### 2024 Industry Partners Directory

SUPPORT



Ser Par (St diamon

NETWORK I RECOGNITION I VOICE

NGOOPV



December 31, 2024

# TRAINING THAT DELVERS.





The success of every mission relies on preparation. FSI Defense puts the minds of former military to work for you—people who know what it takes to complete the objective.

Partner with us for your training. Visit FSIdefense.com to get started.





## Contents

December 31, 2024, Vol. 73, No. 12







#### TO THE FIELD

- **10 Army Aviation Branch Chief's Corner** By MG Clair A. Gill
- **14 Program Executive Officer Aviation Update** By BG David C. Phillips
- **18 PEO Aviation Command Chief Warrant Officer Update** By CW5 Jaime I. Craig
- **20 Sergeant Major of the Program Executive Office** By SGM Leon C. Black
- 24 Reserve Component Aviation Update By COL Ben A. Ramos
- 26 128th Aviation Brigade Update By Mr. Glenn Johnson
- 28 CCDC AvMC Tech Talk By Ray Lugos
- **30 Ask the Flight Surgeon** By LTC Sonya H. Heidt, M.D., MPH, FS

#### SPECIAL FOCUS — Industry Support & Challenges

- **32** Next-Generation Airborne Intelligence, Surveillance and Reconnaissance Solutions By Mr. Steve Patrick
- 34 Robertson Fuel Systems, L.L.C. Mr. Robert H. "Chip" Lunn and Mr. Jeffrey Bracken
- 36 Red Cat Leads the Future of Small Drones for the Modern Warfighter By George Matus











## Contents

December 31, 2024, Vol. 73, No. 12

#### SPECIAL FOCUS - Industry Directory

**38 2024 Industry Partners Directory - ARMY AVIATION** Magazine's original directory of current contact information for year round reference to the industry partners of the Army Aviation team.

#### SPECIAL FOCUS — Reseach & Development / Science & Technology

- 62 Balancing Risk and Requirements in Continuous Transformation By Dr. James Kirsch
- 64 Army Aviation S&T: Developing Future Flight Control Technologies By Dr. Jeffery A. Lusardi, Dr. Tom Berger & Ms. Christi H. Dolbeer
- 66 Risky Business? By Mr. Keith Darrow
- 68 Software Transformation for War-Winning Future Readiness By Dr. Stephanie Brown Reitmeier and Mr. Carvil E.T. Chalk
- 70 Aviation Turbine Engines Project Office Supports the Warfighter of Tomorrow By Gina Bublitz

#### SPECIAL FOCUS - Future Vertical Lift

72 EDGE 24: Focused on Behaviors By BG Phillip C. Baker

#### SPECIAL FOCUS - 2024 Cribbins Wrap Up

74 2024 Cribbins Wrap Up - Transitioning to Next Gen Warfare – The Cribbins Readiness Conference!

#### FROM THE FIELD

78 Patient Transfer Programs: An Untapped Mission Set for Army MEDEVAC

By CPT Justice Bennett

#### DEPARTMENTS

#### AAAA NEWS

AAAA President's Cockpit	8
AAAA VP Chapter Affairs	88
Chapter News	89
Chapter OSMs	89
AAAA VP Membership	90
New Members	91
AAAA Family Forum	92
AAAA Legislative Report	94
AAAA Scholarship Foundation Donors	87
AAAA TLC Foundation	77

#### ARMY AVIATION COMMUNITY NEWS

Advertisers Index	95
Advertiser Spotlight	93
Art's Attic	
Briefings	6
Calendar	94
Enlisted Spotlight	22
Hall of Fame	
Historical Perspective	
Industry News	95
People on the Move	96

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: aaa@quad-a.org. Army Aviation Magazine E-Mail: magazine@quad-a.org. Website: http://www.quad-a.org. Subscription rates for non-AAAA members: \$35, one year; \$65, 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.

## Experienced. Flexible. Mission Focused.







17

PINNACLE S O L U T I O N S AN AKIMA COMPANY



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

Director of Advertising & Exhibit Sales Robert C. Lachowski bob@quad-a.org

Deputy Director of Advertising & Exhibit Sales Erika Burgess erika@guad-a.org

Advertising & Exhibit Sales Manager Carmen Tuohy carmen@guad-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

#### **Circulation Department**

Mira Auxier Deb Cavallaro Debbie Coley Jackie Harris

#### **Editorial Address**

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

> Visit our website for additional articles and updates.

**ARMYAVIATIONmagazine.com** 

#### On The Cover

PAID ADVERTISEMENT: Sikorsky and DARPA developed an Optionally Piloted Black Hawk that can fly itself uncrewed or support pilots and operators during complex missions, paving the way for future autonomous missions like contested logistics or CASEVAC. This autonomous capability is now being integrated into the Army's experimental fly-by-wire UH-60M. *Caption provided by the advertiser.* 

## Briefings > Late Breaking News - Announcements

#### Donahue Confirmed to Command USAREUR-AF



The Senate confirmed the promotion of LTG Christopher T. Donahue and his nomination to take command of the U.S. Army Europe-Africa on Dec. 2, 2024. The career special operations veteran was

the last American soldier to leave Afghanistan. He is currently serving as commanding general of XVIII Airborne Corps and Fort Liberty, NC.

### Pepin to Take Over Army



MG Allan M. Pepin has been confirmed by the Senate for promotion and to assume command of U.S. Army North (Fifth Army). He is currently serving as special as-

sistant to the commanding general, U.S. Army Installation Management Command, Joint Base San Antonio, TX.

#### Raines Sworn in as CNGB SEA



CSM John T. Raines III, the 13th sergeant major of the Army National Guard since 2022, assumed responsibilities as the National Guard Bureau's senior enlisted ad-

viser in a ceremony on Nov. 8, 2024. Raines succeeds Senior Enlisted Advisor Tony Whitehead, who retires after more than four decades of service in the Air Force and Air National Guard. A replacement for Raines is pending.

#### First Reservist Receives Astronaut Device



MAJ Kate Rubins became the first Army Reserve officer to receive the Basic Aviation Badge with Astronaut Device and Space Badge on Nov. 21, 2024. A member of the 75th Army Reserve

Innovation Command, Rubins is a microbiologist and NASA astronaut, and served on the International Space Station in 2016 and 2020, where she was the first to sequence DNA in space. The device, originally called the Army Astronaut Badge, was created by the Chief of Staff of the Army in 1983. Since its inception, only three other soldiers have earned the device: COL Drew Morgan, who wears it on his Army Master Space Badge, and COLs Anne McClain and Frank Rubio, who wear the device on their Aviation Badges.

#### Easier Access to Military Installations for Eligible Veterans



Under new rules that took effect Nov. 1, veterans who don't have access to installations otherwise, for example, as retirees or as 100% disabled veterans can now use their VA-issued Veteran Health Identification Card, VHIC or their REAL ID to enroll for recurring installation access. Those who don't have a VHIC, as well as eligible caregivers, can use their REAL ID Act-compliant driver's license or non-driver's identification card to enroll for installation access at the installation visitor center. For more information, go to *https://www.militaryonesource.mil/products/process-for-veterans-and-caregivers-to-access-u-s-dod-installations-fact-sheet-1411/.* 

#### **CORRECTIONS:**

-Page 46, October 2024 issue, the photo caption should read, "Army Air Forces, Primary Flight Training, Class 45-H, Curtis Field, Brady, TX, 1945."

-Page 48, November 2024 issue, author MAJ Stuart S. Brimner's name is misspelled. We apologize for the errors.



Remember your exhilaration upon the receipt of an unexpected gift?

### Pay-It-Forward.

WWW.QUAD-A.ORG/ SCHOLARSHIP



AAAA SCHOLARSHIP FOUNDATION, INC.

## HB2000: UNMATCHED VERSATILITY

> 120 kts Empty Dash Speed (AWR)
> Supports Point-to-Point SAR Logistics
> Immediate Access to Confined Areas
> Aerodynamically Stable in All Flight Modes
> Additional Modules Increase Capabilities

### **RESCUE • DEPLOYMENT • LOGISTICS** For Your Most Critical Missions, Trust **HELIBASKET**

www.heli-basket.com • (864) 638-6196 • info@heli-basket.com • CAGE: 6K5F7

### President's Cockpit

## Working With Congress and Holiday Wishes

rom all of us at the AAAA Global Headquarters, we hope you all have had a wonderful Holiday Season... time with family and loved ones. And especially during this time, our thoughts and prayers are with our men and women in uniform who are deployed and engaged around the globe in support of our Nation's vital mission.

And especially during this time, our thoughts and prayers are with our men and women in uniform who are deployed and engaged around the globe in support of our Nation's vital mission.

I'm pleased to report that we had a very successful Cribbins Readiness Conferrence in Huntsville, AL beginning on Veterans Day in November. The professional programs and sessions were incisive and impactful, and we thank the entire Aviation General Officer Steering Committee (GOSC) for their presence, participation and support for the forum's entirety.

Our Industry partner support and participation, as always, was incredibly strong and invaluable to the realization of our Networking and Voice pillars. Please take a look at page 74 for a complete wrap up and especially the coverage of our incredible AAAA awardees. A real highlight was the AAAA Murder Mystery Dinner hosted by our AAAA Scholarship Foundation... what a tremendous evening (the Roaring Twenties Speakeasy theme was taken seriously by your AAAA National Executive Group... you determine whether you believe your Association has adequate leadership after viewing the group picture!) where over \$95,000 was donated in support of our signature Recognition and Support program. And in that spirit, I want to highlight Chapter President, COL (Ret.) Ron Lukow's AAAA Washington Potomac Chapter Annual Scholarship Fund Raising Formal held in late November. What an incredible evening; one that truly showcases the programs and activities of our chapters, which are the backbone, and indicative of the strength, of our great Association. I was privileged to attend, and witness first-hand the impact that our incredible scholarship program has on the lives and future success of the recipients.

Not to be left out, our Voice pillar was firmly addressed over the last month. Our very own AAAA Executive Director, Mr. Bill Harris (the epitome of persistence), was



Congresswoman Rosa DeLauro and AAAA Executive Director, Mr. Bill Harris, meeting in her offices on November 14, 2024.

able to meet with our Army Aviation Caucus Co-Chair, the Honorable Rosa DeLauro (D CT-3) in her office in Washington, D. C. on Thursday November 14, 2024. During the meeting with her staff the course was set for the next year with the selection of the Honorable Dale Strong, (R AL-5) as her Republican co-chair, and the next meeting projected to take place in the first quarter of CY 25. There is still some work to do to get additional members of Congress to join the Caucus in the new Congress next year. If you have a Congressman in your district that may be interested due to a connection to Army Aviation through personal experience, having an installation in their area, or related industry please send your suggestions in to Bill at *bill@quad-a.org* who will forward to the co-chairs for action.

Finally, on behalf of the Association, I'd like to welcome back LTC (Ret.) Kevin Cochie who will transition back to serve as the Chairman, Legislative Affairs Committee and the Association's Legislative Liaison. We can't thank LTC (Ret.) Josh Baker enough for all of the work he has done in that role for the past several years... very much appreciate his passion and edication in support of our Association.

As we look forward to 2025, we hope to see you at one of our events – the Luther Jones Depot Symposium has shifted to February 11-12 and of course our AAAA Annual Summit on May 14-16. Thanks to all our members for a really great 2024!!!

Above the Best

MG Walt Davis, U.S. Army Retired 36th President, AAAA walt.davis@quad-a.org



## **Gray Eagle** Dominating first contact

The new-generation Gray Eagle is the ideal advanced teaming UAS for the Future Aviation Tactical Ecosystem. Gray Eagle 25M rapidly integrates advanced sensors, payloads, and launched effects, delivering highly relevant Army modernization and MOSA. And the multi-mission expeditionary Gray Eagle STOL has proven it can work from unimproved fields, warships, and more. It delivers armed reconnaissance, attack, and contested logistics support in the most austere locations. Rugged and reliable, these aircraft offer maximum readiness—anywhere, anytime.

Gray Eagle STOL



Scan to learn more ©2024 GENERAL ATOMICS AERONAUTICAL SYSTEMS, INC.



**Enabling Information Dominance** 





## The Military Industry Partnership

By MG Clair A. Gill



A s we discuss the advent of transformation, there are two components intrinsically linked to this process: technology and the people affected by it.

Fort Novosel conducts its annual Aviation Industry Days event on August 8, 2024.

#### What We Need

In acquisition parlance, technology falls under materiel but influences everything from doctrine to policy. At the same time, technology gets much attention because it is new or shiny and provides emerging capabilities we might need to fight and win on the future battlefield. Yet, despite the hoopla surrounding the technological enhancements, we can never forget how we got there. A need existed, the Army articulated its requirements, and industry stepped up and translated the requirements into reality. Of course, we would like to have a process that is as quick and easy as just described. Unfortunately, it is not. The process is more in-depth, and timelines are more protracted to get products into the hands of Soldiers. However, that is changing with the Transformation in Contact (TiC) initiative, which brings equipment to users quicker, allows them to train with it, and provides valuable feedback for improvement. The requirement to move faster is palpable.

Furthermore, the people in this process are much more than the enduser. We depend on our industry partners, the other part of the people equation. The roots of our partnership are deep.

During World War II, our industry partners were essential in producing the equipment - planes, tanks, K-rations necessary for us to prosecute and win the war. They are just as vital today. This support continued during the Korean War, but a concern emerged that the Military Industrial Complex would influence military strategy. The Vietnam War proved that industry continued to be crucial in obtaining the equipment required to fight our battles, and the helicopter was a crucial outcome. In the interwar years, like today, the US military was evolving and on the cusp of a new era. Again, our industry partners stepped up and provided the Big Five – Apache, Black Hawk, Abrams Tank, Bradley Fighting Vehicle, and the Patriot Missile

10

System. These generational systems were critical in winning in Desert Shield/Desert Storm and continuing to support armed conflict through the Global War on Terrorism and today.

We are again at an inflection point in modern military history, and at our most transformative period in the Army's last 40 years. Like post-Vietnam, where we cut our teeth as part of the combined arms team, Army Aviation is again on the leading edge of our generation's transformation. The fielding of the Future Vertical Lift (FVL) – Future Long Range Assault Aircraft, Future Tactical UAS, Launched Effects, and their ecosystems – will meet the existential threats facing our Army now and in the future.

The military-industry partnership is essential to meet future threats. Despite our previous successes, the future is again different, and we must implement it accordingly. We have sophisticated peer and near-peer adversaries. They have observed how

## UNLEASH THE STORM.

### BriteStorm stand-in jammer payload.

BriteStorm delivers world-class stand-in jamming capabilities, effective against the most advanced air defense systems. Easily integrated onto attritable UAV's and a range of launched effects, BriteStorm deploys an array of digital deception techniques, protecting friendly forces against early warning, surveillance and target tracking radars.

Building on the achievements of Leonardo's in-service BriteCloud active expendable decoy, BriteStorm is readily exportable and already proven effective in trials.

A storm ready to be unleashed.



leonardo.com

we fight and will focus on exploiting our vulnerabilities. As we observe recent regional conflicts – the Nagorno Karabakh War, the Ukraine/Russia War, and even the Israeli/Hamas War – we have had glimpses of how our potential adversaries will fight and how they will leverage technology. Technology is moving at a dizzying pace, and as an Army, we must adapt just as quickly. Surveying what this future portends, being joined at the hip with our industry partners is ever more critical.

#### How to Meet the Challenges

So, how do we meet these challenges to maintain and strengthen our militaryindustry partnership? Our potential adversaries may be sophisticated, but they are not invulnerable - nor do they have the American ingenuity of our small and big business industries. Army Aviation can defeat their systems with our tactics (e.g., nap-of-the-earth flight, mission planning, combined arms approach), our technology, and our pilotage. We can also continue to observe ongoing conflicts, glean lessons learned, and adapt tactics, techniques, and procedures to survive (and thrive) under similar conditions. Additionally, and most importantly, we must break the paradigm that we have to sacrifice one of the iron triad essentials – low cost, on schedule, or reliable performance in product development. We need all three!

Aviation is admittedly expensive, but absolutely necessary to the combined arms fight. That truism, coupled with the speed of technology, exacerbates why we need to get it right the first time. While transformation is not a simple process, and plans change, Army Aviation should articulate our requirements to our industry partners as clearly and completely as possible. In turn, our industry partners should ensure Army Aviation has done this, assist in refining the requirements, and produce the product cost-efficiently, on schedule, and meet our performance specifications. There can be no compromise on this responsibility. TiC and MOSA (modular open systems approach) are critical aspects to modernization and transformation... and they are enduring.

The TiC initiative provides an agile and adaptable method of getting technology into Soldiers' hands faster and receiving feedback on improving it before fielding it to the Army. On

the other hand, MOSA will provide a sustainable, adaptable architecture standard for FVL and mission-system integration for our enduring fleet. The rapid evolution in technology and threats requires much faster cycle time for fielding and modifying warfighting capabilities, and MOSA will keep Army Aviation on pace with technological advancement.

#### The End State

These initiatives and others must be a collaborative process with our industry partners to improve the speed at which we adapt to technology changes. Industry days and conferences, such as those sponsored by centers of excellence, AAAA, AUSA, and others, will continue to promote militaryindustry collaboration and partnership. We all need to embrace these critical initiatives as we field future systems and upgrade our enduring fleets.

Above the Best! Fly Army!

MG Clair A. Gill is the Army Aviation branch chief and commander of the U.S. Army Aviation Center of Excellence and Fort Novosel, AL.



### ELEVATE AWARENESS WITH THE TRUSTED DISRUPTOR

## Optimize your sight across domains with the WESCAM MX<sup>™</sup>-Series

Missions are longer, more complex and need to be executed faster. More is expected of you every time you fly. L3Harris' electro-optical and infrared sensor systems are designed with the latest technologies to address changing mission requirements.



Scan to learn more. L3Harris.com





A HEICO COMPANY







### **GAME CHANGING SOLUTIONS BUILT TO LAST**

A **Force Multiplier** by extending the range of the Army's Black Hawk in contingent environments.

(480) 337-7087 | Shane.Openshaw@robbietanks.com | robertsonfuelsystems.com

PEO Aviation Update

## PEO Aviation – Transforming in Contact

By BG David C. Phillips

The future is here today, and Army Aviation faces an inflection point much like the one coming out of the Vietnam War, when we modernized our fleet with the Black Hawk and Apache helicopters as part of the "Big Five."

Fortunately, the Army then was able to deliver these capabilities to our formations, and they have been critical to the Army's success in combat for over 40 years beginning with the "left hook" by the 101st Airborne Division in Operation Desert Storm in 1991.

Today, along with Chinook, the Black Hawk and Apache are unmatched and position the Army to invest in cleansheet, advanced vertical lift technologies and Uncrewed Aircraft Systems (UAS) for greater speed, range, and endurance, ensuring increased survivability and lethality to remain decisive in the airground littoral.

PEO Aviation and the broader Army Aviation team-of-teams is working to deliver transformational, highly lethal weapon systems to our warfighters. Together the Aviation Center of Excellence, the Army Futures Command Cross Functional Teams, the Aviation and Missile Command, the Combat Capability Development Command's labs and centers, other Program Executive Offices, and Army Contracting Command have adapted to the strategic environment providing the very best aviation capabilities required to deter threats to our national security.



New acquisition authorities and ways of doing business facilitated the rapid selection and fielding of the initial tranche of company level sUAS. MG Scott M. Naumann, Commanding General of 10th Mountain Division, examines a Ghost X Medium-Range Reconnaissance UAS during his visit on Mihail Kogălniceanu Air Base, Romania, November 7th, 2024. 3-10 MTN has been deployed in Europe since June of this year in support of Operation Atlantic Resolve and the U.S. Army's Transformation in Contact mission.

#### **Rapidly Changing Requirements**

The current conflicts in Europe and the Middle East highlight the rapidly changing requirements for rotary-wing aircraft to remain viable and effective in a near-peer conflict. UAS that are configurable, attritable, affordable, and layered at echelon on the battlefield have demonstrated their increasing importance. To meet these new requirements, PEO Aviation continues to transform its ways of doing business, its use of new authorities, and its technical approaches to acquisition.

PEO Aviation has already adopted agile and adaptive acquisition methodologies to improve the efficiency and effectiveness of our acquisition processes, emphasizing flexibility, collaboration, and iterative development. Continuous Transformation demands new and innovative acquisition actions because one size no longer fits all – technology is evolving rapidly, and we have to keep up. We are also leveraging new Congressional authorities for faster delivery of critical capabilities and cost savings.

Army aviation's efforts to transform in contact (TiC) are delivering new technology to Soldiers to try, innovate, learn, and adapt at the rapidly evolving pace of technology. We are buying emerging technologies, such as launched effects and UAS, competitively, and in smaller tranches instead of long-term sole-source contracts to take advantage of these ever-advancing technologies.

#### Meeting the Demand

To meet the demand for UAS, the Army has already fielded more than 1,100 Tranche 1 Short Range Reconnaissance (SRR) small UAS (sUAS) to TiC brigade combat team platoons. As part of the SRR iterative acquisition process, we are gathering feed-



## Exceptional Performance Innovative Solutions **Unparalleled Partnership**

Mission First (M1) Support Services provides a complete spectrum of aviation solutions to the U.S. Department of Defense, Allies, and partner nations. Services include Maintenance, Repair and Overhaul (MRO), flight operations, training, aircraft modifications and upgrades. The only Aviation solutions company of scale focused solely on Aviation maintenance excellence, we execute large, complex programs of National and International significance, supporting the most advanced military aircraft in the world.

www.m1services.com



back from the Soldiers operating the systems to inform Tranche 2 requirements. SRR Tranche 2 is currently in rapid prototyping with production planned for FY25.

The new acquisition authorities and ways of doing business also facilitated the selection of two vendors to provide the initial tranche of company level sUAS in just over a year from the Army's approval of a Directed Requirement. With modular mission payload capabilities, the company levels UAS will enable organic reconnaissance, surveillance, and target acquisition operations and fielding has already started in 2024.

Next, Deliberate Transformation will set the conditions for Army Aviation's future success. PEO Aviation took advantage of Middle Tier of Acquisition (MTA) pathway for the Future Long Range Assault Aircraft (FL-RAA). FLRAA, the Army's future medium lift tactical assault and medical evacuation aircraft, will replace much of the UH-60 utility helicopter fleet. It will provide the Joint Force with transformational increases in speed, range, survivability, and sustainability while giving the Army advanced aviation capabilities to win in Large Scale Combat Operations.

New ways of doing business enabled the FLRAA program from day one. Using OTA agreements and MTA authorities enabled early risk mitigation. Competitive Demonstration & Risk Reduction efforts, an Architecture Collaboration Working Group focused on the Modular Open Systems Approach (MOSA), and flight tests of the Joint Multi Role technology demonstrators allowed the FLRAA team to go slow to go fast. With this methodology, the FLRAA program achieved Milestone B this year in August and set the conditions for the first FLRAA prototype delivery in 2026. Following rigorous ground testing, flight testing is planned for 2027.

#### Critical Pathways to Transformation

Beyond acquisition initiatives, PEO Aviation is transforming in other areas. Over the past several years, PEO Aviation has invested in digital engineering strategies ranging from using MOSA, model-based systems engineering, workforce training, and shared-services informational technologies. This digital transformation increases and institutionalizes our "digital" culture and moves away from analog processes while eliminating low-value practices and methods.

Using MOSA for future aircraft and to modernize our enduring fleets sets the conditions for future rapid transformation efforts. MOSA remains our critical pathway for rapid technology insertions and capability upgrades at the pace of emerging enemy threat systems. Pairing Intellectual Property and MOSA strategies facilitates organic maintenance, increases part commonality, and guards against potential obsolescence. The Army's commitment to MOSA will give commanders faster fielding of innovative, threat-based capabilities with commonality across mission systems. Targeted modernization of the Army's current fleet involves implementing MOSA to increase interoperability, affordability, and the rapid integration of new technologies while fostering competition.

Finally, PEO Aviation is transforming our relationship with our vendors and working closely with the Aviation Defense Industrial Base to map our supply chains. We have developed a snapshot of today's industrial base capabilities down to our Tier 3 suppliers. This helps create resilience and responsiveness and allows us to establish tangible and measurable strategies to mitigate supply chain risks.

Future-proofing Army aviation is not an easy task. As Army Aviation transforms with its most significant aviation fleet redesign in more than 40 years, PEO Aviation relies on constant cross-agency, cross-service, and horizontal and vertical stakeholder engagement. We remain focused, aligned, and ready to develop and deliver advanced aviation capabilities for today, the Army of 2030, and beyond. More than 2,800 Soldiers, civilians, and contractors across PEO Aviation relentlessly strive to accomplish that mission while remaining steadfast in their commitment to the continuous transformation of Army Aviation and honoring a sacred trust with Soldiers and commanders on the ground.

BG David C. Phillips is the Army Program Executive Officer, Aviation at Redstone Arsenal, AL.

## PHANTOM SENTRY®

UR LATEST LIFE SAVING MARKER LIGHT: TRAINING VERSION



'Mark Parked Aircraft 'Make Sleeping Tents Visible 'Mark MEDEVAC on the line 'Mark Solders during Land Nav Training 'Visible/Infrared and alternating modes 'Battery lasts for weeks 'Compact and Lightweight 'Water resistant 'Vibration and Shockproof 'Mounts to webbing or 550 cord 'USB-C Rechargeable

life Saver औ

Phantom Sentry



Stay < MARKED> & VISIDIE Wh

Phantom Products, Inc. 474 Barnes Blvd. Rockledge, Florida 32955 321-690-6729

CAGE 3WQN8 ISO9001:2015 Certified Small Business Made in USA ©2024 Phantom Products

www.PhantomLights.com

PEO Aviation Command Chief Warrant Officer Update

## Staying Ahead of Maintenance & Training Requirements By CW5 Jaime I. Craig

	FFIN.AI	pabilities fin is an aviation mainten I, GCSS-A, CAFRS, GFEB ort from Battalion to the rface supported by an en	ance management solutions, and IGC to provide an a S, and IGC to provide an a Department of the Army in terprise-aggregated back	on leveraging data from nutomated Daily Status n a warfighter optimized end infrastructure.
Au	tomated Daily	Status Report	(DSR) Generat	ion
Task Force Management	Readiness Analytics	Fault Forecasting	Operational Employment	Supply Request Tracking
Aggreg	ation & Summariz	ation at any Ech	nelon for all Capa	bilities
🖉 А-М	AP	pabilities AP allows for easier and r st level, while leveraging maintenance capabilitie	more direct management maintainer data to provid s across echelons.	of the AMTP at the e analytics and insights
Digitiza	ation of the Avia	tion Maintena	ance Training P	rogram
ICTL Management	Maintainer Event Record Tracking	ML Progression Tracker	Fault Records	Personnel Maintenance Impact
Common	Data Layer with c	urrent predictive	e maintenance to	ool, Griffin

am greatly honored and humbled to be selected as the Program Executive Office Aviation's Command Chief Warrant Officer. I am deeply committed to contributing to the collective success of our aviation enterprise in my new role.

My Army journey began in late 1995 as an AH-64A Armament Electrical Repairer. I was privileged to serve in Germany as an enlisted Soldier and later flew missions alongside some of the most exceptional Americans in the US, Europe, Kuwait, Iraq, and Afghanistan as a warrant officer. I believe serving in a variety of ranks and positions gives me a comprehensive understanding of Army aviation operations and uniquely positions me for this new assignment.

#### **Rebalancing the Portfolio**

In February of this year, the Army announced the swift and calculated rebalancing of the Army's aviation portfolio. Programs like the Future Attack Reconnaissance Aircraft (FARA) were discontinued but many of FARA's component programs continue development for use on other platforms. The Raven and Shadow Uncrewed Aircraft System programs were also divested and phased out rapidly. The Army ended the UH-60V program and delayed production of the Improved Turbine Engine to integrate it into the UH-60 platforms.

However, the Army decided to invest resources cut from other programs in both the enduring and future fleets. It committed to a new multi-year Black Hawk contract and assured the future of the CH-47F Block II Chinook by formally entering it into production with a path to full rate production. The Future Long Range Assault Aircraft program continued as planned and achieved Milestone B this year with an operational aircraft scheduled for delivery in FY30.

Giving Soldiers suitable systems and processes is the key to sustained success and staying ahead of training and maintenance requirements for the new investments. Army aviation could fall behind industry practices by not implementing artificial intelligence (AI)-assisted predictive maintenance and logistics sustainment. The enterprise's lack of cleansed and processed "analysis-ready" data continues to delay and impede the development of both predictive and descriptive systems. For example, preventative maintenance could create more capabilities if we link sensor data to maintainer-entered reports.

Furthermore, maintainers' experience and training throughout their Army careers are paramount to an effective enterprise-level Predictive Logistics infrastructure. Unintegrated personnel and maintenance systems pose unique challenges in understanding a maintainer's experience and training level. The current Aviation Maintenance Training Program and Digital Training Management System still needs manual inputs to fulfill the requirements for maintenance tracking, leading to tracking maintenance records via paper files carried between duty stations.

#### The Right Tools

Griffin AI and AMAP (Army Maintainer Analytics Platform) may be the right tools for the enterprise at the right time. Designed and developed by the little-known US Army Artificial Intelligence Integration Center (AI2C), the programs have been fielded to multiple units. If fully funded and fielded they could provide the tools needed for maintenance training and tracking.

Griffin uses a warfighter-optimized front-end interface, and an enterprise aggregated back-end to provide AI-enabled preventative maintenance capabilities to warfighters, maintainers, and commanders for every platform and at all echelons, from the maintenance area to the Pentagon. It provides both the core feature set necessary for any predictive maintenance or preventative logistics with, but not limited to, automated status reports, task force organization, historical readiness analysis, and fault failure forecasting. It also has relevant features for aviation units, such as phase inspection schedule optimization, flying hour program management, maintainer personnel tracking, and work unit code correction.

AMAP proposes three functionality goals supporting decision-makers in the aviation community. The first is to track individual maintainer experience and training in accordance with Army Training Circular 3-04.71. The second is to import and maintain updated Individual Critical Task Lists for all Military Occupational Specialty skill levels from the Central Army Registry while allowing units to create their Unit Critical Task List to reflect their unit's Mission Essential Task List. The final goal is to authorize leaders to analyze the impact of training while allowing aviation commanders to make operational decisions based on the strength and skill sets of their formation.

In Griffin AI and AMAP, AI2C is developing two flexible NIPR-accessible web applications that directly integrate reporting, predictive maintenance, predictive logistics, scheduling, and training. Since the team of active-duty Data Scientists and Data Engineers from the Artificial Intelligence Scholars Program are using open-source materials to develop the technologies, the Army owns the total codebase, which enables responsive customization to suit the needs of different formation types at different echelons.

I would like to thank BG David Phillips for the opportunity to serve as the PEO Aviation CCWO. I want to express my sincere gratitude to my predecessor John Ulmer for his invaluable guidance during the transition process. His mentorship has been instrumental in preparing me for the challenges ahead. I am committed to the projects he has initiated and look forward to contributing my expertise to them. I wish him and his family all the best as they embark on a new chapter in life called Retirement.

I look forward to interacting with the end-users reading this article. I am charged with supporting the Program Executive Officer and look forward to hearing from you and advocating for you. Please contact me if you need assistance: *jaime.i.craig.mil@army.mil.* 

CW5 Jaime I. Craig is the command chief warrant officer for the Program Executive Office Aviation at Redstone Arsenal, AL.

#### Air Dominance Next Generation Air Crew Headsets

David Clark Company has been a leading supplier of aviation headsets for the US Armed Forces and military aviators worldwide for decades. These purpose-built air crew headsets are designed to match the impedance and connectivity requirements for a variety of military aircraft. Offering lightweight comfort, excellent active noise reduction performance and "David Clark durability". For more information call **1-800-298-6235** or visit **www.davidclark.com.** 





### Making a Difference With The PEO Aviation Team By SGM Leon C. Black



irst and foremost, I am so excited for this opportunity to serve as the third Sergeant Major for Program Executive Office, Aviation.

It's not a responsibility that I take lightly, and I certainly have big shoes to fill following two extremely talented and longtime friends, SGM Woody Sullivan and SGM Carlos Loeza.

Eighteen months ago, I had no idea if I would ever serve in an aviation organization again. After I completed my assignment as the 25th Combat Aviation Brigade (CAB) Command Sergeant Major where I watched our dedicated aviation professionals maintain and operate high-tech equipment in the frozen Arctic and the jungles of the Pacific, I found myself serving a one-year tour at U.S. Army Central as the Command Sergeant Major for Area Support Group – Kuwait. This assignment was far from what I was used to. I no longer heard the distinct sounds of helicopter auxiliary power units starting up followed by the turning of rotor blades. Fast forward to now, and I am back within the aviation community, hitting my six-month mark inside the PEO and helping the team design, develop, deliver, and support aviation capabilities for our warfighters.

When I was selected last year, I knew little of what PEO Aviation did for the aviation enterprise. My only previous experience with the PEO was in 2012 serving in the 1st CAB at Fort Riley, KS. My Brigade Sergeant Major at the time, CSM (Ret.) Jim Thomson, informed me that I would

Medics from the 82nd Combat Aviation Brigade and the 1st Brigade Combat Team of the 82nd Airborne Division worked the Future MEDEVAC Cabin Technical Demonstrator and provided valuable insights and feedback that will play a crucial role in enhancing the design of future Army aircraft.

assume duties as the first sergeant for the Army's first domestically fielded Gray Eagle company. Soon after, I and a handful of Soldiers quickly started to build the company with personnel and equipment. The personnel management part was easy as managing people is a primary duty of a noncommissioned officer. The equipment part, however, was a whole new ballgame. At this point, I gained insight to the PEO's mission and responsibilities. I became intimately familiar with the Uncrewed Aircraft Systems Project Manager's (PM) Office within the PEO as we fielded equipment, conducted the Initial Operational Test and Evaluation at Edwards Air Force Base in Calif. and



## THEY DESERVE NOTHING LESS THAN THE



## HIGHEST OUALITY PRODUCTS.

This holiday season the SES Family salutes those brave men and women, and their families, serving this great nation. We are thankful for your selfless service. Happy Holidays!







### 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 2023 National winners were featured in the April/May AAAA Annual State of the Enterprise issue.



#### Gary G. Wetzel Aviation Soldier of the Year, 2021 Sponsored by Bell

#### SPC Andrew G. Wells

Company F, 2nd Battalion, 160th Special Operations Aviation Regiment (Airborne) Fort Campbell, Kentucky

As an Unmanned Aircraft Systems Operator, SPC Wells is a part of a community that thrives on pushing the limits both tactically and technically. He embraces that culture by aggressively pursuing new ways to challenge himself whenever possible. When he is not teaching his peers how to perfect Mission Coordinator duties, he is developing standardized documents

to track flight hours. He not only eagerly requested to attend the Air Assault School and the Survival, Evasion, Resistance, and Escape Level C course, but also volunteered to deploy overseas as soon as he progressed to Readiness Level One. Just before deploying, the company commander selected SPC Wells for promotion six months prior to meeting the time in grade requirements. While deployed in support of Operation Freedom's Sentinel, he flew over 200 accident-free hours providing invaluable intelligence, surveillance, and reconnaissance (ISR) in support of Special Operations Task Force personnel conducting missions of strategic importance. In addition to ISR coverage, he successfully engaged enemy combatants twice, contributing significantly to the ground force commander's mission success and safeguarding American lives. SPC Wells is driven by service, sacrifice, and duty to his country, and his consistent performance above standards with limited guidance identifies him as the 2021 AAAA Aviation Soldier of the Year.

deployed to Afghanistan in support of Operation Enduring Freedom. The PM was with us every step of the process until we were fully fielded. To me, the PM was this massive organization whose sole purpose was to ensure my company was equipped and ready to assume its wartime mission. At the time of my assignment, I had no idea the PEO existed; now I know that PM UAS is only one of nine PMs dedicated to delivering aviation capabilities to warfighters.

#### **Involving the Field**

As we transition from 2024 into 2025, many of our formations are likely to have a similar experience receiving new capabilities with one of the PMO's assistance. Technology is changing rapidly, and we will have an opportunity to field capabilities faster than we have ever done before. Soldiers today will also assist us early in the acquisition process by providing honest feedback on programs and capabilities before going into full rate production.

The recent special user evaluation for the Future Long Range Assault Aircraft (FLRAA) is an example. In coordination with the Future Vertical Lift Cross Functional Team, we sent a full-scale mockup of the FLRAA cabin to Wheeler Army Airfield, Hawaii where pilots, aircrew members, and an infantry platoon from 25th Infantry Division received a hands-on demonstration of the proposed cabin interior. They were able to practice ingress and egress and ultimately provided feedback which will help drive the final design. In November, MEDEVAC crews and medics from the 82nd CAB supported the Future MEDEVAC Cabin Technical Demonstrator special user engagement. During the engagement, they practiced handling patients and providing medical care in the mockup of a MEDEVAC aircraft cabin and patient handling system designed to solicit end-user feedback to directly inform the design of future MEDEVAC cabins. Soldiers in the operational force will have more opportunities like this as we design and develop emerging capabilities like the Future Tactical Uncrewed Aircraft System, the family of Launched Effects and others.

#### How to Help the Force?

I believe my role in PEO Aviation is not only to advise the PEO, BG David Phillips, but to represent the enlisted force within the Army Aviation community concerning modernization and acquisition. As a former CAB CSM, I can use my first-hand experience to help advise the PMs in support of new equipment fielding, new equipment training, modifications, and other PEO related missions. Critically, I am a direct conduit between the operational force and the PEO. I will maintain open lines of communication with the Soldiers and leaders in the field across all components. I plan on being at places where Soldiers are touching the equipment we are providing. If I'm in your area, please let me know what I can do for you.

I would like to thank BG Phillips for this opportunity to serve as the PEO Aviation Sergeant Major. I would also like to thank SGM Carlos Loeza for his support and the smooth transition. Best of luck to you and your family as you retire and move on to the next chapter in your life. For any assistance, questions, or support from the PEO, please do not hesitate to reach out to me. My email is *leon.c.black.mil@army.mil*.

Above the Best.

This We'll Defend!

SGM Leon C. Black is the sergeant major of the Program Executive Office, Aviation at Redstone Arsenal, AL.

## C-12 LIFE CYCLE EXTENSION PROGRAM

The Blackhawk Aerospace XP52 Life Cycle Extension Program for the C-12 provides two factory-new PT6A-52 engines, your choice of new propellers, and a Garmin G1000 NXi fully-integrated cockpit. Blackhawk offers one simple solution to extending the service life of the C-12 fleet while significantly reducing operational and maintenance costs.

#### We understand your needs.

The Blackhawk Aerospace Life Cycle Extension Program for the C-12 is the only modernization solution that can offer performance data for operations up to 14,000lbs aircraft maximum gross weight.

Call today to learn more about the Blackhawk advantage.



+1 (866) 578 4890 + blackhawk.aero

Reserve Component Aviation Update

## ARNG Aviation's Initiative to Close the Tactical Training Gap By COL Ben A. Ramos

hrough a partnership with The Aviation Center of Excellence, the Army National Guard (ARNG) reached a historic milestone by graduating its first-ever aircrew members from the Marine Aviation Weapons and Tactics Squadron One (MAWTS-1) Weapons and Tactics Instructor (WTI) Course in Yuma, Arizona in October 2022.

The South Carolina Army National Guard 1-151st Attack Bn. AH-64 Apache aircrew members served as the catalyst for addressing a critical tactical training gap within the ARNG Aviation enterprise.

In April 2024, ARNG Aviation followed that success with another milestone by graduating its first-ever UH-60 aircrews. The Alaska Army National Guard DET 2, 2-211th General Support Avn. Bn. aircrew members served as a testbed for the ARNG Aviation and Safety Division's (ARNG-AVS) groundbreaking initiative to address the tactical training gap at the national level. This effort significantly enhances Large-Scale Combat Óperations (LSCO) readiness, ensuring ARNG aircrews have the advanced tactical skills and expertise to operate effectively in multidomain battlefields.

Two successful WTI iterations laid the foundation for ARNG-AVS to formally partner with MAWTS-1 in support of future ARNG Aviation participation. This initiative derives from the ARNG-AVS strategy to develop a cadre of elite tactical aviators distributed across the 54 states and territories. These aviators serve as Joint LSCO subject matter experts, leveraging their advanced skills and knowl-



edge to assist ARNG Aviation Commanders and their staff at all levels.

