

# AIR DEFENSE ARTILLERY

Journal



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Editor: Jamie Southerland

Art Director: Rick Paape, Jr.

Assistant Editor: Monica Wood

ADA School PAO: Don Herrick

The Air Defense Artillery Journal staff can be reached by email at [usarmy.sill.fcoe.mbx.bulletins@mail.mil](mailto:usarmy.sill.fcoe.mbx.bulletins@mail.mil) or by phone at (580) 442-1090/5121.

## Disclaimer

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By Order of the Secretary of the Army:

**JAMES C. MCCONVILLE**

General, United States Army

Chief of Staff

Official:

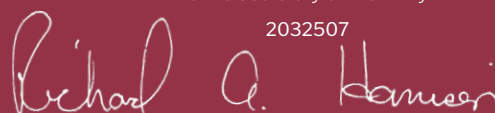


**KATHLEEN S. MILLER**

Administrative Assistant

to the Secretary of the Army

2032507



**COL RICHARD A. HARRISON**

Colonel, United States Army

Air Defense Artillery School Commandant, Fort Sill, Okla.

## Purpose

The Air Defense Artillery Journal serves as a forum for the discussions of all U.S. Army Air Defense Artillery professionals, Active, Reserves and National Guard; disseminates professional knowledge about progress, development and best use in campaigns; cultivates a common understanding of the power, limitations and application of fires, both lethal and nonlethal; fosters fires interdependency among the armed services, all of which contribute to the good of the Army, joint and combined forces and our nation. The Air Defense Artillery Journal is pleased to grant permission to reprint; please credit Air Defense Artillery Journal, the author(s) and photographers.

On the cover: GEB James C. McConville, chief of staff of the Army, speaks to deployed Soldiers of 11th Air Defense Artillery Brigade during a visit to Al Udeid Airbase, Qatar, Dec. 17, 2020. During the visit, Soldiers received coins of excellence and battlefield promotions. (SSG Mariah Jones/U.S. Army)





**COL Richard A. Harrison**  
Air Defense Artillery School Commandant

# 2020: A year in review

What a year! 2020 will be known for its many challenges, with COVID-19 being the top of the list. We here at the Air Defense Artillery School continued our vigilant efforts to keep our students, cadre and their families safe, while simultaneously executing our efforts in training and educating our Air Defense force. With teleworking, virtual meetings and small in-person gatherings; we stayed on course with our tasks in **Developing Leaders** and **Driving Change**. In addition to the aforementioned priorities, CSM Randy Gray, CW5 Mitchell Brown and I have continued to manage talent, refine our officer, warrant officer, and noncommissioned officer courses, and increase rigor in our program of instructions (POI). Furthermore, we refined our Pre-Command Course (PCC), implemented the **Project Athena** assessment program, and executed synchronization task to drive change and grow the Air Defense force in order to meet current and future requirements.

Short-Range Air Defense (SHORAD) growth includes both the Army's need for M-Stinger in the operational force and our developing and fielding an M-SHORAD force within the branch. This year we continued our instruction in M-Stinger in order to field our combat arms force with graduates awarded the coveted ASI, A5. We are in the process of updating our existing programs of instruction to include M-SHORAD. This includes sending Soldiers to Fort Benning's Stryker Leaders Course; beyond instruction, we are also looking into a new design for General Instructional Facilities with specifications necessary to support M-SHORAD (Stryker) instruction.

Through Project Athena, it is the Army's goal to transform its Officer Education System in a world of ever-changing conflict, technology and employment of warfare. With the overarching goal of developing creative and responsive leaders capable to meet these demands. We recently initiated a series of developmental briefings and testing to our Basic Officer Leaders Course. Foundational assessment is paramount with this program and we are administering the Nelson Denning Reading Test, along with the Criterion Online Writing Evaluation. Once this data is synthesized, we will continue to evaluate individual and group learning through a series of six additional assessment tests.

Our Pre-Command Course is also going through a change in delivery and applicability. My assistant commandant, LTC Doug Simmons, is leading the effort for the branch. A once informative course designed to update and familiarize field grade leaders with the changes and development of the branch; this course will now prepare our future battalion and brigade leaders on preparing Air Defense formations to fight in Large-Scale Combat Operations. We finished our last PCC under the original format back in November, and will begin to morph our efforts into a pilot for the spring and summer of 2021.

OCADA continues to integrate Personnel Domain considerations into a quickly evolving Air Defense force with notable successes this year. To support M-SHORAD fielding the OCADA team developed a Military Occupational Classification and Structure proposal for the inclusion of CMF14 into the Stryker Leader Course. The proposal has been approved, with



HQDA G1 issuing the Notification of Future Change on Oct. 1, 2020. MOS 14A and 14P personnel may enroll in the Stryker Leader Functional Course and earn the R2 skill identifier. The 30th ADA Brigade has begun to enroll instructors to better prepare the institutional training base for the arrival of M-SHORAD. Additionally, OCADA has submitted a proposal to create a Ranger requirement for various M-SHORAD positions, enabling 14A and 14P personnel to attend Ranger School.

To better support the growing ADA force, ADA increased the warrant officer accession mission for the first time since 2004, growing the annual accessions target from 47 to 68 new officers. The force rallied around the effort and submitted a total of 87 packets, allowing us to realize 100 percent of its accessions goal for all MOSs for

the first time in years. In FY21, the branch plans to further increase the accessions target to 79 officers (26x 140A / 31x 140K / 22x 140L).

Retention of talented noncommissioned officers remains a top priority to address future manning needs. Gathering data needed to inform policy proposals, OCADA created a survey that received 1,440 responses, nearly 17 percent of the enlisted force. This feedback is serving as the basis for a number of upcoming branch initiatives and has been leveraged by the Chief of Staff of the Army's Branch Health Assessment Task Force.

A significant focus for OCADA every summer is Cadet Branch education and accessions. Cadet Branch orientation was conducted primarily in a virtual format this year as the result of the COVID pandemic. To better connect with

*A Patriot missile launcher from C Battery, 3rd Battalion, 2nd Air Defense Artillery Regiment stands ready to destroy any incoming threats at Ali Al Salem Air Base, Kuwait, Nov. 20, 2020. The Patriot missile system is an integral component to the safety of the base, and is used to seek and destroy aerial threats. (SSgt Kenneth Boyton/ U.S. Air Force)*



Cadets OCADA redesigned its marketing web page (<https://sill-www.army.mil/ocada/cadets/>), created a web page optimized for viewing on mobile devices (<https://spark.adobe.com/page/WeSwuEdku6wrU/>), and recorded video testimonials from junior officers. Between June and July, OCADA coordinated five virtual branch orientation events and two Facebook Live sessions to inform Cadets of the missions, capabilities, and leadership opportunities within the Air Defense branch.

USMA Branch Week, however, was executed in person this September with strict COVID mitigation measures in place. Air Defense NCOs and junior officers participated in the Superintendent's MX400 Capstone Course for First Class Cadets to discuss the platoon leader – platoon sergeant relationship. Air Defense officers also participated in USMA's Profession of Arms panels and conducted a mentorship luncheon with Cadets interested in the Air Defense branch.

The final phase of the Branch's Cadet accessions cycle is the cadet file review and commandant ratings. For the first time, ADA branch convened a 16-officer panel to review files and make recommendations to the commandant. Also for the first time, panel members had access to video interviews to more holistically assess the potential of interested cadet candidates. As a result of OCADA marketing efforts, 506 cadets volunteered for interviews with ADA. By the end of Cadet Branching this year, all ADA-accessed USMA cadets were preferred candidates, with 92 percent falling into our most-preferred category. In addition, 33 percent of our USMA accessions from the class of 2021 are women, and 54 percent are non-white. ADA continues to maintain its position as the most diverse officer corps of all combat arms branches. ROTC results are pending as of this writing.

Our National Guard partners continue their efforts to ensure that the Army National Guard

maintained the highest level of Soldier readiness for future deployments. The ARNG-ADA Proponency and Force Integration Office at Fort Sill helped to create split options training allocations for Air Defense Soldiers to allow them to attend basic training during their senior year summer break and then become qualified Air Defenders on their next summer break. The office also assisted the Operational Training Division in making wet gap crossings and passage of lines a training requirement for brigades and battalions, further enhancing their deployment effectiveness. Over 500 ARNG Soldiers rotated through the Homeland Defense-Integrated Air Defense System mission to continue to keep our nation's capital and airspace safe. In addition, over 200 Soldiers deployed to Europe for the European Deterrence Initiative mission to assist our European allies and partners in keeping their nations safe from air and missile threats by peer competitors and rogue states.

A shout out to our ARNG-ADA Proponency and Force Integration Office NCOIC, MSG Scott Kilbarger, as he was recognized by General Paul Funk, TRADOC commander, and Mr. James E. McPherson, Undersecretary of the Army, for his outstanding efforts as 14Z ADA Proponent NCO which were critical to ensuring that force structure reflects current Army decisions and supports the CSA's modernization effort.

As we look forward to 2021, I am excited to announce that we are beginning to move artifacts into our new Air Defense Training Support Facility (TSF), and we conducted a "Soft Opening" Ceremony on Dec. 3, with LTG Daniel Karbler delivering insightful remarks discussing the 10-year endeavor for our branch to finally have such a facility. The new TSF will serve as a home for our artifact collection, designed to educate and share our great heritage; will also house two state-of-the-art classrooms and library for all levels of Soldier education.



*SPC Daniel Morales of Echo Battery, 3rd Battalion, 4th Air Defense Artillery Regiment collects his bags at Fort Hood, Texas, in preparation for his next flight after serving in U.S. Army Central's area of responsibility for nearly a year. (CPT Montrell Russell/U.S. Army)*

# Total Force effort brings Soldiers home

*CPT Brandon Nalley*

A squad of Sentinel Radar Operators from Echo Battery, 3rd Battalion, 4th Air Defense Artillery Regiment have returned to Fort Bragg, North Carolina, from their mission in Southwest Asia just as they approached the one-year mark.

These eight Soldiers from the U.S. Army's only airborne capable

Air Defense force, as well as Sentinel teams from the 3rd Infantry Division, were deployed on short notice last year as part of the U.S. Air Defense surge that saw a major bolstering of forces throughout the region.

These Soldiers and their systems joined the *Top Notch Brigade*, which is the Air Defense organiza-





*SPC Hunter Clement of Echo Battery, 3rd Battalion, 4th Air Defense Artillery Regiment is greeted by loved ones upon returning to Fort Bragg, North Carolina. (1LT Brianna Hooker/U.S. Army)*

tion responsible for the U.S. Army Central's Air and Missile Defense mission in Southwest Asia. The Sentinel Radar is a low-altitude, medium-range Air Defense sensor designed to detect fixed-wing aircraft, helicopters, cruise missiles and unmanned aerial vehicles.

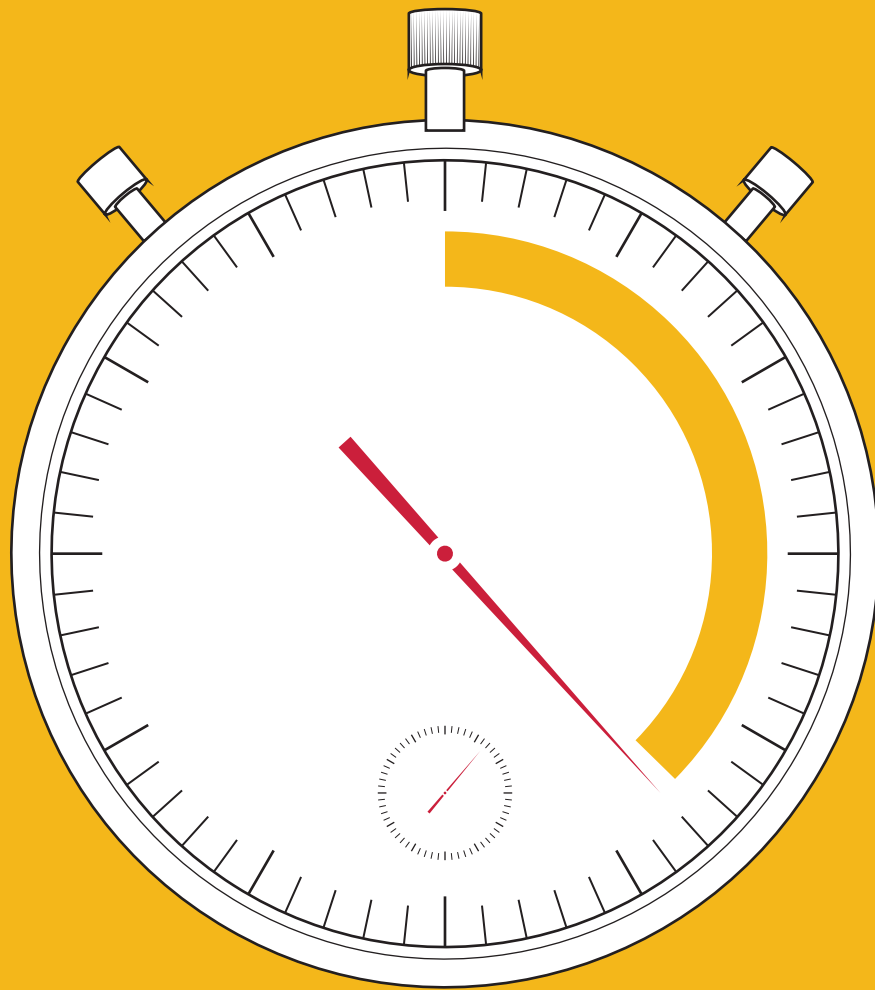
After providing early warning for Air Defense systems across the region in support of U.S. and partner nation operations, a total force effort was used to reunite these service members with their friends and families at home.

In order to get the Soldiers and their systems back before the 365-day mark, the *Top Notch Brigade* and 32nd Army Air and Missile

Defense Command, in coordination with the U.S. Transportation Command, were able to move the squad to Fort Hood, Texas, and then back to Fort Bragg with the support of U.S. Army Forces Command and U.S. Army Special Operations Command.

The people who compose our formations are our greatest asset. Multiple organizations placed the right people and equipment in the right places to ensure that these Soldiers could successfully complete their mission and return home safely.

*CPT Brandon Nalley is the Public Affairs Officer for the 108th Air Defense Artillery Brigade.*



# 23

# SECONDS

*CW3 George Case*





*Air Defense Soldiers practice operating radio equipment during training at the Air Battle Lab. (Courtesy photo)*

Twenty-three seconds. That's it! And likely less time than that. That is the average time required for a Short-range Air Defense (SHORAD) battery to detect an Air Breathing Threat (ABT), interrogate, disseminate early warning, de-conflict airspace, allocate and control fires, and engage the ABT within their area of operation (AO). Faster, lower, less detectable cruise missiles arguably provide even less decision space. Lessons learned from supporting the brigade combat team in Europe as part of the European Deterrence Initiative revealed vulnerabilities in SHORAD operations. Creativity with existing systems and equipment can standardize Army SHORAD early warning and get inside the 23-second decision loop.

With the resurgence of SHORAD and a renewed focus on near-peer threats, the Air Defense community faces many challenges in conducting effective SHORAD Air Defense operations. Educating the force in SHORAD doctrine, how

to maximize system capabilities, effective dissemination of early warning, and synchronizing collective efforts are just a few of these challenges.

Many factors determine a SHORAD battery's ability to quickly destroy ABTs during active Air Defense operations. Some of these factors include, but are not limited to:

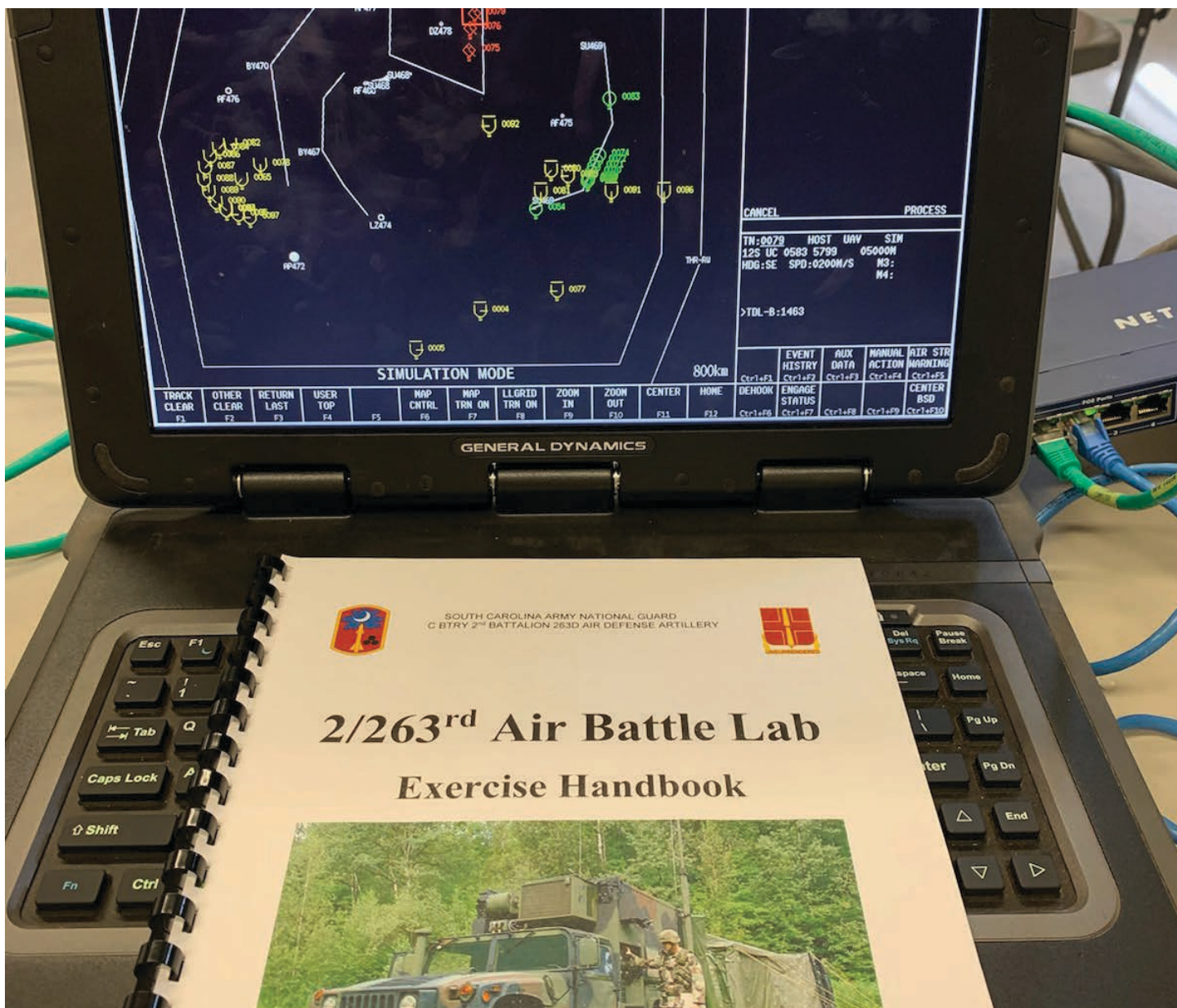
- Intelligence preparation of the battlefield.
- ADA Priority Matrix (criticality, vulnerability, recuperability, threat).
- Effective Air Defense designs that correctly factor in mass, mix, mobility, and integration as well as employment guidelines.

