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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.

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Year in Review

The Air Defense Artillery Branch is the most relevant it has been in decades. The growth, modernization, and demand for ADA formations and weapon systems globally are indicative of the branch's significance today, tomorrow, and for many years to follow. There are many clichés to describe the current state of the branch and simply put, 2019 was the icing on the cake. This year's many accomplishments across the branch clearly demonstrated the combat readiness and lethality the Department of Defense and Army senior leaders expect from our formations. These successes will continue because of the commitment of Soldiers, civilians and families who serve daily.....and because "Winning Matters!"

As we look back on 2019, it is worthwhile to mention a few monumental events which significantly impacted the branch over the last 10 years. The first and foremost event was the homecoming of the U.S. Air Defense Artillery School from Fort Bliss to Fort Sill and the creation of the Fires Center of Excellence. The branch played a vital role in the missions of our nation to include; the end of Operation New Dawn, the rise of the Islamic State, Operation Inherent Resolve, Operation Enduring Freedom and the pivot to the East while remaining active through deterrence against a pacing threat. The Army identified six modernization priorities and created the Air and Missile Defense Cross Functional Team. GEN Mark A. Milley, Chief of Staff of the Army, reinforced the need for Air Defense when he stated, "without air defense, you're dead!" The branch has grown and seen modernization of the Terminal High Altitude Air Defense (THAAD) weapon system, the rebirth of

short-range air defense and the non-dedicated stinger program.

Twenty-nineteen was undoubtedly the year of execution. In support of the ADA School priorities: Leader development, ADA proponentcy and force modernization, the team remains focused on doctrine, organization, training, material, leadership and education, personnel, and facilities (DOTMLPF) solutions and the return on investment of every Soldier, civilian and family member. Developing leaders through increased rigorous training and education is the cornerstone of what we do. The goal is competent, committed, disciplined and resilient ADA Soldiers across all cohorts who will build, maintain and support winning teams to

expertly perform assigned tasks, achieve organizational objectives and accomplish the mission. We will support the current and future force through branch advocacy and programming. This support will ensure ADA equities are fully represented across all DOTMLPF domains to enable current readiness and help shape the force to win in high power competition and large-scale combat operations. Supporting ADA force modernization ensures our branch identifies, tests and procures the most lethal systems suited for joint, inter-agency, intergovernmental and multinational operations. This force modernization will allow us to achieve strategic, operational and tactical advantages against state and non-state

Soldiers from Task Force Talon, 94th Army Air and Missile Defense Command, practice missile reload and unload drills on a Terminal High Altitude Area Defense (THAAD) system trainer at Andersen Air Force Base, Guam, Feb. 6, 2019. (94th AAMDC)





Florida Army National Guard Soldiers from the 265th Air Defense Artillery fire a Man-portable Air Defense System during a live-fire exercise at a drone over the desert training area of Fort Bliss, Texas. (SGT Brad Mincey/108th Public Affairs Detachment)

actors to maintain pace with the ever-changing character of war.

Currently, Patriot remains the branch's source of strength and projection of our nation's strategic resolve to defend our homeland and the critical geopolitical assets of our allies and partners. THAAD and Indirect Fire Protection Capability formations continue providing upper-tier protection and rocket, artillery and mortar protection, respectively. Albeit small in capacity today, Maneuver-Short Range Air Defense (M-SHORAD) and non-dedicated stinger team capabilities continue to increase and provide the much-needed SHORAD capability to the maneuver force.

I would be remiss not to mention contributions of the Army National Guard ADA formations.

Army National Guard ADA brigades, battalions and battery formations, along with active duty for operational support, remain engaged around the globe. With over 400 Soldiers deployed, these units have supported combatant commands in numerous multinational and joint exercises to include Saber Guardian, Vigilant Shield and Amalgam Dart.

Lastly, talent management has a renewed focus across the Army. The Battalion Commander Assessment Program was created to assess better candidates who opt to compete for battalion command. Additionally, the Army's Direct Commissioning Program will have a positive impact. Closer to home, the Office of the Chief of Air Defense remains committed to improving U.S. Military Academy and Reserve Officer Training

Command accessions. Warrant officer accessions and retention programs also remain a focus area to enhance current on-hand numbers.

In closing, I am grateful to all Soldiers and civilians who continue to serve, and to the family members who sacrifice daily. Additionally, I want to congratulate the 2019 recipients of the James A. Shipton, Charles Sage, Henry A. Knox and Alexander Hamilton Awards, who together epitomize the excellence of the Air Defense Artillery Branch.

Shipton Award: CPT Cody Williams, B Battery, 3rd Battalion, 6th Air Defense Artillery

Sage Award: CPT Eric Grant, B Battery, 1st Battalion, 256th Air Defense Artillery

ADA Knox Award: C Battery, 3rd Battalion, 4th Air Defense Artillery Regiment

Hamilton Award: C Battery, 1st Battalion, 188th Air Defense Artillery, North Dakota Army National Guard

The year 2020 is off to a fast start. The ADA School will continue to focus on leader development, talent management, better integrated officer and noncommissioned officer courses and increased rigor as we refine the Pre-Command Course. We will realign courses to meet M-SHORAD requirements, which will include the Stryker Leader and Master Gunner Courses at Fort Benning, Ga. Also, we will get Air Defense scenarios back into the combat training centers. We will implement these initiatives as the branch continues to grow, modernize and provide trained and ready forces when our nation calls.

First to Fire!

David E. Shank
Acting Commandant
U.S. Army Air Defense School
FIRES Center of Excellence
Fort Sill, Oklahoma



*LTG Daniel Karbler
Commanding general, U.S. Army
Space and Missile Defense Command*

CPL Rogelio Argueta, assigned with Task Force Talon, 94th Army Air and Missile Defense Command, gives commands during practice missile reload and unload drills on a Terminal High Altitude Area Defense system trainer at Andersen Air Force Base, Guam. (CPT Adan Cazarez/U.S. Army)

Integration

The key to defeating future air and missile defense complex threats

The future operating environment that Air and Missile Defense (AMD) forces will face in 2028 is characterized by increasingly complex threats and the ability of adversaries to contest U.S. forces in all domains. The proliferation of low-cost technologically advanced adversarial capabilities such as short-range rockets, cruise missiles and unmanned aerial systems creates challenges for the U.S. Army AMD mission. Coupled with high operational tempo and limited resources, kinetic Army AMD systems e.g., Patriot, Ter-

restrial High-Altitude Area Defense System and future short-range air defense capabilities alone will not be enough to counter the growing threat adversaries will be able to employ on the battlefield.

The vice chairman of the Joint Chiefs of Staff GEN John Hyten has emphasized the concept of all-domain operations, and stressed the importance of integration across all domains. The Army's approach to AMD fits well within this construct. It includes integrating offensive and defensive fires, global AMD integration, and conducting



operations with a view toward a “joint kill web” instead of the traditional “joint kill chain.”

We understand we cannot win the AMD fight solely through active defense measures. Today, the proliferation of low-cost enemy systems, coupled with sizable missile inventories, provide a capacity advantage to our adversaries. Integrated measures must be taken to help deter, defeat and disrupt enemy air and missile capabilities before, during and after launch. Attack operations, left-of-launch capabilities and passive defenses all play critical roles in this approach.

Senior leaders in the Department of Defense have recently

touted joint all-domain command and control as the lynch-pin for joint force integration. We should be proud of our leading efforts in Army Integrated AMD, as it is designed to accomplish this for our AMD forces. It combines all AMD sensors and effectors, and a common mission command capability across a single fire control network, which provides a high-fidelity single integrated air picture for leaders and operators.

The Integrated AMD Battle Command System (IBCS), currently being fielded, is the common mission command of Army Integrated AMD and provides the functional capabilities to control and manage sensors and shooters. The IBCS

A Soldier with Task Force Talon, 94th Army Air and Missile Defense Command, looks inside his tool bag before unloading a missile round trainer part of a Terminal High Altitude Area Defense weapon system during a missile round pallet de-configuration and reconfiguration training exercise on Andersen Air Force Base, Guam. (CPT Adan Cazarez/U.S. Army)



will provide the Army a common integrated and networked AMD command and control capability, which will allow the warfighter to fully integrate joint and multinational AMD capabilities across all echelons. The IBCS will provide commanders the ability to tailor AMD forces to provide the most effective layered tiers of sensors and shooters to defeat future AMD threats. It, in effect, becomes the joint kill web.

I view the joint kill chain as a sequential stove-piped process and it is a sub-optimal way of engaging a target. Information will now be collected from all IBCS-enabled sensors in theater, across all domains — a 360-degree mesh of capabilities — no longer moving in the traditional linear pathways of legacy networks and Air Defense Artillery systems. This creates a kill web—an interconnected complex overview that provides a comprehensive picture to leadership at all levels.

Upgraded artificial intelligence that combines combat identification, automated battle management aids, the single integrated air picture and integrated fire control will assist operators and leaders in making the best decisions faster. Army AMD forces will now process identification and engagement operations on a network consisting of integrated sensors and shooters that provides advanced situational awareness to Army leadership, improves decision-making, mitigates fratricide and increases overall AMD engagement operations effectiveness.

When IBCS becomes fully operational, it will enable offense-defense integration between future Fires forces. Reliable, rapid and agile linkages between sensors and shooters will provide cross-domain data to both offensive (Long-Range Precision Fires) and defensive (AMD) Fires. Informed by the sensor network, target data will be available to Fires networks; appropriate shooters will pair quickly, either automatically or by a decision maker; and Fires will be delivered across all domains. The

IBCS will also provide increased situational awareness and information flow to decision makers, resulting in more efficient targeting processes and more effective attrition of enemy capabilities, which will mitigate AMD capacity gaps and increase overall AMD effectiveness in theaters.

U.S. Army AMD forces have an exceptionally high operations tempo, with more than 50 percent forward stationed or deployed over the last decade, assuring our allies and partners and providing a credible deterrent to our adversaries. Despite the importance of the Army's global AMD mission, foreign disclosure and equipment differences provide serious challenges when working with our allies and partners. AMD forces must continue to pursue higher levels of interoperability with allies and partners, which will increase the capabilities of the combined defense. The Army must continue to reduce the barriers of foreign disclosure, increase technical integration and interoperability, and emphasize the necessity of shared responsibility. An increase in interoperability between Army and allied and partner forces will lead to increased shared mission responsibility and relief of AMD forces from previously enduring missions abroad. Global integration with our allies and partners will help alleviate the tremendous stress on the AMD force.

New concepts such as all-domain operations and joint all-domain command and control have provided the AMD force an opportunity to showcase that we are thought leaders in the development of our forces and doctrine and modernization of our capabilities. We understand the importance of conducting integrated operations and how to apply it to the joint war fight. Our Soldiers and weapons stand ready to meet the challenges of today and into the future.



From the desk of the director of Air and Missile Defense Cross-Functional Team

The Army has come a long way over the last few years in terms of readiness, modernization and reform, specifically in relation to air and missile defense. The U.S. first developed an interest in missile defense capability, during WWII when we observed German missile attacks on Italy. Since those early years we have significantly progressed and will continue to do so. Advancements in technology are changing the face of the future battlefield and AMD is at the leading edge of that race.

The Army's weapons systems and equipment need to continue to evolve in order to ensure future battlefield successes. We stood up Army Futures Command and its eight Cross-Functional Teams last year to drive the Army's six modernization priorities, and air and missile defense remains one of them.

The Air and Missile Defense Cross-Functional Team (AMD CFT) works to reduce or eliminate capability gaps, by rapidly integrating and synchronizing the requirements for the development process, acquisition process and resources to deliver air and missile defense capabilities to the warfighter. Our CFT is responsible for four signature modernization efforts.

When the AMD CFT stood up in February of 2018, there were three people on board; we have grown to a team of 30. Even though our team may be small in number, we are not lacking in skill, talent and dedication. Our Soldiers and civilians work together and in collaboration with our air and missile defense counterparts, across the Army and military enterprise to realize our priorities. Those priorities are:

Army Integrated Air and Missile Defense

The Army's Integrated Air and Missile Defense (AIAMD) program applies distributed mission command to maximize sensor detection and weapon system engagement capabilities. AIAMD's open architecture maximizes employment flexibility, reduces stress on the Air Defense force and enhances protection of additional critical assets over a larger battlespace. The AMD CFT will help to prioritize future software builds to integrate



BG Brian Gibson

PFC Carlos Canez, from 3rd battalion, 66th Armored Regiment Fort Riley, Kan., fires a stinger missile during a live fire exercise as part of Shabla 19 in Shabla, Bulgaria on June 6, 2019. (U.S. Army Air Defense Artillery School/Courtesy photo)



future AMD components, such as Lower Tier Air and Missile Defense Sensor (LTAMDS) and Indirect Fire Protection Capability (IFPC), as well as integrate with other Joint Force systems such as Command and Control, Battle Management and Communications. AIAMD had two successful Flight Tests in 2019, and we are now entering into our developmental testing period. AIAMD fully supports the vision of the Joint All Domain Command and Control Concept.

Maneuver – Short-Range Air Defense (M-SHORAD)

Maneuver – Short-Range Air Defense (M-SHORAD) provides the capability to defend maneuvering forces against unmanned aerial systems (UAS), as well as rotary wing and fixed wing aerial threats. The first prototype was delivered one year after the Other Transaction Authority was approved and we now have five out of five prototypes in testing. As a testament to the rapid acquisition strategy, the first five prototypes for Initial Maneuver Short-Range Air Defense (IM-SHORAD) were delivered to the government in September 2019 in preparation for developmental testing. An IM-SHORAD prototype was also revealed at the Association of the United States Army in October 2019, as well as another prototype was used on the set of ESPN's "College Game Day" show in December 2019 as a feature during the Army/Navy game. The Army remains committed to field four SHORAD battalions by FY2023.