The WTI Course is a monumental training event, bringing together over 3,000 personnel per iteration while logging more than 2,800 flight hours across 1,600 sorties and spanning six expansive training areas over 500 nautical miles. The MAWTS-1 curriculum is designed to address the basics of combined arms integration which lends to a mastery of the skillsets necessary to achieve the seven Army Aviation Core Competencies listed in FM 3-04. This comprehensive exercise also brings together a diverse military community, including WTI cadre and students from combat support and combat service support to simulate real-world combat conditions.

To prepare for the MAWTS-1 WTI Course, the Western ARNG Aviation Training Site (WAATS) in Red Rock, AZ hosts pre-MAWTS training to ensure that only the most experienced and capable aviators are selected. This preparatory training, led by former WTI graduates and current MAWTS-1 instructors, closely mirrors the rigorous curriculum taught in Yuma. As part of a competitive selection process, the training enables ARNG leaders to develop an Order of Merit List (OML) to allocate the highly coveted course slots to the most qualified aviators.

ARNG MAWTS-1 WTI graduates are expected to play a pivotal role in sup-

porting the ARNG Director's priorities along with supporting ARNG Aviation commanders during combat training center (CTC) rotations, warfighter exercises (WFXs), exportable combat training center (XCTC) rotations, and both annual and home station training. This program bridges critical readiness and tactical training gaps within ARNG aviation while aligning with the strategic priorities outlined in the Army 2030 initiative.

The ARNG's involvement in WTI reflects the broader Army 2030 goal of integrating emerging technologies and joint interoperability into training. The MAWTS-1 program complements this vision by allowing ARNG aviators to practice advanced tactics, utilize modernized aviation systems, and simulate joint operations in contested environments. This collaboration improves tactical proficiency and builds a network of skilled aviators who ensure the ARNG remains crucial to the Army's readiness and modernization objectives. Through this initiative, the ARNG demonstrates its commitment to achieving the vision outlined in the Army 2030 initiative, ensuring ARNG aviation is prepared to meet the challenges of future warfare.

COL Ben A. Ramos is chief of the Operations & Training Branch at the Army National Guard Bureau Aviation and Safety Division in Arlington, VA.

MFG + MODS / MAINTENANCE LOGISTICS / TECHNICAL SERVICES / BASE + RANGE OPS

YULISTA

Alaska Native Corporation (ANC)

U.S. Small Business Administration

## Trusted Partner in ARMY AVIATION MODERNIZATION

YULISTA IS COMMITTED TO BEING THE WORLD'S LEADING ALASKA NATIVE CORPORATION (ANC) DEDICATED TO SERVING MILITARY, GOVERNMENT, AND CIVILIAN CUSTOMERS IN THE AEROSPACE AND DEFENSE INDUSTRIES.

We leverage our technical expertise to maintain aircraft and ground vehicles, advance aerospace technology and missile defense, support national security, and sustain base and maritime operations.

LEARN MORE ABOUT WORKING WITH YULISTA AND FLEXIBLE 8(A) CONTRACTING.

ISO 9001:2015, ISO27001:2022, AS9100D & AS9110C CERTIFIED CERTIFIED FAA PART 145 REPAIR STATIONS



YULISTA.COM



## 128th Aviation Brigade Looks Towards the Future at the JCAMS Annual Meeting

By Mr. Glenn Johnson

rom 2-4 April 2024, 128th Aviation Brigade, Aircraft Structural Repair representatives attended the Joint Composites and Advanced Material Sustainment (JCAMS) Annual Meeting in Norfolk, Virginia.

This Department of Defense event affords the unit the opportunity to expand its networks and receive demonstrations of new technological capabilities from all branches of the military. The yearly conference is key to helping the brigade understand how the DoD currently uses, plans to use, and maintains advanced composite materials for the warfighting effort.

This event, and others like it, are critical drivers for the exchange of knowledge and technologies that offer mutual benefit for industry and our government partners. These interactions become especially important as the Army looks to field programs such the Future Long-Range Assault Aircraft (FLRAA) and roll out the General Electric Aerospace T-901 Engine, that aim to help modernize its fleet of aging helicopters. It also offers the Army the chance to view and access the potential usefulness of emerging technologies in the field of composites firsthand.

The 2024 JCAMS event hosted 20 dynamic guest speakers from various industries and government agencies talking about numerous composite related topics. Some notable presentations that directly related



15G Structural Repairer students learn to conduct frame riveting and structural analysis.

to how the Army repairs composite materials were a discussion on low viscosity resin repair by NAVAIR, a brief on room temperature curing for honeycomb core material by MSC, a talk about the ultrasonic testing of rotor blades by Dolphitech, and general lectures on training and depot composite training by Abaris and the U.S. Airforce, respectively. Looking to the future, Mr. Dave Stone the lead engineer of non-metallic materials at Army DEVCOM spoke on the topic of double vacuum debulks (DVD). DVD is a process that uses a vacuum chamber to manufacture repair patches for composite structures, opposed to the wet lay-up procedure currently taught in the 15G Aircraft Structural Repair Course. Unorthodox repairs in the field may require the use of a DVD chamber, setting the stage for changes

to the course in the future.

The ability to converse with industry experts and companies at the cutting edge of composite technology is a significant benefit to Army Aviation maintenance training developers. The 128th Aviation Brigade will continue to benefit as a voice and partner at the Joint Composites and Advanced Sustainment Material (JCAMS) Annual Meetings in the future. As the realization of the FLRAA program draws nearer, collaboration and the ability to gain insight in this way will pay dividends in the years to come.

#### **Born Under Fire!**

Mr. Glenn Johnson is a lead training specialist for the Aircraft Structural Repairer 15G Course at the 128th AVN BDE located at Fort Eustis, VA.

#### SEEK THE HIGH GROUND

ERFLY



LEADING VHA for extending network communications across dispersed formations

**PERSISTENT ISR** for unmatched precision targeting and situational awareness

**NEXUS**\* ecosystem providing extended command & control network for unmanned systems

**GPS-DENIED** capable for unparalleled performance in contested environments

\*NEXUS: Network Extension of Unmanned Systems Learn more at www.hoverflytech.com



## Giving Aviation Components a Fair Shake

By Ray Lugos

ave you driven an older car and heard something rattling, say a loose metal exhaust heat shield under the car, that you eventually find to occur only at a certain engine speed?

This phenomenon is called resonance. At this condition, the engine speed coincides with the loose heat shield's natural frequency (or frequencies), causing an exaggerated vibratory response. Besides being annoying, in more extreme cases it can be damaging not only to the heat shield but possibly also to the objects next to it.

Now imagine if this was happening to an avionics box and all the sensitive electronics housed within. What if it was a munition? Oh, and you're not in a car, but aboard a helicopter in flight...

So how do we guard against the destructive effects of vibration? That's where component vibration qualification comes in. It's mandated in the Army Military Airworthiness Certification Criteria and applies to new or updated aircraft materiel for all Army aircraft – helicopters, fixed wing, even UAS. Furthermore, vibration qualification is considered a Safety of Flight requirement, meaning it is part of a small subset of environmental qualification tests required before a component can be installed on an aircraft. Successful qualification demonstrates that the component can be reasonably expected to withstand the vibration environment of the aircraft on which it is installed.

While there are general guidelines for vibration qualification testing in ADS-27A-SP, detailed procedures can be found in the latest version of MIL-STD-810 (currently Revision H). Typically, components must be tested on a shaker table (typical setup shown in Figure 1) with the prescribed vibration profile being applied for four hours per axis (longitudinal, lateral and vertical, corresponding to how the component is mounted on the aircraft, or 12 hours total).

The test profile applied varies widely given the application and is entirely dependent on which aircraft platform(s) the component will be installed on and its location on the aircraft. It's meant to simulate 2,500 flight hours on a helicopter (fixed wing testing is one hour per axis, which equates to 1,000 flight hours), hence the test vibration levels are scaled up significantly from actual levels to account for the compressed test durations. For Apache, Black Hawk and Chinook helicopters, MIL-STD-810H references the Test Operations Procedure 01-2-603A which provides the appropriate test profiles for those platforms; for all other Army aircraft, MIL-STD-810H itself contains the necessary equations to derive the profiles.

Equipment to be tested undergo pre- and post-test visual



Fig. 1 – Typical shaker table setup (quadband antenna).

and functional checks to ensure they weren't damaged during testing. Also, if applicable, they should be operational throughout the duration of shaker table testing with all functions being monitored.

For components installed on multiple aircraft types, a multiplatform approach is often employed. This involves conducting sine sweeps on a shaker table to identify the component's resonant frequencies. These frequencies are then compared to the driving frequencies of each aircraft type, with the closest match representing the worst-case test profile. The component is then qualified using this worst-case profile rather than testing separately for each aircraft type, as it is expected to endure the vibration environments of all platforms. This streamlined testing reduces both cost and time.

In addition to flight vibration qualification testing, components installed on aircraft with guns, like the AH-64E Apache, must undergo gunfire vibration qualification. Test durations are one hour per axis, following profiles outlined in a Boeing document. Notably, this is not an accelerated test; during that hour on the shaker table, the component experiences 37,000 cycles, matching the Apache's M230 gun's actual cyclic rate of fire, at the vibration levels present during operation. Components outside the M230's limited zone of influence are exempt from this testing requirement.

These are, of course, just highlights of component vibration qualification testing. Like many of our other environmental qualification requirements, it can be cumbersome, timeconsuming and costly, but it's a critical part of ensuring the airworthiness and readiness of our aircraft.

Ray Lugos is an aerospace engineer in the Aeromechanics Division of the Systems Readiness Directorate, U.S. Army Combat Capabilities Development Command Aviation & Missile Center, Redstone Arsenal, AL.

## FUTURE WITH ARMY AVIATION

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 build the future with Army Aviation.

#### BUILD THE FUTURE WITH US.

Visit www.Tyonek.com/careers

- Logistics Support Facility (LSFMA-V) Prime Contractor
- Redstone Test Center Aviation Management Support Service 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





## Interventional Pain Treatment Options

By LTC Sonya H. Heidt, M.D., MPH, FS

Doc, everything hurts: my neck, back, shoulders, hands, hips, knees, and feet. I am getting ready to retire. I want to be able to enjoy retirement. I applied for a job as a DAC Instructor Pilot, so I need to be able to fly.

I tried some medications and saw PT a few times but never had time to followup. I don't want major surgery, but I'd be open to other treatment options, so I can still be active with my kids.

FS: Many Soldiers nearing the end of their careers have chronic pain in at least one area of the body. You had a physically challenging profession, where you frequently prioritized your job over yourself. You owe it to yourself and your family to make the time to take care of your body.

Some of the treatment options mentioned in this article may be grounding, and chronic severe pain that distracts you from your duties or prevents you from rapidly egressing the aircraft is also grounding.

When working to address your concerns, your aeromedical healthcare provider and medical specialists will conduct a thorough evaluation, formulate a treatment plan, and discuss treatment options. The treatment for symptoms of chronic pain may vary depending on the underlying diagnosis. Occasionally, a person may have more than one diagnosis causing chronic pain. For example, the result of trauma superimposed on a rheumatologic disorder. Thus, chronic pain may benefit from vastly different treatment options, even when compared to other patients with similar symptoms. Accordingly, some complex patients may be followed by multiple specialists. Ensure you keep your aeromedical team in the loop regarding your specialty care and recommended interventions.

Chronic pain often has a profound impact on your mental and emotional well-being, and it's crucial not to underestimate this effect. Addressing your behavioral health is an essential component of a comprehensive pain treatment program. There are various resources available to support you during treatment. For example, integrated behavioral health consultants are generally located within primary care settings, offering a seamless approach to managing both physical and behavioral health concerns.

Non-invasive or less invasive treatments include acupuncture, dry needling, joint manipulation, osteopathic manipulative treatment, yoga, Pilates, Tai Chi, mindfulness, sleeves, braces, and compression bands. Physical therapy and occupational therapy are essential steps in most chronic pain treatment pathways.

Injections are frequently a step-up from more conservative treatments. There are multiple types of therapeutic agents which can be injected into various target locations. Steroids and numbing medicines (e.g., lidocaine) are used to reduce inflammation and decrease pain. They are commonly injected into a variety of locations, including near a nerve or the area around the spinal cord. Hyaluronic acid is a lubricant and serves as a cushion, and therefore, it is frequently used to reduce pain from knee arthritis. Prolotherapy injections might be beneficial for tendon and joint conditions, whereby the medication is irritating to the body and stimulates an inflammatory response thought to promote healing.

Platelet-rich plasma entails centrifuging your blood to collect platelets and other growth factors which promote regeneration and healing. Then, injecting the platelet-rich plasma into the injured or painful area. Botulinum toxin injection can be used to relax joints, tendons, muscles, and on fascia. Fascia is the connective tissue that surrounds our bodies structures. Some specialists use botulinum toxin in a wide array of conditions including for plantar fasciitis (i.e., pain spanning the sole of the foot) and even migraines.

For chronic neck and back pain, radiofrequency ablation and spinal cord stimulators are additional interventional methods. A needle-like probe is injected near the target area. Then, radiofrequency waves heat the nerve to damage it, thereby preventing it from sending pain signals to the brain. A spinal cord stimulator entails having a device placed in your back to send a mild current from your spinal cord to your brain to reduce pain. This pain management method is usually offered after you tried many other modalities. A spinal cord stimulator is unlikely to be approved for use while on flight status.

Managing chronic pain as an aircrew member can be challenging, so work with your healthcare providers to develop a comprehensive pain management plan that aligns with aviation guidelines/duties, emphasizing non-narcotic medications when possible. Remember to consult your aviation providers before implementing new strategies, especially if you are on flight status.

Fly Safe!

#### **Questions for the Flight Surgeon?**

If you have a question that you would like addressed, email it to *AskFS@quada.org*. We will try to address it in the future. See your unit flight surgeon for your personal health issues.

The views and opinions offered are those of the author and researchers and should not be construed as an official Department of the Army position unless otherwise stated.

LTC (Dr.) Sonya H. Heidt, is a Flight Surgeon as well as an Aerospace and Occupational Medicine Specialist at the Department of Aviation Medicine, Fort Novosel, AL.



#### SUPPLY CHAIN SOLUTIONS TO KEEP FLEETS AND SYSTEMS OPERATIONAL, READY AND SAFE

CTG, a Division of Blue Raven Solutions, provides Government, Defense, and Commercial markets with tech-enabled, scaleable supply chain solutions throughout platform lifecycles.

7	
~4	
ЩШ	

#### WE ARE YOUR FORCE MULTIPLIER

We dedicate the resources necessary to thoroughly understand your program at a level that allows us to become your force multiplier.

	-			-	
	,			٦,	
•					
	-	-			
		-	~	۰.	
				r	

#### **CERTIFIED & TRUSTED SUPPLIER**

Our extensive Quality Assurance, Counterfeit Prevention Programs, and Cybersecurity Initiatives meet stringent military and aerospace requirements.



#### **FLEXIBLE CONTRACTING OPTIONS**

Move your program foward quickly by leveraging our rapid acquisition contracting options tailored to your specific requirement.

#### **OUR TRUSTED SUPPLY CHAIN SOLUTIONS**

- Hard-to-Find & Obsolete Parts
- DMSMS & Obsolescence Management
- Counterfeit Prevention Program
- Warehousing & Staging Optimization
- Custom Kitting

R 844-777-0057

Production Line Support



⊠ sales@ctgnow.com

WE SUPPORT MULTI-DOMAIN OPERATIONS



1 Odell Plaza, Yonkers, NY 10701

## Special Focus > Industry Support & Challenges Next-Generation Airborne Intelligence, Surveillance and Reconnaissance

Solutions By Mr. Steve Patrick



ilitary leaders are gearing up to adapt their operations to rapidly changing environments with increased complexity across all theaters. The need to see farther allows for earlier awareness and increased responsiveness to meet today's dynamic challenges. Long operational ranges, improved adversary capabilities, and a constantly evolving geopolitical picture require versatile airborne platforms that fly farther, faster, and higher to cover vast terrain near hostile territories.

Bombardier Defense is known around the world for its commitment to quality, reliability, and performance, and its aircraft have been the platform of choice for the United States Armed Forces in supporting several operational imperatives. Leveraging the experience gleaned from the design and production of hundreds of specialized in-service aircraft worldwide and an operational track record of more than 3 million flight hours, Bombardier Defense has become the go-to provider of solutions for a variety of missions worldwide, including aerial intelligence, surveillance and reconnaissance (ISR).

In a potential conflict with adversaries in remote locations, United States military leaders agree: the operational advantage will go to the side that can more successfully manage the battlespace with "deep sensing" airborne capabilities. To secure this advantage, the U.S. Army has contracted Bombardier Defense to supply the Global 6500 aircraft as the

platform of choice in support of the High Accuracy Detection and Exploitation System (HADES) - combining speed and range to track adversaries and bring clarity to the operational environment from vastly farther distances.

Working in tandem with other industry partners to integrate the required systems into the platform, Bombardier Defense will be delivering a prototype airframe using the Global 6500 aircraft for this modernized ISR program.

HADES represents a generational leap forward in the Army's airborne surveillance capabilities and will change how the Army operates on many levels, all while reducing cost, decreasing transit time, and enhancing logistical support and maintenance needs. This new program of record will allow the U.S. military to have a next-generation solution to reach their full potential and will be used to maximize effect in conflict. Indeed, when outfitted with sensing capabilities, the Global 6500 aircraft will allow the military to sense deeper and farther, remaining over theater for longer than previous fixed-wing aircraft.

Deep sensing offers several distinct battlefield advantages. First, it will allow the U.S. Army to see what adversaries are doing with their front-line and reserve forces and how they are supporting the battle. It also provides critical information for strike options with medium- and long-range precision munitions - to overmatch adversaries, shape the battlespace, or neutralize high priorAbove left: Rendering of the Bombardier Global 6500 for the U.S. Army's HADES platform

Above right: Generic rendering of missionized Bombardier Global and Challenger platforms

ity targets in increasingly complex environments at speed and scale.

This is where using the right-size platform becomes imperative. Business jets present the optimal solution for ISR mission types due to their unique performance characteristics, ease of operation and maintenance, affordability, and versatility. These planes can be globally repositioned far quicker than turboprop aircraft or shorter-range commercial jets.

The customer-centric approach Bombardier Defense has implemented in its offering strategy is greatly appreciated by clients from civilian, military and government backgrounds. Both the Challenger and Global families of aircraft can be used for multi-mission purposes, allowing governments to make a singular acquisition to meet their diverse needs. Bombardier's in-house engineering experts offer greater flexibility for clients to receive a customized solution for their mission needs. This tailored solution is achieved by working with end users and with mission system providers in a highly collaborative manner. Bombardier Defense also offers the maintenance support of a vast aftermarket network, which offers a strategic operational advantage to governments and militaries. The versatility and availability of skilled workers, accessibility of spare parts from strategically located parts depots and service centers, line maintenance and mobile response teams, as well as the ability to return aircraft to service quickly after repair, all play a significant role when choosing a platform that will create the next-generation fleet for ISR missions. An operator's ability to rely on Bombardier's extensive maintenance infrastructure worldwide is a considerable asset in the current contested environment.

Combining all these different elements, Bombardier's Global 6500 aircraft was chosen to support the HADES program and will serve to enhance the U.S. Army's deep sensing capabilities when deployed for prototype testing in the coming year. These capabilities provide increased collection abilities to Theater Army Service Component Commanders (ASCCs), joint partners, and allies – ultimately aligning with the 2022 National Defense Strategy (NDS) by aiding in "building a resilient Joint Force."

Previous U.S. Army initiatives that have led to the HADES program of record include: ARTEMIS – Aerial Reconnaissance & Targeting Exploitation Multi-Mission Intelligence System; ARES – Airborne Reconnaissance & Electronic Warfare System; ATHENA-R – Army's Theater-Level, High-Altitude Expeditionary Next Airborne Intelligence, Surveillance and Reconnaissance-Radar; and ATHENA-S – Army Theater-Level High-Altitude Expeditionary Next Airborne Intelligence, Surveillance and Reconnaissance-Signals.

These initiatives are not the first time Bombardier aircraft were selected as the platform of choice by the U.S. military. Bombardier is a long-time partner to the U.S. Air Force (USAF), which currently operates eight modified Global aircraft for the Battlefield Airborne Communications Node (BACN) program - a specialized communications aircraft, known in the USAF as the E-11A. Bombardier's multi-year agreement with the Air Force supports a distinctive and reliable airborne communications platform that is essential for completing critical missions across air, space, land and sea. Dubbed "Wi-Fi in the sky" by the USAF, BACN-equipped Global aircraft are high-altitude communications gateways that can be used around the world, relaying or bridging voice and tactical data between air and land forces, and surmounting obstacles such as mountains, rough terrain or distance.

Bombardier Defense platforms are agile and rapidly reconfigurable. The company leverages a team of world-class engineers in Wichita, KS, and across North America, who pride themselves on being solution-oriented, with the ability to tailor a platform to any customer requirements. These solutions are matched with continuous investment in product upgrades to ensure the reliability, availability and capability of its aircraft.

From securing national airspace, borders, and infrastructure, to providing urgent humanitarian assistance or supporting mobility and sustainment needs of governments, Bombardier aircraft are built for the most rigorous missions. For decades, Bombardier Defense has provided industry-leading, curated solutions for the most demanding missions of governments and military contractors worldwide – and it will continue to do so by innovating and expanding capabilities that solidify Bombardier Defense's position as a global aviation leader.

Mr. Steve Patrick is vice president of Bombardier Defense.





## **Special Focus** > Industry Support & Challenges Robertson Fuel Systems, L.L.C.

By Mr. Robert H. "Chip" Lunn and Mr. Jeffrey Bracken

**R** obertson Fuel Systems, L.L.C. a HEICO Company, of Tempe, Arizona is the world leader in the design, development, production, and sustainment of crashworthy, self-sealing, ballistically tolerant fuel systems. The company's fuel containment technology, experience, and capability in fuel systems integration make it a combat multiplier for mission commanders.

Robertson has a 48+ year history of producing crashworthy self-sealing fuel systems that are safe and reliable. The concept behind Robertson's technology is to contain the fuel in ballistic, crash, blast and fragmentation events thus saving lives by preventing fuel fed fires. If the event is humanly survivable, Robertson's commitment to its customers is that "no crew member will perish in a post event fire." This approach has proven effective in limiting the loss of life and catastrophic aircraft damage since the introduction of Robertson products to market. By providing crashworthy, ballistically tolerant, and self-sealing capabilities to contain the fuel, precluding fires and the losses they create, Robertson enhances aircrew and aircraft survivability. This technology applica-



AH-64 Combo-Pak Internal Auxiliary Fuel System



AH-64 Crashworthy Lightweight Wet Wing System (CLAWWS) – under development.



Survivable aircraft crashes with Robertson Fuel System Solutions onboard (no leakage or post-crash fires).

tion has essentially eliminated thermal injuries and deaths in U.S. military and civilian helicopters. Robertson customers procure a solution, not just a product.

#### Robertson's Business Methodology

Robertson neither solicits nor accepts development funding. Every development of a new system is at Robertson's expense and risk. Buyers receive Limited Rights within the meaning of the FAR, and all systems are sold at firm fixed prices. Thus, the buyer of a new Robertson system, whether an OEM, reseller, or end user, never bears any risk of development cost overruns. Nor do those customers bear the cost of tracking costs as Robertson operates as a Non-Traditional Defense Contractor within the meaning for DFAR 252.215-7013.

#### Why Robertson

As the leading producer of crashworthy and crash resistant, ballistically tolerant aviation fuel systems in the world, Robertson supplies every U.S. military service, the Department of State, the U.S. Department of Homeland Security, civil users and most U.S. allies with one or more auxiliary fuel systems for each of the following families of aircraft: H-60s, AH-64s, CH-47s, CH-53s, V-22s, AH/MH-6s, UH-1s, BT-67s, EH101s,

SA330s, W3A Sokols, Surion variants, MD500/600, AS350, and the Shadow UAS. Robertson products have logged millions of flight hours in these and other aircraft, including in extensive combat operations. The systems have proved reliable, durable, and easy to install and maintain. Robertson's products give combatant commanders the flexibility to choose the right solution for the right mission. Robertson is proud to say that, despite numerous battle losses of aircraft carrying Robertson tanks, not one crew member or passenger has ever died due to fire involving fuel leakage from a Robertson tank.

Safe and reliable extended range auxiliary fuel solutions ensure aircraft can traverse the battlefield safely and across vast distances without the need to establish FARPS to refuel the Army's aviation assets; removing the inherent risk of unnecessarily placing soldiers with security on the ground in combat environments. Domestically, lessons learned from disaster and humanitarian relief efforts - including hurricanes Milton, Helene, Katrina, Ike, Super Storm Sandy, and flooding in the Midwest, Texas, North Carolina, and West Virginia - highlight the critical need for extended range and endurance for U.S. Army helicopters performing rescue, law enforcement, homeland security, aerial lift, and many other Homeland Security and Disaster Relief missions.

The capability to carry auxiliary fuel that is crashworthy and self-sealing provides the mission commander the flexibility to cover great distances, while maintaining the highest standard of survivability inherent in crashworthy auxiliary fuel systems. Operating extended range auxiliary fuel solutions ensures that the Army's aviation assets can travel great distances without the need to stop for additional refueling.

#### What's Available

These advanced fuel solutions are already in production for the UH-60, CH-47, and AH-64.

For the UH-60, crewmembers can operate either the Internal Auxiliary Fuel Tank System (IAFTS) or the Crashworthy External Fuel System (CEFS). Although CEFS is a great solution for self-deployment, it is often not the choice auxiliary fuel solution in a combat environment, as it limits the use of the door gun. However, a solution that is under development is the Conformal Auxiliary Fuel System (CAFS), which is a high wing snap-in replacement tank mounting in place of the CEFS wing once removed. See more on CAFS in the development section below.

For the Chinook, the Army has

fielded ERFS II to the entire fleet of CH-47s. Additionally, the Reduced Size Extended Range Fuel System (RSERFS) is a 515-gallon variant, sharing about 90 percent parts commonality with ERFS II, but 20 inches narrower, allowing adjacent seating to the fuel tank and a wider aisle space for greater material or PAX carriage.

While the Combo-Pak is now a standard piece of equipment for all of the U.S. Army's Apaches, the Reduced Size External Fuel System (RSEFS) is an external tank, which allows concurrent operation with the Combo-Pak for self-deployment activities or can be used in place of Combo-Pak for auxiliary fuel needs, if missions dictate a full complement of 1200 rounds of 30 mm ammunition.

Typically, international customers operating the UH-60, AH-64, and CH-47 operate the same auxiliary fuel solutions available to the U.S. operators.

#### What's Next

Robertson relentlessly pursues new fuel system solutions to serve as tools in the Mission Commander's toolbox. Robertson has initiated the development of two additional auxiliary fuel system solutions for US Army rotorcraft to include a Conformal Auxiliary Fuel System (CAFS) for the UH-60 and a Crashworthy Lightweight Wet Wing System (CLAWWS) for the AH-64.

The CAFS is a conformal auxiliary fuel system that secures to the Black Hawk using the same provisions as the ESSS (wings) system. Each CAFS tank provides 100 gallons of usable fuel to the UH-60 for extended range and endurance. It is crashworthy, selfsealing and single point pressure refuelable simultaneously with the primary fuel system. It permits full use of the door gun and FRIES bar and exhibits far less drag than the ESSS wing with external fuel tanks.

Since 1976, Robertson has pursued company-funded research to design, develop, deliver and sustain fuel containment systems that enhance aviator survivability. Modeled after its founder, Dr. S. Harry Robertson, the company's passion for saving lives continues today with increasing ambition for the future.

Mr. Robert H. (Chip) Lunn is the VP for Programs and Marketing, and Mr. Jeffrey Bracken the Chief Technology Officer/VP Engineering at Robertson Fuel Systems, LLC.



## ARKA Survivability Begins Here

# Active Protection starts with Laser Detection

. . . . .

#### ARKA.org

### Special Focus > Industry Support & Challenges

## Red Cat Leads the Future of Small Drones for the Modern Warfighter

By George Matus

n 2006, the Federal Aviation Administration (FAA) authorized the first use of unmanned aerial vehicles (UAVs) in commercial airspace following the emergency response in New Orleans post-Hurricane Katrina. For much of the public, this was their first exposure to drones as a tool for image surveillance and disaster response.

Though the technology was not new, this federal approval popularized UAVs' commercial use, bringing drones' myriad uses into the mainstream. In the decade after, as the conversation about drones boomed, so did domestic and international drone production.

At the same time, the military's use of drones was also evolving. The changing needs of the warfighter necessitated smaller, lighter, low cost, rucksack portable aircraft that were capable of moving data across the battlefield at the squad and platoon level. The FAA's approval of UAVs in commercial airspace in 2006 set the stage for a decade of innovation, with the military's expanding needs driving industry advancements in the following years.

#### The Changing Nature of Warfare

Historically, there is a long evolution of drones used in conflicts leading up to the current use of sUAS on the battlefield. This dates to the early 1980s and 1990s when the CIA and Pentagon began experimenting with unmanned ISR drones. This led to the development of large-scale aircraft (Predator, Reaper) for aerial reconnaissance but also eventually for lethal strike capabilities with Hellfire missiles. These drones saw combat in Afghanistan, Iraq, Syria, Somalia and other countries.

The next wave of innovation as drones began to get smaller and lower-cost saw systems like AeroVironment's fixed wing, 4 pound, RQ-11 Raven, introduced in 2003. This was a game changer for the battlefield at the time in the Middle East at the company level. These systems paved the way for even smaller systems such as Red Cat's Black Widow, that can



Red Cat's Black Widow

be deployed to smaller echelons such as the squad and platoon level.

In late 2018, the U.S. Army launched its Short-Range Reconnaissance (SRR) program of record, specifically focused on equipping Soldiers with small, portable unmanned aircraft systems (UAS) that provide real-time situational awareness on the battlefield. These drones enhance reconnaissance and surveillance capabilities at the platoon level, enabling warfighters to conduct operations beyond the line of sight and in complex terrains. The SRR Program is the first major DoD sUAS program being fulfilled via the Blue UAS pipeline, as a part of the Army's ongoing UAS Realignment effort.

Adding to the mix, Russia's 2022 invasion of Ukraine and the ongoing war has brought the use of small drones in warfare into sharp relief. Drones, including FPV (first personview) systems built in garages have become a vital weapon for Ukrainian forces in asymmetrical warfare, with small, cheap drones taking out Russian tanks, troop positions and other largescale weapons. The Ukrainian counter offensive has uncovered a lot of lessons for the use of sUAS in war, especially as adversaries employ EW (electronic warfare) as a tactic to disable drones.

To address the rapidly changing world and a way to counter the growing threat of China, the Department of Defense (DoD) launched the Replicator initiative in August 2023. According to the DoD, the first phase of Replicator "focused on fielding thousands of autonomous systems across multiple domains within the next 18 to 24 months, as part of the Pentagon's strategy to counter China's rapid armed forces buildup."

#### Answering the Call

Keen to meet the evolving needs of the warfighter, drone technology company Red Cat has been focused on its participation as an SRR finalist. Teal Drones is one of two companies, down selected from an original 37, competing for a multi-year program of record to supply Short Range Reconnaissance drones to the U.S. Army.

The company has spent the past
several years innovating on its flagship Teal 2 drone to meet the requirements of SRR. A lot of these needs align with the Army Aviation's UAS concept at echelon, where SRR is one aspect of an integrated UAS across formations in a combined arms fight that is synchronized with fires and maneuver across phases. It also included addressing lessons learned from EW in Ukraine.

While many of the core requirements have stayed the same over the years (rucksack portable ISR solutions), Red Cat has progressed through a variety of things including data links, increased on-board processing power, software, AI/autonomy, swarming capabilities, etc. to where these solutions are much more than just cameras in the sky.

At the AUSA Annual Meeting and Exposition, Red Cat unveiled its ARACHNID<sup>™</sup> family of unmanned intelligence, surveillance, and reconnaissance (ISR) and precision strike systems. Specifically aligned with the SRR Tranche 2 requirements, Red Cat and Teal built the Black Widow drone – a successor to Teal 2 – to be a highly capable, rucksack portable sUAS designed specifically for operation in electronic warfare environments. With a modular architecture it enables swift adaptation to mission requirements including short range reconnaissance and secondary payload operation. The system is purpose built for the warfighter, manufactured in the USA, and made to increase survivability and warfighter safety.

#### **A New Path Forward**

In line with the Replicator Program (including Replicator 2), the ARACHNID<sup>™</sup> family of systems also includes drones to support the needs of medium-range reconnaissance and persistent strike systems. Beyond Black Widow, Red Cat is accelerating the development of its FANG<sup>™</sup> line of First-Person View (FPV) drones. Future product roadmaps also include TRICHON<sup>™</sup>, which will build upon the FlightWave Edge 130 Blue, a military-grade VTOL tricopter for medium-range mapping, intelligence, surveillance, and reconnaissance. This will also enable Red Cat's potential support for MRR and LRR (medium and long-range reconnaissance).

After five laborious years committed to exceed the US Army's expectations, Red Cat's work is not done. Success in today's conflicts hinges on how quickly information moves across the battlefield. With future needs in mind, Red Cat has created the Futures Initiative—an independent, industry-wide consortium of robotics and autonomous systems partners dedicated to putting the most advanced and interoperable uncrewed aircraft systems into the hands of warfighters.

Early supporters and founding members include Ocean Power Technologies, Sentien Robotics, Primordial Labs, Athena AI, Unusual Machines, Reach Power, and MMS Products. Together, they share a single goal of advocacy, integration and co-marketing that bridge existing technology gaps through modular open architecture.

In just more than five years, the innovation in the American drone industry is impressive. As geopolitical tensions rise, Red Cat is driven by one mission: to deliver advanced, reliable drone technology that keeps warfighters safe, empowers tactical decisionmaking, and supports U.S. military leadership on the global stage.

Mr. George Matus is the chief technology officer for Red Cat Holdings and is based in San Juan, Puerto Rico.







**ARMY AVIATION** Magazine's Industry Partners Directory is a paid advertising section of ARMY AVIATION's world-wide, year-round reference for individuals and organizations engaged in the overall field of U.S. Army Aviation. The organizations are listed by the following categories: Artificial Intelligence, Associations, Consulting/Special Services, Educational, Fixed Wing, Launched Effects, Maintenance/ Product Overhaul, Manufacturing, Training/Simulation, Unmanned Aircraft Systems, and Other Services. This year we are recognizing Companies that are current AAAA Members, Advertise in Army Aviation Magazine and donate to the Scholarship Foundation. Thank you for your continued support!

Any firm that wishes to be included in next year's Industry Partners Directory should contact Erika Burgess at Army Aviation Publications, Inc.; Telephone: (203) 268-2450 or email: erika@quad-a.org

#### **Artificial Intelligence**

#### Arete arete.com

★ AAAA Member ★ Magazine Advertiser ★



Areté is an advanced science and engineering company that provides innovative solutions — from scientific discovery through production. Areté's smart systems include active and passive sensors, real-time processing, software, and complex algorithms that operate from seafloor to space.

#### Jay Rouse

Director Corporate Business Development 3130 Fairview Park Drive Falls Church, VA 22042 jrouse@arete.com

Jason Seely Sr. Program Manager Terrestrial Systems 6450 Dry Creek Pkwy Niwot, CO 80503 jseely@arete.com

### **Greenwood Aerospace**

Greenwood.aero



Greenwood Aerospace is a HubZone Native American trusted partner to the U.S. Government and its allies. We offer customized Integrated Solutions based on program and mission-specific needs.

Mr. Heath Wallis Director of Government Business 1701 Sykes Blvd Ponca City, OK 74601 (580) 352-7285 heathw@greenwood.aero

#### **Strategic Technology Consulting (STC)** https://stc.arcfield.com/



STC was founded to do systems engineering differently. Every day, we realize the power of formalized modeling to comprehend complexity, increase understanding and inform decision-making. Our expert team of model-based systems engineering (MBSE), and digital engineering (DE) practitioners are working tirelessly to ensure the success of advanced government and commercial systems through a premier set of services and solutions.



Mr. Daniel Reineke President & GM 14295 Park Meadow Drive, Suite 100 Chantilly, VA 20151 (337) 517-2155 daniel.reineke@arcfield.com



Mr. Eli Wilson VP, Corporate Consulting & Growth 14295 Park Meadow Drive, Suite 100 Chantilly, VA 20151 (337) 517-2155 eli.wilson@arcfield.com



Mr. Bryan T. Woody Director for U.S. Army Strategic Programs 411 Austinville Flint Rd. SW Decatur, AL 35603 (337) 517-2155 bryan.woody@arcfield.com

### Associations

#### Army Aviation Museum Foundation & Gift Shop

www.armyaviationmuseum.org



The Foundation & Gift Shop is a non-profit organization supporting the Army Aviation Museum in Fort Novosel, AL. Our mission is to foster and perpetuate the Museum as a medium of informing and educating the public on the importance of US Army Aviation. Foundation support is provided through restoration and upkeep of the Museum's aircraft, artifacts and collections. ~Preserving the Past for the Future.

Mrs. Leah Dunkle Executive Coordinator P. O. Box 620610, Fort Novosel, AL 36362 (334) 598-2508 aamfcoordinator@gmail.com Mrs. Joan Varner Gift Shop Manager (334) 598-9465 shop@armyaviationmuseum.org

### Consulting

Bihrle Applied Research Inc.



Bihrle Applied Research Inc. is an innovative aeronautical research & development company providing fixed-wing and rotary-wing data, software solutions, and Subject Matter Expertise in the areas of aerodynamics, flight dynamics, and flight simulation.

Mr. Brian Wachter SVP 81 Research Drive Hampton, VA 23666 (757) 327-4409 bwachter@bihrle.com

Mr. Nathan Graybeal Director, Simulation Technology 81 Research Drive Hampton, VA 23666 (757) 327-4386 ngraybeal@bihrle.com

### Cruz Associates, Inc.



Cruz is a family-owned small business headquartered in Yorktown, Virginia with over 27 years of experience providing extensive aviation, ordnance, and engineering support services to the United States Army and Navy.



Eric Cruz President 6515 Geo Wash Memorial Hwy, Ste 209 Yorktown, VA 23692 (757) 833-7538 eric.cruz@cruzinc.us

Greg Stewart Vice President, Operations 6515 Geo Wash Memorial Hwy, Ste 209 Yorktown, VA 23692 (757) 833-7538 greg.stewart@cruzinc.us

Brian Thompson Vice President, Military Programs 6515 Geo Wash Memorial Hwy, Ste 209 Yorktown, VA 23692 (757) 833-7538 brian.thompson@cruzinc.us

Mac Cornish Director, DoD Acquisitions 6515 Geo Wash Memorial Hwy, Ste 209 Yorktown, VA 23692 (757) 833-7538 mac.cornish@cruzinc.us

INTUITIVE https://irtc-hq.com/



INTUITIVE<sup>®</sup> is an engineering and analysis firm that provides production support, product development, rapid prototyping, and technology management throughout all phases of the system's life cycle.

Mrs. Vergenia Shelton President and CEO 5030 Bradford Drive NW Bldg. 2, Suite 205 Huntsville, AL 35805 (256) 922-9300 vergenia.shelton@irtc-hq.com

Mr. Michael Bieri Senior Vice President of Huntsville Operations 5030 Bradford Drive NW Bldg. 2, Suite 205 Huntsville, AL 35805 (256) 922-9300 michael.bieri@irtc-hq.com

Myles Associates www.myles-associates.com



Myles Associates provides strategic insights, guidance, and assistance to key clients supporting U.S. national security interests.



MG James R. Myles,USA, Ret. President (256) 665-3620 James.Myles@Myles-Associates.com



Ms. Brenda Bates Director, Government & Business Relations (256) 604-8446 Brenda.Bates@Myles-Associates.com

### Navigator Development Group Inc.

www.ndgi.com



Founded in 1997, Navigator Development Group Inc. is an SBA certified Service-Disabled Veteran-Owned Small Business providing contract support to DoD agencies across the Aviation, Training and Technology domains.



