AMC TODAY

SUSTAINING THE STRENGTH OF THE NATION

U.S. ARMY MATERIEL COMMAND MAGAZINE

OCTOBER - DECEMBER 2016



IN THIS ISSUE:



SPECIAL BEHIND THE SCENES OF AMC'S UNIQUE PROGRAMS



VANTAGE POINT

GENERAL DENNIS L. VIA AMC COMMANDING GENERAL

The U.S. Army Materiel Command (AMC) provides everything a Soldier requires, from home station to the Combatant Command areas of responsibility, but what lies between the two is often unfamiliar or unknown. A closer look at the variety of unique, one-of-a-kind missions AMC executes every day begins to tell the full story of the overwhelming depth and breadth of the command's worldwide operations.

This issue of AMC Today showcases the command's out-of-the-box responsibilities that, while often unseen, are fundamental to delivering readiness to the joint force. The patch trusted around the world represents more than just AMC's proven logistics track record; it represents a diverse portfolio of capabilities from recruiting and outreach to the disposal of chemical and radioactive materials. AMC professionals work in centers and facilities across the United States and around the world to accomplish amazing, critical feats and tasks with little fanfare.

L THIS ISSUE ... SHOWCASES THE COMMAND'S OUT-OF-THE-BOX **RESPONSIBILITIES THAT,** WHILE OFTEN UNSEEN, **ARE FUNDAMENTAL TO DELIVERING READINESS** TO THE JOINT FORCE. 77

Headquartered in Virginia, AMC's 21-person team comprising the Army Petroleum Center fuels the force, pumping nearly 350 million gallons of petroleum to receipt and storage locations around the world. In Philadelphia, an AMC team fills more than 30,000 requests each year from veterans and their families who never received or are missing military awards. The Veteran Medals Program restores honor to its rightful owner, including the nation's most prestigious recognition: the Medal of Honor. Located in Huntsville, Alabama, AMC's Army Contracting Command contracts every dollar the Army spends from procuring weapons, to recruiting and marketing, to transportation and receipt of supplies.

Meanwhile, through its subordinate Chemical Materials Activity, AMC effectively and safely destroyed nearly 90 percent of the entire U.S. chemical weapons stockpile. At the Morris Consolidation Facility on Rock Island Arsenal, Illinois, AMC oversees the end-of-life cycle for the Army's and much of the military's equipment containing radioactive material.

These examples are but a few of the behind-thescenes missions that our dedicated workforce at AMC accomplishes every day. While AMC is widely recognized as a logistics powerhouse that provides everything a Soldier drives, flies, shoots, wears, communicates with or eats, the command's expansive range of capabilities will continue to enable the success of the joint force in more ways than known. A review of the pages that follow will reveal many of AMC's special missions.

AMC - Sustaining the Strength of the Nation!

AMC BEST WARRIOR COMPETITORS DISPLAY STRENGTH, DETERMINATION

The U.S. Army Materiel Command (AMC)

announced Sgt. 1st Class Alexander Garcia as its NCO of the Year, and Sgt. Mitchell Keeton as its Soldier of the Year, Aug. 3 at Redstone Arsenal, Alabama.

Garcia and Keeton competed alongside 10 others during AMC's Best Warrior Competition, July 7-9 at Camp Atterbury, Indiana.

Garcia is an infantryman assigned to the U.S. Army Security Assistance Training Management Organization at Fort Bragg, North Carolina, a subordinate of U.S. Army Security Assistance Command. Keeton, who was promoted to the NCO ranks during the course of the competition, is assigned to the 688th Rapid Port Opening Element at Fort Eustis, Virginia, a subordinate of Military Surface Deployment and Distribution Command.

Over the course of the three-day event at Camp Atterbury, competitors from throughout the command covered 32 miles of dismounted movements in full combat gear and tackled 39 scenario-based warrior tasks without knowing what challenge was coming next.

The winners will compete in the Army Best Warrior Competition at Fort AP Hill, Virginia, Sept. 26-Oct. 3.



TOP: Sgt. 1st Class Alexander Garcia, an infantryman assigned to the Security Assistance Training Management Organization at Fort Bragg, North Carolina, shoots his weapon during the U.S. Army Materiel Command (AMC) Best Warrior Competition at Camp Atterbury, Indiana.

CENTER: From left, Gen. Dennis L. Via, AMC Commander; Sgt. 1st Class Alexander Garcia, NCO of the Year; Sgt. Mitchell Keeton, Soldier of the Year; and Command Sgt. Major James K. Sims.

BOTTOM: Sgt. Mitchell Keeton completes the road march during the AMC Best Warrior Competition.

(U.S. Army photos by Sgt. 1st Class Michael Zuk)





AMC HEADQUARTERS SPECIAL MISSIONS

- **6** LOGISTICS SUPPORT ACTIVITY Automating sustainment readiness efforts
- **8** ARMY MATERIEL SYSTEMS **ANALYSIS ACTIVITY** Providing state-of-the-art analytical solutions
- **10** ARMY RESERVE COMPONENT Augmenting logistics missions
- **12 ARMY PETROLEUM CENTER** Control point for DOD's bulk petroleum
- 16 CHEMICAL MATERIALS ACTIVITY Leading efforts in chemical materiels management

SPECIAL MISSIONS **AROUND THE COMMAND**

- 18 ARMAMENTS/HERALDRY Veteran Medals Program supports Soldiers past and present
- 20 CONTRACTING Acquisition experts vital to presidential funeral support
- 28 **AVIATION & MISSILE** Ensuring Army helicopters are ready for training
- **COMMUNICATIONS & ELECTRONICS** 30 Providing presidential communication capabilities
- 32 SUSTAINMENT Maintaining the Army's Prepositioned Stock afloat program
- **38 DEPLOYMENT & DISTRIBUTION** Monitoring DOD sensitive materials in transit
- 40 **RESEARCH & DEVELOPMENT** Leading environmental, safety, health and energy initiatives
- 42 MUNITIONS Executing radioactive processing and packaging

FRONT COVER: First Sgt. Robert Durbin, Honor Guard Company First Sergeant, holds 1st Sgt. David McNerney's Medal of Honor during an Enshrinement Ceremony at the Smithsonian National Postal Museum in Washington, D.C., in 2013. (U.S. Army photo by Staff Sgt. Teddy Wade)

BACK COVER: Original art by Ken McMurrain.



COLUMNS

1 VANTAGE POINT

Commentary from AMC's senior leader Gen. Dennis L. Via on the command's unique missions

4 PERSPECTIVES

Maj. Gen. Steven Shapiro, AMC Deputy Chief of Staff, G-3/4, discusses the adapting role of operations and logistics

FEATURES

- **5** AMC BY THE NUMBERS Fascinating facts about AMC and its mission around the globe
- 14 AMC NEWS & NOTES Notable happenings throughout the command
- **22** ARSENAL OF THE BRAVE Meet AMC Soldiers and civilians dedicated to mission success
- **34** ACROSS THE YEARS A look at AMC's first and only floating depot
- 44 BATTLETECH Sophisticated technology used across AMC
- 46 INDUSTRY'S ROLE Army Manufacturing Technology Program advances manufacturing capabilities





AMC TODAY MAGAZINE

COMMAND STAFF

Gen. Dennis L. Via Commanding General

Command Sgt. Maj. James K. Sims Command Sergeant Major

Lt. Gen. Larry Wyche Deputy Commanding General

Ms. Lisha H. Adams Executive Deputy to the Commanding General

Maj. Gen. Allan Elliott Deputy Chief of Staff

EDITORIAL STAFF

Col. Richard Spiegel, Director of Public and Congressional Affairs

Kim Hanson, Managing Editor Elizabeth Behring, Editor

CONTRIBUTORS

Melissa Bullard Matt December Susan Farrow Mara Gecan Ken McMurrain

AMC Today is an authorized publication to inform and educate members and partners of DOD and the U.S. Army Materiel Command. Contents of AMC Today are not necessarily the official views of, or endorsed by, the U.S. Government or the Department of the Army. The editorial content of this publication is the responsibility of the AMC Public Affairs Office.

EDITORIAL OFFICE INFORMATION AMC Today welcomes feedback from readers. Feedback can be submitted via email and must include sender's name. phone number and valid email address. Send feedback emails to: usarmy.redstone. usamc.mbx.public-affairs@mail.mil

The Editorial Office of AMC Today is located at: U.S. ARMY MATERIEL COMMAND **OFFICE OF PUBLIC &** CONGRESSIONAL AFFAIRS 4400 MARTIN RD. **REDSTONE ARSENAL, AL 35898** PHONE: 256.450.7000



PERSPECTIVES

Featuring this issue's guest columnist MAJOR GENERAL STEVEN SHAPIRO AMC DEPUTY CHIEF OF STAFF, G-3/4

G-3/4 INITIATES CHANGES TO BETTER SUPPORT GLOBAL LOGISTICS

The U.S. Army Materiel Command (AMC) is a global logistics powerhouse, operating 24-hoursa-day, 365-days-a-year to ensure warfighters have the combat-ready equipment needed to execute their mission. The G-3/4, Operations and Logistics, monitors, manages and oversees every mission, task, function and operation required to equip units and sustain forces. The G-3/4 is at the heart of every facet of the command's mission.

CONSTANTLY ADAPTING TO OPERATE IN AN EVER-CHANGING ENVIRONMENT.

To be effective, the AMC G-3/4 must remain relevant, constantly adapting to operate in an ever-changing environment. Recently, the G-3/4 restructured three divisions to synchronize acquisition life cycle sustainment, integrate war plans and strategy, and oversee our cyber efforts. These new capabilities posture the command to meet current challenges and prepare for the future.

The Acquisition Life Cycle Cell (ALCC) stood up in spring 2016 to synchronize commandwide materiel requirements and acquisition efforts, and tie into Department of the Army acquisition initiatives. The ALCC provides AMC and Army leadership with materiel systems trade space and informs acquisition life cycle sustainment decisions, both critical functions given today's environment of reduced budgets and increased expeditionary requirements.

The War Plans and Strategy Division (WP&SD) also stood up in spring 2016 to expand strategic and operational planning efforts to meet the operational needs – from the strategic to the tactical – for sustainment in support of Combatant Commanders. WP&SD provides logistical expertise to joint and Army planning to analyze strategic guidance, identify requirements and coordinate AMC support, ensuring campaign plans are supportable and sustainable.

The Cyber Cell provides a single entry point for centralized and integrated investigation, analysis, monitoring and informing of cyber operations across the AMC enterprise. In an increasingly contested and congested cyber environment, the Cyber Cell strengthens the command's cyber capabilities by synchronizing cyber efforts across the enterprise.

AMC G-3/4 serves as the principal operations and logistics advisor to the Commanding General to enable mission command over AMC units and operations and sustain Unified Land Operations anytime, anywhere. Readiness has, and will continue to be, our top priority. AMC's reputation – the "power of the patch" – stands on the shoulders of an efficient and effective Operations and Logistics section; these professionals work across every mission to assure that AMC continues to sustain the strength of the nation.



11 laboratories worldwide by the Army Oil Analysis Program

decrease in excess inventory in less than 6 months as a result of AMSAA analysis

MILLION saved annually by LOGSA in second destination transportation costs for equipment **BILLION** in excess inventory identified by AMSAA analysis for disposal



receipt and storage locations serviced by the Army Petroleum Center

Army Reserve and Army National Guard Soldiers supplement AMC's force at any given time



medals created each year by the Veteran Medals Program

MILLION users registered with the America's Army online video game

LOGISTICS **SUPPORT ACTIVITY:** THE BRAIN BEHIND THE POWER

Staff Sgt. David Howard, a load planner with 457th **Civil Affairs Battalion** 7th Mission Support Command, inspects a supply pallet during join operations in support of Operation Echo Casemate. All Army cargo transported through airspace must first be cleared by Logistics Support Activity. (U.S. Army photo

By Elizabeth Behring, AMC Public Affairs



f the U.S. Army Materiel Command (AMC) life cycle management commands (LCMCs) are the brawn that provides portfolio-based sustainable readiness to the total Army, AMC's Logistics Support Activity (LOGSA) is the brain.

LOGSA is the Army's primary information collection and organization point for all units, depots and entities that deal in military materiel. equipment and life cycle management.

"There is only one LOGSA ... only one unit responsible for the Army's readiness reporting, and that duty lies with us," said LOGSA Commander Col.

John D. Kuenzli. Headquartered at Redstone Arsenal, Alabama, LOGSA was formed by the merger of six logistics support activities and components in the 1993 Defense Base Closure and Realignment Commission legislation.

The information LOGSA collects is fed into the everyday operations of LCMCs, which are responsible for their own cradle-to-grave operations.

"LCMCs are in the business to produce hardware for specific commodities," said David Martin, LOGSA deputy to the commander. "We don't make those products, but we make those products better. All these tools help the Army make the right readiness decisions."

LOGSA improves on what LCMCs produce by working directly with them to compile, store and analyze all Army data – from Soldier readiness, to maintenance, to business intelligence tools, and everywhere in-between.

For example, each Army division is required to prepare monthly Unit Status Reports (USR), or detailed summaries of a unit's equipment, personnel and overall readiness, then submit them to a LOGSA database.

"The USR is rolled up through our IT systems and goes all the way up to the Vice Chief of Staff of the Army when

leadership get their monthly readiness assessments," Kuenzli said.

To store this massive amount of data requires super computers: two terabytes, in fact, which is the equivalent of 5,000 trees' worth of paper. This storage capacity is equal to all the X-rays on file at U.S. hospitals, and handles as many transactions daily as the New York Stock Exchange. Incoming queries also match those on Amazon. com any given day, said Kuenzli.

"This data is then used to support the 20 individual missions or activities internal to LOGSA where we are the Army or DOD proponent, or lead agent," he said. "We are in support of, or intertwined with, all the other command's activities in some way or another."

66 LOGSA IS THE ARMY'S PRIMARY **INFORMATION COLLECTION AND ORGANIZATION POINT FOR ALL UNITS. DEPOTS AND ENTITIES THAT DEAL IN MILITARY MATERIAL, EQUIPMENT AND** LIFE CYCLE MANAGEMENT. 77

For instance, LOGSA works with Army Contracting Command-Redstone to support its contractors. LOGSA also conducts logistics engineering support on behalf of the Assistant Secretary of the Army (Acquisition, Logistics and Technology).

Using data from the Army's Enterprise Resource Planning Systems, including the Logistics Modernization Program and Global Combat Support System-Army, LOGSA develops metrics and evaluation data to help the Army run its supply chain management program.

"We help the units with supply activities. We do warehouse audits so they can stock and preserve better, and so people are more efficient with their storage and operations." Kuenzli said.

Those operations extend to the battlefield and beyond. As the Army's air clearance authority, LOGSA is charged with validating every piece of Army cargo that travels through the airspace. The unit conducts hazardous material verification and provides specific documents that permit items like missiles to be flown overseas. This is all done in accordance with individual country customs. Federal Aviation Administration guidelines and International Traffic in Arms Regulations.

But Soldiers don't have to be deployed to bene-"LOGSA is there for every Army shipment that goes via fit from the information LOGSA can provide. It's at their air. But sometimes we find equipment that shouldn't go fingertips, in the form of tangible, easy-to-use formats, by air, and we re-route it to go by ground, sea or surface like PS Magazine, the Army's Preventative Maintenance movements," Kuenzli said. monthly. Available as a compact magazine and digi-Even if the freight meets stringent requirements tal file, the 65-year-old graphic format shows Soldiers technically, more cost-effective means to get it to its destihow to repair and maintain equipment in a congenial nation may exist. Choosing alternate shipping saves the manner. A new mobile app was rolled out in June.