Even when all of these factors are properly planned for, successful Air Battle Management and execution of the kill chain requires a collective effort throughout all levels of the SHORAD battery. Synchronization is a must!

Current and near-future SHORAD systems are designed to quickly detect, monitor, identify, and destroy ABTs. However, how effectively these systems can put missile on target is determined by a SHORAD battery's ability to conduct collective Air Battle Management. Air Battle Management encompasses individual tasks, processes, and procedures at each echelon of the battery that contribute to a collective process in identifying and destroying ABTs. Presently there are effective march order and emplacement training and certifications processes for stand-alone sensor and shooter systems; however, there are currently no such processes to measure a SHORAD battery's ability to conduct collective Air Battle Management. This is currently the greatest shortfall in the training and certification process for SHORAD batteries.

How can a SHORAD battery rehearse these collective efforts and





The 2nd Battalion, 263rd Air Battle Lab Exercise Handbook, Air Battle Management Operations Center. (Courtesy photo)

become proficient at Air Battle Management? C Battery, 2nd Battalion, 263rd Air Defense Artillery faced this challenge when they were mobilized in 2018 as the first SHORAD battery for the European Deterrent Initiative mission. The solution was creating the concept of a SHORAD Air Battle Lab. An Air Battle Lab is setting up a unit's real-world equipment in a classroom, establishing the Enhanced Position Location Reporting System (EPLRs) network, and then running simulations that are built on an established Air Defense design displayed in the Forward Area Air Defense Command and Con-

trol (FAAD) software. Within the lab, there are stations set up for a battery command post (CP), sensor node, platoon leader, and fire units (FUs). The best part is there is no cost since there are no additional systems or virtual machines required.

Benefits of an Air Battle Lab for SHORAD training include:

- Economizes training time by setting up multiple real world systems into the same training room for individual and collective training.
- Controlled training environment for conducting SHORAD early warning (EW)/engage-

ment operations utilizing real-world equipment.

- Consolidated training resource for conducting individual and collective mission-essential task list duties.
- FAAD simulations for the battery can be conducted within the lab to train and measure ability to conduct battery-level Air Battle Management.
- Cost-effective training (no additional systems required).

During C Battery's pre-deployment process in 2018, they initially set up the Air Battle Lab in a classroom and quickly realized the need for more training in manag-



# AIR BATTLE LAB INDIVIDUAL TRAINING TASKS

## 14A COMMANDERS AND EXECUTIVE OFFICERS

Design and analyze Air Defense designs using the Air and Missile Defense Planning and Control System (AMDWS)

Line-of-site (LOS) analysis for Avenger and Sentinel placement using the AMDWS

Assignment of a track watch to appropriate platoon leaders based on Air Defense design, track information, and rules of engagement (ROE)

Monitor FAAD 3D System to analyze current ABTs based on speed, heading, altitude, ROE, WCS, and current Air Defense design.

Analyze the Air Defense design as the Air Battle unfolds and make necessary adjustments in coverage.

## 140A SYSTEM INTEGRATORS AND 14GS

Establish data link to ADAM Cell.

Establish the EPLRs network.

Load COMSEC in EPLRS/SINGARS using the SKL.

Set all parameters for the electronic tactical communication interface modem.

Set all configuration parameters in the URO for EPLRS based on cut sheets.

Set all parameters for the FAAD/FAAD 3D.

Set all parameters for the AMDWS.

Establish network connections within battery architecture.

Set all parameters in FAAD to provide air picture to brigade ADAM Cell.

Execute battery CP TTPs for the 14G position within the battery CP during Air Battle.

Execute correct radio procedures over SINGARS.

Troubleshoot all network faults.

## 14A PLATOON LEADERS

Design and analyze Air Defense designs using the AMDWS.

LOS analysis for Avenger and Sentinel placement using the AMDWS.

Establish the air picture for the RHTU to the network based on cut sheets.

Load communication security (COMSEC) in EPLRS/single channel ground and airborne radio system (SINGARS) using the Simple Key Loader (SKL).

Acknowledgement/dissemination of all WCSs, ADWs, and local Air Defense warnings (LADWs) from higher and push to FUs via digital and voice.

Assign and monitor paired tracks to the FUs based on Air Defense design.

Hook and assign a watch status/hold fire on suspect tracks to appropriate FUs based on platoon sectors of fire, primary target line, WCS, ROE (platoon leader 14A).

Monitor and report missile/ammo count via digital/voice as required.

## 14S FU TEAMS

Load COMSEC in EPLRS/SINGARS using the SKL.

Set all configuration parameters in the User Readout Device (URO) for EPLRS based on cut sheets.

Establish the connection for the RHTU to the network based on cut sheets.

Execute platoon-level TTPs for the 14S position for a FU during air battle.

Execute correct radio procedures over SINGARS.

Confirm all digital commands through the RHTU, WCS, ADWs, track assignments, etc.

Send all digital reports through the RHTU (primary). Missile/ammo counts, status, etc.

Send all reports via voice communications (secondary).

Receiving and executing engagements.

Execute engagements of all ABTs within sectors of responsibility based on ROE, WCS, ADW, and LADW.

## COLLECTIVE TRAINING TASKS - AIR BATTLE LAB

Collectively execute engagements of all ABTs within battery AO based on Air Defense design and ROEs, WCS, ADWs, and LADWs.

Collectively execute digital and voice communications while conducting Air Defense operations.

Collectively establish a battery network for the common air picture.

Collectively provide EW throughout the network.

Collectively execute Air Defense operations utilizing current modification table of organization and equipment systems.



*The classroom at the Air Battle Lab. (Courtesy photo)*

ing the Air Battle as a collective unit. There weren't any tactics, techniques, and procedures (TTPs) or standing operating procedures to follow, so over the course of the deployment, C Battery began writing their own internal TTPs and continued the Air Battle Lab training throughout the course of the rotational deployment. By the end of the deployment, C Battery made tremendous progress in their collective ability. The level-10 skills had become second nature on the systems and the battery was conducting Air Battle Management with ease while executing engagements during simulations within a matter of seconds. C Battery achieved this level of proficiency by repetitive training in the lab and fine tuning their TTPs at each step in the kill chain.

Since returning from their deployment a permanent Air Battle Lab has been set up within the battalion for battery-level training.

Air Battle Lab training benefits each service member in improving their MOS skills within their role. For example, at the battery CP the commander monitors the Air Bat-

tle and evaluates the Air Defense design as ABTs attack the defended asset. If needed, the commander can adjust coverages based on the situational awareness provided by the FAAD 3D. The platoon leaders are required to allocate and control fires using their Rugged Handheld Terminal Unit (RHTU) for their platoon's sector of responsibility. The fire unit teams are monitoring watch tracks assigned by the platoon leader, while engaging hostile tracks within their sectors of responsibility.

These basic operational requirements are executed simultaneously along with other required reports such as unit status reports, engagement reports, kill reports, and missile count reports to name only a few. Also during simulations, Air Defense Warnings (ADWs) and Weapons Control Status (WCS) changes will occur which must also be acknowledged quickly down to the lowest level. Each of these individual steps requires brevity and expertise in processes and TTPs allowing for an efficient collective battery synchronization in Air Battle Management. All within 23 seconds!

Does this sound like a daunting task? In truth, these are actually just a few of the collective steps, synchronization, and level of detail required of a SHORAD battery when facing a threat in such a short window. The Air Battle Lab training provides a SHORAD battery the best training opportunity to become proficient at collectively engaging ABTs.

Air Battle simulations can be conducted in the Air Battle Lab with multiple iterations, providing opportunities for batteries to improve their kill chain efficiency while building muscle memory on real-world systems. Once the collective skills of Air Battle Management are learned within the lab, a SHORAD battery is well prepared for conducting these same skills in the field environment.

How does a SHORAD battery kill the ABT in 23 seconds or less? By first becoming proficient in collective Air Battle Management. Yes there are other important factors in Air Defense operations such as field craft, passive and active Air Defense, and an ability to support maneuver to name a few. However, a SHORAD battery's collective ability to conduct Air Battle Management is crucial to leveraging the sensor and shooter systems' capabilities. The Air Battle Lab concept directly addresses one of the greatest challenges facing SHORAD ADA today.

CW3 George Case is currently serving his 24th year in SHORAD at the 2-263rd ADA. He initially enlisted as a 16S before graduating OCS and serving as a 14B SHORAD Air Defense officer. After a separation from service, he re-entered the 2-263rd ADA in 2011 and is now a 140A Systems Integrator. In 2018, he was with the first rotational SHORAD battery in Europe in over a decade. Since returning in 2018, he has worked as a European Deterrence Initiative planner with the 263rd AAMDC supporting and training SHORAD batteries mobilizing for a one-year deployment to Europe.





*U.S. Secretary of Defense Dr. Mark T. Esper meets with service members at Andersen Air Force Base, Guam, Aug. 29, 2020. While on Guam Secretary Esper also visited with local government officials and conducted a bilateral engagement with the Japanese Defense Minister Kono Taro (Master Sgt. Richard P. Ebensberger/U.S. Air Force)*

# Secretary of Defense visits E/3rd ADA

*SGT Raquel Birk*

ANDERSEN AIR FORCE BASE, Guam – U.S. Secretary of Defense Dr. Mark T. Esper visited service members and conducted a bilateral engagement with the Japanese Defense Minister Kono Taro here Aug. 29.

The visit included an information brief by CPT Katrina Muchmore, commander, Echo Battery, 3rd Air Defense Artillery Regiment, and subject-matter expert on the unit's ability to maintain and operate the Terminal High Altitude Air Defense (THAAD) system.

"The primary purpose of the THAAD system is to defend against missile attacks," said Muchmore. "The system consists of launchers, interceptors, fire control and communications equipment, and the AN/TPY-2 radar with components."

While most 38th Air Defense Artillery Brigade units are located throughout Japan, E/3rd ADA, Task Force Talon, is the only one located in Guam, strategically situated to create an umbrella of air and missile defense and maintain a free and open Indo-Pacific region.

"It's awe-inspiring to meet Dr. Esper, tell him more about our unique mission, and how we operate," said SGT Rogelio J. Argeta, launcher section chief, E/3rd ADA. "We work closely with joint partners to protect the island of Guam, the United States, and the Pacific region."

Missile defense is a priority for the Pentagon because Guam is close enough to China that it can be barraged by advanced ballistic missiles.

"This includes the addition of air and missile defense capabil-



*U.S. Secretary of Defense Dr. Mark T. Esper meets with Soldiers assigned to the 94th Army Air and Missile Defense Command's Task Force Talon who maintain and operate the Terminal High Altitude Air Defense (THAAD) system at Andersen Air Force Base, Guam, Aug. 29 2020. The primary purpose of the THAAD system is to defend against missile attacks. The system consists of a launcher, interceptors, fire control and communications equipment, and the AN/TPY-2 tracking radar. (Senior Airman Amir Young/U.S. Air Force)*

ities, advanced intelligence surveillance and reconnaissance systems, and our ongoing bomber task force missions that prepare us to defend the Indo-Pacific at a moment's notice," Esper said in virtual remarks to the Daniel K. Inouye Asia-Pacific Center for Security Studies.

During his visit, Esper hosted Japanese Defense Minister Taro Kono to reaffirm the strength of the U.S.-Japan Alliance and discuss ways to deepen and expand bilateral defense cooperation.

Secretary Esper and Minister Kono agreed to continue efforts to support interoperability and to enhance Alliance capabilities, particularly for integrated air and missile defense and for intelligence, surveillance, and reconnaissance functions. They also agreed on the importance of secure networks and of strengthen-

ing information security to protect advanced defense technologies, according to a Department of Defense release.

"When a missile is being launched by an enemy, tactical operations centers and the ground-based radar will detect the approaching missile threat, analyze the target object data and the predicted intercept point within a very short time frame," said SPC Kevin Thinnies, Patriot fire control enhanced operator, E/3rd ADA. "Then the data is sent to the missile prior to launch."

The importance of E/3rd ADA's mission on Guam has led to an enduring relationship with the local citizens.

"Since 2019, the Guam Army National Guard activates a unit annually to provide security forces for Site Armadillo," said MAJ Bryan Z. Lipe, Task Force Talon officer

in charge. "Security Force 3, Task Force Guatdia, assumed the third consecutive rotation of security forces to our air defense capabilities on Guam Aug. 5."

Esper's visit to E/3rd ADA reflects the strategic importance in Pacific defense posture which would play an outsized role in any future conflict with China.

SGT Raquel Birk is currently the public affairs noncommissioned officer for 38th Air Defense Artillery Brigade at Sagami General Depot, Japan. She previously served as command information manager for 2nd Infantry Division/ROK-U.S. Combined Division at Camp Humphreys, Republic of Korea. She received a Master of Arts in Sociology from St. John's University, Jamaica, New York.





CSM Keith Phillips, the command sergeant major of the South Carolina Army National Guard (second from right) presents coins Sept. 13 to the 108th Air Defense Artillery Brigade Air Defense Artillery Fire Control Officers Section at the 263rd Army Air and Missile Defense Headquarters. (1LT Taylor Wilson/U.S. Army National Guard)

## Active Duty and National Guard Air Defenders train to prepare for the future of air and missile defense

*CPT Brandon R. Nalley*

The 108th Air Defense Artillery Brigade (ADA BDE), Air Defense Artillery Fires Control Officer Section of Fort Bragg, North Carolina, trained and supported the 263rd Army Air and Missile Defense Command (AAMDC), South Carolina National Guard in Anderson, South Carolina, during their September Unit Training Assembly.

The 108th ADA BDE and 263rd AAMDC reviewed academics, executed air battle training and 108th ADA BDE observed and supported a Tactical Operations Center Exercise (TOCEX) being conducted by the 263rd AAMDC.

This training, coupled with the 108th ADA's experience from their recent deployment, assisted the 263rd AAMDC in preparing for the modernization of how air and missile defense will be executed with the Integrated Air and Missile Defense System (IAMD).

The IAMD integrates current and future air and missile defense sensors and weapons into a common integrated fire control capability.

"The academics were similar to what Soldiers would be exposed to when preparing to attend Patriot Master Gunner or Top Gun, but with 108th ADA BDE's real world examples from our recent deployment to the U.S. Central Command area of responsibility," said CW3 Kevin Nelson, standardization officer, 108th ADA BDE.

Academics covered the use of surface-to-air-missile tactical orders, surface-to-air-missile status report, identification matrix, special instructions, radiate/maintenance schedule, the U.S. Central Command heads-up display, and Patriot self-defense criteria.

Both organizations conducted air battle training using Battlespace Command and Control Center Theater consoles and Virtual Patriot consoles in the 263rd AAMDC Joint Air Defense Operations Center, providing each other with refinement through after action reviews of each iteration.

During the 263rd AAMDC TOCEX, 108th ADA BDE supported

by playing the role of the Air Defense Artillery Fire Control Officer, Information and Coordination Central (ICC), and a tactical control system. Additional support came from contractors located at Fort Bliss, Texas, who supplied the air battles, controlled defensive counter air and acted as an additional ICC.

This training event re-established the 108th ADA BDE's working relationship with 263rd AAMDC after a year hiatus due to the deployment. Both organizations see the relationship as an enduring and symbiotic one which better prepares their Soldiers to continue to deter and defeat air and missile threats in the future.

*CPT Brandon R. Nalley is the public affairs officer for the 108th Air Defense Artillery Brigade, headquartered at Fort Bragg, North Carolina, and forward deployed to Southwest Asia in support of Operations Enduring Freedom and Spartan Shield.*



*Soldiers from A Battery, 5th Battalion, 4th Air Defense Artillery Regiment integrate with the Lithuanian King Mindaugas Hussars Battalion during tactical convoy and breach of an airbase. (CPT Rachel Skalisky/U.S. Army)*

# Defeating the aerial threat in warfighter exercises

*MAJ(R) Patrick Lowry, CPT Mary Jocelyn, CPT Justin Egner, and 1LT Solomon Weschler*

The warfighter exercises (WFX) provide excellent opportunities for divisions to test rarely rehearsed, high-level operations such as division-level Air Defense against dynamic, near-peer threats. Short-range air defense (SHORAD) is a complex discipline requiring finely tuned coordination between all echelons of command and warfighting functions to

ensure continuous effects across limited SHORAD assets. The removal of maneuver SHORAD units from divisions resulted in generational gaps of experience from both Air Defenders and maneuver commanders alike. This gap resulted in maneuver commanders having exceptionally limited contact with Air Defense and its principles and capabilities throughout

their careers. The result of the maneuver SHORAD drawdown has been a series of WFXs in which Air Defense assets have been improperly and/or under-utilized, allowing enemy air assets to achieve success to destroy essential friendly combat power, impacting our ability to maintain, sustain, or seize the initiative in Unified Land Operations.



Based on the 101st Airborne Division's (Air Assault) experience during WFX 20-01, the goal is to share the lessons learned for the improvement of Air Defense employment across the greater Army formation. Defeating enemy rotary wing (RW) and unmanned aircraft system (UAS) threats requires a single, deliberate division plan focused on denying enemy air avenues at the forward line of own troops (FLOT) to provide overall protection to the division and subordinate critical assets. Air Defense assets are able to optimally defend assets when unified under a single command requiring an adjustment from the traditional command/support relationships. For this to occur during the WFX, divisions must deliberately plan ADA coverage, communicate directly to the brigade combat teams (BCTs) and response cells (RCs), and provide expertise at the RC level for execution.