Mr. Keith Gay Owner/CEO 116 S Main St Enterprise, AL36330 (334) 347-7612 kgay@ndgi.com



Mr. James Moentmann President 6767 Old Madison Pike, Bld 2, Ste 200 Huntsville, AL 35806 (256) 489-3372 jmoentmann@ndgi.com

Mr. Robert Hutson Executive Vice President 116 S Main St Enterprise, AL 36330 (334) 347-7612 rhutson@ndgi.com

### Peduzzi Associates, Ltd.

www.peduzziassociates.com



Peduzzi Associates, Ltd. (PAL) is a premier consulting firm specializing in expanding business opportunities for clients and partners by promoting products and government services with the Department of Defense, National Guard, Federal Agencies, and on Capitol Hill. For over 29 years, PAL has successfully assisted companies achieve their business development goals through a combination of Innovative Strategies, Unparalleled Access, and Fierce Advocacy.



Maj Gen Garry Dean Ret. President 1920 Ballenger Avenue, Suite 324 Alexandria, VA 22314 (703) 859-0514 garry.dean@peduzziassociates.com



COL Dudley Capps Ret. Director, Aviation & Joint Programs 1920 Ballenger Avenue, Suite 32 Alexandria, VA 22314 (904) 813-4174 dudley.capps@peduzziassociates.com

### PeopleTec

WWW.peopletec.com \* AAAA Member \* Magazine Advertiser \*



PeopleTec specializes in Systems Engineering, Integration & Test, HW/SW Development, Cybersecurity, Data Analysis,

Artificial Intelligence, AI-Powered Training and Simulation, and Innovative Business Intelligence (Rubix) including Train, Certify, Manage solution platform, delivering high-value engineering services to our DoD customers.



Joan Smith President 4901-I Corporate Drive Huntsville, AL 35805 (256) 319-3991 joan.smith@peopletec.com



Doug Barclay Sr. Vice President 4901-I Corporate Drive Huntsville, AL 35805 (256) 319-3804 doug.barclay@peopletec.com



Dennis Dunaway Vice President 4901-I Corporate Drive Huntsville, AL 35805 (256) 319-3857 dennis.dunaway@peopletec.com



Richard Crabtree Vice President 4901-I Corporate Drive Huntsville, AL 35805 (256) 319-3953 richard.crabtree@peopletec.com

### Science Applications International Corporation (SAIC) saic.com

**C** A 10

SAIC<sup>®</sup> is a technology integrator focused on advancing the power of technology and innovation. Headquartered in Reston, Virginia, the company has approximately 24,000 employees.



Greg Fortier Senior Vice President, Aviation, Fires, Intel & C2 6725 Odyssey Drive Huntsville, AL 35806 (910) 988-9220 gregory.s.fortier@saic.com



Billy Jackson Senior Director, Business Development 6725 Odyssey Drive Huntsvill, AL 35806 (256) 479-3024 william.d.jackson@saic.com



Billy Boykin Vice President, Software Development 6725 Odyssey Drive Huntsville, AL 35806 (256) 656-7488 john.w.boykin@saic.com



Michael Rigney Director, Business Development 6725 Odyssey Drive Huntsville, AL 35806 (256) 690-7827 michael.j.rigney@saic.com

#### STEI http://stei.tech/



- Corporate Strategy
- Commercial/Military Tech/Services Migration
- Innovation Planning and Implementation
- New/Repurposed Product/Service Strategy
- Aerospace/Transportaton/Energy/IT-Sim



H. Britt Bochiardy Principal Advisory 2026 Dodge Street Clearwater, FL 33760 (386) 679-2813 BBochiardy@stei.tech

### Educational

#### FSI Defense, A FlightSafety International Company

https://www.flightsafety.com/governmentmilitary/

Member  $\star$  Magazine Advertiser  $\star$  Scholarship Donor  $\star$ 



FSI Defense is a wholly-owned subsidiary of FlightSafety International providing fixed and rotor-wing training and aircrew instruction to the U.S. Army, Air Force, Navy, Marine Corps, Coast Guard and international defense customers.



#### Mr. Whitney Gardner **Business Development Manager** (808) 397-0112 Whitney.Gardner@flightsafety.com

#### Sikorsky, A Lockheed Martin Company https://www.lockheedmartin.com/en-us/ capabilities/sikorsky.html





Mr. Jav Macklin Director, Army and Air Force (AAFS) Strategy & Business Development (256) 327-5311 jay.r.macklin@lmco.com



David "Rum" Morgan Air Force Business Development (202) 863-3291 david.a.morgan@lmco.com



Matthew Isaacson Sikorsky UH-60 Foreign Military Sales Business Development (256) 326-6912 matthew.i.isaacson@lmco.com



Rav Gentzvel Sr. Manager, Strategy and Business Development (334) 503-9664 ray.d.gentzyel@lmco.com



Aida Stallings Sikorsky Customer Awards Program Manager (334) 503-9664



aida.l.stallings@lmco.com

Mike Mudd Strategy & Business Development (813) 503-1926 mike.g.mudd@lmco.com

### **Fixed Wing**

### Amentum

https://www.amentum.com/armv/ AAA Member 🗙 Magazine Advertiser 🛧 Scholarship Donor 🗙



Amentum's team of aviation professionals delivers system integration and modernization, maintenance, sustainment, logistics, training, and technical solutions worldwide. We provide innovative, cost-effective aviation capabilities, creating enduring value for our customers.

Mr. Joe D. Dunaway President, Executive Operations, Missions Solutions 8910 Astronaut Blvd, Ste 300, Cape Canaveral, FL 32920 (321) 216-2407 Joe.Dunaway@amentum.com

Mr. Rick Crogan SVP-Operations, Army & Special Programs - Aviation, **Missions Solutions** 310 Bridge Street, Suite 400, Huntsville, AL 35806 (321) 405-7418 Rick.Crogan@amentum.com

Mr. Ken J. Kliethermes VP, Army Aviation Programs, Mission Solutions 13500 Heritage Parkway Fort Worth, TX 76177 (682) 328-8722 Ken.Kliethermes@amentum.com

**Blackhawk Aerospace Solutions** https://www.blackhawk.aero/governmentoverview/

AAAA Member 🗙 Scholarship Donor 📩



Blackhawk Aerospace Solutions brings together a powerful mix of capabilities and experience to serve as a singlesource provider of comprehensive PT6 engine performance and maintenance solutions for government and military customers. Blackhawk Aerospace Solutions is AS-9100 Rev D certified with a long-standing tradition of customer service and support.

Dr. Pete Franks President of Army Programs 7601 Karl May Dr. Waco, TX 76708 pete.franks@blackhawk.aero

#### **Bombardier Defense**

https://defense.bombardier.com/en

## **Bombardier** Defense

Bombardier Defense provides specialized aircraft for global militaries, excelling in ISR, multi-role, and logistics transport, with customizable services to meet specific requirements.

Mr. Michael Calderone **Regional Vice President of Sales** 1275 Pennsylvania Avenue, NW-Suite 410 Washington D.C 20004 (469) 651-4438 michael.calderone@aero.bombardier.com

Mr. Winfield Adkins **Director, Specialized Mission Aircraft** 1275 Pennsylvania Avenue, NW-Suite 410 Washington D.C 20004 (771) 201-2198 winfield.adkins2@aero.bombardier.com

### **CAE USA**

https://www.cae.com/defense-security/ AAAA Member + Scholarship Dono



At CAE, we equip people in critical roles with the expertise to create a safer world. As a technology company, we digitalize the physical world, deploying simulation training and critical operations support solutions.



Merrill Stoddard **Division President, CAE Defense &** Security, USA 5004 Air Cargo Rd. Tampa, FL 33614 Merrill.Stoddard@caemilusa.com



Bunky Litaker Director, US Army & Special Operations **Business Development & Strategy** 5004 Air Cargo Rd. Tampa, FL 33614 (813) 205-5461 Bunky.Litaker@caemilusa.com

### **Essex Industries**

www.essexindustries.com AAAA Member 🛧 Scholarship Donor ★



Essex Industries supplies complex aircraft components, electromechanical assemblies, HMI controls, liquid oxygen systems, and emergency breathing equipment. Specializing in custom manufacturing for advanced aircraft platforms, retrofits, and maintenance programs.

Robert Hale Business Segment Manager 7700 Gravois Road St. Louis, MO 63123 (314) 243-5006 rhale@essexind.com

Corey Waldman VP of Business Development 7700 Gravois Road St. Louis, M0 63123 (314) 338-8791 cwaldman@essexind.com

#### General Atomics Aeronautical Systems, Inc. (GA-ASI) https://www.ga-asi.com/

AAAA Member & Scholarship Donor



GA-ASI produces world-leading UAS, including MQ-9A Reaper®, MQ-9B SkyGuardian® and SeaGuardian®, MQ-1C Gray Eagle, and next-gen solutions like Gray Eagle STOL that makes takeoff and landing capability from unimproved surfaces a reality.

Christopher MacFarland Senior VP, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (858) 688-4251 Christopher.MacFarland@ga-asi.com

Mathieu Petraitis Senior Manager, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (256) 503-3328 Mathieu.Petraitis@ga-asi.com

Denny Winningham Director, Army National Guard Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (202) 496-8229 Denny.Winningham@ga-asi.com

Jordan Ramrus Technical Advisor 14200 Kirkham Way Poway, CA 92064 (858) 312-2681 Jordan.Ramrus@ga-asi.com

**Greenwood Aerospace** 

Greenwood.aero \* AAAA Member \* Magazine Advertiser \*



Greenwood Aerospace is a HubZone Native American trusted partner to the U.S. Government and its allies. We offer customized Integrated Solutions based on program and mission-specific needs.

Mr. Heath Wallis Director of Government Business 1701 Sykes Blvd Ponca City, OK 74601 (580) 352-7285 heathw@greenwood.aero

#### Liquid Measurement Systems, Inc. www.liquidmeasurement.com

**Y** LMS

LMS serves the commercial and military aerospace market with over 30 years of engineering expertise in fuel quantity gauging solutions. It specializes in experimental aircraft, life cycle extensions, and upgrades for legacy platforms, as well as offering subject matter expertise with hybrid electric and unmanned solutions.



Mr. Gregory Maguire Director of Business Strategy 141 Morse Drive Fairfax, VT 05454 (802) 309-5624 gregory.maguire@liquidmeasurement.com

M So -14 Fa (8)

Mr. David Baczewski Senior Business Development Specialist - Military 141 Morse Drive Fairfax, VT 05454 (802) 393-3856

david.baczewski@liquidmeasurement.com

Moog Inc. https://www.moog.com/



AAAA Member

Moog is a worldwide designer and manufacturer, with a global sustainment program, of MOSA flight control systems, avionics, weapon SMS, DRL, slip rings, flight simulators for military and commercial aircraft.

Paul Rignel Defense Sustainment Director 500 Jamison Rd. East Aurora, NY 14052 (716) 393-7861 prignel@moog.com

Pedro Ramos Business Development Manager & Special programs 7455 Emerald Dunes Drive, Suite 2200 Orlando, FL 32822 (912) 341-3188 Pramos2@moog.com

Phil Wray Director Business Unit, Military Global Sustainment 160 Jamison Road Elma, NY 14059 (716) 309-8568 pwray@moog.com

Jeff Markel Director, Sustaining Engineering and Modernization 160 Jamison Road Elma, NY 14059 (716) 725-4874 jmarkel@moog.com

Andrew Kress Site Sales Manager, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4169 akress2@moog.com Kim Jackson

Business Development Director, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4725 kjackson2@moog.com

### **SAFE Structure Designs**

www.SAFE-2.com \* AAAA Member \* Magazine Advertiser \*



SAFE Structure is a leader in the design, engineering and manufacturing of creative and customizable solutions for just about any project. Our custom design process for your project is completely free so why not give us a try!

John Bass Project & Product Director (817) 980-2922 Jbass@SAFE-2.com

Garry Bass MIL & OGA Operations (256) 631-7330 Garry@SAFE-2.com

Johnny Buscema President & CEO (727) 809-1146 Johnny@SAFE-2.com

Science and Engineering Services, LLC

www.ses-i.com



An industry leader in the modification and integration of rotary and fixed wing platforms, aviation training, maintenance and sustainment. SES offers a turnkey solution with a full spectrum approach that delivers the highest quality products to our customers.



Mr. Ralph Pallotta Chief Executive Officer 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-5000 Ralph.pallotta@ses-i.com



Mr. Brad Killen Chief Operating Officer 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-0770 brad.killen@ses-i.mail



Mr. Skip Sherrell Vice President, Business Development 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-3992 skip.sherrell@ses-i.com

Teledyne FLIR www.teledyneflir.com



Teledyne FLIR Defense provides mission-critical technology and systems to the U.S. government and allied nations. Our wide array of defense solutions include mission-focused airborne surveillance and targeting gimbals and UAVs.



Mr. Dave Salter Director of Business Development 7055 Troy Hill Dr. Suite 300 Elkridge, MD 21075 (202) 227-0928 david.salter@teledyne.com

#### Tyonek Native Corporation www.tyonek.com

\* AAAA Member \* Magazine Advertiser



Tyonek's portfolio of companies has extensive infrastructure and resources to maintain and support weapon systems and associated components vital to Army Aviation's critical mission.

Mr. Paul Stein President, Tyonek Services Group 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 pstein@tyonek.com

Mr. Todd White President, Tyonek Manufacturing Group 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 twhite@tyonek.com

Mr. Joe Webb Vice President of Business Development 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 jwebb@tyonek.com

Mr. Ben Morgan Business Development Manager 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 blmorgan@tyonek.com

Mr. Steve Tatman Business Development Manager 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 statman@tyonek.com

### Launched Effects

Collins Aerospace, an RTX Business https://www.collinsaerospace.com/



Collins Aerospace, an RTX Business, is a leader in technologically advanced and intelligent solutions for aerospace and defense, helping to make the warfighter safer and more capable than ever before.



John Esposito Vice President, Strategic Pursuits Windsor Locks, CT (860) 478-3112 John.esposito@collins.com





Chet Treloar Director, Strategic Pursuits Lithia, FL (319) 651-2656 Chester.treloar@collins.com





Erik Gilbert Senior Manager, Business Development-Military Rotary Wing Avionics Huntsville, AL (931) 307-6704 Erik.gilbert@collins.com

Ryan Scoble Senior Manager, Business Development-Military Rotary Wing Avionics & MOSA Huntsville, AL (256) 430-4842 Thomas.scoble@collins.com

George Johnson Military Business Development Manager, Hoist and Winch Ft. Novosel, AL (334) 379-2430 George.johnson@collins.com



DeWayne Rittenhouse Associate Director, Business Development- Aerostructures Chula Vista, CA (612) 406-1081 Dewayne.rittenhouse@collins.com



Terry Truett Associate Director, Military Business Development – Interiors Ridgeway,SC (803) 900-0611 Terry.truett@collins.com



Chadwick Ford Associate Director, US Army and SOCOM-Connected Battlespace Implementation Huntsville, AL (843) 877-5500 Chadwick.ford@collins.com



Michael Cervone Director, Strategy and Business Development – Power & Controls Windsor Locks, CT (617) 413-4874 Michael.cervone@collins.com General Atomics Aeronautical Systems, Inc. (GA-ASI) https://www.ga-asi.com/

AAAA Member 🛧 Magazine Advertiser ★

GA-ASI produces world-leading UAS, including MQ-9A Reaper®, MQ-9B SkyGuardian® and SeaGuardian®, MQ-1C Gray Eagle, and next-gen solutions like Gray Eagle STOL that makes takeoff and landing capability from unimproved surfaces a reality.

Christopher MacFarland Senior VP, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (858) 688-4251 Christopher.MacFarland@ga-asi.com

Mathieu Petraitis Senior Manager, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (256) 503-3328 Mathieu.Petraitis@ga-asi.com

Denny Winningham Director, Army National Guard Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (202) 496-8229 Denny.Winningham@ga-asi.com

Jordan Ramrus Technical Advisor 14200 Kirkham Way Poway, CA 92064 (858) 312-2681 Jordan.Ramrus@ga-asi.com

#### Karman Space & Defense https://karman-sd.com/

× AAAA Member



Karman Space & Defense integrates industryleading technologies with comprehensive in-house engineering, design, analysis, testing, qualification, and manufacturing processes. Karman is headquartered in Huntington Beach, CA, with multiple facilities across the United States. Karman's system offerings encompass, Payload & Protection Systems, Aerodynamic Interstage Systems, and Propulsion & Launch Systems.



Mr. David Hendrickson Sr. Market Director - Tactical & Integrated Defense Systems (703) 946-1156 david.hendrickson@karman-sd.com

Moog Inc. https://www.moog.com/



Moog is a worldwide designer and manufacturer, with a global sustainment program, of MOSA flight control

systems, avionics, weapon SMS, DRL, slip rings, flight simulators for military and commercial aircraft.

Paul Rignel Defense Sustainment Director 500 Jamison Rd. East Aurora, NY 14052 (716) 393-7861 prignel@moog.com

Pedro Ramos Business Development Manager & Special programs 7455 Emerald Dunes Drive, Suite 2200 Orlando, FL 32822 (912) 341-3188 Pramos2@moog.com

Phil Wray Director Business Unit, Military Global Sustainment 160 Jamison Road Elma, NY 14059 (716) 309-8568 pwray@moog.com

Jeff Markel Director, Sustaining Engineering and Modernization 160 Jamison Road Elma, NY 14059 (716) 725-4874 jmarkel@moog.com

Andrew Kress Site Sales Manager, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4169 akress2@moog.com

Kim Jackson Business Development Director, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4725 kjackson2@moog.com

### Maintenance

#### Ace Aeronautics, LLC www.aceaero.com



ΔΔΔΔ Member

Ace Aeronautics provides innovative long-term airframe and avionic solutions to commercial and government aviation users worldwide. Ace's off-the-shelf products for rotary wing aircraft provide state-of-the-art solutions to resolve obsolescence.

Rich Enderle CEO 105 Buck Island Road Guntersville, AL 35976 (256) 698-6992 renderle@aceaero.com

Bob Caldwell Executive Vice President (302) 300-5262 bcaldwell@aceaero.com

Kerry Brunson Executive Vice President (256) 508-2015 kbrunson@aceaero.com Mike Tremlett Vice President of Business Development (334) 470-7595 mtremlett@aceaero.com

### Amentum

https://www.amentum.com/army/



Amentum's team of aviation professionals delivers system integration and modernization, maintenance, sustainment, logistics, training, and technical solutions worldwide. We provide innovative, cost-effective aviation capabilities, creating enduring value for our customers.

Mr. Joe D. Dunaway President, Executive Operations, Missions Solutions 8910 Astronaut Blvd, Ste 300, Cape Canaveral, FL 32920 (321) 216-2407 Joe.Dunaway@amentum.com

Mr. Rick Crogan SVP-Operations, Army & Special Programs - Aviation, Missions Solutions 310 Bridge Street, Suite 400, Huntsville, AL 35806 (321) 405-7418 Rick.Crogan@amentum.com

Mr. Ken J. Kliethermes VP, Army Aviation Programs, Mission Solutions 13500 Heritage Parkway Fort Worth, TX 76177 (682) 328-8722 Ken.Kliethermes@amentum.com

Aviation Blade Services, Inc. https://www.absblade.com/



First Aviation Services Lect Aviation Blade Services, Inc. is a world leader in Rotor Blade Repair for UH-60 Black Hawk as well as many Sikorsky, Airbus, Leonardo and Bell helicopter platforms.

Mr. John Brennan General Manager 3969 Merlin Drive Kissimmee, FL 34741 (407) 846-6780 jbrennan@absblade.com

Coastal Seat Cushions Inc. WWW.CoastalSeatCushions.com



Upgraded Seat Cushions for Pilot/Copilot for H-60, AH-64, CH-47, and OH-6. AWR Approved! Also Upgraded Products for HGU-56P Helmets Including Zetaliner Helmet Liners, Ear Seals and Hush Kits.

Bill Irvine President 183 NE Royce Ave. Port St Lucie, FL 34983 Sales@CoastalSeatCushions.com

### **Collins Aerospace, an RTX Business**



Collins Aerospace, an RTX Business, is a leader in technologically advanced and intelligent solutions for aerospace and defense, helping to make the warfighter safer and more capable than ever before.



John Esposito Vice President, Strategic Pursuits Windsor Locks, CT (860) 478-3112 John.esposito@collins.com



Fred Manzo Director, Army Programs Arlington, VA (571) 982-2632 Fred.manzo@collins.com



Chet Treloar Director, Strategic Pursuits Lithia, FL (319) 651-2656 Chester.treloar@collins.com



Luke Schmidt Senior Director, Military Avionics & Helicopters Charlotte, NC (704) 430-1000 Luke.schmidt@collins.com



Erik Gilbert Senior Manager, Business Development-Military Rotary Wing Avionics Huntsville, AL (931) 307-6704 Erik.gilbert@collins.com



Ryan Scoble Senior Manager, Business Development-Military Rotary Wing Avionics & MOSA Huntsville, AL (256) 430-4842 Thomas.scoble@collins.com



George Johnson Military Business Development Manager, Hoist and Winch Ft. Novosel, AL (334) 379-2430 George.johnson@collins.com



DeWayne Rittenhouse Associate Director, Business Development- Aerostructures Chula Vista, CA (612) 406-1081 Dewayne.rittenhouse@collins.com



Terry Truett Associate Director, Military Business Development – Interiors Ridgeway,SC (803) 900-0611 Terry.truett@collins.co



Chadwick Ford Associate Director, US Army and SOCOM- Connected Battlespace Implementation Huntsville, AL (843) 877-5500 Chadwick.ford@collins.com



#### Michael Cervone

Director, Strategy and Business Development – Power & Controls Windsor Locks, CT (617) 413-4874 Michael.cervone@collins.com

#### Eclypse International Corporation www.eclypse.org

\* AAAA Member \* Magazine Advertiser \*



Eclypse is the manufacturer of the US military electrical testing standard known as the AWTS. Come by our booth and see our capability to automate and dramatically improve your mission readiness.



Chris Teal Marketing Director 341 S. Maple Street Corona, CA 92878 (951) 317-0781 cteal@eclypse.org

Essex Industries www.essexindustries.com



Essex Industries supplies complex aircraft components, electromechanical assemblies, HMI controls, liquid oxygen systems, and emergency breathing equipment. Specializing in custom manufacturing for advanced aircraft platforms, retrofits, and maintenance programs.

Robert Hale Business Segment Manager 7700 Gravois Road St. Louis, MO 63123 (314) 243-5006 rhale@essexind.com

Corey Waldman VP of Business Development 7700 Gravois Road St. Louis, MO 63123 (314) 338-8791 cwaldman@essexind.com

## Fastening Systems International, Inc.



FSI is a leading manufacturer of Sheet Metal Mechanics and Composite Material Repair tool kits. Specializing in blind rivet tool kits featuring mechanical, hand hydraulic, air-hydraulic and 18v & 12v DC cordless operated riveters.



Mark Herand VP of Sales & Marketing 1206 E. MacArthur Street Sonoma, CA 95476 (707) 477-4430 mark@fsirivet.com



Nolund Kowalski Military/Aerospace Sales 1206 East MacArthur Street Sonoma, CA 95476 (405) 317-6336 nolund@fsirivet.com

#### FSI Defense, A FlightSafety International Company

https://www.flightsafety.com/governmentmilitary/

 $\star$  AAA Member  $\star$  Magazine Advertiser  $\star$  Scholarship Donor  $\star$ 



FSI Defense is a wholly-owned subsidiary of FlightSafety International providing fixed and rotor-wing training and aircrew instruction to the U.S. Army, Air Force, Navy, Marine Corps, Coast Guard and international defense customers.



Mr. Whitney Gardner Business Development Manager (808) 397-0112 Whitney.Gardner@flightsafety.com

Getac https://www.getac.com/us/



Getac is a global leader in rugged mobile technology, including laptops, tablets, and software solutions designed to support frontline workers in the most challenging environments.

Mr. Dante Conrad VP Sales 15495 Sand Canyon Ave., Suite 350 Irvine, CA 92618 (202) 550-5361 dante.conrad@getac.com

Greenwood Aerospace Greenwood.aero



Greenwood Aerospace is a HubZone Native American trusted partner to the U.S. Government and its allies. We offer customized Integrated Solutions based on program and mission-specific needs.

Mr. Heath Wallis Director of Government Business 1701 Sykes Blvd Ponca City, OK 74601 (580) 352-7285 heathw@greenwood.aero

### Leonardo Electronics US, Inc. https://www.leonardo.us/

AAAA Member X Magazine Advertiser



Leonardo Electronics US Inc. is a subsidiary of Leonardo. We enable next-generation technologies in defense, security, medical, and industrial segments.



Mr. Hunter Marshall Director, Army Business Development (270) 291-9414 hunter.marshall@leonardo.us



Mr. Matt White Vice President, Business Development (571) 425-9746 matthew.white@leonardo.us



Mr. Clif Sawyer Vice President, Sensor Solutions (256) 285-7670 jay.sawyer@leonardo.us

M1 Support Services www.m1services.com



M1 is a force multiplier for the largest, most complex Army Aviation sustainment challenges. We deliver results at scale with an extensive track record exceeding program requirements and customer expectations.

Mr. James Cassella Chief Growth Officer 8200 Greensboro Drive, Suite 320 McLean, VA 22102 (703) 832-2433 jim.cassella@m1services.com

Mr. Allan Lanceta Vice President and General Manager PO Box 620069 FT Novosel, AL 36362-0069 (334) 503-3374 allan.lanceta@m1services.com

### Moog Inc.

https://www.moog.com/



Moog is a worldwide designer and manufacturer, with a global sustainment program, of MOSA flight control systems, avionics, weapon SMS, DRL, slip rings, flight simulators for military and commercial aircraft.

Paul Rignel Defense Sustainment Director 500 Jamison Rd. East Aurora, NY 14052 (716) 393-7861 prignel@moog.com

Pedro Ramos

**Business Development Manager & Special programs** 7455 Emerald Dunes Drive, Suite 2200 Orlando, FL 32822 (912) 341-3188 Pramos2@moog.com

Phil Wray Director Business Unit, Military Global Sustainment 160 Jamison Road Elma, NY 14059 (716) 309-8568 pwray@moog.com

Jeff Markel Director, Sustaining Engineering and Modernization 160 Jamison Road Elma, NY 14059 (716) 725-4874 jmarkel@moog.com

Andrew Kress Site Sales Manager, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4169 akress2@moog.com

Kim Jackson Business Development Director, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4725 kjackson2@moog.com

### Navigator International, LLC

http://www.nav-int.com



Navigator International, LLC (NI) is a Service Disabled Veteran Owned Small Business (SDVOSB) established in 2005 specializing in analytical, training, i3D modeling, overseas and domestic construction, global logistics, 0&M, and ITAR registered export/brokerage services.



Albert Patterson Chairman/President 301 Franklin Street SE Huntsville, AL 35801 (334) 348-1550 x401 albert.patterson@nav-int.com



Bill Baker VP, Government Services 107 W. College Street Enterprise, AL 36330 (334) 447-0003 bill.baker@nav-int.com



#### Sertac Demirezen VP, International Operations Safi Espadon Tower, 9th Floor, Orta Mah, Soganlik D-100 Kuzey Yan Yol Uzeri, Kartal, Istanbul 34880 Turkey (334) 498-0555

sertac.demirezen@nav-int.com



107 W. College Street Enterprise, AL 36330 (334) 482-2144 ben.patterson@nav-int.com

### **Robbins-Gioia**

https://www.teamrg.com



Delivering future readiness, today! Robbins-Gioia is the premier task management and MRO solutions software development company. Our Lynx<sup>™</sup> software, deployed with Agile program management and consulting, delivers value through optimization of your enterprise.



COL, USMC (Ret) Barett Byrd Chief Operating Officer 99 Canal Center Plaza, Suite 300 Alexandria, VA 22314 (703) 582-9750 barett.byrd@teamrg.com

#### **SAFE Structure Designs** www.SAFE-2.com

AAAA Member - Magazine Advertiser



SAFE Structure is a leader in the design, engineering and manufacturing of creative and customizable solutions for just about any project. Our custom design process for your project is completely free so why not give us a try!

John Bass **Project & Product Director** (817) 980-2922 Jbass@SAFE-2.com

Garry Bass MIL & OGA Operations (256) 631-7330 Garry@SAFE-2.com

Johnny Buscema President & CEO (727) 809-1146 Johnny@SAFE-2.com

### Science and Engineering Services. LLC





An industry leader in the modification and integration of rotary and fixed wing platforms, aviation training, maintenance and sustainment. SES offers a turnkey

solution with a full spectrum approach that delivers the highest quality products to our customers.



Mr. Ralph Pallotta Chief Executive Officer 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-5000 Ralph.pallotta@ses-i.com



Mr. Brad Killen **Chief Operating Officer** 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-0770 brad.killen@ses-i.mail



Mr. Skip Sherrell Vice President, Business Development 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-3992 skip.sherrell@ses-i.com

#### **Shield Technologies Corporation** the providers of Envelop Protective Covers

www.shieldtechnologies.com



Shield Technologies has transformed what a cover could be. The world's most effective, longest-lasting corrosion inhibiting cover system.



CW5 Retired Mark S. Bechtel Army/Air Force Aviation Field Services Rep 895 Blue Gentian Road, Suite #1 Eagan, MN 55121 (715) 441-0280 mark.bechtel@shieldtechnologies.com

### **StandardAero**

https://standardaero.com/ + AAAA Member 🛧 Magazine Advertiser 🛧



StandardAero's experience, innovation, and dedication to helping our Government and Military customers meet their Maintenance, Repair, and Overhaul (MRO) needs has resulted in the fastest turnaround times, high engine performance, and the most reliable engines in the industry.

Mr. Lou Vogler Vice President, Business Development 3523 General Hudnell Drive San Antonio, TX 78226 (210) 449-1123 Lou.Vogler@StandardAero.com

Mr. Steven Stewart Director - US Gov't Agencies / Canada DND & Channel Partners 800 Aerospace Blvd., Hangar 8 Slemon Park, PE COB 2A0 Canada (902) 314-9030 Steven.Stewart@StandardAero.com

Summit Aviation. Inc. www.summit-aviation.com AAAA Member 🛧 Magazine Advertiser



Summit Aviation, Inc. offers a comprehensive range of military aircraft services, including maintenance, modification, integration, sustainment, logistics, flight testing, training, as well as aerial and seaport operations.



Dan Robinson Director of Military Sales 4200 Summit Bridge Road Middletown, DE 19709 (256) 975-9261 drobinson@summit-aviation.com

### System Studies & Simulation, Inc. www.s3inc.com

 $\star$  AAA Member  $\star$  Magazine Advertiser  $\star$  Scholarship Donor  $\star$ 



S3 is a technical services company specializing in acquisition support, engineering, training, logistics, C4ISR, security assistance, and commercial air operations. S3 supports USG, Commercial, and international customers.



Ms. Jan Smith Chief Executive Officer 615 Discovery Dr. NW Huntsville, AL 35806 (256) 328-9469 jan.smith@s3inc.com



Mr. Robert Johnson Vice President, Defense Acquisition Business Sector 615 Discovery Dr. NW Huntsville, AL 35806 (256) 704-2873 bob.johnson@s3inc.com



Mr. John Pack President, S3 International 615 Discovery Dr. NW Huntsville, AL 35806 (256) 327-9930 john.pack@s3inc.com



Mr. Conrad Bonner Director of International Growth 615 Discovery Dr. NW Huntsville, AL 35806 (256) 704-2087 conrad.bonner@s3inc.com

#### Tyonek Native Corporation www.tyonek.com

☆ AAAA Member ☆ Magazine Advertiser



Tyonek's portfolio of companies has extensive infrastructure and resources to maintain and support weapon systems and associated components vital to Army Aviation's critical mission.

Mr. Paul Stein President, Tyonek Services Group 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 pstein@tyonek.com

Mr. Todd White President, Tyonek Manufacturing Group 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 twhite@tyonek.com

Mr. Joe Webb Vice President of Business Development 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 jwebb@tyonek.com Mr. Ben Morgan Business Development Manager 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 blmorgan@tyonek.com

Mr. Steve Tatman Business Development Manager 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 statman@tyonek.com

V2X

WWW.gov2x.com



V2X builds innovative solutions that integrate physical and digital environments by aligning people, actions, and technology. V2X is embedded in all elements of a critical mission's lifecycle to enhance readiness, optimize resource management, and boost security. The company provides innovation spanning national security, defense, civilian, and international markets. With a global team of approximately 16,000 professionals, V2X enables mission success by injecting Al and machine learning capabilities to meet today's toughest challenges across all operational domains.

Leon Bacon Vice President, Business Development 44427 Airport Road Suite 700 California, MD 20619 (240) 256-5549 leon.bacon@gov2x.com

Vali, Inc.

www.valicorp.com



Vali provides Maintenance, Logistics, Training & Simulation in the U.S. and across the globe. Where we value Integrity, Dedication, Respect and Quality.



Steve Smith President & CEO 6767 Old Madison Pike, Suite 265 Huntsville, AL 35806 (256) 327-9328 steve.smith@valicorp.com

Rob Sova Executive Vice President (607) 351-3514 rob.sova@valicorp.com



Roger Moore Director of Business Development (931) 206-7889 roger.moore@valicorp.com

### Yulista

yulista.com



Yulista is committed to being the best-equipped Alaska Native Corporation (ANC) in the world, performing rapid response aerospace and defense solutions for foreign and domestic customers.



Josh Herren Chief Executive Officer/President, Yulista Holding, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 (907) 748-5959 josh.herren@yulista.com



Ben Still VP of Corporate Development, Yulista Holding, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 (256) 483-4435 benjamin.still@yulista.com



Kristina Hambrick VP of Business Operations, Yulista Holding, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 (256) 924-9489 kristina.hambrick@yulista.com



Mark Terseck VP of Technical Services Group, Yulista Holding, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 (256) 327-4555 mark.terseck@yulista.com



COL (RET) Andy Gignilliat President, Yulista Aviation, Inc., Yulista Integrated Solutions, LLC and Yulista Aerospace and Defense, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 (256) 924-0612 Andy.Gignilliat@yulista.com



Steve DiNome President, Yulista Support Services, LLC, Y-Tech Services, Inc. and Yulista Contract Services, LLC 65 Challenger Rd Ridgefield Park, NJ 07660 (848) 240-3775 steve.dinome@yulista.com



COL (RET) Jong Lee President, Yulista Tactical Services, LLC, Yulista Solutions, LLC, and Yulista Services, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 (256) 783-4714 Jong.Lee@yulista.com



Mike Key Director Business Development, Maintenance and Logistics Group, Yulista Holding, LLC 8600 Advanced Gateway SW Huntsville, AL 35808 Michael.Key@yulista.co



Billy "Bubba" White Regional Operations Manager for Yulista Support Services, LLC and Y-Tech Services, Inc. 8600 Advanced Gateway SW Huntsville, AL 35808 United States (256) 924-0184 Billy.White@yulista.com

#### Manufacturing

A.A.I. (Aviation Artifacts, Inc.) www.ALSET.us



Manufacturer and Distributor of the ALSET Tester supporting U.S. Army Aviation Life Support Equipment (ALSE).

Robert C. Le Beau President/CEO 19572 Lost Creek Drive Estero, FL 33967 (800) 845-1994 robert@aaiusa.us

#### Aero Dynamix Inc.

www.aerodynamix.com



Aero Dynamix, Inc. (ADI) is an industry leader and principal innovator with 30 years of experience on "INTEGRATED" Night Vision Goggle (NVG) compatible solutions.

Mr. Stu Parker Sales & Marketing Manager 3327 W. Euless Blvd Euless, TX 76040 (817) 571-0729 sparker@aerodynamix.com

Mr. Everett Horst Sr Manager Sales / Product Support 3327 W. Euless Blvd Euless, TX 76040 (817) 571-0729 ehorst@aerodynamix.com

Aerometals www.aerometals.aero



An AS9100D/IS09001 certified aerospace company offering advanced manufacturing, design, and testing across a 150,000 sq. ft. campus, with 175+ skilled employees, including engineers and A&P mechanics.

Mr. Erik Blanck Director of Sales & Marketing 3920 Sandstone Drive El Dorado Hills, CA 95762 (360) 318-3700 erik.blanck@aerometals.aero



× AAAA Member × Magazine Advertiser ×



ARKA's Defense Systems business provides world class platform survivability and protection to defeat continuously evolving threats with cutting edge technology.

Mr. Jay King Program Manager- Airborne Systems 100 Wooster Heights Road Danbury, CT 06810 (203) 797-5191 jking@arka.org

Mr. George McGovern Director Defense Programs 100 Wooster Heights Road Danbury, CT 06810 (203) 797-5824 gmcgovern@arka.org

Astronautics Corporation of America www.astronautics.com

## **Astronautics**

System integration and civil/military certified cockpit displays, including primary flight, multifunction, and engine displays. Connected aircraft products providing secure gateways for remote avionics data loading/ downloading. Cybersecurity services identifying/ mitigating risks.

Mr. Garrett Jensen Director, Business Development 135 W. Forest Hill Avenue Oak Creek, WI 53154 (414) 514-9524 g.jensen@astronautics.com

Astronics Test Systems www.astronicstestsystems.com



Astronics Test Systems ensures optimal performance of mission critical systems with innovative test solutions. With over 60 years of expertise, our solutions help mitigate obsolescence, embrace modern technology, and ensure operational readiness.



Mr. Tim Webb Sr. Director, Sales & Business Development 12700 Ingenuity Dr. Orlando, FL 32826 (978) 303-2267 tim.webb@astronics.com



Mr. Felix Horton Sr. Manager, Sales & Programs 12700 Ingenuity Dr. Orlando, FL 32826 (407) 531-7210 felix.horton@astronics.com

#### AVT Simulation avtsim.com





AVT Simulation is a small, disadvantaged, minorityowned, full-service systems integrator with capabilities in manufacturing, courseware, and instruction. AVT is the OEM of simulators like the AGT, TFATT, eRCTD, and CEVT.



Mr. Robert Abascal Founder & CSO 4715 Data Court Orlando, FL 32817 (407) 381-5311 x102 rabascal@avtsim.com



Mr. Kyle E. Crooks CEO 4715 Data Court Orlando, FL 32817 (407) 381-5311 x165 kcrooks@avtsim.com



Mr. Kevin Vizzarri Senior Vice President of Business Development 4715 Data Court Orlando, FL 32817 (407) 381-5311 x130 kvizzarri@avtsim.com

Axnes www.axnes.com



AAAA Member

AXNES develops and supplies advanced, durable wireless intercom solutions for use onboard aircraft, ground vehicles, and marine vessels. AXNES is well known for its wireless systems. For more information: www.axnes.com

Markus Schmitz Managing Director, Axnes Inc. 1155 Kelly Johnson Blvd, Suite 111 Colorado Springs, CO 80920 msc@axnes.com

Brett Gardner Vice President, Axnes Inc. 1155 Kelly Johnson Blvd, Suite 111 Colorado Springs, CO 80920 bjg@axnes.com

### **BECKER AVIONICS**

www.beckerusa.com



Becker Avionics, a leader in digital avionics technology, sets the standard in customer-centric, state-of-the-art ground and airborne solutions. Becker Avionics develops, manufactures and distributes the latest communications, navigation, surveillance and search & rescue equipment for airborne and ground applications. Becker Avionics has been providing avionics products to military, airborne law enforcement, general and corporate aviation and ATC organizations around the world for over 65 years.

Mr. David Oglesbee Director of Sales & Marketing 10376 USA Today Way Miramar, FL 33025 (954) 450-3137 dave@beckerusa.com

Textron Inc. https://www.textron.com/

## TEXTRON



Scott C. Donnelly Chairman, President and Chief Executive Officer 40 Westminister Street Providence, RI 02903



Shannon H. Hines Senior Vice President Gov. Affairs & Washington Ops 1101 Pennsylvania Ave Ste 400 Washington, DC 20004 shannon.hines@textron.com



John Lindsay Vice President Washington Operations 1101 Pennsylvania Ave Ste 400 Washington, DC 20004 (202) 637-3833 john.lindsay@texron.com



Todd Royar Vice President, Program Integration Lead 6703 Odyssey Drive Huntsville, AL 35806 (256) 221-4990 troyar@textron.us



Walter "Wally" Rugen Vice President, Government Affairs for National Security 1101 Pennsylvania Ave Ste 400 Washington, DC 20004 (202) 834-5628 wrugen@textron.us

Textron Aviation https://txtav.com/ \* AAA Member \* Magazine Advertiser \* Scholarship Donor \*

### **TEXTRON**



Marc Harrelson Director, USG Special Mission Aircraft Sales 1 Cessna Blvd Wichita, KS 67215 (316) 285-6185 mharrelson@txtav.com

Textron Systems https://www.textronsystems.com

## TEXTRON Systems

Textron Systems is a world leader in uncrewed air, surface and land products, services and support. We offer ingenious and advanced solutions to support defense, aerospace, and other customer missions.



