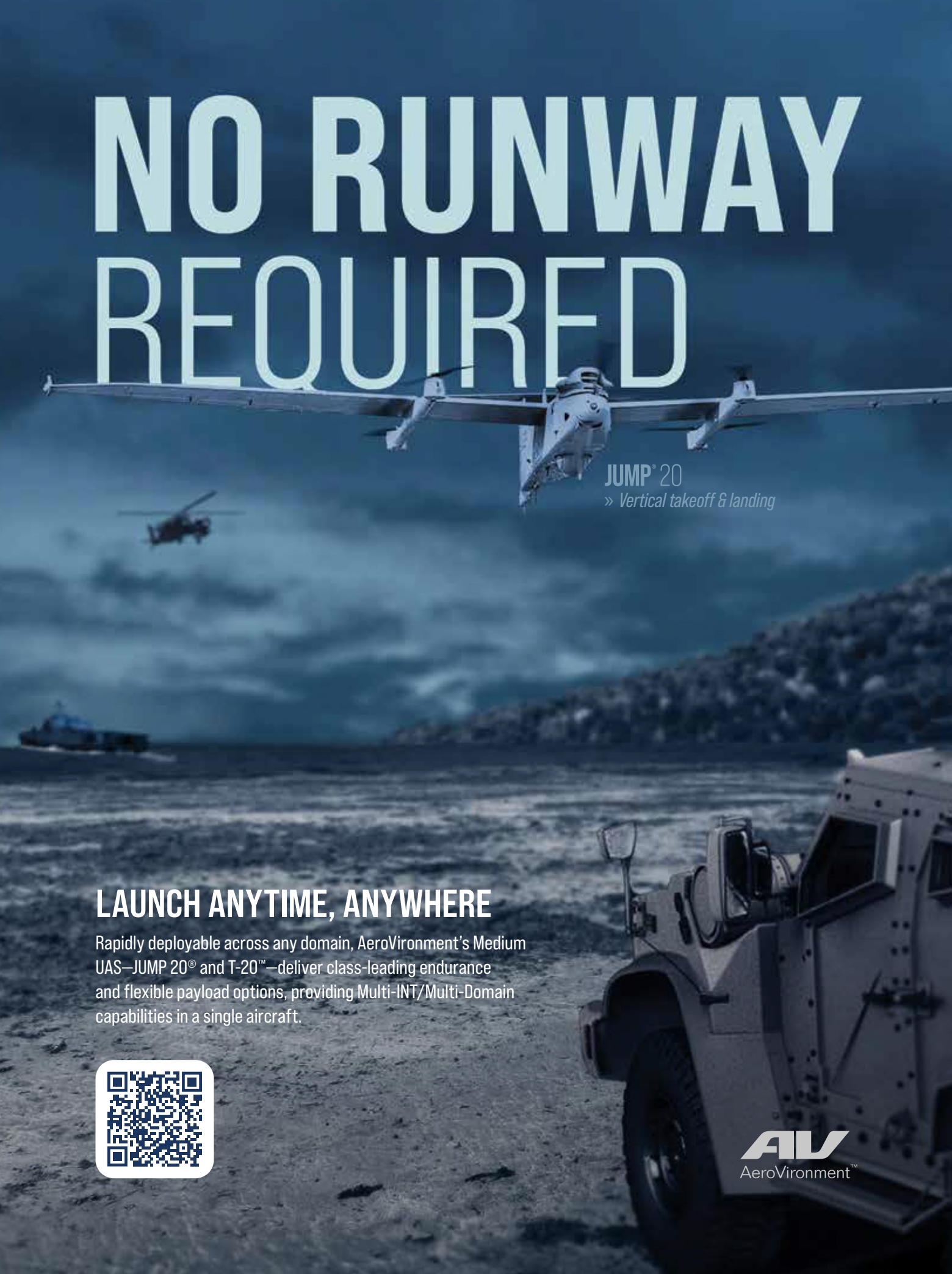
We look at a plethora of activities: How many Orders of Saint Michael and Knight awards as well as Lady of Loreto awards did your chapter nominate? How many nominations came from each chapter for our national awards like Soldier of the Year? How many scholarships did they sponsor to provide higher education dollars to you and your families in this merit-based system? Has your chapter been holding its minimum of four membership meetings each year? You get the idea. It is all about your Networking, Recognition, Voice, and Support opportunities that are happening locally for you all. I know I sound like a broken record, but if you are not getting what you are looking for in your local AAAA chapter then you simply won't remain AAAA members. It is as simple as that. This is why I am pushing so hard to make sure we empower and energize the chapters to meet your expectations especially as we seem to finally, really, truly, hopefully, emerge from the last two years of restricted gatherings and interactions due to the coronavirus.

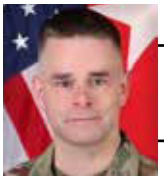
What more can we do at the national level? Success and membership stability/growth only happen at the chapter level. Let me know directly what you think we can do better to facilitate your success. Based on your continued feedback, I will work closely with our National VP Chapters, Jan Drabczuk, as well as our great AAAA National staff to make you successful in your chapter.

Attention Chapter Officers: a key part of the AAAA Annual Summit are the Chapter Workshops that we hold each year during the event. This year they are on Sunday morning, April 3, 2022, from 1000 to 1400. We will be discussing some of my findings resulting from my visits, but most importantly we will be seeking your direct feedback and welcome some spirited discussion in that four-hour session.

Your members are depending on all of us to deliver. Together we can make our mission statement to "Support the U.S. Army Aviation Soldier and Family" even more real and dynamic for all our members. We can do no less. See you there!

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


NO RUNWAY
REQUIRED
JUMP® 20
» Vertical takeoff & landing
LAUNCH ANYTIME, ANYWHERE
Rapidly deployable across any domain, AeroVironment's Medium UAS—JUMP 20® and T-20™—deliver class-leading endurance and flexible payload options, providing Multi-INT/Multi-Domain capabilities in a single aircraft.
AeroVironment™



Why We Win

By MG David J. Francis

U.S. NATIONAL GUARD PHOTO BY MSG BECKY WANSHUR

The key component to the success of our military is the American Soldier.

CW2 Oceana Chamberlain, 1-183rd Assault Helicopter Battalion, Idaho National Guard, practices flight maneuvers throughout Idaho's snowy Owyhee Mountains, south of Gowen Field, on Jan. 13, 2022.

While modernization is an absolute imperative for our Army, it is the Soldier who is trained and ready to receive, use, and win with that new equipment that is essential. In the Aviation branch, our Soldiers fix, fly, and employ some of the most sophisticated aircraft in the world in support of the Ground Force Commander as a component of Combined Arms Maneuver. How we train, develop, and prepare our Soldiers, NCOs, Warrant Officers, and Officers is critical to provide our nation with an Army that can fight and win in Large Scale Combat Operations (LSCO).

The United States Army Aviation Center of Excellence (USAACE) is responsible for the training and Professional Military Education (PME) of our Aviation Soldiers from E-1 to O-8. USAACE leverages world-class instructors and facilities across three major installations to ensure we are providing the Army of 2030 a capable and ready force as a part of the joint fight. Institutional training is continuing to evolve at a rapid rate to match the improvements in doctrine, tactics, equipment, and increased knowledge and skills of our new Soldiers. Our redesigned education efforts are having immediate impacts on how we fight and train with our enduring airframes while setting the conditions to receive and employ our Future Vertical Lift (FVL) platforms. We are creating agile,

rolls-royce.com

BELL V-280 VALOR

Superior speed and range for Army modernization

Optimum capability requires propulsion excellence. The Rolls-Royce propulsion solution for the Bell V-280 Valor features a proven, low-risk engine and a fully integrated system design. Backed by an experienced American workforce in a modernized, advanced manufacturing facility, the Rolls-Royce propulsion system is **ready now** for the U.S. Army.

POWER TO PROTECT

flexible, adaptive leaders of character who possess the ability to think critically and timely.

Some of the largest changes and improvements to Aviation PME are occurring with our lieutenants and captains. The LTs and CPTs of today will serve as the company commanders, S3s, XOs, and battalion commanders of the Army that is expected to fight and win in LSCO. The Aviation Basic Officer Leadership Course provides new lieutenants with basic soldiering, leadership, officer skills and combined arms tactics in addition to the challenges of attending flight school. The culminating three week Aviation Leadership Exercise (ALE) allows the LTs to work with their WO1 counterparts on aviation mission planning, briefing, and execution of an actual aviation mission in a simulated environment. Our future leaders are better prepared to become valuable teammates capable of leading and executing aviation operations during their initial assignment.

The Aviation Captain's Career Course (AVC3) is developing future company/troop commanders and staff officers at the battalion and brigade level who can also excel in LSCO. AVC3 is providing the CPTs with a crucial understanding of new and refined doctrine to ensure they understand how to fight on today's battlefield while developing them to lead on the battlefield of the future.

All Aviation Battalion and Brigade Commanders attend the re-structured Aviation Pre-Command Course (PCC). PCC provides our CSL commanders an update on the latest Army Aviation Doctrine and Tactics, current trends and concerns across the enterprise, direct senior leader engagement and mentorship, and culminates in deliberate LSCO mission planning. This course does a phenomenal job of preparing our commanders for current operations while teaching them to think about future missions.

The future of how we fight and win our nation's wars is changing rapidly. We will face a highly trained and highly capable enemy that is able to contest our forces in every domain. As our equipment modernizes and becomes more agile, lethal, and survivable our tactics and leadership development must modernize to maximize the capabilities of our new and legacy aircraft. The last 20 years of conflict taught us that the American Soldier is the key to victory, and it is essential that we provide the correct education to ensure they are prepared for the future fight. Every action we are taking in Army Aviation Branch is synchronized across the DOTMLPFP (doctrine, organization, training, materiel, leadership and education, personnel, facilities and policy) but the central focus is, and has to be, our Soldiers.

Newer, more adaptive and capable aircraft and digital systems are critical to our ability to fight and win. Highly trained, disciplined, physically and mentally fit Soldiers are WHY we win.

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.

HELIBASKET™

Tow Bridle Load Out Kits

US Army and Air Force Primary Load Out Kit

- Appoved For All Army Helicopters
- Light Weight - High Strength
- Plasma® 12 Strand Ropes
- Carbon Fiber Spreader Bar
- Lines Maintain Equal Tension

TB37000A

GSA Contract Holder
Contract # 47QSWA-19-D-004R

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

RESCUE - DEPLOYMENT - LOGISTICS

For Your Most Critical Missions, Trust HELIBASKET™

Helibasket, LLC • 450 N Highway 11, West Union, SC 29696 • 846-638-6196 • www.heli-basket.com • CAGE 6K5F7

Program Executive Officer Aviation Update

By BG Robert L. Barrie

U.S. AIR FORCE PHOTO BY SENIOR AIRMAN FAITH SCHAEFER

A CH-47F Chinook helicopter is unloaded from a C-5M Super Galaxy at Royal Australian Air Force Base Townsville, Australia, July 7, 2021. The C-5 transported two CH-47F Chinook helicopters to RAAF Base Townsville as a part of the Department of Defense's Foreign Military Sales program.

A little over a year ago, I signed a memorandum outlining Program Executive Office, Aviation's Campaign Plan Lines of Effort for 2021.

Within the document, I spelled out our three primary objectives: 1. Build the Future Vertical Lift ecosystem (FARA, FLRAA, FUAS, MOSA); 2. Ensure the readiness and relevance of the enduring aviation fleet; and 3. Build partner nation capacity

These objectives are nested with Assistant Secretary of the Army, Acquisition, Logistics and Technology and Army objectives and they shape everything the PEO does. The objectives have been very successful in aligning PEO Aviation activities and provide our team members with a framework to guide their efforts. The objectives remain current and will be our objectives for the foreseeable future.

The three objectives, complemented by five initiatives found in the memorandum, feature prominently in the recently published PEO Aviation Strategic Plan titled "Forging the Future of Army Aviation." This plan provides additional guidance for the PEO workforce and expands on the objectives, provides guidance for the various PEO Aviation mission sets and explains the five initiatives in greater detail. You can find a copy of the plan on the PEO Aviation Resources web page: *https://www.army.mil/article/252753*.

Modular Open Systems Approach (MOSA) is the common thread through all of the objectives. In fact, we see MOSA as a fundamental building block for our efforts. Success with this approach is the only path for flexible and affordable integration of new capabilities on our platforms. Adopting MOSA for the Future Vertical Lift fleet is imperative because we can incorporate the approach while we design completely new aircraft. We will use the lessons from future fleet integration as we proceed with the integration on the enduring fleet. This improves our current capabilities while reducing risk for future platforms. MOSA also supports building partner nation capacity by providing increased commonality and adaptability in the aircraft provided to our partners through Foreign Military Sales.

In this edition, you will find articles from the MOSA Transformation Office, PMs Apache, Cargo, FARA, FLRAA, MASPO and Utility along with articles from PEO leaders. Here are some highlights:

In his article, Mr. Matt Sipe, the director of the MOSA TO, provides an overview of PEO Aviation efforts to work with DOD and industry representatives to develop and implement MOSA standards across the Army Aviation Enterprise. He discusses the technical aspects and challenges of defining MOSA standards, the business case for MOSA, the PEO Aviation MOSA lines of effort and the challenges of moving from a strategy into execution.

PM Apache continues working on the

readiness and relevance of the Apache fleet. COL Jay Maher and his team have already delivered the AH-64E V6 aircraft to two units: 1-229 Attack and 3-17 Cav. Additionally, they are currently delivering V6 aircraft to 4-2 Attack, Camp Humphreys, Korea. The V6 leverages technology improvements and addresses obsolescence issues in older AH-64D/E versions while enabling Army Aviation to conduct doctrinal attack, reconnaissance, movement to contact, and security missions across the full spectrum of military operations.

As part of his update, COL Al Niles, PM Cargo, discusses the latest on Chinook Block II, provides an update on Chinook sales to our international partners and other topics. Al and his team recently shipped the first of seventeen CH-47F Block I aircraft headed to the Spanish Army from the Port of Baltimore, Maryland.

Our new Future Attack Reconnaissance Aircraft Project Manager, COL Kevin Chaney, provides an update on the FARA competitive prototype builds and what the FARA PO has planned for Experimental Demonstration Gateway Exercise (EDGE) 22 and Project Convergence 22.

COL David Phillips gives you an update on the Future Long Range Assault Aircraft in his article. He and his team are using a hybrid acquisition approach, leveraging the DOD's Adaptive Acquisition Framework to support the Army's modernization goals.

PM Utility, led by COL Calvin Lane, provides the latest information on H-60M, H-60V, MEDEVAC, Lakota, International Programs and other government agencies support. He'll share more on his team's recent milestone with the delivery of the ninth and final modified HH-60L Black Hawk to the Department of State, Bureau of International Narcotics and Law Enforcement Affairs, Office of Aviation, completing the HH-60L maintenance and modifications project.

Our PMs have been very successful in the past year. We have set an ambitious agenda in the Forging the Future of Army Aviation strategic plan to build upon that success. Our team members are on board, and we are aligning our efforts to design, develop, deliver and support the advanced aviation capabilities our operational commanders and allies need for the future.

I also want to introduce our new SGM, Carlos Loeza. SGM Loeza comes to PEO Aviation from the 1st Cavalry Division, Ft. Hood, Texas where he served as the CAB Command Sergeant Major. He began his career as a 15G, Aircraft Structural Repairer, and has served in leadership positions from section all the way up to brigade. SGM Loeza brings significant experience to the position. He's eager to get out and start engaging with Soldiers and we expect great things from him.

SGM Loeza's arrival means that we are saying farewell to SGM Woody Sullivan. Woody has done an outstanding job during his tenure as the first PEO Aviation sergeant major. We have appreciated his perspective on our mission and his motivation and dedication to our success. SGM Sullivan's success in getting senior NCOs assigned to PEO Aviation paid dividends immediately and continues to make an impact today.

Woody, we wish you and your family all of the best in your future endeavors.

Giddyup!

BG Robert L. Barrie is the Army Program Executive Officer, Aviation at Redstone Arsenal, AL.

Program Executive Office Aviation and Foreign Military Sales

By CW5 Travis Dixon

As you have read in BG Rob Barrie's article, PEO Aviation's third objective is to build partner nation capacity. This is an unheralded, little-known, but extremely critical mission for PEO Aviation, the Army and the Nation.

U.S. ARMY PEO AVN PHOTO

The Utility Helicopter Project Office staged and loaded eight UH-60M Black Hawks at Joint Base Lewis-McChord, Wash. for delivery to the Royal Saudi Land Forces Aviation Command. Four C-17 sorties were used to deliver the aircraft.

As of last July, PEO Aviation had over 500 Foreign Military Sales (FMS) cases worth more than $56 billion in support of our allies and partners around the world. These FMS cases can include anything from new production aircraft, modifications to existing aircraft, spares, maintenance support, training and training aids to ground support equipment. More than 70 nations have received, or will receive, more than 2,800 new and remanufactured aircraft.

A significant advantage we provide with our sales is transparency throughout the process and a total package approach (TPA). TPA provides support and services of FMS aircraft, to include training, technical assistance, initial plus follow-on support, software support, ammunition and construction of necessary support facilities required to introduce and sustain equipment.

There are many reasons for providing capability to our partners and allies. Building partner capacity helps those countries deter conflict and gives them the ability to respond to natural disasters. FMS builds and strengthens alliances and partnerships. Using common equipment builds understanding and rapport between those nations and our Army, setting the conditions for future interactions. If tensions increase or conflict erupts, the increased partner nation capacity may allow that nation to respond without direct U.S. assistance and will allow U.S. Forces time to react and begin to build combat power. If combat operations begin, our partners have the capability to be full partners with allied forces providing operational and tactical agility.

FMS is also beneficial to achieving cost savings and keeping our production lines warm. As U.S. demands for enduring Program of Record (POR) aircraft decrease, FMS aircraft are increasingly keeping the assembly lines open and producing aircraft. This keeps the industrial base and labor force strong while providing economy of scale cost benefits for us and our allies. We have found that encouraging our partners to accept U.S. requirements for their aircraft with minimal changes helps to control costs, speeds up delivery and promotes commonality in repair parts, weapons and communications.

COL Tim McDonald, project manager for the Multi-National Aviation Special Project Office (MASPO), also has an article in this edition. In it, he describes the great things his team is accomplishing in support of this critical PEO Aviation objective; with a portfolio of nearly $9 billion, they are very busy.

The rest of the PEO Aviation FMS portfolio encompasses U.S. standard, POR aircraft. The Apache, Black Hawk and Chinook airframes along with Unmanned Aircraft Systems make up a majority of our remaining FMS portfolio. Assistant Program Executive Office (APEO) International lead by Mr. Roderick Bellows, works with the international offices in the various program offices to support and facilitate these sales. The APEO International mission is to

'facilitate security cooperation and security assistance responsibilities through building partner capacity and foreign military sales; supporting our international partners and allies requirements.' Their efforts have produced great results.

In addition to U.S. Forces, more than 15 nations operate the Apache as part of their defense forces. Over 470 of them have been delivered in A/D/E variants and there are potential sales for more than 350 additional Apaches. The Apache has unparalleled capabilities and with the new AH-64E v6 it is able to operate in maritime environments.

The UH-60 Black Hawk is the mainstay of U.S. Army utility helicopters. The UHPO International Programs Office continues to support our international partner nations with the delivery of 538 Black Hawks to over 20 partner nations globally with potential sales of nearly 200 more. In the months of October through December 2021, the UHPO International team delivered 17 UH-60Ms to international air and seaports of embarkation. First fielded in the 1980s, the Black Hawk has been improved and modified into today's M-variant. The UH-60 remains the U.S. Army's primary frontline, medium-lift, utility helicopter supporting assault, air cavalry, and aeromedical evacuation units. Even after the fielding of the Future Long Range Assault Aircraft the Black Hawk will remain in service.

The CH-47 Chinook is the U.S. Army's only heavy-lift cargo helicopter supporting combat and other critical operations. Through the efforts of the International office in PM Cargo, supported by APEO International, 18 nations have received more than 380 Chinooks and 13 more D-models have been remanufactured to F-model standards with the potential sales of an additional 200 aircraft. The Chinook tactically transports forces and associated equipment and provides routine aerial sustainment of maneuver forces. Secondary missions for the Chinook include medical evacuation, search and rescue, parachute drops, disaster relief, and aircraft recovery. Originally fielded in the 1960s, the CH-47 continues to serve anywhere heavy-lift and high-altitude capabilities are required.

Unmanned Aircraft Systems allow Soldiers to see and understand the battle space and gain situational awareness on the battlefield. Through the efforts of PM UAS and APEO International about 30 countries are using a combined 500 UAS of all types with more than 135 systems in potential sales. The systems provided to FMS customers are either tactical UAS such as the RQ-7 Shadow or short range reconnaissance platforms like RQ-11B Raven. These unmanned aircraft systems provide reconnaissance, surveillance, target acquisition and force protection on the battlefield.

FMS is an important part of PEO Aviation's mission. The acquisition professionals in APEO International and MASPO, supported by the other international offices across the PEO, are building partner nation capacity by providing aircraft to meet the needs of our partners. Their efforts have provided our partners with new capabilities, tools for deterrence and the ability to respond to crisis.

In closing, I'd like to welcome my new "battle buddy" SGM Carlos Loeza to the PEO Aviation team. I look forward to working with you and all you bring to the PEO Aviation family.

CW5 Travis Dixon is the command chief warrant officer for the Program Executive Office Aviation at Redstone Arsenal, AL.

Supporting Soldiers at PEO Aviation

By SGM Carlos A. Loeza

U.S. ARMY PHOTO

SGM Carlos Loeza (left), then CSM of the 1st Air Cavalry Brigade, Fort Hood, Texas, signals "Hang Loose" during a CH-47 flight with some of his Soldiers.

I am humbled and honored for being selected as the Program Executive Office Aviation Sergeant Major.

I mentioned during my change of responsibility as I departed the 1st Air Cavalry Brigade how my focus would be shifting from the direct development and training management of Soldiers to Army aviation modernization and acquisition.

Becoming the PEO Aviation SGM is important as it allows me to enhance our aviation Soldiers' ability to support full spectrum operations. I am happy to extend my influence and continue to make a difference in the lives of Soldiers. Although my contribution will be in a different capacity, and in a much broader spectrum, my focus will continue to be on enhancing the capabilities and improving the readiness of our Soldiers. I am excited for this opportunity to continue to contribute to the future of the Army and the aviation community.

When I enlisted in the Army in 1999, my military occupational specialty was 15G, Aircraft Structural Repairer. As a 15G, I enjoyed fabricating, repairing and supervising the maintenance of fixed wing and rotary wing aircraft structures. As my career progressed, I had the opportunity to plan and supervise aircraft maintenance in both avionics and shops platoons. Perhaps my favorite and most challenging position was serving as a production control NCOIC in an attack reconnaissance helicopter battalion during a CENTCOM combat deployment. Managing the maintenance of 24 AH-64 Apache attack helicopters was a tough task that required every company, section, and squad to work as a team. It was at this point in my career that I started to understand how higher headquarters organizations like AMCOM, CECOM, and PEO Aviation supported our fleets, maintenance and modernization programs. The success of that deployment was a result of

BUILDING THE

FUTURE WITH ARMY AVIATION

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

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

Tyonek is proud to help build the future with Army Aviation.

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

Tyonek
NATIVE CORPORATION

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 Annual Summit issue.

AAPI PHOTO BY AUBREY CANDLES

SSG Kevin N. Brandt

Company B, 2nd Battalion,
160th Special Operations Regiment (Airborne)
Fort Campbell, KY

Rodney J.T. Yano Noncommissioned Officer of the Year, 2019

Sponsored by Lockheed Martin Corp.

SSG Kevin Brandt's accomplishments in 2019 are a model for all Aviation NCOs. He executed 250 Special Operations Aviation tasks consisting of 68 missions and 169 flight hours flown and was recently awarded the Air Medal with "V" Device for valor for his heroic actions in Iraq. SSG Brandt also attended the Advanced Leaders Course and earned the title of Distinguished Honor Graduate as well as the Distinguished Leader award and Iron Squad award. Immediately upon graduation he was promoted to the rank of Staff Sergeant. SSG Brandt provided superior mentorship to his section, evidenced by two soldiers promoted to Sergeant, two progressions to Fully Mission Qualified crewchief and Flight Engineer. His most recent accomplishments came in the form of graduation from the MH-47G Flight Instructor Course and subsequent selection for Company Standardization Instructor. His influence is felt beyond the aircraft and throughout the Battalion as his spouse, A'Briana, won the Family Readiness Group's volunteer of the quarter for 2020. SSG Brandt exemplifies the total Soldier concept and carries himself with superior presence and character. SSG Brandt's character, accomplishments and professionalism make him the only choice for the Rodney T. Yano Noncommissioned Officer of the Year Award.

everyone's support from the Soldiers on the flight line to the aforementioned organizations providing their overarching support. Those assignments, plus the knowledge gained from my last three assignments as the 1st Air Cavalry Brigade CSM, 209th Aviation Support Battalion CSM and 603rd Aviation Support Battalion, Aviation Support Company 1SG, have provided me with great experiences and a maintenance-oriented mindset.

My experience and knowledge of aviation maintenance are invaluable and prepare me to serve as the PEO Aviation SGM. I'll be able to leverage my maintenance background and capitalize on the established relationships built over my 22 years serving in Army aviation. The brigade aviation maintenance officers, production controllers, quality control officers and senior maintainers across the aviation enterprise will be my conduit to the Soldier on the flight line. Ultimately, my goal is to collect honest feedback from end-users and establish a direct line of communication with all combat aviation brigades. Doing this will allow me to have my ear to the field and provide continued support for equipment fielding, new equipment training, aircraft modification team deployments and any other PEO Aviation related missions.

