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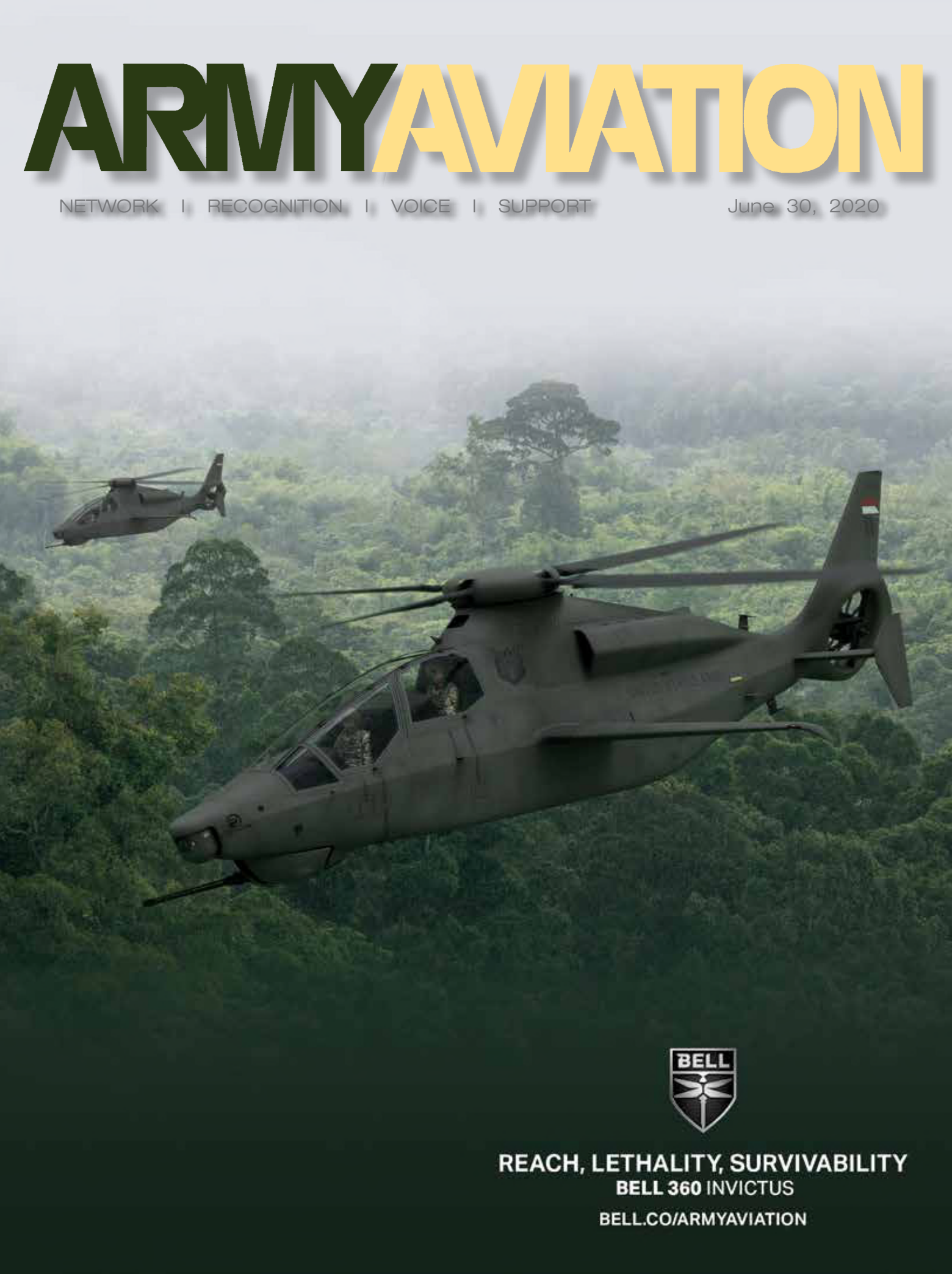

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TO THE FIELD

SPECIAL FOCUS — Army Special Operations Aviation

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FROM THE FIELD

DEPARTMENTS

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On The Cover

Briefings

Happy Birthday, Organic Army Aviation!

AAPI GRAPHIC

Seventy-eight years ago, on June 6, 1942, the War Department approved the use of Field Artillery organic aviation, with Army Aviation being placed under the direction of the Field Artillery and the Army Ground Forces. Designed to supplement the existing system of air support, Army Aviation was to provide air observation for the adjustment of artillery fire. The Department of Air Training at Fort Sill, Oklahoma and the office of Director of the Department of Air Training were also created on June 6, 1942. For a look at the early years, see the republished article on page 58 of this issue by the acknowledged "Father of Army Aviation," LTG Bob Williams.

Perna Tapped by POTUS for Vaccine TF

U.S. ARMY PHOTO BY SFC TEDDY VAUE

GEN Gus Perna, commanding general of Army Materiel Command (AMC) will co-lead the president's effort to find a vaccine for the novel coronavirus by January 2021, President Donald Trump announced May 15. Perna, who will serve as chief operating officer, and Moncef Slaoui, a former chairman at GlaxoSmithKline Vaccines, will co-lead the project called "Operation Warp Speed," the president said. Together, they're being charged with not just finding a vaccine, but also producing 300 million doses of it by early next year and distributing it across the United States. The president compared the initiative to the Manhattan Project, the secretive undertaking that built an atomic bomb during World War II.

Fed Benefits Assured for National Guard Members

U.S. ARMY PHOTO SSG ANDREW ENRIQUEZ

D.C. National Guard soldiers pass boxes of medical face masks to be loaded on a UH-60 Black Hawk helicopter during an aeromedical support mission in Asheboro, N.C., April 25, 2020. The Trump administration extended the federal deployment of more than 40,000 National Guard troops aiding coronavirus relief efforts in nearly every state and federal territory, reversing plans for an earlier cutoff. The federal government will now keep funding National Guard troops across the country through mid-August, President Donald Trump tweeted on May 28.

U.S. Space Force Flag Unveiled

U.S. SPACE FORCE GRAPHIC

The United States Space Force unveiled its flag for the U.S. Military's sixth branch of service at a White House Ceremony on May 15, 2020. Senior enlisted advisor, Chief Master Sgt. Roger Trowberman, unfurled the new flag with Chief of Space Operations Gen. Jay Raymond, flanked by President Trump, Air Force Secretary Barbara Barrett and Secretary of Defense Mark Esper.

CORRECTION:

On page 70 of the April/May issue, the AAAA Active Aviation unit of the year citation should read, "The organization's B Company deployed to Afghanistan…"

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The ARSOA and Conventional Army Aviation Team

Our focus for June is Army Special Operations Aviation – ARSOA. From the outside looking in, ARSOA may seem to be much, much different than conventional Army Aviation. Those of us who have served in both know that ARSOA and conventional Army Aviation are in fact complementary.

U.S. ARMY PHOTO BY PFC. JARED SIMMONS

A Soldier with the 601st Aviation Support Battalion, 1st Combat Aviation Brigade, conducts routine maintenance on an AH-64 Apache helicopter on May 6, 2020, at Fort Riley, KS. Soldiers with the CAB continue to support mission-readiness while simultaneously preventing the spread of COVID-19.

There would be no ARSOA without the volunteers that come from our combat aviation brigades (CABs) or that base line conventional aircraft that are modified for special operations. For conventional Army Aviation, many of the incredible capabilities we employ today come from the training, development, and creativity of our Army special operations aviators, maintainers, and capability developers. We complement and NEED each other.

Our Branch Chief, MG Dave Francis leads off the discussion by noting the OPTEMPO challenge that Army Aviation is experiencing – both ARSOA and our CABs. In my view, I doubt the OPTEMPO will lessen in the near future on either formation. So, MG Francis' next point is critical – people really, REALLY, matter. He notes how important recruiting from our conventional units is for special operations aviation and gives a clear message of continued support for that recruiting. From my personal perspective, the big Army gains back after making such an investment. Our conventional ranks are filled with former Night Stalkers from the 160th Special Operations Aviation Regiment (SOAR), at the NCO, warrant officer, and field grade levels. Those highly trained and experienced leaders make us better.

Next up is the U.S. Army Special Operations Command's (USASOC) command team. LTG Fran Beaudette and CSM Marc Eckard give us an inside peek into the 160th SOAR, from the start of a volunteer's training at Green Platoon to the future of the special operations aviation platforms, while discussing the components that make this well-honed formation really excel. Finally, they give a shoutout to the industry partnership that USASOC and ARSOA engender.

BG Al Pepin, U.S. Army Special Operations Aviation Command's (USASOAC) Commanding General gives us insight into the training of the 160th team member, as well as the Progressive Readiness Model that enables the special operations aviation team to maintain a stunning deployment schedule while supporting training events around the globe, all the while seeking new and better means and methods to fight and fly.

There are several other interesting articles from our ARSOA teammates, and I think you will find them highly relevant, no matter if you are in a CAB, in our school house, or are already a Night Stalker.

June 6 marked yet another birthday – on 6 June 1942 Army Aviation was born. We have come a long way from the days of light aircraft organic to Field Artillery outfits, but we acknowledge and honor our very own "Cub Club" and those that came before us.

I want to pay homage of a different type as well. Just a few days ago, Corpus Christi Army Depot held a change of command: we want to say congrats and best wishes to outgoing commander COL Gail Atkins. Gail was a superb leader and all of us at AAAA much enjoyed working for and with her on the Luther Jones symposiums each year. In her place comes COL Joseph Parker. We look forward to working with you J!

As a reminder, we are still planning on this year's Luther Jones Army Aviation Depot Symposium August 25-26. Pending any "second wave" or future travel restrictions, we hope to see you there!

Also, you need to dust off last year's August/September "Blue Book" issue of AAAA magazine and send us at AAAA your changes for this year's issue – suspense is 22 July.

As I noted last month, 2020 is off to a challenging start for our members and their families. I am proud of what our Army has done and is doing to support America and our citizens. I remain very confident all of us also can rise to the challenge. Stay healthy! As always, I pledge to ensure that AAAA does its part to help YOU: our Soldiers, families, and senior leaders!

MG Jeff Schloesser, U.S. Army Retired
34th President, AAAA
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The Team

By MG David J. Francis

U.S. NAVY PHOTO BY MASS COMMUNICATION SPECIALIST 1ST CLASS ERIC CHAN

I am extremely proud of our Special Operations Aviation and the close working relationship that exists between them and our conventional Army Aviation forces.

Special Operations Command Pacific units from Naval Special Warfare, 1SFG, 160th SOAR and 353rd SOG conducted Exercise Tempest Wind 2019 (TW19). TW19 involved tactical training with weapons, close-quarter combat, helicopter insertions, maritime boat operations, mission planning, communications, and development.

This relationship that developed over many years of shared lessons learned in training and combat, established a common understanding and trust between the two organizations.

OPTEMPO

As is the case with the rest of Army Aviation, Special Operations Aviation brings its own unique capability set to the fight and is in constant demand around the globe. Their steady deployments into combat zones, the standing Global Force Management Allocation Plan (GFMAP) requirements, ever changing Combatant Commander requirements, continuous training cycles, ongoing modernization and other variables such as attrition, funding, and institutional throughput all come together to create a significant OPTEMPO for a relatively small organization. With the increasing demand on these forces quickly becoming an issue of capacity, the conventional forces were able to lend a hand and fill some gaps. But conventional Army Aviation forces are faced with a significant OPTEMPO as well. However, both organizations established the means to provide mutual support across many aspects of each organization.

Recruiting

The scope of Special Operations Aviation, combined with their OPTEMPO, creates a demand for a particular kind of Soldier. I highly encourage brigade commanders to search out the best and brightest within your ranks and have a discussion with them about serving in our Special Operations Aviation formations. In addition, I ask that you support Soldiers in your ranks who are interested in assessing for this mission. A considerable number of those who choose to serve in Special Operations Aviation return to serve in conventional or training battalions, brigades, and divisions. The infusion of knowledge and experience these Soldiers bring back with them is immensely valuable and helps maintain the rapport and trust that took years to build. This is all about investing in people, getting the right people in the right job, continuing to build on our success, and making a great team even better as we modernize, train, and fight together.

Above the Best!

MG David J. Francis is the Army Aviation branch chief and commander of the U.S. Army Aviation Center of Excellence and Fort Rucker, AL.

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United States Army Special Operations Command

A Letter From the USASOC Command Team to AAAA

By LTG Fran Beaudette and CSM Marc Eckard

Boeing MH-6 "Little Bird"

On behalf of the 35,000 men and women of U.S. Army Special Operations Command (USASOC), thank you for the opportunity to address the Army Aviation Community.

A special thank you to the Army Aviation Association of America for dedicating an issue of your publication to highlight the special partnership between Special Operations and Army Aviation.

A Partnership Forged in Battle

The center of gravity for Army Special Operations Forces (ARSOF) is very clearly our people. We place a tremendous value on the power of individuals working together in small teams to achieve strategic effects for our Nation, and Army Aviation shares similar trust in its Men and Women on the battlefield. We are proud of our 160th Special Operations Aviation Regiment (SOAR) (Airborne), which was born out of necessity to serve as a mission-ready and dedicated aviation force for Special Operations; and, we rely on – you – the world class Soldiers of Army Aviation to fill our ranks.

For those who join the ranks of the 160th SOAR(A), their journey begins at the Special Operations Aviation Training Battalion (SOATB) where they complete Green Platoon. SOATB provides all newly assigned Soldiers adaptive and innovative training that meets the needs of the 160th SOAR(A) and ensures our newly trained women and men will be ready to deploy from day one to the harshest of environments.

Army Special Operations Aviators have earned a reputation for excellence that comes from years of hard-fought battles, earning the trust of their supported ground forces. From the jungles of Vietnam to the summits of the Hindu Kush Mountains in Afghanistan, Army Special Operations has relied on Army Aviation to fight and win in combat. Our bond is solidified in blood, and our histories will continue to be intertwined in the battles to come. We have the utmost faith and confidence in you, and we believe the best chapters of our collective history have yet to be written.

Every day, we are in awe of the technical prowess of the maintainers, the skill of the flight medics, the mission focus of the Forward Arming and Refueling Point (FARP) teams, the never ending hard work of crew chiefs, and the extreme competence of Army pilots. You all are a special breed of Warriors who skillfully execute the most dynamic and complex missions, requiring people and equipment to perform simultaneously at the upper limits of performance. Simply put, you fly without fear, without fail, and without equal.

Future of Army SOF Aviation

The United States Army Special Operations Aviation Command (USASOAC) challenges our assumptions of the future battlefield with innovative solutions and a ruthless pursuit of modernization. These incredible Soldiers and Civilians endlessly endeavor to develop tactics that optimize the human and technological capabilities of their teams.

The Systems Integration Management Office (SIMO) provides the connective tissue between developing and integrating equipment with our Technology Applications Program Office (TAPO) teammates. SIMO and TAPO provide a lean organization with robust output capability that thrives on bottom up driven innovation. Their "skunkworks" style and speed of acquisition uses operational Aviators to rapidly test and validate new capabilities for the 160th SOAR(A). Like many successful programs in the past, their efforts and collaboration with the Army Futures Command Future Vertical Lift Cross Functional Team (AFC/FVL-CFT) and the Special Operations Command PEO-Rotary Wing, these hard working teammates enable the mutual benefit of the SOF unique acquisitions processes for Army Aviation and the Joint Force.

Today, these partnerships are leading to cutting edge technological developments in aircraft survivability equipment that protects our precious cargo and aircraft. The daily battle cry is for more adaptive sensors and networked solutions. Everything must be lighter so that we can fly faster and farther. Our headquarters, staff directorates, and acquisition teams are working to ensure we stay ahead of our competitors, and so are the tactical formations. The 160th SOAR(A) is rapidly developing and executing Advanced Tactics Training that allows us to compete and win against our enemies. The ability to blend intelligence, tactics, and technology provides Special Operations a fast, agile, and responsive aviation force to maintain our warfighting advantage. For Soldiers that are looking to stay on the cutting edge of aviation and who want to stay at the tip of the spear, we have a place for you in Army Special Operations Aviation.

Leveraging Industry to Win

Nothing captures the American spirit quite like flight, and there are few parts of the Army where the relationship with industry is more important than aviation. We cannot fight tomorrow's wars with yesterday's technology. We rely on the American Aviation Industry to help us push the limits of our equipment and ensure we protect U.S. interests abroad. Army Aviation, USASOAC, and our industry partners are guiding us to that next ridgeline. The 160th SOAR(A), Aviation Maintenance Support Office (AMSO), and the Army's Artificial Intelligence Task Force are revolutionizing predictive maintenance using artificial intelligence. Our maintainers are 3D printing aircraft parts in theater to expedite repairs, reduce the size of the logistics train, and save our Army millions of dollars. AMSO is rapidly integrating data and machine learning to reduce the cost of sustainment and increase readiness with onboard diagnostic systems to provide a common operating picture for logistics. Many of these technologies are already being shared with our Army and they are leading to the spiral development of capabilities that will take our team into an information age force. Organizations like AAAA make these connections possible. I'm heartened to see Aviators retire from the Army and move into the private sector to strengthen these relationships, leverage their experience, and ensure ARSOF capabilities and requirements are met so that we may continue to maintain our competitive advantage against our global competition. There is no time to rest on the laurels of our past success.

Our Nation's enemies are working tirelessly today to bring down our aircraft tomorrow. We will continue to meet them on the battlefield and in the competition space. I trust Army Aviation, and our industry partners will continue to provide unparalleled aviation support to U.S. Special Operations Forces and our allies and partners.

Boeing MH-47G Chinook

Sikorsky MH-60L Direct Action Penetrator (DAP) Black Hawk

ALL PHOTOS COURTESY OF USASOAC PUBLIC AFFAIRS OFFICE

LTG Fran Beaudette is the commanding general and CSM Marc Eckard the command sergeant major of the United States Army Special Operations Command headquartered at Ft. Bragg, NC.

USASOAC Commander Update

Editor's Note: For this Special Operations Aviation focused issue, the branch chief, MG David J. Francis, has coordinated having the commanding general of the U.S. Army Special Operations Aviation Command, his command chief warrant officer, and command sergeant major provide the lead, "To the Field," command group articles.

U.S. ARMY PHOTO BY JOSE RODRIGUEZ, U.S. ARMY MEDICAL CENTER OF EXCELLENCE

Uncertain Times – Preparing for Future Operations

By BG Allan M. Pepin

A year ago, nobody predicted the COVID-19 pandemic of 2020. It reinforces the reality we will not know with certainty all the conditions impacting our future missions.

Soldiers board a C-27J aircraft from the USASOC Flight Company, U.S. Army Special Operations Aviation Command (Airborne), at Fort Sam Houston, Texas in April 2020. The UFC used its unique C-27J capability to transport Soldiers from the Medical Center of Excellence to their next duty assignment. Flight crews from the UFC have conducted numerous controlled air movements to maintain readiness and reduce the potential spread of COVID-19.

Unforeseen global events and new threats will continue to emerge with varying warning, requiring leaders to re-evaluate their approach to mitigate risks. Creative solutions, combined with highly trained units led by leaders that are comfortable in decentralized operations, will enable units to overcome many of the unforeseen challenges. Mission accomplishment is connected to the U.S. Army Special Operation Aviation Command's (USASOAC) culture of ethical actions and remaining an agile, adaptable, flexible and learning organization. This is critical to being a winning team.

Army Special Operations Aviation's (ARSOA) adaptation to changing conditions, resource constraints and higher priorities will continue to set conditions for future mission success. In the process, we will remain committed to the health and welfare of our Soldiers, Department of the Army Civilians, and Families.

We remain committed to the successful manning, training, equipping, and sustainment responsibilities to ensure the readiness of our special operations aviation units. These great units continue to provide reliable aviation support to the Joint Force and give back to the Army Aviation enterprise. Our tactical units remain ready to rapidly deploy forces to provide combat power to counter violent extremist organizations. We are also preparing to support large scale combat operations and leverage enhanced capabilities to compete with near-peer adversaries. Our efforts are synchronized with Army Special Operations Forces (ARSOF), U.S. Special Operations Command, and Army strategies, which prioritizes people, readiness and modernization. Our approach remains linked to the five Special Operations Forces (SOF) Truths.

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Recruiting and Retaining

Our ability to sustain readiness is directly linked with our dedication to recruiting and retaining the right people. We recruit, train, and retain motivated women and men who demonstrate professional ethics, exceptional character, high competence, discipline, and live the Army Values. The ARSOA Soldier possesses the ability to learn to excel in all operational environments, and many will reinvest their experience back into the Army Aviation enterprise. Prioritizing people reinforces three of the SOF Truths: humans are more important than hardware; quality is better than quantity; and competent SOF cannot be mass produced.

Tough realistic training ensures ARSOA units are prepared for no-notice operations. We will continue to increase capability and proficiency in all physical environments, degraded visual conditions, and in the virtual environment. Our strategy in support of readiness, lethality, and survivability ensures we are ready to defeat threat capabilities while preparing for the future fight. Tough realistic training, in conjunction with honest AARs, is essential to compete, fight, and win against near-peer adversaries. The lessons learned along with innovation will drive our modernization and training focus. Utilizing the right balance of technology and training methodology will provide the experience necessary to excel in an increasingly more contested environment. Our commitment to the preparation of our force supports a fourth SOF Truth: competent SOF cannot be created after emergencies occur.

Progressive Readiness Model

The use of our progressive readiness model (PRM) allows us to manage time and resources dispersed among operational support, force generation and sustained maintenance. Routine participation in unit training, Joint training exercises and combat training center rotations provides our leaders the opportunity to certify and validate their Soldiers. This ensures crews, staffs and leaders are qualified to execute their mission. Through innovative training approaches and the incorporation of new technologies, we will enhance the options available to accomplish future complex missions. A critical aspect of our ongoing modernization efforts is the development of Joint Force compatible communications, precision navigation, survivability systems, and weapons, munitions and targeting systems. Through collaboration with Army aviation stakeholders, Joint Forces, and industry partners, we will continue to validate and test emerging technologies that will lay the foundation for our future aviation fleet. This effort reinforces the fifth SOF Truth: most special operations require non-SOF assistance.

Synchronizing Efforts

Synchronizing efforts across the "Aviation 6-Pack" provides opportunities to enhance the enterprise support to the Army. An example is the ongoing efforts with Future Vertical Lift – Cross Functional Team (FVL-CFT) programs to integrate SOF-unique capabilities into Army common capabilities, as appropriate, to adapt to emerging technologies. We will continue to invest in conventional force and SOF-unique capabilities, and adapt to emerging technologies that counter peer and near-peer efforts in contested environments. Advancements within the Modular Open Systems Architecture will reduce the need for hardware add-ons and save both time and money to keep systems upgraded and relevant to new threat systems. The right approach will allow the force to maximize resources, reform initiatives, and increase our return on investment. While the future of ARSOA and Army Aviation remains promising, it will require predictable RDT&E, Procurement and OEM budgets. Our focus will always remain on enhancing our support to the SOF Ground Forces.

The USASOAC team is proud to serve with, for, and alongside such an incredible group of professional women and men dedicated to the defense of our nation, with an unbroken bond to the SOF Ground Forces we support.

Volare Optimos! To fly the best!

At the time of this writing, BG Allan M. Pepin was the commander of U.S. Army Special Operations Aviation Command located at Fort Bragg, NC. We at ARMY AVIATION thank him for his support and wish him great success in his new assignment as the deputy commanding general of the U.S. Army Special Operations Command, also at Ft. Bragg.

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Army Special Operations Aviation – Seeking Innovators

By CW5 David F. Greenwood

Future Development Efforts

Empowering innovation is the hallmark of Special Operations Forces (SOF). This fact is proven time and time again in the history of SOF and Army Special Operations Aviation (ARSOA). A quick review of our past is ripe with examples.

The Genesis

The need for dedicated and specially trained Army Special Operations Forces (ARSOF) aviation support was identified because of the failed rescue attempt of American hostages during Operation EAGLE CLAW. The subsequent effort to improve joint and special operations warfare led to the formation of Task Forces 158 and 160, comprised of aviation companies from the 101st Airborne Division. Those task forces were soon consolidated into TF-160, an organization seeking an innovative solution to an identified problem. TF-160 was the antecedent to the 160th Special Operations Aviation Group, later reorganized into the 160th Special Operations Aviation Regiment (Airborne).

The creation of a cohesive unit that specializes in non-conventional aviation mission support to SOF crisis response was innovative and has proven an invaluable tool to the Nation. Since the creation of ARSOA, the organization has seen significant growth in size and capabilities, the latter occurring through continuous innovation.


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Development

In the 1980s, TF-160 developed tactics, techniques, and procedures (TTPs) for night flying and advanced night vision goggles for aviators. They replaced CH-47 'Super-Cs' with MH-47Ds. The MH-47Ds included avionics, forward-looking infrared radar (FLIR), and three internal 800-gallon fuel tanks to increase range adding aerial refueling probes to further extend its reach.

In the 1990s, MH-60s were 'up-gunned' with .50-caliber machine guns and 2.75-inch rockets to become MH-60L Defensive Armed Penetrators (DAPS). This configuration was arguably one of the most lethal and versatile aviation platforms in the Department of Defense. During this time development began on the A/MH-6M Mission Enhanced Little Bird (MELB) to provide modern cockpit and performance gains increasing capability to our Ground Forces.

Throughout the last two decades we have continued to innovate and develop our TTPs at the speed of need. Paired with enhanced Situational Awareness tools and Aviation Survivability Equipment, TTPs have allowed ARSOA units to accomplish their missions with confidence in their capabilities to fly, fight and win!

Current Efforts

Fast forward to current efforts highlighted in the ARSOA articles within this edition. Efforts include the Architecture, Automation, Autonomy, and Interfaces (A3I) experimentation attempting to validate U.S. Army and USSOCOM Future Vertical Lift (FVL) concepts for Advanced Teaming and for the Hyper Enabled Operator (HEO). Another is Special Operations Forces and Conventional Force integration at the National Training Center to expand training value to aviation teams while still providing great support to the Ground Force. The foundation for Harnessing the Power of Data Analytics in Aviation Sustainment started as a project to answer the question, "What does it cost to fly a helicopter" and has evolved into a commander's near real-time risk decision tool.