The 101st Airborne Division (Air Assault) executed a proactive approach to the division's Air Defense operation that was atypical to what was planned at previous WFXs. Taking a more comprehensive approach, the Air Defense coverage plan synchronized the scheme of maneuver and the Joint Integrated Area Air Defense Plan. The division's plan focused on denying the enemy opportunities to penetrate the FLOT with RW and UAS, while inherently protecting critical division and brigade-shaping assets in the rear area. This concept was contrary to the typical Air Defense plan wherein the BCTs controlled Air Defense assets through direct support and prioritizing critical brigade assets. This asset-focused plan collapses Air Defense resources at the critical points but inherently increases the risk throughout the battlefield by creating seams for enemy aviation to exploit and gain local air superiority. Exploiting these seams forces friendly units into hasty operations and allows the enemy to maintain the advantage. This has been the result histori-

cally throughout WFXs, as enemy RW exploited seams between the BCTs and kept Air Defense assets reactionary.

During WFX 20-01 a new approach was applied. Avenger batteries were tactically controlled (TACON) by the BCTs in a general support (GS) role. The 101st Airborne Division set priorities and developed a comprehensive coverage plan protecting division-level critical assets. This resulted in the division engaging and destroying a total of 107 enemy aerial assets, which greatly reduced the enemy's ability to affect the division's critical assets (bridging assets, long-range fires, etc.). This plan in WFX 20-01 had resounding impacts to the division's ability to gain and maintain local air superiority. It supported the division's operating tempo throughout the battle and impacted the enemy commander's decision-making cycle by forcing a re-evaluation of courses of action and risk associated with the enemy's aggressive maneuver and sustainment plan.

## Background

The tactical need and employment of SHORAD shifted to counter-terrorism in the early 2000s with a change in the global operating environment and threats. The reduction of SHORAD at the division had multi-level effects throughout the echelon. BCTs no longer trained Air Defense at the tactical level. Divisions lost ADA battalion headquarters and the ability to plan and integrate with maneuver elements. Air Defenders lost the knowledge base to integrate into the tactical scheme of maneuver, however, there has been reconsideration to maintain air superiority and air supremacy in a near-peer fight. The tactical advantages to employing maneuver SHORAD in a proactive, forward, offensive role provides opportunities for gaining and maintaining air superiority by allowing aviation and fires to shape the deep fight.

SHORAD battalions historically were an organic division asset across the Army's force structure. Currently there are only four dedicated SHORAD batteries and one SHORAD battalion assigned and organized within the Army. The 5th Battalion, 5th Air Defense Artillery and the 2nd Battalion, 44th Air Defense Artillery were originally not included in the battalion numbers (their Avenger batteries were included though) since those organizations were focused on counter-rocket, artillery, mortar (C-RAM) operations and deployments, therefore our assessment and assumption was that the battalion-level staffs are not proficient at working with divisional units (i.e. maneuver BCTs, fires brigades, etc.). That said, units like 5-5th ADA and 2-44th ADA will likely have to shoulder the burden in the near term as divisions become more interested in ADA with their maneuver echelons. However, the competing requirements of those units to support the C-RAM mission has forced Air Defense to lose the doctrinal effective combat power ratio and experience. Within the last 10 years, four Avenger batteries were converted to C-RAM to meet the growing demand in Central Command. As the requirements for C-RAM continue to grow, Avenger battery manpower is diverted to fulfill those critical shortages. The demand for SHORAD integrating with the maneuver fight is growing across multiple dynamic operational environments and adjustments within Army strategic priorities.

In August 2019, the 101st Airborne Division (Air Assault) executed Eagle Talon II, a command post exercise designed to replicate a warfighter, in preparation for the division's rotation in WFX 20-01. During Eagle Talon II, the typical decentralized Air Defense plan was executed. Air Defense assets were divided up in a direct support role across the division and the BCTs were left to sustain and employ Avengers and Stinger teams as the BCTs deemed fit. The

division Air and Missile Defense (AMD) cell established priorities for defense but had no means to enforce the division's strategy. This resulted in an under-utilized Air Defense plan that directly impacted the ability to sustain the division and achieve effects with fires. There was also a lack of communication in battlefield damage assessment reporting, impacting the real-time operations and intelligence assessments to feed updated enemy situational templates. Air Defense assets were able to be individually targeted by enemy aviation and fires as they were mostly static and positioned near rear assets.

Brigades were able to protect themselves by employing this Air Defense tactic however, there was no cohesive plan at the division level focused on maintaining the division's ability to shape the fight. This resulted in enemy aerial assets penetrating and attacking critical sustainment areas and impacted the division's ability to maintain the deep fight. During Eagle Talon II, the division's logistical support area, Multiple Launch Rocket System, High Mobility Artillery Rocket System, and other critical assets were destroyed by enemy attack aviation and UAS targeting. While the BCTs were able to defend some critical assets at the point of attack, it afforded the enemy opportunities to attack or gain intelligence, through surveillance and reconnaissance. This also allowed the enemy the ability to attack through their own shaping fires. This approach is wasteful of limited Air Defense assets and the defense becomes inflexible to shift Air Defense assets to the dynamic threat. Any success that the division had against the enemy aerial assets was incidental and not based on deliberate analysis and/or planning.

Based on the experience gained during Eagle Talon II and observations made from previous war-fighters, the division focused on not repeating prior mistakes and efforts. The division Air Defense

plan required synchronization across the BCTs and incorporated the ability to direct Air Defense efforts at the battery/BCT level to achieve this focus. The 101st Airborne Division (Air Assault) has the almost unique advantage of easily resourcing subject matter expert Air Defense officers for Air Defense Airspace Management (ADAM) Cells from the co-located 2nd Battalion, 44th Air Defense Artillery/108th Air Defense Brigade. These individuals worked with the division AMD cell and Division Artillery (DIVARTY) to increase the effectiveness of the Air Defense plan moving into WFX 20-01.

Their analysis focused on changing the command/support relationship from direct support to GS. It increased the knowledge of capabilities and limitations of Air Defense, and provided the means to operate as RC battery commanders, working within the BCT's plans to achieve the divisional Air Defense strategy in real time. These key personnel were utilized to replicate the battery-level planning, synchronizing, and execution efforts. Also, building on lessons learned from the Avenger battery's Joint Readiness Training Center rotations. Their knowledge was imperative to ensure a level of Air Defense expertise was injected into the BCTs RCs. SHORAD battalion functions were replicated with 101st DIVARTY and the division AMD cell. Division AMD effectively became the planning cell while 101st DIVARTY's ADAM Cell acted as current operations for the replicated Air Defense battalion staff.

## The plan

The cornerstone of the Air Defense plan for the 101st Airborne Division (Air Assault) was revising the command and support relationships of the Avenger batteries to the BCTs. Avenger platoons and batteries remained in a GS role throughout the duration of

the WFX. This allowed the division to set priorities and initial positioning guidance to deny enemy aviation opportunities by focusing on early engagement along air avenues of approach (AAA) at or just beyond the FLOT.

Stinger and Avenger teams created aerial engagement zones at the most vulnerable points of attack while remaining integrated with the scheme of maneuver of the BCTs. The division utilized the limited number of Avengers to protect a greater area of the division while still allowing for a limited amount of focused protection for the most critical assets that were most likely to be attacked by the enemy. This focus on defeating the enemy RW and UAS as far forward as possible was designed to prevent a shot opportunity on either critical assets or the decisive operation for the division.

The division AMD cell analyzed likely AAA layered within the maneuver plan in order to deny the enemy opportunities to exploit or penetrate into the division's consolidation area and attack support assets. This analysis was applied with the expected flow of the operation and templated locations for the Avenger ADA assets to occupy that allowed for early engagement of the enemy aerial platforms with the goal of engaging the enemy at or forward of the FLOT. The ability to engage the enemy RW and UAS at the FLOT, combined with a predictive analysis of the enemy aerial actions, allowed for the division to maximize the efficiency of the limited Avenger sections and deny the enemy a freedom it normally enjoyed in other divisions' area of operations.

Through this analysis, it was determined that the best method to defend the division was through a wide area forward Air Defense with focus on two principles of Air Defense: early engagement and defense in depth. Combining the Air Defense principles of early engagement and weighted coverage created a defense in-depth.

Early engagement was achieved through the emplacement of



Avenger sections forward in BCT areas of operation (AO) along AAA. This allowed for the Avengers to defeat/deter enemy RW from entering the division AO and rear areas. The remaining Avenger sections were emplaced deeper into the division AO along suspected or likely AAA. This provided a defense in-depth against any enemy aerial penetration into the division AO. Emplacement priorities were weighted to the most critical assets for the division. Therefore, if an enemy RW were able to evade or survive the Avengers dedicated to early engagement and penetrate into the rear of the division, there were still Avenger sections available to prevent the enemy from having effects. This allowed ADA assets to defeat the enemy aerial platforms earlier, preventing the enemy the ability to affect division-critical assets and then to protect the most critical assets if the enemy were successful in penetrating the division's airspace.

The above analysis was applied to each planned day of the operation. This allowed the division AMD cell to plan and refine where Avenger sections would best be positioned in relationship to time and where the BCTs would be. The division AMD cell was then able to determine how many Avenger sections would be needed to affect the likely AAA and provide early engagement, and then determine the best use of the remaining Avenger sections to better protect the most critical assets.

The first problem the division staff faced was how to efficiently emplace the Avenger sections in a warfighter within a BCT's battlespace based on priorities set by the division. This relates to a real-world combat situation as Avenger sections would be maneuvering in the BCT's AO. So, it was not feasible to completely isolate the Air Defense operation from the BCTs. The BCTs were needed to assist in the emplacement of the Avengers into position and to provide protection from enemy ground threats. The decision was made to emplace the

Avenger platoons and batteries in a TACON command relationship to the BCTs but keep the support relationship at GS. This allowed the division to continue to set the priorities and allowed the BCTs to maneuver the Avengers in regard to that guidance and in line with the BCT's scheme of maneuver.

## Communication

The 101st Airborne Division (Air Assault) ensured a shared understanding of the plan through constant communication at multiple echelons. This was accomplished through three channels of communication: concept brief to the commanders, dedicated brief to the RC officers in charge (OICs), and constant contact through advisors with the individuals controlling the ADA assets within the simulation.

The purpose of the concept brief to the BCT commanders was twofold. First, the brief was designed to disseminate an overview of the division's coverage plan. The second intent of the brief was to achieve shared understanding in the efficacy of implementing the broad area coverage plan in place of the traditional asset-focused point coverage plan. The wet gap crossing (WGX) provided the perfect example to demonstrate the differences between an area coverage versus a point coverage plan. This event allowed the division AMD cell to show how positioning Avenger assets in advantageous locations in order to interdict enemy RW along AAA did more to protect the division than just positioning near the WGX sites.

The dedicated brief to the OICs of the RCs differed from the one given to the BCT commanders in the level of detail. The AMD cell briefed the scheme of ADA coverage on a day-by-day basis for the entire exercise, based on the results of the wargame (COA analysis). It was understood that deviations from what was briefed were more likely the further into the planned exercise the briefing went. This fact, combined with a

working knowledge of the original plan, facilitated the division's ability to adjust on a daily, sometimes hourly, basis in response to real-time situations.

## Execution

Air Defense battery commanders were established within the RCs, as ADA advisors, which linked the division AMD's operational plan with the tactical execution at the brigade level. These individuals provided mission command for the ADA operations. They ensured that the operators understood the plan and worked with the RCs OICs to refine Avenger positioning based on the BCT's scheme of maneuver and the realities of the terrain within the simulation. This bottom-up refinement would then be pushed back to the division for situational awareness and taken into consideration for the next round of adjustments for follow-on operations.

The RC battery commanders also reduced multiple friction points that are typical in a WFX. First, the RC battery commanders were able to maintain control of the Avengers, which were in a GS role, but still within the battlespaces of the BCTs. Again, this was accomplished through constant communication of the division Air Defense plan and coordination with the BCTs. Another friction point that the RC battery commanders alleviated was to communicate Air Defense system capabilities and how each type of system contributed to the overall integrated Air Defense system. Finally, the RC battery commanders were able to make on-the-spot adjustments based on enemy actions, resulting in continuous coverage for the division from aerial threats.

One aspect that was not initially considered at the division level, but became an important aspect of the integrated Air Defense plan, was the concept of combined arms for Air Defense (CAFAD). The Avengers and Stinger teams were focused on AAA and defeating the RW threat forward. This initially

allowed the enemy the ability to observe friendly actions via small UAS operated by enemy elements in their rear area. Once the BCTs and RCs realized that they were able to engage the enemy UAS using their organic weapon systems, the threat was minimized. CAFAD ultimately was responsible for the destruction of 38 enemy airframes, the vast majority were small enemy UAS.

Finite resources of Air Defense cannot defeat enemy RW and UAS alone. Another benefit of the analysis, conducted early and often during the planning phase, was the ability to track and confirm likely enemy forward arming and refueling point locations and target them through both planned and dynamic fires. Incorporating attack operations by working with Fires for dynamic targeting was a critical role of the DIVARTY ADAM Cell. Queuing fire missions digitally and manually paid dividends to shaping the battlefield and allowed active defense assets to aggressively defeat enemy RW. Targeting the UAS ground control stations denied the enemy opportunities for intelligence, surveillance, reconnaissance, dynamic targeting, and battle damage assessments.

## Conclusion

Based on the results, it is recommended that divisions develop an Air Defense plan that incorporates an area defense strategy focused on defeating RW and UAS forward and at the FLOT. This plan must be fully communicated at all echelons, from the division staff and commander, through the BCTs and into the personnel in the RCs. Further, the division will need to provide Air Defense expertise within the RCs to deal with the details of emplacement, coordination with the BCT staff, and to adapt Air Defense operations to the dynamic environment in real time.

WFX 20-01's effort to replicate the full SHORAD battalion staff and chain of command was ef-

fective but not ideal. The division AMD cell and DIVARTY replicated a staff and chain of command of 40 with only seven individuals. The effectiveness of planning, battle tracking, and synchronization will be increased when an attached or organic SHORAD battalion staff and battery chains of command are employed with the division and BCTs, respectively. Incorporating Air Defenders into the WFX will increase proficiency for all parties. In the immediate future, it is possible to utilize existing Air Defense battalions to start developing tactics, techniques, and procedures in relationship to divisions and BCTs participating in a WFX.

The Air Defense plan and execution played a significant role in the 101st Airborne Division's success during WFX 20-01. The destruction of 107 enemy aerial assets (44 RW and 63 UAS) greatly reduced the enemy's ability to affect the division's sustainment and fires assets, allowing the 101st Airborne Division to control the deep fight. Synchronizing with the scheme of maneuver enabled Air Defense teams to deny enemy RW and UAS AAA forward of the FLOT thus preventing the enemy from penetrating into the division consolidation area. This reduced the enemy's effects on friendly forces during decisive operations. The battery commanders in the RCs worked in conjunction with DIVARTY and division AMD to conduct real-time synchronization with the BCTs to protect the decisive operation from enemy RW and UAS. The integration of attack operations to destroy UAS ground control station was critical to reducing the impact of enemy effects. This comprehensive Air Defense divisional plan was successful because it was deliberate and communicated directly to the BCTs with expertise at the RC level for execution.

*MAJ (R) Patrick Lowry served as an Air Defense officer from 2000 until 2020 in both SHORAD and Patriot Air Defense units. He served two tours in Iraq, one tour in Afghanistan and one tour in Kuwait. He finished his career*

*as the Chief of Air Defense Operations for the 101st Airborne Division (Air Assault).*

*CPT Mary Jocelyn currently serves at Fort Campbell, Kentucky. Her experience ranges from high to medium air defense to SHORAD at the battalion, brigade and division levels.*

*CPT Justin Egner currently serves as the ADAM OIC with the 101st DIVARTY. He served for 14 years in the Texas Army National Guard until commissioning to Air Defense in 2015. He deployed in 2018 with 2nd Battalion, 44th Air Defense Artillery as a C-RAM battle captain and platoon leader.*

*1LT Solomon Wechsler currently serves in the Air Defense Airspace Management section of the 101st DIVARTY. His experience base is from serving as a Patriot tactical control officer, Avenger Battery Sentinel radar platoon leader, and C-RAM battle captain.*

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# AIR DEFENSE ARTILLERY YEAR IN REVIEW





BG Gregory Brady, the commander of the 10th Army Air and Missile Defense Command, visits Poland on Aug. 11-12 at the request of Polish Col. Kazimierz Dynski, commander of the 3rd Surface to Air Defense Brigade, in order to facilitate the planning and execution of future exercises in the European theater. (SSG Andrew Mallett/10th AAMDC)

## The 10th Army Air and Missile Defense Command, *Missile Away, Target Destroyed!*

The 10th Army Air and Missile Defense Command (AAMDC), headquartered at Rhine Ordnance Barracks, Kaiserslautern, Germany, is the premiere U.S. Air and Missile Defense (AMD) functional command for Europe and remains lethal and mission capable year round despite extraneous circumstances.

The 10th AAMDC remains tactically engaged, strategically responsive, and functions as lethal deterrence to global threats. The 10th maintains a forward presence in the U.S. Europe Command area of responsibility, while supplementing forces worldwide to deter aggression and promote stability. The command stands ready to deploy worldwide to conduct joint air and missile defense operations on behalf of United States Army Europe (USAREUR).

This past year the 10th executed several major joint training exercises. In June the 10th executed To-

broq Arrows 20 in Skede, Latvia in corroboration with NATO allies Latvia and Lithuania. Tobruq Arrows is the live-fire portion of Tobruq Arrows 20 and is primarily focused on enhancing NATO's interoperability. Later in September, the command demonstrated lethality, interoperability and readiness by simultaneously participating in Tobruq Legacy and Astral Knight. Astral Knight 20 is a joint, multinational exercise involving Soldiers, Airmen and NATO Allies from five countries all coming together to create one combined air picture from three separate locations across Eastern Europe. Torbuq Legacy is a multinational exercise that refines tactics, techniques and procedures for NATO collaboration and the establishment of a multi-national kill chain. Tobruq Legacy 2020 added a new element and kicked off with a short-range air defense integration with Lithuanian Infantry forces for a convoy and a breach on an airbase.