Army about \$100 million in second destination trans-"LOGSA has digitized some 14,500 technical manuals, portation costs every year, said Martin. In those cases, some of which were traditionally printed for 'hip pockets,' LOGSA works with Military Surface Deployment and Distrior to put in uniform cargo pockets," Kuenzli said. bution Command (SDDC), which is responsible for the These manuals are accessible at the Logistics Information physical movement of cargo on the ground. Warehouse portal online to more than 65,000 individual

LOGSA also helps notify SDDC in situations involving frustrated cargo, or shipments that are delayed en route because further disposition instructions must be obtained. DOD considers frustrated cargo a serious issue and is actively working with LOGSA to

mitigate the issue. LOGSA is responsible for the Army Oil Analysis Program, which operates 11 laboratories worldwide that analyze more than 300,000 oil samples annually. The program helps prevent failures to aviation and ground weapons systems before they occur by detecting potential issues before they become problems.

The Packaging, Storage and Containerization Center (PSCC) at Tobyhanna Army Depot in Pennsylvania is the only LOGSA facility outside Redstone Arsenal. As one of the largest in the country, PSCC is the Army's test facility for anything that's packaged and destined for other locations.

"We test the packaging to make sure it's suitable for high and low temperatures, and determine its longevity. On a larger scale, we test the containers of large objects like engines to be sure they can tolerate pressurization during shipment and are otherwise environmentally ready," Kuenzli said.

This testing has proven direct effects for the Soldiers on the ground. By crunching results from



RIGHT: Valarie Shakespeare, lab chief, and

pher Raday receive oil samples from military units located throughout Iraq. The Army Oil Analysis Program lab, located at Joint Base Balad, Iraq, processes more than 1,000 samples every month. (U.S. Army photo by Pamela Proper

a Rutgers University test, water and Meals, Ready-to-Eat can be dropped with no parachute from helicopters hovering about 800 feet without facing damage or contamination, said Martin.

The packaging, which oftentimes resembles a honeycomb, is key for use in dropping supplies during covert operations or those conducted away from a Forwarding Operating Base.

users and 150 worldwide direct trading partners, he said. As more and more data becomes available at the swipe of a finger or click of the mouse, LOGSA will continue to grow exponentially to match the needs of the warfighter.

> LEFT: U.S. Air Force Airmen use manpower and the leverage of straps to pull a cargo pallet train into position on a C-5M Super Galaxy assigned to assist with U.S. Army aviation task force rotations at Camp Marmal in Northern Afghanistan. (U.S. Air Force photo by Tech. Sgt. Parker Gyokeres)

Oil Analyst Christo-



AMSAA: AMC'S HONEST BROKER

By Cherish Gilmore, AMC Public Affairs



he U.S. Army Materiel Systems Analysis Activity, known as AMSAA, is a unique U.S. Army Materiel Command (AMC) organization that serves as an independent source of state-of-the-art analytical solutions for AMC, the Army and DOD. AMSAA, known as the analytic arm of AMC, conducts a variety of critical analyses in support of acquisition and life cycle issues. Their strategic and platform-level analysis provides senior officials the data they need

to make informed decisions.

Headquartered at Aberdeen Proving Ground, Maryland, AMSAA's workforce of about 300 includes analysts, engineers, mathematicians and scientists, all dedicated to providing quality analysis.

"We provide a host of different types of analysis to support AMC," said James Amato, AMSAA director.

With a simple phone call or email, a senior leader can understand the viability of a concept, current and future platforms, or even a materiel solution before investing taxpayer dollars. For this reason, AMSAA is also considered AMC's honest broker.

"We have no vested interest if the Army buys a particular weapon system, chooses a particular method of sustainment, or even organizes a certain way. We have the ability to lay out all the facts, take all the emotion out of a particular decision, and turn data into information," Amato said.

AMSAA aims to provide accurate, informed and thorough analysis to enable and influence acquisition policy, processes, decisions and materiel solutions to ensure current and future force readiness. Their analysis often assists AMC, the Army and DOD in making critical hard choices.

"We are seeing a greater appetite for our analysis. As resources draw down and budgets become tighter, Army senior leaders want to ensure they are making the best decisions," Amato said. "We are being called on more than ever to do cost benefit analyses and business case analyses to make sure the decisions we are making, and investments we are committing to, are the best they can possibly be for our Soldiers."

AMSAA provides critical information to decision makers through several capacities, including: Analysis of Alternatives (AoA), modeling and simulation, logistics and worldwide data collection, analysis of lessons learned, joint munitions effectiveness, and strategic level analysis.

ANALYSIS OF ALTERNATIVES

An AoA analyzes the ability of various alternatives to meet required warfighter capabilities in terms of effectiveness, suitability and life cycle costs. Working in conjunction with Research, Development and Engineering Centers, life cycle management commands, program executive offices and program managers, AMSAA is able to use performance and effectiveness data and analysis to ensure a new platform or system can do what it is designed to do. AMSAA's AoAs can address system questions, like the ability of helicopters to fly as high as they should, or assault rifles to shoot as far as needed.

"Every Analysis of Alternatives that the Army does, AMSAA is involved in," said Amato. "It's all about identifying the most cost-effective way to fill a capability gap and make sure our Soldiers are a part of the best-equipped Army in the world."

MODELING AND SIMULATION

Exercises and testing are expensive for the Army, but necessary to predict outcomes for the use of a platform and how systems and services will interact.

"We use modeling and simulation to support the Army Test and Evaluation Command, and it reduces the amount of testing that is required for a weapon system," Amato said. "We can show through modeling and simulation that a vehicle meets a certain requirement; then the Army Test and Evaluation Command does not have to go through months of testing and millions of dollars."

AMSAA also feeds into the Army's modeling and simulation studies and analyses for theater-level wargames.

IT'S ALL ABOUT IDENTIFYING THE MOST COST EFFECTIVE WAY TO FILL A CAPABILITY GAP AND MAKE SURE OUR SOLDIERS ARE A PART OF THE BEST-EQUIPPED ARMY IN THE WORLD.

LOGISTICS SUPPORT AND WORLDWIDE DATA COLLECTION

AMSAA provides independent logistics analysis to support Army and AMC equipment and sustainment decisions with one goal in mind - readiness. Using worldwide data collection, wherever AMC deploys and maintains

equipment around the world, AMSAA is able to better predict maintenance, sustainability of systems, and inform better decisions in the future.

"Through human data collectors that we have embedded with Army units around the world, we are able to get data that does not make its way into the logistics enterprise systems," Amato said. "Using those data elements, we can tell motor sergeants which vehicles need their attention and for what reason. This proactive maintenance avoids costly repairs down the road."

AMSAA's efforts in maintenance have assisted units at 12 installations in avoiding more than \$1 million in repair parts for 258 misdiagnosed maintenance issues on Tactical Wheeled Vehicles from June 2014 to June 2016.

AMSAA recently completed an analysis to aid AMC's reduction of excess inventory. The analysis resulted in a decrease of 22 percent since April 2016, along with identifying another \$3.3 billion in excess for disposal.

LESSONS LEARNED

On behalf of the Army, AMSAA hosts the Acquisition and Materiel Lessons Learned Portals and databases.

"The Honorable Heidi Shyu [former Assistant Secretary of the Army (Acquisition, Logistics and Technology)] asked AMSAA for an online repository of lessons learned that her program executive offices and program managers could use as they went about developing acquisition strategies and following their programs through acquisition processes to make sure they were using best business practices and not repeating pitfalls," Amato said.

Today, AMSAA analyzes collected feedback and identifies common themes and trends, and then shares those throughout various communities.

MEETING A JOINT SERVICE NEED

AMSAA is also in charge of the Joint Technical Coordinating Group for Munitions Effectiveness Program, chartered more than 45 years ago. AMSAA is the sole source for all joint service authenticated non-nuclear weapons effectiveness data for DOD. Through the use of data, AMSAA analysts give commanders the power to determine the best weapon to neutralize an enemy target to include collateral damage considerations.

STRATEGIC LEVEL ANALYSIS

At the strategic level, AMSAA remains the honest broker when a commander needs to posture for the future. The AMC Analysis Group is strategically placed at AMC headquarters on Redstone Arsenal, Alabama, to provide direct support to AMC's leaders.

"When faced with difficult decisions - whether missions, dollars or functions our team does a great job at looking at how AMC can continue to perform its mission in a resource constrained environment with as little risk as possible," Amato said.



ABOVE: Soldiers with Headquarters Support Company, 834th Aviation Support Battalion, check the seals on their protective masks and prepare for an exercise at Camp Ripley, Minnesota. The U.S. Army Materiel Systems Analysis Activity projects include test and evaluation of facilities and processes for the demilitarization of chemical weapons. (U.S. Army photo by Sgt. Sebastian Nemec)

A digital rendering shows Army aviation assets surveying terrain with a visible representation of Human Resources Intelligence, Imagery Intelligence, Measurement and Signature Intelligence, Signals Intelligence, and Geospatial Intelligence. This analysis provides Army and joint acquisition programs with decisions concerning target acquisition, surveillance and reconnaissance. (Image courtesy of AMSAA)

Soldiers assigned to 1st Battalion, 28th Infantry **Regiment, 3rd Infantry Division, exit a Chinook** during Decisive Action Rotation 16-06 at Fort Irwin, California. (U.S. Army photo by Spc. Kyle Edwards)

RESERVE COMPONENT AUGMENTS **GLOBAL LOGISTICS** MISSION



By Lisa Simunaci, AMC Public Affairs

ince the 9/11 terrorist attack, the Army Reserve Component has augmented U.S. Army Materiel Command (AMC) by providing operational and logistical support.

The Army Total Force Policy, implemented in 2012, granted added credence toward active and reserve integration by establishing a strategy aimed at providing predictable, recurring and sustainable capabilities.

From individual augmentees to largescale operations, AMC's ability to tap the sustainment capabilities housed in the Reserve Component increases readiness across the force.

"Eighty percent of the Army's sustainment capabilities are found in the Reserve Component," said Maj. Gen. Elizabeth Austin, AMC's assistant deputy commanding general-Army National Guard. "AMC's ability to maximize those resources is a win on all fronts. It provides excellent training opportunities for individuals, strengthens the force and ensures the Army meets its mission."

At any given time, more than 400 Army Reserve and Army National Guard Soldiers supplement AMC's force by working side-by-side with its active-duty and civilian staff. Every major support command and many of the organization's Organic Industrial Base sites are augmented by enlisted Soldiers and Army officers on active-duty operational or mobilization orders. Most of those Soldiers are assigned to the Army Reserve Sustainment Command or the Deployment Sustainment Command. Both units are one-star commands strategically aligned with AMC.

Across the AMC enterprise, the augmentation increases manpower and offsets shortages, particularly at manufacturing arsenals and maintenance depots that experience unpredictable workloads. For the Soldier, these opportunities maintain military skillsets and provide a broadened experience outside the individual unit level.

The Army Total Force Policy ensures equal footing when it comes to individual assignments. AMC Reserve Affairs Program Manager Darion Boone said the policy takes a

Army Reserve Soldiers load a truck with cargo during Operation Patriot **Bandoleer at Military Ocean Termi**nal Sunny Point, North Carolina. (U.S. Army photo by Sgt. Eben Boothby)

holistic approach across components, so school requests, training and promotion rules are consistently applied.

"Our opportunities for support run the gamut, from administrative positions at the headquarters to those that directly support contingency operations," Boone said.

While individual missions range from mechanics and welders to logistics positions, operational opportunities are equally broad. Whether supporting Logistics Readiness Centers, repairing weapons or hauling cargo, Reserve Component units that support AMC provide valuable services in exchange for real-world training missions.

EIGHTY PERCENT OF THE ARMY'S SUSTAINMENT CAPABILITIES ARE FOUND IN THE RESERVE COMPONENT.

Operation Patriot Bandoleer, for example, tested planning, coordination and the execution efforts of National Guard units that organized long-haul missions for the past two years. Covering millions of miles and delivering thousands of containers, transportation units distributed ammunition and other items returning from Army Prepositioned Stocks from a North Carolina port to locations across the country.

As a global organization, support from the Reserve Component stretches to AMC locations worldwide. National Guard units from Oregon and Montana recently provided maintenance at three new Eastern European equipment sites.

Besides accomplishing important AMC missions, these opportunities provide real-world training that enriches the skills of citizen-Soldiers and strengthens unit cohesion. For Soldiers who must perform training annually, the missions provide a level of instruction and satisfaction that goes beyond traditional military exercises.

"We're paying Soldiers two weeks a year to drive trucks. Why not put something on the back of them?" said Lt. Col. Christopher Weskamp, commander of the Nebraska National Guard's 734th Transportation

BELOW LEFT: Army Reserve Soldiers move cargo during **Operation Patriot** Bandoleer at Military Ocean Terminal Sunny Point, North Carolina. (U.S. Army photo by Kevin Fleming)

BELOW RIGHT: Spc. Jose Pastrana prepares cargo for offload after a 2.700-mile convov operation from Kansas to California as part of Nationwide Move 15, an annual exercise designed to provide Reserve Component transportation units with real-world operational experience. (U.S. Army photo by Sgt. Victor Ayala)

Battalion Company. The unit participated in Operation Patriot Bandoleer in April 2016.

In an effort to capitalize on these types of opportunities, AMC recently established a Reserve Component Mission Support Office aimed at integrating the total force.

"We're working to prioritize and coordinate with the National Guard and Army Reserve to facilitate mutually beneficial operations," Austin said.

A Memorandum of Agreement between the command and the National Guard helps facilitate the engagement, identifying sourcing and funding of units to support missions across the AMC enterprise. A similar memo between AMC and the Army Reserve is in its final stages.

Additionally, Reserve Component leaders have been incorporated into the command's semiannual Army Senior Logisticians Summit, which provides leaders an opportunity to network and address items focused on enhancing total force readiness.

"We could not do what we do on the active-duty side without the total force concept," said former AMC Deputy Chief of Staff Maj. Gen. Edward Daly. "We're on a great glide path, and we've got to continue this irreversible momentum for the future." v



AMC Reserve Support

ARMY RESERVE SUSTAINMENT COMMAND SUPPORTS AMC WORLDWIDE

The Army Reserve Sustainment Command (ARSC), headquartered in Birmingham, Alabama, is strategically aligned with U.S. Army Materiel Command (AMC). The ARSC is comprised of some 850 Army Reserve Soldiers who are trained and ready to support AMC subordinate commands, as well as the Defense Contract Management Agency.

ARSC has Soldiers deployed in 14 countries and 40 states. which enables AMC to accomplish its integrated sustainment mission for the Army.

This ready and resilient posture is what makes ARSC a one-of-akind unit that has rapidly developed into a fully integrated organization since it received its permanent order in November 2007, said Brig. Gen. Jeffrey A. Doll, ARSC commander.

Many of the ARSC Soldiers are heavily involved in the contracting field, which includes program and project management, systems planning, research and development, and engineering.

"Our Soldiers bring with them a combination of their civilian skills, military experience and the ability to balance between the two with ease," Doll said. "The Army Reserve's ability to recognize and leverage those leadership skills and manifest them into citizen-Soldiers who can deploy at a moment's notice adds significant value to the Army and the nation as a whole."

The ARSC remains poised to continue to live its motto: 'One sustains many.'"