Indirect Fire Protection Capability (IFPC)

Indirect Fire Protection Capability (IFPC) provides the capability to defend fixed and semi-fixed assets against sub-sonic cruise missile and UAS threats, with residual capability against fixed wing and rotary wing aircraft. In accordance

with the Oct. 31, 2018, and Dec. 17, 2018, reports to Congress, the Army intends to purchase two Israeli Iron Dome batteries as an interim IFPC solution. The Army awarded a contract on Dec. 5, 2019, to procure two Iron Dome batteries. These units will also fulfill the Secretary of Defense certified need for an interim cruise missile defense capability in accordance with the FY19 National Defense Authorization Act. The Army is finalizing the plan for Enduring IFPC.

Lower Tier Air and Missile Defense Sensor (LTAMDS)

Lower Tier Air and Missile Defense Sensor (LTAMDS) is a critical sensor capability to counter advanced threats and take full advantage of the Patriot Missile Segment Enhancement. LTAMDS is the replacement for the current Patriot radar and provides significant improvement, and ultimately begins the process of replacing the Patriot system. A competitive vendor selection process was conducted in the 3rd and 4th quarters of FY 2019 and a contract was awarded to Raytheon in October 2019 to build the first six prototypes. Prototype development is ongoing, with the prototypes scheduled for delivery to the Army for testing in 3rd Quarter FY21.

AMD CFTs programs are only a small but critical piece of the Army's Signature Modernization Efforts that will enable success in the future operational environment. There is no silver bullet solution to air and missile defense. We must have a tiered and layered mix of capabilities to defeat the complex threat-set of our adversaries. AMD CFTs four programs are in the forefront of weapons modernization that will be part of an integrated network of capabilities that ensure our success on future battlefields.





A U.S. Army Land-Based Phalanx Weapon System gun, part of the Counter-Rocket Artillery and Mortar System, engages an enemy indirect fire attack. (U.S. Army/Courtesy photo)

Owning the skies, winning the fight

1LT Nicholas Culbert and MAJ James Watson

In today's world of self-driving cars, Bluetooth technology, 5G broadband and ever smarter "smart" phones, we are, without a doubt, the most technologically fortunate generation in human history. In facilities across the world, we are testing bullets that fire underwater, stealth aircraft that can bypass enemy radars and exoskeletons to improve a Soldier's physical performance during combat operations.

As we advance our technological capabilities, so do our adversaries. Ironically, this is done by using incredibly rudimentary tactics, techniques and procedures like reverse engineering captured technologies. Emerging capabilities like unmanned aerial systems (UAS) equipped with conventional battlefield weaponry provide adversaries with a low-tech, cost-effective manner by which to develop their own technology and strike our interests.

The weaponization of the UAS platform is becoming increasingly proliferated and represents a grave threat to any asset on the ground. Often times, it's as simple as procuring a commercial, off-the-shelf drone and modifying it with an explosive payload. In other situations, enemy forces employ trailer-mounted, single-use attack drones to survey, target and disrupt U.S. and partner forces.

The enemy can now, unlike any time before, attack and observe U.S. forces quickly with minimal risk to themselves. With such a broad scope of threats, comes a myriad of complexities and challenges to Air Defenders of the 21st century. First and foremost in every Air Defender's mind is the no-fail mission of friendly protect. That is the protection of U.S. and coalition forces from aerial attack, missile attack and surveillance, the branch's primary mission.

Too often when dealing with "low and slow" or Group 1 UAS like quadcopters, we are not permitted to execute a kinetic engagement in timely manner due to lengthy battle drills that aim to reduce collateral damage. This ultimately results in no engagements, loss of targets and missed opportunities to defeat the threat. Every missed chance is an opportunity for the enemy to strike, gather more intelligence and plan the next attack.

Due to the risks associated with kinetic engagements of Group 1 UAS, time-consuming procedural actions have been developed as part of risk mitigation efforts for ground commanders. This ultimately benefits the Group 1 UAS threat and leverages their ability to operate around U.S. and coalition forces uncontested.

New upgrades to the Counter-Rocket Artillery and Mortar (C-RAM) system and its' 20 mm

Land-Based Phalanx Weapon System gun allow for engagement of Group 1 UAS, among other targets, like incoming enemy indirect fire. Alongside C-RAM, the U.S. Army has employed the Howler system equipped with a KuFRS radar which provides a near-hemispherical, dome-like radar picture. The Howler platform also utilizes the Coyote counter-unmanned aerial systems (C-UAS) missile and is postured to support a high-energy laser in the future. Point being, partnered with existing systems like the reliable and battle-tested Sentinel radar, Air Defenders have a variety of tools to counter the emerging C-UAS threat.

The Air Defense Artillery must truly own the UAS engagement process. Becoming secondary decision makers in a time-consuming joint kill chain will further allow the C-UAS threat to operate uncontested across the battlefield. Allowing ourselves to take a backseat to our own mission, especially with relevant and updated technology at our disposal, can make our efforts for naught and lives may be put at risk. The solution to mission ownership is safe, on-the-spot airspace deconfliction, airspace seizure and control and delivering kinetic and non-kinetic effects. Coupled with responsible decisiveness, integration of security forces and notification of base commanders through well-rehearsed battle drills, Air Defenders can help deliver peace of mind to leaders and take a more decisive role against this proliferating threat.

1LT Nicholas Culbert is the brigade adjutant of the 108th Air Defense Artillery Brigade, headquartered at Fort Bragg, N.C., and forward deployed to Southwest Asia in support of Operations Enduring Freedom and Spartan Shield.

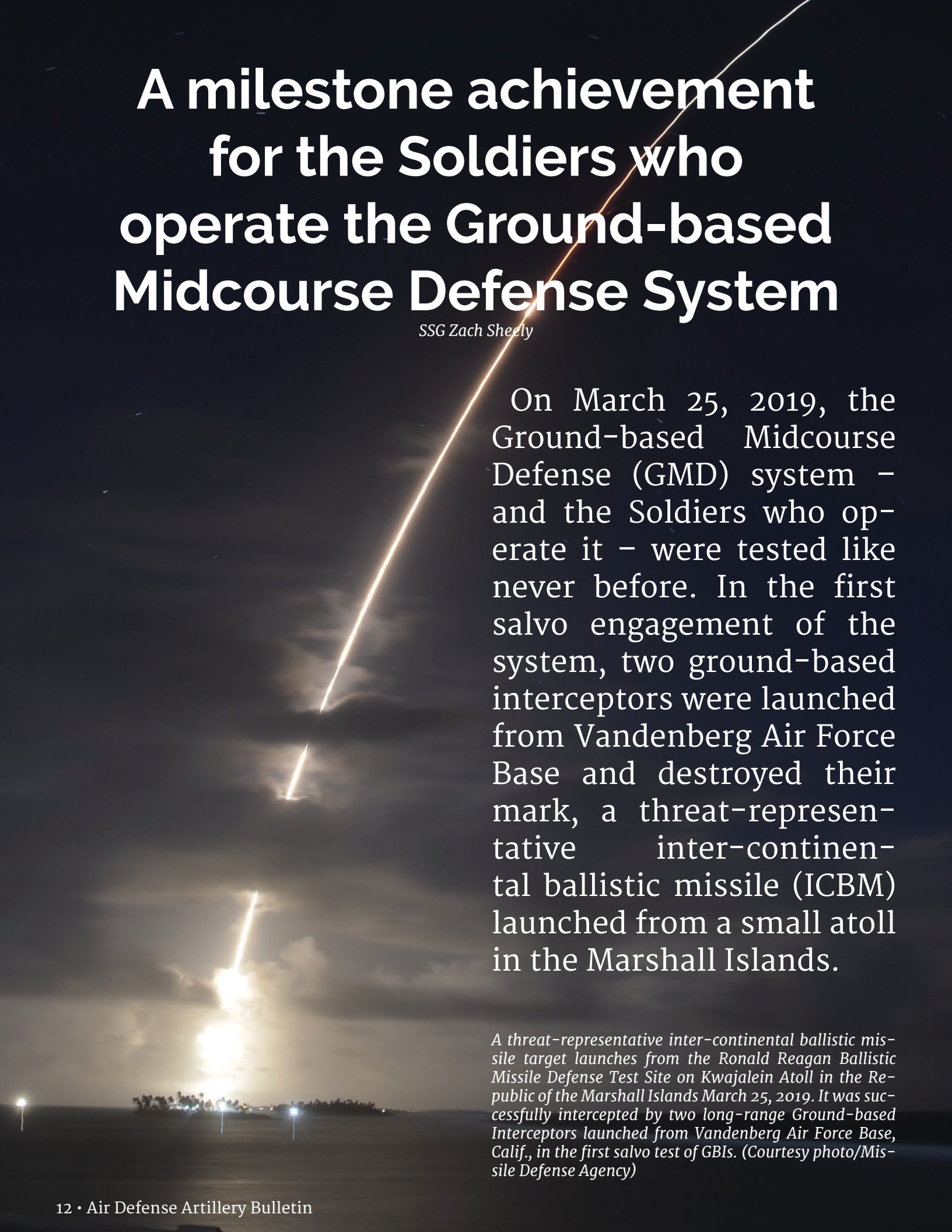
MAJ James Watson is the executive officer of the 2nd Battalion, 44th Air Defense Artillery, stationed at Fort Campbell, Ky. The 2-44th ADA is preparing for an upcoming deployment in support of Operation Freedom's Sentinel.



A Howler system with a KuFRS Radar and Coyote CUAS launchers. The Howler uses the Coyote missile which is a missile-like drone to destroy threats not engageable by the LPWS. (Photo courtesy Raytheon)



An allied Soldier displays a Group 1 UAS quadcopter modified for the deployment of a 40 mm grenade. (Michael Utterback/Courtesy photo)



A milestone achievement for the Soldiers who operate the Ground-based Midcourse Defense System

SSG Zach Sheely

On March 25, 2019, the Ground-based Midcourse Defense (GMD) system – and the Soldiers who operate it – were tested like never before. In the first salvo engagement of the system, two ground-based interceptors were launched from Vandenberg Air Force Base and destroyed their mark, a threat-representative inter-continental ballistic missile (ICBM) launched from a small atoll in the Marshall Islands.

A threat-representative inter-continental ballistic missile target launches from the Ronald Reagan Ballistic Missile Defense Test Site on Kwajalein Atoll in the Republic of the Marshall Islands March 25, 2019. It was successfully intercepted by two long-range Ground-based Interceptors launched from Vandenberg Air Force Base, Calif., in the first salvo test of GBIs. (Courtesy photo/Missile Defense Agency)

“March 25 could be labeled as a ‘regular’ day like no other on our crew life,” said U.S. Army MAJ Terri Homestead, a crew director with the 49th Missile Defense Battalion at Fort Greely, Alaska. “Within seconds of the quick alert, we were ready to respond to a potential threat. The test threat was assessed, monitored, engaged and neutralized as per our well trained responses based on current tactics, techniques, procedures and guidance from our higher commands.”

“‘Quick alert’ is the first indication and report the Warfighters receive of the potential threat,” explained LTC Matthew Pollock, a crew director with the 100th Missile Defense Brigade at Colorado Springs. “Crew members in the Missile Defense Element (MDE) at Schriever Air Force Base, the Fire Direction Center (FDC) at Fort Greely and at Vandenberg rapidly process the threat and begin the well-practiced procedures that prepares the GMD Fire Control system to engage. Within seconds, the GFC’s globally dispersed assets, satellites, radars, communication stations, and missile fields are ready to defend the United States.”

The potential threat was an inter-continental ballistic missile target test vehicle launched from the Reagan Test Station at Kwajalein Atoll as part of the Missile Defense Agency’s Operational Test, Flight Test Ground (FTG) 11. The MDE, FDC and Vandenberg test participants consist of the on-duty operational personnel that monitor and control the system day to day. They are highly trained, have decades of cumulative GMD experience, and are certified to an extremely challenging high standard.

The brigade has been executing the 24/7 mission, non-stop, for over 16 years. The entire command is “deployed in place,” meaning there are no breaks or opportunities to stand down. The Sustainable Readiness Model and previous Army Force Generation models don’t exactly fit for the GMD mis-

sion. There are no reset cycles and the unit must always be a “T” conducting the Mission Essential Tasks for this critical no-fail National Defense mission.

“Crew members have the ability to train and rehearse combat operations procedures in nominal and off-nominal scenarios in complex and dynamic training conditions 24 hours a day, 365 days a year,” said Pollock. “Crews perform hundreds of training scenarios per month, injecting a variety of system outages, failures and unusual behaviors to ensure Warfighters are ready to quickly react and respond to a variety of unexpected situations.”

Since 2017, the crews also applied their training in response to numerous real-world operational situations as ballistic missile testing from the threat increased. The tasks that the crews perform operating the GFC are battle drills that are second-nature to the operators, executed efficiently and seamlessly.

The crews are trained and certified through a rigorous and demanding gunnery program. The scenarios they use for training employ computer-based GFC software identical to the operational system. Scenarios provide a variety of behaviors and variables to make each run unique, continually challenging the crews with new and different stimuli.

The number and types of threats could include mass raid conditions with complex threat payloads, simulated radar or satellite failures that impact the GFC’s ability to detect and track incoming threats, data terminal outages that affect communication updates with interceptors while in flight, and interceptor launch and communication failures. The crews have seconds to process the injects, determine their effect on the battle, and execute the appropriate actions to mitigate the impact and still meet shot doctrine requirements.

Each scenario lasts approximately 45 minutes. The crew defends the homeland, conducts a

thorough after action review, recycles the scenario, and does it again with a new run. A typical crew will perform five or more training scenarios each 12-hour shift and 60-80 runs per month. This rigorous training enables crews to memorize checklists and actions to the point that fighting the battle becomes second nature and tasks are performed without hesitation or flaw.

“Although our confidence in the system is extremely high, we all sat at the edge of our seats waiting for the confirmation that this in fact was successful,” said Homestead. “Once confirmed, we all had this sense of pride in knowing that all of those countless hours we train on the system have a successful outcome of defending our homeland.