This year the 10th AAMDC also built upon intra-theater relationships outside of joint training exercises. In December, U.S. Soldiers assigned to the 5th Battalion, 7th Air Defense Artillery Regiment, a subordinate command, participated in the 75th anniversary of the liberation of Thannenkirch, France. Later In August the 5-7th ADA Battalion hosted Polish and Swedish service members in Baumholder, Germany. The purpose of these visits were to familiarize allied Soldiers with the Patriot missile system and the Table VIII Gunnery qualification.

Two important firsts happened this year at the 10th, including the Change of Responsibility on Ramstein Air Base, Germany on Aug. 8, 2020, in which CSM Gary Plotnick relinquished his position as the senior enlisted advisor of the 10th to CSM Giancarlo Macri. Macri is the first nominative command sergeant major in the history of the 10th Army Air and Missile Defense Command. Additionally, 10th's Deputy Commanding Officer, COL Bruce Bredlow assumed the chairmanship of NATO's Panel on Air and Missile Defense and is working closely with NATO leadership, allies and partners to adapt and provide the best possible defense against a complex array of air and missile threats.

The 10th Army Air and Missile Defense Command has remained steadfast, disciplined, and lethal during trying times. The command has exceeded expectations and continued the mission on multiple installations in multiple countries. The 10th will continue to improve interoperability and deter aggression for years to come. *Missile Away, Target Destroyed!*

## **678th Air Defense Artillery Brigade, *For Freedom, We Defend!***

The 678th Air Defense Artillery Brigade experienced a year that ensued with a culminating training event, certifying the brigade to deploy for their second Mission Command Element rotational assignment in Ansbach, Germany. The brigade's arrival in Germany faced additional challenges as the COVID-19 pandemic quickly spread globally.

The 678th demonstrated their mission command capacity by participating in two large-scale exercises simultaneously, Astral Knight and Tobruq Legacy. This mission requires an active-duty brigade of 138 Soldiers; Taskforce Guardian accomplished this with only 53 assigned South Carolina Army National Guardsmen. Astral Knight 2020 is a joint, multinational exercise that involved collaboration with Airmen and Soldiers from the United States working with allies and partners from Poland, Latvia, Lithuania, Estonia and Sweden. Astral Knight allowed for the opportunity to strengthen partnerships while demonstrating the ability to execute integrated air and missile defense tactics. Tobruq Legacy 2020 is an

exercise that validated our joint air and missile defense capabilities, testing the joint kill chain with our foreign allies and partners to demonstrate air defense dominance within an operational environment.

The 678th ADA participated in the Spartan Warrior 2020 exercise at the Warrior Preparation Center on Einsiedlerhof Air Station, Germany. This exercise marked first warrant officer in the history of the Army National Guard in the 140A MOS, U.S. Army WO Mark Master to obtain the Air Defense Artillery Fire Control Officer Table VIII certification.

During Combined Resolve XIV, the ADAFCO crews managed multiple Avenger and Patriot fire units during the exercise. This exercise showcased integrated air and missile defense (IAMD) operations at Joint and Combined (Command and Control) infrastructures, to include Multinational Unified Land Operations that consisted of blank and live-fire exercise evolutions. Support battalions benefited greatly from these joint exercises as the brigade provided oversight for various battalion-level exercise evaluations.

Taskforce Guardian is eager for what lies ahead in 2021, while defending threats to European security and continuing to evolve and pursue new lines of effort and staying Europe Strong! *For Freedom, We Defend!*

## **5th Battalion, 7th Air Defense Artillery, *No Fear Battalion***

The 5th Battalion, 7th Air Defense Artillery started the year by challenging Soldiers to exceed the standard. The *No Fear Battalion* pressed forward this year in the wake of the COVID-19 pandemic; swiftly implementing mitigation strategies aimed at protecting its Soldiers and family members. Echo Battery coordinated with the Baumholder USO to deliver family activity boxes to military families in need. *Team No Fear* kept morale high by having events such as "Chili Cook-offs" and the "5-7th Talent Show" while implementing all COVID mitigation measures.

The 5-7th ADA participated in many exercises and training events that contributed to the growth and enhancement of the battalion's interoperability with our NATO allies and partners. *Team No Fear* hosted Polish delegates from the 3rd Surface-to-Air Defense Artillery during a Patriot gunnery certification course in Baumholder, Germany. These efforts to mutually collaborate with our European allies continued as they hosted the Swedish Air Defense regiment in the same month.

The Astral Knight 2020 and Tobruq Legacy 2020 afforded 5-7th ADA the opportunity to partner with service members from Czech Republic, Denmark, Estonia, France, Hungary, Italy, Latvia, Lithuania, Poland and Sweden. These major training events set the stage for the battalion this year that culminated in an





*2LT Garrett Julian, support platoon leader assigned to Charlie Battery, 5th Battalion, 7th Air Defense Artillery Regiment runs through the stress shoot lanes at Panzer Kanserne, Germany, June 2. Julian won the officer category of the European Best Defender Competition and was awarded the Army Commendation Medal for demonstrating professionalism, tactical proficiency, mental and physical toughness. (SFC Class Jason Epperson/10th AAMDC)*

exercise evaluation conducted by the 678th ADA Brigade, which focused on IAMD tactics, conducting the defense of key terrain, and a combination of flight operations.

Readiness and leadership development will always be a priority for 5-7th ADA, contributing to the success of the battalion in pursuit of enhanced capabilities through innovation. Echo Battery, 5-7th ADA was awarded the 2019 Department of the Army Deployment Excellence Award this spring and the Army's Combined Logistics Excellence Award in August 2020. This is a true testament of the team's commitment to sustainment operations within the Air Defense Artillery community. The 5-7th ADA further demonstrated their readiness in the 10th AAMDC European Best Defender Competition, winning in both the Non-Commissioned Officer and Officer categories.

These are only some of the major highlights for 5-7th ADA Soldiers, leaders and families this year.

The No Fear Battalion stands ready to execute any mission the future has in store for them.

## **5th Battalion, 4th Air Defense Artillery Regiment (ADAR), *We Attack Battalion***

The 5th Battalion, 4th Air Defense Artillery Regiment has officially completed its first full calendar year as the only active-duty Short-range Air Defense (SHORAD) Battalion in the United States Army. 2020 has been a year of firsts and a year of growth for 5-4th ADAR and the SHORAD community.

The 5-4th ADAR participated in many exercises and training events that have aided in our development, growth and integration with the maneuver force throughout 2020. The first major training event of the year was Combined Resolve XIII at





*Soldiers assigned to 5th Battalion, 4th Air Defense Artillery Regiment fire FIM-92 Stinger Man Portable Air Defense Systems during the Tobruq Arrows training exercise June 10, 2020, in Jurmalciems, Latvia. (SGT Domnique Washington/7th Mobile Public Affairs Detachment)*

the Joint Multinational Readiness Center (JMRC). We supported the exercise with observer coach/trainers and enablers from C/5-4th. This exercise served as the first opportunity for the Soldiers, NCOs and officers to demonstrate their Air Defense knowledge, expertise and abilities in the JMRC environment.

The battalion executed its first command post exercise in March 2020 at the Joint Multinational Simulation Center in Grafenwoehr, Germany. This exercise was the first time our staff and headquarters were evaluated in a simulated combat operation setting. The 5-4th ADAR hosted three representatives from our allies, the UK 12th Regiment Royal Artillery, in support of the 10th AAMDC commander's desired end state to be "Fully interoperable with capable and well-equipped Allied and Partner AMD forces who have developed mutually supporting defense designs for a range of possible contingencies."

Shortly before the execution of our spring Avenger Gunnery Table (AGT) VIII, the COVID-19 virus struck Europe, causing us to modify training to ensure the safety of our Soldiers, families, and community while completing our mission. In March, the *We Attack Battalion* conducted the first ever digital AGT VIII. Utilizing our Avengers, motor pool space, and the Avenger

Table Top Trainers, the battalion certified 34 crews under COVID-19 physical distancing restrictions.

In the spring, five outstanding non-commissioned officers proved themselves as some of the best and most experienced NCOs in the Air Defense Artillery by successfully completing the Avenger Master Gunner Course. One of the graduates, SSG Tania Trent, is the first African-American female NCO to graduate from the course, and COL Michael Gibson, the 678th ADA Brigade commander, recognized her accomplishment. These five NCOs have brought an immense amount of tactical and technical knowledge to our formation, and have contributed greatly to 5-4th ADAR's ability to train and qualify a combat-ready force.

In conjunction with our Lithuanian and Latvian Air Defense partners, C/5-4th participated in its first major exercise as a battery during Tobruq Arrows 2020 in June. The Latvian-led live-fire exercise focused on enhancing integration and interoperability within NATO. The battery left Latvia as a more cohesive and agile unit with valuable lessons learned from the multi-national exercise.

As another testament to our capabilities and ability to support the maneuver forces, Bravo Battery supported A Co., 173rd Infantry Brigade Combat Team

during Saber Junction 2020, earning the highest aerial kill count in the exercise's history. The battery served as an absolute combat multiplier during the exercise, and was praised for its abilities to integrate into the brigade and provide protection from aerial threats.

The summer brought major changes for the battalion, as the first ever 5-4th ADAR battalion commander, LTC Todd Daniels, along with the executive officer and S3 OIC completed their time with the *We Attack* family. Daniels completed his change of command with the incoming commander, LTC Abraham Osborn on July 9, 2020. The change of command was a major turning point for the battalion, as we bade farewell to the leadership who built the battalion from nothing when it activated in 2018, and gained new leaders who would help guide the battalion into the future.

The 5-4th ADAR won the Soldier category of the 10th AAMDC Best European Defender competition for a second year in a row. SPC Justin Rivard from B/5-4th won the competition, securing a place in the

*SPC Justin Rivard, a team chief assigned to Bravo Battery, 5th Battalion, 4th Air Defense Artillery Regiment at Ansbach, Germany, was awarded the Army Commendation Medal on Rhine Ordnance Barracks June 5. Rivard, a native of Somerset, Wisconsin, won the Soldier category of the European Best Defender Competition and was awarded the Army Commendation Medal for demonstrating professionalism, tactical proficiency, mental and physical toughness. (SFC Class Jason Epperson/10th AAMDC)*



USAREUR Best Warrior competition (BWC) in August, where he won that competition as well. Making the 5-4th ADAR back-to-back winners of the USAREUR BWC Soldier category.

Alpha Battery participated in Torbuq Legacy 2020 in conjunction with Allied Air Command and NATO's Combined Air Operations Centres, along with Surface Based Air Defense Forces from The Czech Republic, France, Hungary, Latvia, Lithuania, Slovakia, Estonia, Italy, and Poland. The exercise focused on technical and tactical interoperability in order to train on a joint air defense strategy in the Baltic region. Our formation gained invaluable experience and training with our NATO allies during the multi-national exercise.

The battalion sent 18 Soldiers, NCOs and officers to White Sands Missile Range for arguably the most impactful event of the year for 5-4th ADAR and the SHORAD community. The 5-4th ADAR team, led by 1LT Ryan Pitcher, is conducting testing and training on the new IM-SHORAD Stryker platform. The IM-SHORAD testing will end in December and 5-4th ADAR will be the first unit to receive the new IM-SHORAD platform weapon system as early as spring of 2021.

These are only some of the major highlights for the 5-4th ADAR Soldiers, leaders and families from the last year. Each and every day our formation trains in the motor pool or in the field, maintains our equipment, plans for future events, and works to serve our community. The *We Attack Battalion* has come a long way since the first 5-4th Soldier arrived to Ship-ton Kaserne in 2018, and we can only attribute those accomplishments to our Soldiers and families who have dedicated and committed themselves to making 5-4th ADAR the best Air Defense Artillery battalion in the Army. We look forward to the immense opportunities ahead as we move into 2021.

*We Attack!*



# Air Defense dominates the USAREUR Best Warrior Soldier category two years running!

The U.S. Army Europe Best Warrior Competition is an event that recognizes Soldiers who demonstrate commitment to the Army Values, themselves and the units they represent. For two consecutive years, Soldiers in the 5th Battalion, 4th Air Defense Artillery Regiment (5-4th ADAR) have won the United States Army Europe Best Warrior Competition in the Soldier category.

It is an honor to win a prestigious competition and bring a trophy back to your unit, to show the rest of the Army how good your organization is. For this pair of friends it is a feeling they can share forever.

SPC Justin Rivard, an air and missile crewman, assigned to the 5-4th ADAR, 10th Army Air and Missile Defense Command, was announced as the 2020 U.S. Army Europe's Best Warrior of the Soldier category on July 31, 2020, at Hohenfels Training Area, Germany.

Rivard decided to compete for the best warrior this year to push himself and because of his admiration for last year's winner SPC Tyler Russell, an Air Defense Management systems operator, also assigned to the 5-4th ADAR.

Rivard said Russell helped motivate him to succeed. "I am very good friends with the guy that won last year. We both look at each other differently. I look at him as an outstanding role-model and I like to think he looks at me the same way. He is very humble, and kind – his support was important to me."

Russell gave Rivard his full support throughout the train up. "I watched as he worked out, then took what I needed to build my training regimen for what I thought I needed to set myself apart from the others." Rivard said.

Though they worked together closely, they have slightly differ-



*COL Timothy MacDonald (left), 18th Military Police Brigade, SPC Justin Rivard (center), air and missile defense crewmember, 10th Air and Missile Defense Command, and CSM Robert V. Abernethy (right), senior enlisted advisor of United States Army Europe, present SPC Rivard with an ARCOM for winning the Soldier category of the U.S. Army Europe European Best Warrior Competition at Hohenfels Training Area, Germany, July 31, 2020. (SPC Austin Riel/U.S. Army)*

ent ideas of how to get mentally prepared for a competition. Russell contemplates on the people that matter to him most and utilizes the fear of disappointing them to motivate him to victory. While Rivard focuses on the pain of regret to push himself to the max.

"I can go to that space by reflecting on the pain of discipline, or pain of regret," Rivard said. "The competition was just a way for me to push myself in each event, so I never had to worry about if I would regret not pushing myself far enough."

Inspiration to win not only came from his fellow Soldiers, but from his leadership as well, Rivard said.

"My platoon sergeant created opportunities for the entire squad to conduct warrior tasks and battle drills. It started out as being for my benefit, then the entire squad began to benefit from the training

opportunity. That's what makes me so proud to be a part of this battalion. They gave their full vote of confidence in me."

Rivard found the experience to train and compete with Soldiers from many different career fields exciting. He cherishes the opportunity to compete and win against competitors at such a high performance level.

"It is a different feeling when you want to give up, but to stick through it and look back at the fact that you didn't quit, and couldn't have done anything better, that's what makes this hit you hard," Rivard said. "To come out on top after all that hard work, makes it worthwhile."

# 10th Army Air and Missile Defense Command conducts a change of responsibility ceremony

The 10th Army Air and Missile Defense Command hosted a change of responsibility ceremony on Aug. 6, 2020, at Ramstein Air Base, Germany. BG Gregory Brady presided over the ceremony, as the outgoing command sergeant major, CSM Gary Plotnick handed the guidon, and his role as the senior enlisted advisor, over to CSM Giancarlo Macri.

The unit bid a heartfelt farewell to Plotnick who, after three years, is the longest standing command sergeant major in the unit's history. He witnessed the arrival of the Brigade Mission Command Element, the standing up of the first pure short-range air defense battalion in over 10 years and the deployment of the Terminal High Altitude Area Defense system to the U.S. European Command area of responsibility.

"The person who says it cannot be done should not interrupt the person doing it," Plotnick said, a quote he heard from a former leader. "Don't let anyone tell you what you cannot do, and don't minimize your potential or value."

Plotnick enlisted in November of 1988 and after 31 years of service, is also retiring. He plans to take a brief break to rest, then he will serve as a Veterans' Service Representative after completion of Veteran's Association Training.

Macri is the first nominative command sergeant major in the history of the 10th Army Air and Missile Defense Command. Macri had to compete against other sergeants major for this position, and was hand-selected not only by his merit and eligibility, but was chosen for his potential to develop the unit.

"Plotnick definitely built a great foundation in this organization, and I will continue to improve on what he has established," Macri said during an interview with Armed Forces Network.



*10th Army Air and Missile Defense conduct a change of responsibility ceremony at Ramstein Air Base, Germany on Aug. 6, 2020. (SGT Andrew Mallett/U.S. Army)*

Macri intends to focus on putting people first, along with the four main lines of effort toward the Air and Missile Defense of Europe. The four main lines are: readiness, allies and partners, growth and modernization, and innovation. He believes that the growth of relationships with European allies and partners are key to success.

The 10th Army Air and Missile Defense Command is U.S. Army Europe's executive agent for all theater air and missile defense operations and force management. The unit is ready to deploy within the U.S. Army European Command's area of responsibility and conduct air and missile defense operations with joint and multinational allies and partners in order to protect the Combined Forces commander's critical assets, enable freedom of movement,

and integrate air and missile defense capabilities organization for air and missile defense of critical assets, deterring aggression, and promoting regional security and stability.

"It is always important to place the right leader, at the right time in positions where they can make a difference for our Soldiers and their families," said BG Gregory Brady, commander of the 10th Army Air and Missile Defense Command. "Plotnick did just that, while leading the transition of the 10th Army Air and Missile Defense Headquarters into a general officer headquarters. He also set the conditions to receive the first-ever nominative Macri, who will continue to enhance our air and missile defense relationships with NATO allies and partners."



## US, Poland continue to grow Air Defense powerhouse

BG Gregory Brady, commander of the 10th Army Air and Missile Defense Command, visited Poland on Aug. 11 and 12 at the request of Polish COL Kazimierz Dynski, commander of the 3rd Surface to Air Defense Brigade, in order to facilitate the planning and execution of future exercises in the European theater.

The two countries will be conducting the Astral Knight 20 exercise in September. Astral Knight 20 is the second iteration of a U.S. Air Force-led exercise intended to produce a valid theater-wide integrated air and missile defense architecture. The U.S. and Poland are focusing on reinforcing NATO deterrence measures and reassuring NATO alliances and partners of a combined tactical defense of Europe.