The efforts above are nowhere near an exhaustive listing - and not all innovative ideas achieve full development before they are discarded. However, the key aspect of our culture is in the fact that individuals' intellectual concepts and creative problem-solving is encouraged and empowered by teammates and leaders alike. There is never disregard for an idea that attempts to solve a problem. Whether you are a specialist, a chief warrant officer, a captain or platoon leader new to the formation, you will be empowered to solve problems and create new things. The common theme of all the innovations highlighted is that they were created from a user-driven idea.

If you want to work in an environment that empowers you to solve problems, enhance your warfighting equipment, develop efficiencies in work processes, and be among people that are like-minded, we are seeking you. I encourage you to reach out to an ARSOF recruiter today at https://goarmysof.com/.

CW5 David F. Greenwood is the fifth command chief warrant officer of the U.S. Army Special Operations Aviation Command (Airborne) at Fort Bragg, NC.

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The NCO Role in a Changing ARSOA and Army

By CSM Jimmy Wilson

U.S. ARMY: 160TH SOAR COURTESY PHOTO

Members of the 160th Special Operations Aviation Regiment (Airborne) decontaminate an MH-60M Black Hawk helicopter following a Chemical Biological Radiological Nuclear training event at Fort Campbell, KY.

Dedication, innovation, and the ability to adapt to change are the cornerstone of the Army Special Operations Aviation (ARSOA) NCO. Effecting change within an organization is always difficult and will likely be met with friction – in some cases outright resistance.

We must break from our comfort zones and recognize when change is required, NCOs lead the way. CSM, retired, Cliff O'Brien always told us, you can be part of the solution or you can be the one reading about it. As professional Aviation NCOs it remains our responsibility to identify problems, develop solutions and provide options for our commanders.

A culture that encourages "outside the box thinking," and where leaders listen to the ideas from all Soldiers, remains key to the success of ARSOA. Developing young aviation Soldiers into thinking at the speed of need, intelligent problem solvers maximize their highly trained MOS skill sets. The Soldiers we receive from AIT come to us with a solid foundation in basic aviation maintenance. From the moment they enter the formation it is imperative that they are inculcated into a culture that is inclusive, professional and, most of all, built on a foundation of mutual respect. The U.S. Army Special Operations Aviation Command (USASOAC) NCO's highest priorities are training our newest teammates, building trust and developing motivated problem solvers. These principles are the foundation for mission success.

The Vision

The USASOAC 2020 Vision states: our no-fail, rapidly deployable forces and forward combat power stand ready to support the operational and strategic priorities of the Special Operations Ground Force Commanders and Geographical Combatant Commanders. We remain ready to fight tonight

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Enlisted Aviation Soldier Spotlight

Each issue we will feature a past AAAA National or Functional Enlisted or NCO Award winner as part of our ongoing recognition of the Best of the Best in our Aviation Branch. The CY 2019 National winners were featured in the April/May AAAA Annual State of the Union issue.

Unmanned Aircraft Systems Soldier of the Year, 2012

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AMY FILE PHOTO

SSG Joshua A. Palowitch

Company E, 160th Special Operations Aviation Regiment (Airborne)
Fort Campbell, KY

SSG Joshua A. Palowitch, Company E, 160th Special Operations Aviation Regiment (Airborne), demonstrated exceptional professionalism and expertise as an unmanned aircraft systems (UAS) standardization instructor operator from July 1, 2011 through June 30, 2012. His most notable contributions were in developing both the junior and senior operators, thereby ensuring his unit's mission success and the future development and growth of the UAS community. He met every one of the many challenges encountered with an extremely motivated and mission focused attitude that was demonstrated in his daily instruction and war fighting. He kept Company E's fourteen operators well ahead of changes within the UAS community and trained them to find, fix and finish the enemy on the battlefield.

His focus on the unique challenges of the UAS in meeting unit mission requirements established the standard for all UAS operators to emulate. As a direct result of his leadership and abilities the unit accomplished twenty autonomous HELLFIRE strikes (five of which he fired himself); over 7,000 incident free flight hours in support of Special Operations ground force commanders (1,000 of which he flew himself); and over 500 combat and training sorties with more than 30 Special Operations UAS operators.

against violent extremist organizations (VEOs) while proactively investing in enhanced capabilities to enable competition against near-peer adversaries to fight and win in future Large-Scale Combat Operations.

To achieve the mandates of this vision, NCOs must remain instrumental in identifying capability gaps to ensure we have the most capable systems required for mission accomplishment. Aviation NCOs that drive innovation from the bottom up are key to the development, training and employment of new capabilities. As new requirements evolve, we must adapt to meet the challenges of extremely complex environments with more capable adversaries.

Moving forward, ARSOA will aid in the development of future combat systems and advanced aviation tactics by remaining synchronized with the Army Aviation branch and Future Vertical Lift Cross Functional Team (FVL - CFT). Army Aviation stands at the cusp of the largest advance in capability in decades with the FVL concept. The requirement to conduct missions in the Multi Domain Operating (MDO) environment is driving technology and change at a rapid pace across our branch. New requirements and new systems will inevitably bring a multitude of challenges. If we are to overcome these challenges, the ARSOA NCO will need to stay synchronized with their fellow aviation NCOs in the force generating units and combat aviation brigades (CABs). Information sharing and collaboration are needed like never before to meet and defeat emerging threats. Remain in contact with your classmates from the NCO academy and get to know CAB NCO leaders assigned on your base. Invite those same leaders into your footprint. Share ideas and build relationships - they will prove invaluable as our Branch moves into the future.

The Challenge

I challenge NCOs to read the National Defense Strategy and develop an understanding of Special Operations Force's role within the strategy. The structure and training within ARSOA are unique and designed for the requirements of combating VEOs. Now we must determine what the ARSOA of the future will look like to conduct large scale combat operations against a near-peer adversary. Is our Structure and manning adequate? What capabilities do we need to build, or divest, to maintain a competitive edge? These are difficult questions for sure, but questions that require the informed NCO's perspective to aid commanders in developing solutions. Your input and the decisions made today will have lasting impacts on ARSOA's ability to provide unmatched support to the Ground Force commander.

The culture already exists. Our Soldiers remain trained and willing to meet new challenges if we lead them. Don't be a spectator, read and understand the requirements, own the problems and work the solutions. Commanders will always look to NCOs for our unique perspective, and when change is needed, they will expect us to support the change and to lead the way. The U.S. Army NCO Corps is the best in the world and stands ready to meet whatever challenges the future may bring.

Volare Optimus! Above the Best!

CSM James "Jimmy" Wilson is command sergeant major of U.S. Army Special Operations Aviation Command located at Fort Bragg, NC.

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Winning the Fourth Quarter

By COL Jason Miller

Over the previous five fiscal years, Army Aviation has experienced roughly 40 percent of its Class A mishaps during the fourth quarter.

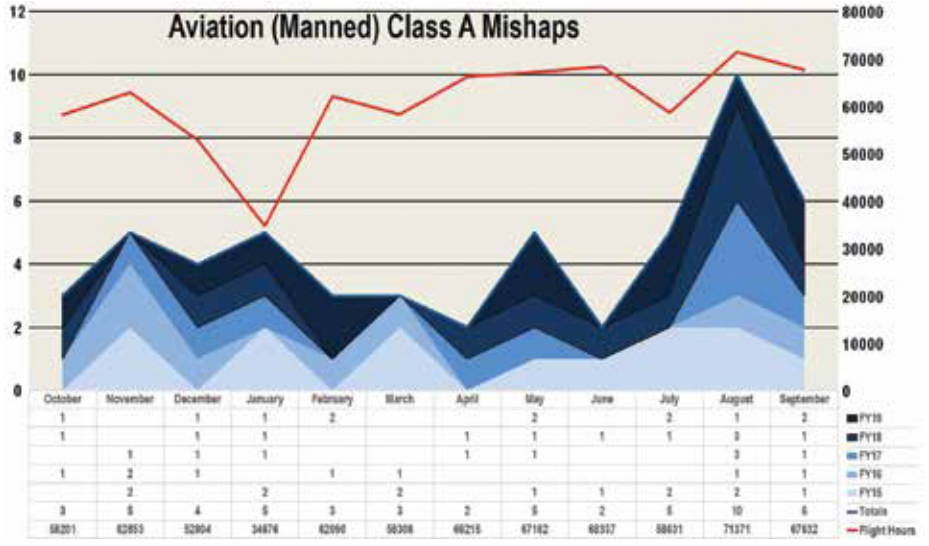
NATIONAL GUARD PHOTO BY JOHN HUSHEL, OREGON MILITARY DEPARTMENT PUBLIC AFFAIRS

Oregon Army National Guard Soldier assigned to BRAVO 1-168 Aviation gives the 'thumbs up' as she helps prepare a CH-47 Chinook helicopter at the Pendleton Army Aviation Support Facility, May 6, 2020. Approximately 60 members of the unit are traveling to Fort Hood, Texas as they prepare to deploy to Afghanistan.

In numbers, that is 21 of the 53 Class A mishaps during that timeframe, nearly double the total of any other quarter. Plotted on a bar graph, the fourth quarter looks like the Himalayas of mishaps as compared to the remaining quarters. This fact should immediately garner the attention of every member of the Army Aviation team. However, arming the force with foresight of the hazards associated with this time-period and employing effective leadership and mitigation measures can reverse this trend.

Complex Hazards

The fourth quarter represents a complex convergence of numerous factors that, individually or aggregated, if not mitigated create an increased risk to operations. The key to reducing risk during this timeframe is to ensure units adequately plan and train for associated complexities such as high operations tempo, fluctuations in combat power and leadership with the summer manning cycle, and a significant change in the operational environment and weather. Although Army Aviation historically flies the most hours in the third quarter, the fourth is a close second. When coupled with significant turbulence in leadership and combat power, as well as increased heat, dust and prolonged day/night operations, this time of year is ripe with overlapping hazards. Armed with this knowledge, it is vital commands confirm their leaders and aircrews are cognizant of these complexities and employ sound planning and mitigation measures to reverse the mishap trend.



U.S. ARMY COMBAT READINESS CENTER GRAPHIC

Effective Leadership

Aviation operations, including the tough, realistic training required to support large-scale combat operations, are inherently dangerous. DA PAM 385-30 states, "Managing risks related to such operations requires educated judgment, situational knowledge, demonstrated experience and professional competence." Effective leader knowledge, presence and engagement leading up to and throughout the fourth quarter will reduce risk. We must ensure we thoroughly train our leaders for the missions they are tasked with, position the right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leaders with the proper experience and judgment at critical points throughout the depth of the operation, and set expectations while empowering our leaders to make appropriate risk decisions to protect the force and mission. Doing so will ensure appropriate oversight is in place to mitigate fourth-quarter trends.

Additional Mitigation Measures

Although identifying hazards and effective leadership are crucial, there are additional mitigation measures leaders must consider during the fourth quarter. Managing transitions, especially given the current environment, will be complicated. However, proactive planning for transitions, seeking to rebuild habitual relationships and maintaining a running estimate of combat power based on personnel turbulence will provide senior leaders a realistic assessment of capabilities. Furthermore, instituting deliberate mission briefings and rehearsals, tied with an incremental training strategy to allow aircrews to establish (or re-establish) proficiency in the mission and environment, will pay significant dividends to the force. Finally, whether units see a significant transition in personnel or retain their combat power, the substantial change in the environment will make no mission "routine." Maximizing unit ASOs, enforcing SOPs and having the right mitigation measures in place prior to and during the fourth quarter will help ensure mission success.

Winning the Fourth Quarter

The Army is a learning organization and having foresight of the hazards associated with fourth-quarter operations, along with effective leadership and controls, will allow our formations to proactively plan for and mitigate risks. Turbulence during this timeframe happens every year and is forthcoming in FY20. However, as the USACRC commander states, "Collective critical thinking, discussion and sharing of best practices within our communities will allow us to reverse this trend." One of my former Army football coaches preached that "we must win the fourth quarter." How profound that those words still apply today in Army Aviation. Winning matters, especially in the fourth quarter!

Readiness Through Safety!

COL Jason Miller is the deputy commander of the U.S. Army Combat Readiness Center, Fort Rucker, AL

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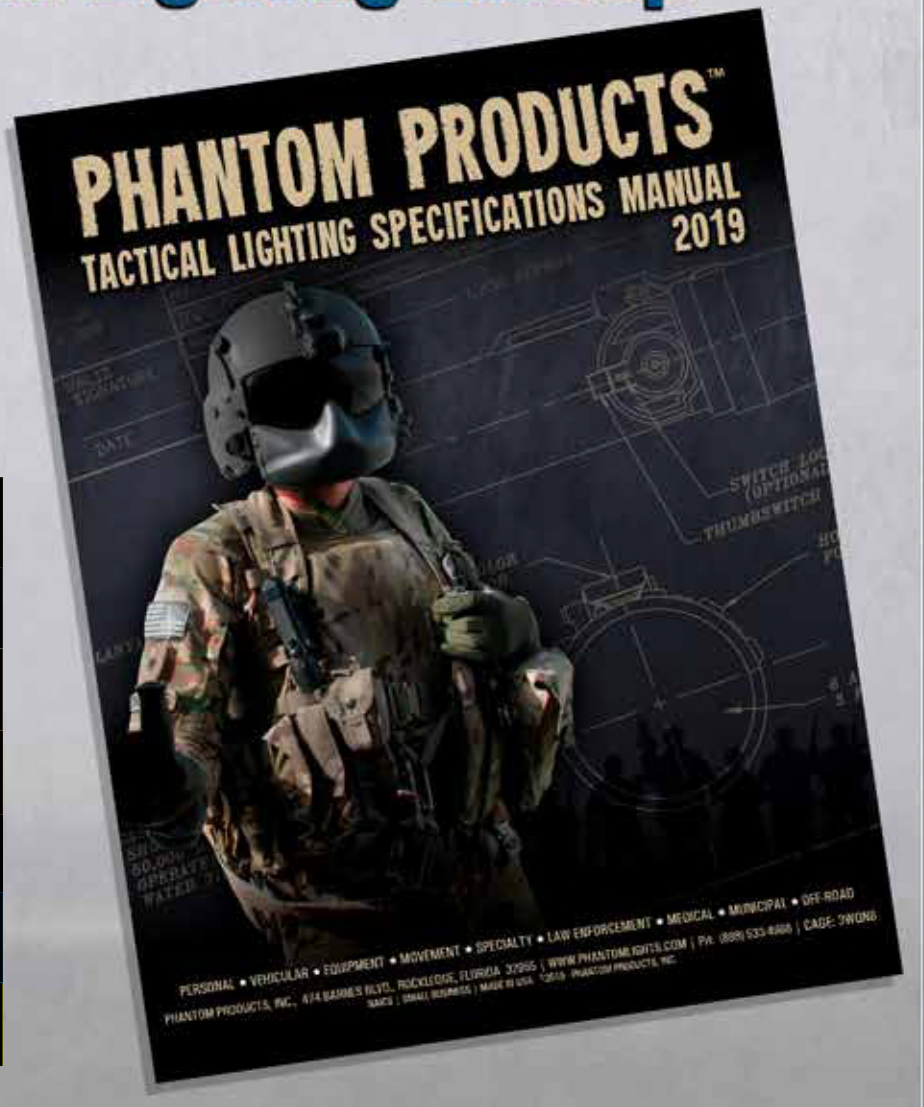

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KENTUCKY ARMY NATIONAL GUARD PHOTO

Regional Aviation Phase Support Centers (RAPSC) – An Innovative Approach to Army National Guard (ARNG) Aviation Sustainment and Aircraft Readiness

By COL Joseph W. Bishop

In the March 2020 issue of *ARMY AVIATION* magazine, BG Ray Davis touched on the topic of the ARNG's emerging Regional Aviation Phase Support Centers (RAPSC) concept.

I want to take this opportunity to provide a little more detail on the concept as it becomes reality and takes shape within ARNG Aviation.

Phase maintenance weighs heavily on Aviation unit maintenance programs. No matter the aircraft mission, design, and series, phase maintenance performed and completed on time bears heavily on aircraft availability and unit readiness. Aircraft readiness is the foundation for Aviation unit readiness. If aircraft are not "UP" then crews are not flying and unit readiness falters.

Sergeant Brant and Sergeant Dixon, Soldiers in the Kentucky ARNG supporting the RAPSC by completing the buildup of a Georgia ARNG UH-60L aircraft transmission.

The Intent

The primary intent of the RAPSC is to improve aircraft readiness across the ARNG fleet by shifting phase maintenance workloads and enabling the ARNG Aviation Support Facility (AASFs) / units to meet unscheduled maintenance demands. The never-ending fluctuations in resources of both manpower and funding, along with enduring operational demands necessitated new and innovative approaches to improving the ARNG's aircraft readiness posture in the 21st century. The AASFs rely heavily on the Full-Time Support Cadre for aircraft readiness. However, the units are not manned full-time nor do the AASFs have Logistics Assistance Representatives or Phase Contact Teams to assist with Aviation maintenance. The RAPSCs can fill this maintenance void and make positive

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inroads to aircraft readiness rates.

In 2017, Kentucky ARNG (KYARNG) Aviation in consultation with Mississippi ARNG's 1108th Theater Aviation Sustainment Group (TASMG) initiated discussions to improve aircraft phase maintenance productivity. This dialogue led to the KYARNG establishing a phase maintenance work center co-located at the Lexington AASF. As the success of the work center increased and the process matured it became evident that this initiative could expand regionally across the ARNG.

Testing the Concept

The Lexington AASF served as a "Test Bed" that validated the RAPSC concept of employment and provided a template for the other TASMG regions to replicate. Several key outcomes of the concept validation as well as indicators for success include; utilization of the AASF tool rooms, supply sections and hazardous materiel programs, readily available equipment and special tools associated with an Aviation Intermediate Maintenance Company, the facility square footage to allow for concurrent RAPSC and unit maintenance activities, and an available work force possessing the requisite aircraft phase maintenance skill sets.

ARNG units and the AASFs provide the bulk of phase maintenance manpower requirements in accordance with doctrine and to retain their maintenance skills. The RAPSCs will provide supplemental regionally based phase maintenance. The objective is to assist AASFs whose phase workload increased due to upcoming deployments, deployed full-time support workforce, and units pursuing the ARNG 9.0 hours / crew / month flying hour program. The RAPSCs, operating within a TASMG region, will function as an additional aircraft maintenance work center manned in a "Phase Team" construct focused solely on aircraft phase maintenance. The RAPSC will have a mission, design, and series focus to maximize phase maintenance completion rates and output.

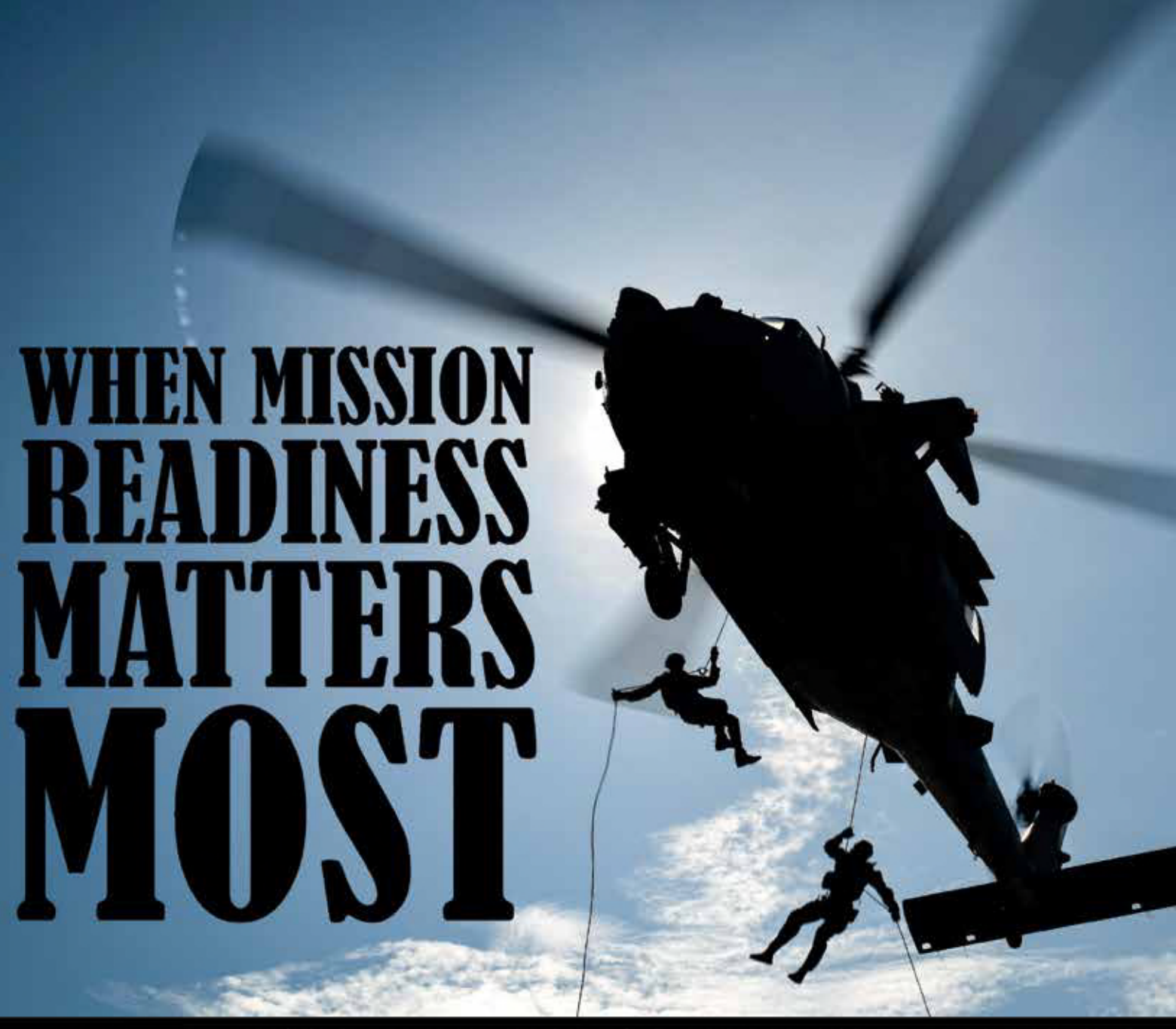
The Future

The ARNG intends to organize at least three additional RAPSC locations by the end of 2020 to complement the Lexington location. The TASMGs will oversee the operational and fiscal aspects of RAPSCs within their respective region as well as ensure the RAPSCs receive parts and logistical support necessary to complete scheduled phase maintenance. Each TASMG, in concert with the State Joint Force Headquarters supporting a RAPSC, is laying the groundwork in terms of logistics, contract support and developing phase maintenance scheduling timelines for Fiscal Year 21.

The AASFs remain the heart and soul of our Aviation units and Aviation unit level maintenance. The RAPSCs are an evolutionary approach to modify the ARNG's Aviation sustainment construct. We expect the RAPSCs, when fully operational, to have a positive and significant impact to overall aircraft readiness and allow for continued maximum support to the Army and the State's Governors.

Always Ready – Always There!

COL Joseph W. Bishop is the chief of the Aviation and Safety Division of the Army National Guard located in Arlington, VA.



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Aviation Maintenance Training and Operations During the COVID-19 Pandemic

By LTC Boyce R. Buckner

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Never in our wildest dreams could we imagine an operating environment that nearly shuts down all military operations. As COVID-19 entered the United States, one could almost assume that initial entry training would simply stop until the virus ran its course.

Left: A Drill Sergeant from the 128th AVN BDE conducts COVID-19 screening procedures of a newly arrived AIT Trainee at Ft. Eustis, VA.
Middle: Future AH-64 Armament/Electrical/ Avionics System Repairers conduct disassembly of the target acquisition and designation sight (TADS) at Fort Eustis, VA.
Right: Future Aircraft Structural Repairers demonstrating use of PPE for both COVID-19 and their aviation maintenance training at Fort Eustis, VA.

Instead, the Soldiers, civilians, and families of the 128th Avn. Bde. came together, implemented immediate measures to protect the force and continued training to protect our mission and relevance to our branch and Army.

How did we do this? With engaged leadership, teamwork and ingenuity from our incredible team of combat aviation leaders. One of our most successful approaches was the implementation of screening check points at the entry point of every training facility. These screening check points were armed with our highly disciplined cadre, our medical community's COVID-19 screening criteria, thermometers, hand sanitizer, and contingency plans should they encounter an individual potentially infected with COVID-19. Next, our Cadre ensured every piece of equipment used, from desk and chair to training device, were sanitized prior to the start and at the end of every shift. As social distancing guidelines were established, our Cadre innovated, moving classes into open hangar and facility floors; and even before mask recommendations and guidance were published, the entire brigade implemented the wearing of neck gaiters and cloth masks. Soldiers, Civilians and Families alike came together on this particular action, creating homemade masks from ACU undershirts and available materials to receiving donated masks sewn by spouse volunteers and supporters from our local community as the logistics systems caught up to the demand of the entire formation (in upwards of 1,500 masks for AIT trainees alone).

And while our "new" normal of our maintenance training environment continues to refine daily through the COVID-19 pandemic, the 128th Avn. Bde. is taking the opportunity to improve its relevance to the branch and Army. One area is its virtual training environment, in which the Brigade began researching new opportunities this past October. With TELEWORK,

social distancing, and other constraints applied, our situation for COVID-19 appeared to limit training in some ways but created opportunities in others. Of note, our Warrant Officer Training Division (WOTD), responsible for all 151A WOBC and PME, was able to field test virtual collaboration technologies with their POI and Blackboard systems. In the past 60 days, WOTD successfully tested DISA Global Video Services (GVS) and Microsoft Teams and DISA Defense Collaboration Services (DCS). The outcome of these tests could change the dynamic of WOTD's training to a blended learning environment that can adjust from a fully virtual state, to the more preferred, blended learning environment with the optimal amount of virtual, in-class instruction and hands on training for our future 151As.