I would like to thank BG Barrie for the opportunity to serve as the PEO Aviation SGM. I would also like to thank SGM Woody Sullivan for his professionalism, support and shared knowledge. Woody, your aviation experience and background is impressive. I wish you and your family the best as you retire and transition to being a Soldier for life.

I am excited and eager to be part of the PEO Aviation team. Although I just assumed the responsibilities of this position, please reach out to me with any questions or support you might need. I am just an email away, *carlos.a.loeza.mil@army.mil*. I am learning new things every day, and if I cannot answer your question, I will find someone who can.

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

A MCDERMOTT FAMILY PRODUCTION

PHANTOM WARRIOR

SINCE 1990

TACTICAL LIGHTING SYSTEM

"I OWE MY LIFE TO MY PHANTOM WARRIOR."

SSG J.S., AFGHANISTAN

"THE PHANTOM WARRIOR IS A TRUE COMBAT MULTIPLIER"

V.M., IRAQ

"NOT JUST A FLASHLIGHT... A TACTICAL LIGHTING SYSTEM"

SSG M.F., AFGHANISTAN

A PHANTOM PRODUCTS AND MCDERMOTT FAMILY PRODUCTION IN ASSOCIATION WITH U.S. SOLDIERS AROUND THE GLOBE. STARRING VICTORIA MCDERMOTT, DAMIEN MCDERMOTT AND A CAST OF AMAZING EMPLOYEES DEDICATED TO PRODUCING THE HIGHEST QUALITY PRODUCTS FOR OUR TROOPS. PHANTOM PRODUCTS ARE NEVER SOLD TO THE ENEMY. ALL PHANTOM PRODUCTS ARE DESIGNED AND PRODUCED IN ROCKLEDGE, FLORIDA, USA. IF YOU WOULD LIKE MORE INFORMATION, VISIT OUR WEB SITE AT WWW.PHANTOMLIGHTS.COM OR CALL 1-888-533-4968 TODAY. GOD BLESS OUR TROOPS...AND HOOAH!

BE A PHANTOM WARRIOR, OR BECOME A TARGET!

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.

Learning from the Past

Mr. Michael Negard

U.S. ARMY CSC PHOTO

While ground taxiing into parking, the main and tail rotor blades of a UH-60L contacted a civilian airport control tower damaging the aircraft and surrounding buildings and injuring three Soldiers. The USACRC safety investigation team reconstructed the mishap and then informed the Aviation community of the facts and mitigation recommendations to prevent such a mishap from occurring again.

Mishap Summary: A UH-60L Black Hawk crew's mission involved three legs. The first leg was to conduct reconnaissance around key terrain in the local flying area.

The second was to support an internal unit reenlistment. Both legs were completed without incident. The third leg of the mission was to resupply an outpost within the local flying area, which included both internal and external loads. The first portion of the resupply leg involved internal loads. Upon delivering the internal loads and while back at the unit airfield, the aircraft experienced four consecutive auto mode failures of the stabilator. The crew made the decision to continue the mission and departed the airfield to conduct the sling load resupply mission. During the sling load mission, the aircraft experienced an additional three consecutive auto mode failures of the stabilator while hooking up a water bladder external load. The aircraft experienced an eighth and final auto mode failure of the stabilator upon approach to the outpost with the water bladder. The standardization pilot (SP) made the decision to leave the stabilator in manual mode after the auto mode failure and the crew finished executing the sling load mission. Upon departure from the outpost, with the stabilator still in manual mode and in the full down position, the SP conducted an accelerative nose low takeoff following descending terrain. As airspeed increased the aircraft experienced a loss of longitudinal control and impacted the ground.

Over the past decade, the U.S. Army Combat Readiness Center (USACRC) has transformed itself regarding how it informs the broader Army of the results of safety investigations and associated approaches to risk mitigation. The purpose of the safety investigation generally remains the same as it did in the 1950s when the USACRC was first established as the Army Accident Review Board: determine what happened during the mishap sequence, determine why the mishap happened and conclude what can be done to prevent similar mishaps.

Advances in technology, mostly in flight data and cockpit voice analysis, have helped investigators streamline the process. A fourth element to the safety investigation process was also added to better inform the greater Aviation community of the mishap facts and associated risk mitigation. Following the official safety investigation outbrief to the mishap unit's senior commander, the director of Army Safety and USACRC commander now distributes a one-page summary to select general officers highlighting the salient lessons from the mishap.

Each printable summary provides a synopsis of the mishap, key facts, and actionable recommendations to mitigate similar events from occurring in the future. The reports are then uploaded to the Lessons Learned portal on USACRC's homepage. The portal, which was developed in 2017, currently contains more than 60 ground and Aviation mishap summaries that are available to leaders and units to aid them in their safety programs. Gone are the days when the final safety investigation report sat dormant on a shelf after the investigation was completed and mishap unit was outbriefed.

The unfortunate mishap recounted at the beginning of this article resulted in seven fatalities, one injured crewmember and a destroyed UH-60L Black Hawk helicopter. However, the story doesn't end there. This mishap summary, along with the many others on the USACRC website, will give Aviation leaders a reference document to train and mentor aircrews well into the future. We know all too well that those who fail to learn from the mistakes of their predecessors are destined to repeat them.

Visit the USACRC's Lesson Learned page at *https://safety.Army.mil/lessonslearned*. A CAC login is required.

Mr. Michael Negard is the Director for Communication and Public Affairs at the U.S. Army Combat Readiness Center, Fort Rucker, AL.

WÃLIN TOOLS, LLC

TOOLING SOLUTIONS FOR THE MODERN MAINTAINERS

R.A.B. (RADIAL AXIAL BEARING) TOOL KIT (RABK6977 NSN: 5180-01-572-1858)

DESIGNED TO MEASURE THE RADIAL AND AXIAL ALLOWABLE VARIATION AND TOLERANCE OF THE AH-64 APACHE HELICOPTER MAIN ROTOR (M/R) AND TAIL ROTOR (T/R) PITCH CHANGE LINK SPHERICAL BEARINGS.

SPINDLE REMOVAL TOOL (WALSRK800 APPLICATION: UH-60)

USED TO REMOVE & INSTALL THE MAIN ROTOR SPINDLE ASSEMBLY SAFELY & EFFECTIVELY, ELIMINATING POTENTIAL DAMAGE TO MAIN ROTOR HUB COMPONENTS.

UNIVERSAL TRAMMEL TOOL (WALK590 AIRCRAFT: ALL PLATFORMS)

DESIGNED TO PERFORM CENTER TO CENTER ROD-END BEARING MEASUREMENTS TO WITHIN 0.01".

WÃLIN TOOLS, LLC

642A Ft. Walton Beach, FL 32548
INFO@WALINTOOLS.COM
Phone: 850.226.8632
WWW.WALINTOOLS.COM

AH-64E Fielding to the Army National Guard

By COL Jay McElveen and CPT James Smith

U.S. ARMY PHOTO

Staff Sergeant Fred Hiatt and Sergeant Bryan Birchmore, 1-151stst ARB, South Carolina ARNG performing serviceability checks on an AH-64D Auxiliary Power Unit.

Since the end of the Vietnam War, the Army has strengthened America's military through a Total Force approach.

This effort continues today as the Army National Guard (ARNG) initiated the manning, equipping, training and employment for the newest version of the AH-64 Apache helicopter. The 1-151stst Attack Reconnaissance Battalion (ARB) South Carolina (SC) ARNG will be the first of four ARBs in the ARNG to receive and integrate twenty four AH-64E v.6 Apache helicopters. The majority of the aircraft fielding will occur over a seven month period starting in March 2022 and ending September 2022. The 1-151stst ARB / SCARNG is ready, willing, and able to take on this most important task.

Modernizing the ARNG's ARBs is paramount to ensure a Reserve and Active Component commonality that can fulfill U.S. Army attack Aviation needs. The new systems on the airframe allow for multi-domain operations; promote increased lethality, survivability, joint interoperability as well as providing an instrument meteorological condition capability.

Although no reserve component unit has made the D to E model conversion yet, the 1-151st ARB transition from AH-64A to AH-64D in 2009 will provide a template for the E model transition. The available training time for Guardsmen, both maintainers and aviators makes the ARNG unique from the active component. Approximately 75% of the ARB's aviators and maintainers are traditional Guardsmen. This requires ongoing critical planning and coordinating to balance civilian employment demands with ARB training demands. The transition to the AH-64E aircraft actually began more than two years ago with the budgeting and programming for AH-64E pilot qualification courses. The planning required detailed analysis from the start so that timing and sequencing of aircraft arrival and training quotas would align with the traditional Guardsman's civilian occupation. The SCARNG began a continuous cycle of sending ARB aviators to the AH-64E v.4 qualification course at Fort Rucker, AL in early 2020, with maintenance test pilots (MTPs) and instructor pilots (IPs) then attending the affiliated MTP/IP courses.

CPT Stephen Johnson, S-3 Operations Officer, 1-151stst ARB, with support from the Apache Project Office, developed a complex strategy for implementing a New Equipment Training (NET) plan. The NET with a Mobile Training Team (MTT) performs two critical functions. First, the MTT conducts the v.4 to v.6 qualifications for those aviators already rated in the AH-64E v.4 The v.6 is an upgrade of multiple aircraft sensor systems to increase target acquisition, and software updates to improve crew situational awareness. Second, the MTT provides the training and qualification of the AH-64E maintainers (15R, 15Y, 92F). The timing of the NET / MTT is crucial to ensuring the 1-151stst ARB is prepared to operate and maintain newly arriving aircraft. Additionally, a resourcing plan was put in place to provide Soldier pay and allowances, as the NET/MTT is an above and beyond annual funding requirement for the Reserve Component.

Echelons of training from the crew to the battalion, will occur after aircraft arrival utilizing 1-151stst ARB developed scenarios. To better facilitate 1-151stst ARB training requirements, the SCARNG gained approval for newly developed training areas and McEntire Joint National Guard Base (JNGB) expanded its year-round gunnery capabilities. McEntire JNGB, with close proximity to the 1-151stst ARB, is the only National Guard base that allows the Apache helicopter to conduct year-round gunnery operations on a 360-degree aerial range. The gunnery training capabilities coupled with an expanded low-level training area that incorporates radar emitting threats and urban training sites is "state of the art" and will not only test aircrews' mission survivability tactics but better prepare aviators for operating and succeeding on future complex battlefields.

The ARNG remains fully engaged in Army operations across the globe, therefore the proper and equitable equipping and training activities are essential for not only ARNG Aviation success but for the whole of Army Aviation.

ARNG Aviation – Warfighting Capable, Governor Responsive!

COL John (Jay) McElveen is the State Army Aviation Officer of the SCARNG, and CPT James Smith is the commander, Bravo Company, 1-151stst ARB.

Modernizing AH-64 Training for Our Future Attack Leaders

By SFC Hector E. Esquilin

Army Aviation played an integral role in fighting our Nation's wars even before its inception as a branch and it must remain prepared to do so into the future.

PVT Andrew Harrelson and his classmates conduct maintenance operational checks on one of the 128th Aviation Brigade's L7AY AH-64E training devices.

This preparation begins in the 128th Aviation Brigade with skill level-10 Aviation Maintenance Soldiers, the future leaders of Army Aviation. Aviation capabilities are an essential element in support of units, and our maintainers need to be prepared to maintain Fully Mission Capable (FMC) fleets worldwide. To foster this growth, the 128th Aviation Brigade is developing a new AH-64E Attack Helicopter Program of Instruction (POI) which will provide trainees with world-class training on the Army's most technically advanced helicopter to date.

During the most recent AH-64 Critical Task Site Selection Board (CTSSB) for the MOSs 15R and 15Y, subject matter experts from the active duty and reserve component identified individual tasks to modernize training curriculums and training devices. The CTSSB supports the operational training domain with current job performance standards and the institutional training domain with current learning product requirements. CTSSBs are conducted every three years or due to Army learning triggering events such as changes to doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy (DOTMLPF-P). They are a critical aspect of supporting the maintenance of current learning products. By improving the current AH-64E POI and Training Aids Devices Simulators and Simulations (TADSS) with the latest version of technological advancements, we can develop the finest AH-64E maintainers in the world.

Training Development

In FY19, USAACE Commanding General directed the 1-210th Aviation Regiment battalion to develop a pure AH-64E Attack Helicopter Advanced Individual Training (AIT) course ready for implementation in FY23. Currently, Training Developers are redesigning the course management plan (CMP) and lesson plans for the AH-64E AIT, emphasizing individual critical tasks and basic Aviation knowledge. These initiatives will establish a vital Army Aviation foundation, fostering progress for the MOS 15R and 15Y. Some of the essential training being developed for implementation are Flight Line Safety, Aviation Publications, Aircraft Notebook (ACN), Interactive Electronic Technical Manual (IETM), Special and General Tools, and Aircraft Hardware and Safety utilizing advanced visual interactive environment interfaces and interactive media. We are developing a more efficient program concentrating on the three domains of learning- cognitive, affective, and psychomotor to equip skill level-10 maintainers with more effective training. Doctrine and technical manuals are frequently changing, and we must adapt with different methods of instruction to ensure we comply with the Army's institutional training domain. The individual critical tasks list (ICTL) is the foundation of Army readiness and is directly linked to mission accomplishment. The Course Management Office (CMO) within 1st Battalion, 210th Aviation Regiment, and its Training Developers are constantly working with the Apache Attack Program Manager Office and New Systems Integration Detachment-Eustis (NSID-E) to ensure the TADSS manufactured can support the ICTLs. Moving forward, the fleet of training devices will also be upgraded with capabilities such as cross cockpit communication enhancing training value in an Echo-pure environment. The Analysis, Design, Development, Implementation, and Evaluation (ADDIE) process is continuously used to ensure that training and education are accomplished to standard.

Investing in our institutional training will benefit the individuals and organizations across the Army Aviation branch. Implementing the AH-64E POI will mark a milestone of modernization for Aviation training and maintenance. Our aircraft maintainers are the controlling center of our Aviation workforce. The deliberate modernization of the program of instruction is what Army Aviation requires to support missions worldwide and develop more agile and expert maintainers to lead and train our combat Aviation brigade's maintenance programs.

Born Under Fire!

SFC Hector E Esquilin is the Chief of Training Development for 1-210th Aviation Regiment, 128th Aviation Brigade, Joint Base Langley-Eustis, VA.

Readiness Drivers

By Mr. Rob Peter, Mr. Mark Anthony Gonzales & Mr. Scott Gray

Readiness drivers can be many things, but for the purpose of this discussion we will focus on repair parts that cause prolonged delays in returning aircraft to flyable status.

U.S. ARMY DEVCOM PHOTO

A two-bus bar chrome tank system for the plating process enables superior control and efficiency in chrome plating inner diameters.

The Aviation and Missile Command (AMCOM) Logistics Center (ALC) and its joint partner, the Defense Logistics Agency (DLA), are responsible for materiel management of items associated with Soldier support, ground systems, and weapon systems. Maintaining a high readiness posture is paramount to successful mission accomplishment, especially considering that today's operations are often executed in severe conditions. In addition, there are impediments in the government supply chain that diminish the availability of parts due to long lead times and lack of Original Equipment Manufacturer (OEM) support. ALC and DLA both employ Item Managers, who closely track the availability, demand, sources of supply, and replenishment times for new spare parts, and additionally track similar factors for depot reparable parts. Item Managers utilize a host of predictive methods to determine when to initiate actions to avoid a supply shortage, and in most times are very successful. Occasionally, however, unanticipated situations occur that require out-of-the-box thinking to avoid readiness impact due to limited parts availability.

Recently one such situation occurred on a particular component on one model Army helicopter. For this depot-repairable critical safety item component, the aircraft OEM would normally be the depot facility to overhaul and repair the component, and one of the materiel processes involved in the overhaul and repair involves chrome plating. ALC was notified by the OEM that, for reasons beyond their ability to control, they would not be able to perform the necessary chrome plating operations until 2024. The challenge facing ALC was that this would inevitably lead to a significant supply shortage for the part and result in unacceptable reduction in overall readiness.

Fortunately, this kind of challenge is not new to the Combat Capability Development Command (DEVCOM) Aviation and Missile Center (AvMC), which has long been supporting development of organic repair capabilities that could be performed in house at Corpus Christi Army Depot (CCAD). AvMC's System Readiness Directorate Maintenance Airworthiness Division brought together the necessary resources, including airworthiness engineering services, expertise in repair capabilities, and a specialized Small Business Administration (SBA) process allowing expedited contracting with economically disadvantaged businesses. A sole source contract was quickly established with one such company that provides cost-effective, responsive, engineering, technical, management, and professional consulting services to federal government agencies. The objective of this contract was to create the specific processes to apply chrome and finish machine the component and to deliver all of the technical data required to establish those capabilities at CCAD. They subcontracted with a company specializing in chrome plating and chrome repair. That company is a family-owned business that has over 40 years' experience chrome plating a wide variety of parts in the commercial and government sectors.

The sub-contractor employs a two-bus bar chrome tank system for the plating process, which enables superior control and efficiency in chrome plating inner diameters when compared to the more conventional three-bus bar system. The prime contractor designed and utilized additive manufacturing to 3D print masking fixtures that were used in the chrome plating process. Throughout the course of a year, several iterations had to be performed, since the component is made of a material very difficult to chrome plate due to factors such as adherence, oxidation, and hardness. The results of the development effort effectively demonstrated that following a very specific repeatable pre-treatment process, the component could be repaired within all applicable quality standards. The project which started in October 2020, was completed within a year and included twelve fully repaired components along with all the technical data that details the chrome repair processes so the U.S. Army can perform the chrome plating repair organically at CCAD. This creative solution not only met the immediate need for parts, but also established a second source of supply to alleviate future supply challenges with this critical component.

Mr. Rob Peter is an Aerospace Engineer with AvMC SRD's Maintenance Engineering Division in Corpus Christi, TX, Mr. Mark Anthony Gonzales, Senior Engineer, Torch Technologies, and Mr. Scott Gray is the President of Elevate Systems.

Central Sleep Apnea & Flying

By MAJ Devon Greer, MD

Q: I was recently diagnosed with Central Sleep Apnea (CSA) and have my upcoming medical examination. I've heard of Obstructive Sleep Apnea and its impact on flight status, but what is Central Sleep Apnea? Will it affect my flight status? How is it treated? Does flying affect it?

FS: Central Sleep Apnea (CSA) has many of the same symptoms of Obstructive Sleep Apnea (OSA) but is significantly different. CSA occurs when the brain fails to tell the diaphragm and ribs to breathe, and that causes shortness of breath while sleeping. This tends to break up sleep, causes wakening, and sleepiness during the day due to poor quality sleep. OSA is similar because breathing interruptions cause night awakenings, but the root cause is choking on a collapsed airway. In OSA, the brain is still sending signals to breathe, but the airway is blocked. CSA and OSA can occur together, called "Mixed Sleep Apnea." Treatment of OSA with CPAP sometimes uncovers underlying CSA that was previously undiagnosed. There are a number of different types of CSA based on the root cause of the interruption in breathing, some reversible, while others are not well understood or treated. Doctors may need to test for underlying causes, such as heart disease and lung diseases. If a cause is found, it may affect your flight status until it can be adequately controlled.

Central Sleep Apnea is important in Aviation because it carries the same symptoms and risks as Obstructive Sleep Apnea. These include sleepiness during the day, reduced concentration, increased risk of errors, and development of medical issues, such as hypertension, pulmonary hypertension (high blood pressure in the lungs), and heart failure. Although CSA or OSA has not directly been responsible for accidents in Federal Aviation Administration (FAA) investigations, the diagnoses were directly responsible for a near-miss when both pilot and copilot fell asleep and overflew their destination. Fatigue is consistently a listed concern of the National Transportation Safety Board that is responsible for mishap investigations on the ground and in the air. As such, untreated sleep disorders are considered incompatible with flight even when the exact syndrome is not specifically named in medical requirements for flight in the military or FAA.

As a further complication, high-altitude exposure can worsen CSA and associated symptoms. Since these evaluations occurred at high altitude camps, it is not clear if flying in unpressurized aircraft bears a similar risk. Short duration trips to elevated altitude do seem to cause more symptoms and worse clinical scores (such as sleep study results and concentration tests) than those who live and acclimatize at high altitude. This makes it possible that flight (particularly 15,000 ft above sea level) may develop or worsen CSA and its outcomes. Further study to evaluate how flight relates to the development, symptoms, and treatment of CSA remains necessary.

Treatment of CSA is a current area of research. Most people with CSA receive a trial of Continuous Positive Airway Pressure (CPAP) therapy, similar to OSA. However, the response rate and improvement of symptoms using CPAP is much lower with CSA than OSA. Other forms of positive pressure therapy may be more effective, such as BiPAP, which can force a baseline breathing rate. Some improve on these therapies, but they can be harder to tolerate. Some trials suggest certain patients improve using simple supplemental oxygen during sleep, but this does not help every patient. Another treatment is Acetazolamide (Diamox®), usually used to help people adjust to altitude. It seems to improve breathing patterns and symptoms for many patients with CSA. Finally, treating underlying causes for CSA is vital. Heart disease, obesity, brain lesions, and other illnesses may cause CSA. Treating those illnesses may resolve CSA entirely.

What does this mean for a pilot with Central Sleep Apnea? The disease puts pilots at a higher risk of mishaps if it is not treated effectively and sleepiness persists. Flight surgeons will apply the same precepts used in treating OSA towards CSA evaluations. To ensure a pilot with CSA is safe to fly, the pilot must demonstrate that nighttime awakening and symptoms are resolved with treatment. If symptoms persist despite appropriate treatment, then it's not safe to fly. Although CSA is more challenging to diagnose and treat than OSA, it can be treated for the majority of people. Your flight surgeon is there to help you through the diagnosis, management, and treatment to ensure you're safe to return to flight. Reach out to your flight surgeon and you can work together to keep you healthy and flying.

Fly Safe!

Questions for the Flight Surgeon?

If you have a question you would like addressed, email it to *AskFS@quad-a.org*; we will try to address it in the future. See your unit flight surgeon for your personal health issues. The views and opinions offered are those of the author and researchers and should not be construed as an official Department of the Army position unless otherwise noted.

MAJ Devon Greer, MD, is a flight surgeon at the United States School of Army Aviation Medicine, Fort Rucker, AL

AH-64 – Relevant, Relational, Resilient & Safe

By COL John (Jay) Maher

This is an exciting time for the Apache Attack Helicopter community. Our number one priority is to support our warfighters by keeping the Apache in the fight. Our strategy in the Project Office is to ensure the Apache Attack Helicopter meets the needs of the Army, focusing on the principals of being Relevant, Relational, Resilient, and Safe.

U.S. ARMY PHOTO

The current modification of the AH-64E version 6 adds critical capabilities to enhance aircraft performance.

The AH-64E Version 6 (V6) helicopter remains relevant with the latest modernization upgrades and includes more powerful sensors to increase target acquisition performance, additional weapons and software to increase lethality, and software enhancements to increase crew situational awareness and reduce crew workload. The V6 represents new capability, as well as improvements to existing capability like Link 16.

Link 16 is a Tactical Digital Information Link providing standardized communications for the transmission of digital information. With Link 16, military aircraft can exchange their tactical picture in near-real time – supporting text message exchanges and imagery data. It also provides two digital voice channels, delivering crews greater fidelity of engagement target and wingman locations, coordination of fires between flight members, and interoperability in a Joint environment. The software ensures warfighters have access to mission-critical information, regardless of location or platform.

Additionally, the Apache PM is working with our Army Capabilities Manager Recon/Attack team to prioritize capability within the next Operational Flight Program (OFP) update – V6x. In addition to operational updates including a common configuration, 6x includes an open systems interface necessary to comply with the Modular Open Systems Approach (MOSA) requirements. This allows us to update/change applications without having to make changes to the OFP, avoiding great cost and schedule delays. In the long term, we plan to continue applying MOSA principles, ensuring we can rapidly integrate emerging technologies and address obsolescence. As we move toward a common software configuration across the fleet, MOSA becomes even more critical in delivering capability quickly.

U.S. ARMY PHOTO

AH-64E version 6 (V6) Apache helicopters take off from the Boeing facilities at Mesa, Ariz., bound for their new home.

The ***Common Configuration*** reduces the number of different variants of the aircraft. This hardware and software focused effort gives us the opportunity to improve interoperability and supportability, reduce cost/time to export upgrades, and standardize software across the E model fleet. Equipping every E model with a Multicore Mission Processer and associated hardware, coupled with V6.x OFP software, will re-baseline current version 4 through version 6 aircraft to employ similar capability and reduce training and maintenance. For example, a version 4 aircraft receiving the V6.x software/hardware upgrade can employ legacy sensors or the version 6 sensor package.

Our ***International Apache Office*** continues to build relationships with our allies and partners while managing Foreign Military Sales (FMS) to nearly two dozen nations currently flying the Apache, soon receiving their first Apaches, or with significant interest in adding the aircraft to their defensive capabilities. With the AH-64E in production through at least 2027, the Apache will serve the U.S. Army and its partner nations as the world's primary attack helicopter into the 2050s. The Apache is the most proven and reliable attack helicopter on the battlefield today, and continued relationships with FMS nations ensures commonality of battlefield capability across the globe.

Resilience is the ability to withstand adversity and bounce back from difficult life events. During this pandemic, the Apache PM and associated enterprise demonstrated their resilience by using technology to work remotely to get the job done, to include not missing a single delivery to an operational unit. The 1-229th Attack Reconnaissance Battalion at Joint Base Lewis-McChord, Wash., became the first operational unit to receive the Apache V6 helicopter. The 3-17th Attack Reconnaissance Squadron (ARS), Hunter Army Airfield, Ga., has also received their aircraft and equipment. Their last maintainer course started in early September and the last operator course concluded in October. Next, the 4-2 Attack Battalion at Osan AB, Korea, began maintainer and avionics training/qualification and started operator training in late September. The unit received their second load of V6 aircraft in early December.