The U.S. and Poland will also be simultaneously participating in the Tobruq Legacy 20 exercise in Lithuania along with 11 other NATO allies. Tobruq Legacy 20 is a multinational Air Defense exercise. Lithuania will both host and direct the exercise.

During the exercise, U.S. allies and partners will safely deploy and redeploy all equipment and personnel to the host nation country and establish a combined U.S. and European Surface-based Air Defense. The exercise will enhance the combined U.S. and European task force's ability to control defensive fires in central and Eastern Europe and refine the NATO kill chain. It will also enable the development of standard operating procedures. The purpose of this exercise is to enhance interoperability with NATO forces and increase readiness through the integration of land component air missile defense capabilities.

"A trained and ready alliance deters real threats," Brady said. "Participation in Astral Knight 20 and Tobruq Legacy 20 enhances our professional relationships and interoperability with ally and partner militaries. It also allows us the opportunity to demonstrate air



*BG Gregory Brady, commander of the 10th Army Air and Missile Defense Command, shoulders a Polish Air Defense weapon system during a visit to the European theater. (1LT Jacob Moffatt/U.S. Army)*

and missile defense mission command, while simultaneously executing these exercises in Poland and Lithuania. We are proud of our strong relationship with our Polish counterparts in the 3rd Surface to Air Defense Brigade, who will also be receiving the Patriot system in the near future. We look forward to enhancing our air and missile defense capability, increasing security along NATO's eastern flank, and preserving peace."

The Polish Army will be receiving Patriot missile systems in the next two to five years, according to an article in Defense News. The purchase of American-made Air Defense systems has been part of an initiative to deter threats from foreign adversaries. In 2018, President Duda announced a \$4.75 billion deal to purchase and co-produce a mix of air and missile defenses comprised of two layers, Wisła and Narew. Wisła includes the Patriot air defense system."

This visit has been part of an ongoing relationship to pursue enhancement of Poland's overall air defense capabilities. Polish Soldiers assigned to the 37th Air Defense Squadron, 3rd Surface to Air Defense Brigade, visited the 5th Battalion, 7th Air Defense Artillery Regiment, 10th Army Air and Missile Defense Command, in

order to gain more understanding of the Patriot mid-range air and missile defense system and enhance their own training program on Aug. 8 through 10, 2020, at the Baumholder Training Area, Germany.

"We have a long and proud history of friendship and partnership with the Polish Air Defense forces," said LTC Justin Logan, commander of the 5th Battalion, 7th Air Defense Artillery Regiment. "We wanted to take advantage of current training to continue to build and strengthen our partnership."

Polish and American integration into the battalion has been a valuable tool in continued learning for everyone involved, Logan explained. Training, logistics and maintenance operations improve drastically when multinational Soldiers can collaborate.

"We are excited to reach the highest level of interoperability as we can with the U.S.," said Polish Army CPT Daniel Pyza, assigned to the 37th Air Defense Squadron. "We want to obtain wisdom and experience as much as we can while we are here. We have always had great cooperation, and this is a continuation of that relationship."

# Swedish delegation visits US Soldiers in Baumholder

Swedish Soldiers, assigned to the Swedish Air Defense Regiment, visited with the U.S. Soldiers assigned to the 5th Battalion, 7th Air Defense Artillery Regiment, 10th Army Air and Missile Defense Command, in Baumholder to collaborate and mutually understand the operational depth of the defense of European allies and partners on Aug. 18 through 20, 2020.

“We aim to learn from each other in the ways our countries approach air defense,” said LTC Justin Logan, commander of the 5th Battalion, 7th Air Defense Artillery Regiment. “Each and every event we do with our partners and allies we learn more about ourselves and each other. This continues to strengthen the bonds we have with the Swedish Air Defense forces.”

The Swedish Armed Forces and the U.S. military have a strong partnership, Logan explained. The Swedish visit was to observe training and standard operating procedures of the United States. They also discussed future training that the two countries will be conducting both in Sweden and throughout the European theater.

Aurora 20, an Air Defense exercise to be held in Sweden with the U.S., has been postponed due to the Covid-19 pandemic, according to a statement by the Swedish Armed Forces. The exercise, which will include the Air Defense and Air Force units of both countries, will resume at a later date to be determined.

This engagement has not been the first time the U.S. has collaborated with the Swedish Air Defense Regiment this year. This visit is part of ongoing engage-

ments between the United States and Sweden.

BG Gregory Brady, the 10th Army Air and Missile Defense commander, and MAJ Rory McGovern, 10th Army Air and Missile Defense Command's deputy G5, visited Sweden in February 2020. Brady and leaders of the Swedish Armed Forces discussed the modernization and expansion of Sweden's air defense capabilities. They also discussed the possibility of future entry into NATO-recognized and NATO-sponsored exercises, such as Astral Knight and Tobruq Legacy.

Sweden signed an agreement to purchase U.S.-made Patriot air and missile defense systems in August of 2018, according to an article written in Defense News.

The Swedish delegation hopes to learn more about the Patriot system from the experience of the U.S. Air Defense units in Europe, Swedish Armed Forces, said LTC Thomas Wessman, the deputy commander of the Swedish Air Defense Regiment. He expressed excitement for the future of the partnership.

“The cooperation between our countries has been going on for about two years with Air Defense,” Wessman said. “We are here to learn. From the highest command, all the way from Brady, to the 5th Battalion Soldiers, the cooperation from the American Air Defense family has been great.”







Swedish soldiers, assigned to the Air Defence Regiment, visit U.S. Soldiers assigned to the 5th Battalion, 7th Air Defense Artillery Regiment, 10th Army Air and Missile Defense Command, in Baumholder Training Area, Germany, on Aug. 18-20. The Swedish Armed Forces visit was to observe training and to collaborate with the U.S. air defense artillery unit, and to discuss future training that may take place in the European theater. (SSG Andrew Mallett/U.S. Army)



*CPT Mellorie Clinton, commander of D Battery, 5th Battalion, 7th Air Defense Regiment explaining the Patriot Site layout to Capt. Bartosz Rozek, commander of the Polish 3-7th Air Defense Squadron during exercise Astral Knight 20 at Szymany Air Base, Poland, Sept. 22. (CPT Rachel Skalisky/U.S. Army)*



# Joint Multinational Exercise validates aerial and ground force integration in Eastern Europe

Service Members from the 10th Army Air and Missile Defense Command (AAMDC), U.S. Air Forces in Europe and U.S. Air Forces Africa, along with five other NATO countries, conducted Astral Knight 20, a joint multinational Air Defense exercise, on

Sept. 12 through 25 near Szymany, Poland. Astral Knight 20 is designed to enhance interoperability among NATO allies and partners to increase readiness through the integration of land component air and missile defense capabilities.

Astral Knight 20 took place in various locations across Europe: Air Defense forces and the Air Operations center were located in Poland, while aerial and mission command elements simultaneously operated from Italy and Germany. Service Members from





Estonia, Latvia, Lithuania, Poland, Sweden and the United States were involved with Astral Knight 20.

“The purpose of this exercise is establishing datalink architecture and utilizing different systems to understand our capacity and capability,” said BG Gregory Brady, commander of the 10th AAMDC during a Brussels Media Hub engagement. “When you build these different systems together, you can have four or five different physical languages, different mission command elements, different interceptors, but your goal is to establish one single integrated air picture to understand early warning and building upon that situational awareness from a command and control perspective.”

The exercise combined both aerial and ground assets to form a combined air picture. Aerial assets incorporated a variety of U.S. Air Force and Polish Air Force aircraft, including elements of a theatre bomber task force. Ground assets included Air Defense assets such as the 10th AAMDC’s Patriot missile systems and Poland’s 3rd Air Defense Brigade’s SA-3D ground-based missile system.

Training in the Baltic region is aimed to enhance flexibility and interoperability, to strengthen combined response capabilities and demonstrate international resolve. The threat scenarios involved a variety of aircraft, unmanned aerial systems and tactical ballistic missiles with live flyover, simulations and injects to more effectively prepare and maintain cohesion during any joint multinational conflict in U.S. Army Europe.

MG Derek France, director of operations for U.S. Air Forces in Europe and U.S Air Forces Africa, explained the reason behind building complex scenarios with these exercises during a Brussels Media Hub engagement.

“We have forces that are capable of engaging each of those, and when we talk about command and control, which is one of the focus areas of this. It’s about putting the right force to defend against the right threat and the right place at the right time,” said France.

The Air Defense units involved in this exercise had to work together in Szymany, Poland, during this joint multinational environment to defeat and deter the threats. The success of this interoperability is because of the strong trust these units have in each other, which is largely due to the relationships they have built and maintained.

“Training alongside our joint partners and NATO allies is critical,” said CPT Mellorie Clinton, Delta Battery commander assigned to 5th Battalion, 7th Air Defense Artillery. “Our ability to operate in a real-world combat situation relies on so many of our

allies. We make sure we train with our Air Defense counterparts consistently. Training solidifies our interoperability.”

Clinton explained that exercises such as Astral Knight 20 provide units with a unique opportunity to work effectively together and overcome cultural barriers.

“It is incredible to build on past and present relationships with our allies,” said Clinton. “For example, CPT Bartosz Rozek, group commander in the 3-7th Air Defense Squadron from Poland and I went to Air Defense Captains Career Course (ADA CCC) together at Fort Sill, Oklahoma. This unique opportunity has allowed us to work more effectively and speak the same tactical and technical language.”

Rozek also commented on the benefit of training in a combined environment like Captains Career Course, and how it benefitted the Astral Knight 20 exercise for Air Defense forces at Szymany.

“ADA CCC gives a one-of-a-kind opportunity to create both professional and personal bonds that pay off during multinational exercises like Astral Knight 20. Thanks to that experience, allied officers such as myself, have more of a shared understanding and can easily participate in discussion and join all efforts,” Rozek said.

True interoperability is comprised of three things: people, processes and equipment. Astral Knight 20 was an exercise designed to combine all of those things effectively to create a joint multinational air picture with the ability to defend and deter against various threats.

“All of our NATO allies have different capabilities that provide a multi-layered approach. There isn’t one interceptor that can defeat all threats,” said Brady. “So the ability to synchronize the capabilities, understand what our allies have, and then build this architecture really leads to readiness – and readiness matters.”

# NATO Air Defense Forces integrate in the Baltics

Soldiers assigned to 10th Army Air and Missile Defense Command (AAMDC) along with Air Defense forces from nine other NATO countries participated in Tobruq Legacy 2020 from Sept. 14 to 25 at Siauliai Air Base, Lithuania.

Tobruq Legacy 20 is a biennial exercise designed to enhance interoperability between U.S. Air Defense Artillery forces and partner nations' Surface Based Air Defense units.

The exercise tests NATO allies and coalition partners' ability to conduct operations in support of the defense of Europe and to improve NATO's ability to execute integrated air and missile defense operations. Tobruq Legacy refines tactics, techniques and procedures for NATO collaboration and the establishment of a multinational kill chain.

It is important to have Air Defense assets on the modern day battlefield and be able to integrate with our NATO allies.

"Air Defense is a game of chess and it's about understanding the landscape of the battlefield, utilizing your assets, and anticipating the enemy's next course of action to effectively neutralize those threats," said CPT Waverly Washington, Alpha Battery commander, 5th Battalion, 4th Air Defense Artillery Regiment (A/5-4th ADAR). "The training environment was excellent since we had live enemy threats and ground ambushes to create the most realistic training opportunity."

The exercise started with a short-range air defense integration with the Lithuanian Mechanized Infantry Forces. A platoon from A/5-4th ADAR integrated with the Lithuanian King Mindaugas Hussars Battalion; providing Air Defense on the move for a 120km tactical convoy, culminat-



*Soldiers from 10 nations prepare static displays for closing ceremony of Tobruq Legacy 2020 at Siauliai Air Base, Lithuania. Tobruq Legacy 20 is a multinational exercise led by Lithuania. Approximately 750 military personnel from Czech Republic, Estonia, France, Hungary, Italy, Latvia, Lithuania, Poland, and the United States participated in this exercise. (CPT Rachel Skalisky/U.S. Army)*

ing in a breach of Panevezys Air Base.

1LT Benjamin Taitano, from A/5-4th ADAR explained the importance of this maneuver. "It is astounding to see how quickly our Soldiers were able to adapt to the Lithuanian Infantry Battalion's tactics, techniques and procedures in less than 24 hours; providing effective air defense coverage," he said.

Training with our allies is essential in the joint fight not just to refine our procedures, but to establish relationships for our NATO allies and grow together.

"Opportunities to train with our allies and partners allow Soldiers to form bonds and relationships that go beyond tactics and procedures," said CPT Drew DeFabio, Charlie Battery commander, 5th Battalion, 7th Air Defense Artillery. "Camaraderie amongst Soldiers is powerful."

If the call comes to defend our nation and its interests, our Sol-

diers will not only know how to fight alongside our brothers and sisters in arms, they'll know who is there fighting alongside them, DeFabio explained.

This exercise has allowed us the ability to build our relationships and combined processes now, so that we are ready to integrate quickly and deter any potential threat.

"We understand that we don't fight alone, that we will have our allies on our left and right and the only way to be effective is to understand their intent," Washington said. "This is not a simple task, it will come from continuing to work with our partner nations to continue to build strong alliances."

This is the largest air and missile defense exercise of 2020, and allowed the 10th AAMDC to work with allies and partners throughout Europe to ensure the most efficient integrated air and missile defense is being employed.





*U.S. Air Force Lt. Gen. Kevin B. Schneider, commander, U.S. Forces Japan and 5th Air Force, and Japan Air Self-Defense Force Lt. Gen. Hiroaki Uchikura, commanding general, Air Defense Command, visit the 1st Battalion, 1st Air Defense Artillery Regiment northern Japan training site at Misawa Air Base Oct. 28 to gain a better understanding of integrated Air and Missile Defense and 38th Air Defense Artillery Brigade expeditionary capabilities during Keen Sword/Orient Shield 21 which supports planning efforts and multi-domain operations in the Indo-Pacific. (SGT Raquel Birk/U.S. Army)*

## Keen Sword redefines integrated US-Japan Air, Missile Defense

The 38th Air Defense Artillery Brigade deployed units to various locations throughout Japan to validate its ability to expeditiously reallocate defensive resources and create a first-time regionally integrated, layered Air Defense network with joint and bilateral partners during Keen Sword 2021(KS21) from Oct. 26 to Nov. 5.

KS21 is a biennial, Chairman of the Joint Chiefs of Staff-directed, U.S. Indo-Pacific Command-scheduled, and U.S. Pacific Fleet-sponsored field training exercise involving more than 9,000 U.S. military and Japan Self-Defense Forces (JSDF) personnel in and around Japan.

"This exercise is unique because it represents the first time

the 38th ADA participated in Keen Sword since its historic reactivation in October 2018 and the first time Air Defense Artillery fire control officers (ADAF-CO) worked hand-in-hand with joint and combined partners in a tactical field environment," said CPT Daniel F. Emig, Air Defense officer, 38th ADA. "The intent of this exercise was to enhance our

combat readiness and interoperability by combining Air Defense capabilities with those of the U.S. Air Force and Japan Self-Defense Forces and that's exactly what we did."

ADAFCO teams exist in order to integrate Army Air and Missile Defense engagement operations into the joint integrated Ballistic Missile Defense architecture.

"First, we wanted to create and exercise a joint and bilateral command post in order to coordinate how the U.S. and Japan can fight together. Secondly, we worked on defense designs to protect U.S. and Japan assets," said Emig. "These aspects reinforced our commitment to defending Japan, while spearheading the way for future U.S.-Japan Air Defense engagements to fight more effectively."

KS21 helped with the de-confliction of fires by defining roles during simulated air battles.

"Unlike air traffic control, which seeks to keep aircraft separated and flow safely through traffic lanes, tactical control is inherently more dangerous because we are bringing fighters together," said U.S. Air Force Lt Col William Ballard, commander, 610th Air Control Flight. "My unit seeks to successfully facilitate all the Air Force mission sets like offensive, counter airstrikes, escort, defensive counter air, and suppression of enemy air defenses to enable kinetics and be able to employ weapon systems against the enemy while coming together and actively integrating U.S.-Japan air defense, maritime, and land assets in the defense of the United States and Japan."

Japan Self-Defense Force allies shared similar imperatives

"During the exercise, we aimed to enhance our joint/bilateral Missile Defense and Air Defense capabilities together through training with U.S. Air Force fighters/aircraft, U.S. Army Patriot, and Japan Air Self-Defense Force Air and Missile Defense units," said JASDF CPT Masataka Uchii, operations officer, Headquarters, Northern Air Defense Force. "On a personal



*Soldiers with 1st Battalion, 1st Air Defense Artillery Regiment, prepare for a missile reload evaluation at their forward-operating training site, Misawa Air Base, Japan, Nov. 3, to demonstrate Air Defense tactical skill proficiency during Keen Sword. (SGT Raquel Birk/U.S. Army)*

note, I'm honored and excited to train with 1-1st ADA (U.S. Army 1st Battalion, 1st Air Defense Artillery Regiment) Soldiers during KS21 especially because I've attended the U.S. Army Air Defense Artillery School and trained with them 20 years ago. It's been a pleasure working with my U.S. Army counterparts CPT [Stephen] Murphy, [Battery A, 1-1st ADA commander] and CPT Emig. I look forward to conducting this training together again!"

KS21 strengthened bilateral relationships and demonstrated U.S. resolve to support the security interests of allies and partners in the region.

"This exercise is important for the security of the region for a couple of reasons," said MG Viet X. Luong, commanding general, U.S. Army Japan. "First and foremost, we get to train in a realistic environment under multi-domain operations and execute our wartime tasks that are captured under the existing contingency plans and operational plans."

Soldiers were exposed to training environments that challenged and developed individuals, crews, and battery personnel to advance levels of proficiency in Patriot weapon systems with the successful deployment, validation evaluations and redeployment of 1-1st ADA Soldiers and vital Patriot equipment from Okinawa to central and northern Honshu, Japan.

"This was by no means an easy feat as Soldiers assigned to Patriot units at the brigade level and below must be able to successfully pass evaluations through a series of collective events that provide a means for instilling crew integrity, teamwork and unit cohesiveness," said Murphy.