As the brigade, branch and Army continue to pick up momentum against COVID-19, resuming steady state operations, the Brigade also found new opportunities to resource the branch and Army. On April 22, 2020, the Brigade launched its proof of principle "AIT to Future Unit of Assignment," deploying 103 of the Army's newest 15-series Soldiers to combat aviation brigades (CAB) at Ft. Drum, NY, Ft. Bragg, NC, and Ft. Campbell, KY. Select Cadre of the Brigade led these new 15-series Soldiers on "clean and socially distanced" ground transportation from the training base of Ft. Eustis, VA to our teammates stationed across the Eastern region of U.S. Army Forces Command. These operations were so successful that we expanded our reach globally, executing land and air deployments of our newly trained Aviation mechanics (344 total as of May 20, 2020) to Germany, Ft. Riley, KS, Forts Bliss and Hood, TX, Joint Base Lewis-McCord, WA, Forts Wainwright and Richardson, AK, Ft. Carson, CO, and South Korea.

Our goals, regardless of our environment and conditions, are that the 128th Avn. Bde. remain relevant, resource our CABs, branch and Army across the globe, and turn new challenges into opportunities as we continue to train, operate and fight through this COVID-19 pandemic.

"Protect the Force, Protect the Mission, Born Under Fire!"

LTC Boyce R. Buckner is the commander, 1st Bn., 210th Avn. Regt., 128th Avn. Bde. at Joint Base Langley-Eustis, VA.

Enhancing Situational Awareness thru Tactile Cueing

By Mr. Shane Woosley

A major flight control system enhancement for the Army is on the horizon for the H-47 Chinook with the development and integration of the Active Parallel Actuator Subsystem (APAS).

The integrated APAS technical solution will introduce dynamic "softstops" into the pilot controls to the U.S. Army aviator. The APAS is a dual-redundant, electrically controlled trim actuator with automatic backdrive capability for each primary flight control axis. The APAS interfaces with the Digital Automatic Flight Control System (DAFCS) thru ARINC-429 serial communications with DAFCS computing locations of the detents and softstops based on sensor data. A softstop is a sharp rise in control force that cues the pilot to a limit boundary, also referred to as a 'tactile cue'.

The APAS success is an excellent example of a science and technology (S&T) concept development by the CCDC AvMC Technology Development Directorate-Aviation that transitioned to the Technology Applications Program Office (TAPO). The TAPO is planning to field the APAS technology by leveraging the integrated critical expertise of Boeing, BAE Systems, and the Systems Readiness Directorate (SRD). With softstop tactile cueing, the pilot can more easily maintain the aircraft within design/performance limits while enhancing heads-up eyes-out scanning for potential hazards outside of the cockpit. The goal of TAPO's team isn't easy: reduce pilot workload and limit aircraft exceedances by providing tactile cueing to the pilot, all while maintaining flight critical airworthiness.

A few examples of tactile cues being integrated into the H-47 include:

Max Power tactile cue can be armed on the ground and activated with weight-off-wheels and release of the thrust trigger to drive the thrust axis to maximum sustained power. If reduced thrust is required, the pilot can either hold below the detent or squeeze the thrust trigger again to deactivate the mode and reduce control forces.

Structural Load Factor (Nz) tactile cue is calculated from using the Embedded GPS/INS (EGI) sensor normal accelerations to cue the pilot to 56.7 degrees maximum bank angle (+1.82G level turn) and between +0.5 and +2.0G load factor in the pitch and thrust axes.

Descent Rate (VSI) tactile cue uses data from the Air Data Computer (ADC), EGI, and Radar Altimeter to cue the pilot to not descend below 10 feet Above Ground Level (AGL) if any landing gear sideward groundspeed exceeds 3 knots, not descend below 30 feet AGL if forward groundspeed exceeds 60 knots (kts), not descend faster than 800 feet per minute (fpm) when below 30 kts airspeed to avoid settling with power and not touch down faster than 240 fpm during landing.

U.S. NAVY PHOTO

MH-47 landing on a Navy ship in the vicinity of Peleliu, HI.

Energy Management (EM) tactile cue maps thrust axis performance margin to pitch and roll softstops for maximum attitudes at zero vertical speed to maintain altitude.

Structural Sideslip (Ay) tactile cue uses EGI lateral acceleration to correlate to sideslip. The H-47 airframe is capable of 45 knots sideward true airspeed, however there are no sideward airspeed sensors. The yaw axis softstop is encountered when lateral acceleration exceeds 4 ft/s/s (1/8th G) when high speed turn coordination is active.

Engine Power Turbine Inlet Temperature (PTIT) tactile cue is provided in the thrust axis to maintain engine temperature limits including timer-based limits.

Engine Gas Producer Speed (NG) tactile cue is provided in the thrust axis to maintain NG speed below the maximum limit. Both engine cues prevent rotor underspeed caused by engine performance limits.

Rotor Droop Stop Pounding tactile cue uses control positions to cue the pilot on the ground to avoid excessive blade flapping which results in droop stop pounding. This is accomplished by cueing for a minimum amount of collective pitch on each rotor head (combination of thrust and longitudinal sticks) as well as a maximum amount of lateral cyclic at each rotor head (combination of lateral stick and pedals).

Rotor Speed (NR) tactile cue helps the pilot maintain optimum NR between 91% and 106% during autorotation.

In all cases, aural cues will distinguish which hold mode is active and which softstop is being encountered.

The APAS will enhance one of the oldest U.S. Army aircraft with modern flight control technology giving our best aviators a sharp new edge.

Mr. Shane Woosley is an aerospace engineer with the Special Operations Airworthiness Division in the U.S. Army Combat Capabilities Development Command, Aviation & Missile Center, Systems Readiness Directorate. He is located at Redstone Arsenal, Huntsville, AL.

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Allergic Rhinitis

By CPT (Dr.) Joseph R. Adams and Dr. Steven D. Harris

Q: My allergies have been acting up lately. I've been experiencing nasal congestion, runny nose, cough, sneezing, and itchy eyes. I also feel fatigued and easily irritated. Should I be concerned?

FS: This is a classic description of allergic rhinitis. Common symptoms include episodes of sneezing, runny nose, congestion, itchy/watery eyes, cough, irritability, and fatigue. While this is a very common condition affecting anywhere from 10% to 30% of Americans, it can lead to significant impairment in aviators. Allergic rhinitis can be caused by a variety of allergens, the most common being tree, grass and weed pollen, mold, dust mites, and animals.

Swelling and congestion of the nasal passages in allergic rhinitis can cause discomfort and prevent normal breathing. This becomes a significant distractor while flying and may lead some aviators to take over-the-counter allergy medications that are not approved for flight duties. Some of these medications may cause drowsiness and other dangerous side effects.

Barotrauma is another consideration for aviators who experience allergic rhinitis. Reactions to allergens in the air can cause the mucous membranes within the nose to swell, blocking sinus drainage and preventing the Eustachian tubes from equalizing pressure within the middle ear during changes in altitude. This can lead to a painful build-up of pressure in the middle ear or sinuses and can potentially cause a ruptured eardrum. This is excruciatingly painful and can incapacitate an aviator in flight. Also, reduced ability to smell resulting from a swollen nasal lining can prevent pilots and aircrew from identifying early signs of smoke in the cabin or other hazards in the aircraft. While allergic rhinitis is not typically disabling, it does lead to a lot of down-time and can be very distracting in flight. The result can be reduced operational effectiveness of a unit.

Q: Ok, so I think I may have allergic rhinitis. What should I do about it? Can I take anything over the counter?

FS: As always, you should let your Flight Surgeon know about your symptoms. Depending on their severity and duration, the FS will likely have you take an approved antihistamine, nasal steroid, or other medication. There are, however, several over-the-counter medications that are approved for use if you let your FS know about it as soon as possible.

Saline nasal sprays are a great place to start. This class of medication is approved without restriction and has virtually no side effects if used as directed. Saline acts by inhibiting nasal secretions and is an effective treatment for many people.

For general allergy symptoms, fexofenadine (Allegra) and loratadine (Claritin), both non-drowsy antihistamines, are approved for OTC use. These medications act by suppressing your body's immune response to allergens. Other antihistamines, such as diphenhydramine (Benadryl) are NOT approved due to their sedating effects. Many OTC medications contain diphenhydramine so be sure to check the active ingredients on the label.

For nasal congestion, pseudoephedrine (Sudafed) is approved for OTC use if you can breathe normally through your nose and can Valsalva. Phenylephrine HCL (Neosynephrine) is another option for congestion but can only be used for a maximum of three days. Oxymetazoline (Afrin) is a longer-acting nasal spray decongestant which can also be used for up to three days without approval by the Flight Surgeon. These medications act by constricting blood vessels in the lining of the nose and, again, are NOT for long-term use.

Nasal steroid sprays can be a very effective treatment option and your Flight Surgeon may prescribe this as a first-line treatment. Steroids reduce inflammation and congestion, and nasal steroid sprays are able to act locally without systemic effects. These medications are generally safe for long-term use, but your provider may advise you to use them only intermittently and at the lowest dose that controls your symptoms. The most important consideration with any allergy medication is that the Aviator's senses do not become impaired with their use. Many of these medications can cause drowsiness, blurred vision, dizziness, vertigo, or other sensory changes. If you experience any of these, stop taking the medication and see your Flight Surgeon as soon as possible. If your symptoms do not improve with medication use or if you experience more than mild symptoms, they may be caused by something other than allergic rhinitis and you should schedule an appointment with your Flight Surgeon for further evaluation.

In cases where symptoms do not improve after treatment with typical medications, your Flight Surgeon may refer you to an Ear Nose and Throat (ENT) specialist. These physicians will check for less common causes of allergy-like symptoms and may recommend additional treatment. You may also require a CT scan or a referral for allergy testing.

Fly safe!

Question for the Flight Surgeon?

If you have a question you would like addressed, email it to AskFS@quad-a.org; we'll try to address it in the future. See your unit flight surgeon for your personal health issues.

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

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CPT Joseph (Joe) Adams, M.D. is a flight surgeon at the U.S. Army School of Aviation Medicine and Steven Harris is a board-certified otolaryngologist, former Air Force flight surgeon, and faculty member in the U.S. Army School of Aviation Medicine's Residency in Aerospace Medicine.

MQ-1C/ER Gray Eagle Extended Range Unmanned Aircraft System (UAS)

A3I Demonstration Yields Promising Results

By LTC Michael Roder and CW5 Cory Anderson

As the U.S. Army implements Multi-Domain Operations (MDO), the Army Special Operations Aviation Enterprise (ARSOA) must align fully with modernization efforts across the spectrum of the Joint and Army Cross Functional Teams. While ARSOA missions are expected to continue similarly in a near peer conflict as they are today, Architecture Automation Autonomy Interfaces (A3I) provide the cooperative foundations for the U.S. Army Special Operations Aviation Command (USASOAC) to ensure ARSOA is interoperable with Future Vertical Lift platforms and across the Joint All-Domain battle space. A3I experiments are slated to occur annually and are an integral part of the Army Futures Command's (AFC) Project Convergence series of experimentation - a Joint All-Domain Operations (JADO) enabling activity.

In December 2018, USASOAC's Systems Integration Management Office (SIMO) and the Future Vertical Lift Cross-Functional Team (FVL-CFT) began a collaborative effort to take advantage of Special Operations Forces (SOF) capabilities in development for the MQ-1C/ER Gray Eagle Extended Range Unmanned Aircraft System (UAS). A3I is a rapid prototyping and experimentation project to integrate government and commercial solutions to inform requirements in MDO and rapidly field capabilities. A3I will: 1) Validate US Army and USSOCOM FVL concepts for advanced teaming and the Hyper Enabled Operator (HEO), 2) Mature technologies and reduce risk to future programs through experimentation, and 3) Generate quick wins for fielding and operational feedback of realized capabilities.

A3I Defined

A3I is a spiral development, test, and fielding effort based on previous lessons learned and the continuous expansion of capabilities. The SOF Modification Program for the MQ-1C/ER is the first of its kind to use the concepts of the information systems development process to develop both hardware and software for an aircraft including sensors, weapons, and other mission equipment. This allows A3I to integrate newer technologies and then rapidly experiment and develop. These quick iterations allow A3I to further develop these technologies to operationally relevant environments or abandon the technology if not suitable and move investments to other promising efforts. A3I is proof that a government led program can be nimble, adaptive, and agile.

With A3I's integration into MDO, its partnerships necessarily extend beyond USASOAC and the FVL-CFT. The Army's Program Executive Office for Aviation (PEO-AVN) is a critical partner as the materiel solution provider for the 160th Special Operations Aviation Regiment (Airborne) platforms. The relationship is critical to the continued success of A3I and modernization of the Army's enduring fleet.

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These relationships enforce a Modular Open Systems Approach (MOSA) to design affordable and adaptable systems. As part of the evolution of the architecture, the currently developed software services are migrating to a middleware framework. This framework acknowledges the architectural strengths of the abstraction layers proposed by the Future Airborne Capability Environment (FACE) and Open Mission Systems (OMS) architectures.

Air Launched Effects

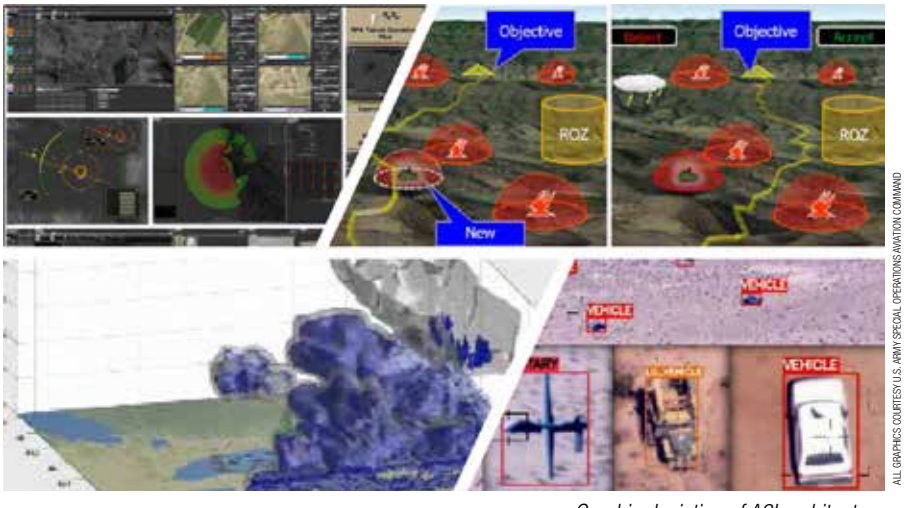
A3I constantly evolves and centers on automating the reconnaissance, surveillance, and targeting processes to reduce sensor to shooter timelines. Integral to this step is an immediate focus on Air Launched Effects (ALE). A3I enabled aircraft will be equipped with multiple sensor modalities to support target detection to include signals and electronics intelligence (SIGINT/ELINT) and Electronic Warfare capable payloads. A3I integrates several autonomy technologies for unmanned systems that detect, identify, locate and report threats on the battlefield. All sensor data will be ingested by on aircraft and ground-based processors, transformed into targetable information, and disseminated via tactical data links through aerial network gateways. Machine Learning techniques will be used to assist in auto-target recognition and cross-queuing between sensors and weapons systems. Inherent in this capability is the requirement for manned systems to interact with—and control—systems to obtain the best effects in support of the tactical mission. Platform autonomy and distributed command and control capabilities reduces the need to manually steer the platform or sensors. It also includes multiple autonomous routing capabilities designed to avoid evolving weather conditions, utilize battlefield/airspace coordination measures, and takes into consideration low-observability for visual, acoustic, and RADAR signatures to avoid or affect the enemy. To enable the dynamic discovery and tasking of the ALE in flight, A3I is developing a discovery protocol that will allow the network to rapidly detect the availability and capabilities of any UAS or ALE on the network for tasking or monitoring of system outputs such as the on aircraft Automated Processing Exploitation and Dissemination (APED) products.

Demonstrations

The first demonstration was conducted in August 2019 at Naval Air Weapons Station (NAWS) China Lake, CA. This Phase 0 A3I effort demonstrated several key elements that established the framework for future capabilities integration with an emphasis on the architecture for distributed aircraft and munitions data link control. Multiple command and control software suites including technologies from the Air Force Research Laboratories (AFRL) and John's Hopkins University Applied Physics Laboratory (APL) enabled control of the MQ-1C/ER from laptop-based controllers and network-enabled tablets in manned rotary wing aircraft. Each of these software suites assumed control of the platform and conducted elements of reconnaissance and precision strike missions using all government-owned interfaces. The demonstration culminated in the launch and active in-flight steering control of a Guided Bomb Unit (GBU)-69 Small Glide Munition (SGM) as a surrogate Air Launched Effect (ALE) to a designated target via the Situational Awareness Data Link (SADL). All shots were successful.

The next demonstrations are scheduled to occur during the AFC's Project Convergence later this year with follow-on demonstrations in following years. The demonstrations will further mature the network architecture and software interfaces onboard the MQ-1C/ER along with multiple tactical data links to facilitate control of ALEs from dislocated entities. These communication paths along with the integration of available technologies in Assured Precision Navigation and Timing (APNT) will result in platforms that can be reliably kept on mission and responsive to ground and air users in a secure and reliable network.

LTC Michael Roder is the director of the System Integration Management Office, U.S. Army Special Operations Aviation Command, and CW5 Cory Anderson is the SIMO UAS Development Branch Chief; both located at Ft. Campbell, KY.



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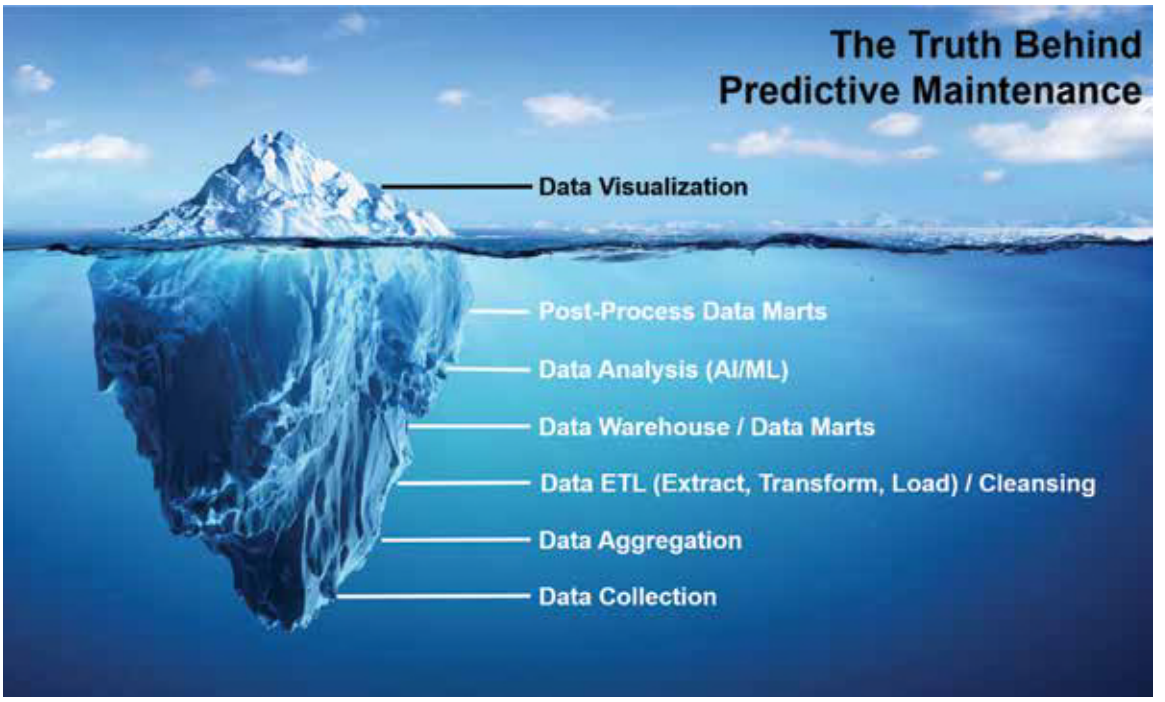
Graphic depiction of A3I architecture



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Harnessing the Power of Data Analytics in Aviation Sustainment

By CW4 Jason Slusser

How can technology and data analytics improve mission readiness and reduce risk? We are entering an era where predictive data analytics, through Artificial Intelligence (AI), can improve Aviation sustainment. When it comes to data analytics, an organization cannot expect to have valuable, visualized information from their data without doing some work up front.

What we see in the data analytics dashboards are just the "tip of the iceberg" in the process and it only depicts the visualization piece of this puzzle. Identifying data sources, collection, aggregation, preparation and analytics are "below the water line" actions required to achieve success in visualization. Additionally, it is difficult to identify a specific problem to use AI technologies to solve unless descriptive analytics are used to give an organization a clear picture of what is taking place.

Aviation sustainment data analytics relies on three key ingredients: data, data professionals and domain expertise. Data includes various sources such as time-series, vibration sensors, and human input. Data professionals are data engineers, data scientists, and software developers. Domain expertise incorporates data analysts and aviation maintenance subject matter experts. The 160th Special Operations Aviation Regiment (Airborne) (160th SOAR) has a successful descriptive analytics program because they have all three key ingredients through an on-site team.

DIME

In 2011, the 160th SOAR Digital Integrated Maintenance Environment (DIME) was established to answer a simple question; "What does it cost to fly a helicopter?" Depending on who responded the answer would be different. The lack of a single full spectrum answer pointed out a clear requirement for data analytics. The DIME identifies data sources, collects and aggregates data, and makes that data available within a Common Landing Area (CLA) database. It serves as the authoritative source of truth for the 160th SOAR and its industry partners.

Using business intelligence (BI) tools to conduct descriptive analytics allows the 160th SOAR to "see themselves" through the data and identify areas for improvement. For example, a review of aircraft utilization versus availability exposed an existing inefficiency with contract maintenance. The majority of CONUS flights were conducted during the same hours that maintainers were at work. Adjusting the maintenance hours around flight schedules so that maintainers were at work when aircraft were on ground improved maintenance efficiency. This example seems obvious, but it was not clear until data was analyzed and visualized. Additionally, through BI tools, the 160th SOAR was able to analyze Aircraft Notebook data and, through ties to work unit codes (WUC), identify the top money, mission and maintenance drivers for each aircraft type.

PMx Mission Initiative

To minimize unscheduled maintenance across the Department of Defense, the Joint Artificial Intelligence Center (JAIC) stood up the Predictive Maintenance (PMx) Mission Initiative in 2018. During the initial PMx kickoff

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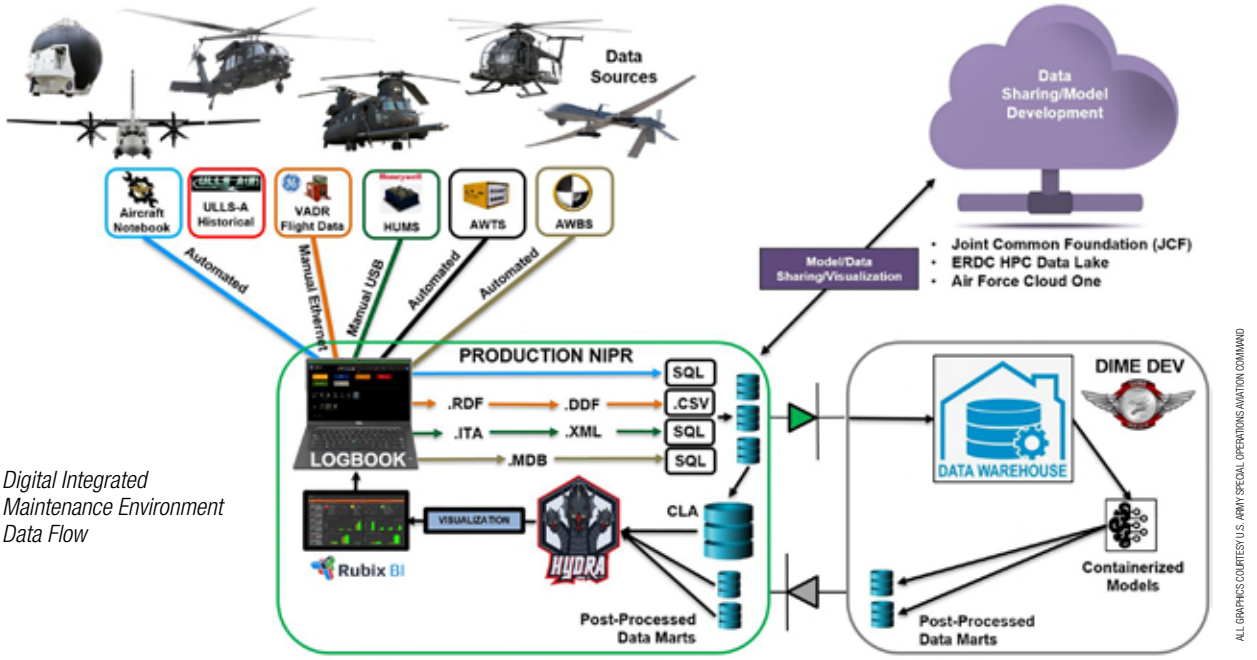

Digital Integrated Maintenance Environment Data Flow

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meeting, the 160th SOAR was able to present a very specific problem that AI technologies could help solve. This was done by referencing live data to analyze the top money, mission and maintenance drivers for the MH-60M helicopter fleet. The GE YT-706 engine was the number one driver for all three categories at the time. As a result, the JAIC utilized hot start shutdowns as the first focus for PMx AI model development. This led to the formation of the SOCOM Incubator effort, a partnership between the JAIC, Carnegie Mellon University (CMU), the Army AI Task Force and 160th SOAR, to jump-start PMx initiatives with the intent of sharing products and lessons learned to benefit the DOD as a whole. The first outcome of the SOCOM Incubator was the Engine Health Model (EHM), developed by CMU data scientists against 160th SOAR Voice and Data Recorder (VADR) data. This machine-learning model was delivered via python script to the 160th SOAR where DIME software developers containerized the model and deployed it on the network.