ARMY PETROLEUM CENTER FUELS THE FORCE

By Megan Gully, AMC Public Affairs



erving as the service control point for the Department of Defense's bulk petroleum, the Army Petroleum Center (APC) is the Army's Center of Excellence for petroleum infrastructure, bulk fuel planning requirements and quality assurance.

Operating under the U.S. Army Materiel Command's (AMC) G-3/4, Operations and Logistics, APC is the Army's most important liquid logistics unit, supporting strategic, tactical and base operation

capabilities to sustain weapon systems along with Soldier and unit readiness.

"The Army Petroleum Center is a very unique organization within the Army that touches every part of the petroleum supply chain from the tactical, operational, strategic, industrial base, to training and acquisition," said APC Director Col. John "Chris" Brookie. "APC is a one-of-a-kind unit that provides support and makes a difference every day across a broad spectrum of the petroleum community."

APC provides technical expertise for installation and tactical bulk petroleum, handling automated fuel management systems. In Fiscal Year 2015, the center managed the purchase of 349 million gallons of petroleum delivered to more than 620 Army petroleum receipt and storage locations.

APC's lineage traces back to 1944, with a continuous mission that has supported every conflict and contingency since. During times of hostility and peace, the center preserved a relationship with the warfighter to ensure petroleum facilities were maintained, operators were provided the best technical support, and Army fuel specification standards were always met.

"The APC started with a testing mission in support of the New York division of Quartermasters Corps during the end of World War II," said Dave Corbin, APC deputy director. "During that time was when Army aviation really started to expand, so quality of fuel standards became very important, and APC's mission was born."

Over the years, the center's mission grew to encompass more than petroleum quality assurance. Today it validates bulk petroleum requirements and provides technical support, quality surveillance and fixed-fuel facility engineering support.

Headquartered at Fort Belvoir, Virginia, the 21-person command, made up of military and civilians, is small, but has a big impact on the force.

They work with counterparts in Army G-4, U.S. Army Training and Doctrine Command, U.S. Army Forces Command (FORSCOM), Installation Management Command, Combatant Commands, as well as the AMC Army Sustainment Command logistics enterprise, to ensure petroleum operational requirements are met. APC also works closely with strategic partners at Defense Logistics Agency Energy, Naval Supply Systems Command Energy, and Air Force Petroleum Agency to ensure compatibility and interoperability across the DOD bulk petroleum supply chain.

"It's about requirements and distribution," said Charles Shipp, APC chief of operations. "We collaborate so that the entire Army has the fuel they need, when and where they need it."

A primary task is to work closely with aviation brigades to understand their critical functions and needs. APC is the lead evaluator for the FORSCOM Aviation Resource Management Survey team, which executes reviews of aviation fueling operations while providing over-the-shoulder mentorship and counseling to petroleum specialists across the Army.

"We work closely to see where there are potential deficiencies in petroleum training, knowledge or skills," said Brookie. "We want to get out to the Soldiers so they know what we do at APC and how we can help them."

One such way they are communicating with Soldiers is through their new website, http://usapc.army.mil.

APC IS A ONE-OF-A-KIND UNIT THAT PROVIDES SUPPORT AND MAKES A DIFFERENCE EVERY DAY. 77

"It is a one-stop shop for anyone in the petroleum field – warrant officer, NCO or officer," said Brookie. "It provides an overview of who we are, how we are here to help, and gives Soldiers the ability to ask questions and interact with us. We want to be where the Soldier is. We want them to know they can easily reach out to us, and we want them to know we are here."

The APC director serves as the senior petroleum officer in the Army and lead for petroleum talent management.

"It is a small career field, so we work to get the right people with the right talents into the right jobs, while simultaneously bringing the petroleum community together," he said.

As AMC's lead for operational energy, APC is the coordinator for actions or initiations throughout the command. This requires commandwide synchronization and integration of Army and Office of the Secretary of Defense objectives to enhance operational effectiveness by leveraging science and technology and improved energy management practices in a contingency environment. $\overline{\mathbf{v}}$



ABOVE: Spc. Sharice Odom and Spc. Steven Sampson petroleum supply specialists with the 383rd C art rmaster Company, operate a pump during first adding operations as part of the Quartermoster Liquid sogistics Exercise at Fort Huachuca, Arizona.

U.S. ARMY

Sth General Support Aviation

awk at the Shelbyville National Guard

er the flight crew finished their training mission.

e can hold up to 360 gallons of fuel

BARNES

Battalion

Armory

Aircraft

(U.S. Army photo by Spc. Evan Myers)

Pfc. Ryan Morse, petroleum supply specialis 383rd Quartermaster Company, closes a Fuel System Supply Point valve during the Quartermaster Liquid Logistics Exercise. (U.S. Army photos by Spc. James Lefty Larimer

1 Logistics Modernization Program Increment 2 goes live

Automation has reached the Army's manufacturing shop floor as part of the final planned implementation of the Logistics Modernization Program (LMP). LMP Increment 2 capabilities were delivered to 17 U.S. Army Materiel Command (AMC)-managed Organic Industrial Base (OIB) sites from January 2014 through May 2016. LMP is

AMC NEWS NOTES



one of the world's largest enterprise resource planning systems that tracks and manages equipment, including spare and repair parts, for the Army. LMP Increment 2 provides new and expanded capabilities to the already deployed system that address several critical Army and DOD initiatives, including and especially shop floor automation. "Since its initial deployment in 2003, LMP has saved time, money, and effort by providing the mechanism to accurately track work done in our OIB facilities," said AMC Commander Gen. Dennis L. Via. "This enhanced fielding initiative gives us the ability to create electronic work instructions and improve capacity planning and scheduling. LMP allows our depots, arsenals and plants to continue to provide world-class logistics support and readiness to warfighters, while building and gaining efficiencies to remain competitive with commercial industry." When full fielding is complete, about 30,000 users will employ the LMP system - one of the world's largest, fully integrated supply chain, maintenance, repair and overhaul, planning, execution and financial management systems.

AMC welcomes new subordinate command leadership

Several AMC major subordinate commands changed leadership during ceremonies this spring and summer. Maj. Gen. Douglas Gabram took command of the U.S. Army Aviation and Missile Command Feb. 18. Maj. Gen. Clark LeMasters became the 35th commander of U.S. Army Tank-automotive and Armaments Command May 2. Maj. Gen. Stephen Farmen took the reins at U.S. Army Security Assistance Command June 2. Maj. Gen. Kurt Ryan became the 20th commanding general of the Military Surface Deployment and Distribution Command June 16 (shown). Brig. Gen. Richard Dix assumed command of Joint Munitions Command June 20. Maj. Gen. Cedric Wins took command of the U.S. Army Research, Development and Engineering Command Aug. 9, while Maj. Gen. Edward Daly assumed command of the U.S. Army Sustainment Command Aug. 11.



Fort Rucker Aviation Maintenance Complex rededicated



The Aviation Maintenance Complex at Fort Rucker, Alabama, was rededicated May 26 in honor of Lt. Col. Dave Condon, a Soldier who was instrumental in setting up the Army's liaison mission for the Normandy invasion during World War II. Condon piloted the first L-4 Grasshopper reconnaissance plane from England to Normandy and registered the first artillery fire on Utah Beach. Condon was killed in a civilian helicopter crash in 1961 while on leave from the Army's Transportation Training Command. A plaque honoring Condon's service, which was originally hung in 1972, was displayed at the \$31 million facility. Completed in 2013, the 132,000-square-foot aviation complex is designed to promote efficiency and environmental friendliness, while featuring state-of-the-art equipment and 22 shops, including welding, painting, fabric, engine, avionics, hydraulics and sheet metal.

4 Army Research Laboratory hosts summer interns

In an effort to promote future careers in Army research and development, the U.S. Army Research Laboratory (ARL) at Aberdeen Proving Ground, Maryland, hosted its annual two-day summer intern tour in June. The program provides a unique experience for interns, who have an opportunity to interact with scientists and engineers and their projects, gaining a better overall picture of the work ARL conducts in support of the Soldier. Interns were given an overview of a variety of research areas, such as 3-D flexible hybrid electronics, network science, atmospheric science, spoken dialogue research for humanrobot teams, cognitive assessment, simulation and

engineering, and auditory research. "As I look across the room today, you are the future Army scientists and engineers," said Col. Kevin Ellison, ARL military deputy, during the event. "We as warfighters cannot execute missions without the help of our civilian teammates."





AMC voices caution 5 regarding Zika virus

With more than 64,000 employees spread across 153 countries, AMC leadership is continuing to monitor the potential threat presented by mosquitos and the Zika virus. "We need to recognize the threat, but not overreact," said Col. Andrew Kim, AMC's command surgeon. While sounding simple, the best prevention is to make all attempts to avoid being bitten. Kim also recommended that employees consider postponing travel to countries with active Zika transmission. Mosquitos that spread the virus bite mostly during the day, and live indoors and outdoors near humans. The Centers for Disease Control and Prevention recommend minimizing standing water in items like buckets, bowls, animal dishes, flower pots and vases. The command continues to monitor the impact of the virus, and will tailor communication to its worldwide workforce depending on risk factors.

6 Sleeves up, camo out Lt. Gen. James McConville. deputy chief of staff. G-1. recently announced that commanders may authorize Soldiers to roll up the sleeves on Army combat uniforms. The new policy pertains to the universal



camouflage pattern, the operational camouflage pattern and the Operation Enduring Freedom camouflage pattern combat uniforms. The new policy will allow sleeves to be rolled above the elbow, right-side out with the camouflage pattern shown, as well as cuffed inward above the wrist on the forearm, during field training exercises or operations. Sgt. Maj. of the Army Daniel Dailey said that while the ultimate decision to roll sleeves rests with unit commanders, the Armywide policy was changed due to input from Soldiers.

(U.S. Army photos)

ENHANCING NATIONAL **SECURITY:**

By Karen Jolley Nikol, CMA Public Affairs

A world leader in the development and implementation of innovative programs to safely and effectively eradicate chemical weapons, the U.S. Army Chemical Materials Activity (CMA) provides management and direction for the storage, assessment and treatment of chemical warfare materiel, while ensuring the public is prepared in an emergency.

Despite the organization's successes over the past several decades, many people outside the chemical weapons community are likely unaware of what the U.S. Army Materiel Command subordinate organization provides to the nation and its allies, said Col. Nathaniel Farmer, CMA director.

"With CMA's history of successfully eliminating chemical weapons, I'm proud not only of our exceptional safety record, but of the many methods we have employed for more than two decades to implement effective, efficient procedures. We are always seeking improvement," Farmer said.

CMA effectively destroyed the portion of the U.S. chemical weapons stockpile for which it was responsible - nearly 90 percent - in addition to extensive non-stockpile items.

"I suppose our anonymity is part of our success, because we operate so safely," he said. "Today, our footprint has decreased, but we still are here, with the same focus on our mission."

That mission is headquartered at the Edgewood area of Aberdeen Proving Ground, Maryland, where staff ensures the two remaining storage sites - Blue Grass Chemical Activity at Blue Grass Army Depot, Kentucky, and Pueblo Chemical Depot, Colorado can accomplish their missions to deliver chemical weapons to the destruction facilities when destruction operations begin.

The staff takes safe-handling and storage of chemical weapons seriously, said Steven Penrod, CMA Mission Operations director.

"At the two remaining stockpile sites, CMA ensures the items remain safely protected and monitored pending treatment," Penrod said.

Both remaining stockpile sites partner with the Federal Emergency Management Agency to implement the Chemical Stockpile Emergency Preparedness Program to ensure protection for the surrounding communities. The program establishes key partnerships between state and local emergency management officials to enhance emergency management plans and provide response equipment and warning systems.

"Even with a proven record of safety, our top priority remains collaboration with key partners in the communities to ensure preparedness for any situation," said Farmer, who has led CMA since 2014. "Building relationships and knowing our partners allows all of us to navigate any situation."

Meanwhile, CMA's Recovered Chemical Materiel Directorate (RCMD) continues to respond to installations and burial sites around the country, managing the assessment and destruction of recovered chemical warfare materiel. RCMD uses mobile technology to assess recovered items to determine the chemical fill, and can destroy the items on location.

"Our team provides the direction and support from the moment the item is recovered to waste disposal at the end of the mission," said RCMD Director Laurence Gottschalk, who has more than 32 years of experience in the chemical demilitarization field. "This is a capability that the United States will always require."



RCMD deploys the Mobile Munitions Assessment System to the location of the recovered item, where nonintrusive assessment technologies determine whether an item is explosively configured or contains chemical agent. If chemical agent is confirmed, RCMD works with the site to develop destruction plans and coordinate permits with state and federal regulators, and ultimately deploy the Explosive Destruction System, a stainless steel vessel that contains the blast, vapor and fragments from the destruction process.

"After explosively opening the munition, which destroys any energetics and exposes the agent, a chemical reaction within the vessel neutralizes the chemical contents," Gottschalk said.

In compliance with the Chemical Weapons Convention (CWC), a treaty ratified by the U.S. in 1997, all chemical weapons and former chemical weapons production facilities must be destroyed. CMA met all treaty-mandated milestones, which for RCMD included destruction of binary chemical weapons and components, and destruction of facilities that produced chemical weapons. CWC treaty inspectors work closely with RCMD project management staff during mission operations to ensure all activities comply with treaty requirements.

With decades of combined chemical weapons remediation experience. CMA continues to seek opportunities and collaboration to enhance technologies and build on past successes to keep the U.S. safe.

More information on CMA's mission and activities can be found online at https://www.cma.army.mil. v

> **OPPOSITE: Stockpiled chemical** munitions are safely stored by two organizations that are part of the U.S. Army Chemical Materials Activity - the Pueblo Chemical Depot, Colorado, and the Blue **Grass Chemical Activity, located** on Blue Grass Army Depot, Kentucky. CMA will safely store these munitions, the last 10 percent of the original stockpile, until they are destroyed by the Program **Executive Office, Assembled Chemical Weapons Alternatives.**

LEFT: The Pueblo Chemical Agent-Destruction Pilot Plant. located at the Pueblo Chemical Depot, uses the Explosive Destruction System to safely process problematic munitions, including those that have leaked or are overpacked. (U.S. Army photos)

17

SPECIAL MISSIONS: ARMAMENTS/HERALDRY

PROGRAM HELPS HONOR VETERANS' SERVICE

By Bill Gattie, TACOM Public Affairs

When most people think of the Tank-automotive and Armaments Command (TACOM), the organization's support of ground combat vehicles such as the Abrams Tank, Bradley and Humvee comes to mind. What many do not realize is that TACOM also supports Soldiers – past and present – through the Veteran Medals Program.

The Veteran Medals Program, under TACOM's Integrated Logistics Support Center's (ILSC) Clothing and Heraldry Product Support Integration Directorate, is responsible for issuing medals, decorations and awards to Army veterans and their next of kin, including widows or widowers, parents, eldest children, eldest siblings and eldest grandchildren.

"TACOM is extremely proud of the dedication and professionalism of the men and women who provide this service to our veterans and their families," said Brian Butler, TACOM deputy to the commander. "It is a distinct and humbling honor to be able to recognize their service and sacrifice to our Army and nation in defense of our freedom."

The Veteran Medals Program team is located in Philadelphia and consists of eight people – two engravers, who engrave the veterans' names on their medals; four assemblers, who make sure that veterans receive all of their authorized awards; a warehouseman, who manages the stock; and a customer service representative, who fields incoming calls and emails from veterans or their next of kin about their specific awards case or how a veteran can get his or her authorized awards.

While their mission may not appear to be directly related to success on the battlefield, its importance has been recognized since the early days of the Army's existence when George Washington served as commander in chief.