Tom Hammoor President & Chief Executive Officer

#### David Phillips Senior Vice President, Air, Land and Sea Systems phillid@textronsystems.com

Henry Finneral Senior Vice President, Weapon Systems hfinnera@textronsystems.com



Jim Ryan Senior Director, Global Sales & Strategy, Air Systems jryan@textronsystems.com

Mike Paturzo Vice President of Global Sales & Strategy, Electronic Systems paturz@textronsystems.com

Bell www.bellflight.com \* AAA Member \* Magazine Advertiser \* Scholarship Donor \*



Bell is on a mission to change the way the world flies with superior vertical lift that saves lives, preserves freedom, and provides customers innovative solutions with exceptional value.



Lisa Atherton President & CEO 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-4100 latherton@bellflight.com



Jeff Schloesser Executive Vice President, Strategic Pursuits 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-8518 jschloesser@bellflight.com



Sénior Vicé President & Program Director FLRAA 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-5172 rehinger@bellflight.com Carl Coffman Vice President FVL Strategy, Milii



Carl Coffman Vice President FVL Strategy, Military Sales & Strategy 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-5119 ccoffman@bellflight.com



Frank Lazzara Director FLRAA Sales & Strategy 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-5505 flazzara@bellflight.com



John Novalis II Director Advanced Programs Sales & Strategy 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-3513 jnovalisii@bellflight.com



Matthew Dorram Sr. Military Sales & Strategy Manager 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-2327 mdorram@bellflight.com



Kurt Fuller Senior Vice President, Military Fielded Programs 3255 Bell Flight Blvd Fort Worth, TX 76118 (817) 280-6064 kfuller@bellflight.com



Robert Freeland Director Government Relations, AVLC Lead 2231 Crystal Drive Arlington, VA (703) 271-4930 rfreeland@bellflight.com

Coastal Seat Cushions Inc. WWW.CoastalSeatCushions.com



Upgraded Seat Cushions for Pilot/Copilot for H-60, AH-64, CH-47, and OH-6. AWR Approved! Also Upgraded Products for HGU-56P Helmets Including Zetaliner Helmet Liners, Ear Seals and Hush Kits.

Bill Irvine President 183 NE Royce Ave. Port St Lucie, FL 34983 Sales@CoastalSeatCushions.com

#### **Collins Aerospace, an RTX Business** https://www.collinsaerospace.com/

\* AAA Member \* Magazine Advertiser \* Scholarship Donor \*



Collins Aerospace, an RTX Business, is a leader in technologically advanced and intelligent solutions for aerospace and defense, helping to make the warfighter safer and more capable than ever before.



John Esposito Vice President, Strategic Pursuits Windsor Locks, CT (860) 478-3112 John.esposito@collins.com



Fred Manzo Director, Army Programs Arlington, VA (571) 982-2632 Fred.manzo@collins.com



Chet Treloar Director, Strategic Pursuits Lithia, FL (319) 651-2656 Chester.treloar@collins.com



Luke Schmidt Senior Director, Military Avionics & Helicopters Charlotte, NC (704) 430-1000 Luke.schmidt@collins.com



Erik Gilbert Senior Manager, Business Development-Military Rotary Wing Avionics Huntsville, AL (931) 307-6704 Erik.gilbert@collins.com



Ryan Scoble Senior Manager, Business Development-Military Rotary Wing Avionics & MOSA Huntsville, AL (256) 430-4842 Thomas.scoble@collins.com



George Johnson Military Business Development Manager, Hoist and Winch Ft. Novosel, AL (334) 379-2430 George.johnson@collins.com



DeWayne Rittenhouse Associate Director, Business Development- Aerostructures Chula Vista, CA (612) 406-1081 Dewayne.rittenhouse@collins.com



Terry Truett Associate Director, Military Business Development – Interiors Ridgeway,SC (803) 900-0611 Terry.truett@collins.com



Chadwick Ford Associate Director, US Army and SOCOM- Connected Battlespace Implementation Huntsville, AL (843) 877-5500 Chadwick.ford@collins.com



Michael Cervone Director, Strategy and Business Development – Power & Controls Windsor Locks, CT (617) 413-4874 Michael.cervone@collins.com

### ConexSmart, A Trexon Company www.conexsmart.com



ConexSmart offers custom Wire Harness and RF Cable Assembly, Fiber Optics, Engineering, Group A Kitting, UAS Assembly and On-Aircraft Modification Services to the Aerospace and Defense industry. We also offer our industry-exclusive Mobile Wire Harness facility and onsite production support.

Mr. Robert Cone Director of Business Development 30403 Kings Valley Drive Conifer, C0 80433 (303) 902-4350 robertc@conexsmart.com

#### **Dayton-Granger, Inc.**





Established in 1943, DAYTON-GRANGER produces over 700 high-end Aerospace proprietary products for commercial and military aircraft. Core products: ANTENNAS (Conformal, Blades) ELECTROSTATIC protection (Static Dischargers, Electrostatic Test Sets) and LIGHTNING Protection (Transtrike and Strikeguard).

Christopher Maholm Director of Business Development and Engineering P.O. Box 350550 Fort Lauderdale, FL 33335 (954) 463-3451 cmaholm@daytongranger.com

Dillon Aero, Inc. www.dillonaero.com



Dillon M134D Modern Minigun, used by USSOCOM and 40+ International Countries on Helicopters, Vehicles & Boats. Call us for Guns, OEM Training (your location or ours), Mounts & Lifecycle Support.

Mr. Rob Rainier Senior Vice President of Business 21615 N. 7th Avenue Phoenix, AZ 85027 (480) 627-7729 rob.rainier@dillonaero.com

Mr. Nick Perfetto Chief Executive Officer 21615 N. 7th Avenue Phoenix, AZ 85027 (480) 333-5452 nick.perfertto@dillonaero.com

Mr. Brian Fuller VP Business Development-MENA 21615 N. 7th Avenue Phoenix, AZ 85027 (480) 627-7722 brian.fuller@dillonaero.com Mr. Brad Rassega VP Business Development 21615 N. 7th Avenue Phoenix, AZ 85027 (480) 333-5468 brad.rassega@dillonaero.com

#### East/West Industries, Inc.

https://www.eastwestindustries.com/



East/West designs and manufactures innovative, costeffective, high-quality critical systems, including crashattenuating aircraft seats, emergency oxygen systems, and ground support equipment, including our patented Master Crane®. East/West is a woman-owned small business and is AS9100 certified.



Bill Koshansky Business Development Manager 2002 Orville Drive N. Ronkonkoma, NY 11779 (631) 981-5900 bkoshansky@eastwestindustries.com

Eaton www.eaton.com/aerospace



Eaton's hydraulic, fuel, oxygen, fluid and air conveyance, electrical, motion control and engine solutions help make mission-ready work. Our products and technologies help customers meet performance, efficiency, safety and compliance needs.

Charlie F. King Military Account Manager, U.S. Army (931) 494-1083 charlesfking@eaton.com

Ehmke Manufacturing Company, Inc. www.ehmkemfg.com



Ehmke provides engineered sewn solutions for Thermal Acoustical blankets, FOD protection, engine inlet covers, GSE covers for a variety of rotor and fixed wing platforms. Ehmke's U.S. facility designs and fabricates a broad range of textile products for the aircraft industry servicing Aircraft OEMs, MROs, engine manufacturers, and the U.S. Military and Defense Marketplace.

Mr. Greg Nichols Technical Sales Rep - Aircraft 4200 Macalester Street Philadelphia, PA 19124 (267) 418-0480 qnichols@ehmkemfg.com

Ms. Dawn Walker Aircraft Sales 4200 Macalester Street (215) 324-4200 dwalker@ehmkemfg.com Philadelphia, PA19124

### **Essex Industries**

www.essexindustries.com



Essex Industries supplies complex aircraft components, electromechanical assemblies, HMI controls, liquid oxygen systems, and emergency breathing equipment. Specializing in custom manufacturing for advanced aircraft platforms, retrofits, and maintenance programs.

Robert Hale Business Segment Manager 7700 Gravois Road St. Louis, MO 63123 (314) 243-5006 rhale@essexind.com

Corey Waldman VP of Business Development 7700 Gravois Road St. Louis, M0 63123 (314) 338-8791 cwaldman@essexind.com

FCX Systems, Incorporated





FCX Systems is the leading manufacturer of solid state ground support equipment to meet the needs of National Guard and Army Aviation for fixed wing and rotary aircraft that require 400 hertz AC, 270 volt DC or 28 volt DC ground support.

Fred Schuler CW04 Navy Retired Director Military Sales 400 FCX Lane Morgantown, WV 26501 (757) 685-8891 fred.schuler@fcxinc.com

Mr. Martin Diaz Outside Sales - Western USA and Far East 400 FCX Lane Morgantown, WV 26501 (760) 429-5833 martin.diaz@fcxinc.com

## FN America, LLC fnamerica.com



FN America, LLC, the U.S. subsidiary of FN Herstal, S.A., provides U.S. military customers with a complete range of state-of-the-art, groundbreaking solutions developed around small caliber firearms and associated ammunition.

Mr. Jim Williams Vice President Military Programs 797 Old Clemson Road Columbia, SC 29229 (703) 288-3500 Jim.Williams@fnamerica.com FSI Defense, A FlightSafety International Company https://www.flightsafety.com/governmentmilitary/ \* AAA Member \* Magazine Advertiser \* Scholarship Donor \*



FSI Defense is a wholly-owned subsidiary of FlightSafety International providing fixed and rotor-wing training and aircrew instruction to the U.S. Army, Air Force, Navy, Marine Corps, Coast Guard and international defense customers.



Mr. Whitney Gardner Business Development Manager (808) 397-0112 Whitney.Gardner@flightsafety.com

### **GE Aerospace**

WWW.geaerospace.com \* AAAA Member \* Magazine Advertiser \*



GE Aerospace (NYSE: GE) is a global aerospace propulsion, services, and systems leader with an installed base of approximately 44,000 commercial and 26,000 military aircraft engines.



Mr. Bill Morris Executive Leader 600 14th Street NW (The Hamilton Building), Suite 900 Washington, DC 20005 (202) 637-1085 william.h.morris@ge.com



Mr. Chris Thompson Director, T700 US Military Programs 1000 Western Avenue Lynn, MA 01910 (864) 423-2249 christopher.thompson@ge.com



Mr. Tom Champion Director, T901 Program 1000 Western Avenue Lynn, MA 01910 (781) 594-2249 thomas.champion@ge.com



Ms. Tanika Watson Executive Future Vertical Lift Leader, Avionics 14200 Roosevelt Blvd Clearwater, FL 33762 (727) 871-8968 tanika.watson@ge.com



Mr. Geoff Crawford Director, Army Programs 25235A One Aviation Way Madison, AL 35756 geoffrey.crawford@ge.com



Mr. Tom Climer Marketing Leader 1000 Western Avenue Lynn, MA 01746 (781) 718-0348 tom.climer@geaerospace.com

#### General Atomics Aeronautical Systems, Inc. (GA-ASI) https://www.ga-asi.com/

\* AAAA Member \* Magazine Advertiser \*



GA-ASI produces world-leading UAS, including MQ-9A Reaper®, MQ-9B SkyGuardian® and SeaGuardian®, MQ-1C Gray Eagle, and next-gen solutions like Gray Eagle STOL that makes takeoff and landing capability from unimproved surfaces a reality.

Christopher MacFarland Senior VP, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (858) 688-4251 Christopher.MacFarland@ga-asi.com

Mathieu Petraitis Senior Manager, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (256) 503-3328 Mathieu.Petraitis@ga-asi.com

Denny Winningham Director, Army National Guard Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (202) 496-8229 Denny.Winningham@ga-asi.com

Jordan Ramrus Technical Advisor 14200 Kirkham Way Poway, CA 92064 (858) 312-2681 Jordan.Ramrus@ga-asi.com

Hamilton Caster & Mfg. Co. www.hamiltoncaster.com



We manufacture the toughest casters, wheels, carts, and trailers to help the aerospace industry soar. Backed by 117 years of expertise, we deliver unmatched quality, durability, and fast lead times.



Mr. Mark Lippert President 1637 Dixie Highway Hamilton, OH 45011 (513) 863-3300 Mark.lippert@hamiltoncaster.com



Mr. Andy Stamp Director of Sales & Business 1637 Dixie Highway Hamilton, OH 45011 (513) 863-3300 andrew.stamp@hamiltoncaster.com

IEE

www.ieeinc.com



For over 75 years, IEE has specialized in the design, test, manufacturing and fielding of rugged display products for use in military and aerospace applications worldwide. ISO 9001:2015 and AS9100D certified.

Mr. Steve Motter Vice President: Business Development 13170 Telfair Ave Sylmar, CA 91342 (818) 787-0311 x327 smotter@ieeinc.com

Jergens, Inc. www.jergensinc.com



Jergens, Inc. is an AS9100:2016 and ISO 9001:2015 certified manufacturer of lifting and fastener products. Jergens is committed to helping its customers achieve leaner, more profitable manufacturing.

Bob Kucinic Sales Manager 15700 S. Waterloo Rd. Cleveland, OH 44110 (216) 706-6136 bob.kucinic@jergensinc.com

Karman Space & Defense https://karman-sd.com/



Karman Space & Defense integrates industry-leading technologies with comprehensive in-house engineering, design, analysis, testing, qualification, and manufacturing processes. Karman is headquartered in Huntington Beach, CA, with multiple facilities across the United States. Karman's system offerings encompass, Payload & Protection Systems, Aerodynamic Interstage Systems, and Propulsion & Launch Systems.



Mr. David Hendrickson Sr. Market Director - Tactical & Integrated Defense Systems (703) 946-1156 david.hendrickson@karman-sd.com

KIHOMAC, Inc. https://www.kihomac.com



A high-technical content aerospace design and manufacturing firm. Competencies include metals, specialty composites, and combinations (e.g. honeycomb bonded structures for aircraft). From system design, to prototype, to full rate production.

Mr. Ki Kang Founder & CEO 12030 Sunrise Valley Dr., Ste 320 Reston, VA 20191 (703) 214-8401 kiho.kang@kihomac.com

Mr. Adam Grimm President/COO 12030 Sunrise Valley Dr., Ste 320 Reston, VA 20191 (703) 214-8402 adam.grimm@kihomac.com

Mr. Brad Goodwin Chief Growth Officer 3800 North Fairfield Rd Layton, UT 84041 (385) 515-4264 brad.goodwin@kihomac.com

Mr. Keith Edwards Director, BD - Army & International Programs 1910 Princess St Wilmington, NC 28405 (480) 280-6029 keith.edwards@kihomac.com

Leonardo Electronics US, Inc. https://www.leonardo.us/



Leonardo Electronics US Inc. is a subsidiary of Leonardo. We enable next-generation technologies in defense, security, medical, and industrial segments.



Mr. Hunter Marshall Director, Army Business Development (270) 291-9414 hunter.marshall@leonardo.us

Mr. Matt White Vice President, Business Development (571) 425-9746 matthew.white@leonardo.us



Mr. Clif Sawyer Vice President, Sensor Solutions (256) 285-7670 jay.sawyer@leonardo.us

## Lockheed Martin Sensors & Global Sustainment (S&GS)

https://www.lockheedmartin.com/en-us/ index.html

 $\star$  AAA Member  $\star$  Magazine Advertiser  $\star$  Scholarship Donor  $\star$ 

### LOCKHEED MARTIN

Lockheed Martin Sensors and Global Sustainment is a global security and aerospace company engaged in the research, design, development, manufacture, integration, and sustainment of advanced sensor systems, products, and services.



Johnny P. Walker Director, Strategy & Business Development – Rotary Wing Sensors 5600 Sand Lake Road MP-416 Orlando, FL 32819 (407) 622-9794 john.p.walker@lmco.com



Mason W. Thornal Senior Manager, S&GS Strategy & Business Development – Advanced Programs 5600 Sand Lake Road MP-416 Orlando, FL 32819 (407) 404-1653 mason.w.thornal@lmco.com



Jeff W. White Senior Manager, S&GS Strategy & Business Development – Apache Fire Control / Rotary Wing Sensors 5600 Sand Lake Road MP-416 Orlando, FL 32819 (407) 840-8170 jeffrey.w.white@lmco.com



Timothy R. Cornett Senior Manager, S&GS International Business Development – Rotary Wing Sensors & Missile Systems 5600 Sand Lake Road MP-416 Orlando, FL 32819 (407) 718-9155 timothy.r.cornett@lmco.com



Charlie W. Walker Senior Manager, S&GS International Business Development – Airborne Precision Sensors 5600 Sand Lake Road MP-416 Orlando, FL 32819 (315) 450-1924 charlie.w.walker@lmco.com



TJ Anderson Senior Manager, Rotary Wing Sensors Strategy & Business Development 5600 Sand Lake Road MP-416 Orlando, FL 32819 (407) 446-5012 tj.anderson@Imco.com

Martin-Baker Aircraft Co. https://martin-baker.com/



With 40 years' experience in bringing to market a range of crashworthy seats, incorporating patented energy attenuation systems, for helicopters and fixed-wing aircraft across both the Military and Commercial domains.

Mr. Bob Semelsberger Program Manager 169 Jari Drive Johnstown, PA 15904 (814) 955-0188 rsemelsberger@m-bamerica.com

### **Metro Aviation**

choosemetro.metroaviation.com



Metro Aviation is the largest air medical completion center and traditional operator in the world. Continue your career with the Metro Family!

Britney Ratcliff HR Director bratcliff@metroaviation.com

#### Moog Inc.

https://www.moog.com/



Moog is a worldwide designer and manufacturer, with a global sustainment program, of MOSA flight control systems, avionics, weapon SMS, DRL, slip rings, flight simulators for military and commercial aircraft.

Paul Rignel Defense Sustainment Director 500 Jamison Rd. East Aurora, NY 14052 (716) 393-7861 prignel@moog.com

Pedro Ramos Business Development Manager & Special programs 7455 Emerald Dunes Drive, Suite 2200 Orlando, FL 32822 (912) 341-3188 Pramos2@moog.com

### Phil Wray

Director Business Unit, Military Global Sustainment 160 Jamison Road Elma, NY 14059 (716) 309-8568 pwray@moog.com

#### Jeff Markel

Director, Sustaining Engineering and Modernization 160 Jamison Road Elma, NY 14059 (716) 725-4874 jmarkel@moog.com

Andrew Kress Site Sales Manager, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4169 akress2@moog.com

Kim Jackson Business Development Director, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4725 kjackson2@moog.com

### PacSci EMC

https://psemc.com/



PacSci EMC energetic solutions ensure the proper initiation,

sequencing, and function of aircraft safety systems. These reliable and fast acting products ensure the safe recovery of aircrew and passengers.

Mr. David Giles Engineer 3601 Union Road Hollister, CA 95023 (183) 163-0534 x4 dqiles@psemc.com

### **PCX Aerosystems**

WWW.pcxaero.com \* AAAA Member \* Magazine Advertiser \*



PCX Aerosystems remains a leading manufacturer of highly engineered, precision, Flight Critical rotorhead assemblies, transmission assemblies, control systems, engine and airframe components, landing gear, fuel tanks and delivery systems.



Mr. Aris Fotos President, Connecticut Operations 300 Fenn Road Newington, CT 06111 (860) 594-4359 aris.fotos@pcxaero.com



Mr. Trevor Hartman Vice President - Sales & Marketing 300 Fenn Road Newington, CT 06111 (860) 594-4388 trevor.hartman@pcxaero.com

#### Projects Unlimited Inc. www.pui.com

\* AAAA Member



Since 1951, we have established ourselves as best in class contract manufacturing for CCA, Integrated Box Level, and Wire Harness Assemblies for a wide range of industries.

Mr. Kyle J. Gillman General Manager 6300 Sand Lake Road Dayton, OH 45414 (937) 918-2259 gillman@pui.com

### **Robertson Fuel Systems**

https://www.robertsonfuelsystems.com



A HEICO COMPANY

For over 48 years, Robertson continues to be the world leaders in the design, development, and production of safe and reliable, crashworthy, ballistically tolerant, selfsealing fuel solutions for aviation systems.



Mr. Newman Shufflebarger President 800 W. Carver Rd, Ste 101 Tempe, AZ 85284 (480) 337-8858 newman.shufflebarger@robbietanks.com



Mr. Shane Openshaw VP Programs and Marketing 800 W. Carver Rd, Ste 101 Tempe, AZ 85284 (480) 337-7087 shane.openshaw@robbietanks.com

#### Rotair Aerospace Corporation www.rotair.com



For over fifty years, Rotair Aerospace has been a producer of spares for various Rotary Wing Aircraft including Sikorsky, Bell, and Boeing. For Sikorsky Helicopters, we continue to support all the spares for the Sikorsky S-61 Sea King, UH-60 Blackhawk, and CH-53 Platforms. Our Aerospace Quality Management System is registered for Standards under current ISO 9001 and AS9100 Certifications.



Mr. Wesley Harrington President 964 Crescent Ave. Bridgeport, CT 06607 (203) 952-7210 wes@rotair.com



Mr. Justin Harrington Commercial Sales Manager 964 Crescent Ave. Bridgeport, CT 06607 (203) 581-4430 justinh@rotair.com

SAFE Structure Designs www.SAFE-2.com





SAFE Structure is a leader in the design, engineering and manufacturing of creative and customizable solutions for just about any project. Our custom design process for your project is completely free so why not give us a try!

John Bass Project & Product Director (817) 980-2922 Jbass@SAFE-2.com

Garry Bass MIL & OGA Operations (256) 631-7330 Garry@SAFE-2.com

Johnny Buscema President & CEO (727) 809-1146 Johnny@SAFE-2.com

#### Safran Helicopter Engines USA

www.safran-helicopter-engines.com



Safran is the leading helicopter engine manufacturer offering the widest range of engines in the world. Safran engines power civil, parapublic and defense helicopters for leading helicopter manufacturers.



Norma Lantz Executive Vice President, Airframer Sales and Marketing 2709 N. Forum Dr. Grand Prairie, TX 75052 (972) 606-8231 norma.lantz@safrangroup.com



Chris Speer Vice President, Military and Federal Support 2709 N. Forum Dr. Grand Prairie, TX 75052 (972) 606-8288 chris.speer@safrangroup.us

## Science and Engineering Services, LLC

WWW.SES-i.COM \* AAAA Member \* Magazine Advertiser \*



An industry leader in the modification and integration of rotary and fixed wing platforms, aviation training, maintenance and sustainment. SES offers a turnkey solution with a full spectrum approach that delivers the highest quality products to our customers.



Mr. Ralph Pallotta Chief Executive Officer 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-5000 Ralph.pallotta@ses-i.com



Mr. Brad Killen Chief Operating Officer 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-0770 brad.killen@ses-i.mail



Mr. Skip Sherrell Vice President, Business Development 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-3992 skip.sherrell@ses-i.com

Skyhook Rescue Systems, Inc. http://www.skyhookrescue.com



SkyHook Rescue Systems, Inc. provides high quality, lightweight, durable, manpower efficient lifting / lowering rope manual and power winch systems for UH-60 and UH-72 Lakota aircraft. Optional "post mount" available.

Mike Thompson Military Manager 79105 Big Horn Trail La Quinta, CA 92253 (267) 222-2074 mike\_thompsonllc@verizon.net

## Strata-G Solutions, LLC https://stratag-llc.com/



#### AN ALEUT COMPANY

Strata-G Solutions, LLC an Alaskan Native, SDB 8(a), executes a full spectrum of design engineering and manufacturing capabilities from the fabrication of single rapid prototypes to full production quantities requiring dedicated work cells.



Mr. John Vannoy President 2901 Wall Triana Hwy Huntsville, AL 35824 (256) 520-0670 john.vannoy@strataq-Ilc.com



Mr. Perry Bowden Vice President, Strategy and Growth 2901 Wall Triana Hwy Huntsville, AL 35824 (256) 975-3602 perry.bowden@stratag-Ilc.com

Hu 29 Hu (2) cal

Mr. Calvin Lane Vice President, Operations 2901 Wall Triana Hwy Huntsville, AL 35824 (256) 932-6939 calvin.lane@stratag-Ilc.com

#### Summit Aviation Mfg

https://summitaviationmfg.com/



Summit Aviation Manufacturing specializes in precision fabrication, machining, and complex assemblies for both general aviation and military sectors. Offering capabilities like supply chain management, tooling, and prototype development, they also provide painting and quality control services. As a Production Approval Holder and Department of Defense-approved contractor, Summit delivers legacy and detail component manufacturing with a strong focus on engineering and customer satisfaction.



John Morgan Business Development Representative 243 Burgess Rd, Ste A Greensboro, NC 27409 jmorgan@summit-aviation.com 302-353-8475

Thales https://www.thalesgroup.com/en



Our systems deliver solutions for fixed-wing, helicopter, and UAV platforms in the areas of: airborne optronics; combat systems; aeronautical communications; onboard electronics; mission & surveillance systems; weapon systems & munitions.

Jeff Saucedo Mil-Gov Sales Manager - Americase 577 Burning Tree Road Fullerton, CA 92833 (925) 348-5351 jeff.saucedo@thalesgroup.com Yanik Doyon Business Development & Sales, Avionics, N. America 2800 Avenue Marie-Curie Saint-Laurent, Quebec H4S 2C2

Canada (514) 568-5480 yanik.doyon@thalesgroup.com

### The Boeing Company www.boeing.com



Boeing delivers the decisive mission advantage for our customers through enabling global control, reach and strike. Our open systems architecture approach delivers flexibility to rapidly upgrade and continuously insert capabilities to outpace the threat.



Kathleen Jolivette Vice President & General Manager, Boeing Vertical Lift 5000 E. McDowell Road Mesa, AZ 85205 (480) 891-1555 kathleen.r.jolivette@boeing.com



Christina Upah Vice President, Attack Programs (480) 891-9001 christina.a.upah@boeing.com



Heather McBryan Vice President, Cargo Programs (610) 591-6017 heather.a.mcbryan@boeing.com



Mark Ballew Executive Director, Vertical Lift Business Development & Strategy (480) 891-0860 Mark.E.Ballew@boeing.com

Toray Composite Materials America, Inc. www.toraycma.com



Toray manufactures TORAYCA<sup>™</sup> carbon fiber and advanced prepreg materials. Our composite materials are known for their outstanding performance, quality, and consistency in processing. They enable diverse production capabilities and the production of top-tier parts for mission-critical programs.



Tim Kirk Vice President, Marketing and Strategy 19002 50th Ave. East Tacoma, WA 98446 (253) 229-2405 tim.kirk@toraycma.com



Jeff Cross Principal Director, Defense Programs 19002 50th Avenue East Tacoma, WA 98446 (512) 492-2040 jeff.cross@toraycma.com

### **TTM Technologies**

www.ttm.com

## TTM Technologies.

AAAA Member

TTM Technologies, is a global manufacturer of technology solutions, including engineered systems, RF components, RF microwave/microelectronic assemblies, and quick-turn, technologically advanced PCBs. TTM stands for time-to-market, representing how TTM's time-critical, one-stop manufacturing services enable customers to shorten the time required to develop new products and bring them to market.



Mr. Steve Piro

Sr. Director Business Development 815 Broad Hollow Road Farmingdale, NY 11735 (631) 703-7450 stephen.piro@ttmtech.com

#### Tyonek Native Corporation www.tyonek.com

 $\star$  AAAA Member  $\star$  Magazine Advertiser  $\star$ 



Tyonek's portfolio of companies has extensive infrastructure and resources to maintain and support weapon systems and associated components vital to Army Aviation's critical mission.

Mr. Paul Stein President, Tyonek Services Group 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 pstein@tyonek.com

Mr. Todd White President, Tyonek Manufacturing Group 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 twhite@tyonek.com

Mr. Joe Webb Vice President of Business Development 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 jwebb@tyonek.com

Mr. Ben Morgan Business Development Manager 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 blmorgan@tyonek.com

Mr. Steve Tatman Business Development Manager 229 Palmer Rd. Madison, AL 35758 (256) 258-6200 statman@tyonek.com

### **UAV ENGINES LTD**

https://uavengines/td.co.uk/



UAV Engines LTD was formed in 1992 specifically to exploit and develop Wankel engine technology for use in UAVs. We currently have well over 1,500,000 flight hours.

Mark Gardner USA Representative P.O. Box 1725 Bisbee, Arizona 85603 (520) 432-1674 mgardner@uavenginesltd.co.uk

Viewpoint Systems, LLC www.viewpointproducts.com



Viewpoint Systems designs and manufactures rugged surveillance equipment. Our products are deployed globally across fixed/rotary-wing aircraft, military ground vehicles, Naval vessels, and even the Space Station. Visit us at www.viewpointproducts.com



Mike Oeschger Director of Business Development 730 W. Garden Street Pensacola, FL 32502 (610) 945-4807 mike.oeschger@viewpointproducts.com

David Conkle Inside Sales Manager 730 W. Garden Street Pensacola, FL 32502 (850) 450-1037 dc@viewpointproducts.com

#### Vita Inclinata Technologies www.vitaaerospace.co

★ AAA Member r ★ Scholarship Donor ★



We create intelligent lifting solutions that significantly enhance the capability, safety, and efficiency of search-andrescue hoist operations, helping you protect the mission.

Matt Christensen EVP of Aerospace 295 Interlocken Blvd, Ste 100 Broomfield, C0 80021 (833) 600-8482 x714 mchristensen@vitatech.co

### Operations

Axxeum, Inc. https://www.axxeum.com/



Axxeum is a full-spectrum, worldwide aviation services provider headquartered in Huntsville, Alabama with

hangar facilities at the Huntsville International Airport. We proudly support U.S. Government and U.S. Security Assistance Partner governments worldwide, and private aviation customers.



Mr. Oleg Sirbu CEO 351 Southwest Electronics Boulevard Suite A Huntsville, AL 35824 oleg.sirbu@axxeum.com



Mr. Saul Kirsch Vice President 351 Southwest Electronics Boulevard Suite A Huntsville, AL 35824 saul.kirsch@axxeum.com



Mr. Kevin Fife Director of Business Development 351 Southwest Electronics Boulevard Suite A Huntsville, AL 35824 kevin.fife@axxeum.com

**Collins Aerospace, an RTX Business** https://www.collinsaerospace.com/

★ AAA Member ★ Magazine Advertiser ★ Scholarship Donor ★



Collins Aerospace, an RTX Business, is a leader in technologically advanced and intelligent solutions for aerospace and defense, helping to make the warfighter safer and more capable than ever before.



John Esposito Vice President, Strategic Pursuits Windsor Locks, CT (860) 478-3112 John.esposito@collins.com



Fred Manzo Director, Army Programs Arlington, VA (571) 982-2632 Fred.manzo@collins.com



Chet Treloar Director, Strategic Pursuits Lithia, FL (319) 651-2656 Chester.treloar@collins.com



Luke Schmidt Senior Director, Military Avionics & Helicopters Charlotte, NC (704) 430-1000 Luke.schmidt@collins.com



Erik Gilbert Senior Manager, Business Development- Military Rotary Wing Avionics Huntsville, AL (931) 307-6704 Erik.gilbert@collins.com



Ryan Scoble Senior Manager, Business Development- Military Rotary Wing Avionics & MOSA Huntsville, AL (256) 430-4842 Thomas.scoble@collins.com



George Johnson Military Business Development Manager, Hoist and Winch Ft. Novosel, AL (334) 379-2430 George.johnson@collins.com



DeWayne Rittenhouse Associate Director, Business Development- Aerostructures Chula Vista, CA (612) 406-1081 Dewayne.rittenhouse@collins.com



Terry Truett Associate Director, Military Business Development – Interiors Ridgeway,SC (803) 900-0611 Terry.truett@collins.com



Chadwick Ford Associate Director, US Army and SOCOM-Connected Battlespace Implementation Huntsville, AL (843) 877-5500 Chadwick.ford@collins.com



Michael Cervone Director, Strategy and Business Development – Power & Controls Windsor Locks, CT (617) 413-4874 Michael.cervone@collins.com

### Freeman Holdings Group www.freemanholdingsgroup.com

FREEMAN HOLDINGS GROUP



Freeman Holdings Group full-service FBOs, located at 21 airports across the US, are capable of handling a variety of military training and contingency operations.

Walt Frederick West Regional Vice President (785) 250-2685 wfrederick@freemanholdings.com

David Turner East Regional Vice President (662) 825-3113 d.turner@millionair.com

#### FSI Defense, A FlightSafety International Company

https://www.flightsafety.com/government-

military/



FSI Defense is a wholly-owned subsidiary of FlightSafety

International providing fixed and rotor-wing training and aircrew instruction to the U.S. Army, Air Force, Navy, Marine Corps, Coast Guard and international defense customers.



Mr. Whitney Gardner Business Development Manager (808) 397-0112 Whitney.Gardner@flightsafety.com

#### Greenwood Aerospace Greenwood.aero

★ AAAA Member★ Magazine Advertiser★



Greenwood Aerospace is a HubZone Native American trusted partner to the U.S. Government and its allies. We offer customized Integrated Solutions based on program and mission-specific needs.

Mr. Heath Wallis Director of Government Business 1701 Sykes Blvd Ponca City, OK 74601 (580) 352-7285 heathw@greenwood.aero

Hamilton Caster & Mfg. Co. www.hamiltoncaster.com

### **HAMILTON**®

We manufacture the toughest casters, wheels, carts, and trailers to help the aerospace industry soar. Backed by 117 years of expertise, we deliver unmatched quality, durability, and fast lead times.



Mr. Mark Lippert President 1637 Dixie Highway Hamilton, OH 45011 (513) 863-3300 Mark.lippert@hamiltoncaster.com



Mr. Andy Stamp Director of Sales & Business 1637 Dixie Highway Hamilton, OH 45011 (513) 863-3300 andrew.stamp@hamiltoncaster.com

### **Metro Aviation**

choosemetro.metroaviation.com



Metro Aviation is the largest air medical completion center and traditional operator in the world. Continue your career with the Metro Family!

Britney Ratcliff HR Director bratcliff@metroaviation.com

#### Systems Products and Solutions, Inc. www.services-sps.com



SPS is solutions-based company with expertise spanning a broad range of defense ground and aviation services with a focus on FSR, SETA, Light Manufacturing, Logistics, and Maintenance Operations.





Mr. Dave Brown VP Operations 307 Wynn Drive NW Huntsville, AL 35805 (256) 213-1268 dave.brown@spsinchsv.com

Vali, Inc. www.valicorp.com



Vali provides Maintenance, Logistics, Training & Simulation in the U.S. and across the globe. Where we value Integrity, Dedication, Respect and Quality.



Steve Smith President & CEO 6767 Old Madison Pike, Suite 265 Huntsville, AL 35806 (256) 327-9328 steve.smith@valicorp.com



Rob Sova Executive Vice President (607) 351-3514 rob.sova@valicorp.com



Roger Moore Director of Business Development (931) 206-7889 roger.moore@valicorp.com

### **Training and Simulation**

#### Air Rescue Systems https://www.airrescuesystems.com/

ARS

Air Rescue Systems provides Advanced Technology, comprehensive helicopter Rescue Training, and field-proven Equipment.

Charley Shimanski Director of Training 295 Interlocken Blvd, Ste 100 Broomfield, CO 80021 (833) 600-8482 cshimanski@airrescuesystems.com

#### AVT Simulation avtsim.com



AVT Simulation is a small, disadvantaged, minorityowned, full-service systems integrator with capabilities in manufacturing, courseware, and instruction. AVT is the OEM of simulators like the AGT, TFATT, eRCTD, and CEVT.

AAAA Member Magazine Advertiser



Mr. Robert Abascal Founder & CSO 4715 Data Court Orlando, FL 32817 (407) 381-5311 x102 rabascal@avtsim.com



Mr. Kyle E. Crooks CEO 4715 Data Court Orlando, FL 32817

(407) 381-5311 x165

kcrooks@avtsim.com



Mr. Kevin Vizzarri Senior Vice President of Business Development 4715 Data Court Orlando, FL 32817 (407) 381-5311 x130 kvizzarri@avtsim.com

Bihrle Applied Research Inc.



Bihrle Applied Research Inc. is an innovative aeronautical research & development company providing fixed-wing and rotary-wing data, software solutions, and Subject Matter Expertise in the areas of aerodynamics, flight dynamics, and flight simulation.

Mr. Brian Wachter SVP 81 Research Drive Hampton, VA 23666 (757) 327-4409 bwachter@bihrle.com

Mr. Nathan Graybeal Director, Simulation Technology 81 Research Drive Hampton, VA 23666 (757) 327-4386 ngraybeal@bihrle.com

CAE USA https://www.cae.com/defense-security/



At CAE, we equip people in critical roles with the expertise to create a safer world. As a technology company, we

digitalize the physical world, deploying simulation training and critical operations support solutions.



Merrill Stoddard Division President, CAE Defense & Security, USA 5004 Air Cargo Rd. Tampa, FL 33614 Merrill.Stoddard@caemilusa.com



Bunky Litaker Director, US Army & Special Operations Business Development & Strategy 5004 Air Cargo Rd. Tampa, FL 33614 (813) 205-5461 Bunky.Litaker@caemilusa.com

### CATI Training Systems

www.catinet.com



CATI Training Systems, a leader in innovative Image Generator and Simulation Solutions providing superior training, system hardware integration, software design and development, research support and visual systems solutions since 1997.



Mr. Vincent C. Hill Vice President of Business Development 208 Heritage Way Ozark, AL 36360 (850) 461-9642 vincent.hill@catinet.com



Mr. Rolf Beutler President 208 Heritage Way Ozark, AL 36360 (334) 598-1319 rolf.beutler@catinet.com



Mr. Micheal Larkin Sr. Software Manager 208 Heritage Way Ozark, AL 36360 (334) 598-1319 michael.larkin@catinet.com



Mr. Peter Obear Sr. Software Manager 208 Heritage Way Ozark, AL 36360 (334) 598-1319 peter.obear@catinet.com



Mr. Misha Troshin Strategic Business Development 208 Heritage Way Ozark, AL 36360 (440) 376-6267 misha.troshin@catinet.com

Engenix, Inc. www.engenixinc.com \* AAAA Member \*



Engenix, Inc. is a team of Army Aviation Subject Matter Experts, specializing in problem-solving within aviation

training (including NETT), artificial intelligence, software development, IT services, and Foreign Military Sales logistics.



Mrs. Beth Kramer CEO 475 Providence Main, Suite 302 Huntsville, AL 35806 (256) 617-8766 beth.kramer@engenixinc.com

### FSI Defense, A FlightSafety International Company

https://www.flightsafety.com/governmentmilitary/



FSI Defense is a wholly-owned subsidiary of FlightSafety International providing fixed and rotor-wing training and aircrew instruction to the U.S. Army, Air Force, Navy, Marine Corps, Coast Guard and international defense customers.



Mr. Whitney Gardner Business Development Manager (808) 397-0112 Whitney.Gardner@flightsafety.com

General Atomics Aeronautical Systems, Inc. (GA-ASI) https://www.ga-asi.com/



GA-ASI produces world-leading UAS, including MQ-9A Reaper®, MQ-9B SkyGuardian® and SeaGuardian®, MQ-1C Gray Eagle, and next-gen solutions like Gray Eagle STOL that makes takeoff and landing capability from unimproved surfaces a reality.

Christopher MacFarland Senior VP, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (858) 688-4251 Christopher.MacFarland@ga-asi.com

Mathieu Petraitis Senior Manager, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (256) 503-3328 Mathieu.Petraitis@ga-asi.com

Denny Winningham Director, Army National Guard Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (202) 496-8229 Denny.Winningham@ga-asi.com

Jordan Ramrus Technical Advisor 14200 Kirkham Way Poway, CA 92064 (858) 312-2681 Jordan.Ramrus@ga-asi.com

#### Inter-Coastal Electronics (ICE) https://www.faac.com/inter-coastal/



ICE, the current TESS Program of Record holder for US Army Aviation, provides a low risk, cost effective, embedded training solution that provides immediate interoperability with Army ranges and CTCs.