“It wasn’t until after the flight test that we truly understood the magnitude of FTG-11. The importance of this test was stressed to all of the crews, particularly because it was the first of its kind, but truly understanding how many people and how many hours it took to ensure a successful outcome was astonishing.”

“FTG-11 is an unprecedented and monumental milestone for the Missile Defense Agency, U.S. Northern Command, and U.S. Strategic Command that accomplished many firsts for the GMD program,” said Pollock. “It is the first operational test that employed both MDE and FDC operational crews, who had no advanced notice of the launch. It was the first test against a true ICBM class and representative target. It was the first multiple launch salvo of interceptors.”

All the systems and crew members performed nominally and, as in previous flight tests, the threat was successfully neutralized. For the Soldiers operating the GFC, it was no surprise. This test was more realistic and complex than any before, but it was just another day at the office for the Warfighters operating the system that provides the 24/7 GMD shield over the homeland.

The THAAD Interceptor exits the pallet at Roi-Namur on its way to intercept an MRBM threat type. (Courtesy photo/Missile Defense Agency)

E-62nd further enhances THAAD capability in support of US Forces Korea JEONS

1LT Anthony Ross



This past quarter, Soldiers from E Battery, 62nd Regiment, Terminal High Altitude Area Defense, 69th Air Defense Artillery Brigade, returned to Fort Hood after the completion of testing on a crucial supplement to the United States Forces Korea (USFK) Joint Emerging Operational Needs Statement (JEONS) released last year. The JEONS requested “integration and more efficient use of missile defense systems to improve defensive capability on an urgent timeline” in order to counter emerging threats from North Korea. The Missile Defense Agency received a \$3.3 billion budget to expedite

THAAD and Patriot interoperability. The first salient component consisted of THAAD operating remote launchers to increase battlespace. Soldiers from E-62nd took the lead on this new capability with short notice. On Aug. 30, 2019, warfighters successfully engaged a medium-range ballistic missile (MRBM) target using a remote launcher, validating the effectiveness of THAAD’s Remote Launch Kit (RLK). The path to the successful intercept required a lot of hard work from the unit and supporting agencies.

The road to launch started in May 2019 when E-62nd ADA

was assigned to the THAAD remote launch mission: Flight Test THAAD-23 (FTT-23). With a two-week notice, the unit worked around the clock to ensure proper planning and preparation was completed in order to arrive at White Sands Missile Range for the pre-mission System Integrated Checkout (SICO). Throughout the month of June, E-62nd ADA tested the upgraded THAAD and Army Navy/Transportable Radar Surveillance and Control Model 2 (AN/TPY-2) software and integrated the battery’s equipment. The unit successfully configured their weapon system with new RLKs,



controlling launchers far beyond current capability. Launcher and fire control platoons received training on RLK operation, and implemented new tactic, techniques and procedures for operation of a remote site. With the new capability came multiple challenges that the battery worked through in order to prepare for FTT-23. Empire Battery learned valuable communications and network architecture knowledge when integrating their equipment with the RLK through multiple beyond-line-of-site communication systems. After a successful SICO, E-62nd ADA deployed to the remote islands of

Kwajalein and Roi-Namur, both located within Kwajalein Atoll, Marshall Islands.

E-62nd ADA built on their successful SICO with an emplacement at Kwajalein. After successful system integration, the unit was mission ready to execute daily deployment operations to prepare for the unannounced launch. Mission and system readiness skills were tested through the use of a Simulation over Live Driver system; through stimulation of the radar, Soldiers conducted realistic tactical ballistic missile engagements while reporting to an air defense artillery fire control officer at 11th Army Air

and Missile Defense Command located in Hawaii.

The unit's hard work and determination led to nominal results on test day. On Aug. 30, 2019, an MRBM target was launched from a C-17 aircraft. The radar, located at Kwajalein Island, successfully tracked and discriminated the target for engagement coordination to take place in the THAAD Fire Control and Communications. A fire control solution was created based on the AN/TPY-2's data. CW2 Steve Helton was the acting tactical control officer with SPC Timothy Broders as his tactical control assistant. Together they executed proper engagement procedures and communications to successfully process the track for engagement. Data was routed through the RLK to the remote launch site at Roi-Namur Island. The remote launcher successfully processed the data coming from the RLK to launch a THAAD interceptor. The launch was a complete success as the re-entry vehicle was destroyed.

Soldiers from E-62nd ADA Battery gained valuable experience and useful information regarding the operation of their equipment. The Empire Battery stands ready for any mission that comes their way. They have proven to be very adaptive and responsive to sudden changes and are willing and able to conduct deployment operations on short notice. Soldiers are now confident in transporting their equipment via airlift, barge, line haul or railway. Leadership is confident emplacing at new sites and coordinating logistical support in remote and isolated areas. No mission is too big for the Empire Battery. E-62nd ADA is eager to advance THAAD's capability further with an upcoming follow-on mission at White Sands Missile Range in support of the USFK JEONS.

1LT Anthony Ross is currently the sensor platoon leader and Crew 2 tactical control officer for E Battery, 62nd/69th Air Defense Artillery Brigade. He commissioned from the United States Military Academy at West Point.



Soldiers and family members with 38th Air Defense Artillery Brigade gather by the yagura, a high wooden scaffold made especially for the festival where people line up and dance around to honor their ancestors. This marks the first time Pacific Guardian Soldiers participated in Camp Zama's Bon Odori Festival, which served to learn more about Japanese culture and share that experience with their host-nation neighbors, Aug. 3, 2019. (Courtesy photo)

Shaping 38th Air Defense Artillery Brigade's future

SGT Raquel Birk

Since the 38th Air Defense Artillery Brigade's historic reactivation Oct. 16, 2018, at Sagami General Depot, Sagami, Japan, *Pacific Guardians* hit the ground running to establish seamless operations, training, and enhance air and missile defense readiness in the Indo-Pacific Region.

COL Patrick Costello, 38th ADA Brigade commander, maintains mission command of U.S. Army AMD forces in Japan and Guam and supports Indo-Pacific Command, 94th Army Air and Missile Defense Command, and U.S. Forces Japan by providing Integrated Air and Missile Defense (IAMD) oversight.

The *Pacific Guardian Brigade* strengthens IAMD capabilities throughout the region by participating in multiple bilateral and

joint training exercises including Shodan Watch, Orient Shield, Yama Sakura, and most recently, Keen Edge.

Shodan Watch offered a collaborative approach to address the complexities of joint operations and enhanced 'Fight Tonight' unit readiness allowing Soldiers to receive first-hand experience with that imperative.

"Applying a simulated tactical scenario during training prepares us for realistic and accurate war-time environments," said SGT Camden Shoults, air defense battle management systems operator. "When maintaining a 'Fight Tonight' mindset, it is essential that all Soldiers know their individual and team responsibilities during increased operations tempo."

During Orient Shield, air defense, Fires, aviation and maritime elements merged capabilities to enhance readiness through the use of the Link 16 cyber domain.

"Link 16 is a joint data communication that provides the end user with connectivity to other forces," said CW2 Keon Ellison, brigade interface control officer. "It provides targeting data, and air track data. Basically, it provides input into the common operational picture or the air picture that allows the unit to see where everything is and see where other players are on the battlefield."

Participants sought to increase interoperability and demonstrate that they could share targeting and sensor information across platforms leveraging the Link 16

network for commanders to make real-time immediate decisions.

The U.S.-Japan alliance is the cornerstone of efforts to ensure a free and open Indo-Pacific Region. Yama Sakura was a premier bilateral exercise which enhanced the combat readiness and interoperability of the two countries. During the exercise, the unit facilitated coordination, communication and operations across multiple domains with Japan Self-Defense Forces.

During Keen Edge, the 94th AAMDC, the brigade's higher headquarters, served as external evaluators to assess how well the command works closely with their U.S. and Japanese partners refining tactics, techniques and procedures in the event of a crisis or contingency.

Working closely with Japan Ground Self-Defense Force counterparts becomes a collaborative effort to defend Japan. For the first time ever, the brigade hosted air defense members of the JGSDF during the 10-week U.S. Army Japan Cooperative Work Program.

"Working with the 38th ADA Brigade these past few weeks allowed me to understand the importance of knowing how each other operates in the defense of our countries against real-world air and missile ballistic threats," said 1LT Kenta Kita, air defense officer, 7th Anti-aircraft Artillery Regiment, JGSDF and program participant. "This experience has opened my eyes to the many similarities we have as service members despite our cultural differences."

Soldiers with 1st Battalion, 1st Air Defense Artillery; Task Force Talon; 10th Missile Defense Battery; 14th Missile Defense Battery; and Headquarters and Headquarters Battery continue to support and strengthen bi-lateral relationships with JSDF allies and the Guam community through training and community functions. Many are actively and regularly engaged in fostering positive relationships with the local community, educating the Japanese people about the unit's mission, participating in the various year-round festivals, and devoting countless

hours to English language literacy initiatives, local community clean-ups, and a myriad of other activities.

Today, the brigade enters 2020 with more modernization ahead. The forward-stationed missile defense units in Japan and Guam continue to participate in regional and theater-level exercises building partnership capacity with allies in order to protect against an ever-increasing ballistic missile threat in the region. *Pacific Guardians* are proud to be a part of the premier Army Air and Missile Defense Command capable of quickly transitioning to war while remaining ready and able to execute their combat mission at any time.

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, N.Y.

MG Wilson Shoffner, commanding general, Fires Center Of Excellence and Fort Sill, and CSM John Foley, FCoE and Fort Sill senior enlisted advisor, gather for a photo with members of the 38th Air Defense Artillery Brigade S3-operations section and Japan Ground Self-Defense Force members participating in the Cooperative Work Program during a visit to the Pacific Guardian Brigade headquarters at Sagami General Depot, Nov. 1, 2019. (SGT Raquel Birk/U.S. Army)



Cold Steel

Prepare to move forward

CPT Brandon Nalley

In the summer of 2019, Charlie Battery “Cold Steel,” 3rd Battalion, 4th Air Defense Artillery Regiment, commanded by CPT Taylor Lau became the first Patriot Air Defense battery to conduct an expeditionary operational deployment to the U.S. Central Command area of responsibility since the beginning of Operation Iraqi Freedom in 2003. While prepared to conduct a static mission at an established site, her battery received a change of mission tasking them to establish a base of operations in what senior leaders recognized as the most expeditionary site in all of CENTCOM.

Preparing to deploy and the importance of Roving Sands

As the Army began to refocus on the near-peer competitors of Russia and China, Air Defense leaders had to ensure they were aligned with this shift. A potential conflict with one of these competitors would demand greater air defense

artillery support, but there is a finite amount of Army air defense assets available to meet emerging global requirements. With the unpredictability of where the next mission could take them, air defenders have to train to deploy and fight to win in austere environments. The Air Defense Branch acknowledged this need, and in 2018, the 32nd Army Air and Missile Defense Command reintroduced its version of the Combat Training Center level exercise -- Roving Sands. Taking place at Fort Bliss, Texas, Roving Sands 2018 and 2019 forced units to take a hard look at how they trained and prepared for expeditionary missions in large-scale combat operations.


Fort Bliss’ immense training facilities make it the ideal location to train over the vast distances that Patriot units would have to defend in support of maneuver forces. “Our units can get fully stressed in moving their equipment,” said BG Clement Coward, commanding general of the 32nd AAMDC. “There isn’t another place in the United States where you can real-

istically train in this type of environment.”

C/3-4th moved hundreds of miles during the 14-day long exercise in response to a dynamic threat set and the operational need to support a maneuver unit in large-scale combat operations.

“The dynamic work environment and high operational tempo afforded maintainers the opportunity to demonstrate their technical prowess and ensured the unit’s





PFC Maya Richardson, a Patriot Launching Station Enhanced Operator-Maintainer assigned to C Battery, 3rd Battalion, 4th Air Defense Artillery Regiment, 108th Air Defense Artillery Brigade, inspects the cables to her assigned MIM-104 Patriot missile system during a routine check on Oct. 23, 2019. (SGT Christopher Gallagher/U.S. Army)

ability to support unified land operations and build combat power,” said CW2 Walter Carroll, the Charlie Battery maintenance officer.

At the end of the exercise, C/3-4th was certified to assume their assigned mission, rail-loaded their equipment, and sent it off to the ports to be shipped overseas. Satisfied that they were ready for the upcoming deployment to Kuwait, the Soldiers of C/3-4th went back home and enjoyed some

well-deserved pre-deployment leave.

Application in the Gulf Region

Following the events of May 5, 2019, tensions escalated between Iran and the U.S. and the U.S.-aligned Gulf countries. In response, the Secretary of Defense made the decision to rapidly deploy additional Patriot batteries to

the region. While most batteries went to previously occupied sites in Kuwait and Bahrain, Charlie Battery was quickly moved from the established site they were occupying in Kuwait and deployed to a new and austere site in Saudi Arabia.

“Once arriving at our new station, we were quickly pressed to download our equipment as it came in and begin setting up an entire Patriot site,” said SSG



Soldiers assigned to C Battery, 3rd Battalion, 4th Air Defense Artillery Regiment, 108th Air Defense Artillery Brigade, conduct training loading and unloading their MIM-104 Patriot missiles on Oct. 23, 2019. The battery deployed to Southwest Asia as part of Operation Enduring Freedom, Operation Spartan Shield, to help build partner capacity in the Gulf Region to promote regional self-reliance and increase security. (SGT Christopher Gallagher/U.S. Army)

Chase DeHart, who went on to explain the new operations required of the battery. “We also had to assist with setting up our living conditions and providing our own security.”

The austere site at Prince Sultan Air Base initially lacked hygiene facilities, sanitation infrastructure, and an operational field-feeding site. Preliminary food cycles were strictly Meals Ready to Eat.

In addition to the expedited movement to an expeditionary site, Lau’s battery and 3-4th ADAR also had to figure out how to provide Air and Missile Defense (AMD) in airspace that U.S. forces did not manage. Key Leader Engagements (KLEs) between U.S. and Saudi

military leaders paved the way and ensured the battery could integrate into the host nation defense design and de-conflict air defense responsibilities and assigned defense sectors.