"The willingness with which our young people are likely to serve in any war, no matter how justified, shall be directly proportional as to how they perceive the veterans of earlier wars were treated and appreciated by their nation," said Washington.

The first set of authorized awards are provided at no charge to the veteran or their next of kin, and the Army is the only service that offers one free set of authorized awards. Additional sets can be purchased for a nominal fee. In addition, any veteran who received their awards while in service can send their medals to the Veteran Medals Program team for engraving at the government's cost.

"We have a very dedicated group," said Harry Veneri, who oversees the heraldry mission and its parent organization that manages organizational clothing and equipment for the Army at TACOM. "It's our honor at TACOM to provide veterans their Medals of Honor and valor, and we like to say we provide for Soldiers from the time they enter the service until they become a veteran."

The team strives to maintain a timeframe for completion of an awards case within 60 to 75 days after it has been entered in the Veteran Medals Program team system. The actual time for a given awards case will vary, depending on the number of awards to which that veteran is entitled.

When a veteran or their next of kin requests medals, an awards case is not automatically entered into the team's system until one of two agencies – the National Personnel Records Center for veterans who retired or discharged prior to October 2002, and the U.S. Army Human Resources Command for veterans who separated, retired or discharged after October 2002 – completes their review of a veteran's records and authorizes specific awards.

Once the authorization is completed, a memo is sent to the requester advising him or her of the awards case number, and three days later, the awards case can be seen in the team's system.

"The work that the Integrated Logistics Support Center's medals team does is awesome. As an old Soldier, I know how important a Soldier's service and sacrifice are," said Col. Jeffrey Vieira, deputy executive director at TACOM ILSC. "These medals bring back those memories and friendships from the past." v

FROM TOP: Retired Sgt. 1st Class Melvin Morris, a Vietnam War veteran, receives the Medal of Honor from President Barack Obama at the White House during a ceremony in 2014. (U.S. Army photo by Sgt. Justin Wagoner)

David Sellers, an assembler with the Veteran Medals Program, uses hand tools to complete the assembly of a medal. (U.S. Army photo)

Award cases hold medals assembled and provided by the Army's Veteran Medals Program. (U.S. Army photo)

Keith Thompson, an assembler with the Veteran Medals Program, adds appurtenances to a medal. (U.S. Army photo)

First Sgt. Robert Durbin, Honor Guard Company First Sergeant, holds 1st Sgt. David McNerney's Medal of Honor during an Enshrinement Ceremony at the Smithsonian National Postal Museum in Washington, D.C., in 2013. (U.S. Army photo by Staff Sgt. Teddy Wade)

U.S. Army Tank-automotive and Armaments Command (TACOM), a subordinate organization of U.S. Army Materiel Command, provides and sustains mobility. lethality and survivability for Soldiers, other services and allies through ground combat, automotive, marine and armaments technologies. Headquartered in Warren. Michigan, TACOM supports more than 2.000 fielded systems and more than 34,000 components that make those systems work.













HINGES ON CONTRACT

The unwelcome news of the passing of a president or former president sets in motion a team of Mission and Installation Contracting Command (MICC) acquisition experts at Fort Belvoir, Virginia, who dedicate the subsequent 48 hours to the highest category of military funeral honors.

Traditionally reserved for a head of state, state funerals are conducted on behalf of those who hold or have held the office of the president or president-elect. The national tribute lasts multiple days and includes ceremonies involving armed forces honor guards and other elite units in both Washington, D.C., and the state in which the individual will be interred. Tributes may vary based on requests from the family of the deceased.

Upon notification of a death to the White House, the president officially announces the news by proclamation and then directs the DOD to conduct a state funeral for its former commander in chief. The Secretary of Defense designates the commander of the U.S. Northern Command (NORTHCOM) in charge of conducting the funeral. In turn, NORTHCOM activates the Joint Task Force National Capital Region (JTF-NCR) to coordinate and conduct all ceremonies related to the various observances. Among elements

supporting the JTF-NCR is the U.S. Army Military District of Washington, which issues a call order for contracting support from MICC-Fort Belvoir.

Executing multiple tasks at a frenzied pace quietly behind the scenes, but upon whom the success of such a significant event hinges, is a team of about a dozen acquisition professionals led by Akefeh Lambert, chief of the contracting division at Fort Belvoir. The anticipated needs to support as many as 4,000 military and federal civilians conducting a presidential funeral are precisely defined in a blanket purchase agreement (BPA) awaiting that call order.

Arriving at the office three years ago, Lambert said she promptly familiarized herself with the contract support her office provided to the Military District of Washington. However, the subject of state funeral support took on a more immediate concern after the cancer diagnosis announced by former President Jimmy Carter last year. It was then that Lambert discovered documents critical to support a state funeral were nowhere to be found.

"We have 48 hours – even if we're notified in the middle of the night - to come in and do whatever we have to do," she said. "I got nervous because our presidents are getting older, and I wanted to be prepared."

By Daniel P. Elkins, MICC Public Affairs Office

The 25-year acquisition professional learned that the hard-copy documents from the last funeral were likely misplaced during the migration of records from Fort Myer, Virginia, to the Fort Belvoir contracting office about four years ago. She and a contract specialist assigned to support a state funeral immediately began putting in place a BPA and conducting market research to identify contractors capable of supporting such national honors.

The BPA in place with defined requirements is a firm-fixed-price instrument against which solesource contracts may be awarded for five years. Among the requirements under the BPA are funeral and cathedral services, motorcade vehicles, medical tents and towing services. Market research seeking further competition is conducted annually through federal acquisition websites with any updates captured virtually in the paperless contract file.

"A BPA is put in place as a placeholder just in case it is needed. It's important because this is a final contribution to honor our head of state," Lambert said. "A contractor that is awarded this agreement must be able to meet this challenge."

The market research conducted to identify contractors capable of performing the required services

on such an accelerated timeline consisted of sources provided by its supported customer, the Military District of Washington, as well as those found through additional research by a contract specialist with the issue of a sources-sought notice to small businesses.

"Even though I am elated to contribute my efforts to this event," said Denese Henson, contract specialist who supported the research, "my commitment to my customer is ensuring I provide professional support and our contracts meet their needs."

If MICC-Fort Belvoir receives two or more responses to the sources-sought notice, then the requirement is set aside for small business, said Henson. If only one response is received, a solicitation to large companies is sought. She also said that an educational element is sometimes necessary as some potential vendors may not be familiar with federal contracting.

The MICC-Fort Belvoir also provides contracting support to the 3rd U.S. Infantry Regiment, also known as The Old Guard, assigned to Joint Base Myer-Henderson Hall,

Virginia. Old Guard elements supporting presidential funerals include marching units, the presidential salute battery and caisson. Additional regiment elements including the commander in chief's guard and continental color guard also support state funerals upon request. As members of MICC-Fort Belvoir finalize the few remaining requirements under the BPA, they do so in thoughtful retrospect that when a call notice to support a presidential funeral is made, their role, although small, will endure beyond an acquisition effort and remain preserved in the nation's history. "Presidential funerals are of national significance and are steeped in tradition and rich in history," said Lt. Col. Jonathan Patrick, commander of the MICC-Fort Belvoir contracting office. "MICC-Fort Belvoir supports the Military District of Washington with several contract actions to ensure these meticulously planned honors are executed flawlessly." V

"EXECUTING MULTIPLE TASKS AT A FRENZIED PACE QUIETLY BEHIND THE SCENES... IS A TEAM OF ABOUT A DOZEN ACQUISITION PROFESSIONALS..."

Headquartered at Joint Base San Antonio-Fort Sam Houston, Texas, the Mission and Installation Contracting Command is made up of more than 1,500 military and civilian members comprising three contracting support brigades and one field directorate responsible for contracting for Soldiers assigned stateside and in Puerto Rico. In Fiscal Year 2015, the command executed more than 36,000 contract actions valued at more than \$5.2 billion across the Army, including \$2.25 billion to American small businesses. The MICC is a subordinate organization of the U.S. Army Materiel Command's Army Contracting Command.

ABOVE FROM LEFT: Soldiers of the 3rd U.S. Infantry Regiment participate in an Army Full Honor Arrival Ceremony in honor of Eric Fanning, the 22nd secretary of the Army, on Summerall Field at Joint Base Myer-Henderson Hall, Virginia.

Elements of the 3rd U.S. Infantry Regiment, also known as The Old Guard, join other elite units from the armed forces to support state funerals for the president, past presidents and president-elect. (U.S. Army photos by Sgt. Cody W. Torkelson)

The Salute Guns Platoon of the Presidential Salute Battery stands ready during a 3rd **U.S. Infantry Regiment change of command** ceremony in June at Joint Base Myer-Henderson Hall, Virginia. The Mission and Installation Contracting Command office at Fort Belvoir, Virginia, provides contracting support to The Old Guard and Military District of Washington in the performance of many ceremonial events. (U.S. Army photo)

ARSENAL OF THE BRAVE: Committed to Serving our Country with Pride

THOUSANDS OF AMC SOLDIERS, CIVILIANS AND CONTRACTORS WORK EVERY DAY PROVIDING OPTIMAL SUPPORT TO THE JOINT WARFIGHTER WITH SKILL. PASSION AND DEDICATION. THEY ARE THE BACKBONE OF THE ORGANIZATION. ENSURING MISSION SUCCESS. ARSENAL OF THE BRAVE PROFILES A FEW OF THE MANY OUTSTANDING INDIVIDUALS FROM ACROSS AMC WHO EXHIBIT THESE VALUES.



U.S. ARMY MATERIEL COMMAND (AMC)

U.S. Air Force Capt. James



meteorologist assigned to AMC Headquarters at Redstone Arsenal.

Melton is a

Alabama. Melton's weather forecasts span the globe, stretching to the 143 countries where AMC has a footprint. His predictions give commanders the guidance they need when it comes to moving troops and equipment by air, ground or sea. "I provide global support for missions and exercises anywhere in the world," Melton said. "Commanders on the ground need to understand the issues they may face." As AMC's only assigned Airman, Melton has helped align the installation's weather command post to encompass some 70 organizations, including NASA's Marshall Space Flight Center, the Bureau of Alcohol, Tobacco and Firearms, and the FBI. Melton has forecast the weather for more than eight. years as a commissioned officer, since transitioning from the Air Force enlisted ranks, where he worked as a crew chief on the B-52 bomber aircraft and later as an enlisted weatherman.

Retired Chief Warrant Officer 5



Harold L. DeBerry took command of the Honorary Warrant Officer of the Regiment (HWOOR) Charter at Fort Lee.

Virginia, May 11. As the Ordnance Corps HWOOR, DeBerry serves to promote the pride, prestige and tradition of the Ordnance Corps through the professional development of Ordnance warrant officers. He serves as a worldwide mentor for Ordnance officers, warrant officers, NCOs and Soldiers in pursuit of further development for service as ordnance professionals. DeBerry

> currently works in the AMC Strategic Analysis and Integration Cell, G-1.

Jonathan W. Pierce, the super-



visory editor of PS Magazine at AMC's Logistics Support Activity for the past five years. has more than 40 years of com-

bined military and civilian service. As a Soldier, he retired as the chief of Army newspapers from the Office of the Chief of Public Affairs in 1992 after 20 years as a military journalist. Following a two-year hiatus, Pierce began his civil service as a book editor at the National Defense University Press at Fort McNair, Washington, D.C. Pierce, who holds a master's degree in creative writing, is currently presiding over the modernization of PS Magazine as the 65-year-old publication adds an interactive mobile application to its Soldier-supporting endeavors. "I feel fortunate to have served two careers in providing articles and publications that enable Soldiers to be better informed and more competent in maintaining the combat readiness of the Army," said Pierce.





colleagues, have provided exceptional support to Soldiers and the Army. Staff Sgt. Tom Green, 920th Contracting Battalion, ACC-Rock Island. recently served as the noncommissioned officer in charge of the

Combating Trafficking in Persons (CTIP) and Labor Laws section in support of the Army's Contingency Contract Administration Services' (CCAS) mission in the U.S. Army Central Command's area of responsibility. During the Army's second

U.S. ARMY CONTRACTING

Marie Cramblett with the Global Reachback Division at ACC-Rock Island in Illinois has spent the past eight years working as the

contract specialist for the Contract Working Dogs requirement in Afghanistan, turning a personal passion for dogs into a professional one. The program requires trained and certified Patrol Narcotics Detector Dogs, Patrol Explosives Detector Dogs and trained certified Handlers/Kennel Masters/Trainers to execute force protection in support of military operations. "Marie's Dogs," as they have come to be known among her



rotation of the CCAS mission. Green. who is fluent in Hindi, planned and synchronized the execution of 217 CTIP and Labor Law surveillances for 110 contracts, spread throughout Kuwait, Iraq and Jordan. These surveillances, valued in excess of \$6.5 billion, not only helped enforce quality of life concerns for contractor employees, but also ensured contractor employees were provided appropriate compensation for their work under host nation labor laws. Green's efforts led to increased emphasis and awareness in the Army's fight to abolish human trafficking.

Sara Peeters is the executive officer



for ACC-Warren (ACC-WRN) in Michigan. In this position, she works closely with the ACC-WRN executive director.

preparing correspondence and presentations, and accompanying the executive director to senior meetings to capture critical elements and taskers. She is also responsible for taskers from external sources - coordinating and submitting timely, thorough responses. Peeters is the primary point of contact for communication between ACC-WRN and its industry partners, and organizes a variety of industry engagement events. She also coordinates VIP visits and organizes ceremonies for senior leaders within the organization.

"THESE PROFESSIONALS – MILITARY AND CIVILIANS – **ARE TREMENDOUS PATRIOTS,** AND OUR MILITARY CANNOT ACCOMPLISH THE MISSION WITHOUT THEM."

- GEN. DENNIS L. VIA

ARSENAL OF THE BRAVE

U.S. ARMY AVIATION AND MISSILE COMMAND (AMCOM)

Timothy Bowers Sr., an AMCOM



logistics automation specialist, has been inducted into the Army Quartermaster Corps Hall of

Fame at Fort Lee, Virginia. He served in the Army from 1974 until 2003, when he retired at 30 years of service. As a member of the Army's Quartermaster Corps, Bowers received a Legion of Merit, Meritorious Service Medal, Armed Forces Expeditionary Medal, the Quartermaster Corps Order of St. Martin and numerous others. He is a Distinguished Member of the Quartermaster Regiment and is featured in two books on black leaders in the Army. "The Quartermaster Corps touches all elements of combat support," Bowers said. "I went into the Army to make a better life for myself. But I stayed in the Army because logistics became all I know, and giving back to Soldiers is all I know."



Paul Quintel, who has worked as

the AMCOM Operations Security (OPSEC) officer in the Force Protection Office since 2007, placed first in the

Army wide National OPSEC Awards Program competition for Individual Achievement. Besides his Level III instructor credentials, he is also a credentialed physical security inspector, a certified Antiterrorism Level II officer and an Army-certified master instructor. He often provides training for other DOD organizations, as well as in local schools. "OPSEC plavs a vital role in ensuring mission success, and Mr. Quintel is the driving force behind a very proactive AMCOM OPSEC program," said Maj. Gen. Doug Gabram, AMCOM commander. "His knowledge, attention to detail and ability to demonstrate to the workforce the importance of OPSEC, not only at work but in the

home, has enabled AMCOM to protect not only the warfighters, but also those supporting them."