Mr. Shawn Kirkpatrick President 5750 E. McKellips Road Mesa, AZ 85215 (480) 981-6898 shawn.kirkpatrick@inter-coastal.net



Mr. James Barker Vice President Business Development 5750 E. McKellips Road Mesa, AZ 85215 (480) 981-6898



Mr. Ben Covington Vice President of Programs 5750 E. McKellips Road Mesa, AZ 85215 (480) 981-6898 bcovington@inter-coastal.net

jbarker@inter-coastal.net

Lukos, LLC www.lukos.com



Lukos is a Small Disadvantaged Business (SDB) and Service-Disabled Veteran-Owned Small Business (SDVOSB). As a proven partner of the federal government, we deliver high-quality subject matter experts and mature processes through principled leadership. Our focus areas include training, operations support, force design and development, and public healthcare. "For the strength of the pack is the wolf, and the strength of the wolf is the pack" -Rudyard Kipling



Michael D. Weigart Vice President, Growth 800 S. Harbour Island Blvd Tampa, FL 33545 (813) 299-7406 michael.weigart@lukos.com

Moog Inc. https://www.moog.com/ AAAA Member



Moog is a worldwide designer and manufacturer, with a global sustainment program, of MOSA flight control systems, avionics, weapon SMS, DRL, slip rings, flight simulators for military and commercial aircraft.

Paul Rignel **Defense Sustainment Director** 500 Jamison Rd. East Aurora, NY 14052 (716) 393-7861 prignel@moog.com

Pedro Ramos **Business Development Manager & Special programs** 7455 Emerald Dunes Drive Suite 2200 Orlando, FL 32822 (912) 341-3188 Pramos2@moog.com

#### Phil Wrav

Director Business Unit, Military Global Sustainment 160 Jamison Road Elma, NY 14059 (716) 309-8568 pwray@moog.com

Jeff Markel

Director, Sustaining Engineering and Modernization 160 Jamison Road Elma, NY 14059 (716) 725-4874 jmarkel@moog.com

#### Andrew Kress

Site Sales Manager, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4169 akress2@moog.com

### Kim Jackson

Business Development Director, Power & Data Division 1213 North Main Street Blacksburg, VA 24060 (540) 443-4725 kjackson2@moog.com

#### Science and Engineering Services, LLC www.ses-i.com

AAAA Membe Magazine Advertiser



An industry leader in the modification and integration of rotary and fixed wing platforms, aviation training, maintenance and sustainment. SES offers a turnkey solution with a full spectrum approach that delivers the highest quality products to our customers.



Mr. Ralph Pallotta **Chief Executive Officer** 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-5000 Ralph.pallotta@ses-i.com



Mr. Brad Killen **Chief Operating Officer** 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-0770 brad.killen@ses-i.mail



Mr. Skip Sherrell Vice President, Business Development 248 Dunlop Blvd Huntsville, AL 35824 (256) 258-3992 skip.sherrell@ses-i.com

#### Torch Technologies. Inc. https://torchtechnologies.com/





Torch Technologies is a 100% employee-owned business that combines superior technical services with in-house labs, tools, and expertise aimed at solving the toughest engineering challenges for the Department of Defense.



Mr. Jay Lindsey Director 4090 Memorial Parkway SW Huntsville, AL 35802 (256) 319-6000 jay.lindsey@torchtechnologies.com

Vali, Inc. www.valicorp.com



Vali provides Maintenance, Logistics, Training & Simulation in the U.S. and across the globe. Where we value Integrity, Dedication, Respect and Quality.



Steve Smith President & CEO 6767 Old Madison Pike Suite 265 Huntsville, AL 35806 (256) 327-9328 steve.smith@valicorp.com



Rob Sova **Executive Vice President** (607) 351-3514 rob.sova@valicorp.com



Roger Moore **Director of Business Development** (931) 206-7889 roger.moore@valicorp.com

### Unmanned Aircraft Systems

Astrion Astrion.us



AAAA Member

Astrion drives defense and civilian missions forward with cutting-edge solutions, from test & evaluation and cybersecurity to mission engineering and advanced technologies. Combining unmatched agility with powerful capabilities, we maximize performance and guarantee mission success across air, sea, land, and space. When results matter, Astrion delivers. Astrion. Always On.

Mr. Jason Galindo Vice President, Aviation Systems 1100 Redstone Gateway ŚW, Suite 300 Huntsville, AL 35808 (256) 468-8595 jason.galindo@axientcorp.com

### **CAE USA**

https://www.cae.com/defense-security/



At CAE, we equip people in critical roles with the expertise to create a safer world. As a technology company, we digitalize the physical world, deploying simulation training and critical operations support solutions.



Merrill Stoddard **Division President, CAE Defense &** Security, USA 5004 Air Cargo Rd. Tampa, FL 33614 Merrill.Stoddard@caemilusa.com



**Bunky Litaker** Director, US Army & Special Operations Business Development & Strategy 5004 Air Cargo Rd. Tampa, FL 33614 (813) 205-5461

Bunky.Litaker@caemilusa.com

#### **Collins Aerospace, an RTX Business** https://www.collinsaerospace.com/

AAA Member  $\star$  Magazine Advertiser  $\star$  Scholarship Donor

### Collins Aerospace An RTX Business

Collins Aerospace, an RTX Business, is a leader in technologically advanced and intelligent solutions for aerospace and defense, helping to make the warfighter safer and more capable than ever before.



John Esposito Vice President, Strategic Pursuits Windsor Locks, CT (860) 478-3112 John.esposito@collins.com



Fred Manzo **Director, Army Programs** Arlington, VA (571) 982-2632 Fred.manzo@collins.com



Chet Treloar **Director, Strategic Pursuits** Lithia, FL (319) 651-2656 Chester.treloar@collins.com



Luke Schmidt Senior Director, Military Avionics & Helicopters Charlotte, NC (704) 430-1000 Luke.schmidt@collins.com



Erik Gilbert Senior Manager, Business Development-Military Rotary Wing Avionics Huntsville, AL (931) 307-6704 Erik.gilbert@collins.com

#### Rvan Scoble



Senior Manager, Business Development-Military Rotary Wing Avionics & MOSA Huntsville, AL (256) 430-4842 Thomas.scoble@collins.com



Manager, Hoist and Winch Ft. Novosel, AL (334) 379-2430 George.johnson@collins.com DeWayne Rittenhouse

Associate Director, Business

Chula Vista, CA

(612) 406-1081

**Development-** Aerostructures





**Terry Truett** Associate Director, Military Business Development – Interiors Ridgeway,SC (803) 900-0611 Terry.truett@collins.com

Dewayne.rittenhouse@collins.com



Chadwick Ford Associate Director, US Army and SOCOM- Connected Battlespace Implementation Huntsville, AL (843) 877-5500 Chadwick.ford@collins.com



Michael Cervone Director, Strategy and Business Development – Power & Controls Windsor Locks, CT (617) 413-4874 Michael.cervone@collins.com

### **COLSA**

https://www.colsa.com/ AAAA Member



COLSA is a demonstrated leader in innovative technologies with a legacy of quality and customer commitment. Functional markets include Cyber and Information Warfare, Uncrewed Systems, Federal Support Services, Data Science, and Systems and Software Engineering.







Mike Dove Program Manager (256) 964-5272 gdove@colsa.com

**General Atomics Aeronautical** Systems, Inc. (GA-ASI) https://www.ga-asi.com/

AAAA Member ★ Magazine Advertiser ★



GA-ASI produces world-leading UAS, including MO-9A Reaper®, MQ-9B SkyGuardian® and SeaGuardian®, MQ-1C Gray Eagle, and next-gen solutions like Gray Eagle STOL that makes takeoff and landing capability from unimproved surfaces a reality.

Christopher MacFarland Senior VP, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (858) 688-4251 Christopher.MacFarland@ga-asi.com

Mathieu Petraitis Senior Manager, Army Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (256) 503-3328 Mathieu.Petraitis@ga-asi.com

Denny Winningham Director, Army National Guard Strategic Development 310 Bridge Street, Suite 620 Huntsville, AL 35806 (202) 496-8229 Denny.Winningham@ga-asi.com

Jordan Ramrus Technical Advisor 14200 Kirkham Way Powav, CA 92064 (858) 312-2681 Jordan.Ramrus@ga-asi.com

**Hoverfly Technologies** 

www.hoverflytech.com ine Advertiser



Hoverfly Technologies is revolutionizing the government and commercial markets for long-duration, small footprint aerial surveillance and secure long-range communications with tethered UAS technology.

Bruce Tuftie **Chief Strategy Officer** 800 Central Park Dr. Sanford, FL 32771 (813) 205-7483 bruce.tuftie@hoverflytech.com

Tyler Marple Senior Manager, Business Development 800 Central Park Dr. Sanford, FL 32771 (407) 985-4526 tyler.marple@hoverflytech.com

Leonardo Electronics US, Inc. https://www.leonardo.us/

## & LEONARDO

Leonardo Electronics US Inc. is a subsidiary of Leonardo. We enable next-generation technologies in defense, security, medical, and industrial segments.



Mr. Hunter Marshall Director, Army Business Development (270) 291-9414 hunter.marshall@leonardo.us



Mr. Matt White Vice President, Business Development (571) 425-9746 matthew.white@leonardo.us



Mr. Clif Sawyer Vice President, Sensor Solutions (256) 285-7670 jay.sawyer@leonardo.us

Northwest UAV www.nwuav.com



America's trusted leader in American-made UAV propulsion and integrated solutions. For 18+ years, our team has equipped customers with reliable, cost-effective propulsion. NWUAV is an AS9100-D/IS09001-2015 certified, DCAA-compliant operation.



Mr Phillip Yager Business Development/Distribution of Goods & Engines 11160 SW Durham Lane McMinnville, OR 97128 (503) 434-6845 x126 Phillip.Yager@nwuav.com

#### **Piasecki Aircraft Corporation** https://piasecki.com/



Founded in 1955, Piasecki Aircraft Corporation (PiAC) is a research and development business specializing in design, fabrication and flight testing of experimental rotorcraft and unmanned air vehicles.



Mr. John W. Piasecki President and CEO 110 Stewart Huston Dr Coatesville, PA 19320 (610) 521-5700 piasecki\_jw@piasecki.com

### SAFE Structure Designs

www.SAFE-2.com \* AAAA Member \* Magazine Advertiser \*



SAFE Structure is a leader in the design, engineering and manufacturing of creative and customizable solutions for just about any project. Our custom design process for your project is completely free so why not give us a try!

John Bass Project & Product Director (817) 980-2922 Jbass@SAFE-2.com

Garry Bass MIL & OGA Operations (256) 631-7330 Garry@SAFE-2.com

Johnny Buscema President & CEO (727) 809-1146 Johnny@SAFE-2.com

Shield Al https://shield.ai/



Founded in 2015, Shield AI is one of two multi-billion-dollar defense tech companies founded in the past 20 years. In pursuit of the mission to protect service members and civilians with intelligent systems, Shield AI is building the world's best AI pilot. Its AI pilot, Hivemind, has flown a fighter jet (F-16), a vertical takeoff and landing (VTOL) drone (V-BAT), and a quadcopter (Nova). The company has offices in San Diego, Dallas, Washington, D.C., and abroad. Shield AI's products and people are currently in the field actively supporting operations with the U.S. Department of Defense and U.S. allies.

Mr. Jason Davis Director of Growth, Strategic Engagement 600 West Broadway, STE 450 San Diego, CA 92101 (931) 472-5267 Jason.Davis@shield.ai

Alan Chrils VP, Business Development (206) 890-1836 Alan.Chirls@Shield.ai

Teledyne FLIR www.teledyneflir.com



Teledyne FLIR Defense provides mission-critical technology and systems to the U.S. government and allied nations. Our wide array of defense solutions include mission-focused airborne surveillance and targeting gimbals and UAVs.



Mr. Dave Salter Director of Business Development 7055 Troy Hill Dr. Suite 300 Elkridge, MD 21075 (202) 227-0928 david.salter@teledyne.com

#### uAvionix https://uAvionix.com/defense



uAvionix provides advanced surveillance and communications solutions for UAS, specializing in low-SWaP Mode 5 IFF transponders and receivers to enhance defense operations and secure identification.

Bob Wells VP Defense 880 Harrison Street Leesburg, VA 20175 (803) 580-1864 bob.wells@uavionix.com



### BAE Systems

www.baesystems.com \* AAAA Member \* Magazine Advertiser \*



Our dedication shows in everything we deliver, from electronic systems to cyber operations and intelligence analysis. We give our customers a critical advantage where it counts.



Ryan Welch Director for Army Aviation Programs 400 Jan Davis Drive Huntsville, AL 35806 (256) 791-2193 ryan.welch@baesystems.com



Mike Olmstead Director for Army Communications, Electronics, Intel & Network Programs 6120 Guardian Gate Way, Suite 155 Aberdeen Proving Ground, MD 21005 (410) 610-9828 mike.olmstead@baesystems.com



Ron Lukow Director for Army Programs 2000 15th Street North, 10th Floor Arlington, VA 22201 (703) 376-1324 ronald.lukow@baesystems.com



Graham Ward Director, Future Vertical Lift 25 Manchester Street Manchester, NH 03054 (603) 400-9265 graham.ward2@baesystems.com



Chris Austin Senior Director, Countermeasure and Electromagnetic Attack Solutions 21 Continental Blvd Merrimack, NH 03054 (603) 885-4502 christopher.m.austin@baesystems.com



Scott McCoy Manager, Business Development 400 Jan Davis Drive Huntsville, AL 35806 (256) 993-2858 adam.mccoy@baesystems.com

Project Manger PM Apache NET Team

7047 Old Madison Pike, Suite 350

Chief of Corporate Operations

margaret.yee@digiflight.com

7021 Columbia Gateway Drive, Suite 300

7021 Columbia Gateway Drive, Suite 300

Mr John Haeme

(910) 495-6864 john.haeme@digiflight.com

Ms. Margaret Yee

Columbia, MD 21046 (301) 379-7506

Ms. Victoria Oliver

Columbia, MD 21046

Mr. Brian McFadden

tori.oliver@digiflight.com

Legal Counsel

(703) 888-6845

Huntsville, AL 35806



Michael Navarro Director, Business Development U.S. Army and International Programs 400 Jan Davis Drive Huntsville, AL 35806 (256) 426-9909 michael.s.navarro@baesystems.com

#### CTG. a Division of Blue Raven Solutions www.ctgnow.com AAAA Member 🖈 Magazine Advertiser



CTG, a Division of Blue Raven Solutions, provides Government, Defense and Commercial markets with technology-driven, scaleable supply chain solutions throughout platform lifecycles from newly fielded systems to legacy platforms. We focus full-spectrum, from systems and components to obsolescence management. We keep fleets and systems operational, ready and safe.



COL Jim Waring USA, Ret. VP, Strategic Business Development (757) 705-3607 jim.waring@blueravencorp.com



COL Matt Mingus USA, Ret. VP, Strategic Business Development Huntsville Office (334) 717-0706 matt.mingus@blueravencorp.com

**DigiFlight, Inc.** www.digiflight.com 🛧 Magazine Advertiser 🛧 Scholarship Donor ★ 👘

#### 51F \_IGH7 Accelerate Mission Success

DigiFlight helps accelerate mission success with technology solutions that protect our national security. Our unique core competencies enable us to deliver integrated support services for all critical phases of acquisition and technology management.



Mr. Stanford Oliver President & CEO 7021 Columbia Gateway Drive, Suite 300 Columbia, MD 21046 (703) 587-9416 stan@digiflight.com



BG (ret) Michael Flowers **Chief Operating Officer** 5206 Point Harbor LN Apollo Beach, FL 33572 (813) 453-4161 michael.flowers@digiflight.com



Mr. Larry Jess Senior Vice President, Aerospace Group 7047 Old Madison Pike, Suite 350 Huntsville, AL 35806 (256) 694-9695 larry.jess@digiflight.com



Mr. Tom Beck VP/Chief Marketing Officer 7047 Old Madison Pike, Suite 350 Huntsville, AL 35806 (256) 698-5654 tom.beck@digiflight.com







PM, RNLAF NET 7047 Old Madison Pike, Suite 350 Huntsville, AL 35806 (256) 426-6335 brian.mcfadden@digiflight.com



Mr. Kevin Belden PM Apache Operator NET Team, Task Lead 7047 Old Madison Pike , Suite 350 Huntsville, AL 35806 (334) 596-4731 Kevin.belden@digiflight.com

Mr. Scott Autry Director of Human Resources 7047 Old Madison Pike, Suite 350 Huntsville, AL 35806 (334) 462-1544 scott.autry@digiflight.com



Mr. Michael Perrin Senior Vice President, National Intelligence Group 7047 Old Madison Pike , Suite 350 Huntsville, AL 35806 (703) 220-1193 michael.perrin@digiflight.com



Ms. Alexandria Oliver Talent Acquisition Manager 7021 Columbia Gateway Drive, Suite 300 Columbia, MD 21046 (703) 888-6844 alex.oliver@digiflight.com

#### Helibasket LLC www.heli-basket.com AAA Member $\star$ Magazine Advertiser $\star$ Scholarship Donor $\star$

HEL BASKET 🛬

Helibasket LLC designs and manufactures helicopter external load and ground support equipment products that emphasize quality, safety, and logistical advantage. Helibasket delivers high-quality Tow Bridles, Electric Long Lines and Remote Tactical Hook Systems for extreme conditions; and

multiple person rescue devices including the Heli-Basket™.

Mr. John Tollenaere **Operations Manager** 450 North Hwy 11 West Union, SC 29696 (864) 638-6196 johnt@heli-basket.com Mr. Christian R. Oehring **Production Manager** 450 North Hwy 11 West Union, SC 29696 (864) 638-6196 christian@heli-basket.com

**Hilton Software** hiltonsoftware.com



Hilton Software has developed two advanced mobile software applications, WingX and Aero App. WingX has become a trail blazing application leading the way in game changing features. Aero App is being used throughout the United States Department of Defense and internationally by our United States Foreign Partners. Our goal is to build enhanced capabilities and safety through the integration of industry best practices and innovation.



Dr. Hilton Goldstein **CEO and Founder** 2730 N University Drive Coral Springs, FL 33065 (954) 323-2244 x405 karlar@hiltonsoftware.com

Honeywell Aerospace Technologies https://aerospace.honeywell.com/us/en/ products-and-services/industry/defense

## AAAA Member 🖈 Magazine Advertiser

## Honeywell Honeywell Aerospace Technologies provides products,

services, and software solutions for defense and space including engines, electronics, connectivity and mechanical components, solving military challenges with advanced technologies no matter the mission.

**Tory Burgess** Sr. Director, Army Programs 1944 E Sky Harbor Blvd N Phoenix, ÁZ 85034 James.Burgess2@honeywell.com

**Rolls-Royce Defense** https://rolls-royce.com/

AAAA Member 🛧 Magazine Advertiser 🛧



Rolls-Royce develops and delivers complex power and propulsion solutions for safety-critical applications in the air, at sea and on land.



BG(Ret) Ray J. Davis SVP- Business Development 1900 Reston Metro Plaza Reston, VA 20190 (703) 346-9143 jakie.davis@rolls-royce.com



COL(Ret) Roger D. Kuykendall VP - BD for Army Aviation Huntsville, AL 35757 (571) 548-1568 roger.kuykendall@rolls-royce.com



COL(Ret) Chad H. Smit VP - BD for Army National Guard Aviation Dallas, TX 75022 (817) 291-9150 chad.smith@rolls-royce.com

#### Sierra Nevada Company www.sncorp.com ne Advertiser



SNC is a trusted leader in innovative, advanced technology solutions and best-of-breed open architecture integrations in aerospace and national security.



Mr. Tim Owings **Executive Vice President** tim.owings@sncorp.com



Mr. Steve Clark Sr. Vice President, Programs (MST) steve.b.clark@sncorp.com



Mr. Joshua Walsh Vice President, Programs joshua.walsh@sncorp.com



Mr. Scott Beall Vice President, Government Relations scott.beall@sncorp.com



https://www.lockheedmartin.com/en-us/ capabilities/sikorsky.html AAA Member ★ Magazine Advertiser 🛧 Scholarship Donor ★



Director, Army and Air Force (AAFS) Strategy & Business Development

Mr. Jay Macklin

(256) 327-5311

jay.r.macklin@lmco.com



David "Rum" Morgan Air Force Business Development (202) 863-3291 david.a.morgan@lmco.com



Matthew Isaacson Sikorsky UH-60 Foreign Military Sales **Business Development** (256) 326-6912 matthew.i.isaacson@lmco.com



Ray Gentzyel Sr. Manager, Strategy and Business Development (334) 503-9664 ray.d.gentzyel@lmco.com



Army Strategy and Business



Aida Stallings Sikorsky Customer Awards Program Manager (334) 503-9664 aida.l.stallings@lmco.com



Mike Mudd Strategy & Business Development (813) 503-1926 mike.g.mudd@lmco.com

W. L. Gore & Associates gore.com



Gore delivers innovative aerospace and defense solutions, including wire, cable, and sealants, enhancing missioncritical systems with advanced materials that ensure reliability, durability, and performance in demanding environments worldwide.

Ken Parker **Business Development** 555 Paper Mill Rd Newark, DE 19711 (302) 292-7120 kparker@wlgore.com



The world-wide, year-round reference for individuals and organizations engaged in the overall field of U.S. Army Aviation.

## **Register & Buy Tickets Today!**

Exhibits & Sponsorships are Open!





May 14-16, 2025 | Gaylord Opryland Hotel & Convention Center Nashville, TN | quad-a.org/25Summit

## Special Focus >

Research & Development/Science & Technology





## Balancing Risk and Requirements in Continuous Transformation

By Dr. James Kirsch

he U.S. Army Combat Capabilities Development Command Aviation & Missile Center (DEVCOM AvMC) recently celebrated 62 years of delivering collaborative and innovative aviation and missile capabilities through responsive and cost-effective research, development and life cycle engineering solutions.

We remain committed to supporting the Army Futures Command's (AFC) purpose of continuously transforming the Army, not only through our science and technology programs, but also through our reimbursable support to acquisition partners and our partners in units.

As the trusted organization for both incremental improvements and groundbreaking advancements, we assist our mission partners through all phases – from Science and Technology (S&T) research to fielding and sustainment.

Warfare is evolving at an unprecedented pace, driven by rapid advancements in technology and tactics. This transformation is especially evident in the realms of uncrewed aerial systems (UAS), counter-UAS, and electromagnetic warfare. Our mission is to stay ahead of these changes, ensuring we meet the evolving needs of our Soldiers. To succeed, we must continuously adapt our approach and refine our strategies.

Within AFC, we dedicate significant time and effort to accelerating technology development. Now, we're focused on challenging the status quo by asking: how do we transform that technology into operational capability for our Soldiers even faster? Developing the capability is only part of the process – it must be proven to meet the requirement, be safe to operate, and be supportable on the battlefield. For aviation systems, we must also go through the airworthiness process. These processes typically involved significant testing and analysis before a capability reaches the hands of our Soldiers. To respond with new capability at the rate both technology and the threat demand, we must transform from a compliance-based approach to a risk-based approach. As the technical experts, we must better inform decision makers and senior leaders on the risks we can quantify as well as the risk incurred by what we do not know because we have not done all the analysis or testing. We must enable leaders to make informed decisions on where the Army can accept risk to accelerate capability delivery.

It also means we start earlier. We must include the airworthiness, safety, and material release communities earlier in the developmental cycle, whether that's S&T or whether that's engineering development in a program of record. We must understand that acceleration might translate into not doing as much testing or analysis, but balance that against the risk of not having the capability we need in the field.

Achieving this will require a careful balance—prioritizing reliability, safety, and other critical factors while focusing on what's essential for rapid deployment. This doesn't mean halting all testing; rather, it's about identifying a streamlined subset of tests that enable faster delivery of capabilities. Further testing can then reinforce our confidence in the technology after it's in the field, ensuring both speed and sustained assurance in performance.

In this month's issue, DEVCOM AvMC leaders illustrate just some of the work that the Center is doing to bring new capabilities to the Soldiers. Our Technology Development Directorate focuses on how work on the Future Long Range Assault Aircraft is utilizing technology such as Modular Open Systems



## WE'VE STOOD WHERE YOU STAND

For 10 years, he served in the Army as an aviation mechanic, serving multiple tours in Germany and providing mission support and training on Chinook helicopters wherever needed.

Today, Ron is our CH-47 Quality Inspector. He joined the Summit Team in 2002. Twenty-two years later, he loves that he's still providing top level quality support. Whatever you need, Ron and his team will make sure it's done right.

He knows what you demand - he's stood where you stand.





Approach that will allow for new advanced mission systems to be fielded faster and more cost effectively than ever before.

We look at how the Systems Readiness Directorate, as the Aviation and Missile Command's designated airworthiness authority, released a new, broadly applicable airworthiness report for small, multi-rotor unmanned aircraft systems, providing units with much greater latitude for UAS development and experimentation while alleviating repetitive administrative burdens.

Our Software, Simulation, and Systems Engineering and Integration Directorate details its work with the Army's Chief Information Officer, Deputy Assistant Secretary of the Army for Data, Engineering, and Software and other mission partners to create the Software Principles for Development Solution, a software infrastructure enabling the rapid development of critical Army software in a collaborative Impact Level 5 cloud environment.

It won't be easy, but we here at the Center thrive on solving hard problems. Our greatest strength are our team members – our innovators, researchers, scientists and engineers – prioritizing the Warfighter's needs, while collaboratively striving to provide the combat capabilities they require to win on the battlefield and return home safely. More than 12,000 strong – our diversity is our strength and will remain our asymmetric advantage as we work collectively to transform the Army for war-winning future readiness.

Above the Best!

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

## AVIATION SENIOR AND LEGACY LEADERS!



We are looking for former colored hat wearers to serve as the guest speaker for our current Flight School Color Hat Ceremonies. Fill out the form at the QR code or link below to join our roster.

https://forms.osi.apps.mil/r/pwZgHvDtgs



## Special Focus 🕨

## Research & Development/Science & Technology



## Army Aviation S&T: Developing Future Flight Control Technologies



By Dr. Jeffery A. Lusardi, Dr. Tom Berger and Ms. Christi H. Dolbeer

o enable continuous transformation, Aviation science and technology (S&T) researchers at the U.S. Army Combat Capabilities Development Command Aviation & Missile Center (DEVCOM AvMC) are focused on developing and advancing technologies to support future Aviation weapons systems.

Although technology has always advanced over time, the challenge now is that the rate of technological change is accelerating and the nature of how conflicts are fought is changing as well. For the Army to be successful on the battlefield of the future, Army S&T must be able to quickly adapt to evolving mission requirements to be able to field new capabilities faster without increasing risk.

For Army Aviation, this is happening in real time with the development of the Future Long Range Assault Aircraft (FLRAA). The FLRAA tilt-rotor configuration will provide the Army with an assault aircraft that combines the vertical takeoff and landing capabilities of a helicopter with the speed and range of a fixed-wing airplane, thus providing the best of both worlds. The platform will have a fly-bywire flight control system that provides the capability for FLRAA to operate with or without a pilot. The ARCTIC is a series of simulation studies DEVCOM AvMC is conducting in NASA's Vertical Motion Simulator, as part of the development of FLRAA.

FLRAA will have a Modular Open Systems Architecture that will allow for new advanced mission systems to be fielded faster and more cost effectively than ever before. The development of these new technologies presents the Army with many challenges, and one of the ways Army Aviation S&T is addressing this for FLRAA is with the Advanced Rotorcraft Configurations Testing of Increased Capabilities (ARCTIC) initiative.

ARCTIC is a series of simulation studies the AvMC is conducting in the Vertical Motion Simulator (VMS) located at the NASA Ames Research Center in Moffett Field, California. The VMS is the world's largest flight simulator, which is used primarily for high-fidelity testing of new and experimental aircraft designs. The aircraft mathematical models and flight control laws used for ARCTIC have been developed by AvMC specifically to support the development of Future Vertical Lift (FVL) platforms including FLRAA. To develop the objectives of the ARCTIC studies, AvMC collaborates with the FLRAA program office, the FVL Cross Functional Team (CFT), the Aviation Capability Development and Integration Directorate (CDID), the Army Aeromedical Research Laboratory and the Army test community from the Redstone Test Center. To date, five ARCTIC simulation studies have been conducted to support FLRAA development in the following areas.

#### **FLRAA System Requirements**

The FLRAA tiltrotor is a new configuration to the Army. It is different from the enduring Army fleet with regards to both the configuration and how the pilot controls the aircraft and is like the more familiar Navy V-22 Osprey.

The Handling Qualities requirements document for Army rotorcraft is MIL-DTL 32742 (formerly ADS-33E PRF). When the FLRAA tiltrotor is operating in helicopter mode with the pylons vertical and rotors pointing upward, the requirements of MIL-DTL 32742 apply.

However, when operating in airplane mode with the pylons horizontal and rotors pointing forward, what are the right "airplane" requirements to apply when conducting the Army mission? Also, when operating in the transition corridor between helicopter and airplane modes, what are the right requirements? To answer these questions, the ARCTIC studies have investigated the applicability of existing, and where gaps exist, the development of new handling qualities requirements for FLRAA.

Researchers have also developed and evaluated new Mission Task Elements to assess the maneuverability and agility of the platform at high speeds while operating up and away, as well as during terrain flight both during day and night.

#### **Mission Effectiveness**

The FLRAA tiltrotor aircraft will cruise at speeds up to 280 knots, much faster than the existing fleet of Army utility helicopters. How can this additional capability be leveraged to improve mission effectiveness on the battlefield of the future? What is the impact of speed and maneuvering on Soldier readiness when transporting Soldiers to and from the fight or during MEDEVAC missions, or even when operating in a formation?

The ARCTIC studies have investigated the interactions between speed, maneuvering, and height above the terrain on mission effectiveness as well as the impact on pilot workload and passenger comfort. The evaluations use a combination of engineering tasks and mission scenarios that are representative of how the Army plans to use FLRAA in future conflicts to answer these questions.

#### User Community Exposure to New Technology

The tiltrotor configuration and fly-by-wire flight control system on FLRAA are very different from any of the Army's enduring rotorcraft platforms. One of the main differences is the pilot's controls. The tiltrotor differs from a conventional rotorcraft in that the thrust lever controls vertical motion like a conventional helicopter collective in hover (pylons vertical), forward thrust like an airplane throttle in forward flight (pylons horizontal), and a combination of vertical and forward thrust in the transition range in between.

In addition, there is a thumb wheel to control the pylon angle. Also, the fly-by-wire flight control system provides the pilot with the option to select different flight control modes. These modes range from highly maneuverable modes for use during the day, to highly stable modes for use when visuals degrade at night or when operating in brownout.

The ARCTIC simulations studies have leveraged (or relied on) a diverse pilot pool of experimental test pilots (XPs) and operational pilots from the program offices, the test community, S&T community, requirements community and operational units. For most Army pilots this is their first exposure to these new flight control technologies that are the future of Army Aviation.

The ARCTIC series of simulation studies is the culmination of many years of collaboration between Army Aviation researchers and NASA simulation engineers conducting studies in the VMS. This close working relationship between the Army AvMC and NASA subject matter experts delivers a high-fidelity near flight like simulation experience that can adapt very quickly to evolving objectives. AvMC will continue to leverage this simulation capability to investigate evolving mission requirements and address potential issues before first flight of FLRAA.

Future ARCTIC study objectives include investigating how the human pilot interfaces with new technologies being developed to support both piloted and autonomous operation.

Dr. Jeffery A. Lusardi is the ST for Rotorcraft Flight Dynamics and Control; Dr. Tom Berger is the Vehicle Management and Control Branch Flight Controls Group Lead; and Ms. Christi H. Dolbeer is the Director for the Technology Development Directorate, DEVCOM Aviation & Missile Center, located at Redstone Arsenal, AL.



# SERVICE

#### KING AEROSPACE



972.441.2423 > KingAerospace.com

## **Special Focus >** Research & Development/Science & Technology

# Risky Business? By Mr. Keith Darrow



Risky Business, Joel Goodsen's father offers him this seemingly sage counsel: "Every once in a while you just gotta say 'What the heck?,' and take some chances."

Since my current job is diametrically opposed to that philosophy, I will not be echoing his advice here. In contrast, as the delegated airworthiness authority for most Army aircraft, I and the technical teams I lead are often in the position of helping senior leaders, acquisition project managers, unit commanders, and aircrews to more fully appreciate and manage the materiel risks that may affect their respective missions.

To clarify, although Army Regulation (AR) 385-10 identifies 14 functional areas for safety and occupational health, I am focusing here on only a small segment of that spectrum. Specifically, as the guy whose signature block graces over 1,000 airworthiness releases (AWR) each year, I am narrowly referring to potential hazards associated with aircraft hardware and software.

#### **Airworthiness Impacts**

In the airworthiness profession, we use airworthiness impact statements (AWIS) to convey critical information to risk decision authorities regarding non-compliances with airworthiness standards, the associated consequences, the probabilities of hazardous outcomes, and potential options for risk mitigation. For already fielded aircraft, an AWIS is typically the result of an engineering analysis triggered by an airworthiness issue or event (e.g., product quality escape; aircraft mishap).

Hazards identified in an AWIS are addressed by the respective project man-



ager's system safety management process. If not successfully mitigated, residual risks must be accepted at the appropriate level of authority prior to issuance of an AWR. Even after risks are accepted, project managers and their supporting airworthiness engineers continue to actively work to fully resolve open hazards and close gaps in the airworthiness qualification substantiation record.

#### **Airworthiness Teammates**

Successful resolution of materiel hazards often requires collaboration across a large team. Depending upon the issues at hand, that team will likely include the manufacturer of the aircraft or major aircraft subsystems, key suppliers, the respective Army project manager(s), the U.S. Army Aviation and Missile Command, and technical support from the Army Test & Evaluation Command. Multidisciplinary engineering support activities, particularly the U.S. Army Combat Capabilities Development Command's Aviation & Missile Center (AvMC), also provide critical technical assistance.

Hazard resolutions may take various forms. These include additional testing to complete airworthiness substantiation; additional engineering analysis, modeling, or simulations; software updates; revisions to component manufacturing processes; changes to component lives, maintenance intervals, or aircraft operating limitations; or redesign and retrofit activities. Contrary to Mr. Goodsen's advice, blithely opting to "Take some chances" is not on that menu.

## Why Bother Assessing Airworthiness of Unmanned Aircraft?

That is a frequent question, and it is important to note that the AWRs we publish for unmanned aircraft systems (UAS) are heavily dependent upon local risk management processes.

Department of Defense (DoD) policy – specifically, DoD Directive 5030.61, DoD Airworthiness Policy – requires that "all aircraft and air systems owned, leased, operated, used, designed, or modified by DoD must have completed an airworthiness assessment." At the DoD level, there is no exclusion for UAS. However, that's not the full story. DoD graciously granted the services some maneuver room: The full sentence in DoDD 5030.61 concludes with: "... completed an airworthiness assessment in accordance with Military Department policy."

Army airworthiness policy and implementation guidance resides within AR 70-62, last updated in 2016. While we work through the staffing process to solidify potential revisions to that policy, we've already implemented several significant measures that highlight potential hazards while unburdening units that operate non-weaponized UAS from many steps in the traditional airworthiness process. For example, in 2023 we published a proactive AWR to expedite units' utilization of several dozen commercially available small UAS (sUAS). For details regarding sUAS on the Controlled List of Evaluated and Released (CLEAR) systems, contact my UAS Airworthiness team at: usarmy.redstone.devcom-avmc. mbx.amr-av-uas-sp@army.mil

Furthermore, we recently published a new, broadly applicable AWR for small, multi-rotor UAS. It provides units with much greater latitude for sUAS development and experimentation while alleviating repetitive administrative burdens. When coupled with local risk assessments and risk acceptance, this new AWR satisfies airworthiness requirements for nearly all non-weaponized, multi-rotor UAS that weigh no more than 20 pounds gross takeoff weight, provided that they are only operated within restricted airspace or over government-controlled property. Contact my UAS team if you haven't yet received this new AWR.

Regarding potential changes to policy, as of this writing we are studying several proposals. For example, we anticipate that the three UAS Airworthiness Qualification Levels will no longer apply. Additionally, it appears likely that nearly all non-weaponized UAS employing individually controlled, very lightweight unmanned air vehicles (UAV), with maximum airspeed less than 100 knots, may not require airworthiness approval. Furthermore, there is potential that single-use, non-recoverable UAVs, regardless of launch method or payload, may no longer require airworthiness approval. By the time you receive this issue of *Army Aviation* magazine, you may have already seen some of these changes implemented via message, order, or perhaps in a new version of AR 70-62.

Returning to the question: Why bother with AWRs for UAS? The second half of the answer brings us full circle back to the topic of materiel hazards. Although there are no personnel onboard a UAV, any inherent materiel hazards may adversely affect manned aircraft or other UAS sharing the same airspace, or personnel on the ground. To date, no Army UAS has demonstrated a level of safety equivalent to that required for manned air systems. UAS are not typically designed to accepted engineering standards and/ or do not possess adequate engineering data to determine their compliance with airworthiness standards. Instead, AWRs for those systems are based upon system level safety assessments that identify potential hazards for the intended operations. Therefore, it is imperative that unit commanders and UAS operators heed the operating restrictions documented in the respective AWR (when an AWR is required); conduct location and mission specific hazard assessments; mitigate risks to the extent possible; and accept residual risks at the appropriate level of command, per Department of the Army Pamphlet 385-10.

#### Well-Managed Risky Business

Effective risk management requires a team effort. I greatly appreciate the intense thought and energy that the Army Aviation community devotes to this imperative activity. When needed, AvMC's airworthiness engineers are always available to help you assess materiel hazards that may affect your mission.

To close with a personal note, it has been my tremendous honor to serve within the Army Aviation Team during the past four decades.

Åbove the Best!

Editor's Note: After 40+ years of combined active duty and Army Civilian service, Mr. Keith R. Darrow, a member of the Senior Executive Service, recently retired from his final duty position as the director of the Systems Readiness Directorate, U.S. Army Combat Capabilities Development Command Aviation & Missile Center, located at Redstone Arsenal, AL. We at ARMY AVIA-TION Magazine thank him for his support over the years and wish him well in the next chapter of his life.



MS LISA GODENICK

## Special Focus >

Research & Development/Science & Technology

## Software Transformation for War-Winning Future Readiness



By Dr. Stephanie Brown Reitmeier and Mr. Carvil E.T. Chalk

igital Transformation. Agile Software Development. Cloud Based Platforms. Code as Architecture. Modular Open Systems Approach. These are very real and very critical moves for the Army to modernize its development, security, maintenance, and acquisition of software intensive platforms.

The U.S. Army Combat Capabilities Development Command Aviation & Missile Center (DEVCOM AvMC) Software, Simulation, and Systems Engineering and Integration Directorate (S3I) is leading the way in transforming the Army to ensure war-winning future readiness in these technical domains through a transformative effort: Software Principles for Development Solution (SPDS).

SPDS is a software infrastructure enabling the rapid development of critical Army software in a collaborative Impact Level 5 (IL5) cloud environment. Working closely with the Army's Chief Information Officer, Deputy Assistant Secretary of the Army for Data, Engineering, and Software (DASA (DES)), and other AFC organizations, SPDS is paving the pathway for a Government Cloud based Development Security Operations (DSO) platform as a service supporting system integrator roles in embedded system development. While the initial instantiation utilizes Microsoft's Azure<sup>TM</sup>, the architecture is being developed as Infrastructure as Code (IAC) for maximum scalability across Cloud Service Providers (CSPs).

As a concept, Development Operations (DevOps) merges, automates, and synchronizes traditionally segregated and serialized efforts, such as software development, security, and safety operations, into a streamlined, iterative, collaborative effort. In the case of SPDS, it is both the environment and the accompanying cultural philosophy that will produce high-quality software sooner, safer, and more affordably.

Tooling customized in SPDS streamlines control points for seamless end-toend software delivery. SPDS includes provisioning digital workspaces for cus-



tomers, stakeholders, and industry partners to collaborate in the development process simultaneously, eliminating traditionally stove-piped efforts for certification, using Continuous Integration/Continuous Deployment (CI/CD) pipelines.

As a Government Owned Government Operated (GOGO) solution, SPDS brings together government software assets and Contractor-Owned Contractor-Operated (COCO) assets provided by the Defense Industrial Base (DIB). This approach bridges the gap between the DIB and the Government, ensuring a unified and trusted operational environment for sharing and testing system solutions. Working together in such an environment cultivates positive workforce experiences, makes modern software resources available across the enterprise, and provides the opportunity for data sharing. SPDS is demonstrating the power of integration for critical development, quality, safety, and cyber activities that support the Army's software needs by leveraging cultural and technological changes that optimize deployment of advanced capabilities ahead of our adversaries.