The importance of the mission, the training at home station, and the training during Roving Sands helped the Soldiers of C/3-4th overcome these initial hardships.

Why the story is important

Leaders have to be flexible problem solvers who can learn quickly and who can make decisions without significant guidance from their higher headquarters. Like

most organizations, leaders have to figure out how to do more with less. Lau and her team had to work to fill manning requirements that they had not originally forecasted.

“When we received this mission, we were given several unfamiliar pieces of communications equipment and no additional operators,” said Lau.

Additionally, leaders must understand operations outside their traditional roles and responsibilities. Leaders at the tactical level have to understand joint operations. In addition to conducting AMD and KLEs, Charlie Battery had to work with other U.S. military organizations to build up their site. This meant ensuring an un-



U.S. Secretary of Defense Mark Esper receives a brief from SPC Larry Blount at the C Battery, 3rd Battalion, 4th Air Defense Artillery Regiment, 108th Air Defense Artillery Brigade Patriot site. (2LT Jennifer French/U.S. Army)

derstanding of how to coordinate with Army security forces and Air Force engineer assets during site improvement, while still providing persistent AMD coverage of the assigned asset.

Soldiers and leaders must fully understand the complex and dynamic threats they could face on the 21st century battlefield. Individual responsibilities in counter air are more important than ever, due to battle spaces that are saturated with unmanned aerial vehicles. Land Attack Cruise Missiles have the ability to use topography to mask their approaches. Iranian ballistic missiles launched from coastal Ballistic Missile Operating Areas have flight times of minutes. Air Defense Soldiers must be sufficiently trained in warrior tasks and battle drills to be able to provide their own site security in austere environments. They have to be prepared to defend them-

selves and their equipment from direct enemy contact and a variety of asymmetric threats. The threat of today is truly 360 degrees.

Conclusion

As U.S. Air Defense units transition from a focus on point defense of statics and known locations back to expeditionary operations, the need to prepare for these missions through large-scale training operations, like Roving Sands, increases. Additionally, the importance of the Air Defense battery, as the focus for global AMD operations, cannot be overstated. The efforts of 80 Soldiers are in the same strategic conversations as carrier strike groups or a squadron of B-52 bombers. This reality has to continue to be communicated to Soldiers of all ranks and experience. Soldiers have to understand that every battery has the potential to conduct an expe-

ditionary deployment, like C/3-4th.

For this reason, the Air Defense branch needs to continue to empower leaders at all ranks to challenge and rewrite past operational policies and procedures. Furthermore, leaders have to be flexible, adaptive thinkers in order to quickly adjust to emerging threats in a complex environment. The presence of AMD assets around the world provides our most senior national leaders the time and space to make crucial recommendations and decisions. The Air Defense community must continue to focus efforts and prepare to provide premier Air and Missile Defense wherever and whenever the nation calls.

CPT Brandon Nalley is the Public Affairs Officer for the 108th Air Defense Artillery Brigade. He would like to thank 1LT Oren Rosen for assisting with editing this article.

M-Stinger

Current problems and proposed solutions

1LT Evan D. Bicoy

The United States military has fought in a counterinsurgency (COIN) environment for nearly two decades. This extended period of unconventional warfare has undoubtedly shaped the way we have and continue to think, train and fight. However, the return of focus toward countering near-peer threats identified a critical gap in short-range air defense (SHORAD) capabilities. This issue has been addressed through the indoctrination of maneuver-SHORAD (M-SHORAD). The maneuver-Stinger (M-Stinger), the first line of effort in the M-SHORAD concept, was implemented to train non-Air Defense Artillery (ADA) Soldiers on the effective employment of the Stinger missile in combat. Although M-Stinger has been both groundbreaking and necessary to mitigate this capability gap, there are several changes that must be made to fully inte-

grate organic ADA elements in maneuver brigade combat teams (BCTs). The key elements that must be addressed are training accountability, equipment resourcing, personnel management and leader development.

The first issue is that the M-Stinger concept lacks systematic accountability of Stinger team gunnery certifications. Currently, the brigade Air Defense officer coordinates, supervises and tracks the gunnery progression of all respective teams in the brigade. However, there is no integration of these teams' certifications with any Army authorized training system. This lack of quantifiable pressure to maintain gunnery certifications results in the neglect of maintaining Stinger team proficiency. The proposed solution for this issue is the integration of gunnery certifications into the Digital Training Management Sys-

tem and Unit Status Report platforms, similar to current howitzer certifications. The incorporation of these certifications into a system of record used throughout the Army will ensure accountable Stinger team training to ultimately yield a lethal, BCT-organic SHORAD force.

The second issue identified during M-Stinger indoctrination was the lack of equipment fielded to units prior to receipt of the training mandate. Unit modified tables of organization and equipment (MTOEs) were not adjusted to support the need for Stinger equipment and are consequently forcing units to procure these training aids through unit funds. As the Army continues to transition from the COIN mindset, the current consensus maintains that tomorrow's SHORAD fight does not take precedence over the equipment needs of today, inevi-

“In the 1990s, every Army division had a SHORAD battalion to protect it. In 2017, none of the 10 active divisions had one.”

— Gary Sheftick

tably delaying the necessary purchase of equipment outside of current MTOE. To quantify this dire need for training aids, the entire 82nd Airborne Division currently share a set of seven field handling trainers and one KIR-1C that were acquired during 3rd BCT's test directorate in 2018. All other training equipment is borrowed from E Battery, 3rd Battalion, 4th Air Defense Artillery Regiment; decreasing the unit's ability to train while increasing “wear and tear” on the equipment. By adjusting unit MTOEs to add respective M-Stinger equipment and enable proper fielding, units will be able to execute realistic training events to effectively bolster SHORAD capabilities in a BCT, without exhausting unit funds.

The third issue with the M-Stinger concept is the conflicting missions of “A5” personnel both in garrison and on the battlefield. While in garrison, units inherently default to fundamental military occupational specialty (MOS) training over Stinger Gunnery Tables (partially due to the lack in systematic accountability). On the tactical end of the spectrum, location on the battlefield is inherently different when discussing 11-series, 13-series, 14-series and 19-series MOSs.

According to Gary Sheftick in his article, Army rebuilding short-range air defense, “In the 1990s, every Army division had a SHORAD battalion to protect it. In 2017, none of the 10 active divisions had one.” Air Defense personnel must be positioned through the use of employment guidelines to

effectively execute their mission. Although training combat-MOSs to operate a Stinger missile facilitates an air defense capability on the ground, it does not necessarily ensure the effective employment of the capability. Understood – the ideal concept of SHORAD support within a BCT has already been established: “to eventually have 10 SHORAD battalions again to defend maneuver units and other critical assets within each of the Army's divisions...stood up incrementally over time with the next four between now and 2024” (Sheftick, 2019). However, the Army cannot survive on the current M-Stinger concept until 2024. The proposed solution to this problem is to allocate a Man-Portable Air Defense System Platoon under each battalion's Headquarters and Headquarters Company, comprised of both 14Ps and A5 qualified personnel, similar to how an infantry mortar platoon is task organized. This simple redistribution of forces will ultimately mitigate conflicting requirements in both garrison and combat to effectively employ organic SHORAD capabilities within a BCT.

The final action needed to drive the successful incorporation of SHORAD into the maneuver construct does not deal with M-Stinger in particular, but rather the ADA branch as a whole. Air Defense must shift their current “technically focused” culture to align with the “leadership focused” philosophy found in other combat arms. All other combat branches currently utilize a school's “pipeline” to facilitate junior leader

growth and build both confidence and credibility in individuals prior to arrival at the unit. With this in mind, senior leaders within the maneuver community therefore, expect that ADA leaders are granted similar schooling opportunities as their combat arm peers. Failure to achieve leadership focused training certifications is subconsciously seen as a failure on the individual's part; undermining credibility of the individual's competence and overall branch affiliation. Bottom line – emerging Air Defenders will not be held equal in the eyes of the maneuver community without an equal level of combat-focused certifications. The ADA branch must deliberately invest in their leaders by prioritizing schooling and challenging training opportunities, allowing ADA leaders to display their maneuver competence.

The need for SHORAD capabilities organic to BCTs is crucial now more than ever. Although the initial steps have been put in place and are moving in the right direction, there is still room for further improvement. By integrating Stinger team certifications with systems of training accountability, distributing necessary equipment, effectively managing personnel and prioritizing junior leader growth by enabling opportunities, Air Defense can and will effectively integrate back into the BCT construct to dominate the enemy on the near-peer battlefield.

1LT Evan Bicoy currently serves as the brigade Air Defense officer in 2nd Brigade Combat Team, 82nd Airborne Division. Bicoy previously served as a Patriot platoon leader and tactical control officer in B Battery, 3-4th Air Defense Artillery Regiment while deployed to the United Arab Emirates. Upon redeployment, Bicoy served as the fire control platoon leader. Bicoy transitioned to Executioners Battery, 3-4th Air Defense Regiment to serve as the executive officer. During his time as an executioner, he became a Jumpmaster and learned how to properly implement the Stinger Missile Jump Pack during Airborne operations.



COL Maurice Barnett, 30th Air Defense Artillery Brigade commander, addresses the Army Medical Department Direct Commission Course class 5-19 after a ruck march. (Courtesy photo)

From civilians to Soldiers

C/2-6th ADA executes pre-BOLC Soldierization Training for the Army Medical Department Direct Commissioning Course
CPT Franck Nago

Soldierization is the Army's transformation process by which civilian volunteers are transformed into capable and trusted professionals. This process is the conceptual cornerstone which defines the character, competence and commitment of the American Soldier. Most important, this critical building block is the first stone set by which all other stones are placed in reference to establish the soundness of the entire

structure. For new Army Medical Department direct commissioned officers, this process starts with their pre-Basic Officer Leader Course (BOLC) at Fort Sill, Okla.

The initial Army Medical Department Direct Commission Course (AMEDD-DCC) pilot program was established on June 2, 2016. AMEDD-DCC, a three-week course for the Army Reserve or four weeks for active duty officers, is designed for medical officers as an

alternative commissioning source to the Reserve Officer Training Corps, Officer Candidate School or the U.S. Military Academy. Most trainees for this course are lieutenants concurrently in medical schools, however captains, majors and lieutenant colonels attend the course as well and bring a diverse combination of education and experience. With a total of 176 academic hours, the course is divided into five key training mod-

ules: Army integration, leadership development, leader combat skill development, leader enhancement, and administrative related tasks.

AMEDD-DCC students are taught the basic skills and competencies that define what it means to think, look and act like a Soldier and an officer. This process begins when a student arrives to Charlie Battery, 2nd Battalion, 6th Air Defense Regiment, 30th Air Defense Brigade. The current mission of the battery is to train and educate all direct commissioned officers in the Army Medical Department at the Fires Center of Excellence, at Fort Sill, Okla., in the foundations of Army doctrine, tactics, leadership and common tasks in order to provide the operational force with disciplined and competent Army professionals.

Overall Approach. The process of soldierization during pre-BOLC requires the careful application of military indoctrination. During the first week of this process, and in accordance with approved program of instruction, AMEDD-DCC students receive in-processing briefs and conform to the demands of the student cadre. Students are placed in an immersive environment in which they live in the barracks, stand at parade rest when waiting in line to eat at Fort Sill's dining facilities, learn and use the "battle buddy" system, adopt the Army's customs and courtesies and execute drill and ceremonies. Additionally, as with all initial entry trainees, the newly commissioned officers must understand and comply with the Army's Sexual Harassment/Assault Response Prevention Program, Equal Opportunity, Anti-terrorism and Operational Security programs. This is a necessary step in the process in which aspiring medical professionals execute a series of orders, follow the direction of their respective cadre and platoon leadership. One of the implied tasks during this first week is to apply healthy stressors to bring about growth, maturity and confidence in each AMEDD-DCC student.



Soldiers from the 2nd Battalion, 6th Air Defense Artillery participate in a field training exercise ruck march. (Courtesy photo)

During the second week, special emphasis is placed on the leadership ability of each student. During this week, AMEDD-DCC students receive a total of 49 hours of instruction in 14 leadership development training topics such as: transitioning to a direct leadership position, recommending administrative actions or developing and counseling subordinates. Students also complete the challenging Fort Sill Team Development Course to learn the key ingredients of an effective team.

The third week of the process focuses on combat skill development. During this week, students receive a total of 76 hours of instruction in 10 critical courses on fundamental warrior skills to include react to chemical, biological, radiological and nuclear attack, introduction to land navigation, rifle marksmanship, range procedures, zeroing/grouping, small unit's tactics, troop-leading procedures and maintenance operations at a company level.

The last week focuses on leadership enhancement. During this week, students receive a total of 16 hours of instruction covering six important leadership topics such as financial readiness, mil-

itary history, the mission and composition of United States Army Special Operations Forces, the components of joint forces structures and operations and cross cultural awareness for Army leaders.

Outcomes. AMEDD-DCC establishes a foundation in leadership, physical fitness, mental toughness, and tactical and technical proficiency skills required of a U.S. Army officer. Students who graduate from the pre-BOLC course are inculcated with the Army Values and Warrior Ethos, demonstrate character, presence, competence, communication skills and understand the Army's comprehensive fitness requirements. Graduates of this pre-BOLC course are professionals, committed to the service of our Army and our Nation.

Since the June 2016 activation of C/2-6th ADA, the battery has trained an average of over 900 medical professionals every fiscal year from the rank of second lieutenant to lieutenant colonel and stands ready to continue this important mission for our Army and nation.

CPT Franck Nago is an AMEDD-DCC instructor for C Battery, 2nd Brigade, 6th Air Defense Artillery.