U.S. ARMY SUSTAINMENT COMMAND (ASC)

Timothy Blanton, a heavy mobile



equipment mechanic with the Logistics Readiness Center-Stewart in Georgia, works on heavy mobile

combat equipment, which includes diagnosing and repairing major components like engines, transmissions and final drives. He has served as a DOD civilian for 16 years. "

work on some of the most advanced tanks in the world," said Blanton. "So I take a lot of pride in my work. I do the best job that I can do because I know there is a Soldier out there fighting in the equipment that I have worked on."

Shirley Carey serves as the chief of

the Personnel Services Branch. Transportation Division, Logistics Readiness Center-Hood, at Fort Hood. Texas.

She oversees the operation of Fort Hood's Personal Property Shipping Office and Passenger Movement Office, ensuring resources and training are available to accomplish the mission. Carey has been in government service for 33 years, mostly at Fort Hood, but also spent five years in Germany in the European Travel Service Office. She is the recipient of two Commander's Awards for Civilian Service and one Superior Civilian Service Award for performance.

U.S. ARMY COMMUNICATIONS-ELECTRONICS COMMAND (CECOM)

William J. Soto, G-3 Outside



Continental U.S. unit integration lead at CECOM, has spent his career in service

to the government - both in and out of uniform. A 24-year veteran of the U.S. Air Force, Soto served as a teletype/crypto maintenance specialist, and as a professional military education instructor for the Airmen Leadership School. Today, as a logistics management specialist, Soto said the decision to go into his current career field did not require a lot of contemplation. "Based on my

previous military experience, I was a natural fit for the specialty that I am in now," he said. "I wanted to be involved in something I believed in. Even though I am no longer in uniform, I still wanted to serve."

Amy Nguyen is a computer scientist



with the Software Engineering Center Intelligence Electronic Warfare and Sensors

Directorate Army Reprogramming Analysis Team Program Office, Aberdeen Proving Ground, Maryland. Currently the project lead for the Counter Radio-Controlled Improvised **Explosive Device (RCIED) Electronic** Warfare (CREW) Duke V2/3, Nguyen is responsible for the software sustainment of the Duke V2/3 system, and the threat load development that provides the algorithm to

effectively jam RCIEDs and provide force protection to frontline Soldiers. With 16 years of federal service, Nguyen believes that everyone can make a difference - including herself. She said. "I'm motivated to work hard and to make a big difference in the workforce. I have a sense of pride in what I do because I believe my job is important to my organization and to the warfighter."

U.S. ARMY CHEMICAL MATERIALS ACTIVITY (CMA)

Laurence G. Gottschalk. director



of CMA Activity Recovered **Chemical Materiel** Directorate (RCMD), has dedicated more than 30 years to

the organization, serving as project manager for a variety of high-level projects. In 2004, he was selected as project manager of the Non-Stockpile Chemical Materiel Project, RCMD's predecessor, seeing the organization through completion of its treaty-obligated missions before

transitioning into his current role in 2013. Gottschalk continues to oversee the safe, effective assessment and destruction of recovered chemical warfare materiel. During his tenure, CMA RCMD completed destruction of the U.S. remaining former chemical weapons production facilities, binary chemical weapons and Category 3 chemical materiel.

Steven K. Penrod serves as the



completion of chemical destruction operations. Penrod began his federal government career in 1977 as a quality assurance specialist, ammunition surveillance (QASAS). The QASAS field requires frequent moves, and he has since held a variety of positions worldwide, including two deployments to Southwest Asia in support of Operation Enduring Freedom. A direct testament to his success, he has been recognized with several awards, including two Superior Service Awards, four Commander's Awards for Civilian Service and the Ordnance Order of Samuel Sharpe Award for excellence in the field of ordnance.



director of mission operations for CMA. where he oversees the planning, movement and successful

IOINT MUNITIONS COMMAND (JMC)

Larry M. Cruz is a retired Army



Reserve colonel who continues to serve his country as the deputy to the commander at Hawthorne Army Depot in

Nevada. Arriving in Hawthorne in December 2014, Cruz's primary role consists of supervisory/managerial duties over the government staff while simultaneously ensuring the depot's operating contractor meets its ongoing contractual obligations to the government. Hawthorne stores conventional munitions, demilitarizes and disposes of unserviceable, obsolete and surplus munitions, and maintains serviceability through inspection and renovation to ensure ammunition readiness.

Alan P. Rosser is the chief of



maintenance and demilitarization for the Anniston **Munitions Center** at Anniston Army Depot, Alabama. Rosser began his

career in the federal government in 1981, when he served as an explosives operator on the Multiple Launch Rocket System (MLRS) during the early part of his career. He now serves as the munitions operator guided missile supervisor and leads the efforts to build the MLRS reuse, recycle and recovery system.

ARSENAL OF THE BRAVE

U.S. ARMY RESEARCH. **DEVELOPMENT AND ENGINEERING COMMAND** (RDECOM)

Tamara Lusardi, a U.S. Army



Missile Research, Development and Engineering Center cyber

security specialist, participated in

the Equal Opportunity Employment Commission 2016 LGBT Pride Month program June 1 at its Washington, D.C., headquarters, sitting on a panel to discuss LGBT rights. Lusardi transitioned from male to female in 2010, and is an advocate for LGBT rights with the American Federation of Government Employees chapter in North Alabama and in the local community. She is currently working on transgender initiatives for the Army. While in Washington, D.C., she attended the Capital Pride Alliance's Heroes Gala, where she met Secretary of the Army Eric Fanning.



Natick Soldier Research. Development and Engineering Center in Massachusetts, recently graduated from the Army Basic Airborne Course, known as Jump School. With only 10 percent of the class being women, Hunt was truly unique in that she was the oldest and among the smallest, standing less than 5 feet tall and weighing the minimum to qualify. "I wanted to go and have the experience of using and jumping the parachute equipment I work with and inspect every day," said Hunt. "The opportunity has given me a different and fuller perspective of the work l do for ADEST and has made me better qualified to do my job."

materials engi-

(ADEST) at the

Dr. Anne Petrock is acting compe-



tency manager for warheads and lethal mechanism technologies at the Munitions Engineering **Technology Center**

(METC), a part of the U.S. Army Armament Research, Development and Engineering Center at Picatinny Arsenal, New Jersey. She leads a team of scientists and engineers that is responsible for the planning and directing of technical programs related to the design, development and application of high-explosive materials, warheads, lethal effects and systems integration. "Working at Picatinny provides new opportunities for technical and professional growth on a daily basis," she said. "There is an incredibly diverse and talented workforce here that is very dedicated to serving those who serve our country."

MILITARY SURFACE **DEPLOYMENT AND** DISTRIBUTION COMMAND (SDDC)

Capt. Kevin Holloway, aide-de-



into the Order of St. Christopher symbolizes the recipient's strength, loyalty and safety for transporters charged with moving the forcemuch like the legend of St. Christopher. Holloway has been assigned to the command for more than two years and previously served as the SDDC headquarters and headquarters detachment commander.

Joe Repp. the current G-3

* *

Operations deputy, expertly served as SDDC's acting deputy to the commander, a Senior Executive

Service position, for about one year. During that time, he was instrumental in the success of the command through his definitive leadership and mentorship of the civilian and military workforce. Repp has served more than 34 years as a member of the transportation community.

U.S. ARMY TANK-AUTOMOTIVE U.S. ARMY SECURITY **AND ARMAMENTS** COMMAND (TACOM)

Matthew Cooke is the branch chief



responsible for sustainment of the Force Provider Expeditionary Base Camp System at TACOM Integrated

Logistics Support Center's Soldier **Product Support Integration Directorate** located in Natick, Massachusetts, He and his team were deeply involved with deploying the Force Provider system in support of Operation United Assistance. He worked closely

with the United Nations to deliver Force Provider systems in support of the Central African Republic. Cooke has received numerous awards for his work throughout the years, including recognition as the Greater Boston Federal Executive Board Federal

Manager of the Year for 2013.

William "Bill" Pass, who has served



the nation more than 35 years as both a Soldier and Army civilian, is the deputy

director of the Red **River Army Depot**

(RRAD) Directorate for Emergency Services in Texarkana, Texas. He is the catalyst behind RRAD winning the Department of the Army Best Antiterrorism Program Award for eight consecutive years (2007-2014), being placed on the Antiterrorism Honor Roll in 2007, winning the Best Antiterrorism Program Manager Award in 2009, and being recognized by the National Weather Service as a "Storm Ready" site in 2013. Prior to his service as a civilian with RRAD, Pass was the command sergeant major for the 84th Chemical, Biological, Radiological and Nuclear Battalion at Fort Leonard Wood, Missouri,



ASSISTANCE COMMAND

Master Sgt. Elbony Spearman,

a mobilization



(USASAC)

senior human resources noncommissioned officer for Ministry of Interior – Militarv

Advisory Group, provides human resources support and technical advice and guidance to U.S. Army Reserve and National Guard Soldiers deployed to Riyadh, Saudi Arabia. As a Reservist, she was activated from the 1-100th Engineering Battalion out of Knoxville, Tennessee, and joined USASAC in April. Spearman, who is a Department of the Army Civilian with the Isham C. Hewgley U.S. Army Reserve Center, said she likes being able help Soldiers and push them to be better.

Chuck Stoops, command records



manager, manages case records for **USASAC** Regional Operation directors and performs records

retrieval. Stoops, who has spent 30 vears with USASAC New Cumberland in Pennsylvania, has held many jobs for the organization – from secretary, to managing equipment and working to support the USASAC U.S. Central Command Directorate. Stoops values the training that USASAC offers,

adding, "anything that is taught is an advantage for me to learn and grow."

Patrick Macri is the Ukraine



security assistance team manager for the U.S. Army Security Training Management Organization, a

subordinate of USASAC. Macri is in charge of all the U.S. training teams in support of the Ukrainian General Staff and Ministry of Defense. A retired Army major with 26 years of active duty service, Macri says he thoroughly enjoys working for USASAC. "I love what I do," he said. "Every day is different from the next; I never get bored." One initiative that he developed and managed was the Armenian medical curricula program, which was later mirrored for Ukrainian personnel. "The thing that's unique about a program like this is that you're creating a new capability where it did not exist before, and I'm hopeful that other countries throughout Europe will adopt it also."



LEFT: Brian Lane, left, and Kelly Collins work on rotor maintenance for a Black Hawk helicopter at the **Aviation Center Logistics** Command (ACLC) at Fort Rucker, Alabama.

> FROM TOP: TH-67 and Lakota helicopters are lined up in various stages of scheduled maintenance in an ACLC facility

Steve Stephenson, left, and Kevin Powell work on a Chinook helicopter engine repair in the ACLC's Aircraft **Component Repair shop.**

George Helms, left, and Zack Rawlings inspect the rear tail wing of an Apache helicopter as part of the maintenance program at the ACLC. (U.S. Army photos)

AVIATIONMAINTENANCE MISSION AT FORT RUCKER By Kari Hawkins, AMCOM Public Affairs **SHOWCASES BESTOF**

GOVERNMENT-CONTRACTOR EFFORT

A long-standing relationship between Army aviation and its contractor team at Fort Rucker, Alabama, has reaped dividends for the Department of the Army in providing the maintenance, logistics and sustainment readiness required to provide the best-trained aviators to combat brigades.

Since 1955, the government has relied on what is known today as the U.S. Army Aviation and Missile Command's Aviation Center Logistics Command (ACLC) at Fort Rucker. This government and contractor team ensures the Army's fleet of helicopters is always ready to complete the Army Aviation Center for Excellence training mission.

That's a major 24/7 accomplishment, when more than 600 helicopters in 12 different aircraft configurations can be in flight at any given time to meet Army requirements. On a typical day, more than 150 Department of the Army Civilian and military quality assurance specialists

oversee the work of about 3,300 contractor employees at ACLC to support more than 500 training missions from six airfields (five at Fort Rucker and one at Fort Benning, Georgia), 72 remote training sites, 17 stage fields, three remote refueling stations and one firing range. They also order upwards of \$2 million in inventory to ensure 54,000 aviation parts are always in stock, and perform more than 60 maintenance test flights or related activities daily. In addition, the government team completes about 5,000 aircraft inspections annually in support of more than 200,000 flight hours a year.

"This is a team of teams approach," said Col. Michael Best, ACLC commander. "Every pilot trained here has an impact on the Army's 10 combat aviation brigades. We are generating aviation readiness for the Army."

About 2,500 aviators go through the aviation training program at Fort Rucker each year, either as an initial



entry rotary wing pilot or as a graduate pilot gaining additional training or transitioning to another aircraft. Twentyfive percent of all Army aviation flight time occurs at Fort Rucker.

ACLC currently oversees maintenance on a \$1.98 billion, five-year aviation maintenance services contract for two helicopter fleets meeting different training missions. The Federal Aviation Administration (FAA) fleet consists of non-deployable aircraft – TH-67 Creeks and UH-72 Lakotas – used for training pilots in basic warfighting skills, while the green fleet consists of the Army's modern aircraft - AH-64 Apaches, CH-47 Chinooks and UH-60 Black Hawks - used to train pilots on advanced skills specific to each helicopter employed in today's Combatant Commands.

"We have five airfields at Fort Rucker that correspond to different airframes," said Roy Templin, the ACLC Fleet Sustainment Division chief. "ACLC has employees at all airfields, all sites and in 91 facilities to provide oversight of those airframes and to serve as the liaison between the customer – the instructor and student pilots – and the contractor

Many of those ACLC employees bring with them an Army aviation background that includes quality control experience, which is essential when overseeing the complex quality requirements of aviation systems.

maintenance crew."

"Many worked for us when they were in the military," said Templin, who, while on active duty, served as the first executive officer for ACLC. "By coming back as civilians, we benefit from their military experience and the experience they gained when they were assigned to ACLC. They already understand Army maintenance procedures for aviation, safety, quality control and aircraft specific issues."

That experience comes in handy when maintenance issues arise. "There are always challenges, always issues you find during phased

The U.S. Army Aviation and Missile Command (AMCOM), a subordinate of the U.S. Army Materiel Command, develops, acquires, fields and sustains aviation, missile and unmanned vehicle systems. As a life cycle management command, AMCOM assures aviation and missile readiness with seamless transition to combat operations.

maintenance," said Wade Pasquarella, ACLC Maintenance Surveillance Branch chief. "You can't see a crack inside a firewall until you remove the engine.

"Because we have a lot of older aircraft and because those aircraft are used over and over again, we will see maintenance issues here that you don't see out in the field. And, in our new aircraft, we will see maintenance issues here earlier than you will see them in the field because our aircraft are used over and over again in the same maneuvers. That situation is compounded, too, by student pilots who are learning the aircraft. A helicopter may land and take off 15 or 20 times during one training session, and it may be used in three or four training sessions in one day. For those reasons, we see wear and tear in things you may not even see in the field. We put lots of hours on our helicopters very quickly."

During Fiscal Years 2014 and 2015, ACLC prepared to support the Army's Restructuring Initiative (ARI), which divested all OH-58 Kiowa Warriors from the training fleet; and by the end of FY19, will divest all 187 TH-67 Creeks used since the 1990s and replace them with UH-72 Lakotas. The initiative also includes reducing AH-64D Apaches with no change in mission, changing out CH-47D Chinooks for CH-47Fs, and upgrading existing fleets. During a fiveyear period ending in 2020, 100 aircraft a year will be transitioned in support of the initiative.

As the largest employer in Alabama's "Wiregrass Region." ACLC will continue to move forward despite the challenges of ARI and budget constraints because of the local community, which takes pride in the role that it has had in Army aviation since the 1950s.