Keen Sword provided the JSDF and U.S. military opportunities to train together across a variety of mission areas in realistic scenarios, enhancing readiness, interoperability, building credible deterrence, and ultimately redefining Air Defense throughout the region.





CSM Jerry J. Jacobitz (left), 32nd Army Air and Missile Defense Command, passes the unit colors to MG Clement S. Coward, commander, 32nd AAMDC, during his change of command ceremony held Aug. 13, 2020, at Noel Parade Field, Fort Bliss, Texas. (SFC Mark A Moore II/U.S. Army)

## 32nd Army Air and Missile Defense Command change of command

MG Clement S. Coward Jr., commander, 32nd Army Air and Missile Defense Command (AAMDC), relinquished command to BG David F. Stewart Aug. 13, 2020, on Noel Parade Field, Fort Bliss, Texas, after a successful two-year tenure as *Blackjack 6*.

Throughout Coward's command, the division supported numerous exercises, executed multiple FORSCOM rehearsal of concept drills in support of contingency mission planning and mission rehearsal exercises for four Air Defense Artillery (ADA) brigades and several ADA battalions.

The command has had units participate in exercises held in North America, Europe, the Pacific, and the Middle East. All of these operations culminated in the 32nd AAMDC's capstone exercise, *Roving Sands 2019*.

The host of the ceremony was GEN Michael X. Garrett, commanding general, U.S. Army Forces Command (FORSCOM), who

gave accolades to the 32nd AAMDC for the great strides the organization has made despite an aggressive and relentless deployment cycle.

"Since Clem Coward took command two years ago, the 32nd has made impressive strides in maintaining readiness and lethality. Under his command, the 32nd has embodied its motto *Swift and Sure*," said Garrett.

Coward thanked Garrett for hosting the ceremony and for recognizing the great men and women of the 32nd AAMDC stating "You provide a command climate across all of FORSCOM that empowers commanders to lead under the mission command environment that you establish no matter where they serve."

He also recognized the major commands, national leaders, and partnered nations who collectively enable the Air and Missile Defense Soldiers to "engage and destroy aerial threats to save and protect

the tens of thousands of the Joint Force spread across the entire Middle East."

Coward concluded his remarks with a simple statement to the Soldiers who he had the privilege to command, "I hope to have made a difference in at least one of your lives because you have made a difference in mine."

Stewart thanked the officers, distinguished guests, the El Paso community, family, friends and Soldiers who were present at the ceremony.

"I am humbled and thrilled to serve in the greatest Army in the world, and looking up at the Franklin Mountains, El Paso is home once again," he said.

Stewart also thanked Coward for his exceptional leadership, care of the Soldiers, families of the unit, and concluded his remarks with "Freedoms guardians, swift and sure, people first, and winning matters."



Soldiers assigned to Delta Battery, 5th Battalion, 52nd Air Defense Artillery Regiment “Team Deuce” receive a convoy brief prior to conducting survivability jumps, relocating Patriot equipment to alternate battle positions in support of Operation Hopscotch at Al Udeid Air Base, Qatar. (1LT Vanda Niemi/U.S. Army)

## Operation Hopscotch

Fifth Battalion, 52nd Air Defense Artillery Regiment, *Team Deuce*, hit the ground running as it assumed its mission in the U.S. Central Command area of responsibility in mid-summer of 2020. At the top of the battalion priorities is the building and confirmation of credible operational readiness in support of its assigned air and missile defense mission. A key element of that credible readiness was the execution of battery-level collective training that required meticulous application of the troop-leading procedures for planning, comprehensive rehearsals, and inspections.

For the Delta Battery, *Direwolves*, assigned to Al Udeid Air Base, Qatar, this training emphasis came together in the execution of its recent Patriot “survivability jump.” Operation Hopscotch, as

it was coined, was the first battery collective event since arriving in theater, focusing primarily on the Patriot unit’s ability to mobilize its equipment, relocate to an alternate battle position, and rapidly emplace and establish full operational capability in order to regain defense of the assigned asset.

The increased sense of purpose and urgency to this exercise was solidified in the battery as this operation met a real-world problem set: ensuring the unit’s survivability through short-notice mobilization and rapid relocation. The *Direwolf Battery* met this problem set with the highest level of execution and the lessons learned proved invaluable for all echelons.

“This jump really made me realize the importance of training and communication down to the lowest level,” said CPL James Reyes.

“Operation Hopscotch forced me to really take ownership of the troops subordinate to me. If [my Soldiers] did not have a clear picture of the overall mission, there was no way we could be successful. It really broadened my perspective on what it means to be an NCO.”

The sustainment and improvement of tactical and technical proficiency of the *Direwolves* is a testament to the commitment of the Soldiers and leaders within the formation. The Soldier’s willingness to continue to improve their craft demonstrates the professionalism of the entire team and training events like Operation Hopscotch serve as a representation of that commitment.





*Charlie Battery loads 4-3rd ADA Battalion equipment onto C-5 and C-17 aircraft at Al Udeid Air Base during Operation Crazy Train. (1LT Haley Scott/U.S. Army)*

## Operation Crazy Train

Immediately after the transition of authority, 5th Battalion, 52nd Air Defense Artillery Regiment, Team Deuce, 11th Air Defense Artillery Brigade, conducted Operation Crazy Train during the summer of 2020 at Al Udeid Air Base, Qatar. This operation demonstrated the teamwork between 4th Battalion, 3rd Air Defense Artillery Regiment and 5-52nd ADA.

Operation Crazy Train consisted of the retrograde of 4-3rd ADA's personnel and equipment out of theater. *Team Deuce* conducted line-haul and air-load operations. This mission allowed 4-3rd ADA Service Members to return to their loved ones promptly. Several batteries across 5-52nd ADA conducted the preparation of the equipment while simultaneously maintaining current real-world mission operations. Operation Crazy Train was executed in a deliberate, methodical, and safe manner, validating unit mission-essential tasks associated with mobility. This operation

identified requirements for future mobility operations within the U.S. Central Command area of operation and redeployment preparation.

Operation Crazy Train was a combined effort between the Army, Air Force and the host nation. This operation was divided into two crucial parts; vehicle line-haul and strategic air movements. The concurrent preparation required communications between all participating entities streamlining overlapping requirements and different standard operating procedures. The global pandemic proved to be a defining hurdle while working in an interagency setting. COVID-19 precautionary measures established by the Department of Defense and the airbase were enforced throughout the operation. This included proper personal protective equipment such as face-covering, gloves, and an abundance of disinfecting products. The mitigating efforts were critical to the overall success

of the mission, resulting in zero infections or illness to Service Members.

Overall, Operation Crazy Train was a success. It effectively concluded with Patriot Systems, rolling stock, and additional equipment departing the country promptly. It allowed *Team Deuce* to obtain lessons learned in preparation for their redeployment shortly. More importantly, 4-3rd ADA Soldiers were able to get back to their families on schedule. This operation truly demonstrated teamwork and how two different units worked seamlessly together as one team.

2LT Bradley Barron, Charlie Battery fire control platoon leader, sums up Operation Crazy Train with "this operation was a challenge, and *Team Deuce* developed many lessons learned. We are also glad to help 4-3rd ADA and alleviate their burden so they can focus on redeployment."



*SGT Keaton Rochester (right) and PVT Caleb Camper (on top of the vehicle), members of Avenger platoon, perform crew drills and reload on the Avenger system Oct. 9, 2020, at Al Dhafra Air Base. (2LT Connor Schiro/U.S. Army)*

## Operation Kashmir

In the late summer of 2020, Echo Battery, 3-4th Air Defense Artillery Regiment, 108th Air Defense Artillery Brigade of Fort Bragg, North Carolina, deployed to Al Dhafra Air Base, United Arab Emirates (ADAB). The deployment of Avenger marked the first Avenger platoon in Al Dhafra Air Base. Their presence enabled joint and combined partnership between 5th Battalion, 52nd Air Defense Artillery Regiment, 11th Air Defense Artillery Brigade, 380th Air Expeditionary Wing (AEW), and Emirati Air Force.

Immediately upon arrival, CPT Matthew Van Dyke, Alpha Battery commander, and 2LT Connor Schiro, 2nd platoon leader, worked diligently with the 380th AEW on integrated base defense. Collaborative working groups established techniques, tactics, and procedures (TTPs). These TTPs were then applied to multiple joint exercises consisting of a live-fly exercise. These exercises involved

multiple platforms, which included KC-130s, C-17s and F-35s. These platforms simulated unknown tracks and enemy threats that tested the Patriot and Avenger's ability to detect, track and discriminate. The Wing Operation Center, Avenger platoon, and the Patriot battery used these exercises to refine TTPs and discover new standard operating procedures while they simultaneously defeated common threats.

"The addition of short-range air defense (SHORAD) elements at Al Dhafra Air Base allows for more flexibility when engaging enemy threats. By incorporating SHORAD systems into the base defense of ADAB, we can better develop systems and processes for integrated Air Defense units moving forward," said Van Dyke.

As the exercises grew, 380th AEW and 5-52nd ADA incorporated the Emirati Air Force, making it a combined effort. Van Dyke and Schiro conducted key leader en-

agements with members of the Emirati Air Operations Center, where they discussed commonalities in procedures and the enemy that threatens the base. They exercised these commonalities through collaborative planning efforts and applied them in combined simulation exercises during the Advanced Tactical Leaders Course in October 2020.

According to Schiro, "these combined training with joint and foreign nations is a stepping stone to build interoperability. It is great to see multiple teams working together for a common purpose."

Fifth-52nd ADA continues to work with the partner nation and sister services to strengthen relationships and enhance capabilities in Air Defense. Alpha Battery's efforts, along with the Avenger platoon, lead to developing the blueprint for Integrated Air Missile Defense for units across the theater.





*SPC Kaci Davis and SPC Dalton Cresap prepare cables on the Antenna Mast Group at Al Dhafra Air Base. (2LT James Holland/U.S. Army)*

## Operation Ballroom Blitz

Sunrise was still several hours away, but the Soldiers of Bravo “Bulldawgs” Battery were finalizing their pre-combat checks and inspections before the kick-off of the Al Dhafra Air Base’s largest Integrated Base Defense Exercise (IBDEX) of the year which took place from Sept. 21 through 24, 2020.

Since arriving in the U.S. Central Command area of responsibility in the summer of 2020, the 5th Battalion, 52nd Air Defense Artillery Regiment, 11th Air Defense Artillery Brigade, conducted multiple training exercises focused on honing their Air Defense proficiency and strengthening the integration of joint and combined partners. For Bravo Battery’s leadership, CPT Michael Felton and 1SG Jason Pagan, the IBDEX provided an opportunity for their Soldiers to demonstrate their tactical and technical proficiency in support of a larger joint training event. Designated Operation Ballroom Blitz, this exercise demonstrated Al Dhafra Air Base’s implementation of joint integrated air and missile

defense, intermixing defensive counter air, counter-unmanned aerial systems, force protection, and ground-based air and missile defense. Key for Bravo Battery was the inclusion of Sentinel and Avenger capabilities entwined with the Patriot formation.

1LT Anthony Singh, Bravo Battery fire control platoon leader, said, “The intent is to maximize the defensive capabilities through combining forces against the various threats in the region.”

For Felton, Operation Ballroom Blitz provided Bravo Battery the opportunity to validate their tactical proficiency and the mobility of a Patriot unit with real-world implications.

“The battery successfully demonstrated the ability to execute a short-notice ‘survivability jump’ by relocating the entire battery to an alternate battle position and continuing mission-based operations defending the primary asset. The rapid emplacement of the Patriot, Sentinel and Avenger systems confirmed the tactical proficiency of 5-52nd ADA’s Sol-

diers but also further cemented their impact in base defense operations.”

Throughout the operation, Bravo Battery Soldiers demonstrated their skillsets and proficiency in conducting crew drills. Although 5-52nd ADA Soldiers have trained and executed these drills while in CONUS, this mission encompassed the circumstances of real-world threats and tension in the battalion’s current area of operations.

SSG David Cheney, Bravo Battery tactical control assistant, said “Ballroom Blitz was an excellent opportunity to get hands-on training with the Soldiers in the battery who have not yet had the opportunity to conduct Patriot mobility in a real-world scenario.”

With this in mind, the Bravo Battery shared a greater sense of urgency and proficiency with each phase of the exercise, ultimately providing the opportunity for squad leaders to train alongside their Soldiers and lead them in support of a larger joint event.





SPC Devyn Carroll assigned to 5th Battalion, 52nd Air Defense Artillery Regiment, performs maintenance on a radar while conducting deep maintenance during Operation Thunderstruck at Al Dhafra Air Base. (1LT Haley Bell/U.S. Army)

## Operation Thunderstruck

Fifth Battalion, 52nd Air Defense Artillery Regiment, had their first major maintenance event in the U.S. Central Command area of responsibility. Operation Thunderstruck proved successful and ensured that the *Team Deuce Battalion* is “Always Prepared!” This operation is the Preventative Maintenance Sustainment Program (PMSP), or deep maintenance, for all of the battalion’s Air Defense systems within theater. Operation Thunderstruck consists of PMSP, academics, technical inspections, and services of conventional equipment.

For more than a month, Echo Company and key maintenance personnel supported these efforts across two countries to accommodate split operations. Each week a different battery participated while the other maintained the real-world mission, providing air and missile defense of assigned assets.

Maintainers worked long hours dedicated directly toward their respective Military Occupation Specialties (MOS) and

even cross-trained into other MOSs to assist in the execution of maintenance across all systems.

“I liked learning about the generator because it helped me familiarize myself with something I do not get to touch often,” said SPC Isaac Brom, a field maintenance team wheeled vehicle mechanic. In total, *Team Deuce* maintainers accumulated more than 5,000 hours over four weeks and recorded 1,000 services across the battalion.

Operation Thunderstruck caught the attention of the host-nation partner in Al Dhafra Air Base. During the battery’s maintenance week, the United Arab Emirates Air Defense Force partnered with the Echo Battery ADA Maintenance Control Section. The two entities worked together, building those important relationships, and discussing the structure of an ADA maintenance program, while comparing priorities of work.

To set the tone for the remainder of the deployment, Soldiers

took advantage of this valuable time to conduct training on maintenance tasks. Field maintenance teams were involved in various training exercises to improve their proficiency and develop lessons learned.

“It was a great opportunity for the mechanics and key maintenance leaders to work directly with the operators to re-establish standards,” said 1LT Haley Bell, Echo Company executive officer.

Upon the conclusion of Operation Thunderstruck, the battalion had touched every piece of Patriot and conventional equipment. The operation strengthened relationships with the host-nation partners and shared best practices. The event successfully postured the units to maintain a high operational readiness rate while also maintaining AMD coverage of critical assets in support of the CENTCOM commander.





1LT Sarun Ponlaung of Headquarters and Headquarters Battery, 108th Air Defense Artillery Brigade manages missile movements throughout the U.S. Central Command area of responsibility. (SGT Christopher Gallagher/U.S. Army)

## 108th Air Defense Artillery Brigade, *Spartan Brigade*

Over the last year, 108th Air Defense Artillery Brigade, *Spartan*, and its subordinate units executed critical air and missile defense missions throughout the U.S. Central Command area of responsibility (CENTCOM AOR). The *Spartan Brigade*, while responsible for the *Top Notch Mission*, managed the largest U.S. Air and Missile Defense force the region had ever seen. The *Spartan Brigade* created and executed a comprehensive defense design that layered Counter-Rocket, Artillery, and Mortar systems, Avengers, Sentinel radars, Patriot systems and Terminal High Altitude Area Defense as part of the Air Defense surge. This defense design saw a bolstering of U.S. Air and Missile Defense in the Kingdom of Saudi Arabia, as well as the first deployment of Patriot units to Iraq since 2003 after Iranian ballistic missiles struck U.S. bases there. As the subject matter experts on the immediate evolutions of Air and Missile Defense in the region, the *Spartan Brigade* contributed lessons learned

to the entire Air Defense Artillery community in order to inform and prepare other units for the complexity of the force's mission.

In June, the brigade, along with 1st Battalion, 7th Air Defense Artillery Regiment and 3rd Battalion, 4th Air Defense Artillery Regiment, uncased their colors at Fort Bragg, North Carolina. Upon redeployment, the brigade reintegrated and took the required actions to mitigate the risk of spreading the novel coronavirus. The *Spartan Brigade* then began modernization efforts as well as individual and crew training, while focusing on the tenets of teamwork, trust, and discipline. The brigade closed out the year preparing for collective training to be conducted in the beginning of 2021. As shown by the success of their deployment and dedication to continue providing premier Air and Missile Defense, the *Spartan Brigade* maintains putting *Deeds Above Words*.

## 1st Battalion, 7th Air Defense Artillery Regiment, *Panther Battalion*

The 1st Battalion, 7th Air Defense Artillery Regiment recently demonstrated its ability to remain “Ready Now” and maintained a “Fight Tonight” posture throughout a year-long Global Response Force deployment to the CENTCOM AOR. Operating in a split-operation environment over two countries, the battalion actively provided air and missile defense for a multitude of critical assets, specifically during heightened tensions in January 2020, where their consistent readiness deterred enemy aggression. The battalion executed defense design planning efforts against off-axis threats, developed and established Patriot expeditionary contingency plans, improved force protection efforts and site security plans, and consistently assumed the highest alert state readiness postures during several periods of heightened tension involving threats to assigned defended assets.