The most comprehensive example of SPDS impact to acquisition to-date is being demonstrated in a pilot program for development of the Uncrewed Vehicle Control (UVC). DEVCOM AvMC is



supporting Program Manager Uncrewed Aerial Systems with UVC development and is providing SPDS as the common DSO platform for government and industry. UVC provides a hardware agnostic, common software solution for the control of both ground and air robotics, individually and as heterogenous teams.

To deliver the capability and adjust at the speed of innovation, it is critical that a wide variety of vendors and government stakeholders can participate. This is accomplished by enabling multi-vendor access through SPDS for UVC. SPDS and the integrated, parallel development philosophy it represents, clearly enable the Army to Transform in Contact by supplying software-centric systems and their developers with a capability to adapt faster than our adversaries and maintain a decisive edge for future warwinning readiness.

Dr. Stephanie Brown Reitmeier is the director of the Software, Simulation, and Systems Engineering and Integration Directorate (S3I) at the U.S. Army Combat Capabilities Development Command Aviation & Missile Center (DEVCOM AvMC). Mr. Carvil E.T. Chalk is the S3I Technical Deputy Director for Program Support (acting). Both are assigned to Redstone Arsenal, AL.



## TLC FOUNDATION GRANTS NOW AVAILABLE

APPLY TODAY AT QUAD-A.ORG

### AAAA TLC FOUNDATION INC.

Trade Schools, Licensing, and Certification

## Special Focus >

Research & Development/Science & Technology

## Aviation Turbine Engines Project Office Supports the Warfighter of Tomorrow

By Gina Bublitz



The Aviation Turbine Engines (ATE) Project Office equips today's warfighter with quality T700 and T55 engines and supports tomorrow's warfighter and beyond with the T901 Improved Turbine Engine (ITE) and Electrical Power Systems (EPS) initiatives.

#### **Revolutionizing Army Aviation**

The ITE, also known as the T901-GE-900 (T901), combines advanced, additive manufacturing and traditionally machined parts to produce an engine that, despite using less fuel, is 50 percent more powerful than the T700 with only a marginal weight increase. The 3,000-shaft horsepower engine fits in the current engine mounting, nacelle, and installation envelope of the AH-64 Apache and the UH-60 Black Hawk helicopters and will replace the T700 engines in both aircraft. The T901 significantly increases the platforms' mission payload while operating in high altitude/high temperature conditions. and dramatically improves the ground commander's reach, survivability, and lethality across the battlefield. With the added capability, the AH-64 and UH-60 helicopters will meet mission objectives faster, with fewer aircraft, and spend more time on station while using less fuel. The ITE engine will power the Black Hawk and Apache fleets more efficiently and increase reliability for future aviators.

The Chief of Staff of the U.S. Army, General Randy George, emphasized the importance of continuous transformation in his speech at his swearing in ceremony in September 2023, and it remains one of his four focus areas. The ITE engine is a prime example of Army Aviation's continuous transformation efforts as it improves on the capabilities of the T700 enduring engine.

Building on the current T700 maintenance practices, the T901 uses Prognos-



Two Army T901-GE-900 (T901) flight test engines were integrated into a UH-60M Black Hawk at Sikorsky's facility in West Palm Beach, Florida.

tic and Predictive Maintenance for selfdiagnosis and automated maintenance alerts to better serve the future warfighter. This leap-ahead technology drastically improves fleet management abilities by sharing health and maintenance data across the network with the Aviation enterprise. The Engine Health Monitoring System conducts accurate assessments of engine health and remaining life, allowing a needs-based maintenance model. Needs-based maintenance, rather than calendar or hours-based maintenance, reduces time off station and overall maintenance costs.

The T901 also uses advanced erosion resistant coatings, thermal barriers, and cutting-edge technologies such as Ceramic Matrix Composites to increase engine durability. The ITE is a once in a generation technology advancement designed to meet evolving threats and give the future warfighter increased reach, lethality, and reliability.

#### **Continuous Transformation**

ATE is adapting and moving towards

the future of the Army as it prepares for the T901 First Flight. The Army conducted on-wing ground test using the FARA prototype at Sikorsky's test facility in early 2024. The tests reduced risk for the Black Hawk integration testing processes and instrumentation procedures and accurately characterized in-aircraft engine thermal conditions.

On 27 June, ATE delivered two T901 Improved Turbine Engines to Black Hawk manufacturer Sikorsky's West Palm Beach facility for integration and testing on the UH-60M. Sikorsky installed the T901 ITE into an Army Black Hawk in Sept., marking a major milestone in the engine integration process. Sikorsky will complete ground runs early next year with the first flight set for later in 2025. These events will set the condition for UH-60M engine qualification testing beginning in FY26 to support a pathway to Milestone C in FY29. The ITEP and ATE's EPS initiatives keep the Army of 2030 aligned with its continuous transformation strategy.

#### Additional Efforts Supporting Continuous Transformation

Current Army aircraft platforms have electrical system capability gaps today including aging technologies, limited growth margins, and manual loadshedding required in the event of inflight emergencies or system failures. These gaps will only increase in the future as newer, more advanced avionics, electronics, and survivability systems with increasing electrical loads and demands are integrated in the future. In support of the PEO Aviation Aircraft Modernization strategy, the EPS program will develop a modernized Electrical System Architecture and common components to increase aircraft electrical system capacity and capability, and improve safety and survivability for the warfighter.

The EPS program is multi-faceted and once funded, the team will first focus on architecture and power management efforts. Working in close coordination with the platform offices, original equipment manufacturers, industry, and S&T community, the EPS team will conduct platform-specific architecture studies to define where gaps exist, what upgrades are needed, and how best to modernize the electrical systems utilizing more ad-



vanced, common components. The Smart Power Management effort will capitalize on new technology available now to decrease pilot workload, increase system efficiency, and increase safety during inflight emergencies by providing more active power management available in both civilian and other military platforms in use today.

Other initiatives, if funded, will address higher capacity generators, flightworthy Supplemental Power Units vs. Auxiliary Power Units to increase system capacity and redundancy, and modernized converters capable of handling increased electrical thermal loads.

Ms. Gina Bublitz is the Aviation Turbine Engines Project Manager within the Program Executive Office for Aviation, Redstone Arsenal, AL.



## Special Focus > Future Vertical Lift

# EDGE 24: Focused on Behaviors

By BG Phillip C. Baker



or the past four years, the Future Vertical Lift Cross-Functional Team (FVL CFT) hosted the Experimental Demonstration Gateway Event (EDGE). These tech and experimentation-heavy events are an integral part of the Army Futures Command's (AFC) persistent and iterative approach to transform the Army. Additionally, EDGE complements AFC's Project Convergence Capstone events, linking experimentation and lessons learned from the previous year to the next.

This year, EDGE 24 was held at Yuma Proving Grounds, Arizona, from 09 to 25 September 2024. Whereas previous iterations focused generally on tech suitability, EDGE 24 was designed to specifically study autonomy and collaborative behaviors for tactical echelons.

#### **Persistent Experimentation**

For the small team of Soldiers and Civilians on the FVL CFT, planning, coordinating, and hosting this world-class event was an all-hands effort that took over a year of preparation. Planning began at the conclusion of EDGE 2023 in May 2023 and included feedback from other Persistent Experimentation (PE) opportunities, Special User Events (SUE), modeling, studies, and previous EDGE lessons learned. The reams of information from those events formed the blueprint for what would become EDGE 24.



U.S. ARMY PHOTO BY SFC JOHN L. CARKEET IV, 75TH I

It is impossible to conduct experimentation without partners so, in January 2024, the FVL CFT solicitated organizations to nominate technologies to participate either at EDGE 24, at the complementary Position, Navigation, and Timing Assessment Exercise (PNTAX), or at the Army intelligence community's Vanguard 24. Of the organizations that submitted white papers, five industry and 12 government technologies were selected to participate at EDGE and PNTAX 24.

In the buildup to EDGE 24, FVL CFT conducted a Waveform Study at Eglin Air Force Base, Florida in July Top Photo: Unmanned Aircraft Systems (UAS) used as surrogates for launched effects (LE) prepare to take off during EDGE 24 on Sept. 10, 2024. The UAS demonstrated advanced collaborative and autonomous behaviors against threats at echelon.

Lower Photo: Soldiers from the 75th U.S. Army Reserve Innovation Command and Department of Defense contractors discuss the technical aspects of synchronizing autonomous air and ground systems in preparation for a live demonstration at EDGE 24 on Sept. 17, 2024, at Yuma Proving Ground, AZ.

2024 to determine the critical characteristics of the Advanced Networking Waveforms (ANWf) required for a
Launched Effects (LE) team to conduct cooperative operations in future environments. Here, subject matter experts from across the Army tested cyber vulnerabilities, assessed levels of protection against detection by an adversary, and conducted flight tests at operational distances in both contested and uncontested environments. In addition to informing experimentation parameters for EDGE 24, the analysis derived from ANWf testing will be used to inform future requirements updates for LE, Future Long-Range Assault Aircraft (FLRAA), Future Tactical Unmanned Aircraft System (FTUAS), and will be included in enduring fleet modernization.

#### Execution

In early September, the FVL CFT's cadre of experimentation and operations specialists closed on Yuma Proving Grounds and were joined by Soldiers from 3-187th Infantry Battalion, 3rd Brigade Combat Team, 101st Airborne Division to help run the event. Over the course of the next two weeks, the 28 different industry and government LE surrogates flew over 190 hours through four situational training exercise (STX) lanes replicating brigade, division, and corps level threat arrays.

During these tests, the FVL CFT partnered with the Aviation Capability Development Integration Directorate (CDID), Army Test and Evaluation Command (ATEC), and the DEV-COM Analysis Center (DAC) to closely observe and test the capabilities of the technologies regarding the autonomy and collaborative behaviors required in Launched Effects. These were: individual flight route control, lethal terminal guidance, sensor control and functionality, data traffic capability, collaborative tipand-cue, aerial deconfliction, team management and tasking, and time on target (TOT) guidance.

Although EDGE 24 had a much narrower scope than previous events, there were some notable "firsts" observed by the FVL CFT:

• Autonomous machine-to-machine radio frequency-to-electro-optical / infrared (RF to EO/IR) tip-and-cue. Previously, this required a human operator to manually bridge the handover.

• Autonomous, dynamic route modification and execution. Up until then, air vehicles only followed pre-programmed or human directed routes.

These technological outputs were consequential and will inform not only

Launched Effects, but the other FVL CFT-led Capability Development Documents and future science & technology and market assessments.

### Lessons Learned

Reflecting on the three learning demands above, EDGE 2024 showed that industry partners were able to demonstrate the maturity of autonomous operations through their sophisticated air vehicle flight and route control, diversity of sensor functionality and control, target recognition, and their management of data traffic. Collectively, they showed industry's technological preparedness for air vehicles to autonomously collaborate within a team to execute a mission. From a broader perspective, EDGE 2024 highlighted that autonomous behaviors built into LE will provide a decisive advantage to maneuver unit commanders.

### Conclusion

What we learned at EDGE 24, along with other events like Vanguard, PNTAX, and the Waveform testing, is all part of a continuous requirement refinement process that will progress through Project Convergence Capstone 5 (PCC5) and culminate in an informed LE requirement update next year. EDGE 24 and other persistent experimentation events prove that we have made significant progress in answering many of the questions and learning demands that went out to our industry partners back in January. Namely, we demonstrated viable autonomy and collaborative behaviors in LE surrogate groups to identify threats and accomplish other mission tasks. Additionally, systems demonstrated the ability to communicate among a group and back to a command node, even in denied and contested environments.

EDGE 24 not only helped define LE requirements, but also provided industry an excellent venue to showcase and mature their technologies through multiple iterations and scenarios. These technologies are now demonstrating capabilities that will soon provide Army, Joint, and Coalition commanders with the ability to deploy LE from air or ground platforms to sense deep and deliver lethal and non-lethal effects. It will be interesting to see how much these technologies will mature when we see them again next year at PCC5.

BG Phillip C. Baker is the director of the Future Vertical Lift Cross Functional Team located at Redstone Arsenal, AL.



Suspense: June 1 Nomination Information Available at AWARDS@QUAD-A.org



## Transitioning to Next Gen Warfare -The Cribbins Readiness Conference!

he Army Aviation Association of America sponsored the Annual Cribbins Readiness Conference 11-13 November 2024 at the Von Braun Center in Huntsville, AL. This year's event brought both Army Aviation and industry together in record numbers to focus on the state of Army Aviation and its future.

On Monday morning, AAAA President, MG (Ret.) Walt Davis, officially welcomed all the attendees and reiterated our mission of support to the soldiers and families of Army Aviation.

Army Aviation Branch Chief, MG Clair Gill congratulated the winners of the 2024 AAAA National Functional Soldier and Unit Awards together with the Aviation Branch Chief Warrant Officer of the Branch, CW5 Mike Corsaro, and Branch Command Sergeant Major Kirk Coley.

MG Lori Robinson, AMCOM commanding general, delivered the keynote address and MG Gill provided a Branch update to round out the morning's sessions finishing in time for attendees to watch the Huntsville Veterans Day Parade as it passed by the Von Braun Center.

Monday afternoon saw the return of the popular Foreign Military Sales Systems Sustainment Discussion moderated by past Army Aviation Branch Chief, BG (Ret.) E.J. Sinclair which was followed by the opening of the exhibit hall and a reception.

PEO Aviation, BG Dave Phillips opened the professional sessions on Tuesday followed by recently redeployed COL Khirsten Schwenn, commander of the 82nd Combat Aviation Brigade, with a field perspective of readiness and the morning sessions wrapped up with BG Matthew Braman, the director of Army Aviation, giving detailed updates about the current and future focus areas critical to Army Aviation from the DA perspective.

The afternoon working groups were well attended. The Aviation community was on hand to hear the functional leaders' thoughts in the areas of Aviation Sustainment in the Future Fight, chaired by MG (Ret.) Jim Myles; as well as from the capability managers from the Attack Helicopter, Future Attack Reconnaissance Aircraft, Unmanned Aircraft Systems, and Aviation Mission Systems and Architecture project offices, moderated by MG (Ret.) Bill Gayler, and the discussions moderated by BG (Ret.) Tim Edens with PMs Utility Helicopter, Cargo Helicopter, Future Long-Range Assault Aircraft, and Fixed Wing project offices and their industry representatives and ACM Lift. The afternoon ended with a working group chaired by BG (Ret.) Steve Mundt discussing lowering sustainment costs through technology.

That same evening, the Army Aviation Scholarship Foundation held its third annual fundraiser - this time a Speakeasy Secrets: Murder Mystery Dinner Theater which garnered a whopping \$95,000 dollars for the Foundation!

The working groups kicked off Wednesday morning with panels on How the Digital Ecosystem is Changing Sustainment chaired by Dr. Bill Lewis; followed by another on Maintaining Readiness Through Supply Chain Risk Management, moderated by LTG (Ret.) Thomas Todd. The DEVCOM Aviation and Missile Center was up next with an Aviation Future Technology Panel moderated by Ms. Christi Dolbeer, Technology Development Directorate director. And MG (Ret.) Todd Royar moderated a CODEX HUMS working group to wrap up the morning.

Wednesday afternoon's professional sessions began with an update by COL Roger Waleski, commander of the U.S. Army Special Operations Aviation Command; followed by Future Vertical Life Cross-Functional Team director, BG Cain Baker. The afternoon sessions closed out with Mr. Joe Giunta, a Senior Executive Service member and the Director of the Army Contracting Command at Redstone Arsenal, presenting an update on the contracting efforts underway for Aviation.

The expanded format for the Cribbins Conference has proven to be a great success! Mark your calendars and we will see you on 18-20 November 2025!















1. MG (Ret.) Walt Davis makes opening remarks at the Cribbins Readiness Conference onMonday, Nov. 11, 2024, at the Von Braun Center in Huntsville, AL.

2. Mayor Tommy Battle welcomes the attendees to Huntsville.

3. MG Lori Robinson, Aviation and Missile Command commanding general, provides the keynote address on opening day. 4. More than 120 exhibitors filled South Hall at the Von Braun Center.

5. MG Clair Gill, Army Aviation Branch Chief and commanding general of the U.S. Army Aviation Center of Excellence and Fort Novosel, AL, and Honorary Army Aviation Branch Chaplain, COL (Ret.) Sonny Moore and his wife, Celia, enjoy the Huntsville Veterans Day Parade as it passes by the Von Braun Center shortly after the first day professional sessions. 6. Working groups in the exhibit hall theater generated much interest and were well attended.

7. The AAAA National Executive Group, MG (Ret.) Wally Golden, MG (Ret.) Walt Davis, BG (Ret.) Tim Edens and MG (Ret.) Todd Royar, find themselves in hot water for a good cause during the Speakeasy Secrets Murder Mystery Dinner Theater on Tuesday night which raised \$95,000 for the AAAA Scholarship Foundation!



Army Aviation Association of America

### **2024 National Awards** Presented at the Cribbins Readiness Conference

November 11-13, 2024 - Von Braun Center - Huntsville, AL



LTC Gregory S. Sterley and CSM Joshua D. Gary, commander and senior noncommissioned officer, respectively, of 96th Avn. Spt. Bn., 101st Cbt. Avn. Bde., Ft. Campbell, KY, accept the Outstanding Logistics Support Unit of the Year award.



Mr. Jeff Montgomery, UAS/IMS Maintenance Services Program Manager for Pinnacle Solutions, Huntsville, AL, accepts the Material Readiness Award for an Industry Team, Group of Special Unit!



CW3 Jonathan L. Chandler, Co. D, 2nd Bn., 160th Spec. Ops. Avn. Regt. (Abn.), Ft. Campbell, KY, winner of the Logistics Support Technician of the Year award is congratulated by (I to r) CW5 Corsaro, MG Gill, MG (Ret.) Davis, and CSM Coley.



DigiFlight Chief Operating Officer, BG (Ret.) Mike Flowers accepts both the 2024 Small Business Material Readiness Award for the company and the Individual Material Readiness Award on behalf of Mr. Ernie Jones, a DigiFlight employee who could not attend.



COL (Ret.) Rick Crogan, senior VP for operations, Amentum, accepts the Material Readiness Award for a Major Contractor.



MAJ Marshall R. Titch, commander of Company D, 82nd Aviation Regiment, 82nd Combat Aviation Brigade, Fort Liberty, North Carolina accepts three awards for the unit and unit soldiers who could not attend... SGT Jonathan L. Stark, the UAS Soldier of the Year; CW3 Georgina F. Jones, the UAS Operations Technician of the Year; and D/82nd Avn. Regt. as the UAS Unit of the Year.



LTC Paul R. Wallace and 1SG Nicholas R. Thompson, commander and senior NCO respectively of 224th Military Intelligence Bn. (Aerial Exploitation), from Hunter Army Airfield, GA accept the Fixed Wing Unit of the Year award. Helping to congratulate them is Mr. Bunky Litaker (2nd from right) representing the award sponsor, CAE USA Defense and Security.



Building better futures, one grant at a time!

# Industry Needs Qualified Personnel In The Trades By Mr. Corey Caldwell and BG (Ret.) E.J. Sinclair

he Aviation industry is a prime example of how hands-on skills and specific certifications are vital to supporting Army Aviation and our Warfighters. As this industry evolves and technology advances, the demand for specialized skills and practical knowledge has surged. Science and Engineering Services LLC (SES) employs hundreds of reservists, National Guard members, and veterans critical to aircraft modification, maintenance, and sustainment. Among the many certifications available, the Airframe and Powerplant (A&P) licenses stand out as a unique credential that is just as, if not more, marketable than a college degree, especially in the Aviation industry.

According to the U.S. Bureau of Labor Statistics, the demand for aircraft and avionics mechanics is expected to grow considerably every year for the next 8 years. A&P license holders are highly sought after because they possess the specialized skills to maintain and repair aircraft.

With unemployment rates at a historic low, the Aviation industry is experiencing increased competition due to the need to hire skilled mechanics. An A&P license provides a direct pathway into the industry and offers significant job security, as experienced technicians are critical to the industry's operations.

This specialized skill set is highly valued by employers in the Aviation sector, where precision and expertise are paramount. The ability to troubleshoot complex systems, perform detailed inspections, and execute repairs directly measures a candidate's capability and readiness for the job.

Cost and time efficiency are compelling reasons to consider an A&P license. This license typically requires a shorter training period and lower overall costs than a traditional degree. For those looking to enter the workforce quickly



An SES, LLC facility.

and with minimal debt, the A&P route offers an attractive alternative. Students in A&P programs can complete their training in about 18 to 24 months, compared to the four or more years required for a bachelor's degree. This path allows individuals to begin their careers sooner and provides a quicker return on their investment.

To obtain this license, candidates must demonstrate airframe and powerplant systems proficiency through rigorous testing and practical exams. A&P programs are designed to provide students with immediate, practical experience. This on-the-job training involves hands-on learning with actual aircraft and tools, ensuring that graduates are well-prepared to tackle the challenges of the Aviation industry from day one. Employers highly value candidates who can immediately contribute effectively without extensive on-the-job training, making A&P license holders highly sought after.

Certifications like the A&P license are recognized industry-wide, providing a clear benchmark for competency and professionalism. Obtaining an A&P license can open doors to better career advancement opportunities for those already in the Aviation industry. While traditional college degrees have been considered the gold standard for career advancement, my first step is to scan for an A&P certification when reviewing resumes for any of our aircraft-related positions. Airframe and Powerplant licenses offer a competitive edge that should not be underestimated. For those passionate about Aviation and eager to start a rewarding career quickly, pursuing an A&P license could be the key to unlocking new opportunities and achieving success in the Aviation industry. Most importantly, having trained and skilled individuals working on or around aircraft is essential to ensure the safety of those around us, especially Warfighters.

Corey Caldwell is the HR Manager at Science and Engineering Services; BG (Ret.) E.J. Sinclair is the Vice Chairman of Science and Engineering Services and a member of the TLC Foundation Board of Governors.

### From the Field Patient Transfer Programs: An Untapped Mission Set for Army MEDEVAC By CPT Justice Bennett





he motto "when I have your wounded" has defined Army MEDEVAC since Vietnam as a corps willing to do whatever it takes to save lives. However, stateside, the military health system does not have your wounded—civilian hospitals do, treating more than double the amount of TRICARE beneficiaries as military treatment facilities (MTFs) in FY22, according to data from the Defense Health Agency (DHA).

Civilian hospitals are struggling to manage increased patient volume with a chronic staffing crisis. Simultaneously, MTFs are seeking more patients to increase their operational readiness. The proposal is simple: Army MEDEVAC should bridge the gap by providing aeromedical transportation for TRICARE beneficiaries between overburdened civilian hospitals and underutilized military hospitals. In the process, Army MEDE-VAC can save taxpayer money, increase operational readiness, prepare for largescale combat operations (LSCO), and usher in a new era of civilian-military medical integration and cooperation.

### Saving Money

TRICARE provides care for 9.4 million beneficiaries through two methods; "direct care" at an MTF or "purchased care" through a civilian provider. The military health system (MHS) faces a concerning trend where more and more care is being provided by civilian providers at an increasing cost to the government.

Over the last three years, inpatient encounters at private-sector facilities have gone from 34% to 40% and the inpatient cost per beneficiary for private sector care increased by 10 percent, while the same cost for direct care decreased by eight percent, according to data from the DHA.

Military leaders at every level face difficult decisions on how to maximize value from limited budgets. Rather than continuing to spend more for private care, we should save money by providing direct care and investing in our own capability.

This can also save money through retention. The cost to recruit, train and retain medical personnel is one of the top three costs to the MHS. Research confirmed that a top reason medical providers leave the military is their inability to maintain clinical skills. By re-capturing more patients, we may also increase retention, which will permit us to save on the expensive recruitment and training of new medical providers. Army medical personnel want to put their skills to work at the service of patients so let's them.

### Increasing Operational Proficiency

Several studies have investigated how to maintain the medical competencies and skills needed for combat in a peacetime environment. In the D.C. Army National Guard, we are fortunate that every single one of our critical care flight paramedics also works in acute patient care on the civilian side. They hone skills in a wide range of trauma injuries, some applicable to combat, that most activeduty military healthcare providers do not have the opportunity to treat. Above Left: D.C. Army National Guard UH-60 on the helicopter pad at Augusta Alexander T. Augusta Military Medical Center, Fort Belvoir, February 25, 2007.

Above Right: Det 2, G Co 2-104th GSAB conducts medical training with D.C. National Guard Medical Detachment, Jun. 7, 2024.

In recent years, some MTFs, including Brooke Army Medical Clinic and Walter Reed, have sought authorization to treat emergency civilian patients in order to increase patient volume, gain exposure to the clinical variety that our flight paramedics have, and increase the readiness of military health care providers.

That level of integration between MTFs and the civilian trauma system is important for domestic preparedness, but what if we also just did a better job of connecting TRICARE beneficiaries with MTFs?

In many ways, these efforts are complementary. It does not violate the Economy Act for Army MEDEVAC to provide transfer of TRICARE beneficiaries from civilian hospitals to MTFs. It would also increase the connective tissue between the MHS and the civilian emergency management system (EMS) that will inevitably share the burden of any natural disaster, pandemic, or attack on our homeland.

It will also prepare Army MEDE-VAC for the missions that it is likely to execute in LSCO. One of the primary roles of Army MEDEVAC will be transferring a high volume of patients between Role II and Role III levels of care in addition to, or possibly in lieu of, the long tradition of Point-of-Injury (POI) evacuation, according to the Department of Aviation Medicine at the Medical Center of Excellence. While it is easy to underestimate the difficulty of patient transfer operations, there are complexities to ensuring a continuity of care between different facilities, managing medications, and developing coordination procedures that we should get proficient in now.

### Alleviating the Burden on the Civilian System

While MTFs have sought authorization to treat civilian patients to increase patient volume, civilian hospitals have sought to offload patients that they do not have the manning or capacity to treat.

Amidst a decline in primary care, the percentage of adults with emergency department visits continues to increase every year, according to data from CDC through at least 2019. At the same time, the American Hospital Association expects a shortage of up to 3.2 million health care workers by 2026. As a result, according to data from the Centers for Medicare & Medicaid Services, the median time patients spent in the emergency rooms increased 16 percent from 2014 to 2022 and could get far worse. Other studies, including from the Joint Commission, report an increase of 20 percent in "adverse events" that negatively affect patient outcomes.

Army MEDEVAC has long recognized the importance of connecting patients to care in a timely fashion through the "golden hour" standard. An Army patient transfer program could help alleviate the strain on the civilian hospitals by keeping some of the almost 10 million TRICARE beneficiaries out of civilian hospitals and instead connecting them with more timely care at military emergency departments that have the capacity to handle them. As an additional benefit to patients, health care, including pharmaceuticals, provided through the direct care system is generally free to beneficiaries compared to the costs they might incur at civilian hospitals.

### **Building from the NCR**

In the National Capital Region (NCR), there are several conditions that would make it the most conducive environment in the country for this type of patient transfer system. The NCR is home to a high-density population of TRICARE beneficiaries and several MTFs, including Walter Reed National Military Medical Center. Local civilian hospital wait times in Maryland and D.C. rank among the worst in the nation and may provide incentive for civilian hospital participation. The force structure at the D.C. Army National Guard through the Army Aviation Support Facility can provide the initial manpower and resources for a limited pilot program.

But the NCR isn't the only place this would work. Any state with some combination of those same conditions should also explore the viability of a patient transfer program.

Domestic patient transfers are not the same as the courageous evacuations under fire at the origins of the DUSTOFF legacy; however, it continues the long tradition of doing whatever it takes to improve patient care, now and for future conflicts.

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

CPT Justice Bennett is the commander of Detachment 2, Company G, 2-104th GSAB, District of Columbia Army National Guard – "District Dustoff."



### Vietnam Helicopter Pilots Association **Special Feature**



# Captain Lawrence Liss Recognized Fifty-Seven Years after Combat Action

By Jack Swickard

Editor's Note: These are the next in a series of articles throughout the year taken from the pages of The VHPA AVLATOR, the newsletter of the Vietnam Helicopter Pilots Association. Preserving the Legacy! Enjoy!

CW4 (Ret.) Joe Pisano, RVN 1970-1971

ormer Captain Lawrence "Larry" Liss received the Silver Star Medal during a March 5 ceremony at Valley Forge Military Academy in PA 57 years after he helped rescue 87 South Vietnamese soldiers. GEN Daniel K. Hokanson, then-chief of the National Guard Bureau, presented Liss with the medal.

The ceremony was set up by U.S. Rep. Chrissy Houlahan, (an Air Force veteran) who represents Pennsylvania's 6th Congressional District. "It's long overdue that we gather to honor the extraordinary bravery and selflessness of Cpt. Larry M. Liss, a true American hero," Houlahan said. "His acts of valor during the Rescue at Cau Song Be in Vietnam, exemplify the highest standards of military service."

The Rescue at Cau Song Be involved two U.S. Army helicopters that chopped their way through bamboo and tree limbs to extract South Vietnamese soldiers from an intense battle. Though one of the Hueys was unarmed and an M-60 machine gun on the other had jammed, the aircrews made 5 trips into the landing zone to complete the rescue. By the time the helicopters returned to Bien Hoa Airfield the rotor blades were shredded from entering the vegetation.

The day's events began on May 14, 1967, when some six-hundred NVA and VC ambushed a company of South Vietnamese Civilian Irregular Defense Group and Special Forces advisors. The camp was north of Saigon between Chon Thanh and Dong Xoai; the ambush was five miles from the camp, inside the Iron Triangle or War Zone D. The ambush survivors radioed Maj. Ronnie Mendoza, commander of the Special Forces B Team at the camp, asking for helicopters to bring out the wounded, and provide an airstrike. It was the last day of Operation Junction City, one of the largest operations of the Vietnam War, said Capt. Wallace "Wally" Johnson, Special Forces A Team commander.

By chance, WO1 Thomas Baca landed an unarmed UH-1D helicopter at Cau Song Be. He was asked to evacuate the wounded CIDG soldiers. He and copilot, Larry Liss, flew to the battlefield. Aboard the Huey were Johnson and an A-333 Team medic from Cau Song Be. While Baca and Liss were evacuating



GEN Daniel K. Hokanson, Larry Liss, and brother Art Liss following the Silver Star Medal presentation.

the wounded, WO1 Jack Swickard, a 118th Assault Helicopter Company pilot flying a paymaster to Special Forces camps, landed at Cau Song Be in another UH-1D "Huey" helicopter.

After Baca and Liss took the wounded soldiers to the camp hospital, Mendoza asked Swickard and Baca if they would extract the Special Forces team and CIDG soldiers. The pilots decided to try rescuing the CIDG soldiers without airstrikes. 1LT Albert R. Croteau, the gunner aboard Swickard's helicopter, reported his M-60 machine gun had jammed as the Huev approached the ambush. At the ambush, Swickard and Baca brought their helicopters to a high hover above the battlefield. The vegetation and bamboo were thirty-feet tall. WO1 Kenneth M. Dolan, Swickard's copilot, said: "I was a relatively new pilot at the time, about 2 months. I vividly remember using the blades of the Huey as a mower to chop down bamboo to get to the road where the wounded and dead were staged, which didn't seem like a particularly good idea at the time. The noise was almost like a high-pitched whine. I knew we had done damage; I just

didn't know what the extent was."

Once they landed, the helicopters were in the middle of the battle. Swickard said he saw CIDG soldiers being killed by gunfire after they scrambled aboard his Huey. Croteau exited the Huey, armed with a handgun. He recalled rounds whizzing past his head and thought the enemy soldiers were poor shots. Croteau loaded dead bodies and assisted the injured onto the helicopter, counting them to ensure the Huey was not overloaded. When both helicopters had full loads, they lumbered back up through the openings they had chopped, then flew back to Cau Song Be, about 5 miles from the battlefield. The helicopters returned to the battlefield 4 more times and rescued all living allied soldiers.

Baca, who alternated landings and takeoffs with Liss, said: "Conditions were difficult, with enemy forces barely fifty yards from our craft. Intense small-arms fire, panicked troops, poor communications, lack of tactical air or artillery support. Each subsequent approach to the LZ was more dangerous due to a shrinking perimeter and fewer troops to defend the LZ." During the final two rescues from the battlefield, Liss got out of his Huey to engage the enemy while helping the CIDG soldiers board the helicopter. His actions gave the flight some breathing room from incoming small-arms fire, while speeding up the loading of CIDG soldiers. "Capt. Liss, in total disregard for his personal well-being and safety, exited the aircraft . . . with his personal weapon to assist in rallying the troops left on the ground. He was totally exposed to small-arms fire on both of these courageous initiatives. They were outside of his normal duties of a pilot, but showed bravery beyond the call of duty," Baca said in an affidavit.

A Special Forces medic said the two helicopters brought

eighty-seven CIDG team members, along with a wounded Special Forces advisor, to the camp hospital. In his after-action report, Johnson said 6 CIDG soldiers were killed and thirteen were wounded before the helicopters rescued the troops. Baca and Liss evacuated the last eighteen soldiers on their Huey's final flight out. Liss recalled 2 or 3 of the Special Forces advisors died during the ambush. Johnson later told Liss the rescue and return of the CIDG soldiers likely averted the Cau Song Be Special Forces Camp being overrun by the enemy.

Johnson later recommended the aircrews for upgrades to the awards they initially received for the rescue. The only participant in the rescue who has received an upgrade is Liss. He initially was recommended for the Medal of Honor.

Johnson died on June 14, 2018, in Dumfries, VA. Baca also was recommended for the Medal of Honor. He died on Aug. 30, 2020, in Albuquerque, NM. After the upgrades were denied by the Army awards and decorations office, Liss's brother Art in 2008 decided to advocate for upgrades. Over the next sixteen years, he built a two-thousand, two-hundred-page file of support documents and refiled for upgrades multiple times; all while battling lung cancer.

In 2008, Larry Liss, Baca, Croteau, and Swickard returned to the landing zone for the filming of a documentary on the mission by Windfall Films of London. The documentary, entitled "Helicopter Wars: Vietnam Firefight," has been shown in the UK and Commonwealth on the 4 Channel, in the United States on the Smithsonian Network, and worldwide on National Geographic Network International.

Former CW2 Jack Swickard is a VHPA life member living in Roswell, NM.



Historical Perspective 50th Anniversary of Women in Army Aviation

### 50 Years Ago – Women in Army Aviation:

# General Laura Richardson – Trailblazing Aviator, Innovative Leader



U.S. Army GEN Laura Richardson, commander of U.S. Southern Command, visits the Military Women's Memorial and speaks during the "Beyond Firsts: Powering the Future Force" panel discussion with CBS Evening News Anchor Norah O'Donnell in Arlington, VA, March 6, 2023. In celebration of Women's History Month, the top female military officers gathered to share their perspectives and experiences as service members.

General Laura J. Richardson became the highest-ranking Army Aviator and the first woman ever to have achieved that distinction. In a career of firsts, however, Richardson is fond of saying, "I might be the first, but I will not be the last!"

When she was commissioned into the U.S. Army Aviation Branch as a second lieutenant in 1986, Richardson could hardly have imagined where her chosen career would take her. After graduating and commissioning from Metropolitan State University, her military assignments featured positions of increasing responsibility from company to Combatant Command level. With almost four decades of service, her credits include Commanding General of U.S. Army North (Fifth Army), Deputy Commanding General of U.S. Forces Command, Deputy Commanding General of the 1st Cavalry Division, Military Aide to the Vice President at the White House, and the Army's Legislative Liaison to Congress at the U.S. Capitol.

Most recently, Richardson served from 2021 to 2024 as commander of United States Southern Command, one of the Defense Department's six geographic Combatant Commands. As SOUTHCOM's first Army aviator and female commander, she faced the unique challenge of a vast area of responsibility encompassing 31 Latin American and Caribbean countries, many with economies weakened by the COVID-19 pandemic, the destructive activities of Transnational Criminal Organizations, and the aggressive expansion of the Peoples' Republic of China (PRC) into the region.

The National Security Strategy states that no region impacts the United States more directly than the Western Hemisphere. The strategic importance of Latin American and Caribbean nations cannot be overstated, and the complex threats and challenges these countries face span all domains in the spectrum of conflict. The safety of our own homeland is directly linked to the resilience, stability, and security of our Latin American and Caribbean partners.

By Beth Storey Taylor

"Today we face an operational environment that continues to evolve and is becoming more and more complex. Redoubling our efforts to maintain a force that provides speed, range, survivability, reliability, agility, and lethality will be paramount to overcoming our current and future threats."

– General Laura J. Richardson, Army Aviation Association of America, April 2024

During her tenure, Richardson charted a course to strengthen partnerships by harnessing the power of Team USA and to assertively counter threats through engagement activities, campaigning, and the integration of deliberate multidomain operations and exercises alongside our Allies and Partners, whom she calls Team Democracy. She endeavored to support partner nations at the speed of relevance, making it a priority to leverage all instruments of national power - diplomacy, information, military, and economics - to overcome the challenges, own the information space, build partner capacity, increase investment in the region, and propel operations on the cutting edge of technology. Through collaboration with academia, private industry partners and the interagency, Richardson led SOUTHCOM to become an innovation hub, taking novel new technologies from a controlled laboratory environment to a permissive practical application environment strengthening the security for our partner nations and the United States.

Demonstrating a collaborative, integrated approach to problem solving and a firm belief that economic security is national security, Richardson met with presidents and military officials; traveled to countries in the region with Commerce Secretary Gina Raimondo in support of the CHIPS Act; participated in a U.S. delegation led by Special Presidential Advisor for the Americas, retired Senator Christopher Dodd; and traveled with NASA Administrator Bill Nelson in support of space initiatives by countries in Latin America. She also served as a champion of "Women, Peace, and Security" under United Nations Security Council Resolution 1325 by hosting seminars throughout the region to bolster the promotion of women in partner nation military and security forces.

As Richardson prepared for her final rounds of travel and engagement activities before relinquishing command in November 2024, she sat down with us to share her thoughts on a wide range of personal and professional topics. Here are her responses to questions we posed.

### As someone who entered the military almost 10 years after the end of the Women's Army Corps, what do you consider to be the key points in your career?

Modern Army Aviation has evolved exponentially to maintain overmatch in the fight. One thing remains constant and will never change and that it is our sacred duty to maintain trust with the Soldiers on the ground. We recently celebrated the 40th Anniversary of Army Aviation as a Branch. For me, personally – being given the opportunity to become an Army Aviator – has been an honor and north star of my military career.

As such, it was important for me to learn and really understand the profession of being an Army leader, and key positions that stand out include commanding an Assault Helicopter Battalion in combat with the 101st Airborne Division (Air Assault), during Operation Iraqi Freedom; service as the Military Aide to the Vice President at the White House.; serving as the Army's Legislative Liaison to Congress at the U.S. Capitol; Commander U.S. Army North (Fifth Army) during COVID, and serving as the first Army aviator and female Combatant Commander of United States Southern Command. Each position led to another with increased challenge and responsibility while providing opportunities to develop valuable skills to serve the Army and our great nation.

# Who were the leaders/mentors that most shaped your military career?

I have learned from all my previous commanders, sergeant majors and chief warrant officers, however there are a few mentors who really invested in not just talking about what was important, but actually showed, in action, what was important. Early on in my career, my first battalion commander, LTC Albert L. Patterson, took the time with us battalion staff officers to teach us how to be really good staff officers. I was the battalion adjutant for an attack helicopter battalion, and later I was given the opportunity by LTC Patterson to be the HHC Commander for this attack battalion as a 1LT. The learning continued, and LTC Patterson would put tasks in my Army green "Memo" book that I would need to accomplish, and then back-brief him on those tasks, and only he could cross out the tasks as completed in the book. I learned real quick about mission-first, 30 minute aircraft and FARP response times, goto-war sites, FARP operations, property accountability, how to find missing property, and leadership by walking around. I have used what I learned as a 1LT and commander at that time throughout my career.