We just started fielding the first unit, 1-6th Attack Reconnaissance Squadron, in South Korea with the updated OFP 4.1.1 (gun accuracy improvements). This provides the Version 4.0 series with improved gun accuracy. During the Follow-On Test and Evaluation, the ***30mm Area Weapon Systems (AWS)*** demonstrated desired accuracy from ranges of 500m to 2800m; different in its system architecture and accuracy when compared to the AH-64D. The digitalized AH-64E AWS is more sensitive to the multiple system inputs and can exhibit unpredictable performance. The planned fleet-wide fielding of ruggedized resolvers, modified highly integrated air data computer calibration tables, and modified Target State Estimator logic will address gun accuracy issues. Effectively firing the AWS on the AH-64E requires tighter control of operational variables and adherence to the recommendations should minimize exposure to unpredictable performance. Additionally, the Aviation Flight Test Directorate plans to test the Generation 2 turret and Fox dampeners in early 2022 to see if mechanical changes further reduce variability.

The collective government and industry team worked diligently in 2021 to deliver a quality product to our warfighters. One of the tangible outcomes of the Mesa production facility work is the Strap Pack Product Improvement (SPPI). The SPPI, with a planned production and sustainment cut-in early in 2022, provides a safe and airworthy strap pack that is less susceptible to stress, corrosion, and cracking, with reduced maintenance burden.

The Apache is an incredible aircraft and invaluable warfighting capability. The focus of the Apache Project Office is to keep it that way. We will continue to push technologies to ensure we maintain the tactical edge in an environment where our adversaries' access to those technologies is ever increasing.

Attack!

COL John (Jay) Maher is the project manager for the Apache Project Office, Program Executive Office for Aviation, Redstone Arsenal, AL.

U.S. ARMY PHOTO BY COLLIN MAGONIGAL

A US Army pilot observes the features of an enhanced Helmet Mounted Display from the front seat of an AH-64E Apache helicopter during a capability demonstration at Redstone Army Airfield.

U.S. ARMY PHOTO

PM Cargo Update

By COL AL Niles Jr.

CH-47F Block II EMD aircraft during flight test at the Redstone Test Center on Redstone Arsenal, AL.

Despite another challenging year of COVID-19, the Cargo Helicopter Project Office (PO) continues to build upon the Program Executive Office (PEO) Aviation objectives to ensure the readiness and relevance of the enduring Aviation fleet and build partner-nation capacity. In 2021, PM Cargo procured the first lot of CH-47F Block II aircraft, delivered CH-47F Block I aircraft, fielded improved mission and flight control software, continued training our new Scheduled Maintenance Program, and provided heavy lift capability to our allies and partners.

The ***Cargo PO Modernization Team*** achieved a major milestone for the CH-47F Block II program on 30 September 2021 with the award of the CH-47F Block II Lot I procurement contract for the first four production representative aircraft to the Boeing Company in Ridley Park, Pa. The contract award supports Boeing's production line, provides the foundation for future Block II aircraft procurements, and provides the Warfighter with additional operational capabilities.

The three CH-47F Block II Engineering & Manufacturing Development (EMD) aircraft completed a total of 1,747 test conditions against the Ground and Flight Test Plan (Boeing) and the Airworthiness & Flight Characteristic Test Plan (Army). The experimental test flights, conducted in Mesa, Ariz. and Redstone Arsenal, Ala., assessed the Block II's drivetrain, rotor, electrical, and fuel systems sub-system enhancements.

In addition to flight tests, the Block II team continued ground test events at Aberdeen Proving Ground, Md. The Army Test & Evaluation Command conducted three ballistic and live fire test assessments on the synchronization shaft, stationary ring, and the Advanced Chinook Rotor Blade.

CABAIL

Addressing the challenges of a contested cyber environment, the program successfully received an Army Test and Evaluation Command cybersecurity certification of the PEO Aviation CH-47F Combat Aviation Brigade Architecture Integration Lab (CABAIL). This certification allows the CABAIL to be used for cybersecurity testing in cases where a test aircraft is not available, or the goal is to test "in-flight" vulnerabilities without risking potential aircraft damage. As a part of the CH-47F Block II Cooperative Vulnerability and Penetration Assessment (CVPA), the team performed "dry-run" testing in the CABAIL, by successfully testing inserted Global Positioning System data in order to produce a "moving map" flight simulation. The CVPA with flight simulation inputs was the first time that potential cyber vulnerabilities were assessed on a CH-47's performance "in flight".

NET

The CH-47F Block I Team also delivered remarkable results despite the challenges that 2021 provided. The team delivered ten production aircraft, continued New Equipment Training (NET) to Active Duty, National Guard and Army

Reserve units, all while supporting our international partners.

NET is an essential mission that continued successfully. The Common Avionics Architecture System (CAAS) and Digital Advanced Flight Control System (DAFCS) NET Team conducted fielding events for six COMPO-1, eleven COMPO-2 and one COMPO-3 units. The Team trained 300 aviators and 270 avionics mechanics in an extremely challenging COVID-19 environment. These units received new capabilities and upgrades to Common Avionics Architecture System (CAAS) and DAFCS. One of the new capabilities, Roll Wings Level, is a lifesaving technology that provides automatic aircraft attitude recovery, which is beneficial when aviators encounter spatial disorientation. The Decelerate and Descend capabilities improve aircraft handling qualities, allowing the aircraft to automatically maneuver to a stationary 20-foot hover. The ongoing three-year NET/MWO fielding is scheduled to complete to all units by the end of 2022.

The ***Block I Training Aids, Devices, Simulations, and Simulators Team*** completed fielding, training, final government inspection, and transfer of two Maintenance Blended Reconfigurable Aviation Trainers and six Virtual Immersive Environments to the Royal Netherlands Air Force ahead of schedule. Additionally, Fort Rucker Directorate of Simulation accredited the CH-47F Transportable Flight Proficiency Simulator (TFPS) for training 4000-Series maintenance test pilot tasks in accordance with the digital Aircrew Training Manual, a significant milestone since the fielding of TFPS in 2007.

The ***Cargo International Team*** successfully executed contracts with foreign partners delivered aircraft and training devices to Australia, Netherlands, and Spain. They executed an FMS case to transfer four USG CH-47F aircraft to the Australian Defence Force (ADF) in an extremely compressed timeline. The ADF received their first two aircraft 79 days from the date PM Cargo received the ADF Letter of Request (LOR). This was well ahead of the standard timeline of 36 to 48 months from LOR to aircraft receipt. The remaining two CH-47Fs will deliver to Australia in FY22.

The ***Cargo Logistics and Fleet Management Team*** completed roll-out training of the new Maintenance Steering Group-3 (MSG-3) based Scheduled Maintenance Plan (SMP) for the 47F fleet. All COMPO 1, 2, and 3 units, covering almost 2500 maintainers (blue and green suiters), were briefed; and over 375 aircraft have converted to the new SMP. In addition, the MSG-3 SMP was incorporated into the -23&P TM this year, thereby rescinding the need for the AWR. MSG-3 increased the Fully Mission Capable (FMC) rate for the Fleet with a corresponding reduction in NMCM downtime. CH-47F Block II EMD aircraft and new MH-47G Block II aircraft are also on the MSG-3 SMP. The plan continues to be refined and optimized, garnering additional increases in FMC rate, as well as a reduction in Scheduled Maintenance man-hours and supply costs related to Scheduled Maintenance actions.

2021 was an incredible year for the Cargo Helicopter PMO. The team faced many challenges head-on and kept pushing forward to deliver the biggest, fastest, strongest, and smartest combat helicopter in the world to support our Soldiers.

COL Al Niles is the project manager for the Cargo Helicopter Project Office at Redstone Arsenal, AL.

MASPO: Meeting Operational Requirements in a Dynamic Environment

By COL Tim McDonald, Dr. Wayne Hudry, Mr. Andy Greer and Mr. Blake Anderson

U.S. ARMY PM MASPO PHOTO

MASPO recently delivered 6 Red Dragon MD-530s armed with the Advanced Precision Kill Weapon System (APKWS) to the Lebanese Air Force.

Overcoming challenges can push you to the limit. The Multi-National Aviation Special Project Office (MASPO) experienced this phenomenon in abundance throughout 2021. For MASPO, the dynamics of Afghanistan created unprecedented challenges, numerous unexpected events, and tremendous uncertainty. Despite these unforeseen events, the professional perseverance, work ethic and courage of the MASPO workforce met these unrelenting challenges head on and emerged battle-proven and successful.

Since its inception in 2010, MASPO has led the way in the procurement, sustainment and technical support of Mi-17 helicopters and a variety of other non-Program of Record rotary wing aircraft in support of the DOD and partner nations. During the infancy of MASPO, the Combined Security Transition Command-Afghanistan (CSTC-A) urgently needed technical support for Mi-17 aircraft in Afghanistan. MASPO answered the call of duty supporting the warfighting command and, in the process, fostered a relationship with the Afghan government, the Afghan Air Force and the counter-narcotics unit of Afghanistan better known as the Special Mission Wing. MASPO rapidly stood up Contracted Logistics Support (CLS) within the Afghan theater and managed the production, fielding and sustainment of four separate fleets of aircraft in Afghanistan (UH-60A, Mi-17, PC-12, and MD-530). Throughout the past decade, MASPO has delivered over 200 aircraft into the Afghan Theater of War. Additionally, MASPO coordinated aircraft overhaul and combat heavy repair facilities from our allies within the Central Command and European Command Area of Responsibility to ensure the aviation warfighting capabilities of the Afghan government.

When the drawdown in Afghanistan was announced, Secretary of Defense (SECDEF) Austin noted the criticality of the Afghan Air Force and Special Mission Wing stating, "thanks to the efforts of coalition and allied training, the Afghan Security Forces are better and more capable of securing their borders …. We will look to continue funding key capabilities such as the Afghan Air Force and Special Mission Wing."

The SECDEF's words served as a rallying cry and call to action for MASPO. While the majority of major commands shifted focus to withdrawal operations, MASPO increased sustainment capabilities to maintain the aviation assets within the Afghan theater by delivering total package rotary wing solution sets. While U.S. forces were withdrawing, MASPO delivered eight MD-530 helicopters bringing the total amount of Scout/Attack helicopters to 67, all delivered in less than four years. As the U.S. presence downsized, the challenge created by severely reduced security for CLS contractors compounded. In response, MASPO conceptualized and implemented a comprehensive multiphase "Over the Horizon" (OTH) approach for sustaining the Afghan rotary wing fleet. MASPO established three separate OTH sites

out of harm's way to ensure the aircraft were maintained to standard and the workforce environment was safe. Equally challenging, each aircraft type required its own bench stock, repair parts, special tools, and ground support equipment. These efforts ensured maintenance and operational readiness for approximately 170 aircraft comprised of four different types originating from four different Original Equipment Manufacturers. Later, MASPO began demobilization from the three OTH locations and transitioned from OTH CLS to retrograde operations and storage.

Afghan MD-530's and repair parts prepped for extraction to OTH in UAE

U.S. ARMY PM MASPO PHOTO COLLAGE

The Defense Security Cooperation Management Office-Afghanistan (DSCMO-A), formerly CSTC-A, initiated the orderly closeout of Afghanistan equipment. Following DSCMO-A direction, MASPO recovered and moved Mi-17 and MD-530 aircraft to storage at the Aerospace Maintenance and Regeneration Group (AMARG) facility at Davis-Monthan Air Force Base, Ariz. MASPO deployed representatives to orchestrate the removal of all aircraft, spare parts, tools, ground support equipment and associated gear. Working with Transportation Command, MASPO coordinated airlift, rail-haul, line-haul and sealift transportation to the continental United States. It has literally been "planes, trains, automobiles and ships" to bring these warfighting assets back and stage them for future use by an ally of the United States or other governmental agency. As of December 2021, MASPO has choreographed the retrieval of twenty-four aircraft and over 416 tons of aviation repair parts, special tools and ground support equipment. MASPO remains an essential player in the whole-of-government approach to proper disposition of the aircraft and equipment while stewarding the US taxpayer dollars.

MASPO has also been engaged in other global activities. As the juggernaut for non-standard aircraft, MASPO continued to develop, deliver and support non-Program of Record rotary wing aircraft for other allied countries. MASPO provided Contractor Field Service Representative (CFSR) services to support the Uganda Huey II and the Kenya Huey II programs. MASPO, in concert with its industry partners, executed a critical contract for spare parts to support and sustain the Lebanon Huey II fleet of twelve Huey II helicopters and provided CFSR support to the Lebanese Air Force's (LAF) fleet of MD-530 aircraft. MASPO delivered six armed MD-530 "Red Dragon" aircraft, support equipment, and four years of spare parts to the LAF in Beirut, Lebanon. The "Red Dragon" is the culmination of a 2-year development effort that incorporated a federated Advanced Precision Kill Weapons System (APKWS) weapons management system onto a commercial aircraft platform. The capability includes a new WESCAM MX-10 electro-optical/infrared (EO/IR) low-weight imaging system with laser designator. The Return-to-Service process for the aircraft began in late October 2021, and LAF aviator training and aerial gunnery in Hamat, Lebanon, is taking place November 2021 through March 2022. This effort directly supports DOD and Army priorities to build international partner capabilities.

U.S. ARMY PM MASPO PHOTO

Contractor personnel load an MD-530 for line haul from Mesa, AZ to the Aerospace Maintenance and Regeneration Group (AMARG) facility at Davis-Monthan Air Force Base, AZ.

MASPO continues to provide non-program of record aviation capabilities to our allies around the globe. Always mission focused, the success achieved due to MASPO's hands-on management ensures that Soldiers and air crews in combat receive needed capabilities regardless of the evolving and dynamic nature of the situation, environment, and requirements.

COL Tim McDonald is the project manager, Dr. Wayne Hudry is the deputy project manager, Mr. Andy Greer an operations officer and Mr. Blake Anderson the deputy product director for Cargo/Utility within the Multi-National Aviation Special Project Office. They are all assigned to Program Executive Office, Aviation at Redstone Arsenal, AL.

Utility Helicopters Project Office Update

By COL Calvin Lane

Now, more than ever, the Utility Helicopters Project Office (UHPO) is focused on our mission of synchronizing innovation as we ensure the readiness and relevance of the enduring fleet's Black Hawk, Lakota, and Medical Evacuation (MEDEVAC) aircraft, associated products and services. In support of the Program Executive Office, (PEO) Aviation campaign plan, our goal remains to provide our user community with a world-class aviation capability by conducting targeted, agile product development along with product support modernization and adopting a Modular Open Systems Approach (MOSA) in our efforts as we continue to deliver increased capabilities to the Warfighter. In this article we highlight those initiatives and efforts across the products.

The ***H-60M Product Office*** continues its modernization efforts by developing new Flight Management System software that provides Integrated Area Navigation capability for the H-60 Black Hawk with fielding scheduled for FY23. We are working to update and sustain existing mission software to provide aircrews with digital, networked capabilities and ensuring the UH-60M remains the centerpiece vertical lift platform that assures mission success across a broad spectrum of military operations. On-going efforts, including MOSA, move from hardware-centric approaches to software-centric systems that increase interoperability and provide the ability to rapidly upgrade components while reducing overall cost and schedule. We are developing simulators that closely replicate the configuration and performance of actual aircraft and we are also updating UH institutional training and making it available via the web for all users.

The Army National Guard began receiving the newest Lakota, the UH-72B, in February 2022; it incorporates technologies that increase both safety and flight performance, including a five-bladed main rotor and a Fenestron shrouded tail rotor.

Another key modernization effort for the Black Hawk is integration of the ***Improved Turbine Engine***, which is slated to replace the GE T700 series engine. It will enable commanders to get to the fight quicker and to mass effects throughout the battlespace. By integrating new system-of-systems capabilities on the H-60M, we ensure

the readiness and relevance of the Utility platform remains available to support the vision of a more strategically responsive, deployable, agile, versatile, lethal, survivable and sustainable force.

Aligned to the tenets of future platform architectures, the ***UH-60V Office*** successfully established an open system software architecture enabling efficient integration of future technology, upgrades, and integration of component alternatives. The UHPO is partnering with the Combat Capabilities Development Command on Redstone Arsenal, Ala., to maintain the architecture and software "in-house." This approach facilitates rapid qualification and integration of new systems into the UH-60V while reducing cost and schedule. Government ownership allows potential utilization for the Future Vertical Lift Architecture Framework (FAF) and supports PEO Aviation's MOSA initiative.

On 30 July 2021, UHPO reached a new milestone as we completed fielding the first Army National Guard (ARNG) unit with UH-60V Black Hawk helicopters. Six aircraft were fielded to the Eastern ARNG Aviation Training Site (EAATS) at Fort Indiantown Gap, Pa. The next unit to receive the UH-60V will be the 1-106th Aviation Regiment (Ill. ARNG).

Our ***MEDEVAC Product Office*** executed its first entire year under a new charter that established two main lines of effort - supporting the enduring Black Hawk fleet and planning MEDEVAC integration for the Future Long Range Assault Aircraft (FLRAA) Project Office. Highlights from this year included a hands-on demonstration of the Medical Interior Upgrade (MIU) in front of Army Senior Leaders during Project Convergence '21. The MIU represents a significant improvement for the HH-60M, but also serves as the modular patient handling system proof-of-concept for the FLRAA MEDEVAC cabin.

Additionally, significant progress was made on the UH-60V MEDEVAC variant. The prototype UH-60V MEDEVAC aircraft was completed in late November and handed over to Redstone Test Center for system airworthiness testing. The next step is completion of Modification Work Order and Technical Manual validation and issuance of a limited Airworthiness Release in third quarter FY22.

The ***UH-72 Lakota*** not only serves as the primary training aircraft at the Army Aviation School at Ft. Rucker, AL, it operates worldwide in permissive environments to accomplish a myriad of missions and supports the Title 32 mission of the ARNG. The newest Lakota, the UH-72B, begins fielding in February 2022 and incorporates technologies that increase both safety and flight performance, including a five-bladed main rotor, a Fenestron shrouded tail rotor, Safran Arriel 2E engines, and an Airbus-designed Helionix avionics suite. The Helionix suite includes a four-axis autopilot to provide flight envelope and over-limit protection, automated takeoff and fully coupled approaches to hover.

In addition to putting valuable capabilities in the hands of our U.S. Army units, UHPO continues to build partner nation capacity through robust foreign military sales. In October and November 2021, our ***UHPO International Programs Office*** delivered 14 UH-60Ms to air and seaports of embarkation. To date, a total of 55 UH-60M aircraft have been delivered to the Kingdom of Saudi Arabia Royal Saudi Land Forces Aviation Command and Ministry of National Guard since the inception of the program in 2011. In addition to Saudi Arabia, the International Programs Office has aircraft production efforts underway with over 10 countries including Lithuania, Latvia, Slovakia, Croatia, Albania, Jordan and Thailand.

In support of Other Government Agencies and the U.S. Department of State International Narcotics & Law Enforcement, the International Programs Office delivered two uniquely modified HH-60L Helicopters currently stationed at Patrick AFB, Fla. This completes nine HH-60L aircraft deliveries since April 2018 for the DoS. Additionally, the Customs and Border Protection's HH-60L Conversion Program completed four modified HH-60L aircraft. This program, a total of 15 aircraft, provides an upgraded GPS navigation system and transponder enabling aircraft to operate seamlessly throughout international, civil, and military airspace while meeting Federal Aviation Administration requirements.

As the largest component of Army Aviation's enduring fleet, we must continue to synchronize targeted modernization and adopt MOSA principles as we address emerging requirements, manage obsolescence and seek methods to speed capabilities to the field. Our UHPO remains committed to ensuring that combatant commanders and Soldiers possess the best utility aviation capabilities available to safely complete their missions and support our allies.

COL Calvin J. Lane is the Utility Helicopters Project Manager, Program Executive Office Aviation at Redstone Arsenal, AL.

U.S. ARMY PHOTO BY NATHANIEL LETSON, UHPO

The UH-60V cockpit is fully digital and features an open system software architecture enabling efficient integration of future technology, upgrades, and integration of component alternatives.

Future Attack Reconnaissance Aircraft (FARA) Program Updates

By COL Kevin S. Chaney

As I take the reins of the FARA program and look forward to what is next for our team, it is important to look back at what we have accomplished. It certainly was a busy year, one filled with a great deal of progress and below are a few of our bigger accomplishments from this past year.

In December of 2020, having leveraged the FARA prototype contracts and successful Initial Design & Risk Reviews, a combined team from the U.S. Army Aviation Center of Excellence, the Future Vertical Lift Cross-Functional Team and Program Executive Office, Aviation (PEO Aviation), completed the Final Design & Risk Reviews (FD&RR). FD&RR was a comprehensive analysis of the industry designs against the Initial Capability Refinement Document (ICRD) and a risk analysis of industry's ability to deliver their solutions.

The following month, January 2021, the FARA Project Management Office (PMO), under the purview of the PEO Aviation received FARA design authority from the U.S. Army Combat Capabilities Development Command, Aviation & Missile Center. FD&RR findings and analysis were then immediately used to inform the development of an Abbreviated Capabilities Development Document (A-CDD) that articulates the mandatory and desired attributes of the FARA. The A-CDD was validated by the Army Requirements and Oversight Council in April 2021. A cornerstone document within the FARA program, the A-CDD quantifies the initial range of desired FARA capabilities. These capabilities will be further refined as industry develops and demonstrates competitive prototype capabilities. As the program progresses, the desired attributes will be converted into well-informed requirements en route to the program's first Capability Development Document.

Collectively, our FARA industry partners have done a tremendous job making the transition from initial "back of the napkin" ideas generated across the science and technology community, to state-of-the-art innovative design on the cutting edge of aeronautical engineering capability, to now building competitive prototype aircraft. The competitive prototype aircraft are approximately ~75% build complete and ongoing trade and design studies continue to inform aircraft developers on opportunities to reduce risk, increase performance, and optimize the development schedule. Industry is making every effort to complete competitive prototype development and demonstrate actual flight capabilities as soon as possible, so the Army can truly maximize decision space and determine best value to the Warfighter, before entering the Engineering Manufacturing and Development phase and authorizing eventual procurement at scale.

The FARA PMO continues conducting a series of in-depth Program Management Reviews (PMRs) with both aircraft development vendors. These PMRs provide an opportunity for government and industry stakeholders to ensure alignment toward a common goal through detailed analysis of costs, schedule, risks, understanding of desired performance attributes, approach to sustainment and incorporation of a Modular Open System Approach (MOSA). These reviews are held in a cadence commensurate with the proactive, rigorous, and detail-oriented program management approach within the Army's #3 modernization effort and all sides benefit greatly in their execution.

Additionally, significant design, integration, and interoperability emphasis remains on incorporating weapons system mission equipment that enable the full future vertical lift ecosystem and align with MOSA as demonstrated through Open System Verification Demonstrations. Opportunities such as Project Convergence 2021 (PC21) offered operationally representative scenarios to showcase integrated capabilities of systems early in their development. Risk reduction prototypes of FARA's Modular Effects Launcher and the XM-915 20mm Cannon demonstrated assault capabilities by live fire of 55 Hydra-70 rockets, 2 Air Launched Effects, and approximately 2,000 20mm cannon rounds from a UH-60M acting as a surrogate FARA through 14 hours of flight. The importance of events such as PC21 and Experimental Demonstration Gateway Exercise 22 and the opportunities they provide in terms of collaboratively seeing and understanding the future fight from both the operational perspective as well as the materiel development lens cannot be overstated. PC21 highlighted the importance of placing the right equipment in the hands of the warfighter, at the right time and with the right connectivity across the modern battlefield. The FARA's ability to maneuver, fight and win in a highly contested anti-access and area denial environment, while penetrating and dis-integrating peer/near-peer enemy defenses and thereby providing combatant commanders decisive and asymmetric advantages, will prove to be a significant combat multiplier.

As you can see, we have achieved a great deal in the past year. Despite that, we still have significant work ahead of us. We will continue to work with our industry partners as they refine their competitive prototype designs with an emphasis on reducing risk, increasing performance, and optimizing the development schedule. I look forward to leading this team and creating more opportunities for success in the upcoming year. Our team is up for the challenge!

COL Kevin S. Chaney is the project manager for the Future Attack Reconnaissance Aircraft Project Office, Program Executive Office for Aviation, Redstone Arsenal, AL.

Exercise KBT Validates JTF-Bravo's Capabilities in Belize

By Ms. Maria Pinel, Joint Task Force Bravo Public Affairs

U.S. AIR FORCE PHOTOS BY SSGT. ADAM R. SHANKS

U.S. Army Sgt. Mason Lamontagne, a 1st Battalion, 228th Aviation Regiment UH-60 Black Hawk crew chief, assists with pre-flight checklist items during Joint Task Force Bravo's Exercise Keel-Billed Toucan (KBT,) at Price Barracks, Belize, Jan. 10, 2022. U.S. Air Force

Members of Joint Task Force Bravo load a pallet into a CH-47 Chinook helicopter near Price Barracks, Belize, during Exercise Keel-Billed Toucan (KBT), Jan. 15, 2022.

Joint Task Force-Bravo tested its disaster response readiness by conducting an exercise and a Global Health Engagement in Belize, Jan. 7 -18, 2022. Exercise "Keel-Billed Toucan," named after Belize's national bird, validated the Task Force's ability to mobilize personnel, assets and supplies safely and quickly, to assist regional partners in the event of a natural disaster, following strict COVID-19 protocols.

"During the last few days JTF-Bravo had the opportunity and pleasure of training in beautiful Belize," said U.S. Army Col. Steven Gventer, JTF-Bravo commander. "I am proud of how our team has performed and demonstrated our commitment to maintaining a ready force, capable of supporting our Central American partners."