"Ultimately, the school house and the Soldier are our customers. Wherever you see Soldier pilots flying, we're there to support them with the best maintenance," said Best, v

MULTIPLE AGENCIES WORK TO SECURE PRESIDENTIAL COMMUNICATIONS

By Phil Molter, **CECOM Public Affairs**



President Barack Obama watches as Todd Park, White House technology advisor, shows him information on a

tablet during a meeting in the **Oval Office. (Official White** House Photo by Pete Souza)

Everyone has seen the movies: the president boards Air Force One or enters the Situation Room in the White House or other location, and begins directing the actions of the armed forces and other agencies to combat the problem du jour.

While that may be mostly Hollywood, in point of fact, some dedicated and razor-sharp military and civilian technicians do have the job of ensuring that National Command Authority can be transmitted, in the literal and figurative sense, to action-takers around the globe.

The joint team which answers the call to modernize, unify and secure the Presidential Information Technology (IT) infrastructure is formally known as the 18A (for the 18 acres that make up the White House compound) Tiger Team, composed of active-duty Air Force and Army, DOD Civilians, Air National Guard Airmen, and contractors across 13 units, 11 states and the District of Columbia.

The 18A Tiger Team mission is to provide the Presidential Information Technology Community (PITC) with a modernized IT infrastructure that

will support information services to the president, vice president, national security staff, United States Secret Service and others, ensuring the ability of each to communicate anywhere, anytime, and by any means to anyone in the world.

A key part of the Tiger Team group comes from the Information Systems Engineering Command (ISEC), and other subordinate units of the U.S. Army Communications-Electronics Command (CECOM).

"ISEC is providing telecommunications, wireless and systems engineering support," said Maj. Eric Stangle, project team lead for ISEC and Program Executive Office Enterprise Information Systems. "Internally we are subdivided into four joint engineering teams with an ISEC engineer leading each team. Working with them are engineers as well as installation technicians from the U.S. Air Force and [CECOM's] Tobyhanna Army Depot. It is truly a joint effort, and each agency is vital to the success of the project."

Illustrating the numerous agencies that contribute to the project's success, just within CECOM, Tobyhanna provides electrical engineering support, installation services and logistical support, and the Integrated Logistics Support Center (ILSC) provides the logistics management expertise that enables internal management of the supply chain. Additionally, the 406th Army Field Support Brigade's Logistics Readiness Center at Fort Belvoir, Virginia, furnishes the warehouse space and multiple other services that enable the team to sustain the logistical needs of the project.

"Of the many challenges, perhaps the most constant is that the end users who occupy these offices directly support the president and vice president of the United States on a daily basis, and of course the president and vice president themselves," Stangle said. "There can be absolutely no service interruption to the end users as we work to modernize the IT infrastructure and assist in providing new or expanded



BEHIND THE SCENES

LEFT: President Barack Obama leads a secure video conference. Subordinate units of the U.S. Army **Communications-Electronics** Command, including the **Information Systems Engineering Command. are** a key part of the 18A Tiger Team. which modernizes. unifies and secures the **Presidential Information** Technology infrastructure. **(Official White House** Photo by Pete Souza)

RIGHT: Airmen from the 85th Engineering Installation Squadron train installers from **Tobyhanna Army Depot on** standardized processes for creating and implementing engineering and installation packages. U.S. Air Force's 85th Squadron members conducted a joint training course that they developed in support of the 18A project. (U.S. Army photo)

IT capabilities. To achieve this takes extremely close coordination within the project team and with all stakeholders across the White House campus, as well as detailed contingency planning to ensure back-up solutions can be immediately implemented." Having to remain vigilant of the historical heritage of their workplace adds to the technical challenges faced in unifying the IT infrastructure on the White House grounds. "For example, moving a 250-year-old bookshelf to install a new conduit or work area outlet is not a simple matter," Stangle said. "We work very closely with the General Services Administration preservationists and other historians to ensure our designs and installation strategy coincide with maintaining the unique heritage of the facilities. Our teams take extreme care not to disturb historical artifacts or the historical facade of

these buildings."

The project team not only engineers the solution, but implements and installs those solutions using only government resources.

"It is an amazing and rewarding experience to be able to engineer a solution, procure the necessary items, implement that solution and have users in the White House using that solution within days, not months or years," said Jeremy Mohr, lead ISEC engineer for the 18A Team. "The team understands the criticality of our mission and is proud to be given the opportunity to support the president and his staff."

The 18A IT Modernization Project delivers critical support to the president's IT vision and comprehensive approach - survey, design, procure and install - to provide presidential quality IT across the enterprise.

By Sgt. 1st Class Shannon Wright, ASC Public Affairs

The Army Strategic Logistics Activity-Charleston (ASLAC) at Joint Base Charleston - Naval Weapon Station, South Carolina, is responsible for the maintenance and movement of Army Prepositioned Stock-3 (APS), the Army's prepositioned stock afloat program.

"What is unique about us is our warehouses float," said Robert O'Brien, ASLAC general manager. "We put equipment in the hands of Soldiers around the world."

A majority of the time, the equipment set is stored in vessels prepositioned to support missions anywhere in the world, as opposed to land-based assets that are theater-specific, according to Tim Fore, director, sustainment

operations and APS directorate, U.S. Army Sustainment Command (ASC).

At 950 feet in length, the Large Medium Speed Roll On/Roll Off Army vessels have a cargo stowage area of about 394,000 square feet and can store and transport an entire Infantry Brigade Combat Team or Sustainment Brigade equipment set. Once deployed, the ships typically stay at sea for about 40 months. ASLAC sends a six-man team with the vessels to perform Care of Supplies in Storage, or COSIS, while afloat.

The ships dock in three locations - two areas in the Pacific Ocean and one in the Indian Ocean. When a unit is in need of equipment, the vessel travels to its location to make the hand-off, which includes a 100 percent inspection and inventory.

a and a second second

Equipment is loaded onto a ship in support of the European Activity Set buildup at the Army Strategic Logistics Activity-Charleston (ASLAC), Joint Base Charleston, South Carolina.

HONOR WILMINGTON, DE A unit-level equipment transfer is accomplished in six hours. "The equipment would be downloaded from the ships at some port close to the 'hot spot' where the hand-off team would fly into and hand off the equipment to the gaining tactical unit," said O'Brien.

APS-3 provides the equipment and materiel U.S. regional Combatant Commanders need to quickly respond in contingency operations at any location in the world. ASLAC is responsible for the maintenance of this equipment and has also grown its mission to support land-based operations, including support to the APS-6 Southern Command activity set.

The APS-6 mission is just over two years old. Eventually the goal is to move the requirement within the U.S. Southern Command area of responsibility, but for now, it remains at Charleston.

"We perform the exact same mission [with APS-6] as we do for APS-3," O'Brien said. "The only difference is it's land-based."

ASLAC is a subordinate organization of ASC under the U.S. Army Materiel Command, which is also work-loading the organization to support the program manager for mine-resistant, ambush-protected (MRAP) equipment fielding to worldwide locations.

"The program manager was shipping direct to overseas APS sites, but there were some problems," said O'Brien. "So now we do the [technical inspection] and any necessary maintenance or repairs prior to shipment to the other APS sites."

Some of these vehicles are being reset after spending time in theater and will be sent back into the force. ASLAC currently has more than 400 MRAPs, but could accommodate as many as 600.

Just eight miles from the wharf, ASLAC's industrial area covers 330 acres, with capabilities like a paint facility that turned out hundreds of combat and combat support equipment for the European Activity Set build in 2015.

The Army Strategic Logistics Activity-Charleston falls under U.S. Army Sustainment Command (ASC), a subordinate organization of U.S. Army Materiel Command (AMC). ASC is the command and control hub for global Army logistics, supporting Combatant Commanders and the Logistics Civil Augmentation Program. The command bridges the national sustainment base to the Soldiers in the field, bringing together the capabilities of AMC to provide the right equipment, at the right place and time, and in the right condition.

"We are able to execute services and repairs on approximately 1,200 pieces of rolling stock in a very short 109-day maintenance cycle," said O'Brien.

In addition to routine maintenance, ASLAC's facilities allow them to apply additional armor to vehicles and configure, organize and sort repair parts. With 10 military service members, 36 Department of the Army Civilians and about 400 contractors, the government-owned, contractor-operated facility provides the Army with the ability to quickly generate combat power at any location designated by the National Command Authority. V



Married couple Charles and Neekia Finney work together chalking camouflage patterns on a tank in preparation for it to be painted in woodland colors at ASLAC.

(U.S. Army photos by Sgt. 1st Class Shannon Wright)

The **USNS Corpus Christi Bay**-[0] Stationed in the South China Sea for more than six years during the Vietnam

War, the United States Naval Ship (USNS) Corpus Christi Bay was the U.S. Army Materiel Command's (AMC) first and only attempt at providing logistical support through a floating repair facility.

Originally known as the United States Ship Floating Aircraft Maintenance Facility (FAMF), the Corpus Christi Bay was a mobile depot that fleet of aircraft during the Vietnam War from 1966 through 1972. During that time, the shops aboard the FAMF provided a wide range of aviation-related support, including repairs and overhaul of various aircraft engines, fuel controls, rotor heads, transmissions and propellers.

The FAMF concept can be traced back to World War II, when the U.S. military faced aviation repair issues in the Pacific. The Army Aircraft Repair Ship Project, as it was known then, was a byproduct of the Allies' "island-hopping" counteroffensive against the Japanese, and led to the creation and designation of the First through Sixth Aircraft Repair Units (Floating) to be used in the Pacific. Despite the enormous production from the repair ships, following the end of World War II, the ships were stripped and the concept dissipated for the next decade.

Early in the 1960s, as conflict continued in Vietnam, it became apparent that a similar project could present incredible value to the Army's aviation fleet in Southeast Asia. Hundreds of aircraft of every type were being used for a variety of missions, and leaders at AMC began to reexamine the use of FAMFs to provide more timely aircraft maintenance.

Lt. Col. John F. Sullivan saw the value in developing and maintaining a movable maintenance facility and spearheaded efforts to move the project forward starting in the early 1960s. His efforts eventually landed him in a position at AMC headquarters, where he became the planner and executor of Operation Flat-Top, and eventually the first project manager for the Flat-Top Project Manager Office (PMO).

While Operation Flat-Top originally called for the conversion of an aircraft carrier to fit the FAMF concept, early evaluation results showed that converting a carrier





ORPUS CHRISTI BA



prior to its conversion into the **USNS Corpus Christi Bay.** 2. The USS Albemarle undergoes conversion into the **USNS Corpus Christi Bay.** 3. The refurbished bridge of the USNS Corpus Christi Bay is shown. . Two Soldiers stand in front of a heavy crane onboard the USNS Corpus Christi Bay at Vung Tau, Vietnam. (U.S. Army photos)

m, during the Vietnam Wa aviation units in Vietnam for n r. Pictured is the ship at pier w ground undergo





ACROSS THE YEARS



would be too expensive, and attention was redirected to a smaller vehicle – a seaplane tender. The USS Albemarle became the target of the operation's interest, where intensive evaluation led AMC experts to determine that the ship would meet the requirements of creating a FAMF.

AMC received approval to move forward with the project, along with more than \$11 million in funding for capital equipment and ship conversion of the USS Albemarle. The FAMF was to be fully operational by Jan. 1, 1966, with the capability of supporting 335 aircraft in Vietnam. Following the conversion. the newly minted Corpus Christi Bay departed from the Charleston Naval Ship-

The USNS Corpus Christi Bay provided support for the Army's fleet of aircraft while stationed in Cam Ranh Bay, Vietnam from 1966 through 1972. yard in South Carolina, Jan. 12, 1966, and after a circuitous trip, arrived at Cam Ranh Bay, Vietnam, April 2, 1966. Despite ongoing issues with the ship's air conditioning, which left interior portions

of the ship up to 137 degrees Fahrenheit, the Corpus Christi Bay began almost seven years of aircraft repair and support.

During its first three months of activity, the FAMF produced and repaired materiel totaling about \$2.3 million in value, and removed more than 300 pieces of equipment from deadline.

Despite preparatory efforts to create more succinct practices, the FAMF did not attain full production potential in Fiscal Year 1967, but did show steady growth in output. By the end of the year, the total acquisition value of the items repaired or overhauled was about \$17.3 million. The work aboard the Corpus



Corpus Christi Bay: 1. Four rotor blades are worked on in the maintenance area. 2. A UH-1 belonging to 1st Transportation Battalion is tied down to deck. 3. Soldiers work in an engine test cell in Vietnam. (U.S. Army photos)

Aboard the USNS

Christi Bay resulted in about 5,000 additional aircraft availability days.

In 1968, the FAMF's productivity increased in both amount and efficiency, overhauling or repairing goods valued at about \$43.6 million, more than double what it was able to produce the prior year. That same year, Corpus Christi Bay also took responsibility as the prime facility for theater crash-damage analysis.

Over the next two years, the FAMF completed work on \$46.7 million and \$42.4 million worth of items, respectively. Though the value of the items had not gone up, by 1970 the facility had doubled the amount of items processed and produced.

During this timeframe, while the Corpus Christi Bay had been converted to a FAMF and subsequently deployed to Southeast Asia, Flat-Top PMO had been working to secure the ability to convert and deploy additional FAMFs to support efforts in Vietnam. These ships, had they been approved, would have provided a variety of additional specialized support services to the U.S. Army, including electronics repair, airframe repair and mechanical materiel maintenance.

However, despite early optimism at AMC and several additional FAMF proposals, future ship conversions were not approved. Evaluations showed that it would cost more than initially projected to create a second FAMF, and the timeline would be considerably longer than expected. As the Flat-Top PMO tried other avenues to move the FAMF program forward, in 1969 the Department of the Army decided that a second FAMF was not essential, proving fatal for the concept.

That same year, AMC Commander Gen. Ferdinand Chesarek began reducing the number of direct reportees, including the Flat-Top PMO, which eventually moved the FAMF under the U.S. Army Aviation Systems Command (AVSCOM), a predecessor of today's U.S. Army Aviation and Missile Command.

AVSCOM spent many months evaluating how to move forward with the facility, which had caused considerable consternation among both Army and Navy leadership due to its questioned value to the war effort. Eventually, following studies that stated the facility was overly costly and work loaded improperly, AMC asked AVSCOM to develop two draft plans: one that called for the Corpus Christi Bay to be maintained in a contingency and training status, and the other to remove the FAMF from service.

Army leaders finally decided that the FAMF's mission in Vietnam was concluded, and the ship was ordered back to port at Corpus Christi, Texas, by the end of 1972. Arriving Dec. 19, 1972, the FAMF began to restructure under Operation Homecoming, which called for the redeployment of the battalion serving aboard the Corpus Christi Bay, transferring mission and functions to the Army Aeronautical Depot Maintenance Center, inactivating certain materiel and training elements, and designating new oversight for the resulting FAMF organization.

The FAMF would only leave Texas once more on a special assignment in the summer of 1973, when it was called to monitor French nuclear testing in the Defense Nuclear Agency's Operation Hula Hoop.

Following that mission, the Corpus Christi Bay returned to port, where it provided continued production support until it was decided that the FAMF program would be brought to an end, and the Corpus Christi Bay would be returned to the Navy by Dec. 31, 1974.

Prior to the handoff, the ship was inactivated and supplies, tools and equipment were removed and placed in storage. The Corpus Christi Bay was turned over to the Military Sealift Command the morning of Dec. 31, 1974, with a brief on-board ceremony, and departed Jan. 8, 1975, to Orange, Texas, for further stripping. The ship was eventually sold for scrapping later that summer.