Rigor, resilience and discipline

One commander's
observations
on leadership
challenges in AIT

CPT Cody Williams

Serving as a leader in an advanced individual training (AIT) battery comes with its own unique challenges. Leaders are challenged to receive freshly trained junior Soldiers who are just beginning to gain an understanding of their basic Soldier skills and to prepare them to serve in their military occupational specialty (MOS) while reinforcing what they have learned over the previous 10 weeks. The transformation from an individual to a Soldier comes with the inherent requirement to be resilient, motivated and disciplined. As the operational environment changes, and as new guidance is issued from higher echelons, The AIT batteries must evolve to prepare their Soldiers for the fight of the future. The drill sergeants, instructors and Soldiers of B Battery, 3rd Battalion, 6th Air Defense Artillery Regiment, 30th Air Defense Artillery Brigade, have been proactive in meeting these requirements.

Throughout the past two years, AIT has undergone a massive overhaul of its approach to training. The AIT graduation standards have evolved from a Soldier simply meeting academic and Army Physical Fitness Test (APFT) requirements to a much more robust program emphasizing rigor and total Soldier readiness. B Battery leaders implemented a multitude of simultaneous initiatives to enhance the quality of training and to improve the mission readiness of the 14E (Patriot Fire Control Enhanced Operator/Maintainer) and 14T (Patriot Launching Station Enhanced Operator/Maintainer) Soldiers proceeding to the operational force while also ensuring that our cadre and programs have the support needed to facilitate training effectively. The initiatives focused on three primary areas of emphasis: Holistic health and fitness, rigor and discipline and resilience.

As we enter the era of the Army Combat Fitness Test (ACFT), Initial Military Training (IMT) units have had to tackle the challenge of preparing Soldiers to be suc-

cessful in both the APFT and the ACFT as they make the transition from civilian to Soldier. Over the last year, the Soldiers on Fort Sill have come to understand that our focus must be on making Soldiers healthy and fit in a holistic approach. It sounds simple enough; fit Soldiers can pass fitness tests. However, as the commander of the 3rd Battalion, 6th Air Defense Artillery, LTC Joseph Scott, has aptly observed “simple is not the same as easy,” especially in the resource-constrained training environment where drill sergeants and NCO instructors have as little as seven weeks to fully prepare their students for the challenges they will face in the operational force.

B Battery instituted many programs, including a series of voluntary functional fitness classes, affectionately named “Hero PT,” where Soldiers are exposed to functional fitness, weight training, boxing and nutritional education after duty hours. The battery’s physical readiness training program has fully inculcated functional fitness, ACFT familiarization and dynamic stretching, producing more fit and physically dominant Soldiers. The cadre has been hard at work with ACFT grader and NCO in charge certifications and diagnostic testing, and some have even become Certified Personal Trainers through National Academy of Sports Medicine classes funded by the Air Defense Artillery (ADA) commandant’s office. As of Oct. 1, 2019, the battery began implementing the ACFT as the primary test of record for 14E AIT students, with the 14T AIT students following as of Jan. 1, 2020. Based on initial diagnostic testing data and the fitness initiatives created, we estimate a reduction in the number of failures, holdover students and administrative separations.

Holistic fitness is a key aspect in better preparing Soldiers for the operational force, but we also need to refine the way we train Soldiers in their MOS-specific skills. In November of 2018, the then commanding general of Training and

B Battery instituted many programs, including a series of voluntary functional fitness classes, affectionately named “Hero PT,” where Soldiers are exposed to functional fitness, weight training, boxing and nutritional education after duty hours.

Doctrine Command, GEN Stephen J. Townsend, issued guidance to reinvigorate and reintroduce rigor into AIT. His intent was to highlight the traditional Army proficiencies of move, shoot, communicate and survive in AIT, while reinforcing the concepts of discipline and warrior spirit. The directive included a mandate to incorporate a rigorous, realistic and MOS-focused field training exercise (FTX) into all AIT courses. This posed a challenge for how the organization rapidly increased the rigor in our courses without significantly increasing resource requirements or negatively affecting the required, MOS-specific program of instruction (POI). Updating POI and receiving the funding and resources associated with the changes generally involves a three-year cycle, so the leaders of B Battery had to find creative solutions.

B Battery first introduced the Drill Sergeant Training Program (DSTP) and interim FTX programs as “win-now” initiatives to meet the TRADOC commander’s intent. Drill Sergeant (SFC) Francisco Flores developed the DSTP to reinforce warrior tasks throughout AIT on alternating Saturdays, thus mitigating the effect on MOS-specific instruction on normal duty days. The DSTP ensured that all students maintained proficiencies

in the skills developed during basic training so they could execute the appropriate warrior tasks and battle drills during FTX execution.

Implementing the FTX itself was a separate challenge, as there was no time in the prescribed POI to execute it. The size of Patriot equipment and availability of power generation presents additional challenges to utilization in a field training environment. B Battery’s interim FTX solution is a three-day exercise, nested within a five-day weapons immersion training window. It consists of one full day of rigorous, realistic and MOS-aligned warrior task and drill training in a field environment, followed by two additional days of MOS-focused training in the battalion’s general instructional facility that includes extended-hour training on tactical equipment while in full foundational combat gear. The FTX has grown since its inception in April of 2019, leveraging available training aids such as artillery simulators, mock weapons and rifle marksmanship simulation trainers. The FTX will continue to evolve over time to ensure we provide the operational force a mission-ready and impeccably trained graduate from AIT. The battery continues to work with higher echelon staff and support channels to facilitate a full three-day/two-night FTX in the future.

Most drill sergeants and instructors in AIT spend two or three years in the organization.

There are often no built-in cycle breaks and the hours can be grueling... The risk of cadre “burn-out” becomes a significant consideration for an AIT battery.

The FTX will continue to develop, incorporating more training on tactical equipment, expanding on the warrior tasks and drills, and improving the overall training scenario as the ADA School finalizes updates to the formal POI and coordinates additional resources over the coming year.

One of the most challenging aspects of an AIT battery is instilling discipline and increasing rigor while simultaneously enhancing the resilience of the students, cadre and leaders within the organization. Every new program, initiative or enterprise has a cost associated with it. Today’s Army, especially the institutional Army, is one where we are challenged to “do more with less” and to improve without growth. An effective commander understands that even if there is no budgetary increase, it does not mean there is no cost to the organization. The price we pay is that of human capital and sweat equity. The Soldiers and leaders of the organization pay for change with their time, their energy and their personal efforts. Knowing this, it’s important that we invest in the resilience and effectiveness of all members of the organization. B Battery has taken a multi-faceted approach to this challenge. We lean on resources like our embedded Military Family Life Counselor (MFLC), and behavioral health providers. We also opened up space within our

student barracks for collocation of the Unit Ministry Team (UMT) and Physical Therapy (PT) Clinic to provide readily available assistance. The ability of our Soldiers and leaders to seek near-immediate help from the MFLC, UMT and PT Clinic has been invaluable to the readiness and resilience of our personnel. Time is the one resource that is always in short supply for a Soldier. So making resources more convenient and accessible has led to a vast increase in utilization.

Most drill sergeants and instructors in AIT spend two or three years in the organization. There are often no built-in cycle breaks and the hours can be grueling. The leaders of B Battery come in before the Soldiers wake, leave well after the duty day is complete, and when one class graduates, there is usually another starting straight away. The risk of cadre “burn-out” becomes a significant consideration for an AIT battery. Building cadre resilience to incorporate and maintain new initiatives is of paramount importance to continued mission effectiveness. One way we have mitigated that risk is by fully utilizing the 30th ADA Brigade’s Cadre Resiliency Program (CRP). The CRP allows the Soldier and their family to attend a half-day class led by the brigade chaplain that focuses on resilience and reinforcing connections with family. The chaplain customizes each it-

eration of the CRP to fit the needs and goals of the audience participating. The class is always on a Wednesday that does not precede a long holiday weekend. Once the cadre members complete their CRP session, they are completely released from work until the following Monday, allowing the Soldiers the opportunity to destress and re-engage in their family life. CRP, in conjunction with rejuvenating the battery’s Soldier and Family Readiness Group Program, has proven to increase the resilience and effectiveness of our leaders which, in turn, provides better training for our students.

The new initiatives have postured the unit to increase rigor and provide a better trained Soldier, but we also need to ensure student morale, resiliency and discipline are addressed to enable successful completion of all training. When I first took command of B Battery, I noticed that many students were lacking in those areas. Soldier misconduct was at an all-time high, rehabilitation and retention rates for struggling students were low, and suicidal ideations and gestures were far too common. There were constantly at least two Soldiers whose risk of self-harm or emotional outburst was so great that they had to be placed on 24-hour watch. Several other Soldiers had been stuck for months in AIT awaiting investigations, Uniform Code of Military Justice (UCMJ) and/or administrative separation. The steadfast support and hard work of the 30th ADA Brigade Trial Counsel, CPT Rebecca Ashby, and paralegal, SGT Thomas Eisinger, enabled us to refine and expedite the processing of legal and administrative actions. Every Soldier knows how contagious negative motivation can be in a unit, and the young AIT Soldiers are even more susceptible to that disruptive influence. The simple fact of expeditious processing enabled the unit to remove those negative influencers who could not or would not make it, and provided the opportunity to more effectively rehabilitate those Soldiers who

commit minor misconduct. The reintroduction of drill sergeants in AIT played a big role in increasing discipline, but motivation and resilience proved harder to address.

While the changes we made helped, I still felt that we were behind the problem as a unit. I asked myself, how can we reduce the likelihood of Soldiers reaching the point where their resilience or discipline fails them? Some commanders choose to restrict AIT students' privileges in an effort to limit their opportunity to get in trouble. While that technique can be effective, I felt that would simply pass the potential problem on to the operational units. If they fail, I wanted them to fail in AIT where they would not be a drain on an operational unit. So, I decided to take an alternate approach.

TRADOC Regulation 350-6 provides AIT commanders with guidance as to when Soldiers progress through the phases of Initial Entry Training and what privileges those phases include. It also states that "Commanders should consider increasing privileges and responsibilities based on progress." With the support of my battalion and brigade commanders, I im-

plemented a program that allowed both accelerated and reduced phases based on individual Soldier performance, conduct and motivation. The intent was to provide incentive for Soldiers to exceed the standard while providing additional tools to immediately address failures or misconduct.

Simply put, the more a student acts and performs like a true Soldier, the more privileges they have in common with a Soldier in an operational unit. If a Soldier fails academically, physically or in their conduct, they are reduced in phase and privilege as a result. Drill sergeants provide weekly, by-name recommendations for the Soldiers within their platoon for approval of their phase status. We turned to Article 15s if the misconduct was severe enough, or if the corrective actions did not curtail the negative behavior. The results on rehabilitation and retention were outstanding. While in command, I have overseen the training of over 1,500 AIT students and I have imposed punishment under Article 15 UCMJ 148 times to address misconduct. Of those 148 cases of misconduct, only 23 Soldiers required administrative separation. That

equates to less than two percent of the AIT students in B Battery that could not be otherwise rehabilitated and retained for further service. Suicidal ideations have decreased dramatically, as have incidents of bullying, hazing, discrimination and sexual harassment.

I firmly believe that these positive trends are in large part thanks to the initiatives we have developed, many of which were "bottom-up" driven programs developed at the NCO level. Soldiers are regularly challenged, mentally and physically, but the unit has the resources, programs and processes in place to help them rise to the occasion and to recover if they stumble. I strongly encourage any commanders to seek out ways to mirror these programs in their own organizations. Provide your subordinate leaders the tools to address failure and empower them to use them. Recognize and reward those who excel as often as possible, and when necessary do everything you can to swiftly remove the negative influences from your formation. The only constant in the Army is change and it is important that we as leaders do everything possible to enhance the readiness, proficiency and holistic health of our Soldiers so that they can embrace change and continue to be successful.

CPT Cody Williams commissioned in 2011 from the Edinboro University of Pennsylvania ROTC program with a Bachelor's Degree in Political Science. As an Air Defense officer, Williams served on two operational deployments and was an instructor for the Army Medical Directorate Direct Commission Course prior to taking command of the 14E and 14T AIT Battery at Fort Sill, Okla. Williams has served as the commander of B Battery, 3rd Battalion, 6th Air Defense Artillery Regiment, 30th Air Defense Artillery Brigade since July of 2018. Williams was also selected as the 2019 BG James A. Shipton Award winner and Army Missile Defender of the Year.

Some commanders choose to restrict AIT students' privileges in an effort to limit their opportunity to get in trouble. While that technique can be effective, I felt that would simply pass the potential problem on to the operational units. If they fail, I wanted them to fail in AIT where they would not be a drain on an operational unit.

2019 Air Defense Artillery Award Recipients

Ethan Augustine

On Monday, Dec. 9, 2019, COL Mark Holler, commandant, U.S. Army Air Defense Artillery sent notification of the winners of the annual Hamilton, Knox, Sage and Shipton Awards to the senior leaders of the Air Defense Branch. Despite the annual announcement of these prestigious awards, many do not know the impact these individuals have had on our country.

Alexander Hamilton Award

The Hamilton Award, is named in honor of Alexander Hamilton, who served as an artillery officer during the Revolutionary War, aide de camp to GEN George Washington and appointed the First Secretary of the Treasury of the newly founded United States of America. The Hamilton Award is awarded to a National Guard battery that ascertained exceptional achievement and mission accomplishment through the course of the year. This year's winner of the Hamilton Award is C Battery, 1st Battalion, 188th Air Defense Artillery Regiment, North Dakota Army National Guard. Over the past year, the battery's focus was to train in preparation for a three-week mission to the National Training Center at Fort Irwin, Calif. This was the battery's first doctrinal "force on force" mission at a combat training center. During all phases

of the operation, they provided short-range air defense coverage to the entire brigade combat team and the 116th Brigade Engineer Battalion.

Henry Knox Award

The Knox Award, named in honor of Henry Knox, Chief Artillery Officer of the Continental Army and first Secretary of War. The Knox Award is awarded to the active duty battery that excels at mission accomplishment and Soldier tasks. This year's winner is Charlie Battery, 3rd Battalion, 4th Air Defense Artillery Regiment. With only weeks until deployment, Charlie, 3-4th ADA traveled over 250 kilometers to establish three different Patriot sites and execute all operations in a scenario that supported large-scale ground combat operations during the annual Roving Sands training event. The battery was then deployed to the Central Command area of responsibility, where they became the first Patriot unit to emplace

in the Kingdom of Saudi Arabia in more than 16 years.