The 160th SOAR is working to operationalize this EHM to make informed, operational and maintenance decisions on scheduling maintenance that would have been unscheduled. Having the ability to decide when to perform maintenance based on pending failures will reduce mission aborts, aircraft downtime and costs while giving commanders greater operational flexibility.

As part of operationalizing the EHM, and to provide timely information in an edge environment with limited transport for data backhaul, DIME developers built the Model at the Edge (MaTE) Kit. The MaTE Kit consists of a laptop computer loaded with the VADR download tool, containerized EHM, and a web-based visualization of AI predictions for operational users. The intent of the MaTE Kit is to provide the user on the ground with an "all in one" tool to interface the aircraft, download data, process and store data, and visualize the output of the EHM.

Dirty Data

The most significant lesson learned from analyzing maintenance data was the existence of "dirty data" which are inaccuracies within the data whether caused by human or hardware error. An example of human injected "dirty data" that negatively effects AI capabilities is that many of the WUC's in Aircraft Notebook are either generic or fell into the wrong functional group all together. To maximize data accuracy, the 160th SOAR DIME developed a Natural Language Processing (NLP) tool to analyze free text entries of fault narratives to correct the WUC in a two-step process. The first step is to determine the correct functional group WUC (2 digits), followed by the second step predicting the specific WUC (up to 8 digits). This corrected data is then fed back into the Composite Threat List live view, creating a more accurate snapshot of top money, mission and maintenance drivers.

Although this article references the PMx SOCOM Incubator effort, most of the data sources and tools used by the 160th SOAR are Army common. All data flows through an Army common Aircraft Notebook software and aircraft logbook. These efforts are completely scalable and the intent is to make these solutions and lessons learned available DOD-wide through the JAIC partnership.

Through the power of data analytics, commanders have an additional tool to increase availability, efficiency and decrease costs and maintenance burden. However, adopting these technologies may take some change in the current culture. Organizations should embrace the "red" areas of what their data is telling them and not try to avoid it. Data-focused organizations should continuously ask, "What data do I have? What data do I need? What data do I want? And why don't I have the data that I need and want?"

Forward thinking will help get this culture into a preemptive mode, identifying and tackling problems that haven't even occurred yet. With the upcoming influx of predictive models, there will also be tools to assist commanders in decision making based off the output of those models. This type of prescriptive analysis will help commanders choose the best course of action based on risk, but as with any of these tools, humans provide judgement.

CW4 Jason Slusser is the maintenance technology officer with the U.S. Army Special Operations Aviation Command (Airborne) Aviation Maintenance Support Office located at Fort Campbell, KY.

Integration with the Conventional Force at the National Training Center

By LTC Matthew Scher, MAJ Donovan Groh and CW4 Daniel Cosson

A 3rd Battalion, 160th SOAR(A) MH-60M prepares to launch on its final mission to destroy an enemy long-range missile system, National Training Center at Ft. Irwin, CA, on February 7, 2020.

In late January, the 160th Special Operations Aviation Regiment (Airborne) partnered with 5th Special Forces Group (Airborne) to conduct a realistic training scenario at the National Training Center in Fort Irwin, CA. The event differed from previous combat training center rotations in scale and scope. Both units deployed battalion headquarters and elements from each company to test the entire team against an adversary that Army Special Operations Forces (ARSOF) have not faced in this capacity in years.

From the battalion command perspective, NTC offered a learning opportunity, if approached with the right mindset. The combination of opposing forces, observer coach trainers, terrain, and proximity to China Lake Naval Weapons Range created the ideal environment for Joint Multi-Domain Operations (JMDO) collective training to set conditions for large scale combat operations. Planning began months in advance, to ensure that all training objectives could be met with timely feedback to optimize learning.

Empowered mission command, detailed planning and rehearsals, and integration through appropriate allocation of liaisons were keys to success. The near peer foe will inevitably attempt to disrupt our current capability set. With properly trained air mission commanders and flight leads who plan through every detail, including contingencies, and execute with only the commander's intent risks can be mitigated. Likewise, planning and executing from geographically separate locations with semi-denied communications means the proper employment of the right liaison at the right location is critical

The 160th SOAR deployed a battalion tactical operations

center, an aviation maintenance support company, and two line companies consisting of MH-47G and MH-60M helicopters to support SOF ground forces during a newly scripted large-scale combat operation. Planning highly complex missions to infiltrate small SOF teams charged with specific shaping operations took countless hours. During the early stages the process was challenging. The end-state created several air avenues of approach for joint enablers to launch coordinated air strikes to interdict the advancing enemy.

ALL IMAGES COURTESY 3RD BN., 160TH SOAR(A)

Lessons Learned

We learned that effective integration begins in "Phase 0" to align planning efforts, share intelligence, build a common operating picture, and pass lessons learned, is essential to maintaining momentum as operations are handed over to the main effort. To prepare the battlefield for large scale, force-on-force conflict missions began nearly a month before the Combat Aviation Brigade (CAB) occupied "the box" and staged their forces. As the CAB moved into "theater," the 160th SOAR conducted specific tactics, techniques, and procedures (TTPs) that included detailed planning and advanced flight profiles. With every successful mission, there was an opportunity to analyze enemy tactics, update battle graphics and adapt mission planning to support both future missions and the eventual handover of the battle space to conventional ground and aviation forces. While we have an incredible depth of experience operating in challenging environments, competition or conflict if it occurs with near peer adversaries will require development of some additional skill sets, and further change the way we achieve the operational end-state.

Desert Storm provides cues as to how to train for that fight. For example, for planning against a near peer enemy we are realizing that our reliance on advanced technology is a weakness as domains becomes more contested. Aircrews of the time conducted their long range, cross border, precision strike mission, without GPS. They flew three hours at 50' AGL at 120 knots in zero illumination, with a night vision system that was laughable by today's standards. Not many of today's aviators have experience in that flight profile, even with our vastly more sophisticated systems. These advanced flight profiles continue to be the best tactic helicopters have in a denied area.

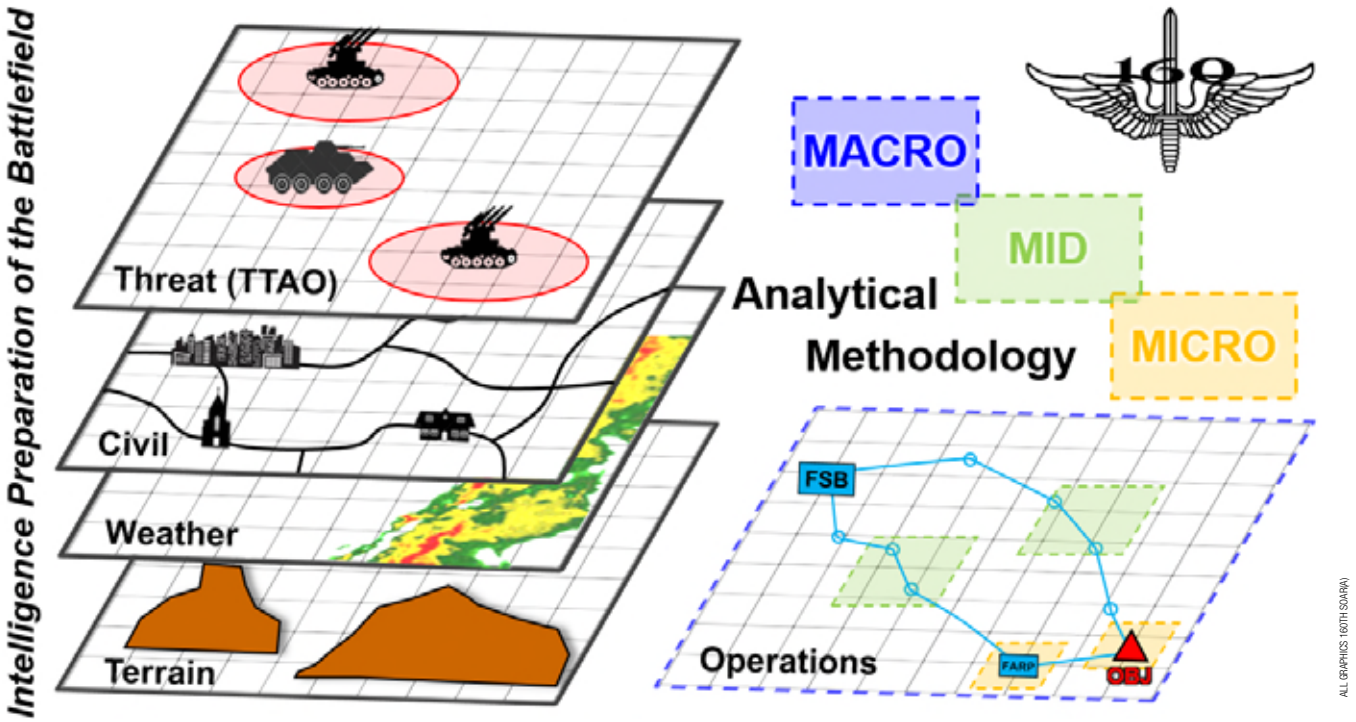
With the addition of capabilities resident at China Lake, NTC is taking the necessary steps to ensure a new generation of Army Aviator is exposed to those hard learned lessons from the past and will further challenge the modern force to succeed in future conflicts. Whether during the real time operational integration, the phased approach, or lessons learned the two most important principles of SOF and conventional force integration were highlighted. Elements must understand the mutually supporting roles for a common end-state. They must share real-time operational lessons learned, evolving tactics and adaptive planning techniques to consolidate gains and maintain momentum.

LTC Matthew Scher is the commander, MAJ Donovan Groh the commander of Company B. CW4 Daniel Cosson the battalion Aviation Mission Survivability Officer (AMSO) of 3rd Battalion, 160th Special Operations Aviation Regiment (Airborne), stationed at Hunter Army Airfield, Savannah, GA.

MH-47G crew chiefs from 3rd Bn., 160th SOAR(A) reload chaff buckets at a desert laager site before nighttime training on the China Lake Navy Weapons Range, on February 3, 2020.

ARSOA Intelligence:
Bridging the Gap from Uncertainty to Understanding

By MAJ Evan Westgate and CW4 Mike Keber



ALL GRAPHICS 160TH SOAR(A)

Intelligence professionals assigned to Aviation units participated in the 160th Special Operations Aviation Regiment's (Airborne) Analyst Academy at Fort Campbell, KY. In its third iteration held in early March, the Analyst Academy taught Aviation specific training to over 30 attendees from the Army's Active and Reserve components. The course was developed by 160th SOAR intelligence staff who identified the need for a specialized training program focused on preparing intelligence Soldiers to support Army Aviation operations. A custom 40-hour program of instruction was designed drawing upon lessons learned (and earned) during the last 35+ years of sustained world-wide support to Special Operations.

Throughout the course subject matter experts provided training ranging from familiarization with the unit's airframes, capabilities, and troop training procedures, to GEOINT, SIGINT, Electronic Warfare, OSINT, and CI support to Aviation operations. Demonstrations and best practices concerning the cutting-edge analytical software and tools utilized by the 160th SOAR intelligence enterprise were also presented. The training culminated with the application of the core analytical methodology used to support 160th SOAR mission planning, commonly referred to as 'Macro, Mid, Micro', against a simulated battlefield and given mission set.

Analytical Methodology

To accurately predict, analyze, and convey threats to Army Aviation commanders, proficient intelligence professionals must understand their airframes, the unique aspects of Aviation mission sets, TTPs used, capabilities of aircraft survivability equipment, enabler capabilities, and become subject matter experts within the dynamic field of Threats to Aviation Operations (conventional and unconventional). For most non-Aviation personnel assigned to Aviation units, it will be the first time they are exposed to these subjects. This causes individual progression plans for intelligence personnel serving in the 160th SOAR to take over a year to complete, and with periodic revalidation. Operationally, 160th SOAR intelligence personnel apply their unique skill sets to the overall planning effort using the 'Macro, Mid, Micro' analytical methodology to collaborate with Flight Leads, Aviation Mission Survivability Officers, Electronic Warfare Officers (EWO), Commanders, and ground force personnel.

Macro analysis of the battlefield essentially combines elements from the first two steps of the Intelligence Preparation of the Battlefield (IPB) process as outlined in ATP 2-01.3 - "Define the Operating Environment (OE)" and "Describe environmental effects on operations." This analysis is not dissimilar with how initial IPB is conducted in support of maneuver elements. Macro analysis assists in the large-scale, general characterization of an OE. The goal of this initial evaluation is to quickly identify areas of increased kinetic activity, historical SIGACTS, population centers, restrictive terrain, weather effects, Anti-Access and Area-Denial (A2AD) threats, known enemy positions, or any significant characteristics related to the mission variables of enemy, terrain, weather, and civil considerations. Macro analysis is critical in identifying initial flight corridors since Aviation operations generally occur throughout a much larger area than a traditional ground unit's battlespace.

Mid analysis is the first step in applying predictive intelligence analysis against a friendly air route template or corridor, and utilizes step three and four of the IPB process - "Evaluate the threat" and "Determine threat Courses of Action (COAs)." Where the Macro analysis characterized the battlefield holistically, the Mid look begins to evaluate how different threats might impact friendly operations within specific phases of the operation; such as transiting in the vicinity of an enemy air defense system, canalizing terrain, or areas with increased enemy presence. This is where a trained analyst works closely with the Aviation Maintenance Support Office, EWO, and Flight Lead to mitigate risk during one or more critical phases. Often, this collaboration results in modified flight profiles or increased enabler support. The analyst will likely produce several Mid products for a single operation, depending on how many threat areas the Helicopter Assault Force (HAF) must transit through. When done correctly, Mid analysis products are critical to the overall Aviation planning process, increasing the efficacy of the entire planning effort.

Micro analysis applies intensive analysis against a focused area of the battlefield; usually a terminal objective area, Named Area of Interest (NAI), or Compound of Interest (COI). Much like the Mid analysis, the Micro analysis mostly utilizes step three and four of the IPB process; however, the threat COAs become much more important. Micro analysis is done for any area where friendly airframes plan to conduct infiltration or exfiltration operations, or anytime airframes plan to remain on the ground within an active OE (laager sites, Forward Arming and Refueling Points, etc.). These are the phases of the operation where friendly forces generally face the highest threat, so these areas generally have the most collection assets assigned to them. Micro analysis should include all TTAO factors, to include early warning nodes, civilian considerations, and current image mensuration.

The Intel Training Gap

Of the Army's numerous formal Military Intelligence courses and the over 200 supplementary Foundry Program courses, none teach the basics of intelligence support to aviation. This gap in training has many causal factors, including (but not limited to) the fact that a very small minority of all Army intelligence Soldiers will ever serve within an Aviation unit. Most of intelligence Professional Military Education (PME) is almost exclusively focused on providing world-class intelligence support to ground and maneuver elements – where the vast majority of intelligence Soldiers will serve. Army Aviation tactics, planning requirements, and general TTAO are almost completely overlooked throughout the breadth of Army intelligence education. Certainly, aviators, units, and intelligence professionals have developed impressive tactics, techniques, and technology to improve the situation at the individual and unit level. However, the Army's intelligence and Aviation communities have yet to consolidate and widely disseminate best practices. ARSOAC and the 160th SOAR are working to change this paradigm.

ARSOA intelligence sections, in conjunction with the Special Operations Aviation Training Battalion (SOATB), have integrated these intelligence support TTPs and lessons learned into a three-week long, TRADOC approved course. The 'Intelligence Support to Aviation Course (ISTAC)' will offer Foundry-funded training to Army intelligence Soldiers assigned to Aviation units and will be available in ATTRS in the near future. This course will finally provide analysts the unique skill sets required to provide world-class support to Army Aviation operations.

MAJ Evan Westgate is the regiment intelligence officer and CW4 Mike Keber, the senior regiment all-source intelligence technician for the 160th SOAR(ABN) at Fort Campbell, KY.

Special Focus ▶ Army Special Operations Aviation

Casualty Evacuation and En Route Care in the 160th SOAR

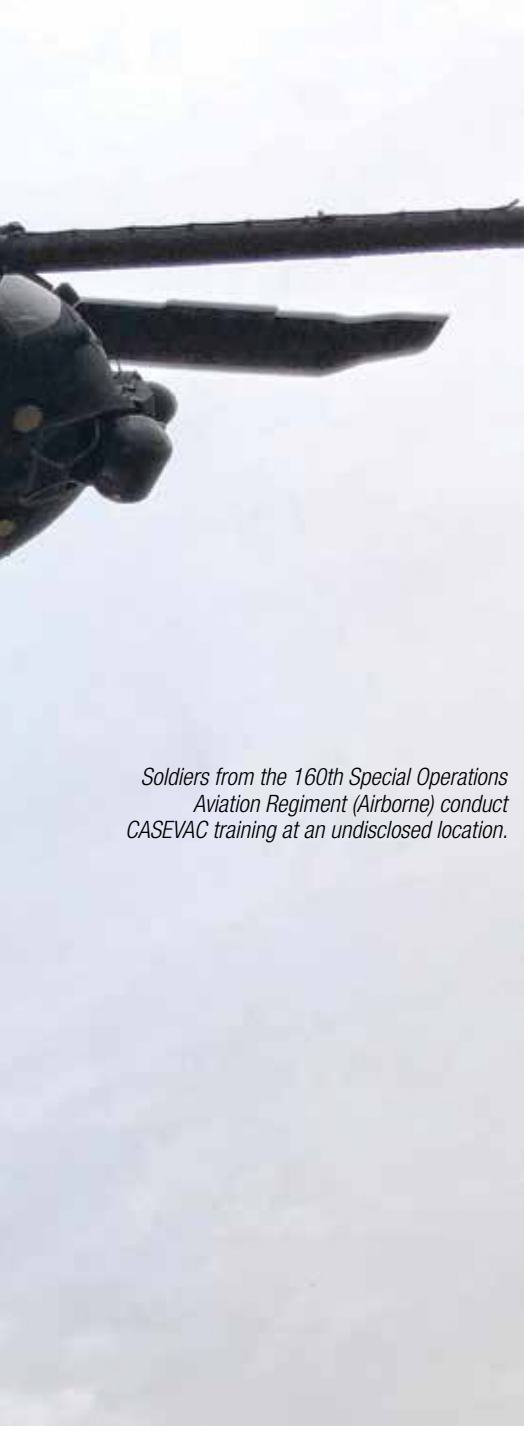
By LTC Theodore Redman, MD, MPH and MAJ Kevin Mayberry, DSc, APA-C

For some it may be a little-known fact that the 160th Special Operations Aviation Regiment (Airborne) performs casualty evacuations (CASEVAC) in addition to its attack and assault missions. To accomplish this, each battalion within the 160th SOAR has one physician, one physician assistant, and 12 flight medics to provide medical care to its personnel and supported ground forces. This manning structure allows 160th SOAR to provide medically-supported CASEVAC on every mission overseas and in the CONUS training environment.

The Need

The ability to provide medically-manned CASEVAC allows 160th SOAR to get wounded patients to the hospital faster than if the ground force had called a conventional medical evacuation (MEDEVAC) unit. MEDEVAC is defined as the use of dedicated, medically equipped vehicles with medical providers and medical equipment to transport casualties. CASEVAC is the use of non-medical vehicles to transport casualties; these vehicles or aircraft may or may not have medical personnel or equipment aboard. A typical CASEVAC scenario includes 160th SOAR medical personnel flying to the objective on the assault aircraft, the ground force offloads, and the aircraft with the medical element depart. The flight then laagers in a safe area standing by in the event of a CASEVAC call. When the ground force sustains casualties, the aircraft are launched, the wounded are picked up, and the flight medic or resuscitation team continues to treat the casualties while en route to a treatment facility.

At a minimum, each helicopter assault force has one flight medic to provide CASEVAC for 160th SOAR



Soldiers from the 160th Special Operations Aviation Regiment (Airborne) conduct CASEVAC training at an undisclosed location.

160TH SOAR(A) COURTESY PHOTO

and ground force casualties. However, when feasible, a medical officer and medic will fly together on an MH-47 as a resuscitation team to work on patients together. This resuscitation-team-model has been shown to increase the number of life-saving interventions performed in flight and to improve patient outcomes in trauma. The British Medical Emergency Response Team (MERT) is a similar concept where a physician, nurse, and two flight medics fly to the point of injury on a CH-47 and perform care en route back to a hospital. However, the MERT is on call at the military treatment facility, not prepositioned near the objective area as in the 160th SOAR model.

The need for critical lifesaving capability on 160th SOAR helicopters will be equally important in future Large-Scale Combat Operations. An increase in the number of casualties can be expected which may cause an overload on conventional MEDEVAC operations. This overload would lengthen the time that it takes a wounded soldier to reach a surgical hospital. The ability of the 160th SOAR to provide on-call, armed CASEVAC gives ground force commanders more options to evacuate their wounded.

Training

In preparation for CASEVAC, as with all missions, the 160th SOAR and its ground force customers are synergistically nested in the execution of medical training during exercises. In almost every training evolution, there is casualty play in order to maintain medical skills, give the aircrew experience, and add complexity to the ground force mission. As we do in combat, there is a minimum of a medic on each flight in the training environment to provide on call CASEVAC after the assault force is inserted. When the ground force takes casualties, the CASEVAC call goes out, our aircraft come in, pick up the casualties, and provide en route care until arrival at the medical facility. The flight will then ex-filtrate the ground element when called.

At home station, training incorporates didactic classes, hands on training, and running trauma lanes when not flying. The training is conducted by officers and NCOs alike and is driven by the need to adapt to change as well as correct any training gaps. Recent training has focused on low titer O whole blood (LTOWB) therapy and Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA). Low titer O whole blood is a recent innovation from the 75th Ranger Regiment and is being adopted by other units in the Army. This method of blood transfusion eliminates the need to do a rigorous crossmatch of blood. Blood can be drawn off pre-screened donors and immediately transfused to badly wounded Soldiers. REBOA is a medical procedure that has a niche in en-route-care as it temporarily stops non-compressible bleeding in the abdomen and pelvis. In this procedure, a small balloon is placed in the femoral artery and threaded up to the aortic arch in the chest, then inflated, stopping all bleeding below the balloon. This procedure has been shown to save lives in the hospital and prehospital setting. The London Air Ambulance Service has adopted this procedure and published several articles demonstrating its capability. In the 160th SOAR, we are currently analyzing and developing protocols for its safe use.

Medical Personnel

Performing medically-supported CASEVAC operations and integrating new medical developments would not be possible without quality medical personnel. Due to the sustained operational requirements for medical support, the 160th SOAR medical section is slated to grow approximately 30 percent. To meet this growth, the 160th SOAR assesses and selects each flight medic, physician assistant, and flight surgeon. Selected Soldiers can expect to attend additional Special Operations Force medical training such as the Special Operations Combat Medic Course (SOCM) or the Special Operations Aviation Medical Indoctrination Course. Medical officers do not attend SOCM but may attend the Flight Surgeon Course if they haven't done so already.

The quality of medical training, professional standards, and dedication of personnel was never more apparent than in 2019 when the medical section documented more casualty evacuations than at any other point since the 160th SOAR formation. During a single mission, while flying in support of Coalition Forces, aircrew and helicopters were called to perform hoisting of wounded personnel. After an initial CASEVAC call for two urgent surgical wounded, a crew were notified of additional casualties, and a single flight medic was able to successfully hoist 15 personnel from the point of injury. This task could not have been accomplished except by a well-trained, highly proficient team of pilots, crew, and medical personnel.

LTC Theodore Redman is the regiment surgeon and MAJ Kevin Mayberry is the regiment physician assistant for 160th Special Operations Aviation Regiment (Airborne), headquartered at Fort Campbell, KY.

Tactical Aviation and Ground Munitions Project Office

By COL David A Warnick

Since the publication of the National Defense Strategy, the U.S. Army has initiated a series of key events to reorganize, reprioritize, and establish conditions to field technically advanced, agile, and tailorable forces to dominate in all phases of All Domain Operations in support of the Joint Forces. In doing so, the Army has expanded its resources to create new formations and organizations, created greater partnerships with industry, and teamed with Warfighters for concurrent requirement and capability development, innovations, and prototyping to ensure rapid delivery of capabilities that can be employed in a variety of scenarios and conditions based on Combatant Command demands.

As part of the reorganization and reprioritization, the Program Executive Office for Missiles and Space has realigned its products and transitioned to Integrated Fires focused capabilities across the Fires enterprise to provide responsive, tailorable, cross and multi-domain solutions to the Warfighter. The realignment will increase Warfighter Readiness and Lethality; align capabilities across Warfighter functions and multiple domains allowing for integrating technology and ideas earlier to better inform requirements; allow leverage of commercial innovations, prototyping, and cutting-edge science and technology; and create unity of effort and flexibility within program offices to better respond to offensive and defensive requirements across all domains.

Part of the reorganization and reprioritization is the convergence of the Joint Attack Munition Systems and the Close Combat Weapon Systems Project Offices into the Tactical Aviation and Ground Munitions (TAGM) Project Office, under the leadership of COL David Warnick and Mr. Michael Kuenzli. The TAGM Project Office is a Product-Focused, Functionally Aligned organization, providing maximum flexibility to the Product Manager's execution, maintaining systematic, deliberate, and integrated acquisition processes.