Today, mementos from the ship can be found at the U.S. Army Transportation Museum at Fort Eustis, Virginia, including the battalion's colors, a model of the Corpus Christi Bay, plaques, two motion picture films and various charts. ⊽

Special thanks to the U.S. Army Transportation Museum at Joint Base Langley-Eustis, for their assistance with the photos for this story.

USNS Corpus Christi Bay deck operations personnel train on firefighting. (U.S. Army photo)

LOG CHRONICLES

HIGHLIGHTING THE CONTRIBUTIONS OF LOGISTICS PROFESSIONALS

For more than 30 years, Bill Brankowitz played a vital role in advancing the United States' mission to demilitarize chemical weapons.

Brankowitz began working for the U.S. Army as a junior engineer in 1972 at Rocky Mountain Arsenal, Colorado, supporting chemical demilitarization efforts around the



globe. Perhaps his biggest contribution to the effort was as the deputy project manager for the Non-Stockpile Chemical Materiel Project at what is now the Chemical Materials Activity, when he and his team developed and used two of the most game-changing technologies in chemical weapon demilitarization – the Explosive Destruction System (EDS) and the Portable Isotopic Neutron Spectroscopy (PINS).

Brankowitz, who retired in 2006 and then spent several years supporting the Army as a consultant and contractor, said he looks back on those projects, and the many great Americans he worked with, with a strong sense of pride.

"We felt we were doing something worthwhile for our country, as well as supporting a worthwhile international goal to get rid of chemical weapons," he said. "It makes it a lot easier to accomplish a major goal when you work with good people, and I was surrounded by great people. They were all top of the line."

- **Q:** What was the impact of the EDS on chemical demilitarization?
- A: The EDS is a piece of equipment that has been used extensively over the last decade by treating chemical weapons in an explosion-proof vessel – blowing them up and then neutralizing the chemical materiel. The system is robust and continues to be used today.
- **Q:** How did the PINS system impact the Army's ability to handle non-stockpile chemical weapons?
- A: The PINS is an emitter that bounces neutrons into a questionable piece of materiel and would provide a reading on what was inside the package. Before that, we really had to guess; items that were 30 to 70 years old, we had no clue what was inside them.
- **Q:** What about the chemical demilitarization effort kept you interested for three decades?
- A: The logistics aspects of the job were just so fascinating. Working on the Johnston Atoll Chemical Agent Disposal System, it was a tremendous challenge setting up a modern chemical weapons disposal facility in a very remote location. Making that happen was incredible. Opposite of that, working in non-stockpile, there were so many changes and so many challenges. You could wake up to go in to work on a series of things, and then there would be this crisis and you would be doing something completely different.

DEFENSE TRANSPORTAT

DOD'S SENSITIVE SHIPMENTS

By SDDC Public Affairs

Late at night on an icy road in a remote area west of Charlotte, North Carolina, a commercial truck carrying a load of DOD ammunition slid off the road and into a deep ditch unseen by other vehicles traveling in the area.

Less than two minutes later, nearly 700 miles away, a member of the Military Surface Deployment and Distribution Command (SDDC) at Scott Air Force Base, Illinois, made a phone call to police in the Charlotte area and directed them to the location of the truck and trailer. Within moments, the police arrived at the site of the accident and requested an ambulance to transport the injured drivers to the hospital.

Thanks to SDDC's Defense Transportation Tracking System (DTTS), the driver team in this true scenario received prompt medical support, the ammunition shipment was secured, and the commercial trucking company moving the shipment, along with the shipper and receiver of the ammunition, were all informed of the situation.

SDDC also quickly made arrangements to get a gualified tractor-trailer and driver team to take the

shipment to its final destination in time to meet its required delivery date the next day.

DTTS is a vital system that enables SDDC to track and monitor DOD's sensitive and hazardous materials in transit, while also providing instant communication to help the command - as well as drivers and emergency responders - deal with unexpected situations.

"DTTS is just one of the many ways the trusted professionals of SDDC deliver readiness," said Maj. Gen. Kurt J. Ryan, SDDC commanding general. "It's a critical function in SDDC's support to DOD and the warfighter."

DTTS provides a closed-loop tracking system for much of its high security risk cargo. When an installation transportation officer requests satellite tracking, the system tracks the shipment from departure at origin until it arrives at the intended destination. If a shipment is delayed due to an emergency, such as an accident or even a mechanical breakdown, DTTS is involved and takes action to help keep the shipment moving.

"We stay connected to the shipment until it arrives at destination," said Jessica Snyder, DTTS Policy and Technology Branch chief.

LEFT: Personnel assigned to the Military Surface Deployment and Distribution Command's (SDDC) Command Operations Branch plan, direct, synchronize, coordinate and monitor global surface movements and port operations through subordinate operational commands and strategic seaports. The Command Operations **Center maintains operational** oversight of all SDDC operations 24 hours a day, 365 days a year. (U.S. Army photo by Mark Diamond)

BELOW: The Defense Transportation Tracking System (DTTS) receives updates around the clock from satellite-equipped trucks in transit, providing web-based information on current position and operating status. The satellite data is matched with information from a DTTS database that provides data linkage to each truck's cargo, origin and destination. (Graphic courtesy of SDDC)



Using satellite communications, DTTS tracks DOD Arms, Ammunition and Explosives (AA&E) and other sensitive material traveling across North America via commercial carriers. The system supports SDDC's objective to provide in-transit visibility and total asset visibility on AA&E shipments and other sensitive or classified cargo.

As part of SDDC's support of the total force, DTTSapproved carriers operate trucks for every U.S. military service. DTTS receives periodic updates around the clock from satellite-equipped trucks in transit. These updates provide DTTS with information on the truck's position and status, and the satellite data is matched with information from a DTTS database that provides data linkage to the truck's cargo, origin and destination.

Additionally, each truck is equipped with a "panic" button that allows drivers to inform DTTS within



seconds of any emergency that may occur during transport. If DTTS analysts receive a message about a potential issue, they engage with all appropriate agencies to immediately mitigate the situation.

"The ability to provide DOD leadership or civilian first responders with up-to-the-minute information about any incident is central to the DTTS mission," said Travis Jungewaelter, DTTS Operations and Data Quality Branch chief.

In the event of a major emergency, DTTS personnel contact civilian first responders – typically the police who contact fire, emergency medical technicians, and others as needed - and make them aware of the type of cargo on the truck. This information can be critical on-site, as it may dictate how emergency personnel respond to the accident scene.

In 2010, DTTS implemented trailer tracking as an added measure to increase the security of DOD's high risk shipments. In addition to the ability to independently track trailers, the system informs DTTS analysts when a trailer is unhitched from its truck or if the trailer door is opened. With trailer tracking, DTTS can track a shipment even if the trailer is separated from the truck, allowing even greater in-transit visibility. This capability is how DTTS personnel were alerted to the Charlotte incident. During the accident, the tractor and trailer became untethered, and SDDC's DTTS analysts received a satellite message indicating an unplanned untether event, prompting the analyst to call local police to investigate.

"There are many systems that provide in-transit visibility for DOD cargo, but our DTTS team can do more with that information than just tell you when the shipment departed origin or arrived at destination," said Navy Capt. Aaron Stanley, SDDC's Operations director. "DTTS ensures these shipments have the proper safety and security oversight. And with our unique standard operating procedures, if an emergency does happen, we can respond like a precision drill team."

Most shipments are completed without a problem, but with tens of thousands of sensitive and hazardous materials shipments conducted every year, issues are bound to arise. When they do, SDDC is ready to respond and keep the shipments moving.

The Military Surface Deployment and Distribution Command (SDDC), a subordinate organization of the U.S. Army Materiel Command and Army Service Component Command of the U.S. Transportation Command, delivers world-class, origin-to-destination distribution solutions. Whenever and wherever Soldiers, Sailors, Airmen, Marines and Coast Guardsmen are deployed, SDDC is involved in planning and executing the surface delivery of their equipment and supplies.

PROGRAMS BOLSTER SAFE ENVIRONMENTAL

By Dan Lafontaine, RDECOM Public Affairs

When the Department of Defense needs scientific proficiency, they look to the professionals at the U.S. Army Research, Development and Engineering Command (RDECOM). RDECOM program managers across seven research centers and laboratories provide the technical expertise for several DOD technology initiatives, including environmental, safety, occupational health and energy. Two such initiatives are being led by the National Defense Center for Energy and Environment (NDCEE) and the Army **Environment Quality Technology Pollution Prevention** Program (EQT P2) with the support of the RDECOM team.

NATIONAL DEFENSE CENTER FOR ENERGY AND ENVIRONMENT

U.S.ARMY

NDCEE serves as a national resource for developing, advancing and transitioning technologies and processes that address high-priority environmental, safety, occupational health and energy challenges for military installations, ranges, weapons system and warfighters. These projects are designed to enhance performance and efficiency, decrease costs and comply with regulations. The center, established in 1991, works with organizations across DOD.

The center reviews proposals submitted by DOD organizations for funding, said Jennifer Nicholson, an NDCEE technology transition manager. Among NDCEE's selections for Fiscal Year 2016 is a paratrooper "black box." The center will contribute \$133,000 annually over the next three years toward developing and testing this new capability for the airborne community.

Paratroopers assigned to the U.S. Army's 173rd Airborne Brigade, Italy's Folgore Brigade and the British army's 16 Air Assault Brigade, conduct airborne operations during Exercise Saber Junction 16 on the Maneuver Rights Area near Hohenfels, Germany. (U.S. Army photo by Gertrud Zach)

The Army's Combat Readiness Center (USACRC) at Fort Rucker, Alabama, is working with the XVIII Airborne Corps at Fort Bragg, North Carolina, on a proof of concept Paratrooper Suite of Sensors under the newly established Army Airborne Board, which held its first meeting in January 2016.

FFF

USACRC provides the Army with safety and risk management expertise to preserve readiness. When a paratrooper suffers a fatality, the data available for investigators is limited to witness accounts and forensic analysis of the available evidence. To gain a better understanding of the accident and prevent future deaths, Army researchers and the airborne community began discussions on developing the "black box" device, which would

be placed on a paratrooper, said Lt. Col. Phillip G. Jenison, ground director at USACRC who served previously as a battalion commander in the 82nd Airborne Division under XVIII Airborne Corps.

"How can we get to the root cause of what happened? You can sometimes get disparate information when you start doing accident investigations," Jenison said. "How can we make sure we're getting the facts?"

The device would capture information such as body position and altitude during an aircraft exit. This data, in turn, would allow the Army to better understand what occurred during the fatality. It would also help determine which paratroopers require additional training and can be used in life cycle management.

"We're looking at how to help from a materiel perspective to clarify what happened and why it happened for accident investigation," Jenison said. "It would capture that data and use that to produce a re-creation on the sequence of events, such as an animation or a video. It has to be transparent and seamless. We don't want to add more weight to the paratrooper because he has enough already. It should be about the size of a flash drive."

The team is approaching academia and federally funded research centers to develop a proof of concept. Jenison said the technology exists; it's a matter of how to engineer the pieces to satisfy the Army's technological requirements.

Once prototypes are ready for demonstration, the U.S. Army Natick Soldier Research, Development and Engineering Center (NSRDEC) will begin testing. Subjectmatter experts at NSRDEC, an RDECOM organization, work closely with the airborne community to develop and test materiel capabilities through its Aerial Delivery Design and Fabrication Facility.

The U.S. Army Research, Development and Engineering Command (RDECOM) has the mission to ensure decisive overmatch for unified land operations to empower the Army, joint warfighter and nation. RDECOM is a major subordinate command of the U.S. Army Materiel Command.

ME STUDIO PLAYS CRITICAL ROLE N TRAINING, EDUCATION, OUTREACH

Video games and virtual reality have played a crucial role in Soldier readiness and U.S. Army outreach for the past two decades.

The Army Game Studio, housed at the U.S. Army Aviation and Missile Research, Development and Engineering Center's Software Engineering Directorate, has brought together more than 150 developers and support staff to create critical video game-based training, education, outreach and simulation capabilities.

The Army began developing video game and virtual reality training and simulation tools for Soldiers during the 1990s.

"We saw the impact this technology was having on training very early on, and were given the opportunity to push that technology forward," said Frank Blackwell, the Army Game Studio program manager.

By the mid-2000s, the studio had also taken over development of America's Army, an online game that serves as a strategic communications tool, designed to teach players about the service.

"America's Army has been in the marketplace for 14 years, which is a long time when you are talking about video games," Blackwell said. Since it became available, the game has had over 14,000,000 registered users.

ARMY ENVIRONMENTAL OUALITY TECHNOLOGY POLLUTION PREVENTION PROGRAM

The EQT P2 integrates installation environmental sustainability issues, particularly those affecting the Army's Organic Industrial Base. The program provides technical support to integrate environmental, safety and occupational health considerations into systems engineering activities. No single Army program manager has the role to fund or fix the similar environmental issues that weapon systems share, said Erik Hangeland, EQT P2 director. RDECOM's seven research and engineering centers execute the program.

The National Research Council published a 2013 study noting that workers at firing ranges and shoot houses are routinely exposed to unsafe levels of airborne lead. Meanwhile, the Environmental Protection Agency also stated that no levels of exposure to lead are safe, generating the need for EQT P2's Airborne Lead Reduction Program.

RDECOM's U.S. Army Armaments Research, Development and Engineering Center is qualifying a lead-free primary explosive that can be used in some percussion primers, electric detonators and blasting caps, per Army Energetic Material Qualification Board guidance. The center will transition a safe process for producing this material to a manufacturing partner.

The initiative offers several benefits to warfighters, Hangeland said. The project will prevent future range closures, restrictions, personnel removal and the need to install costly pollution control equipment at firing ranges and shoot houses. The Army will replace lead-based primers, detonators, caps and rocket propellants found in 3,000 unique munitions. V



AMC Innovation

and improve Soldier training, and develop useful outreach applications for the public. "It's exciting to be able to provide these types of capabilities to the Army," said Blackwell. "We are poised, not just our group, but the entire DOD, to take advantage of

The Army Game Studio continues to use its expertise

in video games and virtual reality technologies to create

the continued evolution of virtual reality, augmented reality and mixed reality technologies. We want to use these technologies to continue to support the warfighter, as well as educate our nation about the U.S. Army."

For more information on America's Army and other ongoing Army Game Studio projects, visit: www.americasarmy.com or www.goarmyedge.com.

S.ARM

FACILITY SAFELY PROCESSES RADIOACTIVE **COMPONENTS**

By Rikeshia Davidson, JMC Public Affairs

Nestled on Rock Island Arsenal in Illinois, the unassuming Morris Consolidation Facility (MCF) hosts a team of Joint Munitions Command (JMC) health physicists who safely execute processing and packaging of radioactive components coded for disposal. The disposal process is exact, methodical, and reflects the high standards set by JMC.

The MCF consolidates excess military commodities containing low-level radioactive materials from around the world. Many of those commodities are various instruments containing tritium,

> which provides illumination of dials for low-light conditions.

"Not many people know what we do, or how we do it. We manage the end of the life cycle of military items that contain radioactive material for the Army, and most of the Department of Defense," said Calvin Brownlow, health physicist and radiation safety officer at the MCF.

Mission-driven, the MCF works to safely and compliantly manage, consolidate, volume reduce, and dispose of or recycle radioactive materials for DOD.

Items processed include common military radioactive commodities like compasses, chemical agent detectors, optical lenses and smoke engine components. Considering most items are standard for service members and military facilities, the mission is not dangerous by design.