U.S. Army helicopters assigned to the 1st Battalion, 228th Aviation Regiment facilitated transportation of personnel and equipment in addition to participating in the exercise through airlift, medical evacuation and search and rescue scenarios. Personnel with the 612th Air Base Squadron, Army Forces Battalion (ARFOR) and the Joint Staff also engaged in coordination and tested equipment, skills and capabilities through various exercise injects as well as Survival, Evasion, Resistance and Escape jungle training. Additionally, ARFOR successfully constructed and operated a forward arming refueling point, extending the range of rotary aircraft.

"Throughout the exercise, JTF-Bravo and Army Forces Battalion worked hand-in-hand to ensure an effective portrayal of a real-world [Humanitarian and Disaster Relief] operation," said U.S. Army Lt. Col. Micah Baker, ARFOR commander. "From operating a forward arming refueling point, to maintaining a tactical operations center, our coordination with the various units on Soto Cano was excellent."

Belize provided an ideal setting to conduct this exercise due to its terrain as well as an opportunity to strengthen ties with Belizean partners. The objective was to transport equipment and personnel to another location outside of Honduras, where the Task Force is based, and test the capability to self-deploy within the area of operations, using organic assets to conduct a disaster relief operation in coordination with the U.S. Agency for International Development's Bureau for Humanitarian Assistance - the lead agency during a U.S. international response.

While this iteration did not include direct participation from Belize, the Central American nation received real world benefits during a Global Health Engagement, where JTF-B medical personnel integrated with local counterparts to provide primary care, preventative medicine, dental and pharmacy services in Jalacte and San Pedro Columbia, aiding more than 775 Belizeans.

"Exercises such as Keel-Billed Toucan reflect the United States' enduring commitment to our Belizean partners and the strong ties and friendship we share between our two countries," said Layla Moses-Ones, Chargé d' Affaires, U.S. Embassy Belize.

The exercise also provided opportunities for subject matter expert exchanges between U.S. service members, local forces, and the British Army, and allowed our aviation team and planners to familiarize with the area.

As trusted partners to Central America, JTF-Bravo strives to be ready to support when called and exercises such as KBT prepare the team to respond and better coordinate with nations across the region if a disaster were to happen.

Approximately 150 members from units across JTF-Bravo received training during this exercise and successfully completed the first iteration of KBT.

FLRAA: Adaptive in its Acquisition Approach

By COL David C. Phillips

As a key component of Army Aviation's modernization strategy, the Future Long Range Assault Aircraft (FLRAA) Team has continued to execute its mission. With another full year of activities and milestones achieved, FLRAA remains on track with an accelerated timeline to deliver an affordable capability with a first unit to our Soldiers by 2030.

We have only been able to successfully execute this mission because FLRAA is a true Team of Teams with all stakeholders playing crucial roles in the Army's ability to lay out a strong foundation very deliberately -- going slow at first and adapting to the environment in order to stay on track as the program matures. An important part of the Army's disciplined engagement with industry is PM FLRAA's ability to continue to leverage and build on years of data and lessons learned that each vendor and our government teams have generated to date, optimizing requirements through multiple risk reduction efforts and establishing a Modular Open System Approach (MOSA) as the backbone for lifecycle affordability.

We released the formal Request for Proposals in July and received both vendor proposals on time in September. Today, the FLRAA source selection process is ongoing and includes many steps before the Army makes a final decision. Working with our team-mates from CFT, AMCOM, CDID, SRD, and ATEC, we have been able to accomplish our commitments to date using a hybrid acquisition approach, leveraging the DOD's Adaptive Acquisition Framework (AAF) in order to support the Army's modernization goals.

Hybrid Acquisition Approach

The FLRAA Team is paving the way in leveraging authorities established in the DOD AAF, enabling the program to remain on schedule and meet the Army's objectives through the use of a hybrid acquisition approach. This approach includes three main phases: (1) risk mitigation activities using Other Transaction Authority (OTA) agreements, (2) rapid prototyping using Middle Tier of Acquisition (MTA) authorities, and (3) tailored Major Capability Acquisition weapons system development with a Milestone B in FY23. PM FLRAA's hybrid acquisition strategy begins with the Competitive Demonstration and Risk Reduction (CD&RR) efforts on OTA agreements followed by a FAR-based contract planned for award to a single vendor in 2022. The use of MTA authorities accelerates capability maturation and allows for early development of virtual aircraft prototypes, focusing on maintaining momentum with appropriate rigor.

PM FLRAA has built upon the knowledge gained from the Joint Multi-Role Technical Demonstrator flight tests and architecture demonstrations and is transitioning this knowledge to CD&RR efforts in order to further reduce risk and optimize requirements. The use of OTA agreements has enabled consistent and open communication and collaboration between industry and the PM, ensuring capability requirements are feasible and affordable within the bounds of the accelerated schedule. Fostering a competitive environment in which multiple companies are incentivized to develop innovative capability solutions is a best case scenario to deliver the most capable and cost-effective solutions to our Warfighters.

Risk Reduction

Enabling the program's momentum is FLRAA's use of multiple risk reduction activities. Deputy Secretary of Defense Kathleen Hicks once said, "to improve emerging technologies' prospects transitioning to the war fighter, the department should continually improve its systems engineering expertise, apply mission-based engineering analysis, and employ robust prototyping, experimentation and demonstration campaigns." The predominance of the CD&RR Phase II is absolutely associated with digital engineering and model-based systems engineering (MBSE), which means taking real data from the JMR flight tests and rigorously refining the designs to meet the Army's needs for flight performance, combat survivability, sustainability and safety – which feeds into the affordability foundation of the program. A digital engineering environment and MBSE is crucial in reducing schedule risk and maintaining momentum while gaining engineering efficiencies.

In an effort to make more informed decisions, PM FLRAA has formed close partnerships with other services, industry, and allies including ATEC, MEDEVAC, and USSOCOM to support preliminary analysis of requirements and plan for future work together. Continuously building and strengthening these relationships ensures the weapon system capabilities meet current and future multi-domain operation requirements while delivering on an aggressive schedule that does not sacrifice rigor for speed. At the conclusion of CD&RR Phase II, the Army will have a preliminary design for the weapons system platform and major subsystems before down-selecting to a single vendor in FY22. The winner will then complete a preliminary design review to support the Milestone B decision and transition seamlessly into engineering and manufacturing development, also mitigating the risk of losing the industrial base workforce going from development to production.

MOSA

At the heart of enabling lifecycle affordability is PM FLRAA's deliberate integration of MOSA into its requirements and it is woven into the acquisition and sustainment strategies. MOSA is a foundational element for all Army Aviation efforts and allows for the accelerated integration of capabilities. PEO Aviation's objectives for MOSA are to design, develop, and deliver a capability enabled by (1) continuous delivery of threat-based capabilities, (2) faster fielding of innovation, (3) total lifecycle affordability through competition, and (4) enable commonality/portability. To this end, we have taken a hard look at our mission systems definitions and included these specifications (the FVL Architecture Framework (FAF)) in the request for proposals with incentives to utilize MOSA. This includes the Air Vehicle Systems Baseline, Air Vehicle/Platform, Mission Systems Baseline and Mission Specific Kit.

ACWG

Over the past two years, we have invited industry, government partners and academia to our Architecture Collaboration Working Group (ACWG) that helped to define the FVL framework in the FAF. The FAF defines the objectives and requirements that the contractor shall uphold to execute a MOSA and deliver a product and capability that meets FLRAA's MOSA objectives. The FAF will improve the Government's ability to utilize appropriate data rights by enabling competitive, continuous upgrade and delivery of threat-based capability through faster fielding of innovation by using common processes, tools, and standards. This will be accomplished through standardized government rights to interface data and control. As such, the Army selected the FLRAA program to participate in the Section 801 Pilot program to assess rights within intellectual property during source selection. As directed within 10 U.S.C. 2439, PM FLRAA plans to assess the cost and value of obtaining data and data rights by requiring the vendors to assert their current intellectual property rights and conduct detailed analysis to determine the value of the asserted data. Through this, PM FLRAA will be empowered to make more informed decisions on data rights and negotiations, allowing for more efficient utilization of information to maintain, modify, and support the future FLRAA fleet.

FLRAA is a generational opportunity, and the Army cannot meet its commitments without transparency from industry, active engagement with all stakeholders, and a great Team effort. We must follow an aggressive, but disciplined and rigorous process. While there is a healthy tension between the industry competitors who are looking to be selected to build FLRAA, competition will only drive us to a better and more affordable end-product. Together with industry, the Army is making great strides in taking prudent risk and looking through a very clear lens that is focused squarely on aligning our strategies, requirements, resources, and technology for FLRAA – always recognizing where the opportunities are to maintain the course to deliver on a first unit equipped in 2030.

COL David C. Phillips is the project manager for the Future Long-Range Assault Aircraft, Program Executive Office Aviation at Redstone Arsenal, AL.

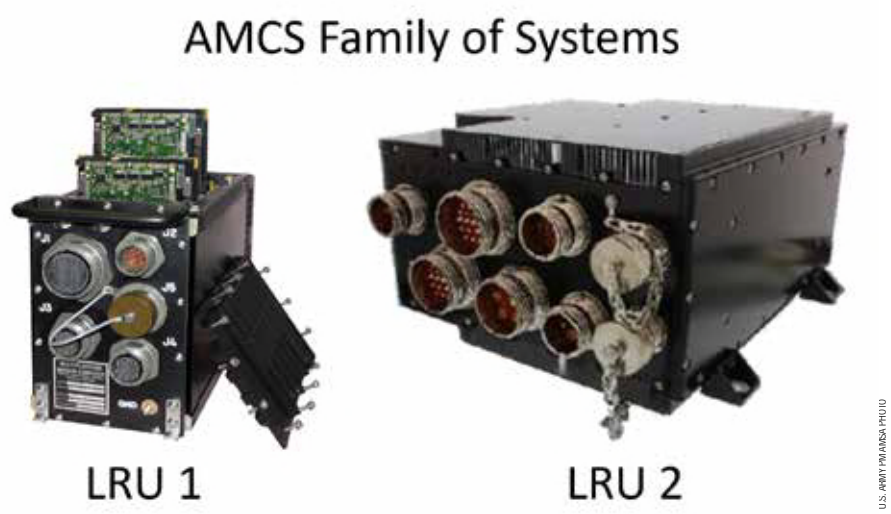
Delivering Open Hardware and Software Capabilities for a Common Architecture

By COL Burr Miller

I must begin by stating it is an extreme honor and privilege to return to the Program Executive Office (PEO) Aviation family as the project manager for the Aviation Mission Systems and Architecture (PM AMSA) Project Management Office.

While assuming the charter during the COVID-19 pandemic certainly presents unique challenges and uncertainties, one thing remains clear; the acquisition professionals within PEO Aviation and PM AMSA stand ready and as capable as ever. I look forward to working closely with our stakeholders as we design, develop, and deliver common, cross-cutting capabilities which will enable modularity and open standards throughout the Enduring Fleet and Future Vertical Lift platforms as well as continuing support of our partner nations through foreign military sales. As many of you may recall, this is a bit of a homecoming for my family. I previously served as the program manager for the Aviation Mission Equipment office within the Aviation Systems Project Office as PM AMSA was known prior to its reorganization to better align with Army Futures Command and aviation priorities in support of multi-domain operations.

My assignment with PM AMSA comes at a critical time for the aviation enterprise, driven primarily by emerging near-peer threats and fiscal realities. These realities, when coupled, dictate a paradigm shift in the manner we conduct the business of delivering capability across the portfolio. We can no longer afford stove-piped communications, navigation, surveillance, and mission system solutions that are costly and difficult to integrate onto our aviation platforms. Instead, we must transition and enable a Modular Open Systems Approach facilitating common hardware solutions driven by applications based software.



The Aviation Mission Common Server provides a modular and open system architecture for supporting rapid introduction of capabilities, enhancing aircrew safety, increasing battlefield lethality, improving aircraft survivability and providing cross platform portability.

To this end, PM AMSA, in coordination with the Aviation Enablers Requirements Determination Division at Fort Rucker and the PEO Aviation Modular Open Systems Approach Transition Office are leading prototype development of two key programs supporting mission system computing and communications requirements. Each effort is designed to exploit model based systems engineering to capture, model and test enterprise requirements while leveraging industry partners to develop common, modular, and open solutions vice the traditional line replaceable units of the past.

Aviation Mission Common Server

First, the Aviation Mission Common Server (AMCS) is a family of systems providing a modular and open architecture in support of general and adjunct mission computing requirements. AMCS will facilitate hosting third party applications for radio control, sensor fusion, and future machine learning as well as artificial intelligence applications. When coupled with the Air – Ground Network Radio, AMCS serves as the aircraft gateway enabling data parsing, transmission, and communication between the Integrated Tactical Network and the aircraft. This capability enables Army Aviation platforms to serve as network nodes throughout the battlespace in support of operations. Additionally, the AMCS architecture and mission systems processing capabilities enable the rapid and efficient integration of the new capabilities required to keep pace with the threat environment. Lastly, AMCS provides common hardware and architecture across the Enduring

and Future Vertical Lift fleets resulting in realized cost and schedule saving across the enterprise.

Modular Communications

Secondly, we are beginning efforts this fiscal year to prototype a modular communications chassis which leverages card based radio solutions. The development adheres to the C5ISR Modular Open Suite of Standards (CMOSS) Mounted Form Factor (MFF) design criteria in order to ensure modularity, reduce costs, and address size, weight, and power constraints prevalent in aviation platforms. CMFF is an Army wide endeavor representing a unique opportunity to shape industry and take advantage of lower costs leveraging common components across ground and air platforms.

Over and above the AMCS and modular communications development efforts, PM AMSA continues to ensure relevancy in the enduring fleet as we develop, and deliver capabilities addressing assured position, navigation and timing, crypto modernization, obsolescence mitigation and ground support requirements. In the near term, we will continue the development and qualification of the EAGLE-M and begin fielding of the MAGNA Anti-jam antenna system providing resiliency in GPS degraded / denied environments.

In the communications arena, we are testing and qualifying a modernized ARC-231A Multi-mode Aviation Radio. Fielding of the ARC-231A is planned to begin in FY23 and will enable crypto modernization, beyond line of sight comms, and facilitate integration of future waveforms in support of multi-domain operations. In the ground support arena, the team is designing the Aviation Ground Power Unit 1.1 (AGPU 1.1) to mitigate current performance limitations. The AGPU 1.1 provides 3 Phase 400 Hertz 115/200 Volt AC electrical power, 350 amps of DC electrical power, and increased Pneumatic Air (Air Start) and hydraulic gallons per minute in support of CH-47 engine hydraulic start requirements.

In closing, I am humbled and excited to return to PEO Aviation and PM AMSA and look forward to coordinating and executing these programs in support of our stakeholders' requirements and ultimately the Soldier.

COL Burr Miller is the project manager, Aviation Mission Systems and Architecture (AMSA,) Redstone Arsenal, AL.

CH-47 Ground Test Vehicle (GTV) testing uprated transmissions while secured to a concrete pad at Aberdeen Proving Grounds, MD.

U.S. ARMY DEVCOM DAC SURVIVABILITY BRANCH PHOTO

Special Focus ▶ Army Capability Managers Update

Army Capability Manager-Lift Update: Targeted Modernization of the Enduring Fleet

By COL Barton (Bart) Johnke, LTC Mary Beth Scott and Mr. Bill Jones

The Army Capability Manager – Lift (ACM-L) provides dedicated capability manager support and user representation for the fielded Army Aviation Utility, Cargo and Fixed Wing fleet. The small ACM-L team of 17 Soldiers, Civilians and Contractors is responsible for over 3,500 aircraft, representing about 80 percent of the current manned Army Aviation fleet. As of 1 October 2021, ACM-L officially became part of Army Futures Command, but the directorate remains closely partnered with the US Army Aviation Center of Excellence (USAACE), as well as the Project Managers (PM) for Utility, Cargo and Fixed Wing Aircraft.

In addition to responding to current issues in the Utility, Cargo and Fixed Wing fleet, ACM-L is also charged with developing requirements for fielded force modernization. As Army Aviation develops capabilities for the Multi-Domain Operations (MDO) Way Point Force of 2028, the enduring fleet must undergo targeted modernization to become MDO capable. The Army's Black Hawk and Chinook fleets will remain in the force through 2050 and require the capability to operate within the Future Vertical Lift (FVL) ecosystem and fight and win in the highly contested environment of the future battlefield.

Key Efforts

UH-60V – The primary effort in ACM-L's utility division remains the UH-60V program. ACM-L has been closely involved in the development and execution of this groundbreaking program. The UH-60V is the first Army Aircraft to utilize modular open systems approach (MOSA) technology and provides UH-60M-like capabilities on a recapitalized UH-60L airframe. When integrated with systems such as the Aviation Mission Common Server (AMCS) and the Integrated Tactical Network (ITN), the UH-60V will provide leap ahead situational awareness for aircrews. MOSA technology will allow rapid integration of future technological advancements into the UH-60V and will help inform other modernization efforts across Army Aviation.

In July 2021, the Army successfully fielded UH-60V to the Eastern Army Aviation Training Site (EAATS), where the National Guard is executing a training support package to transition

aviators to this new airframe. In 2022, ACM-L is working with other stakeholders to plan and execute a unit level operational test of the UH-60V with the first V-model equipped Assault Battalion. Current planned V model fielding includes both COMPO 1 and COMPO 2 Combat Aviation Brigades.

UH-60M – The UH-60M remains the primary utility aircraft for air assault, general support and aeromedical evacuation. The UH-60M program is nearing its final aircraft procurement in fiscal year 2027. As the production line closes, ACM-L and PM Utility are looking toward a potential M Model RECAP effort. The decision point for 60M RECAP will not occur until FY26 and early planning efforts are just starting to take shape. In the interim, modernization efforts for the UH-60M must continue to ensure the UH-60M is prepared to fill MDO gaps as the Future Long Range Assault Aircraft (FLRAA) continues development. Capabilities such as the Improved Turbine Engine (ITE), Integrated RNAV, flight in Degraded Visual Environments (DVE), Common Infrared Countermeasures (CIRCM) and MOSA technology will help the UH-60M fill this gap.

CH-47 – The CH-47F Block II airframe is currently in the Engineering, Manufacturing and Development Phase. As the Army moves forward with procurement of the Block II, ACM-L remains fully engaged with PM Cargo to ensure the Block II airframe meets user requirements. Block II is a common MH-47G/CH-47F airframe with greatly increased payload capacity made possible through numerous drivetrain and airframe engineering design improvements. Future integration of technologies like MOSA, DVE and the Aviation Mission Common Server (AMCS) will ensure the Army's heavy lift fleet is compatible with future platforms and capable of operating in a MDO environment. New ASE improvements with CIRCM and Limited Interim Missile Warning System (LIMWS) systems are being integrated for both Block I and Block II aircraft.

Currently, Block II components are undergoing live fire testing to evaluate system vulnerability against enemy threats. Additionally, ACM-Lift is collaborating with PM AMSA, PM Cargo, DES, DOTD, and other stakeholders to identify challenges and develop solutions for current and future CH-47F Performance Planning Calculations.

UH-72 – The UH-72A remains Army Aviation's primary training helicopter. Fort Rucker will receive the last of its 224 UH-72As in FY22. Additionally, the UH-72A continues to support the National Guard's Security and Support (S&S) and MEDEVAC missions, as well as the Combat Training Centers. Airbus began delivering the UH-72B (D3 Variant) to PM Utility in 4th quarter of fiscal year 2021. PM Utility is conducting new equipment training at Huntsville International Airport and will field the UH-72B to COMPO 2 in 2022. The UH-72B has numerous upgrades to include improved power plants, upgraded main gearbox with 30-minute transmission limit (increased from a 5-minute limit on the UH-72A), composite tail boom with ducted fan tail rotor, upgraded avionics, four-axis autopilot, and a 5-bladed rotor system with a bearing-less design. These improvements provide increased payload, improved high/hot/heavy performance, improved one engine inoperative performance, and benefits to hover out of ground effect and hoist operations.

Fixed Wing – The ACM-L Fixed Wing division remains engaged with both the Operational Support Airlift (OSA) fleet as well the Special Electronic Mission Aircraft (SEMA) modernization effort. The primary Fixed Wing modernization effort, High Accuracy Detection and Exploitation System (HADES) has executed two technology demonstrators with both two different HADES prototypes successfully operating in deployed locations during the last year. HADES will offer the warfighter increased sensing capability and battlespace awareness.

ACM-L remains engaged across the Army Aviation enterprise and continues to dedicate its efforts to supporting the warfighter. Integrating stakeholders from across Aviation, the Army and Industry, ACM-L helps ensure the best possible capabilities reach the Soldiers flying and maintaining the enduring lift fleet.

COL Barton (Bart) Johnke, is the director, LTC Mary Beth Scott and Mr. Bill Jones are the deputies for the Army Capability Manager for Lift (ACM-L) at Fort Rucker, AL.

Continue to Dominate: AH-64 Capability Improvement for Multi-Domain Operations

By COL Ryan K. Welch

Consistent incremental modernization has ensured the AH-64's place as the most dominant rotary wing Attack platform in the world. As large-scale combat operations (LSCO) evolve and complex threats proliferate, modernization efforts are focused on the Apache's traditional anti-armor role, bolstering lethality and survivability. In the words of Major General David Francis, "We aren't replacing the attack helicopter – the AH-64 Apache is our tank killer and will still be performing that role well into the future."

With unified branch priorities and vision, in coordination with project managers (PM) for Apache Attack Helicopter and Tactical Air Ground Munitions (TAGM), the AH-64 Apache will continue to dominate as the premier heavy attack helicopter well beyond 2035.

Sense/Shoot: Decisive in the Deep/ Close Fight

The AH-64 continues to receive sensor upgrades to destroy targets in both the deep and close fights. Unit feedback from fielded AH-64E units highlights the need for a common Operational Flight Program (OFP) that standardizes capabilities interface across the fleet. This "digital backbone" will generate options for mission equipment packages (MEP) to allow previous AH-64E versions to operate modernized hardware, while rapidly integrating capabilities via open systems interface. The OFP effort, called V6.x, is underway and critical to the AH-64's developmental path into the future.

The generation 2 Modernized Radar Frequency Interferometer (MRFI) has demonstrated ability to identify targets at ranges well beyond known adversary air defense capabilities. When paired with Link 16 Tactical Digital Information Link (TADIL), Long Range Precision Munitions, and Joint enablers, MRFI will aid commanders in dis-integrating IADS to mitigate adversary standoff and enhance freedom of maneuver.

Generation 2 Target Acquisition and Designation System (TADS), incorporating the Modernized Day Sensor Assembly (MDSA), is capable of identifying

LOCKHEED MARTIN PHOTO BY TOM BARGNESI

An AH-64E fires a SPIKE Interim-Long Range Precision Munition during an Army Aviation demonstration, Apr. 13, 2021.

and engaging targets at beyond maximum range of organic weapons systems. With generation 2 Fire Control Radar, the AH-64's senor suite allows for rapid targeting and engagement of massed adversary forces. Future improvements will incorporate next-generation night sensing, sensor fusion, and moving target detection to allow aircrews to rapidly find, identify, and engage multiple threats.

Joint Air Ground Missile (JAGM), coupled with Advanced Precision Kill Weapons Systems (APKWS) improvements, SPIKE Interim – Long Range Precision Munition (I-LRPM) fielding, and 30mm enhancements will increase Apache's ability to service a wide array of threats.

JAGM enhances AH-64 lethality. This system provides overmatch while shortening engagement times via seeker and fuzing improvements. This missile will defeat active protection systems (APS) and enable crews to engage targets in adverse weather conditions. Multi-mode seeker technology enables greater accuracy and target discrimination in target rich and/or radar cluttered environments.

The Advanced Precision Kill Weapons System (APKWS) provides a precision engagement capability using the Hydra M151 warhead and MK66 mod 4 motor. Improvements will provide autopilot optimization for varying warheads, increased range, and increased terminal performance.

SPIKE Interim-Long Range Precision Munition (I-LRPM). Efforts are underway to provide a limited number of SPIKE-equipped aircraft in the short- to mid-term. This directed requirement is critical to operating in an IADS environment.

The M230E1 Area Weapon System (AWS) is undergoing accuracy enhancement modifications and testing. Efforts are underway to qualify proximity-fuzed 30mm rounds as a future option to provide capabilities against personnel in defilade, light armor, UAS, and maritime targets.

Move: Restore and Retain Maneuver Capability

The improved turbine engine (T901) will regain some range and payload capabilities lost over time due to mission equipment growth, while providing unprecedented station time and fuel efficiency. Though the AH-64 will not possess the speed/range of the Future Attack Reconnaissance Aircraft (FARA), Apache's capability improvements will complement FARA's by exploiting windows of opportunity created by our Air Cavalry units.

While mechanical improvements extend Army Aviation flight performance, future AH-64 modernization efforts will objectively "own the weather" utilizing fused pilotage and targeting. Sensor fusion extends mission execution envelopes beyond current weather limitations. Full face Helmet Mounted displays provide navigational, threat and ground avoidance information in a heads-up / eyes-out presentation, streamlining mission execution, leveraging sensor fusion to present targeting information in addition to flight data. The Apache of 2035 will launch in degraded visual conditions, proceed to target, strike, and return under the cover of darkness and adverse weather.

Communicate: Robust/Redundant/ Resilient Capability for the Joint Force

Apache will incorporate software-defined radios to expand communication capability. These will optimize via self-healing inter-service and joint networks for more reliable communications across the joint force.

Manned / Unmanned Teaming – X (MUMT- X) – The upgrade to MUMT-2 provides substantial improvements. MUMT-X allows crews connectivity to two UAS simultaneously, providing full Level of Interoperability (LOI) 3-4 control, allowing crews to direct sensors/ laser and engage with UAS weapons along with their own – creating multiple dilemmas for adversaries.

The Variable Message Format (VMF) of Blue Force Tracker 2 and future BFT 3 will aid Apache in conducting digital call- for- fire missions and Link 16 Digitally Aided Close Air Support (DA-CAS), facilitating both artillery calls for fire and air to ground CAS. Radio system modernization - SATURN, Advanced Ground Networked Radio (AGNR), Mobile User Objective System (MUOS), SATCOM, Wide Band SATCOM, and the Aviation Mission Common Server (AMCS) will ensure communications during future conflict.