MG Charles Sage Award

The Sage award is our newest recognition. Named after MG Charles Sage, commander of the 200th Coast Artillery Regiment during the Japanese invasion of the Philippines at the start of World War II and survivor of the infamous Bataan Death March. After the second World War, COL Sage continued to serve in the New Mexico National Guard, eventually retiring as a Major General in 1957, after 40 years of military service. The Sage Award will be presented to the National Guard Soldier that stands out above the rest. This year's winner is CPT Eric Grant, commander of Bravo Battery, 1st Battalion, 256th ADA Regiment, Florida National Guard. Grant is currently responsible for coordinating SHORAD capabilities between U.S. and NATO forces in Europe.

BG James Shipton Award

The Shipton award, named after BG James Shipton who was the father of Air Defense Artillery and its first commandant. The Shipton Award recognizes one active-duty Soldier that exceeds all expectations.

The winner of the Shipton Award goes to CPT Cody A. Williams, commander of B Battery, 3rd Battalion, 6th Air Defense Artillery Regiment. For the past year, Williams epitomized the role of a regular Army Soldier.

Williams' efforts have ensured that our operational force receives competent, mission-ready 14E and 14T Soldiers and leaders of character to support our global mission requirements.

Additionally, he has strengthened our nation's ties with numerous countries by supervising the training of international military students from our foreign military partners.

The individuals and units that earned these awards have not only

had an impact on homeland defense, but over multiple theaters of operation around the globe. They all have excelled in protecting the operational force and select geopolitical assets from aerial attack, missile attack and surveillance.

Ethan Augustine retired from the U.S. Army as an Air Defense Artillery captain in 2019. Augustine currently serves as the plans and operations specialist for office of the chief of Air Defense Artillery.

Air Defense Artillery Year in Review

32nd Army Air and Missile Defense Command, *Blackjack*

The 32nd Army Air and Missile Defense Command (AAMDC), headquartered at Fort Bliss, Texas, remains the sole active component Air and Missile Defense (AMD) functional command within U.S. Forces

Command (FORSCOM) and is the global force provider of AMD capability.

The 32nd remains tactically engaged and strategically responsive to global threats. The command maintains a continual forward presence in the U.S. Central Command (USCENTCOM) area of responsibility (AOR), while supplementing forces worldwide to deter aggression and promote stability. The com-

CPT Patrick Coffee, 31st ADA BDE's officer in charge of sustainment, fires his weapon during the combat pistol qualification course held at Fort Sill in October 2019. (SGT Amanda Gerlach/31st ADA BDE)



mand uniquely executes three distinct responsibilities for Army and global strategic leaders. The 32nd executes Training Readiness Authorities (TRA) for four separate CONUS-based air defense brigades, who comprise 80 percent of the all active component air defense forces. In addition to TRA roles, the 32nd supports both Theater Air Missile Defense Coordination and Deputy Area Air Defense Coordination roles within USCENTCOM, making the command responsible for and a key node for major pillars of support to commanders globally.

This year 32nd executed its capstone Roving Sands 19, supported six command supported exercises, executed multiple FORSCOM rehearsal of concept drills in support of multiple operation plans and maintained Immediate Response Force and Contingency Response Force responsibilities. The command's continual emphasis on mastering AMD core competencies paid dividends as 32nd simultaneously supported both USCENTCOM Air and Missile Defense

Exercise and real world contingency operations following the attacks on the Aramco oil fields within the Kingdom of Saudi Arabia.

In 2019, 32nd AAMDC executed Terminal High Altitude Area Defense support to global operations while simultaneously adhering to modernization requirements. The command executed its sixth year of unmatched counter-rocket artillery mortar protection to Operational Inherent Resolve and Operation Freedom's Sentinel, while concurrently providing AMD protection of critical assets across the CENTCOM AOR.

The 32nd remained steadfast in all areas of readiness. The command executed command inspections and mission rehearsal exercises across four brigades and six installations. Meanwhile, the 32nd AAMDC continued its deliberate effort to modernize the Patriot Configuration 3+ and PAC-3 Missile Segment Enhanced. These modernization efforts will ensure the U.S. Army's ADA forces are tactically adaptable and strategically responsive for 32nd AAMDC's next 50 years.

Swift and Sure!

11th Air Defense Artillery Brigade, *Imperial Brigade*

The 11th Air Defense Artillery Brigade and its subordinate battalions have had a busy 2019, and that does not look to change as the brigade enters 2020. Whether conducting last minute deployments, long-planned brigade-level exercises, or supporting day-to-day garrison activities, the *Imperial Brigade* consistently executes at the highest level.

The mission of the 11th ADA Brigade is to rapidly deploy forces worldwide to provide joint and combined Air and Missile Defense protection to critical assets in accordance with combatant commanders' priorities and execute critical Air and Missile Defense modernization. Readiness is the priority for the unit, which enables the *Imperial Brigade* to always remain *Battle Ready!*

That includes all realms of readiness, including training, personnel, supply, maintenance and leader development. So when that moment of truth is faced, 11th ADA Brigade units are well-trained, well-led, well-equipped and well-manned, no matter the time or place.

The year 2019 started with elements of the 2nd Battalion, 43rd Air Defense Artillery Regiment, 11th Air Defense Artillery Brigade, deploying to Poland in support of U.S. Army Europe to participate in Tobruq Legacy 2019 to improve interoperability with North Atlantic Treaty Organization allies integrating Air and Missile Defense capabilities. The operation saw the unit conduct a tactical road march from Warsaw, Poland to Orzysz, Poland.

Second-43rd ADA Battalion rapidly deployed, completed reception, staging and onward integration over a condensed timeline and executed mission



command in an austere environment while completing the military decision-making process throughout the operation. The combined operation with European allies proved to be incredibly successful and demonstrated the high level of readiness, interoperability and confidence shared between partner nations throughout U.S. European Command.

First and 3rd Battalion, 43rd Air Defense Artillery Regiment's participated in Roving Sands 2019 providing observer controllers in an effort to validate 108th Air Defense Artillery Brigade for their 2019 deployment to the U.S. Central Command area of responsibility. Roving Sands was originally developed by the *Imperial Brigade* in 1989 and it has since become the largest joint Air and Missile Defense exercise, combining forces from the Army, Air Force and Marine Corps.

The realistic training exercise has been the proving ground for AMD units across the 32nd Army Air and Missile Defense Command's footprint, as such, the 32nd AAMDC commander directed Roving Sands to be an annual training event. Roving Sands provides the opportunity for the units involved to execute their primary function of providing AMD capabilities and further enhances their abilities to plan through complex problems, execute distributed mission command and validate their maneuver capabilities.

The *Imperial Brigade* deployed its headquarters battery to U.S. EUCOM in support of Saber Guardian '19 in May 2019. Saber Guardian further enhanced the interoperability of combined forces between the U.S. Army and North Atlantic Treaty Organization partners. A tactical road march of more than 850 kilometers demonstrated the capabilities and interoperability of AMD forces of the Greek, Bulgarian and Romanian military allies.

In July 2019, the *Imperial Brigade*, then commanded by COL Isaac Gipson, underwent a brigade change of command which brought COL John Dawber back to the unit. Dawber was previously assigned to the 11th ADA Brigade as a platoon leader, battery executive officer and battery commander. As with every change of command, staff in-briefs and reorganization of the brigade were necessary prior to the official ceremony. Gipson provided outstanding leadership to the *Imperial Brigade* and that is sure to continue as Dawber steers the storied 11th ADA Brigade into the future.

Combined exercises with partner forces have been the hallmark of training throughout the year for 11th ADA Brigade. No matter the location, from Fort Bliss, Texas, to the European area of operations, and our Middle East partners of Qatar, United Arab Emirates, Kuwait and Saudi Arabia, the AMD forces of choice consistently come from the *Imperial Brigade*. Readiness, training, expertise and maintenance have been the trademark for the brigade. It is because of these character traits that embody the Soldiers of this proud brigade that allow the unit to consistently answer the call to action.

Eleventh ADA Brigade then completed their own mission rehearsal exercise (MRE), "Imperial Crucible," in October 2019. The *Imperial Brigade* and its subordinate battalions conducted "Imperial Crucible" at McGregor Training Complex, Fort Bliss, Texas, Oct. 15-30, 2019. The purpose of the MRE was to validate Patriot Battalion, Terminal High Altitude Area Defense Battery, and the brigade headquarters' expeditionary capabilities in support of worldwide contingency operations and develop interoperability with coalition forces.

Second-43rd and 5-52nd ADA Battalions participated in the MRE conducting expeditionary air defense operations throughout the training area. The preparation for this complex training exercise began several months prior as the planning for an exercise of this caliber involved multiple units, supported attachments and was a monumental task for the staffs at echelon for both the brigade and battalions.

The MRE encompassed full-scale, unified land operations, providing integrated air defense to a combatant command, utilizing multiple locations and a variety of complex real-world threats to evaluate Soldier and unit tactical proficiency and technical competency. Each and every echelon was tested and evaluated all the way down to the team level. Countless training scenarios were evaluated to include area defense, casualty operations, intelligence preparation of the battlefield and communications.

At the conclusion of "Imperial Crucible" and in conjunction with Japanese Air Self-Defense Forces (JASDF) and Dutch Air Defense Forces, select 11th ADA Brigade units conducted an inaugural tri-national live-fire exercise at McGregor Training Complex, Fort Bliss, on Nov. 9, 2019. The purpose of "Operation Shining Star" was to improve interoperability while also validating Patriot surface-to-air missile systems. "Operation Shining Star" was the culminating training event for 11th ADA Brigade's "Imperial Crucible."

"Executing a Patriot live-fire exercise was identified as a significant step to strengthen the partnerships and getting to know each other's capabilities," said MAJ Peter Geurts, 11th ADA Brigade's deputy operations officer and Dutch exchange officer.

"Operation Shining Star" came into fruition after the idea was first proposed by Geurts and JASDF LTC Kojiro Kaneko, former JASDF liaison officer to 32nd Army Air and Missile Defense Command in 2017.

By the end of 2019, the live-fire exercise was led by LTC Takeshi Murakami, the current JASDF liaison officer to 32nd AAMDC, along with the *Imperial Brigade*. Alpha Battery, 1st Battalion, 43rd Air Defense Artillery Regiment and Fire Unit 3, 802nd Patriot Squadron, Netherlands Ground-based Air Defense Command (NLD GBADC), participated in the exercise conducting the U.S. Patriot live-fire. JASDF Soldiers executed a simultaneous live-fire exercise of their own Patriot air defense missile systems.



SGT Sean Spragley installs a Joint Battle Command-Platform into a High Mobility Multipurpose Wheeled Vehicle at the port of Alexandroupolis, Greece, May 29, 2019, in preparation for the unit convoy during exercise Saber Guardian 2019. (Courtesy photo/HHB, 11th ADA BDE)

While the 11th ADA Brigade has had a longstanding partnership with the NLD GBADC, bringing the JASDF into the fold was the next logical step in an effort to establish an ongoing multi-national partnership. The focus of the joint training and cooperation between all three countries' air defense experts led to the flawless execution of the live-fire event.

Upon validation, 2-43rd ADA Battalion was prepared for contingency operations anywhere in the world and deployed in January 2020 to provide critical AMD capabilities in defense of key assets, resources and Soldiers in their area of responsibility. Their colors casing ceremony was attended by families, friends and fellow Soldiers of 11th ADA Brigade.

The *Imperial Brigade* headquarters continues to prepare for its own deployment and will be taking the helm of AMD expertise in a designated area of responsibility in 2020.

For more information on the *Imperial Brigade*, please visit the unit Facebook page at <https://www.facebook.com/11thADAImperial/>.

Headquarters and Headquarters Battery, 11th Air Defense Artillery Brigade, *Hard Chargers*

Soldiers from the Headquarters and Headquarters Battery, 11th Air Defense Artillery Brigade, *Hard*

Chargers, conducted Operation Saber Guardian, a training exercise in Romania that included an 850km convoy consisting of 11 vehicles and over 50 personnel.

Upon returning, the battery focused on supporting the pre-deployment training of multiple battalions within the 11th Air Defense Artillery Brigade, culminating in Operation Imperial Crucible, a mission rehearsal exercise for the battalions that included Patriot Gunnery Table XII certifications as well as multiple movements for each unit in a complex and dynamic environment.

Beginning in August 2019, the *Hard Chargers* assumed a six-month global response force mission. The unit is prepared to deploy anywhere in the world in 96 hours and provide air and missile defense command to the area of operation. The *Hard Chargers* are currently focused on enhancing and maintaining unit readiness as the brigade headquarters prepares to deploy to Central Command.

<https://www.facebook.com/HHBFRG11ADA/>

Headquarters and Headquarters Battery, 31st Air Defense Artillery Brigade, *Archer Brigade*

Headquarters and Headquarters Battery, 31st Air Defense Artillery Brigade, started the year split between a main element at Fort Sill, Okla., and a forward

element in Southwest Asia. The unit was tasked with being the brigade headquarters element in charge of air and missile defense operations in the U.S. Central Command area of operations (AO). After 69th ADA Brigade relieved 31st ADA Brigade of the “Top Notch” mission, HHB, 31st ADA Soldiers redeployed to Fort Sill and continued their mission to support operational and strategic priorities by globally deploying trained forces to defend designated combatant command forces and critical assets against air, missile, and indirect fire attack.

At home station, HHB Soldiers assisted the brigade’s organic battalions when 4-3rd ADA Battalion deployed to the CENTCOM AO in July, 5-5th ADA Battalion redeployed from the CENTCOM AO in August, and 3-2nd ADA Battalion prepared to assume the immediate response force mission.