In June 2020, the *Panther Battalion* redeployed to Fort Bragg, North Carolina, where the Soldiers conducted a quarantine period, reintegration, receipt of equipment, uncased its colors, and initiated actions associated with transition back to CONUS-based activities. Shortly after establishing the battle rhythm, the battalion executed major efforts in support of induction into the PDB+8/Configuration 3 modernization program that will field new Patriot equipment to the entire battalion in 2021. Simultaneously, the battalion is executing a training strategy that will take them from individual/crew task proficiency to battery and battalion collective certification provid-

*1st Battalion, 7th Air Defense Artillery, 108th Air Defense Artillery Brigade and 3rd Battalion, 4th Air Defense Artillery Regiment (not pictured) uncased their colors during a ceremony at Fort Bragg, North Carolina, after returning from deployments as part of the Top Notch Mission in Southwest Asia. (CPT Brandon Nalley/U.S. Army)*



ing a trained and certified Patriot battalion next year. The *Panther Battalion* remains ready to defeat aerial threats on a moment's notice. *Panther Strong.*

## 2nd Battalion, 44th Air Defense Artillery Regiment, *Strike Fear Battalion*

The 2nd Battalion, 44th Air Defense Artillery Regiment executed pre-deployment training, mobilization operations, and deployed to provide short-range air defense and counter-rocket, artillery, and mortar (C-RAM) capabilities in support of U.S. Central Command's priorities. Since March of 2020, 2-44th ADAR defeated enemy indirect fire and unmanned aircraft systems to protect critical assets and prevent enemy influence on U.S. and coalition operations. The battalion demonstrated flexibility in a dynamic environment, conducting several site relocations, integrating multiple tiers of air defense, and implementing counter-unmanned aircraft system (C-UAS) into indirect fire protection capability operations.

In January, 2-44th ADAR executed Table XII Certifications and Tactical Operations Center operations at Fort Sill, Oklahoma, achieving 100 percent certification, meeting battalion mission-essential training requirements. The advanced party departed Fort Campbell in early February and integrated at each site with their 1st Battalion, 487th Field Artillery Battalion (HIARNG) counterparts, setting conditions for main body arrival and the eventual transition of authority in March. In support of Operation Freedom's Sentinel and Operation Inherent Resolve (OIR), the battalion occupied eight different sites with C-RAM capability through the course of the deployment. The battalion initiated engagements for a multitude of indirect fire events, protecting critical assets. Another milestone was the battalion driving C-UAS expansion across multiple sites for subsequent analysis and implementation across the larger force. Second-44th ADAR supported optimization efforts and emerging OIR protection requirements for strategic assets by relocating personnel and equipment to meet mission demands. A defining act of the deployment was the emplacement of the C-RAM system at the Baghdad Embassy Complex. This is the first time in U.S. history that a Department of Defense system of this scale has occupied a Department of State compound. Toward the end of the deployment, the battalion's perpetual planning and effective dialog prepared for a successful transition with 1st Battalion, 194th Field Artillery Battalion (IAARNG). Second-44th ADAR Rear Detachment maintained support for the deployed units through multiple lines of effort. They navigated COVID-19 restrictions to prepare later deploying personnel for successful movement, conducted ranges to maintain proficiency, and enabled successful battalion operations from Fort Campbell,





*PFC Christina Morgan of Charlie Battery, 3rd Battalion, 4th Air Defense Artillery Regiment trains with other “Hot Crew” members in a simulated Chemical, Biological, Radiological and Nuclear environment while deployed to Southwest Asia. (1LT Jennifer French/U.S. Army)*

Kentucky. The battalion is due to return and begin training in preparation to answer the Nation’s call again. *Strike Fear.*

## **3rd Battalion, 4th Air Defense Artillery Regiment, *Skystriker* Battalion**

Resilient and poised, 3rd Battalion, 4th Air Defense Artillery Regiment successfully protected U.S. and partner interests in U.S. Central Command during a multi-country, year-long deployment. Quick changes to their mission showcased the *Skystrikers*’ ability to rapidly change their posture in order to protect U.S. allies and economic interests. Within those 12 months, firing batteries with nearly 100 Soldiers each moved deftly within days. Each battery had to mobilize multimillion-dollar Patriot weapons systems between Jordan, Kuwait and Saudi Arabia in order to protect vulnerable regions along the Persian Gulf. Prince Sultan Air Base in the Kingdom of Saudi Arabia was among the most austere of their locations. As the Patriot missile battalion’s presence was key in

protecting U.S. and partner interests, 3-4th ADAR’s Charlie Battery, HHB and Foxtrot Maintenance Company moved west and joined Alpha Battery in Jordan in January.

When an Iranian missile attack struck an Iraqi base hosting U.S. troops in January, the *Skystrikers* were already split between Jordan and Kuwait and deterring strikes amid these heightened tensions. Echo Battery, the only Airborne Air Defense unit in the Department of Defense’s arsenal, rapidly moved their Avenger weapons systems and Sentinel radars from Kuwait to Iraq after the attack.

Most of the battalion returned home to Fort Bragg, North Carolina, in June and were able to reunite with their loved ones. The atypical and challenging mobile deployment foreshadows new defense strategies that U.S. forces may have to implement abroad in order to effectively defend against enemy forces. It proved that the Air Defense battery is a reliable war fighting unit that is prepared to face and defeat aerial threats anywhere on the globe. *Skystrikers, One Team.*



Secretary of Defense Dr. Mark T. Esper meets with Soldiers assigned to the 94th Army Air and Missile Defense Command's Task Force Talon who maintain and operate the Terminal High Altitude Air Defense (THAAD) system at Andersen Air Force Base, Guam Aug. 29 2020. The primary purpose of the THAAD system is to defend against missile attacks. The system consists of a launcher, interceptors, fire control and communications equipment, and the AN/TPY-2 tracking radar. (Senior Airman Amir Young/U.S. Air Force)

## 94th AAMDC, *Sea Dragons*

For the 94th Army Air and Missile Defense Command, headquartered at Joint Base Pearl Harbor-Hickam, Hawaii, change is just part of another day in the Indo-Pacific Command (INDOPACOM). But for 2020, change was the theme for the entire year.

The 94th AAMDC changed command, changed responsibility, realigned subordinate units, and changed and adapted due to the COVID-19 pandemic.

Despite all the transformations that the past year has required, the mission of the 94th AAMDC still remains mission focused; providing top-level, missile defense systems and security to the INDOPACOM region. With this mission the *Sea Dragons* provide decision space in competition and provide freedom of maneuver in crisis and conflict. The 94th AAMDC is the most advanced, geographically dispersed, Air Defense Artillery unit in the world and strengthens the Indo-Pacific Alliances by improving interoperability and building allied and partner integrated Air and Missile Defense capacity.

The year of change began from the very top, as the *Sea Dragon* Ohana farewellled BG Michael T. Morrissey and welcomed BG Mark A. Holler to the top seat at the 94th. Holler came to Hawaii from the Fires Center of Excellence at Fort Sill, Oklahoma, where he was the commandant of the U.S. Army Air Defense Artillery School.

Holler quickly established his priorities to maintain readiness and combat effectiveness without sacrificing the quality of life for the Soldiers, DA civilians, and families of those who serve within the *Sea Dragon* Family.

But changes at the top did not stop with the commander. The *Sea Dragons* would then say farewell to its senior enlisted advisor, CSM Eric McCray, as he moved on to become the Army senior enlisted and commandant sergeant major at the U.S. Space Command, Colorado Springs, Colorado.

Fortunately for the *Sea Dragons*, his replacement came with plenty of experience in the 94th AAMDC



footprint. CSM Neil Sartain, joined a long line of successful *Sea Dragon* Sevens.

Sartain last served as the senior enlisted advisor for the 38th Air Defense Artillery Brigade located at Sagami Army Depot, Sagami, Japan. But this isn't the first time he has worn the *Sea Dragon* patch, so he had a firm grasp on the mission requirements for the IN-DOPACOM.

COVID-19 wasn't going to slow the 94th AAMDC's ability to maintain readiness and training. Conducting meetings and exercises via virtual conferences was going to become the norm for the *Sea Dragons* during 2020.

As a wrap up to a historical year, the 94th AAMDC wanted to do something it hadn't done recently. It was time to shake the dust off the tents, and setup and conduct a command post validation exercise.

While maintaining COVID-19 safety measures to insure the health of Soldiers, the 94th AAMDC exercised its ability to command and control across the battlespace from a forward deployed environment. With HHB and the various directorates coming together to establish an effective command post in a field environment, they learned many lessons as the *Sea Dragons* continue to refine and improve our operating capability.

## 35th Air Defense Artillery Brigade, *Dragon Brigade*

The past 12 months have seen the *Dragon Brigade* overcome unforeseen circumstances, maintain readiness, train and prepare for any future endeavors.

The New Year commenced with the 35th Air Defense Artillery Brigade and the *Dragon Family* holding the annual Saint Barbara's Day Ball to promote esprit de corps and camaraderie. During the evening's celebrations, various Soldiers and family members were inducted into the Honorable Order of Saint Barbara.

During the month of February, the 40th Chief of Staff of the U.S. Army, GEN James C. McConville visited the Soldiers of the *Dragon Brigade* at Camp Humphreys. McConville met with leadership and Soldiers as part of an official visit to the Korean Peninsula.

In March, a change of responsibility ceremony was held as the unit bade farewell to CSM Wilfredo Suarez, as he passed the role of Dragon 7 to CSM Raymond Belk. Suarez served as the brigade's command sergeant major from 2017 to 2020 and went on to retire later that month.

"I am humbled by the opportunity to serve the Soldiers, leaders, families and partners of this phenomenal brigade and continue to build upon the legacy that has been established over the years," said CSM Raymond Belk, command sergeant major of the 35th ADA Brigade. "To the Soldiers, thank you for all you do, the reputation of this brigade is because of the professionalism and excellence you bring to the fight each day."

During the spring months, the *Dragon Brigade* was affected heavily due to the COVID-19 virus causing restrictions to most of the brigade's training. Despite the setbacks, the *Dragon Soldiers* continued to remain resilient by reacting to the restrictions with the implementation and establishment of mission essential personnel, virtual group meetings and setting up virtual private networks the Soldiers could use to continue to stay ready in defense.

The brigade also assisted the Osan Air Base command and Korean counterparts by sending Soldiers to the base entrance gates to conduct proper COVID-19 screening procedures. In addition, the *Dragon Brigade* provided Soldiers and their families, both on the Korean Peninsula and in the U.S.A, with an abundance of cleaning supplies and protective masks. Mass formations and gathering were immediately stopped, and they cleaned frequently visited and touched areas and implemented sanitization stations to contain the spread of the virus.

The flow of important information concerning the COVID-19 virus was also amplified to identify and anticipate any COVID-19 hotspots that were to occur. Preventive guidelines were placed to protect the wellbeing of not only the *Dragon Family*, but of all our allied forces within the area of operations.

As the summer months and height of the permanent change-of-station season started, the 35th ADA Brigade processed over 500 travel exception memorandums to ensure Soldiers and their families were safe to travel to the Korean Peninsula while staying in compliance with health guidelines.

During October, Belk held a professional development program for the brigade first sergeants called "Diamond Time," a three-day program constructed to develop competent and adaptable professionals that will positively impact generations of Soldiers through dialogue and reading material. Topics discussed and built upon included mission command, diversity and inclusion, uniform code of military justice and the Army's "This is My Squad" strategic approach.

"I believe the number one thing is we were all educated," said 1SG Javier Saucedo, first sergeant of Headquarters and Headquarters Battery, 35th ADA Brigade. "And not only did the education come from shared experience but also from the desired effect that Command Sergeant Major Belk wanted to provide given the challenges he sees throughout the brigade."

SFC Nam Trant, 2nd Battalion, 1st Air Defense Artillery Regiment, 35th ADA Brigade career counselor, won both the 2nd Infantry Division Fiscal Year 21 Direct Reporting and 8th Army Active Component Career Counselor of the Year during this time.

"I'm simply a Soldier who wants to be competent at my job. Throughout my career I have encouraged countless Soldiers to compete for recognition, for the spirit of the competition and for self-development. I finally exercised my own advice," said Trant. "I

feel extremely blessed for having the opportunity to compete and for having a chain of command that is very supportive of our retention program.”

October also saw the *Dragon Brigade* winning the 2020 Osan Air Base Cup, marking the fifth straight year the brigade has won and sixth overall.

As the year ends and the brigade prepares for whatever challenges 2021 might bring, the standards of excellence of the *Dragon Brigade* have not wavered. Whether it be unprecedented pandemics, supporting and defending the Korean Peninsula, preparing for the future through training exercises, the resilience, dedication, motivation and expertise of the *Dragon Soldiers* continues to make the 35th ADA Brigade, America’s premier Air Defense Artillery brigade.

## 38th Air Defense Artillery Brigade, *Pacific Guardians*

In just two years since its historic reactivation, the 38th Air Defense Artillery Brigade is fully manned and capable of conducting its warfighting mission by providing support and services to nearly 1,000 Soldiers throughout a geographically-dispersed, unique area of operations in both Japan and Guam. *Pacific Guardians* participated in public health emergency

response shelter-in-place and gate-entry screening drills at their various respective installations to prevent the spread of COVID-19 and ensure the safety of their communities. The 38th ADA Soldiers participated in both U.S. Army Japan’s Army Week and Best Warrior Competition claiming titles at both.

In an Air Defense first, the 1st Battalion, 1st Air Defense Artillery Regiment’s female command team led their battalion to the forefront of a growing trade.

With more than 40 years of combined service, LTC Rosanna M. Clemente, Air and Missile Defense officer, and CSM Melissa Calvo, Air Defense Artillery senior enlisted advisor, led and trained more than 570 troops on rapid modernization Air and Missile Defense capabilities to counter existing and future aerial threats in the Indo-Pacific region. Calvo moved on to be the first female Air Defense command sergeant major of the 30th Air Defense Artillery Brigade, Fort Sill, Oklahoma.

A visit from the U.S. Secretary of Defense to Echo Battery, 3rd Air Defense Artillery Regiment, reflected the strategic importance in Pacific defense posture which would play an outsize role in any future conflict with China.

*Pacific Guardians* validated their wartime mission proficiency with evaluation exercises Resilient Shield at Okinawa and Keen Edge at Sagami General Depot,

COL Matthew W. Dalton, 38th Air Defense Artillery Brigade commander, greets Japan Air Self-Defense Force Gen. Shuji Izutsu, chief of staff, during Keen Sword 21 visit to the 1st Battalion, 1st Air Defense Artillery Regiment’s forward-operating training site at Misawa Air Base, Japan Nov. 3. Keen Sword is designed to enhance U.S.-Japan combat readiness and interoperability while strengthening bilateral and joint relationships. (SGT Raquel Birk/U.S. Army)







*LTC Rosanna M. Clemente, commander, 1st Battalion, 1st Air Defense Artillery, and CSM Melissa Calvo, 1-1 ADA senior enlisted advisor, attend the 15th Antiaircraft Artillery Regiment, Japan Ground Self-Defense Force 5th Anniversary celebration at Camp Yaese June 29. The 15th AAR held an equipment display and demonstration followed by a reception hosting Soldiers, Marines, JGSDF members and Defense Association members. Clemente and Calvo represent the first female command team in Air Defense and continue to spearhead the defense of Japan in the Pacific Theater of operation while inspiring their Soldiers. (1LT Christopher Howie/U.S. Army)*

Japan. These exercises ensured operational readiness in tactical environments involving bilateral and joint, multi-domain training with maritime, aviation and fire elements.

The culmination of this training was evident during the 38th ADA's deployment of units to various locations throughout Japan to validate its ability to expeditiously reallocate defensive resources and create a first-time regionally integrated, layered Air Defense network with joint and bilateral partners during Keen Sword 2021 (KS21).

"This exercise is unique because it represents the first time the 38th ADA participated in Keen Sword since its historic reactivation in October 2018 and the first time Air Defense Artillery fire control officers (ADAFCOs) worked hand-in-hand with joint and combined partners in a tactical field environment," said CPT Daniel F. Emig, Air Defense officer, 38th ADA. "The intent of this exercise was to enhance our combat readiness and interoperability by combining Air Defense capabilities with those of the U.S. Air Force and Japan Self-Defense Forces (JSDF) and that's exactly what we did."

ADAFCO teams exist in order to integrate Army Air and Missile Defense engagement operations into the joint integrated Ballistic Missile Defense architecture.

"First, we wanted to create and exercise a joint and bilateral command post in order to coordinate how

the U.S. and Japan can fight together. Secondly, we worked on defense designs to protect U.S. and Japan assets," said Emig. "These aspects reinforced our commitment to defending Japan, while spearheading the way for future U.S.-Japan Air Defense engagements to fight more effectively."

KS21 helped with the de-confliction of fires by defining roles during simulated air battles.

"Unlike air traffic control, which seeks to keep aircraft separated and flow safely through traffic lanes, tactical control is inherently more dangerous because we are bringing fighters together," said U.S. Air Force Lt Col William Ballard, commander, 610th Air Control Flight. "My unit seeks to successfully facilitate all the Air Force mission sets like offensive, counter airstrikes, escort, defensive counter air, and suppression of enemy air defenses to enable kinetics and be able to employ weapon systems against the enemy while coming together and actively integrating U.S.-Japan air defense, maritime and land assets in the defense of the United States and Japan."

Keen Sword provided the JSDF and U.S. military opportunities to train together across a variety of mission areas in realistic scenarios, enhancing readiness, interoperability, building credible deterrence, and ultimately redefining Air Defense throughout the region.





SFC Maria Sandoval from C Battery, 3rd Battalion, 2nd Air Defense Artillery participates in the unit's M249 range, September 2020. (LTC Lourdes Costas)

## 3rd Battalion, 2nd Air Defense Artillery Regiment, *Lethal Strike Battalion*

The 3rd Battalion, 2nd Air Defense Artillery Regiment (3-2nd ADAR), *Lethal Strike*, Fort Sill, Oklahoma, continues its active engagement in Air Defense operations. During the fall of 2019, the *Lethal Strike Battalion* conducted an Air Defense Gunnery Table VIII certification in order to maintain unit mission readiness. In October 2019, the battalion executed a culminating training exercise, a multi-faceted field training exercise that focused on peer and near-peer engagements within an extensive combat environment.

In January 2020, 3-2nd ADAR received an Immediate Response Force mission, requiring the unit to be ready at a moment's notice to mobilize and deploy within an exceptionally condensed timeline. Upon receipt of mission, 3-2nd ADAR implemented an aggressive training plan, utilizing their Reconfigurable Table Top Trainer lab for multiple Alert State Assumption (ASA) and air battle exercises.

In March, 3-2nd ADAR received orders to deploy into the U.S. Central Command's area of operation

of Kuwait. In preparation for the movement of over 400 Soldiers and 200 pieces of equipment, the unit executed swift and aggressive pre-deployment operations, to include individual Soldier administrative actions like updates to Soldier group life insurance policies, family care plan updates, household goods moves, online Defense Collaborative Services classes, movement preparation area operations, and rail load operations. Third-2nd ADAR accomplished all mission-essential tasks in the midst of a global pandemic, adhering to strict COVID-19 regulations at all times in order to maintain a healthy and capable fighting force prior to and during unit movement. On May 3, the unit's successful deployment showed the *Lethal Strike Regiment's* hard work and dedication paid off.