MG Richard Cody, Commander 101st Airborne Division shaped my military career as a lieutenant colonel prior to battalion command, and then again after command when I came to work in the Pentagon in the Army G3 and he was the 31st Vice Chief of Staff of the Army. In the 101st Airborne Division, I PCS'd just in time for the Division Warfighter, I had literally just driven to Fort Campbell and hadn't signed into the division yet, but attended the division rehearsal and thought I would not be noticed standing in the back. MG Cody called me over when it was over, welcomed me to the division as the new Division Deputy G3 (first Aviator), and said I would be the CG's scribe for the warfighter. What an amazing opportunity to see firsthand a Division Commander C2 the division fight in simulated combat. I went with the CG into every brigade and battalion TOC at least once, and I got to see the best and the worst TOCs, all the leaders of the division, as well as the division-main and assault command post in action. Two other profound lessons I learned were 1.) the directive given by the division commander on the training proficiency of our commissioned aviators, that all aviation officers were pilots-in-command before going to battalion/brigade staff and/or PCS'ing to the captains' career course; and 2.) the importance of aviation maintenance and P4T3 (problem, plan, people, parts, time, tools, training). This was the catalyst for the Battalion Maintenance Terrain Walks for Battalion Commanders, and the Aviation MAR for CAB Commanders in FORSCOM units.

I also want to thank my former boss and longtime mentor and Master Army Aviator, General [retired] James C. McConville, who serves as one of the brightest examples for the next generation. I deeply appreciate his guidance and courage in carrying on the legacy of those who came before.

# What do we need for the future of Aviation (equipment, people, education, etc.)?

As leaders and aviators, we play a key role in maintaining and strengthening the sacred trust with our Soldiers – America's sons and daughters. We do so by providing the best equipment, the best training, and the best support to empower them to successfully carry out our nation's most difficult tasks.

We must collectively carry forward



PHOTO COURTESY U.S. SOUTHERN COMMANI

the legacy of Army aviators and ensure the aviators of today and tomorrow have everything they need to carry out that mission. Training is a key factor. We must ensure our aviation leaders at echelon are applying "engaged leadership" tactics in all elements, that pilots are not outflying their experience when we call on them to execute missions, and that we have a culture of maintenance to support the operations required. As we look to Large Scale Combat Operations and assess what the Future Operational Environment will be, we must ensure our aircrews are getting the "reps and sets" today - so they can succeed tomorrow.

Realistic training and engaged leadership provide the framework required to be successful. This is part of the sacred trust with our Soldiers - training them to survive in combat and not taking shortcuts. A recent edition of Army Aviation Digest highlighted current priorities to include: updating the Aviation Training Strategy and Flying Hour Model, reworking Aviation Mission Survivability maneuvers, addressing spatial disorientation challenges, establishing crew readiness standards for training, overhauling Warrant Officer professional military education, and continuously refining our doctrine.

For me, what's important is providing leadership and oversight two levels down, going to mission rehearsals, flying on missions when not expected. In addition, employing the concept of P4T3 (problem, plan, people, parts, time, tools, and training). We need to have a holistic understanding of the problem, ensure we have a good plan to counter that problem, ensure that our people are trained and ready to execute the plan, and ensure the equipment and parts needed are available to our people in addition to the time, tools, and training to do what we ask them to.

It is incumbent upon us as leaders to do our part to ensure that the force is ready when the nation needs us. It is also important that leaders enforce the highest standards. While I was deployed to Iraq, I found that the burden of risk an aviation commander is responsible for is not fully appreciated by subordinates, and units will have a can-do attitude with the mission, and well-intentioned actions can lead to hard lessons learned. I suddenly realized that mission briefing authorities we maintained at home-station needed to change once we were deployed. You will be surprised by the things that happen right in front of you while flying in the back on a mission. Our profession has little room for error.

#### What do you think about the termination of the FARA program, and how it will affect the FLRAA program?

Warfighting is changing more rapidly than it has in past decades, and the Army is continuously transforming based on lessons learned and a sober assessment of the modern battlefield. To rebalance aviation forces, the Army made the decision to discontinue development of the Future Attack and Reconnaissance Aircraft at the conclusion of prototyping activities while continuing investment in the Future Long Range Assault Aircraft, and making new investments in UH-60 Black Hawk, and CH-47F Block II Chinook. My concern is that this won't be enough to meet the requirements of the Joint Force, and that continued investment in our attack fleet is still required.

The Joint Force expects Army Aviation to be ready when called upon, and Above left: GEN Richardson visits Tolemaida Military Base, Colombia to meet with Colombian officials and visit Soldiers who took part in Exercise Southern Vanguard on Nov. 15, 2022.

Above right: GEN Richardson pins the first female helicopter pilot in the Honduran Armed forces, Aviation Lieutenant Brendy Bellanira Anariba Morazán on July 29, 2023.

we must meet that call by having a technological solution that provides speed, range, survivability, reliability, agility, and lethality. One of the tenets of the Joint Warfighting Concepts is pulsed operations – the ability to quickly generate and exploit advantages over the adversary. Aviation has a major role to play in pulsed operations.

The decision to accelerate the Future Long Range Assault Aircraft (FLRAA) program and commit to procuring updated Black Hawk and Chinook variants will allow the Joint Force to put troops and supplies on the ground quickly when opportunities present themselves.

FLRAA is a game changer for the Combatant Commander. In both contested and uncontested environments, the agility of Tiltrotor aircraft provides unmatched capability, drastically increasing range and speed, while providing the ability to put more troops on the ground. With FLRAA, I am confident Army Aviation programs will be able to exploit advantages when opportunities present themselves.

# What do you think about the future of AI and robotics for the Army and Army Aviation?

There can be no doubt that technology is driving change in the character of warfare. In support of new requirements, the Army is going through a





massive force structure change. We are adding more than 30 new or upgraded capabilities across six modernization portfolios. Force structure changes include the inactivation of 14 calvary squadrons and the activation of new electromagnetic warfare companies, new fires and air defense capabilities,

rebalancing the Army is undertaking. There is some debate over whether we are best served focusing investment on manned or unmanned capabilities. I do not view the two as mutually exclusive. Unmanned systems provide access and speed that we are not able to achieve with manned systems, and they help buy down the risk of loss of life. Unmanned systems provide commanders amazing capabilities - but there are limits. UAVs lack situational understanding, situational curiosity, and situational ownership, whereas systems manned by welltrained pilots can provide all three and are a critical component to generating the advantages described in the Joint Warfighting Concept.

and a cyber brigade. These are just some

of the changes in the transformational

Unmanned systems and AI are and will continue to be extremely important to the military, helping us make decisions faster and enhancing our force protection capabilities. But there will always need to be a man in the loop as it relates to AI to prevent errors in the rules of engagement. You'll always need a pilot!

### How will Army Aviation remain relevant in a morphing enterprise?

Today, the Army is modernizing to meet challenging global mission requirements, shape the future, and maintain our strategic advantage. Technology is driving change, and the Joint Warfighting Concept challenges the joint force to rethink competition, deterrence, and conflict along with the changing character of warfare.

In support of the ground force, Army Aviation must adapt to that changing character of war. Recently, the Army announced significant changes to the aviation investment portfolio including ending development of FARA, ending production of the UH-60V, delaying entering production of the Improved Turbine Engine (ITEP), and phasing out Shadow and Raven unmanned systems.

New investments include: commitment to a muti-year UH-60M contract, entering CH-47F Block II into full rate production, continuing the Future Long Range Assault Aircraft (FLRAA) and fielding the first operational unit in 2030, and increasing investments in research and development in the Army's unmanned aerial reconnaissance capability – Future Tactical Unmanned Systems (FTUAS) and Launched Effects (LE).

As we consider investments and divestments, it must be done with eyes wide open to the impacts on capability and capacity. The fielding of Future Vertical Lift capabilities takes years of investment in technology, training, and integration. We must consider the impact of delays or cancelations of programs and understand the cost we impose on our future Aviators.

The same is true with Force Structure changes. We must consider the fact that it takes 5-6 years to buy back and build an aviation brigade. The decision to make these changes is based on multiple factors including technological developments, lessons learned from Russia's ongoing war in Ukraine, and budgetary projections.



Above left: GEN Richardson gives opening remarks prior to the start of a 5k Fun Run in celebration of the U.S. Army's 248th Birthday hosted by U.S. Army Garrison Miami on June 10, 2022.

Above right: GEN Richardson and distinguished visitors tour the hospital ship USNS Comfort (T-AH 20). Comfort was deployed to U.S. 4th Fleet in support of Continuing Promise 2022, a humanitarian assistance and goodwill mission conducting direct medical care, expeditionary veterinary care, and subject matter expert exchanges with five partner nations in the Caribbean, Central and South America.

Advancing aviation requires serious consideration about how we can make our unmanned platforms and manned teams as harmonious and synergistic as possible. Together, survivability of our unmanned systems combined with the reasoning and situational understanding of our well-trained pilots will greatly improve our lethality.

# How do we attract and keep talented young people in the military aviation profession?

People are and will remain the bedrock of our Aviation Branch, now and into the future! We recently celebrated the 40th Anniversary of Army Aviation as a Branch. When I joined the Army, the Aviation Branch was just three years old, and to see Army Aviation today makes me really proud that our Aviation force is such a critical element of the combined arms team.

Recruiting initiatives for the aviation profession should include robust marketing highlighting the technological advancements of today's aviation branch, showcasing our aviators and telling their stories. Army Aviation should have a video game produced by



California de la comparison de la comparis

a top tech-company that showcases the different aircraft and unmanned systems. Helo demonstrations in hometown recruiting events should be standard. A bonus for aviators is needed, there's still a national shortage of pilots, and incentives like a bonus and education benefits attract young people to the profession.

#### What is your advice to young people, and young women especially, considering a career in military aviation?

Aviation is one of the most exciting and challenging careers a young person can choose, and in 1993, Army aviation opened its doors to women. We recognize that by drawing upon the other roughly 50% of our talent pool, we ensure a more ready, resilient, and effective force – impacting our national security by improving our competitiveness and professionalism. The integration of women and the removal of artificial barriers propels us to excellence.

Women play an important role in increasing readiness. Positions in today's military provide young people, and women, an opportunity to climb as fast and as high as their ambition and hard work can take them. Now, every Soldier, male or female, who has dreams of becoming an Army Aviator – or any other position in today's Army – and is willing to work hard, can absolutely fulfill those dreams.

#### What are you most proud to have accomplished during your career and especially at SOUTHCOM?

I'm proud to have been an Army Soldier, Army Aviator, a Commander from company to combatant command-level, to have commanded Sol-

diers in combat, and led the Joint Force in U.S. SOUTHCOM. In every position I have strived to do what's right, build the team and develop my unit into not just a good unit but a great unit. I have professionally developed the personnel who have worked for me to be the best they can be, and there's no greater achievement than to see them be promoted and become leaders and commanders as well. In U.S. SOUTHCOM I am most proud of bringing Team USA's instruments of national power to bear in the western hemisphere, and achieving success outcompeting the PRC, so Team Democracy can prevail.

I could not have picked a better career, the Army has educated me, challenged me, and made me confront my weaknesses head-on. The Army has selected me for positions that I was unsure I would be successful in, and our family was dual-military with two successful careers. In what other job could I have flown helicopters, commanded in combat, worked at the White House, worked at the U.S. Capitol, be dual military, have a family, and traveled extensively in Latin America and the Caribbean? I am thankful and grateful to our United States Army!

### Where do you see your life going in the future, and what would you still like to accomplish?

I have loved my time in the military. The Army has taken care of me and my family for the last 38 years. The Army educated me and gave me amazing opportunities for professional development. Now it's time for me to give back in as many ways as I can. I'll be a Soldier for life, and whatever I do, I'll be supporting the Soldiers who come after me. Above left: GEN Richardson joined defense leaders from 10 nations to discuss security challenges and regional cooperation during the South American Defense Conference, Sept. 14-15, 2022.

Above right: LTC Laura Richardson, 5th Battalion, 101st Aviation Regiment, and LTC Jim Richardson, 3rd Battalion, 101st Avn. Regt. at Fort Campbell, KY, Sept. 2002 – after returning from Afghanistan and prior to deployment to Iraq in March 2003.

### **Final thoughts?**

Throughout our history, Army Aviation has maintained trust with our Ground Soldiers, and they know that Army Aviation is just one "push to talk" away – prepared to maneuver against the full range of threats and defeat them. Ask any Warfighter, and they will say the same.

We've got to invest in our people and modernize our aircraft. It's up to everyone to keep Army Aviation at the forefront – as a game-changer for the Ground Forces and for the Ground Force Commander!

Beth Storey Taylor is with the United States Southern Command Public Affairs Office in Doral, FL.

Editor's Note: This is the last of the series of articles celebrating the 50-year history of the inclusion of women in Army Aviation. We thank GEN Richardson for providing this interview as she prepares to retire with more than 38 years of service and wish her, her husband, LTG (Ret.) Jim Richardson, and her family all good things in the next chapter of their life.



### 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 December 2023 through December 2024. The list includes donations received for all scholarships, as well as the General Fund which provides funding to enable the chapter, corporate, heritage and individual matching fund programs as well as national grants. Every penny donated to the Scholarship Foundation goes directly to a grant as a result of the Army Aviation Association of America subsidizing all administrative costs (minus investment brokerage fees).

190th Assault Helicopter Association 7/17th Cavalry Association-IHO Barbara Inglett 7/17th Cavalry Association AAAA Air Assault Chapter AAAA Arizona Chapter AAAA Aviation Center Chapter AAAA Badger Chapter AAAA Big Sky Chapter AAAA Bluegrass Chapter AAAA Central Florida Chapter AAAA Colonial Virginia Chapter AAAA Connecticut Chapter AAAA Cowboy Chapter AAAA Delaware Valley Chapter AAAA Gold Standard Chapter AAAA Griffin Chapter AAAA Grizzly Chapter AAAA Idaho Snake River Chapter AAAA Kevstone Chapter AAAA Lindbergh Chapter AAAA MacArthur Chapter AAAA Mid-Atlantic Chapter AAAA Minuteman Chapter AAAA Mohawk Chapter AAAA Mount Rainier Chapter AAAA North Star Chapter AAAA North Texas Chapter AAAA Oregon Chapter AAAA Phantom Corps Chapter AAAA Prairie Soldier Chapter AAAA Southern California Chapter AAAA Tarheel Chapter AAAA Tennessee Valley Chapter AAAA Washington Potomac-Chapter AAPI Acuity International Art & Jenn Agnew Air Shelters USA, LLC (ZUMRO) Airbus U.S. Space & Defense, Inc. Aircrafters, LLC American Creek Landowner's Association Laura & Jon Arena Janis Arena Army Aviation Association of America Army Otter-Caribou Association Inc. Aseptic Health Shannon E. Austin Gerald Babor Charles D. Bayless Thomas Beck Belkin International Bell Bell Textron Inc. Joseph Bergantz Robert P. Birmingham The Boeing Company Celeste & Paul Bogosian

Steve Bolton Fred Bonyadian Clinton B. Bovd Larry Brown Richelle Brown Christopher Brumitt BT Mack John & Marv Burke Luann J Burnham-IHO COL John March Stephen T. Burns Steven Butcher C&F Bank Cynthia S. Campbell-IHO CW4 Richard Campbell Capital Interior Contractors, Inc. Kate and Thomas Carroll Charles C. Claudill-IHO Jovce Hesson Combined Federal Campaign Jonathan & Tiffanv Chandler Russell W. Chung Sylvia A. Cikins-IHO Joyce Hesson Charles T. Climer Collins Aerospace Commonwealth Turbocharger Solution LLC Buddy Conklin Craig Cook David F. Cooper Tim Cotter Geoffrev A. Crawford David W. Crocker Richard E. Crogan Lance J. Culver Gary L. Cunningham Patrick F. Curran-IHO Fallen Aviation Brethren Daniel R. Curry Brittany Curtiss Davidson Brown. Inc. Rodnev Davis Gail Davis-IHO Don and Ruth Luce Gail Davis Robert L.Davis, Jr. Gerald R. Davis Walter L. Davis Anthony Denogean Richard L. Dickerson-IHO Dotty Kesten Todd Digeronimo DigiFlight, Inc. Dominion Energy Gail & Jan Drabczuk Gail & Jan Draczuk Angela & Paul Duff Craig J. Dupuy The Dustoff Association Timothy J. Edens James Emerson-IHO Sandra Emerson

ESS-Eve Safety Systems Facility Engineering Associates, P.C. Teresa Ferraro Michael C. Flowers FORTS Services Laura Lee Fortunato James G. Freeman Craig Gable-IHO COL Gary L. David Jenny & Paul Gale Galvion **GF** Aerospace George J. Gluski-IHO COL Garv David George C. Goodman, Jr. Michael P. Goodwin Jacqueline & Thomas Gordon Mary Gorman-IHO William H. Gorman Jon Graft Thomas O. Graft-IHO Joel R. Graft Mark W. Grapin John Haire Daniel and Jeannine Hale Scott J. Halverson Estate of Lee & Odette Hand Joanne Fichorn Hansrote Thomas M. Harrison Helibasket LLC Daniel P. Henzie Margaret & Clifford Holgate-IHO James Hesson Scott W. Hollingsworth Edmund W. Hubard Richard W. Huber Tom T. Huff LaVerne Humpert-IHO LTC Gabriel Spicer Iron Bow Technologies Hank Isenberg James M. Israel Vietnam Helicopter Pilots Association Jack A. James-IHO T/SGT Karl P. Danckwerth Sr. Larry Jess Robert L. Johnson Thomas M. Johnson Larry Martin Jonas Clara Ann Junot-IHO Joyce Hesson Kathrvn's High Tea John M. Kelly-IHO WO Francis J. Klassen Maria & Paul Kelly Strata-G Solutions LLC Tom & Judy Konitzer Beth N. Kramer Charles H. Lampe Sarah & Taylor Lang James F. Learv Jerry Leehy Shane C. Leipertz

Karen Llovd Lockheed Martin Missy & Brenton Logan Robert C. Lorenz Timothy A. Lunger Joel S. Magsig Tommy L. Marks Elizabeth A. Martin Stephen T. Mauro Patricia McBride-IHO COL Garv David Mathew K. McCaulev Charles E. McCormick Thomas P. McGurn MG and Mrs. Carl H McNair. Ret. Rudy Mendez Jane F. Merryman-IHO Jovce Hesson Krista Mills James A. Mills William H. Morris Stephen & Gail Mundt Donald T. Munsch, Munsch & Co. **Aeromechanics** MyHy Liquid Hydration Mix Linda & Michael Navarro James T. Navlor Network for Good Northrop Grumman Corporation Kathleen O'Connor Elizabeth Oneill Ostovich Enterprises. Inc. The OV-1 Mohawk Association Amber & Brent Pafford Elaine & Clarence Patnode Patriot Taxiway Industries Daniel C. Pearson Peduzzi Associates, LTD Janet Pennv Phantom Products. Inc. Piasecki Foundation Gaines T. Pickett-IHO Bob Johnson PM Apache Billingsley G. Pogue Kyle Poppell Janet M. Powers Fund-IHO Jovce Hesson Daniel Pugh Susan & John Ramsey Patricia & Brian Ranson Marc L. Rassler lan Reardon-IHO James C. Reardon Jaros C. Rickmeyer Marilvn C. Rickmever John M. Riggs Roberson Giving Fund Fredric F. Robins Everette L. Roper Kenneth Todd Royar Kenneth Todd Rovar

Nicholas Rvan-IHO CPT Luke Yustin S3-System Studies & Simulation Latny & Jonathan Salt Pat J Salvo-IHO COL Gary David Michael Woodrow Schrumpf The Sendak Family Matthew D. Shattuck Mary & William Shelt Billie K. Sikes Bradford L. Smith Alan M. Smith Jan Smith Kenric M. Smith Judith & Mark Smith Heather Snoe Barry J. Speare-IHO Diane Speare Marian A. Spencer Diane L. Spencer James A. Sprayberry-IHO North Alabama VHPA Tracey & Karl Stahlecker Strata-G Solutions LLC Celia Stump William E. Sturges Tito's Handmade Vodka Truck & Transportation Terry L. Truett Carmen Touhy Kevin Valdes Justino Vega Vertx Veterans Home Association of the Whitemarsh Valley Vietnam Helicopter Pilots Association Vita Inclinata Technologies Peter L. Weiland Leslie H. Weinstein-IHO Jovce Hesson Jerrv & Paula Wheeler Erin Whitaker-IHO Jovce Hesson Karen White-IHO CW5 Frank E. White Myrna Williamson-IHO MG Carl McNair Christopher Wimsatt Wreaths Across America Jessica & Chuck Wright Richard Wurzbach-IHO Lt. Col. Anthony C. Schneider Michelle Yarborough-IHO CW4 Thompson Michelle F. Yarborough Zieff Family Fund-IHO Bill Harris & Janis Arena

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. NETWORK | RECOGNITION | VOICE | SUPPORT

AAAA Chapter Affairs By LTC (Ret.) Jan Drabczuk

I greatly appreciate the support from COL David Mattimore the Live Free or Die Chapter President and CW5 George Munson the Sr. Vice President for authoring and sharing this information to our membership.

# The Live Free or Die Chapter

The Live Free or Die Chapter was established in April of 2023. The Chapter name comes from the New Hampshire state motto which echoes MG John Starks' famous remark, "Live Free or Die; death is not the worst of evils."

### **AAAA Supporting Members**

The Chapter is very proud of their patriotic heritage and earned freedom. The geographical dispersion and distance to the nearest Chapter were contributing reasons for bringing a new AAAA Chapter to the Northern New England Area. The Live Free or Die Chapter now provides an opportunity to interact with AAAA and socialize with many Aviation members in the community (active, retired and civilian) with a focus on increasing the Chapter's influence in the defense industry within the region.

### **Chapter Momentum**

The vision to bring a new AAAA Chapter to the northern New England region took shape with the help of a few key individuals. The Live Free or Die Chapter President, COL David Mattimore recommended that the NH Guard members create their own Chapter in NH to support the Aviation community in New Hampshire and Maine. George Munson, the Sr. Vice President, brought the Chapter to fruition with outstanding support from Chelsea Jarvis, Jan Drabczuk, CPT Sam Slater from the Green Mountain Chapter, SFC DeAngelis, and 1SG Phinney, both from New Hampshire. Chelsea and the national team provided guidance and the requirements to be recognized as an approved Chapter. CPT Slater provided insight on how to have a great kick-off meeting. Within a few months of inception, the Live Free or Die Chapter obtained official recognition.

The Chapter quickly sent emails inviting present AAAA members and other interested individuals to give them an opportunity to learn about the organization. Door prizes and raffles attracted current and future members and created a fun and festive atmosphere. COL David Mattimore was voted the Chapter president, CW5 George Munson the senior vice president, SFC Aaron DeAngelis the Chapter secretary, 1SG Joseph Phinney the Treasurer, Ginger Munson VP of Scholarship, CW3 Mike Fletcher VP of Programs, and Brian O'Leary VP of Membership.

Initial work for the Chapter was to promote the benefits of AAAA membership to soldiers in NH Aviation and the local defense industries in order to build the Chapter membership base. 1SG Phinney began canvassing local businesses for corporate donations to increase capital to support events and scholarships. Membership, brainstorming fundraising and Soldier/NCO of the quarter was the focus of the first meetings.

#### **Successful Chapter Activities**

CW5 George Munson and Ginger Munson traveled to Denver to attend the AAAA 2023 summit. Their focus: to attend the New Chapters meeting and gather information on what is



key for a successful Chapter. Much information was learned including the importance of reporting, metrics, fundraising, TLC, mission statement, and how to increase membership.

The Chapter is now 18 months from its first meeting and has finally picked up momentum with the establishment of an AAAA bank account. The Chapter has partnered with the COL Edward Cross, local AUSA Chapter to participate in a joint golf tournament scheduled in the fall of 2025. The Live Free or Die Chapter is also very excited about sponsoring their upcoming All Saints Ball to be held in the spring of 2025. They plan to award deserving Order of St. Michael medals as well as other branch honors. The Chapter has begun planning a motorcycle/convertible scavenger hunt for June of 2025.

### Another Great Chapter

Glad to see this new Live Free or Die Chapter up and running. Feel free to contact me if you need help with your Chapter, Executive Board support, would like your Chapter featured in the AAAA magazine, establish a new Chapter or to obtain clarification of National procedures. I can be reached at *jan.drabczuk@quad-a.org*. I look forward to working with you and supporting AAAA.

LTC (Ret) Jan S. Drabczuk AAAA VP for Chapter Affairs



### AAAA Chapter News Air Assault Chapter Quarterly Meeting



The Chapter held its 4th Quarter meeting on Oct. 24, 2024 at Fort Campbell, KY. **SFC Joe T. Archer** is inducted into the Bronze Honorable Order of St. Michael by chapter president COL (Ret.) Henry C. "Hawk" Ruth, and LTC Gregory Sterley, commander, 96th Aviation Support Battalion (left).

Then, highlighting the evening, was a panel discussion about "America's Military Response to 9/11 - First In." Pictured are Special Operations soldiers from both 5th Special Forces Group and



Task Force 160th SOAR(A) who were among the first to go into Afghanistan in 2001 after the 9/11 attacks. In the front row (I to r) LTG (Ret.) Kevin Mangum (160th), CSM (Ret.) Mario Vigil (5th SFG – one of the 12 Horsemen) and BG (Ret.) Scott Brower (5th SFG). The fourth panelist, wearing the flight suit, is CW4 (Ret.) Andrew Sentiff, the flight lead from Uzbekistan (K2) to Afghanistan!

### **Aviation Center Chapter Presents Certificates**





MSG Michael Patrick, chapter VP Enlisted Affairs, presented the National/Local Chapter Certificate of Achievement and a one-year membership to the Distinguished Leadership Award winners for the 15CMF Advance Leadership and Senior Leadership Courses during a graduation ceremony on Friday, Nov. 22, 2024, at the Fort Novosel, AL Post Theater.



Left: SSG Kyle I. Helland, a 15Q was selected as the Sergeant First Class William T. Butts Non-Commissioned Officer Academy Leadership Award, ALC Class #25-001 Right: SSG John N. Nguyen, a 15C/W was selected as the Command Sergeant Major David L. Spears Non-Commissioned Officer Academy Leadership Award, SLC Class #25-001.

### Order Of St. Michael Inductees

### **North Carolina Chapter**



**Mr. Tab M. Wilcox** was inducted into the Bronze Honorable Order of St. Michael by Mr. Brian Thompson and Mr. Randy Polage, TRAX International, during a Nov. 7 ceremony at Laguna Army Airfield, U.S. Army Yuma Proving Ground, AZ. Wilcox was recognized for his more than 40 years of service as a telemetry subject matter expert supporting Army Aviation's developmental test and evaluation mission of helicopter weapons and sensors systems.

### **Tennessee Valley Chapter**



**Mr. Nathaniel "Nate" A. Curry** is inducted into the Silver Honorable Order of St. Michael by chapter VP Awards, CSM (Ret.) Randy Wise on Nov. 14, 2024 in Huntsville, AL. Curry was recognized for his accomplishments in support of Army Aviation while serving as the Technical Management Division Chief of the Aviation Turbine Engines Project Office. He will be changing duties and transitioning back to the DEVCOM Aviation and Missile Center.



### **Mid Atlantic Chapter**

COL John Fleet, commander of the 226th Maneuver Enhancement Brigade, inducted 5 members of the 1st Battalion, 224th Aviation Regiment (ARNG), into the Bronze Honorable Order of St. Michael on Oct. 16, 2024 at Fort Bliss, TX at the completion of their participation in the RFA-24 Southwest Border mission. Recognized were (I to r) **LTC Clay Bagwell**, Bn. Cdr.; **CW3 Thomas Gurrera**, Bn. Avn. Standardization Off.; **CW3 Mark Escherich**, Bn. Avn. Safety Off.; **CSM James Autry**, Bn. Senior Enlisted Advisor; **1SG Matthew Gwin**, Bn. HHC Sr. NCO.

OSMs Continued on page 93

AAAA Membership Update By CW4 (Ret.) Becki Chambers

I would like you to meet CW4 (Ret.) Mike and Martha Boyle, who along with their 2 kids, are one of the happiest families I know! It's no wonder why they spend so much time at Disney World and other Disney properties.

# The Membership Corner

NY but didn't meet until college. Mike's Godfather was a Navy pilot who also owned a private plane. He would take Mike flying around New York City often and would give him the controls from the time he could see over the dashboard.

This helped grow Mike's passion for flying and desire to become a military pilot. Mike joined the Active-Duty Air Force when he was 18 years old in 1985 to become an aircraft mechanic with the plan to let the Air Force pay for his college education. He learned of a program to transfer to the Air National Guard to go to college to aid in fulfilling his childhood dream of flying for the military.

Mike was originally going to stick with the Air Force until a friend from his unit in the New Jersey Air National Guard (NJANG) told him about the Army Warrant Officer Flight Training program. That friend preceded him into the Army and encouraged Mike to do the same.

While Mike was in college, he served in the NJANG and worked at a local pharmacy. He met Martha through a mutual friend and started a relationship that has lasted over 36 years (with almost 33 years being married). After gaining his Bachelor of Science degree from SUNY Old Westbury in 1993, Mike joined the Army as a Warrant Officer Flight Training Candidate. He graduated flight training at Fort Novosel, attended the AH-64A AQC and was assigned to 1-229th AVN on (then) Fort Liberty, NC. Mike did a six-month Bosnia deployment in 1997.



NETWORK | RECOGNITION | VOICE | SUPPORT

Mike and Martha Boyle and family.

The following year he went to the AH-64A Instructor Pilot Course and was assigned to 1-2nd Attack Battalion in Camp Page, Korea. He was then assigned to teach as an IP at Hanchey and was trained on the AH-64D. In 2004 he was sent to Dutch language school with a follow-on assignment as the Exchange Officer to the 301 Squadron of the Royal Netherlands Air Force. He deployed twice with the Dutch to Afghanistan and returned to Fort Novosel to be the AH-64D IPC Platoon Leader until his retirement at the end of 2011 finishing 26 years of service.

Mike is now on the Apache New Equipment Training Team (NETT) and teaches the AH-64E to aviators all over the world. He and Martha live in Enterprise, AL.

Mike and Martha have two children; Victoria, who is a Disney Travel Agent and is married to an Apache Instructor Pilot currently serving in Fort Bliss, TX. Their son, Christopher lives in Atlanta, GA and is working as an archeologist at sites all over the southeast.

Their daughter, Victoria, was on a Disney Week episode of Wheel of Fortune which aired in June 2023. She was the big winner – over \$45k – including a Disney Cruise to the Bahamas!

Mike and Martha are true Disney fans.

They say going to the parks makes them feel like kids. They go multiple times a year as annual passholders and have visited Disney World over a hundred times. They have also visited both Disneyland in California and Disneyland Paris.

When I asked Mike why it's important to support professional organizations that support our Soldiers, he said that some, like AAAA, offer scholarships for Soldiers and/or their family members. It's also good to keep up with the latest goings on with Army Aviation with publications like ARMY AVIATION magazine.

CW4 Becki Chambers AAAA Vice President for Membership

### New AAAA Life Members

Aviation Center Chapter CW4 Damon Hutton Mr. Michael J. Negard Jimmy Doolittle Chapter CPT Jim L. Hamilton, Ret. North Texas Chapter CPT Joe Brenner Washington-Potomac Chapter COL David W. Crocker MAJ Daniel Kator

### **New AAAA Members**

Air Assault Chapter LTC Morgan Brown Mr. James VanDen Aloha Chapter Thomas Dolce

continued on next page

### NETWORK | RECOGNITION | VOICE | SUPPORT 🕨



**New AAAA Members** Continued Arizona Chapter PVT Mason B. Norton Aviation Center Chapter WO1 Brock H. Allen 2LT Georgia Allen W01 Jake D. Ames WO1 Alexander T. Atwell W01 Mikhayla D. Baravik 2LT Peter X. Benavides 2LT Austin R. Bettinger WO1 Kyle M. Bigelow 2LT Aiden J. Boehm 2LT Ronald G. Bowling 2LT Luke A. Boyd W01 Michael E. Boyd LTJG Sven R. Brinkhaus W01 Branden T. Brown 2LT Luke G. Brown 1LT Beau J. Brunner 2LT Richard L. Bruschi 2LT Paul D. Budi WO1 Michael A. Burgess 2LT Aidan B. Carr 2LT Mackenzie A. Cartright W01 Elija L. Coles 2LT Robert J. Collier WO1 Quanesha F. Colston WO1 Hayden R. Copen WO1 Lucas W. Cortes WO1 Christopher P. Cowman 2LT Morgan K. Crul W01 Patrick J. Cuoco 2LT Margaret A. Curran 2LT Thomas R. Daigle W01 Hayden O. Dolan 2LT William A. Domler Mr. Douglas Dotson 2LT Bryce M. Durand COL Tracy L. Durham, PhD 1LT Neven A. Dyer W01 Russell L. Fallon 2LT Alexander M. Forrest WO1 Brandon D. Gabrielson WO1 Erick A. Garcia 2LT Cooper W. Gentry 2LT Nikolas D. Genualdo 2LT Alexsia N. Gillstrom W01 William S. Gordon WO1 Justin A. Gutierrez WO1 Bradley R. Gyhra 2LT Vance L. Harper 2LT Olivia A. Haven W01 Nathanial E. Hebert 1LT Thomas L. Hogan W01 Claire E. Hopaluk W01 Jermaine D. Horne 2LT Sean K. Huh 2LT Luke J. Humenay PV2 Jay Andrew Hunt WO1 Logan A. Jeansonne 2LT Milton L. Jones W01 Michael J. Katzenberger W01 Cameron M. Key W01 Tyler R. Lawrence W01 Joshua T. Lindley 2LT Ryan J. Logan W01 Kyle D. Macklin 2LT Sean R. Madden WO1 Natalie R. Magnuson CW2 Joseph V. Mangiarelli 2LT Darel J. Marshall WO1 Nicholas M. May 2LT Logan A. Melendez W01 Charles E. Miller W01 Ryan A. Mora WO1 Thomas Murphy WO1 Katherine L. Palumbo 2LT Nickolas W. Palummo WO1 Faith E. Park 2LT Garrett D. Pavelko

WO1 Andrew T. Pena Mr. Justo Perez, III 2LT Tobin V. Philip W01 Kevin S. Prieto 2LT Preston T. Randolph 2LT Zachery J. Reformat 2LT Dante P. Relley WO1 Lexie Rennemo W01 Jacob C. Revnolds 2LT Boe B. Riemenschneider WO1 Stacy M. Rountree 2LT Aysia M. Salas W01 Bruce A. Sandoval 2LT Justin T. Saunders WO1 Ethan A. Schmutz WO2 Nicholas S. Schwartz 1LT Austin J. Scott WO1 Kentrell D. Scott CW4 Brian Felix Serna W01 David E. Sheedy W01 Jose C. Silva Mr. Andrew V. Smith 2LT Joshua M. Smithey WO1 Ryan J. Speer W01 Christopher J. Steffler WO1 Keith D. Stutts 2LT Michael Sullivan WO1 Joseph P. Swift WO1 Robert W. Tennant CW4 Chris Thorn WO1 Kelley M. Trebesch 2LT Williaim N. Turner 2LT Edwin A. Velazquez 1LT Adam D. Vespi 2LT Brady W. Weathers 2LT Peter C. Westervelt WO1 Kenneth J. White W01 Micaiah R. Widmer W01 Nicholas D. Wilder WO1 Garrison A. Wolford 2LT David L. Word WO1 Kenneth L. Wright WO1 Nicholas D. Zay W01 Trey D. Zwickl Badger Chapter Mr. Ryan Powers Mr. Andy Schwarz Bavarian Chapter **CPT** Chris Feigenbaum *Big Sky Chapter* SPC Michael Wayne Banzet Central Florida Chapter Mr. Glenn Allison Mr. Adrian Brinks Mr. Mark Chancey Mr. James Clark Mr. Timothy Decoste Mr. Scot Hodadon Mr. David Lewis Mr. Scott Lippon Ms. Carlie Sutherland Ms. Stacy Taulbee Mr. Marcus Ward PVT Tafari Makhail Young Colonial Virginia Chapter Mr. Mark S. Conlon WO1 David Ray Griffard, III Connecticut Chapter PV2 Arthur Alea Salman Cowboy Chapter SPC Paxton Hunt Delaware Valley Chapter CW2 Eric W. Bray Mr. Allen Ellis Ms. Skyla Funk Mr. Paul Kushnir Ms. Denise Wurzbach Desert Oasis Chapter MAJ Adam Laurich SFC Andreas V. Papangellin Flying Gator Chapter SFC Grant Carlton

Mr. Brandon Davis Mr. Gregory D. Mitchell Mrs. Elsa Siino Follow Me Chapter Mr. Jesse Ragan Mrs. Connie Špates Free Dominion Chapter SPC Lucas Scott Puckett Frontier Army Chapter LTC Jonathan P. Lackamp PV2 Lavnne Michael Woodson Gold Standard Chapter MAJ Tommie L. Shaw, Jr. Great Lakes Chapter PV2 Alcapone Joe Nobuo Greater Atlanta Chapter MAJ Michael Echevarria PFC John Freitas Mr. Murray A. Hansen Mr. Ran Meriaz MAJ Jason Shelton Mrs. Kimberly West *Grizzly Chapter* SGT Engelberth Bonilla Mr. Carlos Castillo SPC Meybellin Osuna-Hernandez PFC Kevin Nazario Palma Valdez SPC Joshua James Trujillo SSG Matthew Valdez SFC Richard Woolheater Iowa Chapter Mr. Owen Emery Marett Curtis Rubendall Iron Mike Chapter CPT Corey Andrews SFC Phillip Clark SPC Jakia Demotte CW5 Ashley L. Wiggins Jimmy Doolittle Chapter CPT Jim L. Hamilton, Ret. Keystone Chapter SGM Jason Bible Jason Murtha CW2 Tiffany Thomas Lonestar Chapter Mr. Joseph Dulavitch Ms. Megan Fier Mr. Andres Fournier Ms. Macy Lobel Mr. Brvan Lvnch Mr. Scott Schneider Mr. Chris Verret MacArthur Chapter SGT Dylan Gelfman Mr. Giancarlos Llanos Mr. Giacomo Paniccia Mr. Max Whitley SGT Joseph Walter Wills Mid Atlantic Chapter Mr. Matthew Herweck Mr. Aaron Speight MAJ Andre K. Stevenson Minuteman Chapter Mr. Paul Fermo Mr. Peter Fuchs SFC Richard Sokolowski Ms. Tonya Torgeson Morning Calm Chapter Mr. Benjamin Gerhart Mount Rainier Chapter Mr. Matt Amy PV2 Jeff Daniel Collarin Allagones CW04 Jennifer Collins Mr. Yuji Miyamura Mr. John Prough North Country Chapter SPC John K. Botero Mosquera SPC Joel Y. Chea CPT William D. Landrum MSG Christian G. Winters North Star Chapter SSG Nathan Buck

PV2 Tavian James Dawson SSG Erynn Grochowski SSG Richard Rice SGT Joey VanderVliet LTC Joshua Yri North Texas Chapter Mr. Robert Berry Mr. Jackson Berube **CPT** Joe Brenner Mr. Andrew Carldson Ms. Advika Govindarajan Mr. Jerry May Mr. Chan Meletio Mr. Sebastian Montano Contreras Mr. James OLeary Loretta Young Oregon Trail Chapter Ms. Lillian Wheary Phantom Corps Chapter 1SG Michael Johnson Pikes Peak Chapter SPC Mitchell Douglas Baker Mr. Daniel Devlin Rio Grande Chapter MAJ Lisa Renner Rising Sun Chapter Mr. Norman Nichols Southern California Chapter Mr. Jeff Blake Tarheel Chapter PVT Erik C. Ruble *Tennessee Valley Chapter* Ms. Allison Bevelheimer Mrs. Anna Boyd Mr. Steven W. Brockman Mr. Shawn Brooks Mr. Michael Buckley Mr. Evan Bupp Mr. Brandon Clark Ms. Evelyn Cobb Mr. Patrick Condron Ms. Lindsay Cravens Mr. George Culver Mr. Riley Davis Mr. Logan Fiske Mr. Bart Fulmer Ms. Catherine Glenn Ms. Nicolette Green Jim Hatfield Mr. Jeff Henderson Mr. Zackory Hobbs Mr. Richard J. Janosky Mr. Lawrence B. Johnson SCPO Cory Kroelinger Mr. Adam Oszmian Mr. Thomas Prickett Dr. Stephanie Reitmeier Mr. Robert J. Rodgers Scott Swayzee Mr. Isaac Thomas Mr. Jeff Watteau Mr. Lucas Watterson Mr. Scot West Mrs. Roberta Woronowiczs Thunder Mountain Chapter Mr. Jeff Montgomery Thunderbird Chapter Mr. Shaun Boyd Utah Chapter PFC Tage Riley Cavalli MAJ Chris Tarbet Volunteer Chapter Mr. Landon Scott David Starks Washington-Potomac Chapter Ms. Richa Bharwani SFC Jacob A. Breitigan Mr. Adam Breslin Mr. Joe Burkhart SPC Nicholas T. Carr Mr. Jake Castillo Mrs. Staci Cretu

Mrs. Katie Fejer Mr. Carlton Foote Mr. Shane Frv Mr. John Heller Mr. Ronnie Kelly CPT Gustavo Maldonado LTC Leala McCollum SPC Cole T. Miller Mrs. Olivia Mitchell PFC Daniel B. Moore Mr. Tanner Nickell Mr. Joe Saunders Mr. Nick Shaw Mr. Benjamin Weiser Wright Brothers Chapter Mr. John Allen Mr. Dennis Andersh Mr. Chris Arnold Mr. Cary Bolitho Mr. Andrew George Mr. Jack McHugh Mr. Robert McMillin Mr. Joao Simoes Mr. Scott Smith Mr. Fernando Vazquez Mr. Kevin Warfield Yellowhammer Chapter Mr. Scott Bowman *Zia Chapter* Mr. Basil J. Steele No Chapter Affiliation Mr. Jon Agundes CAPT Jorge Alcoholado CAPT Alberto Alvarez Mr. Hanset Aragon Mr. John Bagan Mr. Rex Bailey Ms. Katie Bell Mrs. Taylor Bloss Mr. Mike Bockstael Ms. Lane S. Caraballo BGen Carlos Carrasquilla LtCol Gabriel I. Christianson Ms. Stephanie Dallman Mr. Nick Davis Mr. Adam Drew Mr. Rory Dudas Mr. Khurram Durrani LTC Dan Goldsmith Mr. Timothy Goulet Mr. Ricky Govin COL Paul R. Helten Mr. Steve Houten Mr. Dylan M. Kletzing Mr. Ken Kohut Mr. Elliot Lampkin Mr. Tony Lewis Mr. Bob Marks Mr. Haydn Martin Mr. Scott McGrady Mr. Brad McKenzie COL Joe Mendoza Mr. Christopher Minor Mr. Mark Mohr Mr. Tyler Needham Mr. Peter Nusser Mr. Steve Olson COL Raul Perilla Ms. Kristine Quema Mr. John Romo Mrs. Rhonda Root Mr. Auston Solway Mr. Matt Tomblin Mr. Hugo Torrion COL Fabricio Varela Mr. Romano Vargas Mr. Jeff Wallace Mr. Fritz Watson Mr. Steven Welch Mr. Paul Wichert Mr. Josh Wilcox Mr. Richard Wurzbach

# Our Time For Gratitude is Now!

t's that time of year when we begin to make resolutions and exchange gifts. In my humble opinion, the greatest gift we can give is one we can give to ourselves by accepting who we are and being ever grateful for waking up to a new day.