After redeploying, HHB, 31st ADA immediately started recovery operations, which included reverse Soldier readiness processing, recovering equipment and taking leave to spend time with family and recuperate before transitioning to the next mission.

HHB’s family is constantly changing. The unit saw a high personnel turnover rate, especially among senior leaders. The command team, intelligence, operations, sustainment, communications, mobility and ADA Fires control operations sections experienced leader transitions, but were replaced by someone who could bring a new perspective to the fight. In October, HHB’s 1SGT Rachel Dewitt replaced 1SGT Bradley Mcglothlin and CPT Sarah Pugh replaced CPT Thomas Harrison as HHB’s commander in November. Because of the personnel turnover, HHB has been prioritizing staff readiness exercises to familiarize new staff members with the brigade’s tactical operations.

In September, primary staff members participated in a command post exercise (CPX) at a remote location on Fort Sill that included establishing the brigade tactical operations center, mastering the fundamentals of their warfighting mission, and demonstrating a mastery of command and control. The unit will continue to build upon these training objectives when executing another CPX in December.

Along with helping assigned units prepare for deployment, 31st ADA is charged with serving as the certification authority for counter-rocket, artillery, and mortar (C-RAM) units. The unit has been engaged in executing 1st Battalion, 487th Field Artillery Regiment, Hawaii Army National Guard’s C-RAM certification and preparing 2nd Battalion, 44th ADA Regiment’s C-RAM certification training to start in 2020.

Looking ahead to 2020, 31st ADA will continue to improve staff functions, prepare units to deploy in support of AMD operations, and provide mission command for all assigned integrated AMD units.

<https://www.facebook.com/31stAirDefenseArtillery-Brigade/>
https://sill-www.army.mil/31st_ada/



2LT Joseph Harvey from B Battery, 3-2nd ADA ensures his battery’s launching station is secured prior to a C-17 flight on Nov. 5, 2019. (CPT Justin Thorp, U.S. Army)

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

Third Battalion, 2nd Air Defense Artillery Regiment, based out of Fort Sill, Okla., has been highly engaged in their ADA mission. Third-2nd ADA Soldiers prepared and executed field training exercises (FTX) and hosted visits from the command team from 32nd Army Air and Missile Defense Command. They underwent inspections, weapon qualifications and culminating training exercises. They held family fitness events, too. Even with their numerous readiness-oriented events however, the unit remembered to celebrate Soldiers’ and families’ personal events and accomplishments.

In November 2018, after 3-2nd ADA returned from their U.S. Central Command deployment, they hit the ground running. January 2019 began with a state-of-the-battalion brief summarizing the deployment and looking onward into the upcoming operations. As the battle rhythm operational tempo increased in garrison, Soldiers trained on individual tasks, participated in change of command ceremonies, and conducted leader development sessions.

Chaplain (CPT) David Ravenscraft prioritized morale by organizing several Strong Bonds events

throughout the year. These events provided Soldiers and their families the opportunity to normalize after deployment.

February 2019 marked the commencement of weapon qualifications, Forward Support Maintenance Program (FSMP), and Post-Deployment Build (PDB) 8.0 upgrades. Notably, 3-2nd ADA was the first ADA battalion in the branch to execute both maintenance efforts in their home station motor pool simultaneously. As a result of detailed planning and integration with stakeholders, the battalion completed both FSMP and PDB 8.0 on schedule and below budget.

During May 2019, 3-2nd ADA Soldiers conducted multiple readiness initiatives to include air/ rail load training, physical readiness training, and the completion of FSMP and PDB 8.0 upgrades.

In June 2019, 3-2nd ADA earned runner up in the 2018 Secretary of the Army's Deployment Excellence Award in the Army Large Unit Category. Later in June, LTC Lourdes Costas assumed command of 3-2nd ADA as the previous commander, LTC Pedro Camacho, bid farewell.

In the summer of 2019, Soldiers of the 3-2nd ADA planned, executed, and validated their air and missile defense (AMD) proficiency during their Air Defense Gunnery Table VIII certifications, ultimately attaining certification. The battalion challenged fire units' ability to provide AMD through a large-scale combat operations battalion FTX. During this FTX, units conducted AMD operations in support of maneuver operations against a dynamic peer/near-peer enemy force, comprised of strategic tactical ballistic missile forces, with conventional and unconventional capabilities.

In September 2019, the battalion hosted a fall festival for Soldiers and their Families. During the fall festival, Soldiers and families enjoyed a Patriot equipment tour, food, trunk or treat, a haunted house and other activities.

In October 2019, the battalion executed and successfully certified during their culminating training event in order to assume the immediate reaction force mission for the 32nd AAMDC. The culminating training event was externally evaluated and a dynamic battalion focused FTX. The FTX emphasized AMD operations against a peer/near-peer threat comprised of conventional and unconventional forces in support of large-scale combat operations.

The battalion ended the year with another Air Defense Gunnery Table VIII certification.

<https://www.facebook.com/3.2adabn/>

https://sill-www.army.mil/31st_ada/3-2ada.html

4th Battalion, 3rd Air Defense Artillery Regiment, 1 Strike Battalion

The 4-3rd ADA's success as it deployed to the U.S. Central Command area of responsibility (AOR) was made possible due to an aggressive execution of rapid deployment training and exercises. After a year as the

Prepared-To-Deploy-Order, Global Readiness Force Battalion, and Focus Readiness Unit, 4-3rd ADA was extensively skilled and heavily rehearsed in its ability to plan and execute a deployment with little to no notice. Therefore, when the battalion was notified of deployment to both Qatar and the United Arab Emirates within six months, leaders at all echelons were confident in the abilities of each individual Soldier and team to accomplish the mission.

The 4-3rd ADA completely overhauled the long-range training calendar in order to include pre-deployment requirements. Training events included a standard Patriot evaluation assessment report, a mission readiness exercise and a staff exercise. Each training event emphasized the inherent complexities of split battalion operations while utilizing real-world scenarios, documents, and troop training procedures. Coordination with 32nd Army Air and Missile Defense Command afforded the opportunity to utilize a dismounted Patriot information and coordination central to simulate split operations between two fire direction centers (FDC). The 1st Battalion, 43rd Air Defense Artillery assigned their standardization team to teach, coach and evaluate 4-3rd ADA crews. Utilizing the mission training center and Fort Sill's expansive land resources, 4-3rd ADA certified four battalion FDC crews and 12 battery crews. Utilizing the 31st ADA Brigade operations center and Reconfigurable Table Top Trainer lab, 4-3rd ADA leadership demonstrated the ability to develop courses of action against a realistic problem set and out-brief the brigade commander. The 4-3rd ADA was able to accomplish pre-mission training, a process that typically takes eight to 12 months, in less than five months.

HHB, 4-3 ADA personnel conduct antenna mast group (AMG) march order and emplacement drills in the U.S. Army Central Command area of responsibility. (MAJ Jese Snyder/U.S. Army).



Following the tactical certification process, 4-3rd ADA transitioned to preparing all equipment for movement. Through movement preparation area operations, vehicles went through an intensive inspection process to ensure proper regulatory enforcement of maintenance, equipment security, and documentation of hazardous materials. Simultaneously, units developed and executed load plans of their entire hand receipt through a complete pack-out. Individual Soldiers were also responsible for drawing their rapid fielding initiative, inventorying it and securing it in containers to be shipped to their respective deployed country. The battalion was able to successfully deploy all equipment from Fort Sill's rail yard and Fort Sill/Lawton's regional airport including six chucks of air-loaded equipment. Air-load movement enabled the early arrival of over 50 essential personnel, pre-positioning them for the transition process and enabling several additional days of training with 1-43rd ADA. Over the course of the two month process, 4-3rd ADA successfully deployed over 100 pieces of rolling stock and containers with zero safety incidents and one-hundred percent accountability of all equipment.

Beginning in June, 4-3rd ADA personnel began a two-week intensive transition process with 1-43rd ADA. This process included crew certification and verifications for all air and missile defense crews as well as staff and administrative changeover. The 4-3rd ADA officially assumed mission in July and has been making strides to exceed the combined forces air component commander's intent in the CENTCOM AOR. Fourth-3rd ADA accomplishments include participation in Falcon Shield 15, Iron Falcon, AMDEX 20-01, and optimization of current theater defense designs.

https://sill-www.army.mil/31st_ada/4-3ada.html
<https://www.facebook.com/43AirDefenseArtillery/>

5th Battalion, 5th Air Defense Artillery Regiment, *Dragonslayers*

The *Dragonslayers* of 5th Battalion, 5th Air Defense Artillery Regiment, commanded first by LTC Troy Bucher and then by LTC Shawn Geib, along with CSM Kelly Hart, had an extremely busy and successful year in 2019. The battalion deployed in support of U.S. Central Command for Operation Freedom's Sentinel and was responsible for providing counter-rocket, artillery and mortar (C-RAM) coverage to multiple locations throughout the entirety of the Afghanistan area of responsibility. While the forward elements transitioned with 2nd Battalion, 44th Air Defense Artillery Regiment and ensured there was no loss of C-RAM coverage, the rear detachment element at Fort Sill, Okla., maintained the day-to-day garrison operations.

While deployed, Alpha Battery consistently worked on improving their C-RAM coverage through the addition, and relocation, of C-RAM systems. Along

with providing C-RAM coverage, Bravo Battery provided non-military occupational specialty-qualified Soldiers the opportunity to advance their careers by attending the Bagram Airfield basic leader's course for junior enlisted Soldiers. While operating in austere environments, Headquarters Battery and Charlie Battery placed an emphasis on site improvement of both the battery fighting positions and of the base itself. In July, the battalion completed a relief in place and transfer of authority with the Hawaii National Guard's 1st Battalion, 487th Field Artillery Regiment. Fifth-5th ADA Battalion's rear detachment also supported the Michigan National Guard with early warning and detection capabilities during Northern Strike exercise.

After recovery, reintegration, and block leave, the battalion focused on training to maintain indirect fire protection capabilities proficiencies, rebuild Avenger proficiencies, and increase overall readiness to execute assigned missions in future operations. The battalion met these training requirements by executing a successful command post exercise and field training exercise.

As 5-5th ADA looks to the future, our operational approach is focused on rapidly rebuilding short-range air defense combat power to protect the force. It is designed to reflect our values, align our behaviors, and support the joint force commander. Each aspect of our approach: prepare, pursue, and protect (P-P-P) enables the next and collectively contributes to the successful achievement of our goals, objectives and overall mission. P-P-P also provides the over-arching framework supported by our four lines of effort: a) combat operations and enabling activities, b) sustainment and modernization, c) admin, personnel, and families, and d) building leaders. It is proactive in nature and endeavors to set in motion tangible actions to build combat readiness and maintain persistent excellence.

https://sill-www.army.mil/31st_ada/5-5ada.html
<https://www.facebook.com/5th-Battalion-5th-Air-Defense-Artillery-Regiment-173362599415940/>

108th Air Defense Artillery, *Spartan Brigade*

Over the last year, 108th Air Defense Artillery (ADA) Brigade and its subordinate units have been dedicated to executing today's critical air and missile defense missions of today, while also preparing for those of tomorrow. This year alone, the *Spartan Brigade* participated in Roving Sands 2019 and took over as Top Notch Brigade during one of the most complex air and missile defense situations Central Command has experienced. Roving Sands 2019 saw the *Spartan Brigade* successfully resolve the challenges presented from executing expeditionary operations into an austere environment. This served the brigade well as it lead the efforts to project air and missile defense



A Soldier from A Battery, 1st Battalion, 7th Air Defense Artillery, 108th Air Defense Artillery Brigade, works to emplace a Patriot Launcher during Roving Sands 2019 in the training area at Fort Bliss, Texas. (CPT Brandon Nalley/U.S. Army)

power in the Gulf Region. The planning and actions conducted by the *Spartan Brigade* as Top Notch were the foundation for the display of commitment the United States has made to its Gulf Region partners. One hundred and eighth ADA worked tirelessly to support the building of partner capabilities and relationships in support of a more stable Gulf Region, as well as strengthen our Soldiers and families. As much now as ever, the *Spartan Brigade* continues to place “Deeds above Words.”

First Battalion, 7th Air Defense Artillery, maintained its “Ready Now” status and commitment to building a strong, ready and resilient team of Soldiers and families. The *Panther Strong Battalion* showcased unit readiness through the execution of a battalion field training exercise focusing on the expeditionary mindset in preparation for Roving Sands 2019 (RS19). RS19 further displayed the *Panther Strong Battalion*’s expeditionary mindset as the unit deployed 100 percent of all modified table of organization and equipment and personnel in order to defeat Donovan aggression.

In the spring, Alpha Armadillos Battery, 1-7th ADA received a no-notice deployment as part of a force projection package to defend strategic assets and deter Iranian aggression in the CENTCOM AOR. The Panther Battalion followed shortly thereafter upon the unit’s activation as the Patriot Global Response Force to defend strategic assets in support of Operation Spartan Shield. Over the last year, the battalion welcomed the addition of a Holistic Health and Fitness Team to assist Soldiers as they trained and executed the Army Physical Fitness Test. First-7th ADA was one of the few test battalions selected. The Panther Battalion continues to focus on lethality, training and Soldier readiness, further cementing its historic legacy of executing any mission, anywhere in the world while staying committed to a strong and resilient force of Soldiers and families.

Second Battalion, 44th Air Defense Artillery Regiment, *Strike Fear Battalion*, conducted a combined arms live-fire exercise (CALFEX) to develop training readiness for C-RAM crews and develop tactics, techniques and procedures (TTP) to integrate offen-

sive artillery and aviation Fires against an enemy threat in March 2019. With the complexity of indirect fire threats increasing, the exercise uniquely challenged engagement operation cell and Land-based Phalanx Weapon System crews through increasingly complex scenarios commensurate with current unmanned aerial system (UAS) and Israel Defense Forces threats. Second-44th ADA executed a dynamic training scenario, challenging crews' system knowledge and adherence to certification standards and unit tactical standard operation procedures. The battalion adopted a conditions-based approach infused with increasingly complex scenarios and counter-UAS engagement sequence training to evolve crew proficiency and keep pace with current threats as part of its C-RAM deployment training methodology.