The product offices that now make up the TAGM Project Office are:

- Air-to-Ground Missile Systems (AGMS) Product Office
- Aviation Rockets and Small Guided Munitions (ARSGM) Product Office
- Javelin Product Office
- Tube-Launched Optically Tracked Wireless Guided Missile System (TOW) Product Office
- Launchers and Test Sets (L/TS) Product Office
- Improved Bradley Acquisition Subsystems (IBAS) Product Office
- Rapid Capabilities (RapCap) Product Office

AH-1W firing Tube Launched, Optically Tracked, Wireless Guided Missile

RAYTHEON CORP. COURTESY PHOTO

Air-to-Ground Missile Systems (AGMS) Product Office

LTC Marty Jackson, Product Manager

The Air-to-Ground Missile System (AGMS) Product Office continues to support the 160th Special Operations Aviation Regiment with additional test and integration activities for both the combat proven HELLFIRE missile and the next generation Air-to-Ground Missile, the Joint Air-to-Ground Missile (JAGM) system. These missiles provide both precision strike and fire-and-forget capabilities to defeat heavily armored, fast moving, and stationary targets within a countermeasure rich or adverse weather environment. The AGMS Product Office continues to Arm the Force through successfully completing HELLFIRE Longbow flight-testing and fielding of the Longbow L7A missile, bringing Fire and Forget capability to the AH-64D including counter Unmanned Aerial Systems, Littoral, and Land targets. The JAGM continues to integrate onto the AH-64E and AH-1Z, while beginning planning for integration on several other manned and unmanned platforms. The Initial Maneuver Short Range Air Defense (IM-SHORAD) system has integrated the HELLFIRE Longbow Missile as part of its multi-effector capability to counter a wide range of air threats, Unmanned Aircraft Systems, Rotary Wing, and Fixed Wing, in support of Army maneuver formations.

Aviation Rockets and Small Guided Munitions (ARSGM) Product Office

LTC Jennifer Newsome, Product Manager

The ARSGM Product Office is preparing for significant future aviation munition developmental programs. The Long-Range Precision Munition (LRPM) program will be integrated with the Future Attack Reconnaissance Aircraft (FARA) platform. The LRPM will engage Anti-Access Area Denial threats at a greatly extended range, increasing platform standoff capability over current aviation munitions. The LRPM program of record is anticipated to begin in FY22.

Javelin Product Office

Robyn Lytle, Product Director

The Javelin Product Office provides the U. S. Warfighter and allies a man-portable, fire-and-forget missile system that is highly lethal against main battle tanks and other targets. The system consists of a reusable Command Launch Unit (CLU) and a missile encased in a disposable launch tube assembly. Feedback has reinforced the need to reduce the burden on the Warfighter. The Javelin Lightweight CLU (LWCLU) development effort seeks to reduce CLU weight and volume, while providing equal or greater performance than the current CLU. The LWCLU will use cooled mid-wave infrared camera technology that meets all program priorities, and delivers significant improvements in target detection, recognition, and identification capability. The primary mission of the LWCLU is to detect and engage enemy tanks; however, with anticipated improvements, it may also serve as a surveillance asset, providing an organic tool to identify varied threats. Current estimates indicate LWCLU will go into low-rate initial production by FY21, and will be fielded to Special Forces, Infantry Brigade Combat Teams, and Stryker Brigade Combat Teams.

Tube-Launched Optically Tracked Wireless Guided Missile System (TOW) Product Office

Mr. Sherman Spencer, Product Director

Fifty years ago, the TOW (Tube Launched, Optically Tracked, Wire Guided) missile was designed principally to be fired from helicopters to defeat armored threats. Through the years, TOW has evolved to become the premier ground-to-ground heavy anti-armor weapon system. Although the TOW missile is not fired from U.S. Army or U.S. Marine airborne platforms anymore, a role assumed by the HELLFIRE missile, there remain some international customers that fire TOW from their airborne platforms, mostly AH-1 and MD500. In 2009, the TOW evolved from Wire Guided to being guided by a Radio Frequency (RF) link; the "W" in TOW was changed to "Wireless." Raytheon Missile Systems has conducted several tests and live fire demonstrations, on the ability of airborne platforms to fire Wireless TOW missiles. These activities may become a basis for full airworthiness certification for international airborne customers.

U.S. ARMY PHOTO BY MATTHEW SCOTT, TAGM PROJECT OFFICE

Javelin Lightweight CLU Mockup, Ft. Benning GA

Launchers and Test Sets (L/TS) Product Office

LTC Joshua Baker, Product Director

The L/TS Product Office serves as the executive procurement agent for the production and sustainment of the M299 HELLFIRE/Joint Air-to-Ground Missile launcher, the M260/M261 lightweight aviation rocket launcher, and all associated test sets for the U.S. Army, sister services and Coalition partners. In addition, L/TS serves as the lead development office for an Integrated Munitions Launcher (IML) for the FARA effort that will serve as the baseline for weaponizing future aviation platforms and potentially the enduring fleet. IML will be a modular open system's architecture solution that will facilitate rapid munitions and Air-Launched Effect (ALE) integration, and key attributes of standardized functional, mechanical and electrical solutions. This design will include a modular weapons interface, allowing for the mounting and firing of all future aviation weapons and an electrical design that allows for the high-speed transmission of data future munitions will require. With the announcement of Bell and Sikorsky Aircraft designs selected to move forward with the FARA effort, the L/TS team is full speed ahead in the design and development of the IML, while coordinating with the teams developing the next generation of weapons, which include ALE and LRPM.

Rapid Capabilities (RapCap) Product Office

Mr. Beler Watts, Product Lead

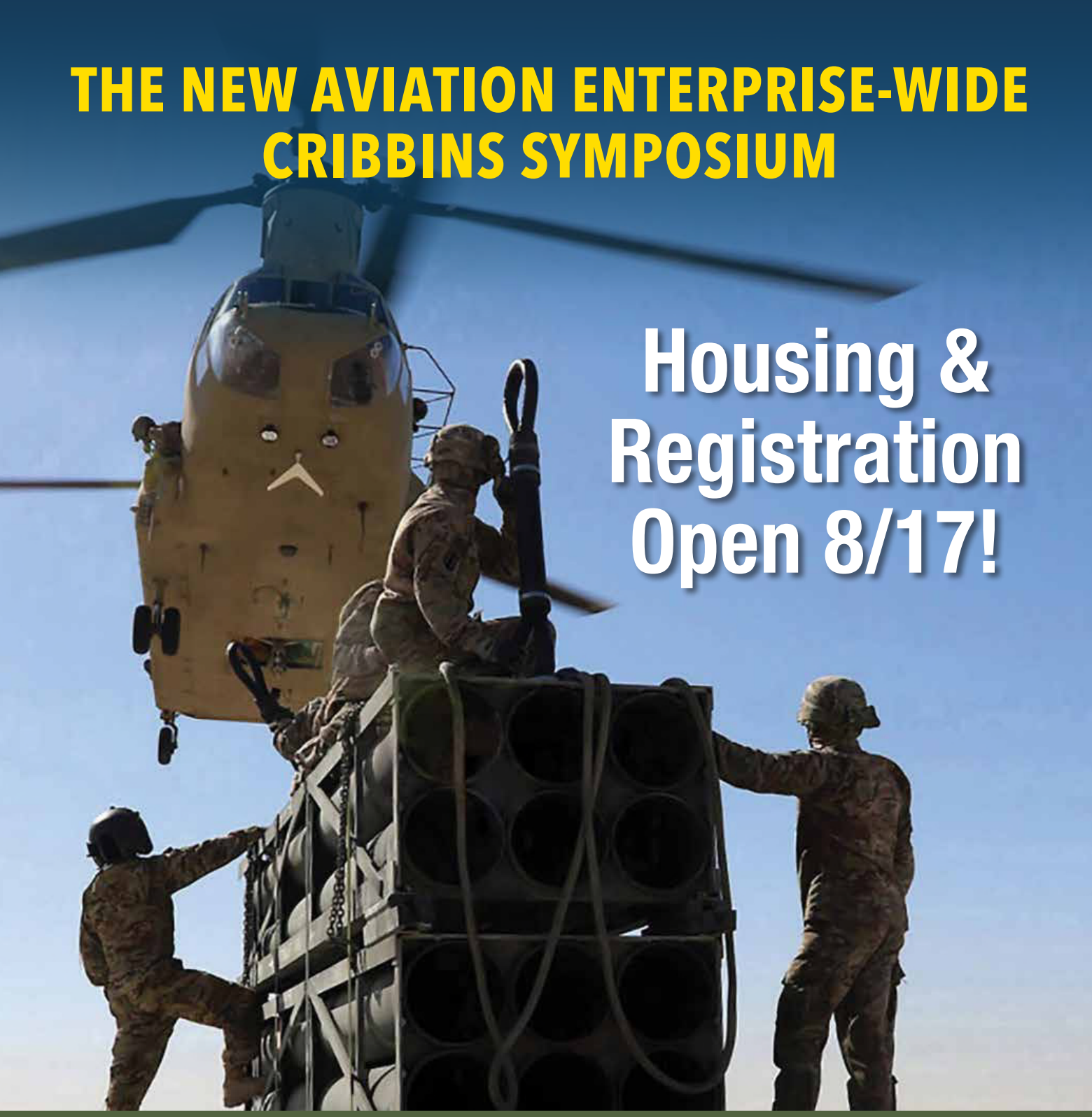
The Rapid Capabilities Team within the Tactical Aviation and Ground Munitions Project Office is responsible for the management of Close Combat Missile and related systems that are requested via Joint Urgent Operational Needs, Operational Need Statements, and Rapid Equipping Force 10-Liner requirements. The team is comprised of Programmatic, Engineering, and Logistics personnel that manage the systems as they progress from Non-Developmental Items, through Army Test and Materiel Release requirements, to Training, Fielding and Sustainment. Along with other items such as the Lethal Miniature Aerial Missile Systems, RapCap is looking to procure a small quantity of the Israeli-produced SPIKE Non-Line-of-Sight systems to expand standoff capability of the AH-64 platform as an interim solution to LRPM.

Our Commitment

The Tactical Aviation and Ground Munitions Project Office remains dedicated to keeping Soldiers first by developing, fielding, and sustaining versatile air and ground launched weapon systems that provide a decisive advantage in Multi-Domain Operations. We use innovative technologies and continuous modernization efforts that enable Soldiers to effectively, efficiently, and lethally execute their mission. We will continue collaborating with Army and industry partners to maximize readiness and harness innovative and affordable future capabilities.

COL David A. Warnick is the Director of the Tactical Aviation and Ground Munitions Project Office at Redstone Arsenal, AL.

THE NEW AVIATION ENTERPRISE-WIDE CRIBBINS SYMPOSIUM



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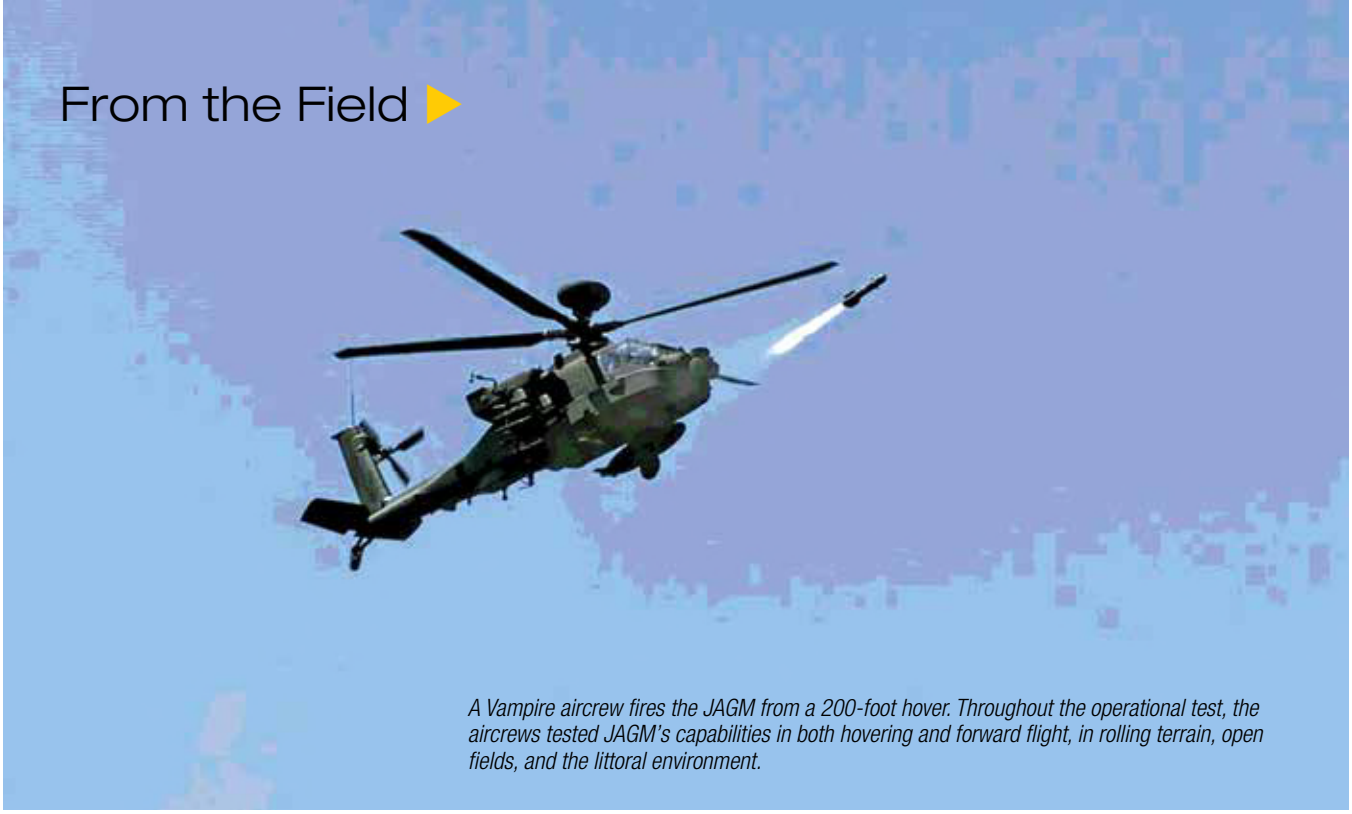


A Vampire aircrew fires the JAGM from a 200-foot hover. Throughout the operational test, the aircrews tested JAGM's capabilities in both hovering and forward flight, in rolling terrain, open fields, and the littoral environment.

ALL PHOTOS – U.S. ARMY OPERATIONAL TEST COMMAND PHOTOS

The Future of Attack: AH-64E Version 6 and AGM-179 JAGM Operational Testing

By CPT Clayton B. Jaksha

Miles off the Santa Rosa Sound, two AH-64E Version 6 (V6) Apaches armed with AGM-179 Joint Air-to-Ground Missiles (JAGM) advanced towards their floating targets. Two dozen hand-selected pilots, leaders, and operational testers huddled into a crowded room on the Destin, Florida shoreline. Every screen in the room showed a different test parameter and, front and center, were two displays that showed the Apaches' sensors and broadcasted their internal communications. "Cleared to fire." The displays showed each copilot-gunner lasing a different unmanned fast inshore attack craft (FIAC) moving through three-foot swells at 30 knots. "Rifle." A missile screamed off the rail of each aircraft. A legacy Hellfire would have trouble with this target – a pitching, rolling boat cutting through choppy seas adds significant aircrew workload and the sea spray creates laser backscatter. The room stood still in anticipation; the JAGMs were on their own. Just as the crew called "splash," the two missiles impacted near simultaneously and the FIACs erupted in flames. Two V6 Apaches flew back to the shoreline as the boats burned in place. The aircrews flying this mission were not test pilots or special operations; they were the highly trained Army Aviators of C Company "Vampires," 1-227th Attack-Reconnaissance Battalion. Their mission from February to May of 2019 was to conduct the Operational Test and Evaluation (OT&E) of AH-64E V6 and AGM-179 JAGM.

During this test, Vampire aviators fired a JAGM in a blended mode to test certain missile capabilities. The crew detected the target with the Fire Control Radar and handed it off to the Modernized Day Sight Assembly. The test parameters would not have allowed a legacy HELLFIRE to strike the target.

The JAGM was a major step forward from the legacy HELLFIRE missile and its integration into the Apache was one of the key V6 upgrades. JAGM took the fire-and-forget capabilities of the AGM-114L and laser-seeking precision guidance of the AGM-114R and created an entirely new missile. With both a semi-active laser seeker and a radar transceiver, the JAGM could be fired in a variety of blended missile modes that combine the abilities of both seeker types. These blended missile modes flip the paradigm of Army Aviation missile employment. Currently, the most important time to designate for a laser-guided HELLFIRE missile is at the end of its flight. With JAGM's many modes and its dual seeker head, there are

In this test, two AH-64Es both used their Fire Control Radars (FCR) to pick up the group of armored targets, simultaneously launched JAGMs in a blended mode and were able to strike their correct targets despite significant radar clutter.

multiple ways to shoot the missile. Successful engagements are possible with laser designation at the beginning, the end, the whole time, or even by never lasing at all. The developers claimed that JAGM was a more effective missile in the anti-access area denial (A2AD) arena against a hybrid threat; the Vampires put it to the test.

The Test

The V6/JAGM OT&E started at the Boeing factory in Mesa, AZ in February 2019. For the first two weeks, senior Army Aviation leaders from Fort Rucker, AL and experimental test pilots from Redstone Test Center recommended best practices on how aircrews could employ these technologies to meet operational needs. During the following two weeks, aircrews flew a battery of missions in Boeing's simulator. In these missions, crews utilized manned-unmanned teaming (MUM-T) and V6's full-color day sensor to engage personnel, armor, air defense, unmanned aircraft systems (UAS), helicopters, and FIACs with JAGMs. During this phase, crews directly impacted the system interface with feedback to Boeing engineers to reduce pilot workload and streamline engagements. These contributions and techniques, tactics, and procedures (TTPs) they developed would prove invaluable during live testing.

By early March, the aircrews and test support personnel were back at Ft. Hood, TX and prepared to execute OT&E in the actual aircraft. For the next six weeks, aircrews flew over 200 hours in test missions to evaluate V6 and JAGM (using the captive carry inert trainer) against air defense units and Stryker MGSs to simulate modern armor with countermeasures. During these tests, Vampire aircrews coordinated with MQ-1C Grey Eagles from Ft. Riley, Kansas to test the V6 aircraft's improved MUM-T functionality. Most importantly, crews validated the operational effectiveness of utilizing blended missile modes against complex threats. After each mission, aircrews took surveys on each system and then participated in a video-recorded AAR hosted by Operational Test Command. JAGM developers were extremely receptive to the numerous human factors and mission considerations that the aircrews provided. The Ft. Hood phase concluded in mid-April after 38 distinct missions.

Overwater Testing

Days after finishing at Ft. Hood, the Vampires moved to Eglin AFB to conduct overwater testing and JAGM live fire. Before live fire testing, the company executed littoral missions simulating strike. Each live-fire event put the missile through a different challenge that the legacy HELLFIRE would not be able to solve effectively. Not only did the Vampires successfully put JAGM through the full test envelope of ranges, modes and threats, but they were also the first FORSCOM aviators to ever shoot the new missile. The Eglin phase of operational testing was the ultimate culminating event for both the aircrews and the new technology.

Every aviator involved in V6/JAGM OT&E received unmatched training and the testing provided invaluable data for program managers. The Vampires completed over 200 detailed technical surveys, provided over 50 hours of video feedback, and interacted daily with the system developers. The Operational Test experience took JAGM from being an excellent piece of technology and molded it into a useful tool for aviators to apply in full-spectrum warfare. C Co, 1-227 ARB received a unique glimpse into the future of the

The FIAC's view of a JAGM moments before impact. Because of the significant horizontal and vertical movement associated with a small boat moving through choppy seas, traditional laser-guided missiles would be limited by the designator's ability to maintain a consistent laser spot and backscatter from sea spray.

port defense against FIACs. Day and night iterations were performed side-by-side with HELLFIRE and JAGM captive carry inert trainers to reveal one of JAGM's greatest strengths – striking targets with erratic movement. Finally, the aircrews took live missiles to Eglin's overwater and armor ranges. The scenarios all mimicked the operational environment of the near future and Operational Test Command provided exceptional support to bring those scenarios to life. Vampire crews executed 12 live-fire events resulting in the destruction of two FIACs, one technical vehicle, three BMPs, and five T-72s; the aircrews significantly impacted JAGM development with each Apache through V6/JAGM OT&E and attack aircrews have a lot to look forward to in the coming years.

CPT Clayton B. Jaksha is a platoon leader assigned to Company C, 1st Battalion, 227th Aviation Regiment, 1st Air Cavalry Brigade, 1st Cavalry Division, at Ft. Hood, TX; and one of 13 Army Aviators to test the AH-64E V6 and AGM-179 JAGM. The unit was selected by the U.S. Army Aviation Center of Excellence Commanding General, MG Dave Francis, to receive the 2019 Order of Daedalians COL Franklin C. Wolfe Weapons System Award.

From Balloons to Air Mobility:

The Early Years of Struggle, 1942-1954

By Lieutenant General Robert R. Williams, Ret.

The roots of Army Aviation can be traced back to the Civil War in 1861 with the formation of the Balloon Corps, which pioneered the missions of reconnaissance and artillery spotting. These two basic missions were accomplished in World War I by the Army Air Service using fixed-wing aircraft, plus a few balloons. Between World War I and World War II, while the Army Air Corps was concentrating on increasing capabilities, for what had become its primary missions – namely bombing, close air support, and air-to-air combat – the Artillery was experimenting with smaller, unsophisticated aircraft for adjustment of artillery fire.

On 6 June 1942, the War Department authorized the Artillery to have as organic two "Cub" type aircraft in each Artillery Battalion. These were flown and maintained by artillery personnel completely separate from the Army Air Force, accomplishing the same mission as the Balloon Corps in the Civil War. These were the roots of Army Aviation from 1861 to 1942.

The Army Air Force was charged with the higher echelon maintenance, supply, and procurement of aircraft for the Field Artillery. This made the Air Force the technical service supporting artillery aircraft in a role parallel to that of the Ordnance and Quartermaster Corps.

The concept of aircraft as organic to artillery units was neither applauded nor generally accepted. A senior Army Air Force staff officer wrote in a restricted memorandum, "Let the Ground Forces have aircraft and they will soon learn their lesson and be glad to give them back to us." The Army Air Force did not actively oppose organic Field Artillery aviation; instead, they organized Air Force liaison squadrons equipped with L-5 type aircraft to be based at Corps level to compete with Field Artillery aviation for the same basic missions. Aircraft based back at Corps level under control of the Air Force flown by sergeant pilots with no knowledge of artillery were no competition for the highly responsive organic artillery aircraft operating as part of the artillery units and flown by well-qualified commissioned officers.

Since the Field Artillery did not enthusiastically welcome the addition of aircraft, the first group of aircraft shipped to England went to storage and the pilots to a replacement depot for assignment. Artillery battalion commanders complained that when committed to combat, the light planes would be a problem and a nuisance. A big question was, what was the burden vis-a-vis the benefit?

The Piper L- 4 Cub, shown here on the USS LST-906 flight deck being prepared for take-off with additional L-4s stowed alongside the deck, was the first plane used by the first class of Army aviators at Ft. Sill, Oklahoma, August 1942.

Viability

Prior to actual combat experience, it was generally believed that the small, fabric covered, unarmed Cubs would be highly vulnerable. Their employment was planned for very short duration low altitude, behind the lines missions to

adjust artillery fire. Surprisingly, combat quickly demonstrated the high survivability of light aircraft when operated in close coordination with our anti-aircraft weapons and artillery. The enemy soon learned that the defenseless appearing Cub was actually armed with a full battalion of field artillery and that it was much healthier to hide from the Cub than to try and shoot it down, proving the adage that fewer ducks would be shot if ducks could shoot back. This point, demonstrated in World War II and again in later conflicts, is that, like the infantryman, aircraft can survive and fight in the most hostile environment if properly integrated into the combined arms team.

With proven survivability the Cub became the primary, not the emergency, means of fire adjustment. The missions for Cubs expanded and included reconnaissance, column control, medical evacuation, wire laying, and transport of commanders and staff officers. Some success was reached with wholly unorthodox anti-tank missions using bazookas fastened on the wing struts.

In January 1944, in a lengthy memorandum to the Chief of Staff, the Commanding General Army Air Forces, GEN H.H. Arnold, objected to the Field Artillery employing its organic aircraft for any missions other than fire adjustment and contended that the Ground Forces request for 185 hp L-5s went beyond the approval of "Cub" type aircraft. GEN Arnold recommended that "organic air observation for field artillery be discontinued" and that "all Air Corps property now in organic air observation for field artillery be returned to the Army Air Forces. The use of the term Air Corps property instead of aircraft is significant. It illustrated a basic tenet of all Air Forces that everything that flies in the military is really inherent to the Air Force and that Army, Navy, Marine, and Coast Guard aviation are aberrations.

In February 1944, LTG L.J. McNair, Commanding General Army Ground Forces, in a memorandum to the Chief of Staff, responded to GEN Arnold's memorandum as follows: "The main issue is satisfactory air observation for field artillery. The present system is outstandingly successful – one of the remarkable developments in connection with effective artillery support which is being given the infantry in all theaters.

On the other hand, field artillery air observation by the Air Force has been unsatisfactory since the advent of military aviation. There is abundant reason to doubt that the results would be otherwise if this task were returned to the Air Force." The recommendation of the Commanding General Army Air Forces was not approved.

In May 1945, the Commanding General Army Ground Forces recommended to the Chief of Staff that aircraft be made organic to additional Ground Force units. GEN Marshall, Chief of Staff of the Army, suppressed Air Force opposition by sending a memorandum to the Commanding General Army Air Forces observing that he had studied the matter and strongly suggested the AAF "go along with this wholeheartedly and not reluctantly". The War Department approved six light planes to be assigned to each infantry, airborne, and mountain division, nine to each armor division, seven to each cavalry division, two to each cavalry squadron and separate tank battalion, one to each separate engineer battalion, and two to each cavalry group and tank destroyer group. Organic aviation now belonged to almost every branch of the Ground Forces.

In July of 1947, the U.S. Military underwent a major reorganization. The Department of Defense was created and absorbed the War and Navy Departments. The three major elements became the Army, Navy, and Air Force. The Army, like the Navy and Marines, retained its aviation.

The Struggle

During the next 10 years, the Air Force strove in a series of agreements and memorandums of understanding to limit the growth of Army Aviation by obtaining aircraft weight and mission limitations and retaining responsibility for logistical support of Army aircraft. The most frustrating behavior of the Air Force was in carrying out its responsibility for development and procurement.