Summary

Today, the relative combat power of our attack helicopters is unmatched. Our attack and cavalry units have earned the hard-won trust of our Soldiers, commanders, and allies over the past four decades. The MDO-capable AH-64 is a necessity on the battlefield of tomorrow to maintain that confidence. ACM-RA will continue to manage Army Aviation's attack / air cavalry formations, platform, and associated munitions requirements to ensure future attack / recon aircraft provide a decisive Multi-Domain edge for commanders– anywhere, anytime.

ATTACK!

COL Ryan Welch is the director of the Army Capability Manager for Reconnaissance and Attack, Combat Development Integration Directorate, Ft. Rucker, AL.

Ensuring Network Interoperability & Survivability for Army Aviation

By COL Marcus Gengler, LTC Gerardo Dominguez, & Mr. Glen Woodard

Aviation Enablers Requirements Determination Directorate (AE-RDD) continues to work with the Future Vertical Lift – Cross Functional Team (FVL-CFT) to write enabling requirements for our future fleet while ensuring interoperability of capabilities on Army Aviation's enduring fleet of aircraft. Many of these emerging enabling capabilities will first be evaluated and integrated onto UH-60s, CH-47s, and AH-64s before being fielded on the FVL fleet. During EDGE 21 and Project Convergence 2021 (PC21), we saw a glimpse of the technology that will enable Army Aviation to dominate within the information battlespace by showcasing the critical nature of robust and resilient networked communications between command posts and aviation platforms over extended distances. We are engaged with Program Management Office - Aviation Mission Systems & Architecture (PM AMSA) and the Network – Combined Functional Team (N-CFT) to ensure that Army Aviation's enabling requirements are nested within the Army's vision for a networked Common Operating Environment (COE) and the Joint All-Domain Command and Control (JADC2) structure.

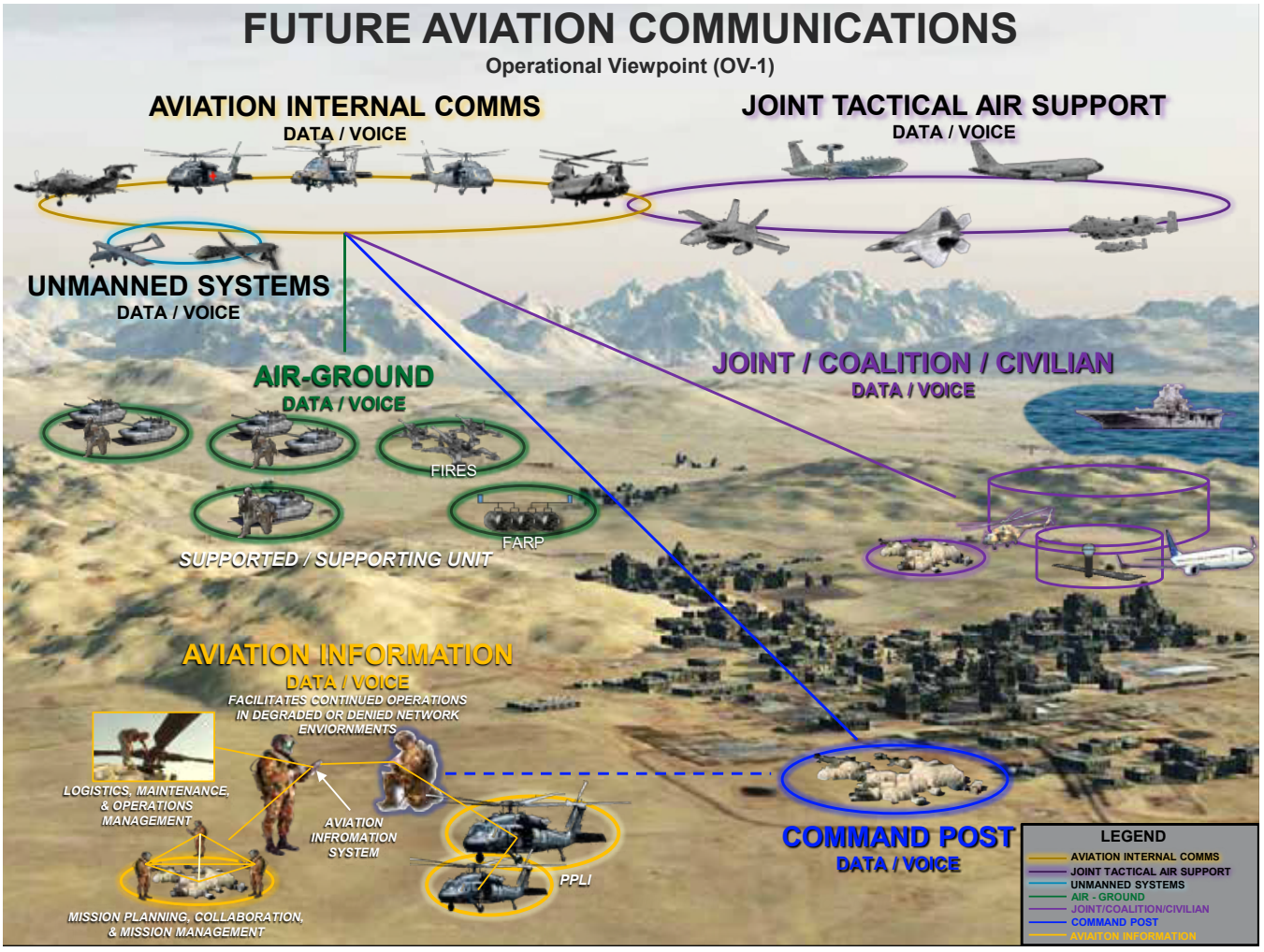
Situational awareness and sensor to shooter (S2S) information exchange between air and ground forces will be more critical than ever on the future battlefield. During the competition, penetration, and exploitation phases of Multi-Domain Operations (MDO) we will have to be data-centric, relying on resilient meshed networks down to the tactical edge in order to facilitate extended independent operations. The COE effort is working to align currently independent mission command systems (AMPS, TAIS, CPOF, AMDWS, AFATDS, etc.) to support digital information exchanges at all echelons through data standards and a common computing architecture. In order to integrate in this network centric environment, EDGE 21 and PC21 demonstrated the critical need for the Air-Ground Networking Radio and a Nett Warrior – Aviation enabled device in future cockpits.

ALL GRAPHICS – AE-RDD GRAPHIC

Nett Warrior-Aviation (NW-A) tactical image.

Air-Ground Network Radio (AGNR)

The AGNR will be a multi-channel, software defined radio program of record initially designed for dismounted Soldiers but programed for integration onto aviation platforms. The AGNR will ultimately replace both AN/ARC-201 (SINCGARS/FM) radios currently installed on enduring fleet platforms and provide four-channel capability in its place. It will be multi-band, network capable, and provide modernized satellite communication (Mobile User Objective System - MUOS), UHF, VHF, and SINGARS/FM. It will be the transport devices that enable both voice and data air-ground communications between aircraft and



supported maneuver elements using the Tactical Scalable MANET (TSM) waveform. Initial integration on the UH-60M is ongoing with first unit equipped (FUE) estimated in FY24.

Nett Warrior–Aviation (NW-A)

The NW-A will be part of the next generation electronic flight bag (EFB) with an architecture that enables a shared aviation/ground Android Tactical Assault Kit (ATAK) common operating picture with tactical forces down to the individual and squad level. We envision these devices becoming the primary aviation mission planning tool for the modern Army aviator. EFBs are being fielded now and the NW-A will begin fielding late FY22.

Not only will it be important to ensure that Army Aviation is networked enabled it will be imperative that it remains survivable. These are two of the programs we are currently working to ensure we continue to fight, fly, and win in hostile environments:

Degraded Visual Environment (DVE)

In Large-Scale Combat Operations (LSCO) it will not be enough to just "own the night," we will need to "own the environment." DVE Directed Requirement #2 looks to capitalize on current long-wave infrared (LWIR) sensor technology to detect terrain, obstacles, hazards, and threats and combine it with the current Product Manager Air Warrior Helmet Display and Tracking System (HDTS) which provides common cueing and 3D enhanced symbology in a heads-up, eyes-out, head-tracked helmet display to provide holistic situational awareness (SA) to the aircrew in real time. Army Aviation is already evaluating a portion of this technology on a limited number of HH-60Ms aircraft through the Degraded Visual Environment Pilotage System (DVE Directed Requirement #1). Once evaluation and testing of these combined capabilities are complete, we anticipate solidifying this requirement for inclusion onto the FVL fleet as well as a limited number of enduring fleet aircraft.

Improved Threat Detection System (ITDS)

ITDS will be the program of record replacement for the Limited Interim Missile Warning System (LIMWS) threat detection system that is being fielded in limited quantities in support of theater operational needs. It will capitalize on the lessons learned both from the Common Missile Warning System (CMOS) and LMWS programs to ensure that Army Aviation platforms are capable of detecting multiple threats and cue defeat systems that will enable us to operate and survive in contested airspace.

COL Marcus Gengler is the director of the Aviation Enablers Requirements Determination Directorate, Aviation Capability Development Integration Directorate at Fort Rucker, AL; LTC Gerardo Dominguez is the Military Deputy and Glen Woodard is the Civilian Deputy both at Fort Rucker, AL.

Finding the Best Method for Learning

By WO1 Kaleb Petry

In the aviation community, learning never stops. It is often said that on the day you believe you know it all, it is time to hang up your flight suit. As aviators progress through their careers, they increasingly find themselves in teaching and mentoring roles, but it is essential to remember that the role of "student" is a constant throughout one's career.

At the U.S. Army Aviation Center of Excellence (USAACE), where pilots of all experience levels undergo rigorous professional development, the role of student is given special consideration. As the home of Army Aviation, USAACE has a critical mission: to produce the best possible aviation professionals to support our nation's military. To achieve this goal, USAACE employs top notch instructors, innovative technologies and facilities, and the most up-to-date teaching methodologies available. All of these efforts are backed by a rigorous selection process to ensure that USAACE trainees have the potential to excel in both their initial training and their future missions.

To find what methods of instruction work best and what areas need improvement, data is constantly collected regarding student performance. Student pilots are given detailed analyses of their development, including all aspects of their academic achievement as well as a broad and inclusive range of evaluated flight-specific tasks. This information is essential in producing a highly effective learning environment. In addition to this strong foundation of developmental support, the highest-performing USAACE students optimize their performance by cultivating an efficient academic lifestyle and integrating many interesting individual learning techniques. I interviewed recent high scoring graduates of Fort Rucker's Initial Entry Rotary Wing (IERW) common core training to determine what they did to earn a spot at the top of the class.

As any instructor pilot knows, individuals have certain basic needs that must be satisfied in order for focused learning to occur. Often referred to as Maslow's Hierarchy of Needs, this theory has been modified over time since its inception in 1954. Its general sentiment, however, is still widely accepted. A student who is hungry, tired, or feels particularly unsafe will not perform at their highest potential.

U.S. ARMY PHOTO BY LTC ANDY THAGGARD

Warrant Officer Jessica Burns pulls a fuel sample while preflighting a UH-60M Black Hawk helicopter at Fort Rucker, Alabama, Aug. 3, 2021.

When asked what set them apart, many of the highest-performing students I interviewed stressed the importance of a deliberate work-life balance, proper nutrition, frequent exercise, and even meditation. Not only is it crucial for instructors to periodically monitor the status of their students' physiological needs, but it is equally important to empower students with this information. Students who prioritize their own readiness and wellbeing create a safer, more effective learning environment.

Methods and Techniques

In taking charge of their learning process, many students go beyond simply meeting basic needs by employing modern study techniques. The use of acronyms and initialisms is nothing new, but many take a step further by utilizing the "***memory palace***" method. This technique involves associating different categories of information with specific rooms in a building, often the student's house. For example, I may mentally associate engine failure procedures with my kitchen table and rotor speed limits with my laundry room. This allows me to picture a familiar place when attempting to recall the information, boosting my memory by adding an easily recalled element of spatial association.

Another common method that students have modified is the use of ***spaced repetitions***, where students prioritize a high number of brief exposures to the material throughout the day rather than blocking study into fewer, more intense sessions. The effectiveness of spaced repetitions is widely understood, but a lesser-known approach called the ***Leitner system*** can boost learning efficiency even further. In this system, the student divides

note cards into several stacks, one through five for example, according to how well the student remembers the information. Stack one contains the information the student recalls the least and is reviewed most frequently. Stack five contains information the student recalls confidently and is reviewed less often, maybe every other day. As cards are recalled correctly or incorrectly, they are moved to the appropriate stacks, ensuring that the information that needs the most attention is more frequently reviewed.

Regarding the physical or psychomotor learning domain, students are often advised to "***chair fly***," which involves visualizing the execution of flying tasks, reaching for imaginary controls and switches, and speaking the appropriate radio calls out loud. Many of the most successful flight students take chair flying seriously and attempt to make the experience as immersive as possible. Some students wear their flight suit and headset while pacing traffic patterns around the room. They may even go as far as to chew the same brand of gum when chair flying as they will during flights in an effort to fully immerse themselves in the scenario.

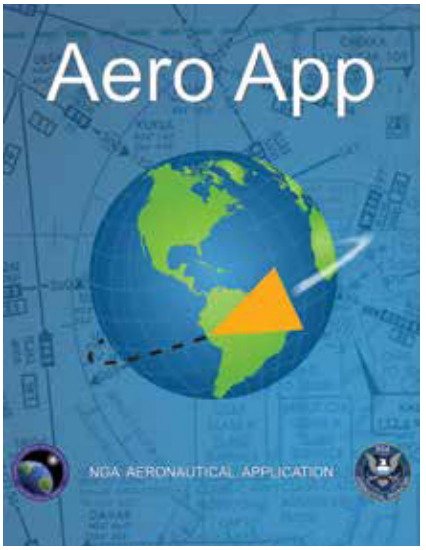
Quirky habits like these may sound silly at first, but they often work wonderfully. One of the most interesting things I learned when interviewing the student pilots was that everybody approaches the learning process differently. Some prefer to study in groups while others make the most progress when studying alone. Some take meticulous color-coded and tabbed notes while others scribble cryptically like a doctor, tracing certain words twice and circling others.

To an outside observer, many of these approaches may appear confusing or nonsensical, but it is important for students to find what learning tools work best for them. In aviation, learning is continuous. The job of an aviator is critical to our nation's military success, and every time an aircraft leaves the ground, lives are on the line. When a student finds something that works, they need to carry it into their future, always adding to their bag of tricks in order to be the best aviator possible.

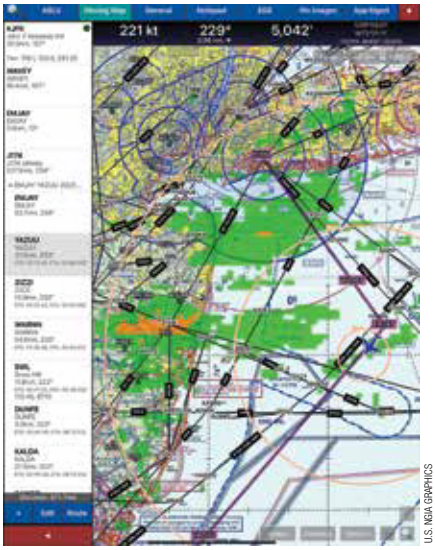
The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of Department of the Army, DoD, or U.S. Government.

Aero App – Your Free DOD-Owned EFB

By Ms. Alexandra M. Marks



This Aero App screen capture shows the "doghouse" enroute feature.



U.S. NGA GRAPHICS

The Aero App moving map feature provides up-to-the-minute airspace information.

As an Army aviator, it is critical to have data at your fingertips within a moment's notice. The National Geospatial-Intelligence Agency's (NGA) Aero App allows you to train the way you fight, by providing you the timely, relevant, and validated aeronautical information needed for mission success. Aero App is the United States' Department of Defense Electronic Flight Bag; a multi-platform aeronautical application and primary dissemination medium for the DoD's military aviation data.

Through the years, Aero App's capabilities and functionality have grown into a powerful GEOINT delivery tool providing the WarFighter and operators under the Federal umbrella access to NGA's vast geospatial data. Aero App employs the most up to date technology to ensure users always have what they need in the field. With exciting features and capabilities added to every release, Aero App always has something new for users to discover.

Aero App replaces paper-based flight information in the cockpit and includes a powerful Moving Map with world-wide data to enhance mission planning and success. Aero App brings together a host of data sources to ensure users have a complete picture of the theatre, including airport, terrain, weather, and other aircraft information. Aero App's data compression and cloud support also ensures users can download their required data in record time.

The Aero App program receives its requirements directly from users, and implements the features they need to enhance mission success and the user experience. A perfect example of this is Aero App's Doghouses feature, which was requested by numerous Army Aviators. Doghouses allow pilots to enter groundspeed, select their Time on Target, and will automatically adjust the user's Estimated Time of Departure, Estimated Time Enroute, Estimated Time of Arrival, and show, up to the second, how ahead or behind they are on their Time on Target.

Aero App is the only electronic flight bag application available on all three major operating systems, allowing the WarFighter to re-think deployed operations in expeditionary locations thanks to Aero App's wide array of tools such as the Aero Data Server (ADS) and seamless data retrieval using the cloud. In addition to a suite of navigational aids, GPS trail output, and tactical tools on the moving map, aviators can receive real-time traffic and weather radar information to maximize their readiness and lethality.

We have heard it said, "practice the way you want to play," and the same goes for aviators – "Train the way you fight." Aero App's ability to operate in austere locations makes it the ideal application for downrange operations. A perfect example of this is the Aero Data Server, which handles the deployment of Aero App data to clients. ADS allows users on iOS, Android, and Windows mobile devices running Aero App to obtain Aero cycles and data over a locally-hosted Wi-Fi network, thereby enabling pilots to retrieve aeronautical data quickly and securely. ADS enables users to be downrange, without an internet connection, while providing the benefit of allowing users to classify their servers. In addition, ADS also permits users to place classified AMPS mission planning and graphics in ADS to produce MBTiles for loading onto classified tablets using Aero App. Thus, users are able to fly a fully classified mission from start to finish.

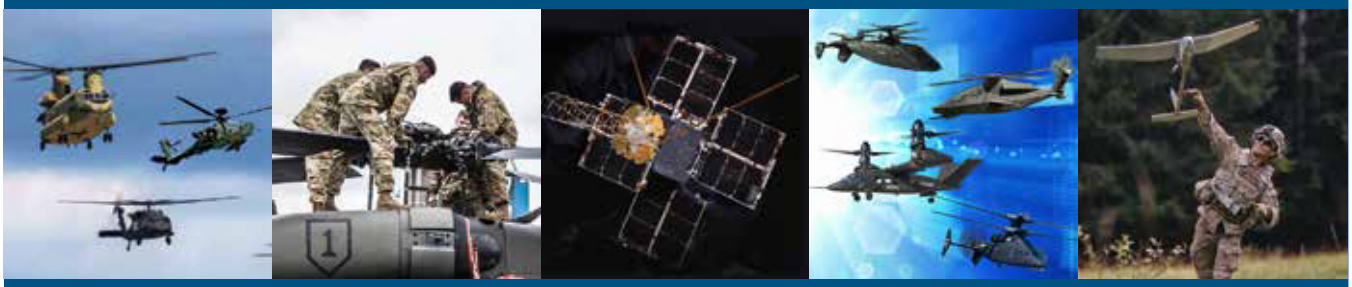
Aero App is available for iOS, Android and Windows tablets. For more information about Aero App, or to sign up for our newsletter and monthly webinar series, visit *www.AeroApp.info* or contact the Aeronautical Dissemination Team at *AeroDistro@nga.mil*.

Ms. Alexandra M. Marks is the deputy project officer for Aeronautical Dissemination at the National Geospatial Intelligence Agency headquartered at Fort Belvoir, VA.

2022 ★ SUMMIT

ARMY AVIATION MISSION SOLUTIONS SUMMIT

Army Aviation: Driving Transformational Change



APRIL 3-5

Gaylord Opryland Hotel & Convention Center, Nashville, TN

www.quad-a.org/22Summit #22SUMMIT

AAAA AIR ASSAULT CHAPTER

2022 Golf Tournament

WHERE: Gaylord Springs Golf Links . 18 Springhouse Lane, Nashville, TN 37214
http://www.gaylordsprings.com/

SAT APRIL 2nd

WHEN: **Saturday**, April 2, 2022; Shotgun start 0730 (morning) and 1330 (afternoon)

FORMAT: 4 Person Scramble

COST: $115 per player, total 144 golfers for morning and 144 golfers for afternoon. Cost covers green fees, cart with GPS system, breakfast, lunch, hors d'oeuvres and all standard golf amenities including range balls, club cleaning and bag handling. Accepting team and individual registration (including handicap), first paid 288 responses accepted on a first come, first filled basis. Rental clubs available. Paid registration due by March 19, 2022. All cards accepted, except American Express.

REGISTRATION: Visit http://2022aaaagolftournament.ezregister.com to register as an individual golfer, a foursome, or select a sponsorship level

http://2022aaaagolftournament.ezregister.com

NSA '47 and Army Aviation, Part IV

By Mark Albertson

Editor's Note: This is the final article in a four part series.

Where did Army Aviation fit into this many-sided transition known as National Security Act 1947? To begin with, the demonstrated ability of the Air Observation Post to perform a variety of tasks other than that of the direction of artillery fire enhanced its value and therefore broadened its appeal. This was evident by the actions of the other branches of the Ground Forces, which utilized the Field Artillery Cubs for missions and tasks other than that originally intended.

August 1945, the War Department gave the Air OPs a boost by enabling other branches of the Ground Forces, to adopt the capability.[1] The agreement, which had been reached previously by General Jacob L. Devers, CG Army Ground Forces and General Ira Eaker, CG Army Air Forces, also called for additional light aircraft for the AGF.[2] However on December 7, 1945, the Department of Air Training, which formerly trained aviators for the Field Artillery, became the Army Ground Forces Air Training School. In command was Major General Lewis E. Hibbs, formerly Commandant of the Field Artillery School. Named assistant commandant was the former commander of the Department of Air Training for the Field Artillery, Brigadier General William W. Ford.

Basic flight training remained the purview of the Army Air Forces, conducted at Sheppard Field, Wichita Falls, Texas. Then in May 1946, the AAF relocated the training program at Gary Field, San Marcos, Texas. Demobilization, though, adversely impacted the amount of student candidates. The result: shutdown of the Ground Forces Air Training School. In its place, a resuscitated Department of Air Training, with Colonel William W. Ford as Director; and located back at Fort Sill.

"In late February 1947, General Jacob L. Devers, CG Ground Forces and Lieutenant General J.K. Cannon, CG Air Training Command, reached an agreement on the training of Ground Forces pilots. The AAF would conduct technical flight training to produce liaison pilots capable of operating AGF aircraft during daylight, darkness and under marginal weather conditions from landing strips and roads normally used by AGF pilots. Also, the AAF would rate Ground Forces student pilots upon successful completion of the AAF Liaison Pilot Course."

WIKIPEDIA COMMONS PHOTO

General Omar Bradley represented Army interests when he joined with General Hoyt S. Vandenburg of the Air Force, in the attempt to iron out differences between the Army and Air Force over the issue of Roles and Missions, resulting in the Bradley-Vandenburg Agreement or Joint Army-Air Force Adjustment Regulation 5-10-1.

WIKIPEDIA COMMONS PHOTO

General Hoyt S. Vandenburg, Chief of Staff of the United States Air Force, half of the Bradley-Vandenburg paring who sought to ameliorate the Roles and Missions difficulties between the Air Force and the Army, resulting in the May 29, 1949 Joint Army-Air Force Adjustment Regulations 5-10-1 agreement.

"The Ground Forces agreed to conduct operational and tactical flight training; conduct instruction in the performance of first and second echelon maintenance of its aircraft, and conduct instruction in adjustment of fire, aerial reconnaissance, aerial photography, amphibious, airborne, and mountain operations, and any additional areas which might be required for Ground Forces pilots to accomplish their missions. All training was to be conducted at Fort Sill."[3]

Meanwhile, the AAF extended its Liaison Pilot Training Course to 22 weeks from 16. At Fort Sill, capacity for candidate aviators in each class was set at sixty. The AAF differed, urging the Department of Air Training to raise the allotment to 100 per class; this out of respect to a considered attrition rate of forty percent.[4]

The problem with the above training schedule is how unrealistic such expectations were when considering the Army's manpower dilemma during a period of demobilization – a shortage of officers. For instance, between February 11, 1946 to November 26, 1948, 377 pilots graduated from the pilot training program. However, between January 3, 1949 to July 6, 1950, 231 aviators were graduated. The former was produced in 38 classes; while the latter was pumped out in just six classes. This was a reflection, of course, in the rise in defense spending beginning in 1949.[5]

As in World War II, Army Aviation required commissioned officers as pilots. "Army Aviation Tactics 6-0-5, Purpose: To train selected Army officers in the tactical employment of Army aircraft and the duties of Army

Aviation officers in support of combat operations of Army Field Force units."[6] This, of course, leads us to the training of helicopter pilots. Again, this required commissioned officers.[7]

On May 20, 1949, the issues of Roles and Missions between the Army and Air Force were addressed with the Joint Army and Air Force Adjustment Regulations, AKA the 5-10-1 Agreement.[8] The 1949 regulations stipulated that organic Army aircraft consist of 'aircraft used by the Army for the purpose of expediting and improving ground combat procedures in the forward areas of the battlefield,'"[9]

As per the agreement, the tasks outlined for Army Aviation were as follows:
A) Maintaining aerial surveillance of enemy forward areas for the purposes of:
1) Locating appropriate targets.
2) Adjusting fire.
3) Obtaining information on hostile and enemy defense.
B) Aerial route reconnaissance.
C) Control of march columns.
D) Camouflage inspection of ground forces areas and installations.
E) Local messenger and courier service.
F) Emergency aerial evacuation.
G) Emergency wire laying.
H) Limited aerial resupply.
I) Limited front line aerial photography.