Upon entry into Kuwait, 3-2nd ADAR immediately entered a 14-day quarantine, in compliance with COVID-19 travel procedures. All deployed *Lethal Strike Soldiers* lodged in a quarantine-staging warehouse, with sleeping areas spaced 6 feet apart with





white cells available for routine COVID-19 testing. Unit leadership utilized this time to conduct Soldier readiness training, like SHARP, EO, Cyber Awareness, MRT, and AMD related classes in order to prepare for the upcoming crew certification verifications. Soldiers also conducted physical readiness training during this time in order to remain ready and vigilant for their upcoming mission. The installation's USO provided activities like bingo and movie night to combat Soldier boredom.

On May 17, the *Lethal Strike Battalion* was released from quarantine and began its two-week-long relief in place/transfer of authority (RIP/TOA) with 1st Battalion, 7th Air Defense Artillery Regiment. Leadership from both units conducted left seat/right seat training in order to execute a seamless handoff of all essential tasks and responsibilities. Battle Rostered Crews (i.e. FDC, ICC, TOC) completed their certifications as a prerequisite for the battalion to assume the mission. During the RIP/TOA, 3-2nd ADAR completed port operations, retrieving all deployed rolling stock from port and convoying it to each battery's respective installations.

On June 1, the Transfer of Authority Ceremony took place between the commander of 3rd Battalion, 2nd Air Defense Artillery Battalion, LTC Lourdes Costas, and LTC Brendan McShea, commander, 1st Battalion, 7th Air Defense Artillery Regiment Battalion. Video

teleconference technology was utilized to maximize attendance of the event while simultaneously adhering to COVID-19 social distancing standards, allowing 108th *Top Notch Brigade* to both view and partake in the day's event.

While downrange, the *Lethal Strike Battalion* implemented routine Operational Readiness evaluations, in order to assess each battery's ability to go from a steady-state of operations to a higher state of alert. After ASAs, crews transitioned into and fought simulated air battles, as a means of increasing the lethality of the engagement control station and hot crews on the ground.

While downrange, Charlie Battery implemented integrated operations with the U.S. Air Force's 386th Expeditionary Wing. In creating and maintaining a professional relationship with sister branch partners, 386th has assisted Charlie Battery with their facilities by improving hard structures on-site and employing their air conditioner mechanics to repair faulty air conditioners. Charlie Battery has also developed a partnership with the co-located Security Force Squadron, attending and participating in threat working groups.

In June, Bravo Battery participated in a Special Purpose Marine Air-Ground Task Force training exercise with USMC VMGR-352 Detachment. Training consisted of Identification Friend or Foe (IFF) Mode 5 and Non-Cooperative Target Recognition (NCTR) exercises. This training enhanced the cross training between sister services in identifying friendly or enemy aircraft from the ground and Patriot systems from the air. During August, Delta Battery conducted combined IFF Mode 5 and NCTR training with 1-189th Aviation Regiment. Training consisted of 1-189th detecting Delta's Patriot radar systems on the ground and Delta Battery identifying CH-47 aircraft within the vicinity of their Patriot site.

Third-2nd ADAR's Communication Relay Group (CRG) Platoon Table VIII certified two crews, in preparation for assuming an integrated mission with the Kuwait Air Defense Forces (KADF). CRG Crew 2 crewmembers had the opportunity to conduct cross training with the KADF CRG platoon in an effort to broaden mutual understanding of air defense communications systems and build a strong professional relationship between the *Lethal Strike Battalion* and coalition partners.

From Oct. 12 to 23 3-2nd ADAR held a two-week long Air and Missile Defense Exercise (AMDEX), Operation Black Panther. The AMDEX consisted of multiple injects and movements, to include site jumps to contingency locations, air battles, MASCAL exercises conducted during daylight and night hours, and the establishment of a remote launcher control station. The purpose of the AMDEX was to create a dynamic and active training environment where leaders and subordinates would have to plan, respond and execute rapidly upon receipt of mission.



*Soldiers from the 4th Battalion, 3rd Air Defense Artillery reunited with their family as part of the unit's redeployment. (Courtesy photo)*

## 4th Battalion, 3rd Air Defense Artillery Regiment, *I Strike*

The 4th Battalion, 3rd Air Defense Artillery Regiment, *I Strike*, had an event-filled year. The unit deployed June of 2019 until July of 2020 to the United Arab Emirates (UAE) and Qatar. The Soldiers of 4-3rd ADAR saw times of immense pressure and endured turbulent situations throughout their extended deployments. Although the battalion ran into several obstacles, every man and woman with the unit persevered. The start of the new decade began in an unexpected way. Tensions were heightened January 2020 due to the geopolitical situations in U.S. Central Command area of operation. Patriot units have not experienced such situations since 2006 yet 4-3rd ADAR's training paid off. They responded perfectly to the increased strains and requests. Everything that occurred during the period of uncertainty was a validation of the hard work and training that all the Soldiers and leaders accomplished.

While the line batteries worked hard to accomplish the mission at hand, they never stopped training. The entire battalion completed a successful Table VIII certification while maintaining coverage over all assets in UAE and Qatar.

As the intensity lowered in the next few months, the battalion had a new obstacle, COVID-19. The 4-3rd ADAR maintained readiness and defense of assets despite the global pandemic influencing all aspects of life throughout the world.

In May, the battalion competed for the *I Strike* Best Crew competition awards. Each line battery conducted their own individual analysis of their Soldier's skillsets and abilities. After some fun unit rivalry, one battery rose above the others. The winner was Alpha Battery, commanded by CPT Denver Reese.

After 12 months of being overseas, the unit began preparations to return to Fort Sill, Oklahoma. The unit replacing 4-3rd ADAR arrived and, the Soldiers had to complete a hasty relief in place/transfer of authority as a result of the 14-day quarantine.

As the summer approached, the unit began its redeployment back to the states after a 13-month deployment. The Soldiers arrived back at Fort Sill, Oklahoma, on July 28. The reunification of families was a joyous occasion. All the Soldiers were finally home with their loved ones after their long separation. Due to COVID precautions set in place at the installations, they were placed on quarantine status, and given time to spend with their families.

The change of command from LTC Jeff Porter to LTC Craig Cotner was another major change to the battalion. As we say goodbye to one inspiring leader, another takes the reins. Cotner took command on July 14.

As the battalion restabilized after the long deployment, battle rhythms and training started again. Conventional equipment began to roll in early in September. As convoy operations and motor pool Mondays resumed, the battalion returned to the basic warrior skills that are essential to every man and woman in the Army. The focus of this quarter is individual and team movement and battle drills. Every battery trained hard to reach the goals of large-scale combat operations and Expert Soldier Badge.

Every Soldier within the unit gave all their effort on every training event to prepare for all possible situations that could arise in the future. The members of 4-3rd ADA Battalion play a major role in the development of skills and abilities.



# 100th Missile Defense Brigade assures mission throughout 2020



*MAJ Jeremiah VanDorsten, a 100th Missile Defense Brigade (GMD) deputy crew director, enters the secure facility at Schriever Air Force Base in Colorado April 30, 2020, where the 100th Brigade operates as the only missile defense brigade in the U.S. military. Since the onset of the pandemic, the 100th has implemented measures to ensure the continued execution of its mission including sequestering crew members from their homes and families. (SSG Zachary Sheely/U.S. Army National Guard)*

As the stranglehold of the COVID-19 pandemic tightened its grip on America in 2020, the focus for the Soldiers of the 100th Missile Defense Brigade Ground-based Midcourse Defense (GMD) was singular – maintain the mission, no matter what.

That mission is the federally mandated defense of the United States homeland from intercontinental ballistic missile attack. A limited number of U.S. Army Soldiers in Alaska, California and Colorado operate a sophisticated fire control system that can, on-order, launch ground-based interceptor missiles to destroy incoming warheads in outer space. This is a task that cannot be done from home, as missile defense crews operate together within the walls of secured facilities.

Throughout 2020, the 100th Missile Defense Brigade crews at the Missile Defense Element at

Schriever Air Force Base, Colorado, and 49th Missile Defense Battalion crews at Fort Greely, Alaska, have enacted measures to ensure the uninterrupted continuation of the mission during the global pandemic environment.

This was formalized with the establishment of a Mission Assurance Program, which has included sequestering crewmembers while they are on shift and certifying additional staff and non-battle rostered Soldiers to provide operator depth.

“I deployed to Afghanistan with an infantry platoon, so I know what it’s like to be truly deployed to a mountainous combat outpost in a war zone,” said SSG Hayden Murray, a 100th Missile Defense Brigade readiness operations officer. “This is different, but not completely. We are ‘deployed in place,’ and our job is the defense of the homeland. At any time, we

could go into a war posture and we must be able to engage threats 24/7/365.”

The brigade has operated on that around-the-clock continuum since 2004, its war posture predicated on the steadily increasing nuclear missile capabilities of near-peer nations and rogue states. Two redundant crews work in concert under the command and control of U.S. Northern Command.

These Soldiers are the human interface to the highly automated GMD Fire Control System. Any degradation to crew readiness could leave America vulnerable to a nuclear detonation on U.S. soil.

The missile defense crews are configured in five-Soldier teams, with each member serving in a position of varied roles and responsibilities. Once 100th Missile Defense Brigade Soldiers – whether active component or National Guard – clock in for duty, they immediately transition to Title 10 and operate under federal authority.

SSG Joseph Harris, a readiness operations officer in Colorado Springs, said he feels especially fortunate to serve in the 100th Missile Defense Brigade during this time of uncertainty.

“It’s an honor to be part of something that means so much more than oneself,” Harris said. “We understand that this is a strange and absolutely difficult time, but we will get through this, and we will come out stronger on the other side.

“To our adversaries, we are always ready,” he continued. “There is no fighting force in the world as prepared and ready as the United States military.”

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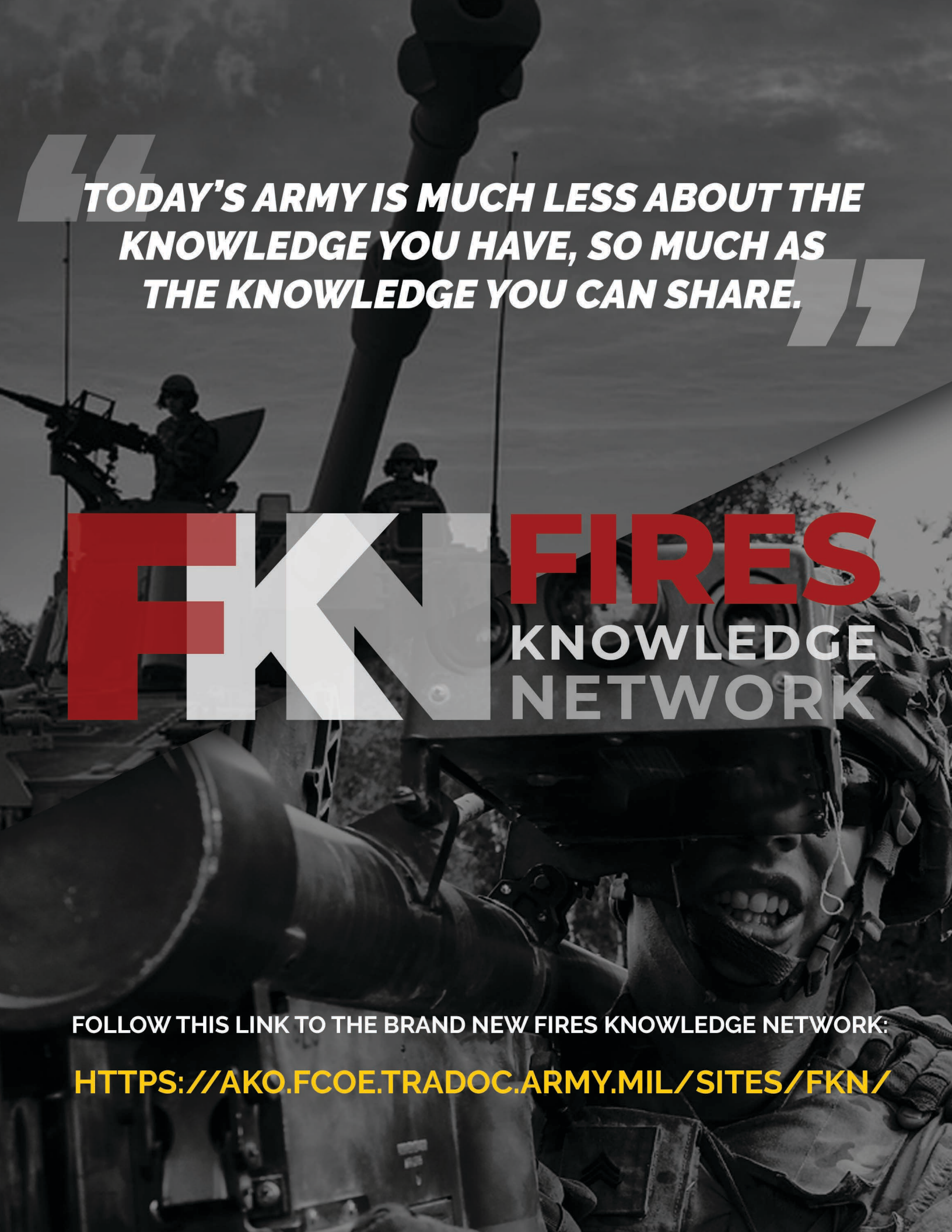
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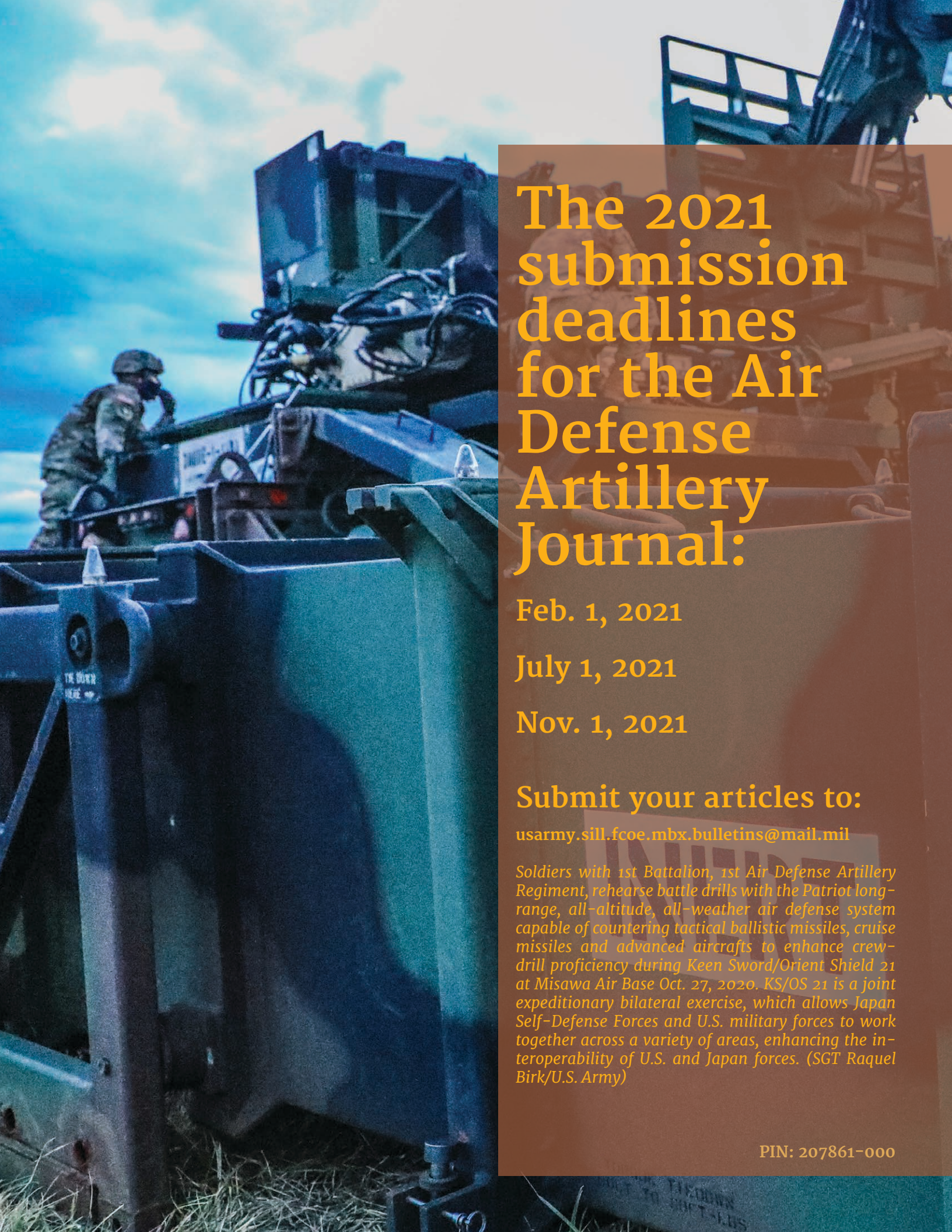
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# The 2021 submission deadlines for the Air Defense Artillery Journal:

Feb. 1, 2021

July 1, 2021

Nov. 1, 2021

**Submit your articles to:**

[usarmy.sill.fcoe.mbx.bulletins@mail.mil](mailto:usarmy.sill.fcoe.mbx.bulletins@mail.mil)

*Soldiers with 1st Battalion, 1st Air Defense Artillery Regiment, rehearse battle drills with the Patriot long-range, all-altitude, all-weather air defense system capable of countering tactical ballistic missiles, cruise missiles and advanced aircrafts to enhance crew-drill proficiency during Keen Sword/Orient Shield 21 at Misawa Air Base Oct. 27, 2020. KS/OS 21 is a joint expeditionary bilateral exercise, which allows Japan Self-Defense Forces and U.S. military forces to work together across a variety of areas, enhancing the interoperability of U.S. and Japan forces. (SGT Raquel Birk/U.S. Army)*

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