Each item the team receives is carefully tracked and listed in a database, right down to the National Stock Numbers, radioactivity and storage location at the facility - making accountability an integral part of the MCF's mission.

The MCF team must be a one-stop shop when working to separate radioactive components. They have

expertise on virtually all military items with radioactive components and know what it takes to safely remove those components to reduce waste volume. The team also recognizes when it is best to recycle or dispose of a component.

MCF team members are trained, tested and retrained as needed, before taking on the task of processing shipments.

"Before working with licensed material, individuals receive initial radiation safety training commensurate with assigned duties and specific to the radiation safety program. Training is also provided when there are significant changes in duties, regulations, terms or conditions of the Nuclear Regulatory Commission [NRC] license [governing this facility]," said Brownlow.

MCF's initial survey and inspection of a shipment verifies that no unusual radiation exposure levels or external contamination on containers exist. MCF also validates that all instructions are followed by the shipper as required by federal and state regulations, he said.

The MCF has an array of handheld and laboratory instrumentation to detect all types of radiation. These tools allow the team to assess the contamination threats during in-processing.

"RADMAT [Radioactive Materials] is the database we use to track radioactive items into and out of the MCF. monitor activities of stored commodities, and track in real time a list of what's in storage at the facility," said Brownlow.

Consequently, the database helps satisfy NRC recordkeeping requirements. With no room for error, the MCF must pass strict regulatory inspections. Currently the facility has a NRC-specific license, valid for a 10-year span, allowing the MCF to accept just about any radioactive item they would need to process.

Joint Munitions Command (JMC) operates a nationwide network of conventional ammunition manufacturing plants and storage depots, and provides on-site ammunition experts to U.S. combat units wherever they are stationed or deployed. A subordinate command of U.S. Army Materiel Command, JMC provides for customers from U.S. forces of all military services, other U.S. government agencies and allied nations.

FROM TOP: Master Sgt. **Michael Hankins, Joint Task** Force-Bravo, uses a compass to check wind direction. A Soldiers' compass, like many pieces of essential equipment, contains low-level radioactive material and must be properly processed and packaged at the Morris Consolidation Facility (MLF) at Rock Island Arsenal in Illinois prior to disposal. (U.S. Air Force photo by Tech. Sgt. Sonny Cohrs)

HANKINS

Julia Winslow, a health physicist at MLF. surveys the exterior of a package for radioactive contamination utilizing a Model 3 with a pancake probe. Surveying is performed inside the fume hood to contain any contamination if present.

Survey samples are inserted in a liquid scintillation counter for analysis by Calvin **Brownlow, health physicist** and radiation safety officer at MLF. (U.S. Army photos by Tony Lopez)







Further satisfying NRC standards, all items stored at the MCF must be easily identified at all times and listed in the RADMAT database. NRC inspectors randomly examine the facility to confirm license regulations are followed. The NRC also sets limits for the amount of low-level radioactive materials the MCF stores and processes. Once the facility reaches, or nears its licensed storage capacity, time is of the essence to process, pack and schedule movement of a shipment for final disposal. "A solid two to three weeks of preparation goes into each shipment. We have to be accountable for everything that comes here," said Brownlow. For him, this two- to three-week process is the most labor-intensive aspect of the work done at MCF. Once items are consolidated for shipment, they leave the MCF bound for one of six other approved

facilities for final disposal. Extracting radioactive components is the most unique part of the job, according to MCF Health Physicist Thomas Gizicki. "Demilitarization is a chal-

lenge," he said. "This can take 10 to 20 minutes per item, which also includes inventory and National Stock Number documentation. We are required to notify the NRC of these items, and there is a lot of data manipulation involved." While tedious, demilitarization work is a cost-effective way to volume reduce disposed items the MCF receives, and saves the government money. Although work is time intensive, challenging and technical, JMC has successfully executed the MCF's mission since 1992 and plans to continue providing this important service into the future. 👽

AMC Unique Capabilities



AMMUNITION PECULIAR EQUIPMENT PROGRAM PROVIDES **MUNITIONS READINESS**

The Ammunition Peculiar Equipment program (APE) was established in 1955 to develop uniform, standard equipment in support of maintenance, renovation, repair and demilitarization of returned munitions.

"APE enables ammunition readiness as it provides unique peculiar equipment to the logistics footprint," said Rickey Peer, chief of Demilitarization and APE Management at the Joint Munitions Command. This equipment allows the Army to more efficiently reuse, maintain or demilitarize ammunition resources on-site. APE sustains global logistics with more than 8.500 items located at more than 70 installations worldwide.

Through the collaborative efforts of the Joint Munitions Command and the Joint Munitions and Lethality Life Cycle Management **Command Product Manager** for Demilitarization, APE offers specialty capabilities including radiographic inspection and unique demilitarization processes. For example, the Korean Demilitarization Facility conducts environmentally sound destruction of aged, obsolete munitions using Super Critical Water Oxidation and Molten Salt Oxidation.

The APE program serves as another source of demilitarization technology that is safe, efficient and environmentally compliant. APE equipment also includes theater-ready mobile facilities, promoting practical in-theater field inspections and minor maintenance capability. The APE mission continues to expand across the world to support a variety of ammunition needs.



MATERIEL READINESS FOR **TOMORROW'S WARFIGHTER**

AMC experts have developed game-changing technology to provide the decisive edge to today's forces and ensure the Army's advantage well into the future. BattleTech provides a look at some of the amazing technology being used in the command today.

NEW BLACK HAWK TRAINER UNVEILED

A team from the U.S. Army Aviation and Missile Research, Development and Engineering Center, Program Executive Office-Aviation and local industry unveiled the first prototype of the Black Hawk Aircrew Trainer (BAT) May 24 at Redstone Arsenal, Alabama. The BAT provides Army UH-60M aviators with a high-fidelity, fully immersive flight training experience.



The higher-quality, lowercost UH-60M training platform integrates existing Army models and simulations developed within Redstone Arsenal's enterprise. It was fielded to the 1st Cavalry Division Combat Air Brigade at Fort Hood, Texas, in June for training operations. The Utility Helicopter Project Office estimates the new Black Hawk aircrew flight training simulator will save the Army more than

\$4 million per simulator, with a potential total life cycle sustainment savings of about \$219 million.

A Soldier from the 1st Armored Division's Combat Aviation Brigade trains on the Black Hawk Aircrew Trainer at Biggs Army Airfield, Fort Bliss, Texas. (U.S. Army photo)

CHEMICAL WEAPONS DESTRUCTION

The U.S. Army Chemical Materials Activity Recovered Chemical Materiel Directorate (CMA RCMD) developed and operates a unique system to provide safe, environmentally responsible, on-site treatment of recovered chemical warfare materiel. The Explosive Destruction System (EDS), trailermounted for transportation to the site of the recovery, uses cutting charges to explosively access chemical munitions, eliminating their explosive capacity and exposing the agent so it can be neutralized. This process takes place in the system's main component, a stainless steel vessel which contains all the blast, vapor and fragments. Operators confirm treatment by sampling residual liquid and air from the vessel prior to reopening the EDS. As safety is a top priority, the EDS is set up in an environmental enclosure with continuous air monitoring conducted to ensure protection. More than 2,400 items have been destroyed in the EDS since it entered service more than 15 years ago. For more information, visit https://www.cma.army.mil.



The Explosive Destruction System can treat up to six chemical warfare materiel items simultaneously onsite. The transportable system contains all blast, vapor and metal fragments - protecting the surrounding environment and the system operators. (U.S. Army photo)



FROM TOP: PS MAGA ZINE, A PREVENTATIVE MAINTENANCE RESOURCE FOR 65 YEARS, USES A VARIETY OF CHARAC-TERS, SUCH AS MASTER SERGEANT HALF-MAST AND CONNIE RODD, TO IMPART CRUCIAL MAINTE NANCE KNOWLEDGE TO SOLDIERS AROUND THE GLOBE. (IMAGE COUR-TESY OF PS MAGAZINE)

THE PS MAGAZINE MOBILE APPLICATION, RELEASED IN JUNE, PROVIDES THE SAME CONTENT FOUND IN THE MAGAZINE, IN ADDITION TO ADDED LAYERS OF INTERACTIVITY. (U.S. ARMY PHOTO)

Developed during the Korean War to help solve recurring maintenance problems, PS Magazine presents a variety of technical solutions in a way that is funny, colorful and entertaining to Soldiers. The magazine, while still providing maintenance tactics, techniques and tips through tried-and-true hard copy publication, is now reaching out to Soldiers using 21st century methods.

The new mobile application, released in June, provides the same content found in the magazine, but with added layers of interactivity such as videos, photos, exploded diagrams, a backlog of previous issues, links to current hot topics and more. The mobile app is available free for both Apple and Android devices.

"In today's Army, young people coming in as Soldiers are living in a digital world," said Bruce Cotton, PS Magazine's managing editor. "Everyone is attached to their phone or tablet - that's

how they gather information; that's how they communicate. To make sure we maintain our relevance to the Soldier, we wanted to produce a product that they would feel comfortable using."

As the magazine celebrates its 65th anniversary this year, Cotton said that the publication



and its knowledgeable staff continue to provide vital support to Soldiers around the globe.

"We get thousands of letters and emails a year from Soldiers who have a problem, and they can't seem to find a solution," said Cotton. "We maintain a database of every question that has been asked of us over the years and the answers we provided, so we can get those solutions to them quickly."

Not only does PS Magazine continue to get regular questions, they also get emails of thanks for the service they have provided for more than six decades.

"We're proud of the work we've done on behalf of the Soldier," Cotton said. "We may not be able to quan-

tify how much money we've helped save, or how many Soldiers we've helped, but we know that we've made a difference."

> LEFT, FROM TOP: THE FIRST ISSUE OF PS MAGAZINE WAS PUBLISHED DURING THE KOREAN WAR N JUNE 1951. THE MAGAZINE CELE-BRATED ITS 65TH ANNIVERSARY IN JUNE WITH ITS G3RD ISSUE

OMIC BOOK, USING RECURRING CHARACTERS AND HUMOR TO COVER A VARIETY OF MAINTE-NANCE SUBJECTS. THIS PAGE

FEATURED IN ISSUE 766 FROM SEPTEMBER 2016, EXPLAINS HOW TO ADAPT TOW BARS FOR CERTAIN HUMVEES, (IMAGES COURTESY OF PS MAGAZINE)

PS MAGAZINE PROVIDES PREVEN

TIVE MAINTENANCE NEWS TO

OLDIERS IN THE STYLE OF A

MANTECH SEEKS By Matt December, AMC Today Contributor

MANUFACTURING SOLUTIONS FOR ARMY INNOVATION

U.S. Army researchers charged with turning cutting-edge technologies into fielded capabilities often face the challenge of finding the manufacturing capability to produce the new item affordably and at scale.

> That is where the U.S. Army Manufacturing Technology (ManTech) Program, managed by the U.S. Army Materiel Command's U.S. Army Research, Development and Engineering Command (RDECOM), comes to their aid, helping to provide affordable and timely manufacturing solutions.

"The Army uses products that are unique to them and to the military, so ManTech exists to address the development of manufacturing processes for items that are beyond the risk of industry and even beyond the risk of our Army program offices," said Andy Davis, the U.S. Army ManTech program manager. "When we have technology where there isn't a commercial need, or it is Army-unique, that is when ManTech really shines."

MANTECH'S RECENT SUC Improvements to the manufacturing technology in the Conformable Wearable Battery System helped dramatically increase throughput, while at the same time reduced material and processing costs. Improvements to the Low-Light Level Sensor production process led to increased yield, more optimized individual component manufacturing processes for better performance, and automated production steps and data tracking to reduce costs.

ManTech also assists in situations where a manufacturing process works, despite the fact that it might not be the most modern, efficient or cost-effective, but industry has no incentive to spend research and development resources to further develop that process, Davis said.

ManTech works with its partners in the Army science and technology and acquisition communities to identify high-priority efforts within their programs and look at the manufacturing processes associated with transitioning those products to the field.

"As you improve the manufacturing process, you get better tolerances, drive a smaller form factor and combine components into a single component that is more manufacturable," said Davis. "As a side benefit, at times, you are able to drive the performance of that technology forward."

ManTech has an investment strategy that is broken down into eight focus areas:

MUNITIONS AND WARHEAD MANUFACTURING –

Addresses manufacturing costs and risks associated with energetic materials and component subsystems of missiles and munitions

- RADAR. SENSORS AND ELECTRONICS Addresses the manufacturing improvements for radar systems, waferlevel packaging, situational awareness organic light-emitting diode/conformal display maturation, focal plane arrays, high definition infrared cameras and image sensors
- NOVEL MATERIALS FOR SOLDIER SYSTEMS Addresses affordable manufacturing of lighter weight multifunctional materials, coatings, and packaging of system components that directly address Soldier protection
- POWER AND ENERGY Addresses improvements in manufacturing of high-efficiency alternative materials, power management and automation of production lines and testing for power generation and storage devices
- GROUND VEHICLE STRUCTURES AND PROTECTION -Addresses manufacturing technologies to reduce cost and weight; improve survivability and protection capabilities; and rapidly certify structures, materials and processes for ground vehicles

- AIR VEHICLE SYSTEM AND SUBSYSTEM MANUFACTURING Addresses manufacturing technologies to reduce cost and weight; improve survivability and protection capabilities; and rapidly certify structures, materials and processes for air vehicles
- MEDICAL SYSTEMS Addresses affordable manufacturing of medical systems, vaccines and components that directly address Soldier health and rehabilitation
- INNOVATION ENABLERS Addresses crosscutting manufacturing technologies such as additive and digital manufacturing

ManTech, which encourages internal and external partnerships as part of its mission, supports the National Network for Manufacturing Innovation (NNMI).

"This is a network of Public-Private Partnerships, known as Manufacturing Innovation Institutes, that focus on driving innovation in domestic manufacturing, bringing those processes to bear so the U.S. can regain its edge as a technology superpower," said Davis. "The Army ManTech program, in concert with our counterparts across the Department of Defense, continues to support that effort by providing subject matter experts, topical inputs and funding."

The Army's ManTech program is able to support the NNMI institutes in advisory and leadership roles, provide strategic guidance and track the progress of certain technologies that fit into Army systems and applications.

"We are leveraging this huge network of companies and academic institutions that are part of these institutes, as well as the significant resources that have been brought to bear," he said.



TOP: Dan Hosek, an engineer with the Army **Communications-Electronics Research, Development and Engineering Center,** uses a NightVista M611 camera that employs an Electron Bombarded Active Pixel Sensor at Fort Belvoir, Virginia. (U.S. Army photo by Tom Faulkner)

ABOVE LEFT: President Barack Obama meets Dr. Greg Harris from the Army Aviation and Missile Research, Development and Engineering Center at the White House. Harris is the **Digital Manufacturing and Design Innovation** Institute program manager. ManTech supnorts the National Network for Manufacturing **Innovation and its network of Public-Private** Partnerships, including the Digital Manufacturing and Design Innovation Institute. (Official White House photo by Pete Souza)

ABOVE RIGHT: Dr. Shawn Walsh, Agile Manufacturing Technology team leader at Army Research Laboratory, compares the traditional one-piece ceramic body armor (right) and a prototype flexible armor concept made possible by ManTech processes at Aberdeen Proving Ground, Maryland. (U.S. Army photo by Conrad Johnson)





WWW.ARMY.MIL/AMC

https://www.facebook.com/ArmyMaterielCommand

https://www.flickr.com/photos/ArmyMaterielCommand

https://www.youtube.com/user/HQAMC

You

https://twitter.com/HQAMC