Aircraft organic to the Army may be assigned or attached to Army units as necessary to fulfill the required tasks.

Many of the tasks assigned to Army Aviation were akin to those conducted by the Air OPs during World War II. One must understand that this newly minted Air Force, as an independent service, was seeking to preserve its acknowledged primacy from any perceived threats to its turf by the Army. Indeed, weight limits on Army aircraft could be viewed as a way of further neutering the Army. The Army was limited to fixed wing aircraft with an empty weight limit of 2,500 pounds; while rotary wing aircraft were set at 3,500 pounds limit when empty.

Yet the decisive aspect in this evolving situation were not such factors as aircraft limits or control of pilot training, despite their degrees of importance; as opposed to the factor of time. Important changes in history were in the wind, in the next few years, as well as decades. Better days were certainly coming for Army Aviation, despite hiccups along the way.

Regardless, history – as it always does – shows unequivocally, that this analysis has been proven correct, as the Air OP will become Army Aviation, which will grow, mature and eventually become a Branch of the United States Army.

ENDNOTES:

1 – See page 3, Chapter 1, "The Field Artillery School in World War II," History of the Field Artillery School, Vol. II, by the U.S. Army Field Artillery School.
2 – See page 15, "Academics and Training," Part II, The Army Aviation Story, by Richard K. Tierney.
3 – See page 11. Chapter 1, "Early History of Army Aviation," History of Army Aviation, 1950-1962, by Richard P. Weinert, Jr.
4 – See page 12, Weinert, Jr.
5 – See pages 223-227, "Army Aviation Tactics," History of the U.S. Army Artillery and Missile School, 1945-1957, by the U.S. Army Field Artillery School.
6 – See page 223, U.S. Army Field Artillery School.
7 – The issue of helicopters in the postwar 1945 U.S. Army will be covered in an upcoming separate series.
8 – Also referred to as the Bradley-Vandenberg Agreement; referencing General Omar N. Bradley, Chief of the U.S. Army and General Hoyt S. Vandenberg, Chief of Staff of the U.S. Air Force.
9 – See page 22, "Army Aviation Between WWII and the Korean War, 1945-1950," U.S. Army Aviation Digest, September/October 1992, by Dr. John W. Kitchens.

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

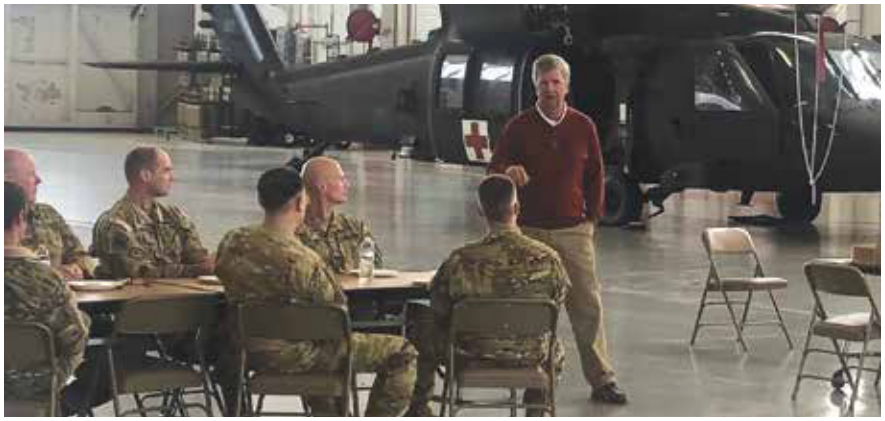
AAAA Chapter Affairs

By LTC (Ret.) Jan Drabczuk

I appreciate the support from COL Barry Simmons, the Greater Atlanta Chapter President for authoring and sharing this information to our membership.

The Greater Atlanta Chapter

The Greater Atlanta Chapter kicked off its 2022 focus with a visit from the AAAA President.



CHAPTER COURTESY PHOTO

AAAA National President, MG (Ret.) Tim Crosby, talks with chapter members during a Jan. 6, 2022 chapter meeting in Atlanta, GA.

There is little doubt that 20 years of war and continued commitments to contingency missions at home and abroad stretches any organization thin. As if this is not enough, the last two years supporting COVID-19 pandemic relief efforts have added additional layers of complexity to the Greater Atlanta Chapter's mission requirements. We keep hearing about the elusive "new-normal." What does this even mean?

Although Atlanta is in its name, the Greater Atlanta Chapter (GAC) serves Army Aviation Soldiers, retirees, and their families across Georgia. The GAC is affiliated with the Georgia Army National Guard's State Army Aviation Office (SAAO) and 78th Aviation Troop Command units. Home-stationed at Clay National Guard Center, in Marietta, Ga., 78th Aviation Troop Command (78th AVN TC) is the Aviation arm of the Georgia Army National Guard, commanded by Colonel Barry B. Simmons, who also serves as the GAC President. The 78th AVN TC includes 800 Soldiers, pilots, aircrew members, maintainers, support personnel, and families. In addition, many retirees, former Army Aviation professionals, and Aviation enthusiasts throughout the metro-Atlanta area and the State of Georgia are either current members or targeted prospects.

Networking

On January 6th, the GAC team and Soldiers from 78th AVN TC assembled at Clay National Guard Center for the first of several Chapter "reboots". It has been some time since the GAC conducted regular engagements, but the team is excited about the future. An initial focus is establishing key leadership positions that include a healthy mix of current Soldiers and retirees.

Voice

As a kickoff to the 2022 year, the GAC hosted the AAAA President MG(R) Tim Crosby. In his November 2021 Army Aviation Magazine installment of the 'President's Cockpit,' General Crosby wrote that his goal is to personally visit chapters to discuss AAAA efforts and hear about how the National Team can help the field. He is a man fulfilling his mission. In addition to discussing his AAAA vision, General Crosby provided a professional development session on how he sees the Aviation enterprise, future challenges, and how leaders engage with solutions. He provided relevant examples of how the AAAA 'network' brings the Army Aviation Branch, industry partners, key leaders, and decision-makers together. The AAAA mission provides a platform for sharing a vision of the complex future environment and, more importantly, brings the profession together to review potential modernization solutions.

Recognition

At the end of 2021, the GAC had the privilege of submitting the nomination for Mr. Gary Lindworth to receive the Silver Order of Saint Michael Award. Mr. Lindworth retired from federal service as the 3rd ID Deputy Director of Safety and Occupational Health and Aviation Safety Manager. His federal civil service as an Army Aviation safety professional followed a 21-year career as an Army Aviator, retiring as a Chief Warrant Officer 4. The 3rd CAB Commander awarded Mr. Lindworth the Silver OSM at his retirement ceremony at Fort Stewart, Georgia on the 10th of December.

Support

The men and women of AAAA's Greater Atlanta Chapter (GAC) know the sacrifices it takes to fight and win. Service to the nation, the States, and our communities in need have been their "normal" all along. But, as we look to 2022 and the challenges ahead, the Greater Atlanta Chapter also looks forward to adjusting and renewing their Chapter's service and support of the Aviation Warfighter! The Greater Atlanta Chapter looks forward to the New Year. 2022 brings the GAC a renewed focus on supporting the best Aviation Soldiers in the world.

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

Lindbergh Chapter Holiday Party

CHAPTER COURTESY PHOTO

The Lindbergh AAAA Chapter held its 2021 Holiday Party on December 16th at the Granite City Brewery and Food restaurant in Saint Louis, Missouri. The event was well attended, and members had a great time renewing friendships with those that they had not seen for some time. Before the meal began, Chapter president Dave Weller and Senior VP Tim Hughes conducted an Awards Ceremony. LTC(R) Roger G. Sulzer and LTC(R) William "Don" Wolfinger were inducted into the Silver Honorable Order of St. Michael and Jan Garmon was inducted into the Bronze. After the meal, a short business meeting was held to review the activities of the past year and discuss the plans for 2022. It was also stressed that 2022 was an election year and a plea was made to the membership for some new volunteers to step up and lead the chapter forward. The event ended with Santa conducting a prize drawing where several gifts were handed out to the attendees.

ORDER OF ST. MICHAEL INDUCTEES

Lindbergh Chapter

CHAPTER PHOTO BY MICHAEL G. TESI

LTC (Ret.) Roger J. Sulzer is inducted into the Silver Honorable Order of St. Michael by chapter president David J. Weller (left) and Senior VP Timothy Hughes on Dec. 16, 2021 during the chapter holiday party at the Granite City Food & Brewery, St. Louis, MO. Sulzer was recognized for 20 years as an Army aviator with two tours in Vietnam and assignments in the Aviation test community; his many years assisting companies with procurement advice; and being one of the founding members of the Gateway Chapter of the Army Aviation Heritage Foundation.

CHAPTER PHOTO BY MICHAEL G. TESI

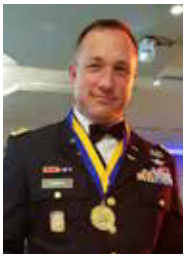
LTC (Ret.) William D. Wolfinger is inducted into the Silver Honorable Order of St. Michael by chapter president David J. Weller (left) and Senior VP Timothy Hughes on Dec. 16, 2021 during the chapter holiday party at the Granite City Food & Brewery, St. Louis, MO. Wolfinger was recognized for his successful aviation related career to include several assignments as an Aviation Maintenance Officer, service in the Secretary of the General Staff Office at the Aviation Systems Command and his last assignment in the Pentagon in charge of Special Programs. After the Army he went to work at McDonnell Douglas which was purchased by Boeing.

CHAPTER PHOTO BY MICHAEL G. TESI

Ms. Jan Garmon is inducted into the Bronze Honorable Order of St. Michael by chapter president, David J. Weller on Dec. 16, 2021 during the chapter holiday party at the Granite City Food & Brewery, St. Louis, MO. She was recognized for a professional career supporting Army Aviation with service in both the Program Manager Offices and the Engineering Directorate in Huntsville, AL and following retirement her support to the Lindbergh chapter as Secretary and then as VP for Member Engagement.

AAAA Members - Stay In Touch!

North Star Chapter



CHAPTER COURTESY PHOTO

MAJ (P) David Wagner, executive officer of the 2-147th Assault Helicopter Battalion in St. Paul, MN, was inducted into the Bronze Honorable Order of St. Michael by AAAA National President, MG (Ret.) Tim Crosby, and COL Kevin O'Brien, 34th Expeditionary Combat Aviation Brigade Commander (both not pictured), on Dec. 4, 2021 in Bloomington, MN. Wagner was recognized for his outstanding support of Army Aviation as he prepares to change duty and assume command of the 834th Aviation Support Battalion.

CHAPTER COURTESY PHOTO

Ms. Brenda K. Ortmann is inducted into the Honorable Order of Our Lady of Loreto by AAAA National President, MG (Ret.) Tim Crosby (left), and COL Kevin O'Brien, 34th Expeditionary Combat Aviation Brigade Commander, on Dec. 4, 2021 in Bloomington, MN. She was recognized for her outstanding support of Army Aviation as the Soldier and Family Readiness Group Leader for Headquarters and Headquarters Company, 2-147th Assault Helicopter Battalion.

Tennessee Valley Chapter

CHAPTER PHOTO BY WILLIAM T. CRAWFORD, JR.

Mr. Randy L. Robinson is inducted into the Bronze Honorable Order of St. Michael by Mr. Ray K. Sellers, Special Assistant to the Program Executive Officer, Aviation, and chapter VP Government Affairs, during a Dec. 21, 2021 ceremony at Redstone Arsenal, AL. Robinson was recognized for his accomplishments as the PEO Aviation Science and Technology Lead.

AAAA **Awards**

Order of St. Michael Inductees

GOLD

CSM James T. Hall
CW4 Gary A. Pruyne, Ret.

SILVER

CW5 Jeffery T. Burkhardt
Kinch P. Gaede
COL Adam W. Lange
CSM Jose M. Perez, Jr.
CSM Roy "Woody" Sullivan

BRONZE

CW3 Denise Alonso-Griffie
SFC Rodrigo Andaya
MAJ Michael R. Audette Ret.
LTC Jeffrey R. Baird
COL Jeffery Baker Ret.
CSM Caleb T. Baugh
CSM MarkAnthony L. Claudio
CSM Dewey E. Clemons Jr.
SFC Joseph M. Dale
SSG Vincent D'Arrigo Ret.
SFC Darren Eggerman
SSG Rebecca S. Fedeli
MAJ Charles H. Georgi
1SG Jason L. Glenn
CW4 Edward Griffie
LTC Derrek Holland
Reinhold J. Horn
SSG Larry Dean Hughes
CPT Benjamin W. Ingell
SSG Jessica M. Jarrett
CW4 Erik N. Jones
MAJ Nicholas Kalitka
SSG Joshua A. Kiyoshi
MSG Edward C. Laboda Ret.
CW3 Stephen C. LaCombe
CPT Edmund Z. Lee
CPT Werner E. Leemhuis
SGM Anthony Malizia Ret.
CSM Joseph Marino Ret.
1SG Emmanuel G. Marquez
CW5 Joseph E. Mattingly Ret.
SSG Douglas A. McDonald
MAJ Quinn Meyers
LTC Michael Osmon
LTC Matthew O. Peterson
1SG Glen E. Posey, Ret.
SSG William M. Powers, Ret.
Mark Righter
SFC Ismael Rivera
Randy L. Robinson
CPT April J. Santos
CW5 Roby F. Sisk
LTC Richard Stravitsch
CW3 Jesse L. Tait
Carl W. Tennison
1SG Alexander Tressler
CW4 William Tua
CPT Echette J. Washington
CW3 Seth M. Wietig
CSM Mark Wilson
1SG Craig R. Woolever
CW4 Brian P. Wright

Knight Inductees

Karlo A. Aguilar
BG Andrew Cox
Governor Kay Ivey
SFC Deon McClure-Ware
MAJ David Tuttle

Our Lady of Loreto Inductees

Robin Blanton
Brandie K. Buckner
Jennifer Clark
Sarah Cowan
Danielle K. Crandall
Holly Fulmer
Richard Kirby
Candice Lane
Teresa Partridge
Marie Robertson
Ashely Scott
Mary Small
Adrienne Stravitsch
Seaira M. Washington
Elizabeth Woodward

IN MEMORIAM

AAAA FILE PHOTO

Major General Story Crandall Stevens, U.S. Army Retired

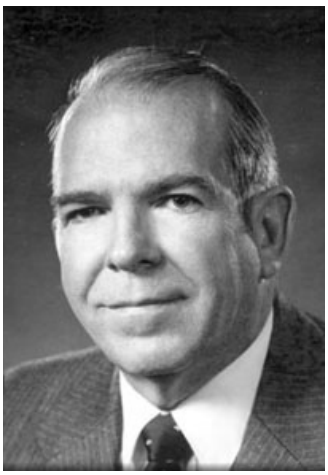
AAAA sadly announces the passing of AAAA past president MG Story Stevens on January 22, 2022. He was 94.

During the course of his over 34-year career, he planned, established, and commanded the U.S. Army Aviation Research & Development Command - now the Aviation and Missile Command - for eight key years during which many of the present generation of Army aircraft - the Black Hawk, Apache, and CH-47D Chinook - were developed, tested, and initially fielded. Under his leadership a number of advanced development programs produced noteworthy technical improvements in the areas of composite structure, fuel efficient turbine engines, survivable digital electronics, and reconfigurable flight control systems. His major accomplishments included the successful development, qualification, and fielding of long-life fiberglass rotor blades for AH-1S and CH-47D aircraft; the lifesaving wire strike protection system; and the development of Aircraft Survivability Equipment. A Master Army Aviator, his many awards include the Distinguished Service Medal, two Legion of Merit, Distinguished Flying Cross, Meritorious Service Medal, and Air Medal w/13 Awards.

A life member of AAAA, and its National President from 1987-1989, he was inducted into the Army Aviation Hall of Fame in 1986.

Arrangements had not been announced as of this writing.

May he rest in peace.



AAPI FILE PHOTO

Major General Benjamin Leslie Harrison, U.S. Army Retired

AAAA also sadly announces the passing of another AAAA past president MG Ben Harrison on January 22, 2022 at the age of ninety-three in Katy, Texas.

During his 29-year career he made significant contributions to the tactics of modern airmobile warfare involving the integration of helicopters with infantry and armor forces for both rapid deployment and subsequent support. He was an early advocate, theorist and practitioner of these tactics, commonly referred to as "air assault." A Master Army Aviator, he was awarded the Distinguished Service Medal, two Silver Stars, two Distinguished Flying Crosses, two Legion of Merit, and 40 Air Medals in addition to numerous other US and foreign decorations. He wrote a book about the last major battle of the Vietnam War from the North Vietnamese perspective titled, "Hell on a Hilltop."

A life member of AAAA, and its National President from 1993-1995, he was inducted into the Army Aviation Hall of Fame in 1992 (serving as its board of trustees chairman from 2003-2011) and the Army Materiel Command Hall of Fame in 2019.

A church service will be held at the 1st Methodist Church in Belton, TX at 11:00 a.m., March 18 and a pavilion service with military honors following at 1:00 p.m. at the Central Texas State Veterans Cemetery in Killeen.

May he rest in peace.

AAAA **Membership Update** By CW4 Becki Chambers

The Membership Corner

We say it quite frequently, Quad A membership is open to anyone that supports Army Aviation, not just members of the military. One such member is Robert Cunningham, who happens to be the grandson of Dr. S. Harry Robertson, a member of the Army Aviation Hall of Fame.

ROBERTSON FAMILY PHOTOS

Robert Cunningham with his grandfather, Dr. S. Harry Robertson, a member of the Army Aviation Hall of Fame.

Robert Cunningham was born in Arizona and grew up in the Phoenix area. He came from a long line of pilots. His grandfather, granduncles, uncles, and his father would all be pilots in their lifetimes, so his youth was spent looking to the skies. At age six, his grandfather, Harry Robertson, would take him up in a Hughes 369H. While flying the Salt River basin that day, Harry found it a bit hard to concentrate. He had activated the VOX setting, allowing Robert's microphone to be "hot" the whole flight. Robert was laughing so hard, giggling at the joy of the feeling of flight, that Harry would later admit to having to shut the mic off during the flight.

At 15, Robert attended Embry Riddle's exploration of flight summer program, and logged his first hours behind the controls of an aircraft, a Cessna 172. Robert was in his senior year of high school when the attacks of 9/11 occurred. Watching the attack unfold in real time on TV steeled Robert's desire to serve in the Army. He headed to the Army recruiter as soon as he could. During his examination at MEPS, Robert was medically disqualified from service. He would appeal it twice before being issued a permanent disqualification.

Frustrated, Robert returned to school, achieving his bachelor's degree in software engineering. Over the next several years, he performed volunteer and contract work, often beside U.S. Army and other government agency forces. Eventually, Robert would earn a master's degree from the American Military University's School of Security & Global Studies, and serve in the U.S. Government as a civilian, leaving the federal service as a GG-11.

During his time working as a civilian in the private and public sectors, Robert had the opportunity to work in Afghanistan. While working with U.S. and coalition forces in Afghanistan, he participated in more than 140 combat missions performed in support of Operations Enduring Freedom, Freedom's Sentinel, and Resolute Support. During his downtime you would often find Robert hanging out with the Army Aviators, "talking shop" and "telling hangar stories."

Robert became a rated helicopter pilot in 2008. After landing the helicopter he had just passed his flight test in, Robert was met by his grandfather who pinned his wings on him. Having had the opportunity to fly with several Army Aviators, and with the history and heritage of Army Aviation in his blood, he cared deeply about the AAAA mission. Robert joined the Army Aviation Association of America (AAAA) in 2009.

When asked "Why do you think it's important for people to belong to professional organizations like AAAA?" Robert responded with: "Belonging, duty, and camaraderie. AAAA's goal is to 'Support the U.S. Army Aviation Soldier and Family' right? A lot of people say they support our troops. How many put their resources, be they monetarily, or time, or sweat equity, into actually supporting the troops with more than words? AAAA does that. It really is an honor to be part of such a great organization, assisting even in a little way, to help those who put on those flight suits, hop in those aircraft, and go on our behalf and getting to help their families in time of need. Truly, it is the least we can do."

If you have a someone who you think should be highlighted in this column, please reach out to me at *beckichambers@quad-a.org*.

CW4 Becki Chambers
AAAA Vice President for Membership

New AAAA Lifetime Members

Air Assault Chapter
MAJ Megan J. Liesenfelt
Aloha Chapter
CW4 Jamie C. Toner
Badger Chapter
LTC Daniel J. Allen
Central Florida Chapter
COL Ken Bowling
Connecticut Chapter
LTC Brandon E. Nixon
Corpus Christi Chapter
Richard Schrader
Lindbergh Chapter
MSG Chris Redd, Ret.
North Star Chapter
Brad Husnik
Pikes Peak Chapter
CSM Michael McAvoy
Tennessee Valley Chapter
CPT Ronald L. Ramsey
Voodoo Chapter
COL Ron Thomas
Washington-Potomac Chapter
MAJ Randall W. Phillips
Zia Chapter
LTC Linda M. DuMoulin

New AAAA Members

Air Assault Chapter
CPT Guy Strang
Aloha Chapter
Willard O'Donnell
Arizona Chapter
Drew Fletcher
Aviation Center Chapter
1LT Tosh G. Aguilar
WO1 Jacob P. Andryshak
WO1 Jonathan M. Bailey
WO1 Collin A. Barbieri
WO1 Dakota M. Bellotte
WO1 Christian J. Bock
LTC Audrey A. Boenker
WO1 Zachary D. Boswell
2LT Isaac W. Brooks
2LT Zachary J. Browne
WO1 Justin Carr
Michael Cox
2LT Joshua K. Craft
WO1 Zachary K. Daughdrill
WO1 Robert A. Dienno
WO1 Bo A. Dobson
WO1 Nicholas B. Dugger
WO1 James A. Essner
WO1 Nathan J. Galloway
WO1 Harlinson E. Gaviria
WO1 Benjamin Guido
WO1 Matthew R. Hammond
WO1 Christopher R. Harris
LtCol Michael Heger
WO1 Connor J. Hennen
WO1 Kevin G. Hill
WO1 Paul I. Hock
WO1 Nathaniel F. Iwata
WO1 Keaton A. Knudsen
WO1 Andrew F. Kostelac
WO1 Travis M. Madison
2LT Noah J. Malo
2LT Alex M. Meury
2LT Anthony M. Miller
2LT Shannon K. Moore
WO1 Jeremiah B. Myers
2LT Ashanti C. Payne, Jr.
WO1 Kevin W. Real
WO1 Molly J. Roth
WO1 Joshua Sarpu
WO1 Jason G. Sims
WO1 Michael J. South
WO1 Kyle P. Stallings
2LT Kendrick J. Stevenson
WO1 Cody W. Stock
WO1 Michael R. Stuchman
WO1 Jesse R. Sullivan
Travis Thomas
WO1 Michael W. Vaughan
Dennis Wikoff
WO1 Alan G. Yang
2LT Zachery J. Young
Battle Born Chapter
Patrick Vogel
Cedar Rapids Chapter
CW3 Robert H. Nesbeth
Harold Tiedeman
Central Florida Chapter
Thomas Adducchio
Michael Archibald
John Brennan
Scott Brennan
Leilani Celi
Steven Crandal
Michael Fant
Delvis Gari
Jack Greenberg
Joy Karageorge
Tyrone Minton
Paul Palmer
Rudy Rego
Connecticut Chapter
Chris Cannon
Greg Diem
Thomas Holzthum
Josh Martinez
Mark Vital
Corpus Christi Chapter
Richard Schrader
Empire Chapter
Michael Messina
Flint Hills Chapter
Shad Newbury
Follow Me Chapter
MAJ Thomas Barth
Gold Standard Chapter
Valerie Cooper
McHale Fish
Greater Atlanta Chapter
SPC Adeleye Ogunkola
MAJ Alwyn Walton
Idaho Snake River Chapter
Joe Estrera
SGT Kathryn B. Goff
SGT Emma Howe
Dan Meyer
SPC Blake J. Olson
WO1 Austin R. Schaeffer
SPC Brogan M. Schaeffer
Tony Tsantles
Chris Wadsworth
Jimmy Doolittle Chapter
SSG Henry F. Easterling
PFC Vanessa M. Farrell
SPC Kameron D. Glenn
SSG Lora L. Glover
SPC Isata L. Gray
SPC Emily K. Mackenzie
SSG Lashanda N. Martin
SPC Tellis J. Simon
SGT Justin A. Vorhis
Lindbergh Chapter
Connie Bertolucci
MacArthur Chapter
Gary Settoducato
Mid-Atlantic Chapter
Jon Jacobs
Minuteman Chapter
SGT Shawn Hussey
Morning Calm Chapter
1LT Alicia Merrell
Mount Rainier Chapter
Ali Dian
Guy McAllister
Ben Motazed
North Country Chapter
Johnny Redman
Aaron Van Heel
North Star Chapter
2LT Ross Curran
North Texas Chapter
Robert Hoover
Daniel Ramirez
Alma Shackleford
Phantom Corps Chapter
COL William B. Grimes, Ret.
Pikes Peak Chapter
Scott McGill
Rising Sun Chapter
CW3 Richard Dean
Savannah Chapter
SSG Christopher S. Baldwin
SFC Gregory A. Brown
WO1 Page Frazier
SFC Paul L. Gilman
SFC DeeJay D. Norby
SGT Nikky Otero
CW2 Andrew K. Poff
Southern California Chapter
Karyn Apfeldorf
Reza Grami
Bahman Seifollahi
Gary Serda
Rick Stephenson
Stonewall Jackson Chapter
CW4 Brady Lemmon
Tennessee Valley Chapter
CW4 Philip Adams, Ret.
A1C Lawton Dorminey
Mark Anthony Gonzales
Paul Janssen
Travis Johnson
Mike Kessinger
Glenn Morris
Byron Phillips
Dave Walsh
Washington-Potomac Chapter
Harold Flammang
MAJ Christina Knight
Scott Lee
Wes Morrison
John Vollmer
Marcy Weldin
Wright Brothers Chapter
Darin DiTommaso
Zia Chapter Affiliation
George Holguin
No Chapter
Lee Aaron
Dave Abbott
Joyce Adams
Skip Arny
Jason Berroth
Jonathan Bohlander
Alyssa Boucourt
Alan Brannan
Dave Brunner
Laura Crowley
Andrea D'Angelo
Nic Dezinski
Hal Hickman
Robert Horky
Sherry Mathews
Nick Mulhall
Maggie Smith
David Stelling
Mrs. Claudia Taylor
Phillip Vaughn
Martin Whittaker
Richard Williams III

Lost Members

Help AAAA locate a lost member from this list and receive a one month free extension to your AAAA membership!