U.S. ARMY FILE PHOTO

H-19 Sikorsky helicopters from the 6th Transportation Helicopter Company, the first Army heliborne cargo unit to be employed in a combat zone, resupply infantry in Korea, March 1953.

The Air Force chose to play the role of "Godfather" rather than sticking to its legal responsibility of being the Army's technical servant. The Air Force's conduct in this area is best reflected in an incident reported by GEN Jim Gavin, one of the truly great proponents of Army Aviation.

In his capacity as president of the Army Airborne Panel in 1948, GEN Gavin attempted to convince the Air Force director of requirements of the Army's need for more and larger helicopters. Finally, exasperated by GEN Gavin's persistence, the Air Force general replied, "I am the director of re-

quirements, and I will determine what is needed and what is not. The helicopter is aerodynamically unsound. It is like lifting oneself by one's boot straps. It is no good as an air vehicle, and I am not going to procure any. No matter what the Army says, I know that it does not need any."

With this kind of official antagonism, the Army was unfortunately unable to make significant progress in fulfilling its helicopter requirements before the beginning of the Korean Conflict. As of 30 June 1950, the Army had only 56 utility/observation helicopters, and no cargo helicopters in its inventory. The Army's inability to obtain adequate quantities of the types of helicopters it required contributed significantly to the growing sentiment within some circles that the Army should obtain total control over its own aircraft development and procurement, and that it should become more involved in the tactical air support of the ground forces.

In 1949, the Army foresaw the future of the cargo helicopter in logistical support and established an experimental program with five transportation companies. A procurement program through the Air Force of H-19, H-21, and H-25 type helicopters to equip these companies was initiated. The Warrant Officer pilot program was established to fly the cargo helicopters.

In 1952, the Secretary of the Army recognized that the Army Aviation Program had become so important, expensive and controversial that there should be a focal point on the Army Staff. He directed that an office be established in G-3 responsible for "the overall supervision and coordination of the Army Aviation program". The Army Aviation Branch with three officers was established to carry out the responsibilities. This office was expanded and elevated to Directorate level in 1955.

Korea

The Korean conflict did for helicopters what World War II did for light aircraft; it proved their utility, supportability, and survivability. Prior to Korea there was a general agreement that the helicopter had capabilities that qualified it for Army employment for some purposes; however, it faced the same doubts as the Cub experienced before World War II. The critics and the Nay Sayers chorused that the helicopter could not survive in combat – it was too fragile and too complicated. A frequent statement heard in the Pentagon and Congress was, "You can bring the helicopter down by hitting it with a rock." Again, like the Cub, actual combat proved the helicopter's value when properly employed. It had proven survivability. Its performance in the front line casualty evacuation mission established one of its most important roles, convincing many Army leaders that larger helicopters as programmed by the Transportation Corps could make great contributions in both tactical and logistical airlift. Two companies of the Army's first cargo helicopters – the H-19 – were employed in Korea near the end of the conflict.

More Controversy

The most publicized and successful mission of helicopters in Korea was medical evacuation. The mission was performed by both Army and Air Force helicopters. That situation ignited a new controversy between the Army and Air Force at the Washington level over which service had responsibility for the medical evacuation mission. The controversy came to a quick climax, not over actions in Korea, but as a result of an incident at Ft. Bragg, NC.

During a training exercise, an Army man was injured. An Army helicopter arrived at the scene of the accident and the injured man was loaded on the helicopter for transport to the hospital. Before the Army helicopter could depart, an Air Force major flying an Air Force UH-12 arrived and ordered the injured man to be unloaded from the Army helicopter and loaded into the Air Force helicopter.

The press got the story, and so did the Secretary of Defense. The Secretary of Defense called in the Secretaries and Chiefs of Staff of the Army and Air Force. In two lengthy sessions totaling over eight hours and with no staff officers present, the five men hammered out the roles and missions questions concerning Army Aviation.

The results were promulgated in the November 1952 Memorandum of Understanding. The key points were that the Army was given the mission of medical evacuation and airlift of small units. The Air Force's reaction to the document was expressed by an Air Force general when someone referred to it as a "Memorandum of Agreement". The general said, "It is not an agreement. We would never agree to that. It is an understanding of what the Secretary of Defense directed. In addition, you should understand that the Air Force considers a small unit as being one man."

Army Aviation Unshackled

The 1952 Memorandum of Understanding removed many of the fetters from Army Aviation. In early 1953, the Army Aviation program was reviewed in depth by the Army Materiel Requirements Review Panel and based on that review, the original five experimental transportation cargo helicopter companies program was expanded to a 12 battalion program. The 12 battalion program was approved by the Joint Chiefs of Staff without controversy. Additional CH-21, CH-34, and CH-37 aircraft were procured to equip the new battalions.

A small part of the Air Force responsibility for supply of Army aircraft was transferred to the Ordnance Corps in 1949. Experience had proven that if the greatly enlarged Army Aviation program was to succeed, the Air Force's strangle hold through control of supply, procurement, and development must be broken. In 1953, the Transportation Corps established the Army Aviation Field Service Office in St. Louis. This office, the predecessor of today's U.S. Army Aviation and Troop Support Command, took on the responsibility for logistical support for Army Aviation from the Air Force.

In 1954, the Army Aviation School moved from Ft. Sill, OK to Ft. Rucker, AL, and the Army Aviation Center was established. In 1955, the Army Aviation Board was activated at Ft. Rucker. The organization was in place, and the climate was ripe for Army Aviation to really move into Air Mobility.

LTG Williams was with the famous "Class Before One" and helped to validate the need for light aircraft in the artillery adjustment role. The first Master Army Aviator, he was Director of Army Aviation during 1966-1967, followed by a combat tour in Vietnam as CG, 1st Avn Bde. He is considered the "Father of Army Aviation."

Army Aviation in the COVID-19 Pandemic Fight

Members of all branches and components of our U.S. Military Forces have been employed beginning in early 2020 to help fight the spread of the coronavirus pandemic in the United States and around the world. What follows is a look at some Army Aviation efforts. *Joe Pisano, Editor*

U.S. ARMY PHOTO BY SGT PATRK ORCUTT

A group of UH-72 Lakota helicopters prepare to land at Sheridan Barracks in Garmisch-Partenkirchen, Germany, April 1, 2020. Joint Multinational Readiness Center's Falcon Aviation Team has been supporting the COVID-19 response task force by flying personnel from Hohenfels training area down to Garmisch via rotary winged aircraft.

U.S. AIR NATIONAL GUARD PHOTO BY SPA SEAN MADDEN

A CH-47 Chinook helicopter, assigned to the New York Army National Guard's Company B, 3rd Battalion, 126th Aviation, approaches a helipad in New York City, April 16, 2020. New York National Guard members are supporting the multi-agency response to COVID-19.

U.S. ARMY PHOTO BY SGT MICHAEL BALTZ

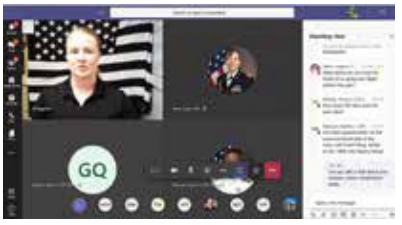
Soldiers with the Florida Army National Guard's 2nd Battalion, 111th Aviation Regiment, are supporting a walk-up testing site at Henry L. Brown Kooker Park in Jacksonville, Florida. Members of the 2/111th are supporting the FLNG's response for the COVID-19 pandemic.

U.S. ARMY NATIONAL GUARD PHOTO BY CPL. SAMANTHA HANCOCK

SGT Jason Humke, a helicopter maintainer with Company A, 1st Battalion, 376th Aviation Security and Support, Iowa Army National Guard, performs pre-flight operations of a UH-72 Lakota helicopter during a mission in Sioux City, Iowa, on May 4, 2020. COVID-19 test kits from a Test Iowa site in Sioux City, Iowa, were flown to the State Hygienic Laboratory in Coralville, Iowa.

U.S. ARMY PHOTO

A worker disinfects the outside of an AH-64E Apache helicopter at the Army Aviation Center of Excellence at Fort Rucker, Alabama, May 1, 2020. Defense Logistics Agency Aviation is providing disinfectants to keep the Army's fixed and rotary-winged aircraft sanitized during the COVID-19 outbreak.



U.S. MILITARY ACADEMY SCREENSHOT

Led by the branch representative CPT Jonathan Lunde, Department of Military Instruction, and supported by the President of the Black Knights chapter of the Army Aviation Association of America (AAAA), COL Rich Melnyk, the Department of Civil and Mechanical Engineering, the branch has and will conduct several virtual events to support cadet development. The first event was a discussion led by 1LT Alaina Kappner, Class of 2017. Kappner is a fixed-wing aviator and currently deployed leading an intelligence task force. She spoke about the career path of a fixed-wing aviator in the Army and opportunities in the intelligence community.

U.S. AIR NATIONAL GUARD PHOTO BY SSG CALEB VANCE

West Virginia National Guard aviator Warrant Officer Dana J. Dandeneau is serving with the West Virginia Department of Health and Human Resources (WVDHHR) Division of Infectious Disease Epidemiology (DIDE) during the ongoing COVID-19 pandemic response efforts, April 16, 2020, in Charleston, West Virginia. While normally an aviator in uniform, Dandeneau is an Applied Epidemiology Fellow at the Council of State and Territorial Epidemiologists (CSTE) in his civilian career and is utilizing his unique skill set to serve West Virginia during the pandemic.

U.S. ARMY PHOTO BY KCPL. HANMIN YUN, 2ID/RUCD PUBLIC AFFAIRS

CAMP HUMPHREYS, Republic of Korea – Soldiers assigned to 4-2 Attack Reconnaissance Battalion, 2nd Combat Aviation Brigade, 2nd Infantry ROK/US Combined Division hold community-use masks created by their unit's 3-D Printers on April 22. (L to R) SGT Christopher Evans, CPT Tylor Connor, CPT Edward Bullard, PFC Gashian Cotton. Bullard, commander for D Company, 4-2 ARB and Connor, 4-2's flight surgeon worked together to create the 3-D masks.

Send in Your AAAA Award Nominations Today!

AAAA National Awards

Suspense: January 1

- Joseph P. Cribbins Department of the Army Civilian of the Year
- James H. McClellan Aviation Safety
- Henry Q. Dunn Crew Chief of the Year
- Army Aviation Soldier of the Year
- Rodney J.T. Yano NCO of the Year
- Michael J. Novosel Army Aviator of the Year
- Robert M. Leich Award
- Gary G. Wetzel Aviation Unit of the Year
- John J. Stanko Army National Guard Aviation Unit of the Year
- Active Army Aviation Unit of the Year
- Outstanding Army Aviation Unit of the Year
- Top AAAA Chapter of the Year
- Top Senior Chapter of the Year
- Top Master Chapter of the Year
- Top Super Chapter of the Year

AAAA Hall of Fame Inductions

Suspense: June 1

AAAA Functional Awards

Suspense: June 15

- Donald F. Luce Depot Maintenance Artisan Award

Suspense: July 1

- AMSO Award
- ASE Award
- Avionics Award

Suspense: August 1

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

Suspense: September 1

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

AAAA Scholarship Foundation Awards

Applications Due: May 1

Scholarships Awarded to Aviation Soldiers, AAAA Members and their families.

Send in Your Nominations Today!

Nomination forms for all of the AAAA Awards are available on our website: quad-a.org.
Any questions? Call 203 268-2450.

- Network
- Recogntion
- Voice
- Support

ARMY AVIATION Editor's Mailbox

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

Joe Pisano, Editor

I have read your magazine for many years. I have seen the "People On The Move" section expand over the years. If I recall correctly, I think it may have originally been flight school candidates. You now cover down on Flight School, Enlisted AIT, and Enlisted UAS. I don't believe I have ever seen anything reported for the non-rated aviation warrant officers, including 151A - Aviation Maintenance Technician, 150U - Tactical Unmanned Aerial Systems (TUAS) Operations Technician or 150A - Air traffic and Air Space Management.

I didn't know if there was a reason for not listing these.

CW3 Ron Tombre
Madison, AL

150U (UAS) have been included for the past two years… there isn't a graduating class every month which is why you may have missed it. As to the other non-rated MOSs, we are working with the school houses to include them going forward.

Thanks for your readership and enquiry.

Joe Pisano, Editor

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 July 2019 through May 2020. The list includes donations received for all scholarships, as well as the General Fund which provides funding to enable the chapter, corporate, heritage and individual matching fund programs as well as national grants. Every penny donated to the Scholarship Foundation goes directly towards scholarships as a result of the Army Aviation Association of America subsidizing all administrative costs (minus investment brokerage fees).

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7/17th Air Cav Association
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American Airlines
Mike & Daphnie Arthur
AAAA Aloha Chapter
AAAA Arizona Chapter
AAAA Aviation Center Chapter
AAAA Badger Chapter
AAAA Central Florida Chapter
AAAA Colonial Virginia Chapter
AAAA Connecticut Chapter
AAAA Corpus Christi Chapter
AAAA Cowboy Chapter
AAAA Flint Hills Chapter
AAAA Gold Standard Chapter
AAAA Idaho Snake River Chapter
AAAA Jack H Dibrell/Alamo Chapter
AAAA Keystone Chapter
AAAA Lindbergh Chapter
AAAA Luther Jones Speakers
AAAA Mid-Atlantic Chapter
AAAA North Star Chapter
AAAA Southern California Chapter
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AAAA Tennessee Valley Chapter
AAAA Washington-Potomac Chapter
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Billy & Glenna Brashear
Michele Lynn Brashear
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Alyssa Lemanski
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For more information about the Foundation or to make a contribution, go online to www.quad-a.org; contributions can also be mailed to AAAA Scholarship Foundation, Inc., 593 Main Street, Monroe, CT 06468-2806.

AAAA Chapter Affairs

By LTC (Ret.) Jan Drabczuk

I greatly appreciate the support from Katie Yursky, Chapter Secretary & Treasurer and COL (Ret.) Jessie Farrington, Chapter President for authoring and sharing this information to our membership.

The Arizona Chapter

The Arizona Chapter, established in 1957, supports Army Aviation professionals and their families across the Valley of the Sun (Phoenix / Maricopa County and the surrounding areas.

Within the Chapter's boundaries include a rich and diverse Aviation community that supports numerous Active Duty, Army Guard, Army Reserve, Arizona State University Army ROTC Cadets, a large Military Retiree Community, and Defense Industry partners.

The Chapter maintains over 300 active members and growing, and most of its membership is from industry, as the Phoenix area has a strong defense and Army Aviation industry presence with major Defense Companies such as Boeing (and their AH-64E Apache production facility), MD Helicopters, Honeywell, Northrop-Grumman, plus countless other suppliers and sub-tiers that support the needs of Army Aviation programs and the Warfighter. With an average 355 days of good flying weather annually, the Valley is a prime spot for defense and Aviation businesses. The Chapter intends to focus this year on increasing its membership and outreach with the local active duty, guard, and reserve populations as well as the large retiree population in the Valley who aren't working within industry and has broadened its Chapter Officer board to be more reflective of the membership demographic.

Chapter President, COL (Ret.) Jess Farrington and Secretary/Treasurer, Katie Yursky.

Chapter Activities

The Arizona Chapter organizes its activities to focus primarily on 1) raising funds to support Army Aviation families via the Dimmery-Koch Memorial Scholarship fund; 2) providing social opportunities for current members and families to expand and strengthen their network and; 3) broadening our membership base through community outreach.

The largest event the Chapter holds each year is the Dimmery-Koch Memorial Scholarship Golf Scramble. Traditionally held in the summertime, the Chapter has recently shifted to timeframes with much more agreeable weather – the 2019 event was held in November and the Chapter is targeting May for the 2020 event. This scramble typically brings over 100 golfers and is the primary source of fundraising for the Chapter's annual five $2,000 scholarship awards.

The Chapter also collaborates and partners with sister organizations such as the Arizona Chapters of the Vertical Flight Society (VFS) and the Army Aviation Heritage Foundation (AAHF) to co-host monthly speaker dinners featuring topics that span interest across Army Aviation and vertical flight enthusiasts as well as an annual Aviation appreciation picnic with a classic car show and static displays of aircraft owned and restored by AAHF.

Additionally, the Chapter hosts a quarterly networking at different locations in the Valley and last year held two first-time events that were great successes. The first was a baseball night at Chase Field where it had over 90 attendees who purchased tickets in the all-you-can-eat section to watch the Diamondbacks play in the summer during the unbearable Arizona heat. This also provided the Chapter the opportunity to increase community outreach by having an information table by the concession areas of the stadium. The Chapter is working on plans to expand this event in 2020 with possible scholarship fundraising and on-field Soldier recognition opportunities. The other successful first-time event was a Top Golf networking social which allowed golfers and non-golfers alike to participate. The Chapter is looking at opportunities to leverage the Top Golf planning staff to expand this event and possibly fundraise for the scholarship program in 2020 as well.

Summary

The Arizona Chapter is proud to serve Soldiers, Army Aviation and the community around the Valley of the Sun. The Chapter welcomes all current, future, and retired members of the active, reserve, and retired Army Aviation community as well as the large population of retirees and of industry employees working on Aviation products at platform OEMs and suppliers in the Phoenix area. For more Arizona Chapter information please contact the Chapter Officers at azChapteraaaa@yahoo.com.

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

Corpus Christi Chapter Receives Memorial Plaque

CORPUS CHRISTI PARKS & RECREATION DEPT. PHOTO

The Corpus Christi Parks & Recreation Department has returned a plaque from a memorial to Vietnam Veterans that had deteriorated beyond repair over the years. Originally dedicated on February 7, 1970 and presented to the city of Corpus Christi by the Richard H. Bitter Chapter of AAAA (later renamed "Corpus Christi Chapter"), there was a UH-1 Huey helicopter on top of the concrete pedestal. That helicopter was replaced sometime in the '90s, but the helicopter severely degraded due to the extensively corrosive salt atmosphere and was removed. The monument was demolished on May 4 and current Chapter President, Tyler Yeathermon, coordinated the return of the plaque to the chapter.

ORDER OF ST. MICHAEL INDUCTEE

Air Assault Chapter

CHAPTER PHOTO BY 1LT AUSTIN LACHANCE

CW3 Michael R. Brown, Company B, 6th Battalion, 101st Aviation Regiment, 101st Combat Aviation Brigade, 101st Airborne Division (Air Assault), is inducted into the Bronze Honorable Order of St. Michael by company commander, CPT Kyle Amonson (not pictured) on May 7, 2020 at Fort Campbell, KY. Brown was inducted shortly after his final flight on active duty in recognition of his outstanding achievements as the Senior Instructor Pilot, Standardization Pilot and Instrument Examiner for the 101st Airborne Division's only heavy lift company. He will next serve as an instructor pilot for the Eastern Army National Guard (ARNG) Aviation Training Site (EAATS) at Fort Indiantown Gap, PA.

AAAA Membership Update

By CW4 Becki Chambers

Normally, this article is written about current members of Quad A. This issue I decided to do something completely different. On January 28, 2020, the article "From the Desert to the Cockpit: Army Reserve Officer, Aviator Shares Her Story" was posted to the army.mil website. The article was written by CPT James Kim, and what follows are some excerpts.

The Membership Corner

From a young age while growing up in Iran, U.S. Army Reserve CPT Leyla Zeinalpour always knew she wanted to become a pilot. She had a passion for flying.

CPT Leyla Zeinalpour, U.S. Army Reserve

U.S. ARMY PHOTO

In 2000, she immigrated to the U.S. with her family for better life and educational opportunities. While going through college at Indiana University in Kokomo, Indiana, and contemplating her future and finances for school, she received an advertisement in the mail about "college money," and without hesitation she picked up the phone and connected with a U.S. Army Reserve recruiter.

Zeinalpour first enlisted in the U.S. Army as a 92A (Automated Logistical Specialist) and later branched as an Aviation officer after completing Reserve Officers Training Corps (ROTC) at Indiana University-Purdue University of Indianapolis. Zeinalpour had not planned to join the military, and it came as a surprise for her parents.

"I was determined to get an education in a U.S. university and the military made that possible. I will forever be grateful for that because that also made it possible for me to support and take care of my family," she said.

Zeinalpour also understood that the Army Reserve was more than just about job opportunities. Gaining much knowledge and experience while in the Army made it possible for her to provide competent, capable, trained and ready personnel and leaders to get the job done.

For Zeinalpour, as a first-generation immigrant, assimilating to life in the U.S. came with its challenges: including language and cultural customs. But when she joined the Army in 2003, Zeinalpour felt a sense of belonging, like she was welcomed into a professional organization where she had an opportunity to serve and grow.

In 2010, Zeinalpour went to the Army Aviation School at Fort Rucker, Alabama. She was trained on flying the TH-67 Creek helicopter, OH-58 Kiowa Warrior helicopter, and became a qualified AH-64D Longbow Apache pilot. After graduating from aviation school in 2011, she returned to her unit, 8-229th Attack Reconnaissance Battalion (ARB), at Ft. Knox, Kentucky, to further train and refine her skills as a new Longbow Apache aviator.

In 2014, she deployed to Kuwait with the 90th Aviation Support Battalion from Fort Worth, Texas. After deployment, she took a company command position with the 1-158th ARB in Conroe, Texas. Shortly after taking command, she went through the UH-60A/L Black Hawk helicopter qualification course.

Zeinalpour said she has been successful in her military career because she has never hesitated to do what is required to get the job done. "It definitely has more meaning, representing all females, but also the people from the Middle East. Regardless of who you are and where you come from, you are able to choose your own path on how to serve, as I was, and doors opened based on the willingness to work hard," she said. The complete article is available at *https://www.army.mil/article/232045/?dmd*

Why am I writing about this Soldier who is not a member of AAAA? Because this is who we need to be recruiting into our organization. If we don't bring in the next generation, we will become irrelevant. This is why our president, MG (Ret.) Jeff Schloesser asked SGT Ashley Sanchez to be a National Member-At-Large, and most recently, 2LT Chance Mathias. So, when you look around your formation, ask yourself, who are the future leaders. Then ask if they are a member of AAAA.

CW4 Becki Chambers
AAAA Vice President for Membership

New AAAA Life Members

Air Assault Chapter
MAJ Josh Clemmons
MAJ Aaron Scully
Arizona Chapter
LtCol Robert (Bob) C. Codney
Central Florida Chapter
SFC Cory Armstrong
Griffin Chapter
Ronald L. Clary
CW3 Thomas McNamara
Jack H. Dibrell/Alamo Chapter
SSG Jeremiah Mowdy
Minuteman Chapter
Michael Ryan
Mount Rainier Chapter
LTC Simon Kim
North Texas Chapter
Michel Whittenberg
Phantom Corps Chapter
CSM Peter J. Garretson III
Pikes Peak Chapter
2LT Tyler Brown
Rio Grande Chapter
CPT Brian Keefer
Tennessee Valley Chapter
LTC Kevin K. Dasher

New AAAA Members

Aloha Chapter
CPT Jay Branch
Arizona Chapter
LtCol Robert (Bob) C. Codney
Christina A. Upah
Aviation Center Chapter
WO1 Nathan L. Hess
LTC Phillip Lenz
PFC Tristan Salinas
Mike Schmitz
WO1 James A. Wood
Badger Chapter
COL Raymond G. Boland
PV2 Thijs Benjamin Boskamp
Bluegrass Chapter
WO1 Nicholas J. Hoffman
PFC Cherokee Swain Muncey
Central Florida Chapter
1LT Andrew Matos
PVT Luis Sandoval
PVT Corey Whitson
Colonial Virginia Chapter
CPT Timothy A. Dore
David S. Friedmann
Connecticut Chapter
Kevin Elliott
Gary Hill
Margaret Hunter
Daniel Kistler
Corpus Christi Chapter
PV2 Isaac Aguirre
Cowboy Chapter
WO1 Isaac N. Hubenthal
Delaware Valley Chapter
PV2 Jeffrey Figueroa
PV2 Miles Craig Taylor
Lydia Underwood
Empire Chapter
PFC Dawson Everet Heft
Gold Standard Chapter
WO1 Philip Neepers
Great Lakes Chapter
PV2 Alejandro M.Sauceda Jr.
WO1 Robert R. Westover
CPT Glenn G. Youngstedt
PFC Armando Joseph Zayas
Greater Atlanta Chapter
PV2 Alejandro Ochoa
High Desert Chapter
PFC Jacob Mathew Prince
Iron Mike Chapter
MAJ Eric W. Connor
SSG Kenneth Douglas
CW3 Reginald Oliver
Jack H. Dibrell/Alamo Chapter
PV2 Alberto Alderete
WO1 Elon Yisrael
Jimmy Doolittle Chapter
WO1 Jose A. Gutierrez
PFC Adam Benjamin Watts
Land of Lincoln Chapter
SSG Elier Roman
WO1 Joseph G. Waller
Lonestar Chapter
PV2 Timothy Sana Nammathao
Minuteman Chapter
PV2 Austin Anthony Bona
PV2 Jordan Howell
Michael Ryan
PVT Justin Shipley
Mount Rainier Chapter
CW3 Benny J. Archuleta
SSG Joseph L. Cummings
SPC Jonathan Futrell
SFC Jackie K. Poon
SGT Micah B. Rosen
North Country Chapter
MAJ Daniel Burgess
CW2 Michael Callahan
CW3 Aaron James Haggard
CW2 Jeffrey Nustad
North Star Chapter
PV2 Timothy James Anderson
PVT Mathew Gillespie
SGT Brandon Ringwelski
North Texas Chapter
Brian Labrake
Oregon Trail Chapter
PV2 Alexander Burton
SPC Kevin Grossman
Chealsey Lewis
Phantom Corps Chapter
WO1 Johndorian Richardson
Pikes Peak Chapter
CPT Ryan Granier
Prairie Soldier Chapter
PFC Tyler Dean Becher
Rising Sun Chapter
William K. Smith
Savannah Chapter
CW4 Jason Cave
CPT James Logan Lair IV
1LT Thomas Ritchie III
Stonewall Jackson Chapter
Carla Powell
Tarheel Chapter
Olivia Snow
Tennessee Valley Chapter
Michelle Biletski
Mia Darden
PV2 Keeley Trew Davis
PV2 Josiah Michael Ernst
Gary Kellogg
LTC Clark Taylor
Thunderbird Chapter
PFC Tyler Brown
Utah Chapter
PV2 Trevor Erik Christianson
PVT Micah Wilcocx
Volunteer Chapter
SPC Daniel Rogers
Voodoo Chapter
PV2 Chad Benjamin Guillory
Wright Brothers Chapter
PVT Kainen Marsillett
Zia Chapter
Jack H. Smith
No Chapter Affiliation
CW5 Ronnie W. Clifton
Alexandre Huynh
CW4 Donald Keith

Lost Members

Help AAAA locate a member on this list and receive a FREE one month extension to your AAAA membership!