During Hurricane Helene that besieged our city of Augusta, Georgia in September (the first ever recorded here), I had time to reflect on how very blessed we were to have remained safe, albeit some damage to our home and property while many of our neighbors experienced devastating consequences.

Venturing into our community hurt our hearts as it was mindboggling to visualize the damage inflicted by uprooted trees destroying homes, downed power lines and trees blocking roads and neighborhoods (The Masters Golf Course alone had over 200 trees down.) Our readers may have also experienced the tornadoes and hurricanes in North Carolina and Florida and our AAAA family will remain in prayer for those rebuilding their lives and communities there.

We had water, a gas water heater and cooktop but no electricity, phone, cell, internet or news feeds with the silence surrounding us sometimes deafening. However, we were spiritually consoled and felt blessed to just being alive. I love researching information on the internet, but without it, I engaged in reading more books. The Fourth Quarter of your Life by Alan Hunt and Matthew Kelly helped me accept that I was supposed to be where I am at this point in my life and allowed me comfort in my faith in God. "Whether you are sixteen or sixty or even older, the rest of your life is ahead of you. You cannot change one moment of your past, but you can change your whole future. Now is your time." And "Wherever you are,



Soldiers with the 449th Combat Aviation Brigade complete supply operations in Buladean, Baskerville, Fairview and Green Mountain, North Carolina on October 2, 2024.

whatever you're feeling, however life has surprised and disappointed you, I want to remind you of one thing. The best is yet to come."

Undoubtedly this concept could be very hard to swallow for hundreds of folks experiencing the reality of dealing with the aftermath of the hurricanes, illness, or death of loved ones. However, the authors expressed some philosophical ideas that struck a chord with me. "What matters most? The lines on our faces or the experiences that made them? - Yesterday or today? - The house you live in or the love in your home? - People or things?"

For those experiencing intense loss especially after these hurricanes it is okay to register those losses, but then it is important to "Trust-Surrender-Believe and Receive." For example, in talking with those in our community who lost their homes, they expressed gratefulness for just being alive. Neighbors were there for each other, homes were open to house those who lost theirs, food banks and restaurants provided food and meals for those in need, countless local repair workers and those from all over our state and beyond left their own families to work tirelessly 24-7 to rescue, rebuild, and restore normalcy for us. We were truly blessed by the spirit of resiliency that followed.

While enjoying quiet quality time after our initial cleanup, we also acknowledged that we had an abundance of clutter acquired after retiring and subsequently not moving so often. We agreed with the authors that "Cluttered space clutters your heart, your mind and soul." They emphasized that leaving behind too many things and unfinished records causes grief to those who follow. With that in mind, we made many trips to local charities with donations knowing that others could use these to rebuild. Luckily, our Last Will and Testament, Estate Plan, Deeds and Titles, Insurance and Retirement Plans were current, but credit card accounts, contact numbers, recurring bills, mileage and loyalty/ reward programs and lists of passwords needed updating and doing this was time well spent.

Our prayers continue for those who lost their homes or worse yet their lives. By surviving we feel blessed and are appreciative, more than ever for our Today, the People in our lives, and our extended AAAA family.

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



### Order Of St. Michael Inductees Continued **Tennessee Valley Chapter**



Mr. Gilbert "Mark" Murray is inducted into the Bronze Honorable Order of St. Michael by chapter VP Awards, CSM (Ret.) Randy Wise; CW3 (Ret.) Rob Seybold, and LTC Brandon Nixon, deputy and product manager (respectively), Air Warrior on Oct. 23, 2024 in Huntsville, AL. Murray was recognized for the development, qualification and testing of Heads Up Displays, Nett Warrior-Aviation tablets, and Aircrew Combat Equipment for the Aviation Enterprise while serving as the system engineer for the Air Warrior Product Manager Office.



**Mr. Binh Dinh** is inducted as a Knight of the Honorable Order of St. Michael by CW4 (Ret.) Steven L. Sanders, DEVCOM Aviation and Missile Center Systems Readiness Directorate Human Systems Integration Specialist, on Oct. 18, 2024 at Redstone Arsenal, AL. Dinh was recognized for his significant contributions to Army Aviation and the Tri-Service while serving as the DEVCOM AvMC SRD Human Systems Integration Team Lead with his scientific knowledge of aircraft lighting and how it applies to the operator.



Ms. Elizabeth "Lisa" A. Corriea is inducted into the Honorable Order of Our Lady of Loreto by chapter VP Awards, CSM (Ret.) Randy Wise on July 9, 2024 at Redstone Arsenal, AL. Corriea was recognized for her steadfast support of Army Aviation on the occasion of her husband, Dr. Carlos Correia's (right) change of charter ceremony. Also pictured is COL James "Tony" Lindh, Project Manager, Soldier Survivability, Program Executive Office Soldier.

### ARMYAVIATION Upcoming

**Special Focus** 



Januarv 2025

Unmanned Aircraft Systems Launched Effects **Future Vertical** Lift Cross-Functional Team



February 2025 Aviation Maintenance

Contact: **Bob Lachowski Erika Burgess Carmen Touhy** 

### AAAAindustry@quad-a.org

203.268.2450 ARMYAVIATIONmagazine.com

### ARIVIYAVIATION Advertiser Spotlight



## CAE

CAE's Defense & Security business unit is at the leading edge of digital innovation, providing training and mission support solutions across multi-domain operations air, land, maritime, space and cyber. Our training and operational support solutions support customers who operate in complex, high-stakes environments where mission readiness and successful outcomes are critical. CAE Defense & Security is the world's leading pure play, platform agnostic training and simulation company serving the global defense market.

At CAE, we equip people in critical roles with the expertise and solutions to create a safer world. As a technology company, we digitalize the physical world, deploying simulation training and critical operations support solutions. Above all else, we empower pilots, airlines, defense and security forces, and healthcare practitioners to perform at their best every day and when the stakes are the highest. Around the globe, we're everywhere customers need us to be with more than 13,000 employees in more than 200 sites and training locations in over 40 countries. CAE represents 75 years of industry firsts-the highest-fidelity flight, mission, and medical simulators, and personalized training programs powered by artificial intelligence. We're investing our time and resources into building the next generation of cutting-edge. digitally immersive training and critical operations solutions while keeping positive environmental, social and governance (ESG) impact at the core of our mission. Today and tomorrow, we'll make sure our customers are ready for the moments that matter.

Catergories : Manufacturing, Maintenance and Product Overhaul Size of Company: Large 1,000 Employees and Ups

https://https://www.cae.

### AAAA Legislative Report

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

### Election Outcome Highlights

OVERER!

President-elect Donald Trump and the Republican Party secured a decisive victory in November, taking control of the White House and both chambers of Congress. While this election, perhaps the most contentious in American history, is now behind us, the country will move forward, including continuing the pursuit of excellence within our Army Aviation community. While we may have personal partisan preferences, as a collective enterprise, we remain non-partisan in our commitment to serve the Army and our Army Aviation families.

That said, we operate, maintain, and modernize our aviation force under the oversight of both the U.S. Congress and the White House. As the new administration takes shape in Congress, the White House, and the Pentagon, we can expect changes that will inevitably impact our enterprise.

### Legislative Impacts (Congressional)

Four defense committees have oversight of the Department of Defense (DoD) and Army Aviation: two authorizing committees (House Armed Services Committee, or HASC, and Senate Armed Services Committee, or SASC) and two appropriations committees (House Appropriations Subcommittee on Defense, or HAC-D, and Senate Appropriations Subcommittee on Defense, or SAC-D).

Currently, both the HASC and HAC-D are under Republican leadership, so it is expected that Chairman Mike Rogers (R-AL) and Ranking Member Adam Smith (D-WA) will continue to lead the House Armed Services Committee. Similarly, Chairman Ken Calvert (R-CA) and Ranking Member Rosa DeLauro (D-CT) are expected to remain in leadership of the House Appropriations Subcommittee on Defense. Notably, Rep. DeLauro has been a strong advocate for Army Aviation and is expected to lead efforts to re-establish the Army Aviation Caucus in 2025.

With the anticipated shift of the U.S. Senate to Republican control, there will be significant changes on the defense committees in that chamber. Chairman Jack Reed (D-RI) and Ranking Member Roger Wicker (R-MS) are expected to swap roles, with Reed becoming the ranking member and Wicker assuming the chairmanship of the Senate Armed Services Committee. The Senate Appropriations Subcommittee on Defense will see a major change due to Chairman Jon Tester (R-MT) losing his re-election bid. Senator Susan Collins (R-ME), the current ranking member, is expected to take over as chairman, with the new ranking member to be selected by the Democratic Party.

### Executive Branch Impacts (White House and Pentagon)

Congress plays an essential role in overseeing the Department of Defense (DoD) and Army Aviation, while policy priorities are generally set by the executive branch. President Trump has been clear about his focus on enhancing warfighting capabilities and operational readiness, which may lead to a shift in some of the priorities that have caused division between the two parties over the past four years. President-elect Trump has consistently emphasized the need to reform the Pentagon to prioritize military effectiveness over initiatives related to environmental concerns and diversity. This focus was underscored by his nomination of Army veteran Pete Hegseth, a former Fox News host and outspoken critic of current Pentagon policies. We can anticipate significant changes in political appointments during the first 90 days of the new administration.

So, what does this mean for pilots and crew chiefs on the flight line? Ultimately, the impact should be minimal. Our duty is to serve our country and follow the orders of our commander-in-chief, regardless of the political leadership in power.

### FY25 Defense Appropriations (Funding)

While many expect Congress to pass a short-term CR in December extending into March, top GOP appropriators are pushing for a clean slate for the Trump administration. Senator Collins, incoming Appropriations Committee chair, believes it's better for the new administration to focus on the FY26 budget rather than further delaying FY25. House Majority Leader Steve Scalise is also advocating for the FY25 budget to be completed by year-end, however Speaker Mike Johnson has expressed support for a three-month CR to give the Trump administration more influence on the FY25 budget. A similar approach in 2017 resulted in the budget being passed in May.

### FY25 Defense Authorizations (NDAA)

The HASC and SASC continue to negotiate a final FY25 NDAA, but two main obstacles remain in the negotiations.

The first is agreeing on a topline funding amount that the DoD will be allowed to execute. The House has stuck to the Fiscal Responsibility Act limits, while the Senate proposed \$25 billion more. The second issue, as in the previous year, is the inclusion of anti-DEI and abortion-related provisions. While Republicans conceded many of these last year, they remain a contentious issue, though the GOP controlled White House and Congress next year may reduce the tension. The final NDAA is also expected to include bills on China and artificial intelligence, as pushed by House and Senate leadership.

### On to 2025

In November, House GOP lawmakers sent a letter to Senate Armed Services Committee leaders Jack Reed and Roger Wicker urging the inclusion of measures like a hiring freeze, restricting military academy admissions based on race, and limiting pay for DEI staff at the Pentagon. In response, House Democrats sent their own letter urging the removal of anti-DEI provisions.

In the coming months we will cover impacts to Army Aviation as the new administration takes its form throughout the Army and the Department of Defense and how our Army Aviation leaders navigate through the noise in Washington D.C. to achieve success for the Army Aviation enterprise and our Army Aviation families.

### **UPCOMING EVENTS**

### JANUARY 2025

- New Year's Day
- 1 Submission Deadline National Awards and Top Chapter
- 15 Submission Deadline Scholarship Application Supporting Documents
- 15 ARMY AVIATION Magazine 2024 Photo Contest Deadline
- 20 Martin Luther King Jr. Day

### FEBRUARY 2025

- 11-12 AAAA Luther G. Jones Army Aviation Depot Forum, Corpus Christi, TX
- 25-26 National Uncrewed Aerial Vehicle Summit, San Diego, CA

NETWORK | RECOGNITION | VOICE | SUPPORT



### 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.

### Bombardier Delivers First HADES Platform



Bombardier Defense delivered its first Global 6500 business jet to the Army on Nov. 25, 2024 in a ceremony at their Wichita, Kansas, facility. The jet will be the main platform for the High Accuracy Detection and Exploitation System (HADES) program, the Army's fixed wing aircraft-based intelligence, surveillance and reconnaissance system that will replace the legacy RC-12 Guardrail. While Bombardier was chosen as the airframe builder, Sierra Nevada was awarded the integration contract in August, however, L3Harris filed a protest in September. As a result, the program is on a hold as of this writing.

### GE Aerospace Demos Hybrid Electric Propulsion System



GE Aerospace successfully demonstrated a hybrid electric propulsion system rated at one megawatt as part of a \$5.1 million research and development contract from the U.S. Army Combat Capabilities Development Command (DEVCOM) Army Research Laboratory (ARL). Under the Applied Research Collaborative Systematic Turboshaft Electrification Project (ARC-STEP) contract, GE Aerospace conducted research, development, testing, and evaluation of a megawatt (MW) class electrified powerplant that further identified and matured technologies applicable to future Army air vehicle propulsion as well as military electrified ground vehicles.



AeroVironment announced on Nov. 19, 2024 its plans to acquire BlueHalo, well-known for its drone swarm and counter-drone technology, for roughly \$4.1 billion through an all-stock transaction. The acquisition gives AeroVironment "a portfolio of solutions in Uncrewed Systems, short and long range Loitering Munitions, counter UAS, Space Technologies, Electronic Warfare and Cyber, powered by Al and Autonomy," according to a joint statement from the companies.

### Ballistic Protection for FLRAA



Integris Composites has been selected by Bell Textron Inc. as a supplier of armor systems for the Future Long Range Assault Aircraft (FLRAA). "We are grateful to be selected by Bell," said Andrew Bonham, president of Integris Composites, Inc., the U.S. component of Integris Composites – which last year became the new name for TenCate Advanced Armour, continuing a quarter-century legacy as a resource for form, safety, dependability and survivability.

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

**Aerospace Maintenance Solutions LLC,\*** Solon, OH, was awarded an \$11,592,723 firm-fixed-price contract for overhaul and upgrade of the control indicator for UH-60 Black Hawk helicopters; work locations and funding will be determined with each order, with an estimated completion date of Nov. 27, 2029.

**Amentum Services Inc.,** Chantilly, VA, was awarded multiple aviation maintenance services contract modifications with an estimated completion date of Nov. 30, 2025:

a \$27,097,787 modification to contract W58RGZ-25-C-0003 with work to be performed in Chantilly, VA; Hunter Army Airfield, GA; Oak Grove, KS; Leesville, LA; Ft. Stewart, GA; Ft. Liberty, NC; Honduras; and Germany – a \$14,880,549 modification to contract W58RGZ-25-C-0004 with work to be performed in Corpus Christi, TX; Tucson, AZ; Ft. Wainwright, AK; Ft. Cavazos, TX; Killeen, TX; South Korea; and the Marshall Islands - and a \$14,858,153 modification to contract W58RGZ-25-C-0004 with work to be performed at Joint Base Lewis Mc-Chord, WA; Ft. Cavazos, TX; White Sands Missile Range, NM; Wheeler Army Airfield, HI; Ft. Wainwright, AK; Camp Humphreys, South Korea; Ft. Riley, KS; and Ft. Irwin. CA.

**The Boeing Company**, Ridley Park, PA, was awarded a \$113,144,453 modification to contract W58RGZ-22-F-0407 to remanufacture Block 1 CH-47F aircraft into Block 2; work locations and funding will be determined with each order, with an estimated completion date of Dec. 31, 2026.

### **Advertisers Index**



# People On The Move

Aviation General Officer Promotions/Assignments

Richardson Relinquishes Command of SOUTHCOM



ALL PHOTOS U.S. SOUTHCOM PHOTO

GEN Laura Richardson provides the United States Southern Command colors to Secretary of Defense Lloyd Austin, while incoming commander, ADM Alvin "Bull" Holsey, and command senior enlisted leader, SgtMaj Rafael Rodriguez, look on during a change of command ceremony November 7, 2024 at USSOUTHCOM headquarters in Doral, Florida.



Just prior to the change of command, MG (Ret.) Walt Davis, inducted GEN Laura Richardson into the Gold Honorable Order of St. Michael at a private gathering. The most senior Army Aviator will retire with 38 years of service in January 2025.

#### Retirement

### **Texas Command Chief Warrant Officer Retires**





Texas Army National Chief Warrant Officer 5 Paul W. Jenschke retired with more than 40 years of service Nov. 3, 2024, at a ceremony at Camp Mabry in Austin, Texas. The presiding official was former 36th Infantry Division commanding general, National Guard Bureau MG Win Burkett who applauded Jenschke for his dedicated service and thanked his family for supporting him throughout his 40 years. Jenschke is a master aviator and has served as both an aviation safety officer and a command chief warrant officer for the 36th Combat Aviation Brigade, the 36th Infantry Division, and First Army Division West. His wife, Kelli Randolph Jenschke was inducted as a Yellow Rose of Texas for her support and dedication to her husband and his service.

### **Flight School Graduates**

No al

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, Novosel, AL.

#### 40 Officers 14 November 2024 Class 25-002

Commissioned Officers 2LT Mills, Charles D. -DG 2LT Armstrong, Noah H. -HG 2LT Hawkins, Samuel J. -HG 1LT Emmons, Michael A. 2LT Guay, Alec M. 1LT Gunderman, Jordan N. \* 2LT Guthrie, Sean T. CPT Peeples, Aaron J. 2LT Richards-Smith, Emma \* 2LT Roe, Adam T. ' 2LT Rowland, Caleb A. 2LT Santoro, Ryan J. 2LT Schaaf, Sydney S. CPT Scroggins, Jake G., III 2LT Somanji, Carlos T. \* 2LT Terry, Gwyneth R. Warrant Officers WO1 Babcock, Trey B. WO1 Bevan, Logan C. WO1 Buchanan, Kyle L. W01 Chen, Zhuo WO1 Eddy, Trenton J. \*

W01 Franklin, Caleb N. WO1 Fulgham, Roy C. WO1 Garratt, Gabriel N. WO1 Kim, Yong Han Noel W01 Kiser, Antony J. WO1 Lansford, Nicholas B. WO1 Lopez Vazquez, Angel G. \* W01 Lugo, Sebastian A. WO1 Martinez, Henry J. W01 Miller, Steven L., II WO1 Porta, Lena O. WO1 Reinhardt, Adam J. \* WO1 Rivera, Julian A. W01 Sewell, Blake D. WO1 Valenzuela, Adriana Y. \* W01 Vanveckhoven, Cameron B. W01 Von Der Linn, Christopher J. WO1 White, Terell N. WO1 Zaragoza Gallegos, Hugo 35 Officers November 27, 2024 Class 25-003 Commissioned Officers 2LT Henry, William D. \* -DG 2LT Lamoureux, Daniel R. -HG 1LT Christensen, Kyle J. 2LT Davis, Ryan D. 2LT Duncan, Brittany L. 2LT Gogal, Brendan C. 1LT Hines, Alexandria D. \*

2LT Lisgar, Blake S.

2LT Miller, Collin C.

2LT Parisano, Marciano A. 1LT Spellenberg, Kayla F. 2LT Wingfield, Jaden A. Warrant Officers WO1 McCloskey, Travis M. -DG WO1 Eldridge, Dakota J. \* -DG WO1 Byrd, John C. WO1 Clayton, John C. W01 Dennett, Aspen J. \* WO1 Echeverry Gallon, Manuel F. \* W01 Flanigan, Kane I. WO1 Goins, Josiah W. WO1 Haas, Joseph R. WO1 Jacobson, Nicholas J. \* WO1 McKinney, Jerid D. WO1 Miles, Andrew J. WO1 Moody, Christopher T. W01 Murray, Corey J. W01 Nicolae, Dragos M. WO1 Perez, Gerardo J., Jr. \* W01 Perkins, Kyle W. W01 Pew, Evan W. W01 Powers, Galen J. \* WO1 Talley, Cody L. W01 Thomas, Matthew D. \* WO1 Van Atta, Kyle J. WO1 Wilcox, Jaymes R. W01 Williams, Alexandra M. -DG: Distinguished Graduate

-HG: Honor Graduate

<sup>=</sup> AAAA Member



### People On The Move

### Non-Rated Warrant Officer Graduates



AAAA congratulates the following officers graduating from the Aviation Maintenance Warrant Officer Basic course at the 128th Aviation Brigade, Joint Base Langley-Eustis, VA.

7 *Graduates, 18 October 2024* W01 Joshua Harris \* -DG Class *007-24* W01 Joseph Dubois-HG Class 007-24 W01 David Griffard \* -DG Class 008-24 W01 Curtis Haywood-HG Class 008-24 W01 Aisha Edwards W01 Joseph Gordon W01 Daryl Peterson

\* = AAAA Member

#### ADVANCED INDIVIDUAL TRAINING (AIT) GRADUATIONS

AAAA congratulates the following Army graduates of the indicated Advanced Individual Training (AIT) courses at the 128th Aviation Brigade, Joint Base Langley-Eustis, VA and the U.S. Army Aviation Center of Excellence, Ft. Novosel, AL **Aviation Maintenance** Technician (151A) *Class 007-24* WO1 Joshua Harris \* -DG WO1 Joseph Dubois W01 Aisha Edwards WO1 Daryl Peterson Class 201-24 WO1 David Griffard \* -DG WO1 Joseph Gordon WO1 Kurtis Haywood AH-64 Attack Helicopter Repairer (15R) Class 034-24 PV2 Jay Hunt \* -DG MSG Yassine Addioui PV2 Brandon Ardagna **PVT Angelo Burris** SPC Michael Thames PV2 Gary Villanueva Flores Class 035-24 PFC Tage Cavalli \* -DG PFC Brian Charles SPC Laquadium Foreman PV2 Michael Utech Class 036-24 PVT Erik Charles Ruble -DG PV2 Nathan Tebebe Asfaw PV2 Samuel George Bomberry MSG Mustapha El Barkaoui SSG Mohamed El Mallouki SGT Otman Harrak PFC Alyvia Madison Leopold SPC Raphael Daniel Perez PFC Jovert Tecock Teche SPC Kimani Sharif Wiley CH-47 Medium Helicopter Repairer (15U) Class 028-24 PFC Christian Ryan Wayne \* -DG PFC Gabriel Alexander Barclay SPC Mason Thomas Calhoun SGT Gabriel Ray Chacon

PV2 Brock Edward Evers PFC Luis Alejandro Gonzalez, Jr CPL Jonathan Michael Grzywacz PV2 Joshua John Michael Kaufman SGT Richard Wayne Osborne, Jr SPC Caleb Joseph Wilde Class 029-24 SPC Mitchell Douglas Baker \* -DG SPC Frederick Montrell Askew PV2 Zackary Heith Campbell PFC Brithany Eva Caulder PFC Stephen Daniel PV2 Austin Joshua Dean PV2 Jack Owen Kennedy SPC Tristan Mackenzie Lewis PV2 Ian James Poe SGT Aaron John Shannon Class 031-24 PV2 Zachary James Zimny \* -DG SSG Nasser Saad N Altamimi PFC Justin Leo Doebber PV2 Christian Javier Garcia PV2 Jason Michael Harrison PV2 Jayden Keshawn Hopkins SPC Zachary Steve Longtin PV2 Reginald Starling Miller SPC Raymond Vincent Pasillas PFC Brennan Scott Pyrah PV2 Bryan Lee Ransome SPC Samuel Isaac Umling, II **UH-60 Helicopter Repairer** (15T) Class 066-24 SPC Michael Wayne Banzet -DG PFC David Eduardo Arvavo PV2 Jamison Timothy Baier

PFC William Diogos Armento PFC Shayne Patrick Hinson PFC Elijah Ryder Iverson PFC Jeremiah Dewayne Kilmer PV2 Tatum Quenten Kinard PFC Jake Hunter Maakestad PV2 Colin Michael Mcknight SGT Michael Anthony Salinas Class 068-24 PV2 Dalton Christopher Chase PFC Samantha Mckee Henry PFC Brandon Lee Moreno **PVT Grace Alice Olson** PV2 Nathan Elijah Phillips PV2 Diego Reves PV2 Lyndon Alexander Richeson PFC Colby Matthew Robl PFC Elijah Micheal Taylor SPC Ahmed Traore

I PV2 Robert Wanice Walls PV2 Camron Joseph Weidlich Class 069-24 PV2 Lukas Michaelrobert Harris-DG PFC Eduardo J. Astacio Lizardo PFC Landon Alexander Bollinger PFC Teagan Michael Thomas Cook SPC Luis Jeremias Diaz PV2 Trenton Michael Goodall PV2 Ryan Douglas Keating SSG Kristopher Allen Kelley PV2 Joshua Martorell-Ortega SPC Dalton Ray Odonald SPC Stevenson Alexander Polk Class 070-24 SPC Emma Quin Singer \* -DG SPC John Mcpherson Braswell SPC Jeric Tagari Cardenas SPC Brandon Alexander Frazier SPC Elaster Demond Jones. II SPC Darrian Darys Melendez SGT James Thomas Mettlach SPC Carl Herbert Rasmussen SPC Timothy Robert Stephens SPC Rashad Wesley Thompson SPC Tyler Andrew Weeden PV2 Jacob Robert Wright Class 072-24 PFC Kevin Nazario Palma Valdez \* -DC PFC Abigail Marie Brown PV2 Aldo Danir Ciprian PFC Trevor Lee Corn PV2 Jordan James Huff PFC Osvaldo Rodrigo Maldonadohernandez PFC Conner Annthony Mendez PV2 Johnathan Patrick Mest PFC Byeongjun Park SPC Skyler Dakota Pierce PV2 Fausto Sebastian Salas Class 073-24 PV2 Jeff Daniel Collarin Allagones \* -DG PVT Eric Michael Brading Arneson PFC Johnny Anthony Barraza PV2 Aiden Roger Wallis Comfort PV2 Iann Gabriell Garza SPC Scott Robert Jamieson PV2 Dean Scott Lepine PFC Christian A. Merced-Jenkin **PVT Anuart Yaret Perez** PV2 Alan Jesus Ramirez Trujillo PFC Jacob James Russell, III PFC Yvan Maxime Yamboumonthe Aircraft Powerplant Repairer (15B) Class 007-24 PVT Tafari Makhail Young \* -DG PVT Brian Devonique Adams PFC Joshua Rene Chavez PV2 John Morgan Henderson PFC Aydan Kwyn Miskell PV2 Daniel Jesus Romo SPC Tyler Kenneth Rose PFC Prince Casanova Trollinger PV2 Michael Dewayne Kern PV2 Cornelius K. F. Mcninch SPC Cody Lee Pound PV2 Patrick John Walsh PFC Shannon Theo Worrell Aircraft Powertrain Repairer (15D) Class 007-24 PFC John Freitas \* -DG

PFC Jason Arturo Bonilla PFC Jose Ariel Cruzadovallellanes PFC Jake Debree PFC Daniel Omar Garcia-Rosario PFC Rusty James Lee Keeney PV2 Jayden Jacob Lizardi PFC Alexander James Pangle

97

PV2 Judah Whalen Perez PVT Jonathan Patrick Prescher SPC Joiemceljay Cuares Reoma Aircraft Electrician (15F) Class 011-24 PV2 Tavian James Dawson \* -DG PV2 Justin Tyler Bounds PFC Jamil Alonso Burney SPC Noel Antonio Tirado Class 012-24 PV2 Emanuel Christopher Rea PV2 Wyatt Michael Swineford Aircraft Structural Repairer (15G) Class 009-24 PV2 Alcapone Joe Nobuo \* -DG PV2 Nathan Ray Gregory PFC Christopher Mwikya Nzavi PV2 Breaden Jerad Olmos-Byers SPC Jacob Paul Ring SPC Philemon Kipkorir Rono PV2 Teemu Santeri Savinainen PVT Brandon Wayne Spencer PV2 Dawson James Stapp PFC Donivan Ward Strieby PV2 Carlo A Valdez PFC Isaac Waring Aircraft Pneudraulics Repairer (15H)

Class 008-24 PVT Laynne Michael Woodson \* -DG SSG Jason Paul Dunmire PFC Sean Daniel Mellick PVT Samual Joseph A. Middleton PFC Scott Herbert Pasch SPC Khin Kyi Pyar Avionic Repairer (15N) *Class 012-24* SPC Joshua James Trujillo \* -DG PV2 Aaron Elias Alarcon SPC Cristian D De Gante Hernandez PFC Keven Hernandez Alonso PFC Tomas Paganini Solari PFC Geanna Alexis Paredez PFC Jangel Silva Mercado CPL Dennis John Leonardo Valdez Class 013-24 PV2 Arthur Alaa Salman \* -DG SPC Michael Alan Digsby PFC Jorge Yamil Lopez Rodriguez PFC Tristan Kahokumikiala Ma E SGT Zachary John Oswald PFC Jonathan Quezada SPC Joshua Caleb Rucker SGT Peyton Wayne Simpson AH-64 Armament/Electrical/ Avionic Systems Repairer (15Y) Class 012-24

Class 012-24 PV2 Mason Bryant Norton \* -DG PV2 Tomas Alzate Arboleda 11T Maciej Aleksander Bodynski PFC Anthony Joseph Bosler PV2 Drake Raymond Brown PV2 Jacob Charles Champion SPC Adam Amir Fadda PV2 Christian Douglas Franklin SPC Mason Lane Golden SPC Mitchell Cody Nelson SPC Dearton Ponny Taylor -DG: Distinguished Graduate -HG: Honor Graduate \* = AAAA Member

Unmanned Aircraft Systems (UAS) Graduations Tactical Unmanned Aerial Systems (TUAS) Operations Technician AAAA congratulates the following Army graduates of the Tactical Unmanned Aerial Systems (TUAS) Operations Technician, MOS 150U at Fort Huachuca, AZ. **TUAS Technician** 11 Graduates, 15 November 24 W01 Kolar Zbynek R. -DG W01 Stewart Jazmine M. -HG W01 Cooper Clayton W01 Garman Aaron A. W01 Isaacs Brian A. W01 Kelley Austin G. W01 Lejeune Michael J. W01 Lussier Richard C. W01 Post Brock C. WO1 Somsy Lonnie M. WO1 Yanes Jessie J. **UAS REPAIRER** AAAA congratulates the following Army graduates of the Unmanned Aircraft Systems Repairer Course, MOS 15E and 15M at Fort Huachuca, AZ. Shadow UAS Repairer Course 5 Graduates, 1 November 24 24 SPC Hill Christopher Michael -DG SPC Boyer Patrick Daniel PFC Devaughn Chad William PVT Fisher Henry Carlton PV2 Larrabee Brody James **Gray Eagle Repairer Course** 8 Graduates, 1 November 24 PV2 Loucks Ashleigh N. -DG PFC Anderson Jace Dean SGT Boyle Trayor G. PFC Cunningham C.Alexander PVT Keeley Riley Micheal PVT Osoriógranadeno Jose A. PVT Sanders Mekiah Jerrod PVT Whitley Canyon Slade UAS Operator AAAA congratulates the following Army graduates of the Unmanned Aircraft Systems Operator Course, MOS 15W and 15C at Fort Huachuca, AZ. Shadow UAS Operator Course 10 Graduates, 11 October 2024

PVT Colon Eric Alexander -DG PVT Waters Thomas P. -HG SPC Barr Kelly Leeann PFC Landry Elena Sun PVT Leinweber Madalyn Rose PV2 McMasters Luccas Dean PV2 Olsen J. Avery Curtis PFC Sowers Cameron Tivis PFC Wallace Dallas Hunter PVT Wilson Haydon Tuff Gray Eagle Operator Course 8 Graduates, 7 October 24 PV2 Sullivan Nicholas B. -DG PFC Bragagnolo Kevin L PVT Calvo-Nucamendi Julio C. PVT Kastello Noah M. PFC Lopez Juan C. PVT Santos Jesus M. PV2 Schermetzler Douglas L. PV2 Velasco Carlos 8 Graduates, 7 Oct 24 PVT Facente Raymond -DG PV2 Caldwell Taylor T. PV2 Crandall Dalton C. PV2 Mawhirter Jordan S. PFC Norman Robert C PV2 Poulton Zander W. PFC Prieto Trystan SPC Sheehan Luke P.

\* = AAAA Member



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



1974

Nominated

**50 Years Ago** 

November-December,

Eight members of AAAA's Em-

bry-Riddle Chapter have been

approved by Embry-Riddle Aero-

nautical University for entry into,

"Who's Who among Students in



### **25 Years Ago** December 31, 1999

### Briefings

The International Bird Dog Association (BDA) is sponsoring the once-in-a-lifetime 50th anniversary celebration for Cessna's famed L-19/O-1 Bird Dog. The commemoration is planned for the summer of 2000. The Associa-

tion would like to invite all former Army, Air Force and Marine

Corps Bird Dog pilots to attend. Those interested in participating may contact, Alan R. O'Hollaren, 404-454-6067 or DSN 367-6067.



### SEE/RESCUE

The Rescue Technologies Corporation's, SEE/RESCUE device, is now available in a holster version. This will allow users to carry the military-approved device on belts, lifejackets, flight jackets or backpacks. The holster version of SEE/Rescue—a passive and continuous emergency distress signaling device that requires no batteries, chemicals or electronics—has been detected from an altitude of 3,000 feet during search and rescue tests.



### Aviation Center Chapter

AAAA's Fort Rucker, Alabamabased Aviation Center Chapterrecently held its eighth annual Chili 5K road

race and chili cook off competition. The "Tomahawks" of the 1st Battalion, 14th Aviation Regiment coordinated the event. The event was a rousing success, featuring 440 runners as well as 27 chili teams competing in the scheduled events. Numerous corporate and local businesses sponsored this year's event. Attendance numbered some 3,000. Weather was near perfect, making it a great day to promote community relations and eat some great—and not so great—chili.



L.W. Harju, A.C. Hurst, G.R. McSwain, D.E. Provence, O.A. Nagel, E.D. Deason, Jr., H.B. Robertson and R.D. Funk.

### Quote of the Year

"If you don't train a tank or an infantry battalion, you get re-

lieved!... "But to train an aviation unit properly, you must get a waiver!" *Major General "Bob" Shoemaker* 

### Sikorsky UTTAS flies first...



STRATFORD, CT.— The Sikorsky YUH-60A UTTAS [Utility Tactical Transport Aircraft] made its first flight, October 17, at the Sikorsky plant here

in Connecticut. The flight consisted of low altitude hovering and limited maneuvering. The above was done more than a month prior to the contract schedule. Manning the controls were Sikorsky test pilots James R. Wright and John J. Dixson. Both Sikorsky and Boeing-Vertol are competing for the eventual UTTAS production contract. Winner of the competition will be chosen in late 1976.

### Not Far Behind...

Boeing-Vertol's version of the UT-TAS took to the air on November 29 at the Calverton, Long Island plant. This was the first flight of the YUH-61A, and was flown by



Vertol test pilots Frank Duke and Len Freisner. The test flight consisted of low altitude and hovering and maneuvering. Prior to the flight, Boeing conducted a 5,000 hour wind tunnel test of the craft's main rotor, tail rotor and airframe, plus a preflight whirl test of the main and tail rotor assemblies.



Celebrating the 50th Anniversary of the 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 Novosel, AL.

The deadline for nominations for the 2026 induction is June 1, 2025

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

# Army Aviation Hall of Fame

Sergeant First Class Rodney J. T. Yano

By Mark Albertson

odney James Tadashi Yano was born December 13, 1943, in Kealakekua Kona, Hawaii County, Hawaii. His grandparents had immigrated from Japan to the United States and his ancestry was an interesting cocktail of Japanese, Hawaiian and Portuguese.



He attended Konawaena High School but did not graduate. Instead, he joined the United States Army in 1961 at the age of 17. He was viewed as a model soldier and went on to serve two tours in Vietnam as a helicopter maintenance crew chief. On his second tour, his actions resulted in the award of the Medal of Honor.

Yano was assigned to the Air Cavalry Troop, 11th Armored Cavalry Regiment. On January 1, 1969, he was serving as crew chief for his unit's command and control aircraft. His unit engaged enemy forces in the jungles of Bien Hoa where enemy troops were well dug in.

During the course of the action, the command and control helicopter began taking fire from the defenders below. Yano managed to use his machine gun to suppress the enemy's assault. He was also able to toss grenades that emitted white phosphorus smoke at their positions so his troop command could accurately fire artillery at the enemy entrenchments.

Suddenly one of the grenades exploded prematurely. Yano became lathered with molten phosphorus. Lighted fragments touched off ammunition and thick, acrid smoke quickly filled the helicopter. The pilot, choking and flying blind, began to lose control of the aircraft.

Although severely wounded, partially blind and without the use of an arm, Yano undauntedly leaped into action, tossing, pushing and kicking unexploded ordnance and supplies out of the stricken helicopter. His unwavering commitment to saving his aircraft and crew resulted in further wounds, however, he persisted until the danger had passed.

Yano would succumb to his injuries; but his courageous devotion to duty preserved the aircraft and saved his fellow crewmembers.

On April 7, 1970, President Richard M. Nixon presented, on behalf of the United States Congress, the Medal of Honor to Sergeant First Class Rodney Yano's parents.

His memory would be further honored when, on February 8, 1997 the United States Navy named the large, medium speed, roll-on/roll-off transport T-AKR 297 the USNS Yano as it entered service with the Military Sealift Command. And, at Fort Novosel (Rucker), Alabama, a maintenance facility was also named for SFC Yano, as was a library at the Schofield Barracks in Hawaii.

In 1986, Sergeant First Class Rodney James Tadashi Yano was inducted into the Army Aviation Hall of Fame at Fort Novosel (Rucker).

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



# CREATIVE PROJECT SOLUTIONS THROUGH DESIGN, ENGINEERING, AND MANUFACTURING



### AIR • LAND • SEA • SPACE



GSA Contract Holder



702.209.8811 | SAFESTRUCTUREDESIGNS.COM | SALES1@SAFE-2.COM