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

AAAA **Family Forum** By Judy Konitzer

Filling the Gaps for Army Spouse Unemployment By Denise Lewis and Judy Konitzer

Our Army is the largest branch in our Armed Forces, and traditionally has the most spouses who are affected by unemployment.

MILITARY SPOUSE JOBS SCREENSHOT

Mrs. Maria McConville and Deb Kloeppel discuss career and employment challenges on Military Spouse Jobs Arm-Me-Up Career Campaign TableTalks.

Many of the barriers to spouse unemployment are frequent moves, remote duty stations, deployments, Soldier availability due to scheduling, childcare, and COVID uncertainty. Among military spouses, a staggering unemployment statistic discloses unemployment (24%) and underemployment (31-51%), with these rates at a hold for years despite hundreds of millions of dollars spent by the US Department of Defense to address the issue and a complex network of nonprofit support.

As our military spouses transfer along with their service members, they leave their jobs and focus their attention on moving and realigning their family in the new location. The stress of the move, coupled with the loss and career interruption the spouse experiences can detract from the Soldier's effectiveness and mission readiness, and ultimately overall retention rates. Employing the Army spouse provides an increased quality of life for our Army families and in some cases, financial stability as the family encounters obstacles in both their civilian and military life.

Military Spouse Jobs founder and President Deb Kloeppel understood the unemployment disparity for Army spouses and created a "targeted" nonprofit outreach campaign within its organization exclusively for Army spouses called Arm-Me-Up. Its honorary advisor, Mrs. Maria McConville, understands Arm-Me-Up's clear and empowering mission, and her wisdom, advocacy and support has been a vital addition to the campaign.

Some hurdles in employment for Army spouses include:

Employment Gaps – Many employers express that if candidates have over a year gap in employment, applications could be "red flagged." In some industries any significant gap hurts chances of employment, especially if the industry has seen changes in technology or procedures.

Skill and Education Gaps – Military spouses are one of the most educated groups of individuals, however, with current degree programs structured the way they are and the transfer from school-to-school that spouses encounter during their service member's tour, they face three identifiable problems: 1) A college degree does not guarantee proficiency of skills sought by some companies. Applicants are judged by education, experience, and skills required by the employer. Skill sets can be taught, but many applicants are not thinking of the skills they lack when applying for a job, and many do not even understand the skills mentioned in the job description or know if they really possess these or not. 2) Education with no hands-on experience is a disadvantage when competing for a position. 3) Some applicants lack basic English and math literacy thus possibly lacking proficiency

ARMYAVIATION Advertiser Spotlight

Phantom Products, Inc.

We build lights--lights for Soldiers, aircraft, vehicles and ground marking. For over 70 years the McDermott family has served our troops with innovative lighting solutions. From our 3rd Gen, small business here in Florida, we design and build combat multiplying lights for the US Military. We eat, live and breathe Army Aviation--and have for over 20 years. By understanding what problems Soldiers have and where there are equipment deficiencies==>>we then SOLVE THE PROBLEM. Our Phantom Warrior TLS® is carried service-wide to give our troops an edge in and out of their aircraft. Our Phantom Hawk® lights perch on the knee boards of crew members. The Phantom Bellabeam® and Phantom AZL-15® reign on the runway as they guide aircraft in effortlessly using only AA batteries. Working with your ALSE, FI, IP and others, we know we make the right lights to give our troops successful missions and a safe return home. We support our troops!

SIZE OF COMPANY - Small 0-99 Employees
CATEGORIES - Manufacturing

https://www.phantomlights.com

Each month, one 2022 ARMY AVIATION Magazine advertiser will be spotlighted. If chosen, your company may submit newsworthy information that will appeal to the Army Aviation community. ***To qualify, your company must have a signed 2022 insertion order for print advertising (1 Ad Minimum).*** *Selected company will be randomly chosen by the 15th of the month prior.*

in written and oral communication. They may require assistance in these areas to be competitive with other job seekers.

License Transfer Difficulties – Transitioning to a different state often requires large fees and additional education requirements.

Access to Long-Term Yet Flexible Employment – With transferring between duty stations being a fact of military life, it can make this difficult to obtain.

The mission of Arm-Me-Up Careers Campaign is to find new opportunities and resources to empower Army spouses, whether active duty, retirees, veterans, widows, or caregivers. Job seekers will be assisted by Career Specialists with resume development, career, and industry training, and personalized one-on-one job placement support to connect you with the job you qualify for and richly deserve. Our highly qualified and trained employment expert RecruiterConnect™ Specialists are military-affiliated and credentialed in job placement services. They seek one-on one with corporate recruiters from partnering companies to expand employment opportunities for Army spouse applicants.

Since the campaign started in early 2021, Arm-Me-Up has assisted over 700 Army spouses with job placement. Military Spouse Jobs representatives will be attending the 2022 Summit in Nashville and look forward to seeing you there.

Visit www.*militaryspousejobs.org*, *www. spousenation.org*, and *www. MilitarySpouseJobs.org/Army-Spouses* for more information about their vast array of programs geared to improving spouse employment opportunities.

Denise M. Lewis, MSML is the outreach coordinator for Military Spouse Jobs Arm-Me-Up Career Campaign.

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

UPCOMING EVENTS

MARCH 2022
7-10 HAI Heli-Expo 2022, Dallas TX

17-19 33rd Annual International Women in Aviation Conference, Nashville TN

APRIL 2022
3-5 AAAA Army Aviation Mission Solutions Summit, Nashville, TN

12 Aviation Branch 39th Anniversary

23 U.S. Army Reserve 114th Anniversary

Award Nominations Are Open

Check out the Awards section on quad-a.org

AAAA Functional Awards

Suspense: July 1

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

Suspense: August 1

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

Suspense: September 1

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

AAAA Hall of Fame Nominations *Suspense: June 1*

AAAA Salutes the Following Departed...

MAJ Norman Knofs, Ret.
Deceased 8/19/2021
Life Member

COL David A. Leger
Deceased 9/8/21
Life Member
COL William B. Wilder
Deceased 9/15/2021

COL Paul P. Winkel Jr. Ret.
Deceased 9/16/21
Life Member

MG Robert T. Herbert, Ret.
Deceased 9/24/21
Life Member

Mr. Joseph Potvin
Deceased 12/5/21

Or know an Army Aviation Solider who is?

Spread the Word!

You are elegible for a FREE 12 month AAAA Membership.

Contact: Deb@quad-a.org

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 January 2021 through December 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).

7/17th Air Cav (Ruthless Riders)-IHO B. Cully
7th Squadron 17th Air Cav Association
AAAA Air Assault Chapter
AAAA Arizona Chapter
AAAA Aloha Chapter
AAAA Aviation Center Chapter
AAAA Badger Chapter
AAAA Bluegrass Chapter
AAAA Central Florida Chapter
AAAA Colonial Virginia Chapter
AAAA Connecticut Chapter
AAAA Cowboy Chapter
AAAA Delaware Valley Chapter
AAAA Flint Hills Chapter
AAAA Gold Standard Chapter
AAAA Griffin Chapter
AAAA High Desert Chapter
AAAA Idaho Snake River Chapter
AAAA Iron Mike Chapter
AAAA Johnny O Cluster Chapter
AAAA Keystone Chapter
AAAA Lindbergh Chapter
AAAA Minuteman Chapter
AAAA Mount Rainier Chapter
AAAA North Star Chapter
AAAA North Texas Chapter
AAAA Old Tucson Chapter
AAAA Oregon Trail Chapter
AAAA Rio Grande Chapter
AAAA Southern California Chapter
AAAA Tennessee Valley Chapter
AAAA Thunder Mountain Chapter
AAAA Thunderbird Chapter
AAAA Voodoo Chapter
AAAA Washington-Potomac Chapter
AAAA Wright Brothers Chapter
AAAA Zia Chapter
Army Otter Caribou Association
Sidney Achee-IHO "The Originals" Cub Club
Molly Alger & Jay Dirnberger
Amazon Smile
Cody Anfinson
Laura & Jonathan Arena-IHO A. Bobra Harris
Dale Armstrong-IHO 190th Assault Co.
Cribbins Speakers Gift
Mike & Daphne Arthur
David J. Ashcraft-IHO MAJ T.Ashcraft
Joe Ausfahl
Kenneth D. Auten
Axient/QuantiTech, Inc.
Mark Baranowsky
Baretta's Optlics Division-IHO Susan Yellen
Elisabetha Baugh-IHO COL Harry Townsend
Elisabetha Baugh-IHO COL Sidney Achee
Margaret & Donald Beatty
Brett Beavers-IHO CW5 Lee Tutin, Ret.
Becker's Air Powered Sweeping, Inc.
Bell Textron Inc.
Michael L. Bell-IHO Harry Townsend
Benevity
Joseph & Helen Bergantz
Joanne & Chris Blake
Doug Bly-IHO CW5 Lee Tutin, Ret.
The Boeing Company
Paul & Celeste Bogosian
Mr.&Mrs.PatrickT.Bolden-IHOCW5L.Tutin,Ret.
John S. Bolton-IHO CSM Isaac B. Sheffield
Louis A. Bonham-IHO COL Harry Townsend
Thomas K. Brede-IHO Families of the Fallen
Keirn C. Brown, Jr.
Matthew L. Brown-IHO CW5 Lee Tutin, Ret.
Regina & Robert Bublitz-IHO CW5 L. Tutin, Ret.
Mary & John Burke
Austin B. McFadden-IHO Sarah Burns
Darren W. Buss
Harold W. Byars
Sandra D. Callanan-IHO A. Bobra Harris
Cynthia S. Campbell-IHO CW4 R. Campbell
Dee Campobasso
Lois & Joseph Cancellare-IHO 190th Assault
Thomas & Kate Carroll-IHO A. Bobra Harris
CFC Federation
Combined Federal Campaign
Becki Chambers-IHO A. Bobra Harris
Cirone Friedberg LLP-IHO A. Bobra Harris
Richard Clemens-IHO Susan Yellen
Kevin S. Cochie
R&all & Sharon Cochran
Thomas Cole-IHO CW5 Lee Tutin, Ret.
Brett D. Criqui
John M. Curran
Gail Davis-IHO Don & Ruth Luce
Walter L. Davis-IHO Anthonette Bobra Harris
Walter L. Davis-IHO CW5 Lee Tutin, Ret.
Digiflight, Inc.
Jan S. Drabczuk-IHO Anthonette Bobra Harris
Patrick M. Dzialek
Doug E. Ehrle
ELEIT Technology Inc.
Joseph M. Ernest-IHO CW5 Lee Tutin, Ret.
Jamie W. Felgenhauer
Fidelity Charitable
Denise FitzGerald-IHO Walter Jerome Kohls
Michael C. Flowers-IHO COL Harry Townsend
Ryan H. Forshee
Jeffrey & Vanessa Fowler
Michael E. Freeman-IHO Harry Townsend
Brian Gagliano
Paul & Jenny Gale
Lonnie Germainre-IHO A. Bobra Harris
Leslie H. Gilbert-IHO "The Originals" Cub Club
Ellis & Rachel Golson-IHO CW5 L. Tutin, Ret.
Jane & Thomas Graft
Jon Graft-IHO Joel R. Graft
Mark W. Grapin-IHO COL Harry Townsend
Shirley Griffith-IHO 1LT Kathryn M. Bailey
Alexander S. Guida-IHO Maxwell H. Guida
S. Guida & A. Pappano-IHO Maxwell H. Guida
Gulfstream Aerospace
John Gustitis-IHO CW5 Lee Tutin, Ret.
Kristen Gustitis-IHO CW5 Lee Tutin, Ret.
H2L Solutions, Inc.
David R. Haag-IHO CSM Isaac B. Sheffield
Brian Haley
Robert G. Hansen
Joanne Hansrote-IHO A.Bobra Harris
Alex Harris
William R. Harris Jr.
Thomas M. Harrison-IHO Dr. Harry Robertson
Thomas M. Harrison-IHO A. Bobra Harris
Thomas Harrison-IHO Susan Yellen
Kellie Hauenstein-IHO Maxwell Harris Guida
Lynne Heath
Ralph C. Hedden
James & Joyce Hesson
James & Joyce Hesson-IHO Harry Townsend
William F. Hipple-IHO Families of the Fallen
David Hoffman
Michael L. Hutton
James E. Hyers
Darrin P. Jackson
JACS Aircraft Certification Specialists
Jack A. James-IHO T/Sgt. Karl P. Danckwerth Sr.
Mary & Arlo D. Janssen
Marsha A. Jeffers-IHO Paul Bogosian
Aric & Layne Jensen
Bart L. Johnke
Johnson & Johnson
Carl H. Johnson
Larry & Linda Jonas-IHO COL Billy Richburg
R&olph W. Jones
Joseph Joseph-IHO CW5 Lee Tutin, Ret.
Anne Marie Kelly-IHO Donaldson Family
Richard D. Kenyon
Lauren Kerns-IHO Mark Peterson
Carl J. Kreisel
James F. Krueger
Steven J. Labows
Daniel A. Lambarena
Jacqueline&Jeffrey Langhout-IHO MG T. Crosby
James Leary
William Leary-IHO LTC Michael McMahon
James M. Lee
Leidos, Inc.
Abby Letts-IHO Anthonette Bobra Harris
Lockheed Martin
William David Loftin
Brent Logan
Jerry J. Luccarella
Timothy A. Lunger
M1 Support Services
AAAA MacArthur Chapter
Latrisha A. Maddox
Daniel T. Madish
Elisabeth & Hans Mansson-IHO A. Bobra Harris
Melinda Marinello-IHO CW5 Lee Tutin, Ret.
Tommy L. Marks
Charles & Joyce Marotta-IHO M. Kurowsky
Karen M. Martell-IHO SSG Darryl D. Booker
Crystal Martinez
Theodore E. Mathison
Stephen T. Mauro-IHO COL Paul Kelly
Randy McCormick
Dale T. McDonough
Jeremiah F. McNamara
MD Helicopters
Dirk A. Megchelse Sr.
LTC Jerry P. Mellick, Ret.
Michael E. Moody-IHO CW5 Lee Tutin, Ret.
Dora & Donald Moore-IHO CW5 L. Tutin, Ret.
Rene & Ronald Moring-IHO CW5 L. Tutin, Ret.
MSB Analytics, Inc.
Stephen Mundt-IHO Susan Yellen
Munsch & Co. Aeromechanics
Andy Musfeldt
Navigator Development Group, Inc.
Gary & Bonnie Nenninger-IHO Paul Bogosian
Network for Good
Cathy C. Newsom-IHO Alfred J. Cargen
Northrup Grumman Systems Corp
James Olofsson
Jane Osborne-IHO Anthonette Bobra Harris
Ostovich Enterprises Inc.
The OV-1 Mohawk Association
Ellen Pappano-IHO Maxwell Harris Guida
Margaret Pappano-IHO Maxwell Harris Guida
William F. Parker-IHO Susan Yellen
Piasecki Foundation
Linda & Danney Pickard
James H. Pillsbury
Pinnacle Solutions
Sabrina L. Powell-IHO Jack Dotterer
Kenneth J. Quinlan-IHO CW5 Lee Tutin, Ret.
R2C Inc.
Marc L. Rassler
Gary S. Rast
Edison Rebuck
Steward E. Remaly
Kenneth D. Reynolds-IHO CW5 Lee Tutin, Ret.
Michael Reynolds
Jaros Rickmeyer
Marilyn Rickmeyer
David F. Riley
Roberson Giving Fund
Robertson Fuel Systems
Gil H. Robertson-IHO CW5 Lee Tutin, Ret.
S. Harry Robertson
Robert E. Ross
Jay Rush
Henry C. Ruth, III Ret.
Alex & Eli Ryan-IHO CW5 Lee Tutin, Ret.
S3 Inc-System Studies & Simulation, Inc.
Judy & Charles Scheibly-IHO COL J. Hoechrel
Jeff J. Schloesser-IHO A. Bobra Harris
Bart L. Schmidt
Nancy Shaffer-End-IHO 1LT Kathryn Bailey
Shashy Family Charitable Fund
Mary & William Shelt-IHO Families of the Fallen
Susan and E. J. Sinclair-IHO A. Bobra Harris
Susan & E. J. Sinclair-IHO CW5 Lee Tutin, Ret.
Susan and E.J. Sinclair-IHO Susan Yellen
Peter H. Smart
Brian T. Smith
Mark & Judy Smith
Teresa C. Snyder-IHO CW5 Lee Tutin, Ret.
Evelyn A. Soucek-IHO Standley Fishfader
Monica T. Southerland
John G. Speckman
Scott Springer-IHO Anthonette Bobra Harris
Cynthia M. Trujillo-IHO CW5 Lee Tutin, Ret.
Wendy C. Turgeon-IHO A. Bobra Harris
Teresa Tutin-IHO CW5 Lee Tutin, Ret.
VA Peninsula Chapter of 100 Black Men Inc.
William H. Van Alystyne-IHO A. Bobra Harris
Vietnam Helicopter Pilots Association
Henry H. Waller III
Margaret Wilson-IHO CW5 Lee Tutin, Ret.
William D. Wolfinger
Wreaths Across America
Michelle F. Yarborough
Michelle Yarborough-IHO A. Bobra Harris
Michelle Yarborough-IHO Becky Pillsbury
Michelle Yarborough-IHO COL Harry Townsend
Michelle Yarborough-IHO CW5 Lee Tutin, Ret.
Yulista Holding, LLC
The Zieff Family Fund-IHO A. Bobra Harris

IHO – In Honor Of

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

AAAA **Legislative** Report

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

FY22 Defense Appropriations... Or Not!

We noted last month that Congress passed the annual defense authorization act (NDAA) and it was signed into law by President Joe Biden. Army aviation did very well in the NDAA considering the level of conflict and impasse in Congress right now. Although funding levels are "authorized" for FY22, we are far from complete with the FY22 cycle because Congress can authorize all they want, but until the funding is appropriated, the authorization is just permission to spend without the dollars behind it. The annual defense appropriations bill is just one piece of the total federal budget. When you hear the term, "funding the government" that is a lot more than just the Department of Defense. Homeland Security, Department of Education, Department of Commerce, etc. all have funding bills tied to the annual appropriation. We watch closely two subcommittees in the House and Senate; the Defense Appropriations Committees (HAC-D and SAC-D) which are comprised of Members of the House and Senate that take DoD's budget request and "mark it up" with their changes based on many inputs.

Key inputs to come from DoD who justifies the budget requests through hearings and direct engagements with committee staff members and the Members of Congress. The staffers and Members make their own inputs based on their historical knowledge programs, based on parochial views of their political parties, and based on input from the defense industry through lobbyists. Without a passed appropriations bill that includes defense appropriations, the government operates on "stop gap funding measures" that are passed periodically to fund the government at levels not to exceed the prior year budget (FY21); this is what Continuing Resolution (CR) is. So, if DoD starts a new program and that program did not have funding in the previous year, the program cannot start during a CR. If Congress does not pass an appropriation bill for FY22 by this coming September, we will operate in CR all year long. Think about it, if PEO Aviation had a program developed to modernize one of our platforms and they had $100M in the budget line in FY21 but planned to go to full rate production in FY22 with a $500M plan, the program could only spend $100M in FY22. This is a simple example of how the second and third order effects of CR hurt our Aviation Enterprise. We are now sitting in January and the fiscal year started last October. Three months have passed and PEO Aviation program offices, Army G3, Army G8 and many other folks involved in program execution are trying to figure out how to make adjustments because funding profiles do not match the plan developed in the year(s) before. This then snowballs into detrimental effects to industry partners who planned to execute funding on programs but are now working with a fraction of amounts that were budgeted. Production lines are delayed, jobs are lost, and delivery schedules are delayed and sometimes worse – cancelled. New capability and technology are delayed to our aircrews and maintainers and readiness plans are negatively impacted.

If Congress fails to compromise on broader issues for the entire government, we risk operating in CR status for the entire year. Programs are impacted, defense industry is impacted, readiness is impacted, and many critics are noting that while billions of dollars of planned spending will be lost and we are slowing our modernization and readiness plans, our near peer threats are pushing on their gas pedals abroad.

Inflationary Pressures

Not to add to the doom and gloom, it's also important to understand the impact of inflationary pressures that DoD would have never considered three years ago when building the FY22 budget request. Arguably, many would consider inflation an impact on the American people at a personal level; that is how our politicians couch it in the press anyway. While inflation may impact MG McCurry and LTG Peterson's beer fridge account up in the G8 and they have to stock Bud Light™ instead of expensive IPAs to stay within the beer budget, our Army Aviation Enterprise cannot simply opt to buy fewer spare parts or fuel to meet readiness goals. I suppose they could, but we all know what that will do to tube aircrew proficiency and operational readiness rates. Three years ago, when the FY22 was developed, it was assumed we would be under a 2.2% inflationary rate, but we are hovering around 6.2%. This equates to billions of dollars in increased costs. The defense industry is under these same inflationary pressures compounded by significant disruption in supply chains due to the coronavirus. These pressures impact profit margins that cannot all be absorbed by private industry; especially the thousands of small business defense contractors that live paycheck to paycheck. The inflation equation is impacted by many global factors, geopolitical conditions, and political policy agendas.

The Way Ahead

Much horse trading is ongoing this spring on Capitol Hill. The President will try to salvage parts of the Build Back Better Act and we are in a waiting game to see if part of this horse trade will include passage of an omni-bus spending bill that gets us out of Continuing Resolution and on a path to modernization and readiness health for our Army Aviation Enterprise.

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.

DEFIANT Demonstrates FLRAA Mission Profile

SIKORSKY COURTESY PHOTO

The Lockheed Martin Sikorsky-Boeing SB>1 DEFIANT® successfully completed FLRAA mission profile test flights, including confined area landings and low-level flight operations, by flying 236 knots in level flight, then reducing thrust on the propulsor to rapidly decelerate as it approached the confined, and unimproved, landing zone. SB>1 DEFIANT is the technology demonstrator being used to prove transformational capabilities for the DEFIANT X weapon system, the Sikorsky-Boeing team offering for the U.S. Army's Future Long-Range Assault Aircraft (FLRAA) competition.

CAE's Marc Parent Honored

CAE PHOTO

Marc Parent

CAE GRAPHIC

CAE's President and Chief Executive Officer, Marc Parent, was honored on Jan. 21, 2022 with the Living Legends of Aviation's highest award, the Industry Leader of the Year Award. Living Legends of Aviation is one of the most prestigious aviation recognition events in the world, hosted by John Travolta and held in Beverly Hills, CA. Joining CAE in 2005 and becoming President and CEO in 2009, he led the company's growth beyond simulation products to become one of the largest providers of civil aviation training services and training and mission support solutions for defense & security forces, and healthcare sectors.

General Atomics Introduces Its New UAS

GENERAL ATOMICS GRAPHIC

GENERAL ATOMICS PHOTO

General Atomics Aeronautical Systems introduced its newest unmanned aircraft system on Dec. 9, 2021. Named the Mojave, it takes a Gray Eagle fuselage and adds enlarged wings with high-lift devices and a Rolls Royce 450-horsepower turboprop engine. The Mojave is based on the avionics and flight control systems of the MQ-9 Reaper and the MQ-1C Gray Eagle-Extended Range, General Atomics representatives told reporters in a Dec. 8 briefing. Mojave's payload capacity is 3,600 lbs. and it can carry up to 16 Hellfire missiles; other payloads are electro-optical/infrared, synthetic aperture radar/ground moving target indicator and signal intelligence.

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

Amentum Services Inc., Germantown, MD, was awarded a $54,663,121 modification (P00032) to contract W9124G-17-C-0005 for basic initial flight training and instruction; work will be performed at Fort Rucker, AL, with an estimated completion date of Jan. 9, 2027.

General Electric Co., Lynn, MA, was awarded a $12,097,373 firm-fixed-price contract for maintenance and overhaul of the UH-60 Black Hawk helicopter; work locations and funding will be determined with each order, with an estimated completion date of Jan. 14, 2027.

Inter-Coastal Electronics, LLC, Mesa, AZ, was awarded an $11,314,691 firm-fixed-price contract for AH-64 Apache Attack Helicopter Tactical Engagement Simulation System kits, spares, aviation ground instrumentation network and logistics support services; work will be performed in Mesa, with an estimated completion date of July 26, 2027.

Advertisers Index

AeroVironment (AV, Inc.) 9
Army Aviation Museum Foundation 53
Avidyne 2
Breeze-Eastern 17
Coastal Seat Cushions, Inc. 12
Columbia Helicopters, Inc. 31
FLIR Systems, Inc. 5
Helibasket 13
Lockheed Martin 72
Meggitt Defense Systems 7
Phantom Products, Inc. 23
Rolin Industries, Inc. 21
Rolls Royce Corporation 11
Science and Engineering Services, SES, Inc. 1
SKEDCO, Inc. 41
Tyonek 19
Vinnell Arabia 39
Yulista Holdings, LLC 15

People On The Move

Aviation General Officer Promotions/Assignments

The following Aviation General Officer assignments were announced:

U.S. ARMY PHOTO

MG Timothy J. Winslow from Director of the Joint Staff, Indiana National Guard to Assistant Adjutant General, Indiana National Guard, Indianapolis, IN.