PFC Anthony Aleman
CPT Robert S. Boham
Mr. Harold V. Bowie, Jr.
LTC Jeffery D. Brown
MAJ James E. Bruckart
SPC Brett Christopher Butler
E. W. Cavanaugh
LTC Richard G. Cercone Jr.
LTC Tzu-Shan Chang
COL James A. Coar, Ret.
SPC Derrell L. Coats
MAJ Harry L. Connors Jr. Ret.
Bruno Cussigh
SGT Travis Bonham Darnell
CW3 Matthew John Decker
2LT Arthur W. Galloway
Mr. Michael F. Glass
MAJ Gregory W. Glover
LTC William T. Goforth
Mary H. Gorman
COL Gerhard Granz, Ret.
Trevor Harker
COL Jose L. Hinojosa, Ret.
SFC Carroll Elmo Hinson V
Barb Hively
CW4 Delbert Jackson, Ret.
LTC Randy K. Jackson
CW3 Jeffrey J. Jelonek
MAJ Gregory R. Jenkins
MAJ David A. Jobe
LTC Peter D. Kowal
Beth N. Kramer
CW3 Vladimir Kultschizky
WO1 Jacob Larch
CW3 Timothy J. Larz
MSG David W. Little, Ret.
SPC Poblo C. Lopez
CSM Vernie Nance, Ret.
MAJ Darrel B. Nerove
Fred A. Newcomb
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SFC Henry R. Rathbone, Ret.
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SPC Cameron B. Rumbo
Tony Sanchez
LTC Martin Scheld
Thomas R. Schiltz
LTC Jerry D. Scott
SPC Jeremy L. Sharkey
SPC Shelton T. Shia
Jeremy Smith
MAJ James F. Speelman
LTC Friedrich Stern
Jean K. Tinsley
WO1 Armando B. Torres
Kevin L. Tucker
MAJ L.D. Walker
Rose Weast
Nadia O. Whatley
CW3 Joseph Wonacott
SSG Johan G. Zarae

AAAA **Family Forum** By Judy Konitzer

Making COVID-19 More Bearable!

Offering my personal thanks to our members who graciously shared their experiences and show that we are resilient and 'Above the Best.'

MG (Ret.) Jeff & Patty Schlosser, Park City, UT: We decided to adopt a puppy since we are home and not traveling!!!! He keeps us very busy and laughing!! Also, I never thought I would clean so much. Although our ski season was cut short, we continue to go snowshoeing and hiking in the great outdoors—social distancing at its best!

***COL Rich Melnyk, West Point, NY*:** The cadets were already on Spring break when the pandemic started… so Academy leadership made the decision to leave the cadets at home and continue academics remotely……. Using webcams, microphones and Microsoft Teams the chapter, Aviation staff and faculty remain dedicated to ensuring that West Point provides high quality, well prepared Lieutenants to the branch every year. Full article is at *www.armyaviationmagazine.com*

***MG (Ret.) Lou & Connie Hennies, Ozark, AL*:** We recently downsized and kept busy working around the house finishing off jobs and continuing to get rid of extra items. We have tried to be good neighbors and are texting to help whatever they might need and provide some conversation that way. Never would have imagined this kind of situation in our lives or in our country. But we are proud of how everyone has worked together to be supportive. We will get through this with God's Grace and our Faith.

***COL (Ret.) Kevin Vizzarri, Oveido, FL*:** Most homes here have a screened in patio and a swimming pool and many are rediscovering physical fitness. Bingeing shows are key for parents, while Xbox is king for the kids. Thank God for WiFi! Our chapter could not hold its regular gathering, but instead bought wings from our local restaurant where we have met for 25 years. Raytheon Technologies, April's sponsor, helped pass out hand sanitizers and 10 wings per member. We also took 120 wings to the local fire house. Within an hour we kept the 314 social streak alive, supported a local small business, and showed appreciation to some first responders.

PHOTO BY BETH GUNTER, FORT RUCKER ARMY COMMUNITY SERVICE

SGT Ted E. Bear, a Fort Rucker landmark, wears his AER inspired face mask while he tallies progress made in raising funds for this year's AER campaign – Stop the Spread

***BG(Ret.) Howard and Susan Yellen, Gallatin, TN*:** Probably the most time we have stayed in close-proximity for a prolonged period of time. Truth be told, it is probably true for many of us. One project was to digitize all our 35mm slides, a laborious process which brought back tons of memories. We are catching up on several movies and TV series and spending time together in the kitchen-not great for the waistline!

***CPT Benjamin Burk, 2-158 AHB, 16th CAB, Joint Base Lewis McChord, WA*:** Stay-at-home directives and minimum manning have allowed Soldiers and families time to take a knee and reconnect in a multitude of ways. With some family members temporarily out of work and children at home for the remainder of the school year, Soldiers have risen to meet the challenge assuming additional roles. And to absorb the fresh Pacific Northwest air, many built backyard gardens, decks, and fences. For those without green thumbs or backyard DIY skills, we have witnessed a significant increase in anaerobic activities. Another way to pass the time and entice our Soldiers to improve their health was our battalion establishing a fitness challenge that included running, biking, hiking, and walking. Participation has been tremendous with several Soldiers eclipsing 100 miles in less than 2 weeks. While COVID-19 may not resolve quickly, Soldiers and their families will continue to remain resilient and stronger than ever before.

COL (Ret.) Greg & Val Gass, Knoxville, TN: It's been awesome spending time together in our home with little to no outside commitments. We've done jigsaw puzzles, enjoyed yard work, finished some organization projects, and are thankful for Zoom, FaceTime and House Party which have enabled us to spend more time with friends and family than we probably would have before the Coronavirus. Our church has an excellent online ministry, and we support our locally owned restaurants through their convenient delivery and carry out options. We have become experts at navigating Costco, Walmart, etc. and if this is something we need to do to stay safe, and keep others safe, we can comply and will probably be better for it when it's all over.

LTC Christopher and Wendy Buck, GA ARNG, Atlanta, GA: Since shelter-in-place orders, my family has transitioned to doing almost all things at home-school, sports, playing with just our immediate neighbor's kids. This has made us change the way we go about our day-to-day lives, both good and bad. One positive has been more quality family time.

COL Dave Zimmerman, Clinic Commander, HI: Soldiers assigned to the 25th Infantry Division at Schofield Barracks have witnessed firsthand what it's like to be in paradise but be restricted to their homes. The Governor issued a mandatory stay at home order in early March, and emergency proclamations closed most local businesses, restaurants, and beaches. The way our Soldiers and families receive healthcare has also been drastically changed. At the Desmond Doss Health Clinic at Schofield, over 90% of appointments are accomplished virtually, with prescriptions being picked up at a drive-thru pharmacy. This method is convenient and limits the exposure between patients and staff.

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

AAAA **Legislative** Report

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

COVID-19, Congress, and Army Aviation

Life as we know it has changed on many levels and while we can hope for some degree of normalcy to return to our everyday lives, we have to acquiesce that a new force is shaping our tactical operations and is impacting our strategic conversations on Capitol Hill and at the Pentagon. Election year dynamics along with a global pandemic have ensured we are facing interesting times as we move through the rest of FY21 and CY20.

The FY21 budget cycle commenced in February just as this crisis reared its head in the U.S. and the impacts have significantly complicated the Congressional authorization and budget process.

As previously described, there is a scripted protocol and timeline for advancing the Army Aviation budget through Congress and actualizing a National Defense Authorization Act and a Defense Appropriations Act that funds our enterprise for the following year. When you break this process down by the scripted timeline, the final legislation is most significantly influenced by human interaction. Communication amongst our Pentagon leaders, our Congressional Defense Committee members and staff, and our industry stakeholders is essential. Understanding the process and positions of influence has immeasurable impact on the final policy and budget numbers that are yielded. Unfortunately, the pandemic's height, plateau, and recession will occur during the most critical part of the congressional budget cycle, February through October which is the timeframe when everyone is scrambling for position to influence the best possible outcome for themselves.

Congressional staff receive the budget in February and are expected to quickly dissect the budget items and begin their oversight responsibilities as to the requested and recommended policy and budget provisions. The responsible parties for bringing all of these concerns to light include the professional staff members (PSMs) on the House and Senate Armed Services Committees (HASC, SASC), the PSMs on the House and Senate Appropriations Committees (HAC-D, SAC-D) while coordinating with Members of Congress and Army Aviation senior leaders that understand what is necessary and is justified.

Historically, communications have been face-to-face via Congressional hearings and meetings. Unfortunately, because face-to-face interaction has been curtailed due to the current epidemic, our opportunity to connect with lawmakers has diminished. At the same time, industry lobbyists are normally attempting to influence budget request items that benefit their defense firms. Lobbyists directly engage with stakeholders almost exclusively via face to face, but this pandemic has flipped the switch with reliance on returned phone calls and emails and even in normal scenarios the voicemail and email inboxes of Congressional staff are overloaded.

So, what's the impact? Expect a delay in the budget process because they are having to re-tool the train while it rolls down the tracks. It will be interesting to see how Congress will accomplish the markup of the bills once they get into committee sessions that normally go late into the night with wheeling and dealing that normally occurs face to face. The authorization bills will likely pass by the end of the year but certainly not by the end of September as the process dictates. The appropriations bill for funding will certainly not happen by the end of September and thus throw us into continuing resolution (CR) on 1 October.

A "CR" by itself is not going to be a big deal to anyone because we are desensitized from years of Congress not completing their duties on time. Most concerning is what the legislation will reveal for Army Aviation on the back end. Who has the best social distancing skills to influence the markup of the budget request? Luckily, the relationships our senior Army Aviation leaders have with Congressional staff is beyond capable even during social distancing.

Electronic communication between the Pentagon and Capitol Hill continues but we should not discount the power of the industry legislative teams. Fortunately, most government funded/industry programs have been planned for years in advance, but the global pandemic has and will continue to provide logistic and supply chain challenges. Most defense firms have furloughed employees and gone into a defensive position to preserve cash flow in the event the global crisis lasts for year(s). There is much at stake to protect industry self-interest, so government affairs teams will be challenged and will go to great lengths to protect revenue generating programs. It is essential that all stakeholders, public and private, work together when engaging on the FY22 budget request because at the end of the day, it's in everyone's interest to preserve the health of the domestic industrial base.

The big take away regarding the impact of COVID-19 on our Army Aviation enterprise is the recognition of how important human interaction is to the influential forces in the Congressional space. All stakeholders will learn a lot in the coming months as the process morphs into FY21 defense and funding bills.

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.

Making a UH-60 Digital Twin

U.S. ARMY CCAD PHOTO BY ERNEY MARTINEZ

A UH-60L Black Hawk helicopter is prepared for shipment at Corpus Christi Army Depot for an 800-mile journey to Wichita State University where researchers at the National Institute of Aviation Research (NIAR) will create a virtual model of the work horse of Army aviation. Through a partnership between the U.S. Army Aviation and Missile Command, the Strategic Capabilities Office within the Office of the Secretary of Defense, and Wichita State University, researchers will completely disassemble one of the airframes from Corpus Christi and capture a 3-D scan of each structural part, creating a virtual model – or digital twin – of the workhorse of Army aviation. Among the driving factors for digital-twin technology is easing the sustainment effort to keep the Black Hawk flying over the next decades. Many industries have turned to digital-twin technology to create and improve opportunities to visualize, analyze and predict performance.

S3 Receives Nunn-Perry Award

COURTESY S3

Department of Defense (DOD) announced on May 12, 2020 System Studies & Simulation (S3) as a winner of the fiscal year 2019 Nunn-Perry Awards, recognizing excellence in the DOD Mentor Protégé Program. The program helps innovators grow as companies to meet the growing and shifting demands of the warfighter and the Department. The Nunn-Perry Award highlights the companies that have navigated that challenging transition from capability to company above and beyond their peers.

Correction:

COURTESY PCX AEROSYSTEMS

The ARMYAVIATION Advertiser Company Profiles on page 97 of the April/May issue included an outdated logo for PCX Aerosystems, a leading supplier of highly engineered, precision, flight critical aerospace components and complex assemblies for rotorcraft and fixed wing aerospace platforms. Services include the machining of hard alloy parts, including titanium, Inconel & steel where tight tolerances and quality are imperative; capabilities include rotorhead assemblies, tail and main rotor components and worldwide Apache rotorhead overhaul and repair. We apologize for the error.

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

CAE USA Inc., Tampa, FL, was awarded an $11,157,134 firm-fixed-price contract for advanced helicopter flight training support services; work will be performed at Ft. Rucker, AL, with an estimated completion date of May 15, 2027.

Thomas Instrument Inc.,* Brookshire, TX, was awarded an $8,788,301 firm-fixed-price contract for maintenance and overhaul of UH-60 Black Hawk helicopters; work locations and funding will be determined with each order, with an estimated completion date of May 6, 2025.

MD Helicopters Inc., Mesa, AZ, was awarded a $35,823,838 modification to contract W58RGZ-17-C-0038 for logistics support for the Afghanistan Air Force MD-530F aircraft fleet; work will be performed in Mesa and Kabul, Afghanistan, with an estimated completion date of Nov. 30, 2020.

Rockwell Collins Inc., Cedar Rapids, IA, was awarded a $7,561,560 firm-fixed-price contract for small mission computer hardware and executable software for the RQ-7B Shadow Tactical Unmanned Aircraft System; work will be performed in Cedar Rapids, with an estimated completion date of Aug. 15, 2022.

Advertisers Index

AAAA **Awards**

Order of St. Michael Inductees

Bronze

SFC Zachary T. Barber
MAJ Christopher R. Beckwith
CW4 Jeffrey S. Bender
LTC William L. Blakey
CW4 Christopher Blanchard
COL Daniel N. Brewer
CW3 Michael R. Brown
SFC Scott E. Burland
LTC Paul S. Button
1SG Jeremy W. Buzzard
1SG Raul Calderon
CPT Christopher S. Cannon
LTC Dudley R. Capps
CPT Matthew W. Carter
CW3 Jamie L. Copeland
CW4 Dennis L. Crabtrey II
CW3 Brian J. Curtis
SFC Khana Dao
SSG Christopher M. Escalante
MSG Joseph W. Evans
CPT Patrick E. Fay
MAJ Joshua Felber
1SG Christopher D. Flint
CW4 Eric D. Gartin
CW2 Oscar J. Gorbitz
MSG James B. Graves Jr.
MAJ Nathan L. Greer
MAJ Adam T. Hanisch
LTC Robert B. Harless
CW3 James M. Jackson
1SG David W. Keener
CW3 Frank D. Kirby III
CW4 James R. Lamb
CW3 Amy L. Leggat
CW4 Blake J. Leibach
LTC Charles E. Lewis
MAJ Jose A. Marquez
CPT Michael C. Mason
SFC Eduardo Matta-Figueroa
SFC Michael N. McCoubrey
SGT Matthew McCutchin
CPT Julia L. McKusick
MAJ Andrew R. Morgan
CPT Derek P. Murphy
CSM Michael Narvid
SFC Preston R. Needham
CSM Jeremiah P. O'Berry III
1SG Jeffrey S. Oddo
LTC Michael J. Oleson
CW4 Danny A. Olmeda
CW4 Robert B. Phillips
MAJ Kyle D. Pickett
MAJ William C. Pyant
SSG Danielle L. Qualls
CW4 Amanda G. Rast
SFC Andrew J. Reeves
COL Andrew S. Rendon
1SG Joseph H. Riddle
CW3 Jesus M. Rosa
CW5 Robert C.
CW4 Bobby S. Sattazahn
LTC John M. Schmitt
MAJ (R) David Sebright
CW4 Miguel Serrano-Gonzalez
CW4 Steven A. Shore
CPT William R. Small

COURTESY PHOTO

Manke is AAAA ROTC Cadet of the Year

2LT Lucas Manke, University of Minnesota-Twin Cities, Minneapolis, is presented the AAAA Reserve Officer Training Corps Cadet of the Year award during a ceremony on May 14, 2020 by his father, BG Shawn P. Manke, Assistant Division Commander-Maneuver, 34th Infantry Division, MNARNG. Approximately 150 Soldiers, family members, friends and other guests attended the ceremony which was conducted via video teleconference because of coronavirus pandemic restrictions.

MAJ Jonathan M. Spikes
CPT Cody R. Thompson
SGM Michael L. Wiley
CW4 Jeffrey S. York

Knight Inductees

CPT Wesley D. Henderson
BG Oliver J. Kingsbury
CPT Lukasz Michalowicz
MG John B. Richard IV

Our Lady of Loreto Inductees

Christine Angell
Efia S. Brooks
Kristen D. Brown
Kyndall Naylor
Keri Palm
Corinna R. Pegues
Teresa A. Randall
Jessica Smith
Beth R. Starritt
Marcy Webb
Miriam Witt

People On The Move

Aviation General Officer Promotions/Assignments

U.S. ARMY PHOTO

MG Thomas H. Todd III was confirmed by the Senate on May 21, 2020 for appointment to the rank of lieutenant general and assignment as Deputy Commanding General, Acquisition and Systems Management, United States Army Futures Command, Austin, Texas. He most recently served as Program Executive Officer, Aviation, Redstone Arsenal, AL.

U.S. ARMY PHOTO

The chief of staff of the Army announced the assignment of BG William A. Ryan III, chief of staff, I Corps, Joint Base Lewis-McChord, Washington, to senior advisor to the Ministry of Defense, U.S. Forces-Afghanistan, Operation Freedom's Sentinel, Afghanistan.

Changes of Command/Responsibility

Parker Gets a Virtual Welcome to CCAD

U.S. ARMY CCAD PHOTO

On May 29, 2020, the Corpus Christi Army Depot (CCAD) conducted another historic change of command ceremony by using a social media platform to effectively follow COVID-19 pandemic social distancing guidelines. After 22 months of serving as CCAD commander, COL Gail E. Atkins relinquished command to COL Joseph H. Parker, who becomes the depot's 27th military leader.

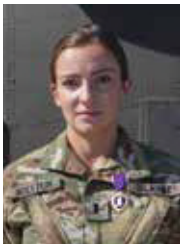
Awards

Purple Heart Awarded to 34th ECAB Soldiers

Soldiers assigned to the 34th Expeditionary Combat Aviation Brigade were awarded the Purple Heart in ceremonies on May 2 and 3 for injuries sustained during the theater ballistic missile attacks at Al Asad Air Base, Iraq, on January 8, 2020. Of the 27 Soldiers to receive Purple Hearts from the January attacks, these five Soldiers are the few 34th ECAB recipients to return to duty after receiving initial treatment for injuries and thus, received the Purple Heart medal in-theater.

U.S. ARMY PHOTO BY SGT MORGAN MAUL

MAJ Alan Johnson, an aeromedical physician's assistant with Headquarters Support Company, 834th Aviation Support Battalion, Minnesota National Guard;



U.S. ARMY PHOTOS BY SGT SYDNEY MARIETTE

1LT Abigail Holstein, an en route critical care nurse with Company C, 3-238th General Support Aviation Battalion;

U.S. ARMY PHOTOS BY SGT SYDNEY MARIETTE

SGT Ryan Nolan, flight operations non-commissioned officer; Company D, 82nd Aviation Regiment out of Fort Bragg, NC.

U.S. ARMY PHOTOS BY SGT SYDNEY MARIETTE

SGT Jose Ortiz, a Gray Eagle maintainer; Company D, 82nd Aviation Regiment out of Fort Bragg, NC.

U.S. ARMY PHOTOS BY SGT SYDNEY MARIETTE

SPC Robert Jones, combat medic. Company D, 82nd Aviation Regiment out of Fort Bragg, NC.

People On The Move

ADVANCED INDIVIDUAL TRAINING (AIT) GRADUATIONS

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

AH-64 Attack Helicopter Repairer (15R)
Class 003-20
PV2 Travis Brunson - DG
PFC Jacob Angle
PVT Dexton Carter
PFC Kaven Crespo
PV2 Miguel Hernandez
SGT Rick Jepsen
PVT James Schlauch, Jr
PVT Cody Thompson
PV2 Binh Tran
PV2 Jeffery Vantlin
PVT Riley Wenslow
Class 004-20
PFC Michael Judd - DG
PV2 Mohammed Almubarak
PVT Edward Andrade
PV2 Reynaldo Badillo, III
SGT Jamie Barrie
PVT McKinnley Gantt
PVT Daniel Gonzales
SPC Evans Odgiambo
PVT Emanuel Ramirez
SGT Paul Repasi
SGT Charles Richardson
PV2 David Vega
Class 005-20
PFC Tate Allan
SGT Paul Berry
SPC Demarge Boyd
PVT Thomas Bryant
PV2 Dustyn Clark
PV2 Joshua Glasscock
PVT Angelo Macioce
SPC Harold Orozco
PFC Jason Pickelsimer
PFC Austin Rubio
SPC Matthew Young
Class 006-20
PVT Morgan Jungersjohansen - DG
PV2 Jennylyn Candia
PFC Ashley Czerkies
PV2 Evan Davis
PVT Brandon Lee
PVT Yingze Lu
PVT Seth Melendez-Acosta
PVT Justin Platts
PVT Owen Rose
PFC Jaden Russell
PV2 Jacob Sherrill
Class 007-20
PVT Ethan Yeh - DG
PVT Alairic Cook
PVT Angel Gomez
PV2 Kent Leser
PV2 Jason Lindsay
PVT Isaac Liston
PVT Dalton McIntosh
PVT Jarred Mowery
PVT Adrian Ortiz
PVT Eric Poehl
PVT Attahir Tahir
Class 008-20
PVT Brandon Crawford - DG
PVT Zaiah Aguilar
PVT Dewranthul Blanchard
PVT Christian Ceron
PV2 Christian Cimino
PVT Andy Garcia
PVT Marc Gurley
PVT Jackson Herber
SGT Saulo Knudsen
SPC Bracken McKinlay
PVT Isai Reyes-Quiroz
PVT Lancejoshua Sambaoa
Class 009-20
PVT Luis Sandoval * - DG
PVT Jason Blair
PV2 Krisanna Burgoyne
PV2 Emmanuel Escamillachavez
PVT Davian Johnson
PVT Alona Judd
SPC Evgenii Kokodzii
PVT Brian Lamonica
SPC Sumiyabanu Motala
PVT Cheyenne Nguyen
PVT Jonathanjay Urdaneta
Class 010-20
SPC Kevin Grossman * - DG
PV2 Wesley Sloat
PV2 Austin Eaton
PVT Jacob Fite
PV2 James Furlong
SPC Daryen Booker
SGT Alvin Phiniezy
PVT Abel Thomas
SPC Sheriff Tijaniabimoloa
SGT Nathaniel Salinas
SPC Alberto Sandoval
SPC Austin Sparks

CH-47 Medium Helicopter Repairer (15U)
Class 002-20
PFC Cedric Ron Kuesel - DG
PV2 Taylorllawrence Bakken
SPC Anthony Shane Burkey
PV2 Aidan Kemp Campbell
PFC Aidann Robert S.Chapman
PV2 Nathaniel James Fair
PV2 Kadan Isaac Hall
PV2 Logan Michael Huston
PV2 Kevin Daniel Kauff
PV2 Braden Alexander Kelly
PV2 David Allen Lamay
SPC Edward Quach
Class 003-20
PV2 Lauren Elizabeth Stevens - DG
PFC Brittany Renee Graham
SPC James Raymond Koterba, III
PV2 Conner Glenn McCormack
PV2 Deanna Plappert
PV2 Jacob Daniel Prahl
PV2 Cole Malcolm Richardson
PV2 Erich Matthew Schumann
PV2 Dylan Smith
PV2 Trevor Deshawn Talton
PV2 John-Austin Britt Travers
Class 004-20
PV2 William Adrian Gesler - DG
PV2 Elijah Esquivel Aguero
PFC Tevai K. Kauaikekai Amina
PV2 Patrick Donald Cook
PV2 Jonathan Alan Brown Curtis
PV2 Nathaniel Sebastian Delgado
PV2 Keyshon Demargueze Dill
PV2 Cameron Aymes Easter
PV2 Garrett Lee Gordon
PFC Timothy David Land
PFC Jordan Kennedy McGraw
PFC Rafael Manuel Riverarivera
Class 005-20
PV2 Raymond S. Simon Valek - DG
PVT Ezekiel Isa Baerdeffebaugh
PV2 Sebastian Bryce Coddington
PV2 Dylan Christopher Finn
PV2 Jimmy Dale Garrett, Jr
PV2 Summer Leigh Hayes
PV2 Gregory Richard Jarden
SPC Yaniel Lararodriguez
PV2 Devin Christian Mobley
PV2 Hanibal Hasan Muhammad
PV2 Dartanyan River Star
PFC Gavin Layne White
Class 006-20
PFC Noah Benjamin Jones - DG
PFC Tristen Lance Anderson
PV2 Jacob David Dellow
PV2 Tyler Thomas Durham
PV2 Josiah Martin Freeman
PV2 Jordan Robert Hocker
PV2 Johnathan Kade Kennedy
PFC Landon Masters Lakota Leath
SPC Seoyong Andrew Lee
PV2 Michael Thomas Moreau
PV2 Felixberto Maratita Ogo, III
PV2 Johnathan Paul Olson
Class 007-20
PFC Dawson Sigler - DG
SPC Cory Alvarico
PFC Sean Brennan
PV2 Riley Diederich
PFC Thomas Dobbins, III
PV2 Gage Duncan
PV2 Quinn Ekdahl
PV2 Noah Gage
PV2 Treylor Geter
SPC Olajire Okunlola
PV2 Blaine Reed
PV2 Jahmarley Walters

UH-60 Helicopter Repairer (15T)
Class 009-20
SPC Thomas Michael Burgess - DG
SPC Prashant Bisen
PV2 Rushawn Dale Bryce
PV2 Talen Cruz Carter
SGT Bradley Howard Clark
PFC Andrew Deak
PFC Koffi Junior Diby
SPC Olalekan Faramoluwa Kosile
PFC Dyanna Rose Ortega
PV2 Rachael Christine Rice
PFC Michael Junior Rose
Class 010-20
PFC Derek John Oleary - DG
PFC Antonio Christopher Reyes - DG
SPC Danie Lorenzo Alvarez
PFC Jackson Gerard Arel
PFC Zachary Oliver Dingus
PFC Miguel Angel Garcia, III
PFC Adriannel Garciacandelaria
PV1 Nicholas James Leach
SPC Richard Eugene Rice
PFC Philipii Eduardo Rodriguez
PFC Sebastian Rodriguez
Class 011-20
PV2 Thomas Phillip Schrader - DG
PV2 Theron Connor Bishop
SPC Julio Cesar Calderon
SPC Jonathan Tyler Dayhoff
PV2 Christine Lee Ellis
PV2 Dane Joseph Halunen
PV2 Gabriel Chase Luckadoo
SPC Matthew Jon Lujan Sandlin
PFC Jennifer Justine Wilson
SGT Mark Allen Wile, Jr.