Leading up to the CALFEX, 2-44th ADA designed and refined the procedures to engage a UAS, developed unit TTP and taught 17 emergency operations center crews all necessary battle drills in a matter of weeks. The 101st Division Artillery participated in this training by incorporating the base defense operations cell and elements of mission command through the joint engagement sequence, a key risk reduction technique to clear airspace and control Fires. This is evidence of the initial stages of short-range air defense (SHORAD) reintegrating into the division, a line of operations for 2-44th ADA and 101st Airborne Division (Air Assault). The battalion focuses on gunnery certifications in order to set conditions to be a trained and ready indirect fire protection capabilities battalion during their upcoming deployment.

Third Battalion, 4th Air Defense Artillery Regiment, *Skystriker Battalion* deployed to execute Operation Spartan Shield in 2019, focusing on defending critical coalition assets against imminent threats in the theater. The battalion was invited by the Kingdom of Saudi Arabia to integrate into the air and missile defense of the country. Soldiers from Charlie Battery, Headquarters Battery and Foxtrot Company were among the first U.S. military service members to arrive at a site last occupied 15 years ago. Equipped with Patriot missiles and radars, the *Skystriker* reestablished U.S. military presence in an undeveloped site in order to defend a once vulnerable air space against enemy air threats. The *Skystriker Battalion* continues to provide air and missile defense across the Gulf Region as a testament of our dedication to our partners.

In preparation for operations in the CENTCOM area of responsibility, 3-4th ADAR spent nearly a month at Roving Sands near Fort Bliss, Texas, for a physically and mentally challenging month-long field training exercise. The battalion maximized its capabilities by qualifying new battery crews through conducting collective Patriot Table VIII certifications. Crews executed emplacement and validation drills. The battalion also used this time to prepare for its internal as well as 108th ADA Brigade's CTE.

Echo Battery, the only airborne capable short-range air defense unit in the U.S. Army, brought portions of their unique capabilities to the Kingdom of Saudi Arabia in late October. Before deploying, the battery executed an avenger/stinger live-fire exercise at Fort Stewart, Ga., to maintain outstanding proficiency and certifications for all Avenger teams. Committed to defending ally air space against unpredictable threats, the battalion calls itself "one team." By daring deeds, the *Skystriker*s are poised to execute any mission, anywhere in the world while remaining committed to strong, ready, and resilient Soldiers and families.

<http://www.facebook.com/108thADA/>.

164th Air Defense Artillery Brigade, Florida Army National Guard, *Blazing Skies*

2019 was another high operations tempo year for the 164th Air Defense Artillery Brigade, to include two overseas deployments; one stateside mobilization; elemental rotations through the Joint Regional Training Center and eXportable Combat Training Capability (XCTC); and brigade-wide preparations for future deployments, redeployment of both the brigade headquarters and elements of 1st Battalion, 265th ADA Regiment, and support to the 53rd Infantry Brigade Combat Team's (IBCT) 2020 Joint Readiness Training Center rotation.

Headquarters, 164th Air Defense Artillery Brigade

The brigade headquarters mobilized in June 2019 to Ansbach, Germany, in support of Atlantic Resolve in order to provide mission command of U.S. Air and Missile Defense forces, increase readiness through training and exercises, oversee ADA growth, and enhance the alliance with our European allies to deter aggression. Brigade staff members have attended planning conferences in Israel, Sweden, Lithuania and U.S. Army Europe Academics to synchronize planning efforts and logistics between brigade assets and host nations. Participation in these exercises enhances professional relationships and improves overall interoperability with allies and partners. Shortly after saying goodbye to the European Deterrence Initiative personnel, the unit received official notification of its 2020 mobilization as the task force element of the National Capital Region – Integrated Air Defense System (NCR-IADS) mission and began their train-up in December.

1st Battalion, 265th Air Defense Artillery

Nearly 300 Soldiers from 1-265th ADA spent the first half of the year preparing for their concurrent



On Veteran's Day, Nov. 11, 2019, Soldiers with the 164th Air Defense Artillery Brigade participate in a Battlefield Staff Ride to Normandy in order to acquire greater knowledge of U.S. Army history; the courage, commitments, and competencies of U.S. Forces involved in Operation Overlord; and to develop a more comprehensive understanding of the operational art and profession of arms. (1LT Valeria M. Pete/U.S. Army)

deployments to Washington, D.C., as the Ground-Based Air Defense battalion for the NCR-IADS and to Europe in support of European Deterrence Initiative (EDI).

In July, following a successful culminating training event at Fort Bliss, Texas, the battalion conducted a battle handover with 1st Battalion, 174th Air Defense Artillery Regiment from Ohio. While on station in the NCR, 1-265th ADA successfully executed their role in Exercise Capital Shield – a Military District of

LTC Robert Bellomo, 1st Battalion, 265th Air Defense Artillery commander, promoted SFC Jason Meyer on the steps of the U.S. Capitol. Meyer's two sons, Landen and Carsen, were there to pin his new rank on. (SSG Debra A. Cook/U.S. Army)



Washington joint exercise that included a multitude of military organizations and civilian agencies. They also participated in Fire Distribution Center and Forward Area Air Defense training in Redstone Arsenal, Ala., as well as providing a Stinger Mobile Training Team to train and assist the 10th Mountain Division in the execution of Air Defense Tactics, Techniques and Procedures in preparation for their National Training Center rotation. First-265th ADA Soldiers also participated in a number of North American Aerospace Defense Command exercises such as Exercise Amalgam Dart and Exercise Amalgam Arrow among others.

The 1-265th ADA's EDI Battery was tasked to provide Short Range Air Defense in support of the EDI against unmanned aerial systems, rotary-wing, and fixed wing threats throughout the European Combatant Command theater of operations. They trained with the 86th Infantry Brigade Combat Team of the Vermont Army National Guard at JRTC in May of 2019 as part of their premobilization preparations. There they provided direct support to maneuver elements and were the first air defense unit to conduct a "force on force" air defense mission at a combined arms training center since the late 1990s. In July, the EDI Battery deployed to Europe to begin training in austere environments and would complete multiple field training exercises that stressed equipment and personnel. The EDI battery will continue with their rigorous training through the remainder of 2019 and participate in other large-scale exercises such as Exercise Combined Resolve XIII.



Ssg Julian Mardones, an Air Defense team leader for 3rd Battalion, 265th Air Defense Artillery, instructs a new Soldier on proper stinger missile operations during XCTC 2019. (CPT Ryan Crosby/U.S. Army)

3rd Battalion, 265th Air Defense Artillery

The batteries of 3-265th ADA began a busy 2019 with two four-day field training exercises as the battalion's calendar for TY19 was focused on a return to traditional short-range air defense and systems-integrated training. In August, Alpha Battery took a battery-sized element of Soldiers from across the battalion to support the 53rd Infantry Brigade Combat Team at XCTC 19-05. The three-week exercise at Camp Shelby, Miss., was a precursor to the 53rd IBCT's JRTC rotation at Fort Polk, La., next year. Third-265th ADA will once again provide a battery-sized element to integrate short-range air defense into the BCT's exercise at JRTC in June 2020.

Shortly following XCTC, Soldiers of 3-265th ADA were placed on state active duty (SAD) for what began as Tropical Storm Dorian but grew into the largest Category 5 storm in history to approach Florida's east coast. Floridians and guard members across the state breathed a sigh of relief as the storm took a northeasterly turn before coming close enough to the state's eastern shores to do any real damage. Soldiers were released from SAD after a very tense week of watching and waiting.

In October, 3-265th ADA received official notification of their concurrent 2020 deployments to the NCR and EDI and began initial preparations to ensure absolute mission success in both lines of effort.

3rd Battalion, 116th Field Artillery

In April, 3rd Battalion, 116th Field Artillery Regiment welcomed home 30 personnel from A Battery following a year-long deployment to Afghanistan in support of Operation Freedom Sentinel. During this

deployment, the element successfully completed 60 missions firing over 200 live rounds.

In June, staff elements of the 3-116th FA participated in the Breakthrough Exercise 2019 in Hungary with personnel from HHB and Alpha Battery serving as the higher command element for the Joint-Nations Fires Exercise in order to establish a working relationship with the Hungarian Army.

In August, 3-116th FA completed their complex annual training less than 12 months after a battery plus returned from deployment. Concurrently, they conducted a new equipment fielding and testing for the High Mobility Artillery Rocket System launchers; crew-served weapons qualification; Virtual Convoy Operation Trainer for Convoy Protect Platform gate; Joint Battle Command – Platform and Command Post of the Future training; and Artillery Skills Proficiency Tests for eight crews.

3rd Battalion, 6th Air Defense Artillery Regiment, *Bruiser Nation*

The *Bruiser Nation* Soldiers of 3rd Battalion, 6th Air Defense Artillery Regiment are responsible for air and missile defense training and testing at the Fires Center of Excellence, White Sands Missile Range and designated locations around the world with the goal of providing the operational force with world-class Air and Missile Defenders and the most advanced and capable air defense equipment and software.

The Fort Sill part of the battalion spent much of 2019 preparing for the Training and Doctrine Command Accreditation visit to the Fires Center of Excellence. Accreditation allows TRADOC to review processes and procedures to validate that each course is taught in accordance with institutional standards. Third-6th ADAR's instructors, course managers and battalion staff worked tirelessly to ensure all standard operating procedures, academic procedures, waivers and historical records were in accordance with TRADOC guidance, all while training and educating thousands of U.S. and international military students.

Concurrently with accreditation, the battalion made huge strides in changing its approach to holistic health and fitness as part of Army Combat Fitness Test (ACFT) implementation. The battalion executed periodic ACFTs throughout the year to familiarize unit personnel with the new test and certify graders and leaders before beginning tests for record with select Advanced Individual Training (AIT) and Warrant Officer Education System (WOES) courses in the fall. The battalion has also enrolled nearly a dozen leaders in certified personal trainer courses and embraced a variety of resources at Fort Sill and White Sands Missile Range to improve its Soldiers' overall fitness.

The battalion's headquarters and Alpha Battery oversees the Patriot WOES, Terminal High Altitude Area Defense (THAAD) training courses, and a variety of Patriot functional courses. Over the past year, the



SSG Eduardo Garcia (pictured at left) of B Battery, 3rd Battalion, 6th Air Defense Artillery Regiment coaches a team of four Advanced Individual Training Soldiers during the Drill Sergeant Training Program as they take on the “Skyscraper” obstacle at Fort Sill’s Combat Obstacle Course. (SPC Chad Cleaver/U.S. Army)


battery continued to support the ongoing split of the Air and Missile Defense Tactician (140K) and Air and Missile Defense Technician (140L) specialties. Headquarters/A instructors conducted the first-ever Warrent Officer Advanced Course classes for 140K and 140L, and are currently preparing for the first 140K/L THAAD courses. The battalion is also working to ensure WOES and functional courses like Patriot Master Gunner and Patriot Top Gun reflect the Branch’s transition to the Patriot Configuration 3+ system and the Post Deployment Build (PDB) 8 software.

Third-6th ADAR’s Bravo Battery, which conducts AIT for 14E (Patriot Fire Control Enhanced Operator/Maintainer) and 14T (Patriot Launching Station Enhanced Operator/Maintainer) Soldiers, has also seen its share of change. In response to the TRADOC commandinmng general’s guidance to reintroduce rigor into AIT, the battery’s drill sergeants developed the Drill Sergeant Training Program (DSTP) and an interim field training exercise (FTX). The battery conducts the DSTP on alternating Saturdays to reinforce warrior tasks throughout AIT without affecting MOS-specific instruction on normal duty days. The DSTP ensures that AIT students maintain proficiencies in the skills developed during basic training so they can execute them at a high level during the Capstone FTX. The FTX is currently a three-day exercise that consists of one full day of rigorous, realistic and MOS-aligned warrior task and drill training in a field environment, followed by two additional days of extended-hour training on tactical equipment in full foundational combat gear in the battalion’s General Instructional Facility. As the instructors get additional resources and reorganize the program of instruction, they plan

to incorporate more training on Patriot equipment in actual field conditions, expand on the warrior tasks and drills and improve the overall training scenario.

The Air and Missile Defense Test Detachment (AMDTD) at White Sands Missile Range, had its busiest year yet. The detachment is responsible for testing future AMD systems and is currently focused on testing the Army Integrated Air and Missile Defense (AIAMD) System of Systems and advanced Patriot software and hardware. Major Patriot testing initiatives in 2019 included a comprehensive evaluation of the operational cyber-security survivability of the Patriot PDB-8.0.5 software, a live-fire engagement of two tactical ballistic missiles and tests on other improved Patriot hardware. AIAMD testing focused on developmental testing of IAMD Battle Command System software version 4.5; simultaneous efforts to develop tactics, techniques and procedures for AIAMD air battle management and employment; and the first-ever AIAMD flight test that used Soldiers as operators. AMDTD Soldiers also took part in the “sense-off” of the proposed Lower Tier Air and Missile Defense Sensor models and are currently supporting 3rd Battalion, 43rd Air Defense Artillery as that battalion prepares for AIAMD collective training and Limited User Testing next year.

Throughout the battalion’s training and testing missions, *Bruiser Nation*’s Soldiers and civilians worked tirelessly to ensure the safety of personnel and equipment, and the battalion was awarded a TRADOC Safety Excellence Award. SFC Michelle Rodrigues, one of the battalion’s unit safety officers, was also awarded the TRADOC Individual Award for Safety Excellence.



The 2020 submission deadlines for the Air Defense Artillery Journal:

Issue 2, May 1, 2020

Issue 3, Oct. 1, 2020

Submit your articles to:

usarmy.sill.fcoe.mbx.bulletins@mail.mil

Soldiers with 5th Battalion, 4th Air Defense Artillery Regiment carry a Man-Portable Air-Defense System during the Shabla 19 exercise, Jun. 11, 2019. (Courtesy photo)