U.S. ARMY PHOTO

BG Ronald Win Burkett from Deputy Commanding General–Maneuver (DCG-M), 36th Infantry Division, to Special Assistant to the Director, Army National Guard, Arlington, VA.

U.S. ARMY PHOTO

BG Joseph A. Edwards from Director of Operations, Office of the Deputy Chief of Staff, G9, Washington, DC to Commanding General, First Army Division – West, Fort Hood, TX.

U.S. ARMY PHOTO

BG Jack A. James from Assistant Adjutant General, New York National Guard to Deputy Commanding General - Maneuver (DCG-M), 42nd Infantry Division, Troy, NY.

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.

Class 22-004
44 Officers
December 16, 2021
Commissioned Officers
1LT Eck, Riley J. * - DG
2LT Carroll, Nathan D. - HG
2LT Walters, Levi T. * - HG
2LT Blaedow, Kyle R.
1LT Bozentka, Anah J.
2LT Cox, Jason C.
2LT Dalton, Colby
2LT Davenport, Ansley M. *
2LT Dolan, Riley J.
2LT Halverson, Sean C.
2LT Klapetzky, Alexander G.
2LT Krems, Noah J.
2LT Lebold, Sarah L.
2LT Lopez, Santiago M.
2LT O'Brien, Mitchell K.
1LT Rieger, Daniel M.
2LT ValdesMarrero, Luis E.
1LT Wilde, Nicholas D. *
Warrant Officers
WO1 Jones, Christopher C. - DG
WO1 Hoy, Randy J. - HG
WO1 McEntire, Ranel B. - HG
WO1 Nelson, Alexander W. - HG
WO1 Allgood, Corey J.

FSXXI Class 22-004

WO1 Clarke, James C.
WO1 Conn, Katelyn E.
WO1 Hawkins, Henry E., Jr.
WO1 Juarez, Daniel A.
WO1 Kelley, Benjamin R.
WO1 Kokenes, Daniel A.
WO1 Lane, Aaron R.
WO1 LeJeune, Eric T.
WO1 Markowski, Mary B.
WO1 Mendez, Anthony M.
WO1 Robbins, Dylan T.
WO1 Stutts, Ricky M.
WO1 Thomas, Roy J.
WO1 Tolfree, Damian B.
WO1 Vaughan, Cly E.
WO1 Whitt, Joshua P.

Class 22-005
41 Officers
January 13, 2022
Commissioned Officers
1LT O'Brien, Charles M. * - DG
2LT Hein, Molly L. - HG
1LT Kusick, Peter T. - HG
LT Abou Khalil, Hussein (Lebanon)
1LT Addy, William D. *
1LT Aljbour, Mo'ath A. (Jordan)
1LT Blankenship, Sylvan G. *
1LT Cipas, Alex *
1LT Einhellig, Michael R. *
2LT Johnson, Jasmine M.
1LT Kelley, Jacob S. *
1LT Levasseur, Grant J. *
1LT McCallister, Angie
1LT Murdock, Jacob M. *
1LT Ritchey, Leah K.
1LT Vega, Brandon M.
1LT Wright, Thai C.

People On The Move

Warrant Officers
WO1 Smith, Andrew E. -DG
WO1 Carey, Nikolas S. -HG
WO1 Hohenberger, Timothy A. -HG
WO1 Mayle, David T. -HG
WO1 Bonasso, Dominick P.
WO1 Dzhurayev, Alexander S.
WO1 Haas, Derek J.
WO1 Krumwiede, Kyle A.
WO1 Marstrell, Joseph D.
WO1 Parent, Matthew F.
WO1 Poole, Brandon R.
WO1 Predico, Steven G.
WO1 Pue, Freddy E.
WO1 Romero, Kaleb S.
WO1 Schultz, Rachel A.
WO1 Smith, Austin K.
WO1 Sybert, Michael S.
WO1 Traynham, Brandon W.
WO1 Weatherford, Joe M. Jr.
WO1 Yoon, Jiwon


FSXXI Class 22-005

ADVANCED INDIVIDUAL TRAINING (AIT) GRADUATIONS

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

AH-64 Attack Helicopter Repairer (15R)

Class 046-21
PV1 Drew Richard Malotke * - DG
PV2 Jonathan Vladimyr Adams
PV2 Jose Guadalupe Amparan
SPC Carlton Kenney Eldridge
PV1 Jonathan Andrew Gustafson
PV1 Denny Josue Ponce
PV1 Hunter Isaiah Santosuosso
PV2 Muhammad Mustafa Sheikh
PV1 Isreal Anthony Villanueva
PV2 Aidan Scott Wolf
PFC Adam James Zorowski

Class 047-21
PV1 Ammon David Milton * - DG
PV1 Seth Boulet
PFC Logan Thomas Brock
PFC Enrico Shaquille Cowan
PV1 Christopher Blake Harris
PFC Joe Landon Jones
PV2 Phillip Anthony Jones
PFC Walter O.Mayenorantes
PV2 Myron Jamesdudlia Ruffin Jr
PV1 Jonathan Jos Torresvalentin
PFC Lindsey Britton Zak

Class 048-21
PV2 Adam Ryan Young * - DG
PFC Jacob Brian Aumick
PFC Cory Allen Chadwick
PFC Cody Supharat Chaiyont
PFC Tony Tai Le
PV2 Isaiah Anthony Pacella
PV1 Curtis Lee Rawls III

Class 049-21
PV2 Matthew Ray Ballard * - DG
PFC Timothy Jayden Alford
PV1 Jayc Andrew Delozier
PV2 Brooke Lynne Larussa
PV2 Koben Ronald Melton
PV1 Miranda Lynn Morgan
PFC Lindy Grace Phillips
PV1 Hayden Anthony Rozas
PFC Andrew William Skirvin
SPC Yao Wang

Class 050-21
PV2 Koben Ronald Melton * - DG
PV1 Corriena Hope Kinard
PV1 Andres Alexander Marquez
SPC William Frank Webb
SGM Ahmed Zaid H.A. Al Afeefi
SGT Abdulaziz A. A. Al Ghamdi
CPL Meshal M. O. Al Johani
CW2 Hassan Al Khalaf
SGM Easa Mohammed A.S. Al Naqbi
CW2 Elissa Al Obaidli
CW2 Ahmad Al Yafei
PFC Sami Mohammed B. Hazazi

CH-47 Medium Helicopter Repairer (15U)

Class 037-21
PFC Kyle Richard Murphy * - DG
PV2 Trevor Matthew Anderson
PV2 Taylor James Brundidge
PV2 Charlez Zachariah Hatt
PFC Troy Stephen Hilton, III
PV2 Mark David Krueger III
PV2 Patrick Nelson McAlhaney
PV2 Emilio Aulton McDonald
PFC Joshua Taylor Ramsey
PV2 Andy Ulpianogarcia

Class 038-21
PFC Alexis Shaye Nischwitz * - DG
CW3 Khalid Ghali M. Alanazi
CW3 Saleh Albalawi Albalawi
SPC Nicholas Alexander Albrecht
PFC Samuel Lee Baird
PFC Mara Lee Brackett
PFC Jacob Clayton Domagal
SPC Tyler Gage Konopa
SGT Keith David Laroche
PFC Joshua Joel Smith
PV2 Kevin Anthony Stehman

Class 039-21
SPC Ethan Michael Smith * - DG
MSG Yahya Mohammed M. Almaster
PV2 Blake Rafe Blackwell
PV2 Camden Gram Darr
PFC Dylan Lyle Jackson
PV2 Isaiah Fouche Johnson
PV2 Tristan David Kinchen
PV1 Dakota Lee Richards
PFC Elijah Stjohn
PFC Noah Alexander Wilsey
PFC Jack Wisleypaul

UH-60 Helicopter Repairer (15T)

Class 079-21
PFC Owen Hunter Doran * - DG
PFC Damien Lloydk Agosto
PV2 Alejandro Emiliano Arellano
PFC Robert Hayden Beck
PV2 Caleb W Bell
PFC Derek Gavin Foster
PFC Ronald David Garcia Jr
PV2 Beau Robert Henson
PV2 Preston Kekoaokeakua Keahi
SPC James Andrew Norris
PV2 Adeleye A Ogunkola
SPC Nathan Andrew Price
Class 081-21
PV2 Marisela Sheree Chavez * - DG
PV2 Noah Robert Albanese
PFC Zachary Noah Alyasi

Continued on next page

People On The Move

AIT Graduations Continued

PV2 Cameron Joseph Barnett
PFC Roland C. Bumanglag
PFC Rolandjade G.Bumanglag
PV2 Ted Nicholas Bunting Jr
PVT Jose Cadena
PV2 Micah Aaron Castillo
PFC Fayth Anne Deleon
PFC Alexis Joe Dilworth
PFC Taylor James Trabeaux

Class 082-21

PFC Joshua Patrick Sant * - DG
PFC Gavin Kristopher Estabrooks
PV2 Nathaniel Alexander Evans
PV2 Brendon Michael Fenell
PV2 John Brucker Fowler
PFC Phuc Gia Lam
SPC Sean Franklin Mushalko
PFC Joshua Kenton Purcell
PFC Samuel Anjel Ramirez
SGT Humberto Rendon-Chamol
PFC Aaron Samuel Roberts
SPC Derek Michael Tyler

Class 083-21

SPC Dylan Scott Isabell * - DG
PVT Jose Cadena
SPC Cristina Dejesus
PFC Kami Lynn Dyer
PV2 Joshua Monroe Guevarra
SPC Rekawt Ali Hama
PFC Zachary Alexander Hendry
PV2 Barrett Kelly Hosey
PFC Kaleb Gabriel Keedy
SPC Allan Joel Mendez Vega
PFC Lam Gia Hung Nguyen
PFC Cameron Michael Reid
PFC Colby David Robertson

Class 084-21

PFC Hugo A. Garcia-Herrera * - DG
SPC Ahmad A. Abu Baker
PFC Nicholas Ryan Bates
SPC Steven Wayne Carter
PFC Evan Matthew Harmon
SPC David Bjorn Lapuz
PFC Jamal Nathaniel Lee Osborne
PV2 Van Khai Phan
PV2 James Irvin Price
PFC Carlos Gabriel Rivera-Lopez
PV2 Luke Valik Stapleton
PFC Israel Jounior Torres

Class 085-21

PV2 Wenhua Zhao * - DG
PFC Dwayne Rodney Cabinatan Jr
PFC Indigo M.Cavazossmith
PFC Allen Ray Christie, III
PFC David Arthur Geerdes, Jr
PV2 Tyler Shane Gerstacker
PFC Jared Evan Mims
PFC Carlos Enrique Ponce
PV2 Nathaniel David Richardson
PFC Pete Wilson Riveratorres
PV2 Samueal Austin Roseberry
SPC Lynneth E. Starr

Class 086-21

PV2 Jacob Randall Sauer * - DG
PFC Carlos Rene Ayala-Perez
PFC Leland Cameron Barr
PFC Jacob Hunter Bolen
CPL Marshall Joseph Brothers
PV2 Zachariah Edward Cheney
PFC Beau Carlton Clark
PV2 Brayden Charles Denny
SPC Howard James Dowling
PFC Cody Michael Wade Hawes
PV2 William Andrew Woodside
PFC Joel Zapata Lucena

Class 087-21

A1C Nathan Darst * - DG
AB Bryce Crowl
AB Cooper Jensen
ABThomas Milder
A1C Adisen Samano
AB Blake Sortino
A1C Harley J. Straps

Class 088-21

PFC Nicholas Michael Davis * - DG
PFC Damien Skye Britton
SGT Chase Edward Caplinger
PFC David Guillerm Defranc Ponce
PFC Mitchell Alan Fawcett
PV2 Kayne Alexander Forrest
PFC Joza Masaki Katsube
PV2 Kolin Bryce Lampkins
PV2 Jesse Gordon Mowry
PFC Mauricio Perez-Guzman
PFC Kendall Jackson Tweedy

Class 089-21

PFC Jillian Tamatha Menzie * - DG
PVT Stanislav Bidak
PV2 Eric Ms Booker
PFC Megan Olivia King
PV2 Joel Christopher Scott
PV2 Yan Sianiuts
PV2 Kyle Reed Swiger
PFC Parker Lewis Vanhandel
PFC Cody Ryan Warren
PFC Colton Allen Wentzel

Class 090-21

SPC Michael P. Nizzardo Jr * - DG
PFC David Thornton Bell
SGT Gary Alan Cromley
PV2 Noah Alexander Eivins
SPC Rafael Radikovich Gilmanov
PFC Brenden James Gonzalez
PV2 Cardale Jr Harrison
PFC Thorn Leeroy Hiatt
PV2 Devon Andre Hurn
PFC Brandon Zachary Luke
SPC Patronilo Batinga Saladino
SPC Kyle Adolph McKinley Stone

Aircraft Powerplant Repairer (15B)

Class 018-21

SPC Cisco E. Alers * - DG
PV2 Jonathan Kyle Arrington
PV2 Hudson Matthew Bare
PV2 Gerardo Enri Calderon Anzora
PV2 John Luis Irizarry-Ortiz
SGT Kenji William Matsumoto
PFC Isaac William Nelson
SPC Cody Dean Parrott
PV2 Christopher Roldan Martir
PVT Colby Chaudoin Stephens
PV2 Brandon Scott Sullivan
PV2 Michael Alexander Wareham
PV2 Keven Michael Watson

Aircraft Powertrain Repairer (15D)

Class 011-21

SPC Mackenzie J. Santschi * - DG
SPC Mitchel Walter Bobo
PV2 Christopher Aaron Brooks
PV2 Geoffrey Lewin Chace
PFC Cody Alexander Davis
PFC Julio G. Fajardo-Carchi
PFC Joshua McSwain Hinton
PV2 Vincent Nicholas Kier
PV2 Edward W. Knight-Fournier
PFC Joshua Andrew Martyn
PV2 Mathew Stephen McCurry
PFC Alexander Jeffery Nebel

Aircraft Electrician (15F) Class 015-21

PFC Drake Allenlee Fugate * - DG
PFC Elier R. Atayde
PFC Cade Michael Dietz
PV2 Jeremiah Carson Park
Class 016-21
PV2 Joseph Ryan Giampietro
PV2 Hayden Fredrick Towery

Aircraft Structural Repairer(15G)

Class 012-21

PFC Luis Armando Rey III * - DG
PV2 Anthony Aburto
PV2 Kris Tofer Bertucci
PFC Alexisartemio Bolanos
PFC David Joseph Boudreaux
PVT Kaden Taylor Briones
PVT Avery Lee Cavender
PV2 Raul Antonio Owen Grange
PFC Savalas Knight
PV2 Ryan Walter Martinez
PFC Douglas James Patterson II
PV2 Clifford Vens Pinthievre
PFC Carson Lott Reynolds
PFC Sammie Lee Sanders III
PVT Charlotte Jean Stinson
SPC Tyler Alexander Weyandt

Aircraft Hydraulics Repairer (15H)

Class 016-21

PFC Jacob William Neece * - DG
PV2 Dylan Matthew Peterson
PFC Saleena Sandeepa Ratiram

Avionic Repairer (15N)

Class 020-21

PFC Garrett Reign Kealii Chock
PFC Silas Luke Dolman
SPC Kaitlin Ashlie Gonzalez
PFC Mason Michael Hall
PV2 Hunter Benton Hiles
PV2 Diamond Dalia Russell

Class 021-21

PV2 William Jakobe Foster * - DG
SPC Colton Bryce Dickson
PFC Emilio Lugo Alvarado
PV2 Jomar A. Montanez-Davila
PFC Christopher Y. Morales-Tanon
SPC Ramiro Ramirez-Melesio
PV2 Ayden Robert Rodriguez
PFC Colby Jon Smith

Class 022-21

PFC Liam Ignatius Weir * - DG
PFC Mitchell James Riley
PFC Erik A. Rimgail-Bloschak
SPC Rathanak Tim Soeu
PV2 Xavier A. Valedon-Gautier
PFC Ricardo Vazquez-Vazquez
SPC Dylan James Walters

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

Class 019-21

PV1 Ryan Drayton * - DG
SGM Hamad M.A.E. Al Blooshi
PV1 Anthony Blair
PV1 Axel Ceballoscontreras
PV2 Gabrial Ellis
PV2 Francisco Esquivel
PFC Thomas Farley
PFC Russell Gray
PV1 Brittney Hernandez
PV2 Brodie Horton
PFC Andre Liakof
PV1 Jacob Maxam

Class 020-21

PV2 Dylan Thompson * - DG
SPC Bradley Engle
SPC Kalvin Montgomery
SPC Aquimelhico Roma
PV1 Dylan Rosine
SPC Tyler Shackleford
SPC Randy Weiss

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

People On The Move

Unmanned Aircraft Systems (UAS) Graduations

AAAA Congratulates the following Army Graduates of the Tactical Unmanned Aircraft Systems Operations Warrant Officer Technician Course, MOS 150U, at Fort Huachuca, Az.

Tactical Unmanned Aircraft Systems Operations Warrant Officer Technician Course
6 Graduates, 3 December 2021
WO1 Renae Giertych -HG
WO1 Daniel Brechwald *
WO1 Michael Censky
WO1 Cody Chavez
WO1 Ryan Deaton
WO1 Laronn Horton

UAS REPAIRER

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

Shadow UAS Repairer Course
5 Graduates, 29 November 2021
PV2 Victor Brown -HG
PFC Frank Brown II
PFC Daniel Valdez
PV2 Kevin McMinn
PV2 Migdoel Morales-Rivera
5 Graduates, 7 December 2021
SPC Joaquin Gonzalez -HG
SPC Malik Stulting
PFC Ashley Asselin
PFC Xander Bascom
PFC Ezekiel Kruse

Grey Eagle UAS Repairer Course
6 Graduates, 13 December 2021
SPC Brandon Moore
SPC Jaycelin Kovach
PV2 Shawn Alexander
PV2 Ian Brady
PV2 Daniel Lee
PV2 Melvin Oncezhicay

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
23 Graduates, 8 December 2021
SPC Zachary Fardelmann -DG
PV2 Drew Peltier -HG
SPC Alshawn Davis
SPC Alexander Varytimidis
PFC Danny Baires
PFC Cameron Clark
PFC Cameron Edwards
PFC Jacob Hahn
PFC Christopher Powell
PFC Fernando Rey-Collazo
PFC David Rheinschmidt
PFC Zachary Velez
PFC James Weatherly
PFC Madison Wulff
PV2 Katelynn Brown
PV2 Vanessa Centeno
PV2 Alexey Dobritsa
PV2 Donnie Farleigh
PV2 Sime Joseph
PV2 Guadalupe Penaramirez
PV2 Martin Porras
PV2 Norberto Rebolta-Alvarez
PV2 Lazaro Romero-Nunez
5 Graduates, 16 December 2021
SGT Dominic McCumber -HG
PFC Jay Cantrell
PFC Braxton Chavis
PV2 Diego Lopez
PV2 Ryan Pagano
7 Graduates, 17 December 2021
SGT Thomas Taylor -HG
PFC Dylan Jones
PFC Hollie Moyer
PFC Nathan Neumaster
PVT Austen Lashinsky
PVT Alexander Nguyen
PVT Gabriel Shaffer-Beckner
22 Graduates, 17 December 2021
PFC Alejandro Cibrian -HG
PV2 James Gabriele D-HG
SGT Dashaun Hood
PFC Alec Allen
PFC Jonathan Candoza
PFC Jacob Colburn
PFC Garrett Cooper
PFC Vincent Decina
PFC Andrew Fuentes
PFC Nirak Garcia Navarro
PFC Gabriel Hernandez
PFC James Kisler
PFC James Magner
PFC Antonio Montez
PFC Quentin Sutley
PV2 Ifran Ali
PV2 Charles Cotto II
PV2 Dante Ellow
PV2 William Matthews
PV2 Blaize McCormick
PV2 Austin Prater
PV2 Arnold Vandugteren

Grey Eagle UAS Operator Course
24 Graduates, 17 December 2021
PFC Walker Shinta -DG
SPC Matthew Santos -HG
SPC Kenneth Helms
SPC Amber Johnsen
SPC Gabriel Mollica
SPC Ivan Ryan
PFC John Brooker
PFC Justin Daniels
PFC Eric Garcia
PFC Andrew Nawrocki
PFC Justin Rohn
PFC Maxwell Schow
PFC Carlos Tapia
PFC Kale Tisbertthiel
PFC Blake Walker
PFC Brandon Williams
PV2 Issac Farnsworth
PV2 Wyatt Mathews
PV2 Joseph Perrault
PV2 Daniel Pogue
PV2 Giovanni Reyes
PV2 Dominick Sanchez
PV2 Sarah Sexton
PV2 Nathan Vinson

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

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

February 28, 1997

Briefing

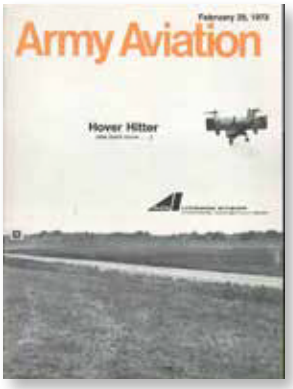
The U.S. Army Aviation Center (USAAVNC), Fort Rucker, Alabama, retired its last AH-1F Cobra on September 6, 1996. Cobra training had been conducted at Fort Rucker since the end of the Vietnam War, when it moved from Savannah, Georgia in 1973. By 1994, USAAVNC had trained approximately 12,000 Cobra pilots, with the majority of the training conducted by the 1st Battalion, 14th Aviation Regiment, based at Hanchey Army Heliport. The Army National Guard will continue to conduct Cobra training at the Western Army Training Site (WAATS), near Tucson, Arizona.

1997 Aviation Leaders Training Conference

Major General Daniel J. Petrosky, Aviation Branch Chief and Commanding General, U.S. Army Aviation Center and Fort Rucker, addresses the 1997 Aviation Leaders Training Conference at USAAVNC at Fort Rucker, Alabama. Conference had been convened in the second week of January.

Scholarship Contribution

Major General Claude Ivey (Ret.), Honorary President of the Iron Mike Chapter, Fort Bragg, North Carolina, presents two $500 checks to local Boy Scout and Girl Scout groups, following the last Blue Dragon Run. The race had drawn some 900 competitors and generated some $4,000 for the AAAA Scholarship Program. The second annual Blue Dragon Run is scheduled for Saturday, April 12, 1997.



50 Years Ago

February 29, 1972

Humorous Caption Needed

Win a '71 Bound Volume of "Army Aviation," by submitting a humorous caption to this uncaptioned "old print," submitted by CW4 Don Joyce of Fort Eustis. A brief cartoon blurb will do it. Forward same to Army Aviation, 1 Crestwood Road, Westport, Ct., 06880, prior to March 31.

World's Largest Tandem Helicopter

The initial flight of the world's largest tandem helicopter took place on January 26 at Boeing's Flight test facility in Ridley Township. The tilt-wing Boeing 347, complete with 340 square feet of wing space, is designed to demonstrate improved maneuverability at cruise speeds of 170 knots and mission weights of 45,000 pounds. The Army supplied CH-47 A Chinook's length was extended 110 inches, as one of a number of modifications.

WOW!

A re-enlistment bonus of $10,000 was paid, on January 27, to Specialist Five Gerald E. Mason, at Fort Rucker. The son of Mr. and Mrs. Donald J. Mason, he graduated Ruthven Consolidated High School, then entered the Army. SP5 Mason accepted his bonus while at an altitude of 10,000 feet in a UH-1 Huey. He chose this venue for his six-year re-enlistment, since he is the crew chief of this helicopter, which is assigned to the 1st Aviation Company, Airfield Support Group, Fort Rucker. In another rare aspect of this re-enlistment, the oath was administered by a woman, First Lieutenant Fayrene Williams, commander of Fort Rucker's WAC Company.

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

Specialist Five Dennis M. Fujii

Army Aviation Hall of Fame 2004 Induction - Nashville, TN

SP5 Dennis M. Fujii distinguished himself in February 1971 in Laos while serving as a crew chief aboard a helicopter ambulance of the 237th Medical Detachment.

The team's mission was to evacuate seriously wounded Vietnamese military personnel from a battlefield. While approaching the heavily defended landing zone Fujii's helicopter was shot down. Another American helicopter extracted all the downed crewmen except for Fujii, who was unable to board due to intense enemy fire directed at him. Rather than further endanger the lives of his comrades aboard the second helicopter, Fujii waved the craft out of the combat area and remained behind as the only American on the battlefield in Laos.

During the night of Feb. 19 and all through the next day, Fujii disregarded his own wounds as he administered first aid to the South Vietnamese casualties. When his position was attacked by a reinforced enemy regiment supported by heavy artillery, Fujii called in American helicopter gunships to assist the small unit in repelling the attack. For more than 17 hours, Fujii repeatedly exposed himself to hostile fire as he left the security of his entrenchment to better observe enemy troop positions and to direct air strikes against them. On Feb. 20 he was evacuated, but the helicopter was shot down. Two days passed before Fujii finally was rescued.

For this and other contributions, Fujii was awarded the Distinguished Service Cross, Silver Star, Purple Heart, two Air Medals, and Vietnamese Cross of Gallantry with Palm.


DEFIANT X™
The choice between getting into tight spaces
or needing to avoid them.
DEFIANT X™ gives you the edge.
www.lockheedmartin.com/defiantx
©2022 Lockheed Martin Corporation. All rights reserved.
SIKORSKY
A LOCKHEED MARTIN COMPANY
BOEING