People On The Move

Class 012-20
PV2 Brendan Markey Supple - DG
SPC Danie Lorenzo Alvarez
PV2 Yakir Yiishaiel Eitan
PV2 Devon Lee Mahaffey
PV2 Aaron Christopher Marshall
PV2 Andrew Michael Pukala
PFC Antonio Christopher Reyes
PV2 Tommy Lee Riddell, Jr
PV2 Tucker Nolan Williamson
PV2 Dawson Garrett Woods
PV2 Jackson Wayne Wright
Class 013-20
PV2 Brandon Jason Peterson - DG
PV2 Melissia Autrey
PFC Jared Lee Blackburn
SPC Dillon Miles Brown
SPC Justin Matthew Clark
PFC Rjkennward Tiponti Clemente
PFC Conner James Lober
PFC Darlene Minier
PV1 Justin Patrick Stirn
PV2 Jason Lee Taylor
PFC Jesse James Tucker
Class 014-20
PFC Alvaro Calderon - DG
PV2 Cohen Wayne Barker
PV2 Ian Beckwith
PV2 Alex Joseph Breed
PV2 Jesse Russell Chick
PV2 Jan Choromanski
PFC Martin Oswaldo Estrada
PV2 Collin Michael Kraus
SPC Insoo Lee
PFC Antonio Christopher Reyes
Class 015-20
SPC Devin Ethan Malliett - DG
PV2 Katelyn Marie Ballach
SPC Christopher Richard Lade
PFC James Clayton Lee
PV2 Gage Lawrence Lemler
PV2 Rafael Miranda Perez
PV2 Christopher Ortiz
SPC Anthony Ramos
PV2 Breyden Kade Scates
PFC Alexa Jade Tangen
PV2 Nathanial Davis Thompson
Class 016-20
PFC Cesar Augusto Marquez - DG
PV2 Trevor Richard Cameron
PFC Dezavier Lamontae Crite
PV2 Caleb Josiah Darby
PV2 Derek Alexander Glaubitz
PFC Taesean Christopher Kellam
PFC Troy Evan Layman
PV2 Adaam Casey Lovelace
PV2 Ricardo Anthony Thompson
PV1 Elijah King Upshur
PV2 Drake Andrew Whitlock
PV2 Alex James Wood

Aircraft Powerplant Repairer (15B)
Class 003-20
PV2 Jacob Mackender - DG
PVT Erick Bonilla
SGT Jeffrey Gaylord
PV2 Joseph Gomez
PV2 Kameryn Horton
PV2 Gyeongcheol Kim
PV2 Thomas Lewis
PV2 Ancel Smith
SPC Bryce Solomon
PVT Jeremy Strini
PV2 Rafael Suarez

Aircraft Powertrain Repairer (15D)
Class 012-19
PFC Kyle Svetich - DG
PV2 Jacob Bohlmann
PV2 Rowdy Grantham
PV2 Tyler Hansen
SPC Gabriel Jackson
PV2 Anderson Kratzer
PV2 Jonathan Lightfoot
PV2 Jacob Long
PV2 Adam Ouellette
SPC Jose Perezteller ia
PV2 Ryan Schultzman
PV2 Chandler Short
PV2 Richard Taylor
Class 001-20
PV2 Elvis Riveragonzalez - DG
SPC Sanjay Baldie
PV2 Carlos Clavijo
SPC Alexander Cullison
PV2 Dakota Giles
PV2 Ian Jackson
PV2 Cory Johnson
PFC Dylan Martin
PV2 Gregory Ridgeway, Jr
PV2 Alexandra Rowe
PV2 Eric Tomas

Aircraft Electrician (15F)
Class 001-20
PV2 Patrick Fowler - DG
PV2 Christopher Clubb
PFC Allennikko Coloma
PV2 Tyler Coulson
PVT Julia Demster
1LT Ramini Kutchukhidze
PV2 Godfrey Wachira
PV2 Stanley Wu
Class 002-20
PV2 Daniel Gaspard - DG
PFC Tyshaan Alston
PV2 Lucas Barnette
PV2 Gabriel Davis
PV2 Logan Delacruz
PV2 Blake Fialek
PV2 Devin Gibson
PV2 Evan Lubbess
Class 003-20
PV2 Jason Bilek, Jr - DG
PV2 Wayne Ngala
PVT Kolby Skaggs
PV2 Carter Voelkers
PV2 Anthony White Jr

Aircraft Pnedraulics Repairer (15H)
Class 003-20
PVT Jacob Mazdra - DG
PFC Carlos Apontesolivan
SGT Jeremy Fuentes
PVT Vladislav Golovnev
SPC Nelson Igbinovia
PFC Cody Johnson
PVT Kevin Lambdin
PV2 Christofer Smith
PFC Ethan Townsend
Class 004-20
PVT Trevor Walker-DG
PVT Davin Alkonis
PVT Jacob Cowan
PVT Ludwing Garciacastro
SPC Arturo Nava
PVT River Riggenbach
PV2 Abigail Ross
PFC Ryan Sarner
PFC Evan Strom

Aircraft Structural Repairer (15G)
Class 001-20
SPC Gabriel Felizolivero - DG
PV2 Kristopher Bitner
PV2 Austin Booth
PV2 Garrett Castro
PV2 Jarett Christoff
SGT Brian Hall II
PVT Leah Isaacs
PV2 Ethan Johnson
PV2 Owen Johnson
PV2 Taylor McGill
PV2 Steven Mitchell
PFC Eric Newsom
PV2 Nikita Plotnikov
PV2 Thomas Prince
PV2 Brenden Reynolds
SPC Zachary Weichert

Avionic Repairer (15N)
Class 024-19
PV2 Geraldo Andinorodriguez - DG
PFC Zachary Adair
PV2 Jared Ast
PV2 Reginald Burris, Jr
PV2 Mia Martinez
SPC Treyce Matthews
PFC Schendymar Salgadoayala
PFC Shannyn Taylor
Class 025-19
PV2 Timothy Campbell - DG
PV2 Colby Cason
PV2 Gavin Cushman
PFC Matthew Dedonato
SPC Angel Espadamorales
PV2 Cody Gardner
SPC Dennis Hall
PFC Dustin Lindsey
Class 026-19
PVT Omar Reyesalvarez - DG
SPC Spencer Anderson
PV2 Richard Coleman
PFC Alexander Marie
PV2 Lucas McHan
PFC Austin Partlow
SPC Lee Sparks
PV2 Cooper Stone

Aviation Operations Specialist (15P)
Class 20-013
SPC Brittany Ramirez
SPC Samuel Ruhl
PFC Tamamanuatele Pula
PFC Christian Wilkerson
PV2 Daniel Erickson
PV2 Christian Urena
PVT Khi'ara Chames
PVT Alana Gipson
PVT Khione Gregory
PVT Jason Sanchez-Sosa
Class 20-015
PV2 Cameron Andrews
PVT Taylor Angelini
PVT Kane Armstrong
PVT Tarielys Ayala-Rivera
PVT Christopher Baker
PV2 Dylan Belanger
PV2 Phlisia Bunting
PVT Antonio Gerena
PVT Danikah Griffin
PVT Jaquez Kohn
PV2 Kyle Kollath
PFC Dannys Marrero-Caballero
SPC Chad Palmer
PVT Ahmyria Simmons
PV2 Aaron White
PV2 Jeremiah Coles

Air Traffic Control Operator Course (15Q)
Class 20-002
SPC Alejandro Ruiz
PFC Leon Edens
PFC Jessica Hernandez
PV2 Christopher Berger

AIT Graduations Continued on next page

People On The Move

AIT Graduations *Continued*

PV2 Alessa Clark
PV2 Preston Colman
PV2 Jancarlo Gonzalez
PV2 Joshua McBrayer
PV2 Keegan Willies
Class 20-003
PV2 Alexei German
SPC Joseph Guerrero
PV2 Russell McGillivray
PV2 Brandon Parker
PFC Stephen Rizzo
SPC Danielle Thacker
SGT Ortis Tittle
PVT Timothy Walker
Class 20-004
PVT Jalyn Best
SPC Christo Bounthanom
PVT Gianni Dunlap
PFC Kirana Gunawan
PVT Christian Hagan
PFC Ramerrius Lee
PV2 Katelyn McClure
PFC Kyle Nieman
PVT Alejandro Perez
PFC Benjamin Santiago
PV2 Sebastian Soto
PV2 Derek Stone

UNMANNED AIRCRAFT SYSTEMS (UAS) GRADUATIONS

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

Shadow UAS Operator Course
32 Graduates, 26 February 2020
PV2 Jonathan Perez DHG
PVT Braedon M. Payton HG
SGT Christopher J. Deese
PFC Zialand J. Burns
PV2 Garrett L. Allen
PV2 Asthon L. Behrendsen
PV2 Caemon D. Blevins
PV2 Samuel P. Brimeyer
PV2 Matthew S. Brown
PV2 Angel J.Carranza
PV2 Dylan D. Daniels
PV2 Benjamin W. Fluke
PV2 Jermey H. Gonzalez
PV2 Bailey Z. Kneppercocks
PV2 Dylan H. Ohcriner
PV2 Cody M. Parker
PV2 Aaron J. Pearson
PV2 Tevon L. Raiden
PV2 Raymar Rivera Carrion
PV2 Christopher M. Santiago
PV2 Benjamin R. Shepard
PV2 Robert L. Shumaker III
PV2 Daniel A. Sommers
PV2 Austin A. Waters
PVT Devon B. Barthelemy
PVT Calvin G. Heppler
PVT Thomas D. Jones
PVT Preston J. W. Klinger
PVT Michael T. Savage
PVT William M. Steffen
41 Graduates, 31 March 2020
PVT Kyler M. Mcnichols
PV2 Erik N. Landgren
SGT Douglas G. Cardwell
PV2 Shelby M. Mcdonald
PV2 Alyssa L. Silver
PV2 Matthew W. Wallace
PV2 Joseph J. Prokes
PV2 Natasha M. Stewman
SGT Michael A. Warren
PVT Patrick J. Beckmann
PV2 Logan H. Ramsey
PV2 Angelikaross P. Alegado
PVT Shawnna N. Fultz
PVT Michael P. Gillespie Jr
PVT Cory M. Koehn Jr
PVT Christian A. Giraldo
PVT Michael T. Williams
PVT Joseph D. Whaley
PV2 Colin M. Carter
PV2 Nicholas R. Wisnieski
PVT Gabriel A. Martycruz
PVT Dane H. Potter
PVT Devan M. Rhoades
PV2 Jadon S. Hathorn
PV2 Lakiva C. Banks
PVT Caleb C. Scott
PVT Hunter W. Rumer
PVT Jessica A. Bakker
PVT Dominic L. Palmisano
SPC Thomas Denby
PVT Martin E. Fairchild
PV2 Edgar R. Lopez
PV2 Ivan A. Correa
SPC James L. Poe
SPC Jesus M. Reyes
PV2 Seth T. Vandinter
PVT Deshawn J. Malone
PVT Jayten D. Lucas
PVT Davine E. Scott
PV2 Aldayir Urzua
PVT Devin M. Vandosen

Gray Eagle UAS Operator Course
21 Graduates, 27 February 2020
PVT Tyler Schafer DHG
PVT Walter S. Saxe HG
SSG Gregorytuan T. Lai
PFC Creg E. Bell Jr
PFC John A. Butler
PFC Patricia C. Davis
PFC Ames C. Taylor
PV2 Angela L. Burton
PV2 Lionel Diazrodriguez
PV2 David E. Henderson
PV2 Luis A. Lopez
PV2 Gina M. Ruffin
PV2 Giancarlo A. Sierra
PV2 Jacob A. Sorola
PV2 Alexander R. Widner
PVT Tyler A Cole
PVT Daniel W. Costa
PVT Lourie D. Glass
PVT Kimdung T. Huynh
PVT Joshua R. Sandoval
PVT Aaron C. St.John
24 Graduates, 1 April 2020
PVT Travis A. Fite
PVT Anica S. Duran
PVT Andrew C. Evans
PVT Bradley R. Rushmore
PVT Justin M. Livesay
PFC Robert C. Tolson
PVT Patrick D. Scarborough
PV2 Alexis Benito
PVT Miriam I. Ruedas
PVT Paul R. Ottinger
PVT Jared A. Woods
PVT Matthew N. Seward
PVT David A. Hively
PVT Hunter W. Minor
PVT Ryan S. Downs
PVT Andrew J. Knudsen
PVT Nathaniel I. Ritchie
PV2 Carlos J. Marquez
PVT Tyler J. Kusiak
PFC Bryan L. Salgadobermudez
PVT Benjamin J. Gut
SPC Leonardo Legorburo
PVT Jorge O. Sanchezcorrea
PV2 Eric A. Rami

Book Review

The Aviators – Stories of U.S. Army Helicopter Combat in the Vietnam War, 1971-72 *By Rex Gooch*

Reviewed by CW4 Joe Pisano, U.S. Army, Retired

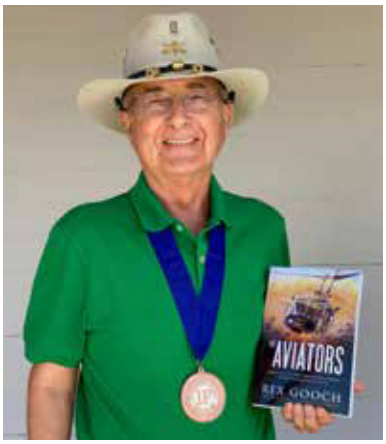


PHOTO COURTESY OF REX GOOCH

In "The Aviators," Rex Gooch airlifts the reader back in time to the Vietnam War in 1971-72, telling the stories of young pilots and crew members, who gallantly serve their country in a controversial war in a foreign land. After each story of combat action highlighting an individual, "The Aviators" goes beyond most other warfare books of that era by describing what happened to all twenty-five featured aviators after Vietnam.

Readers who have experienced flight school at Fort Wolters, Texas to advanced aircraft training to the paddies and mountains of South Vietnam will feel a kind of déjà vu through Gooch's storytelling. And those who haven't had that experience will get a good feel for what it was like, complete with an appendix of definitions of the various awards that are referenced throughout, as well as a comprehensive glossary to help the uninitiated navigate their way through the various acronyms and unique phrases common to Army Aviation.

On May 26, 2020, "The Aviators" was announced as a bronze medal winner in the 2020 Annual Independent Publisher (IPPY) Book Awards. The annual competition, conducted for the past 24 years, "honors the year's best independently published books to recognize excellence in a broad range of styles and subjects." This year's contest drew 4,750 entries, and the winning titles came from 44 U.S. states, plus the District of Columbia and Guam, 7 Canadian provinces, and 15 countries overseas.

"The Aviators" is an insightful look into the life of Army Aviators before, during and after the Vietnam War and will transport the reader on a magic carpet ride through the experience.

Rex Gooch, who is an AAAA Life Member, also penned "Ace: The Story of Lt. Col. Ace Cozzalio" another award-winning story of Army Aviation and the Vietnam War.

Both books are available through Amazon and the author's website: *www.fifthcavalry.com.*

CW4 Joe Pisano is a retired Army Aviator who flew CH-47A and B models as Innkeeper 29 with the 271st Aviation Company (Assault Support) and Hillclimber 19 with the 147th Avn. Co. (Asslt. Spt.) both based at Can Tho, Republic of Vietnam in 1971-1972. He retired from the 101st Aviation Brigade in 1993 working as a broadcast news anchor/producer before returning to Army Aviation as a government contractor. He has served on the Scholarship Foundation Board of Governors and on the National Executive Board, to include as a National Vice President from 1992-1995. In 2007 he joined Army Aviation Publications, Inc. as part of the AAAA headquarters support team becoming the editor of ARMYAVIATION Magazine from 2009 to the present.

UAS REPAIRER

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

Shadow UAS Repairer Course
8 Graduates, 26 February 2020
PV2 Valentino M. Alvarez
PV2 Camryon D. Allen
PV2 Caitlyn R. Gentry
PV2 Daniel Polanco
PVT Nathan B. Alves
PVT Gabriel L. Weathington
PVT Christiano G. Flores
PVT Nathan P. Pierce
16 Graduates, 12 March 2020
SGT Travis D. Walters *
SPC Diego J. Rivas
PFC Grant A. Bauman
PV2 Kyle S. Gorby
PV2 John C. Gubler
PV2 Christopher A. Guzman
PV2 J C. Lisk
PV2 Braxton T. Roods
PV2 Ryan C. Thomas
PV2 John L. Trandafir IV
PV2 Victoria S. Ventre
PVT James D. Evans
PVT Trevor J. Garrett
PVT Daniel R. Jalbert
PVT Daniel F. Roe
PVT Abdul L. Taylor
15 Graduates, 31 March 2020
PVT Alexandru Aga
PVT Damen D. Hill
PVT Allan J. Kerber
PVT Matthew L. Mangas
PVT Janell Nelson
PVT Luke B. Snitchler
PVT Mitchell S. Rhodes
SGT Walter J. Patterson
PVT Josie D. Popp
PV2 Luke M. Robertson
PVT Joshua S. Rude
PVT Alicia S. Setty
PVT Arron D. Smith
PVT Tristan J. Vaccarino
SPC Manuelly Vegarodriguez
12 Graduates, 16 April 2020
SSG Eleanor J. Blankenship
PV2 Rudolph G. Farias
PVT Jarek L. Johnson
PVT James G. Mayo
PV2 Wyatt S. Pickett
PFC Andrew J. Balyeat
PV2 Simon H. Close
PVT Matthew D. Colin
PVT Austin M. Evans
PFC Noah C. Hokanson
PV2 Kole V. Kampsen
PV2 Andres M. Roque

Gray Eagle UAS Repairer Course
11 Graduates, 02 March 2020
PVT Uriel Sanchez DHG
PVT Dylan J. Schaar HG
SPC Neyri Zarco
PFC Aiden Au
PV2 Jeffrey M. Rivera
PVT Matthew J. Childs
PVT Justen W. Messina
PVT Trista M. Zigman
PVT Samuel J. Baur
PVT Christopher P. Garrity
PVT Bailey R. Free
11 Graduates, 14 April 2020
PVT Jonathan E. Smith
PVT Curtis A. Brooks
PVT Tuan T. Nguyen
PV2 Nathaniel D. Stephens
PV2 Joseph P. Francois
PV2 Damien K. Stein
PVT Caleb J. Parrish
PVT Jacob A. Deitrick
PVT Jonas J. Geiger
PVT Timothy E. Bilodeau
PVT Nathan C. Schnepp

DHG = Distinguished Honor Graduate
HG = Honor Graduate
* = AAAA Member

UPCOMING EVENTS

JULY 2020

1 Submission Deadline – ASE, AMSO, Avionics Awards
17 AAAA Scholarship Foundation Executive Committee Meeting (Virtual)
22 Blue Book Updates Submission Deadline
20-26 EAA AirVenture, Oshkosh, WI

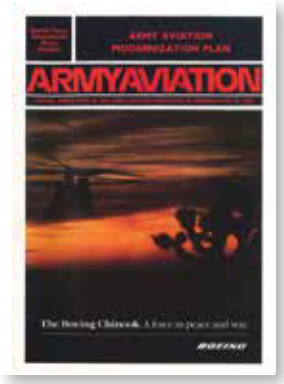
AUGUST 2020

1 Submission Deadline – Logistics Support Unit of the Year; Materiel Readiness Awards; Fixed Wing Unit of the Year; UAS Soldier and Unit of the Year Awards
25-26 AAAA Luther G. Jones Army Aviation Depot Forum, Corpus Christi, TX
28-31 NGAUS 142nd General Conference & Exhibition, Boston, MA.

Art's Attic

By Mark Albertson

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



25 Years Ago

June 30, 1995

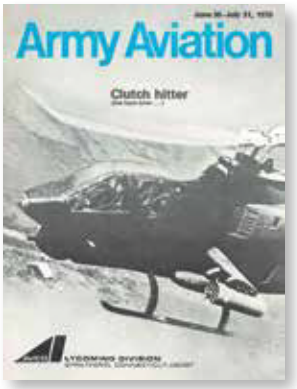
Olmstead Scholarship Program

The Olmstead Scholarship Program embraces the notion of military officers and their families involving themselves in a foreign culture of choice, at the same time the officer studies a foreign language in a field of his or her choice. After the officer has completed his or her two years at the foreign university, he or she will be eligible for attendance at the Command and General Staff College, if selected, with a return to a troop assignment for field grade qualification. Officers interested in the opportunity must contact their Career Branch for nomination data. The PERSCOM Selection Board will meet in January 1996, preceding the Olmstead Foundation Board which will make the final selection in April.

THE OLMSTED FOUNDATION

RAH-66 Roll-Out

The initial prototype of the Boeing-Sikorsky RAH-66 Comanche helicopter was rolled out, May 25, 1995. Upwards of 1,000 people turned out at the Sikorsky plant in Stratford, Connecticut to witness the coming out of America's newest Scout Attack helicopter. Army Chief of Staff, General Gordon R. Sullivan proclaimed to those gathered that Comanche "is the key to winning the information war, owning the night, and ensuring defeat of America's enemies." The present contract originally issued, April 1991 and revised along the way, calls for the first prototype to fly, November 1995. Six evaluation aircraft will be delivered in 2001. Production is scheduled to begin in 2005. First complete Comanche squadron is to be fielded in 2006.



50 Years Ago

June 30, 1970

First Army Aviation Weapons System

The first Army Aviation[1] Weapons System was the L-4 Cub, produced by the Piper Aircraft Company. The commercial designation was the J3C-65, important from the perspective that with some renovations, the off-the-shelf availability and resulting performance made the J3C-65 (L-4) the most procured Army cooperation aircraft during World War II at 5,671 copies.[1] *As opposed to accepted convention, Army Aviation was not known as such at the outset; rather, the Air Observation Post or Air OP.*

Supersonic Test Apparatus

Bell Aerospace Division of Textron unveiled an advanced supersonic rotating arm test apparatus in late June. This is the first ever apparatus of its type designed for speeds up to Mach 3.0 or 2,280 mph. The apparatus was built under contract by Bell for the USAF materials Laboratory. Objective is to test and evaluate the erosive effects of impinging rain and sand particles on aerospace materials. The aerial view showcases the six-ton, portable hatch cover, having been slid to the left of the 26-foot diameter vacuum chamber housing the apparatus.

Graduates

Seven Army Aviators recently graduated from Air University's C&S College, at Maxwell Air Force Base. Five of the graduates are pictured, front row, left to right: Lieutenant Colonels Eldridge W. Brock and Anthony J. Ortner; back row: Lieutenant Colonels William J. Corley and James E. Thompson, Jr., with Major Robert S. Borer. Absent are: Lieutenant Colonel Edmund L. Van Dervort and Major Robert W. Waddell.

Army Aviation Hall of Fame

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

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

The deadline for nominations for the 2022 induction is June 1, 2021

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

Brigadier General John Dailey

Army Aviation Hall of Fame
2001 Induction - Charlotte, NC

BG John Dailey spent his 30-year career in aviation advancing the art and science of flight, enhancing the capabilities and readiness of tactical aviation units, and sharing their remarkable success in combat. His effectiveness as a leader and team builder is legendary among his peers and soldiers who, with respect, refer to him as "Coach."

He gained combat leadership accolades during two tours in Vietnam where he flew more than 2,500 combat hours. His gallantry was recognized by awards of the Silver Star, two Distinguished Flying Crosses, the Bronze Star, two Purple Heart Medals and 53 Air Medals – one with Valor Device. Later in his career he received the Distinguished Service Medal.

While commanding the 160th Special Operations Aviation Group (Airborne) he directed development of new operational capabilities in air-to-air refueling and integrated cockpits, and was responsible for the acceptance, training, standardization, and safe application of this strategic capability. In so doing his "Night Stalkers" became the vanguard of tactical night fighting in all environments.

His visionary leadership withstood the test of time and provided the impetus necessary for development and validation of advanced night fighting tactics, techniques, and procedures. His legacy to Army aviation is the experience and competence of the officers and NCOs who served under him and now lead Army aviation into the 21st century.

From Prototype through Production
To Fielding, Training, and Sustainment

KEEPING YOU COMBAT READY.

SES

SES thrives on customer satisfaction. We have the tools, the facilities, and the team to carry your project from inception to completion. Covering your requirements from top to bottom, we seek to deliver the highest quality products to our customers.

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