

VOL II, NO II § JAN-MARCH 2017  
CRANE ARMY AMMUNITION ACTIVITY

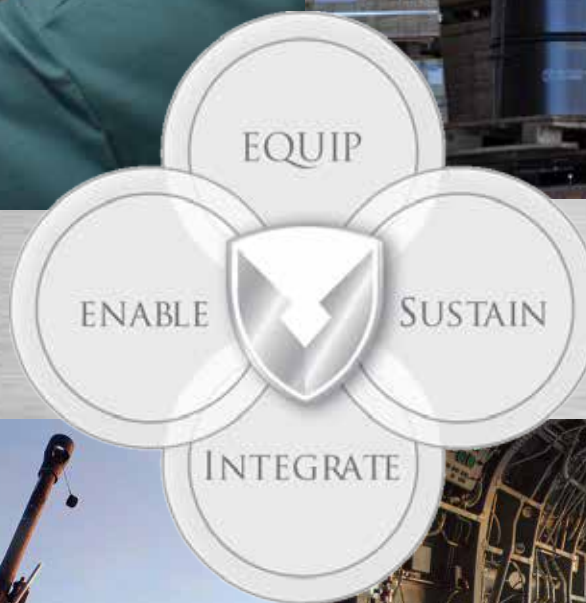
# CRANE QUARTERLY

## MAGAZINE



### In This Issue:

**HOW CAAA SUPPORTS  
COMBAT READINESS**



**EXCEEDING GOALS ON  
THE PRODUCTION LINE**

**SUPPORTING TEAM CRANE**



**MANUFACTURING RENOVATION LOGISTICS SURVEILLANCE DEMILITARIZATION**



# COMMANDER'S COMMENTS



**In the past you have heard me say,  
“They are not customers.”**

The people we serve are the Soldiers, Sailors, Airmen and Marines who risk their lives around the world every day to ensure America remains free. That is why the most important word we all must focus on is Readiness. It is our commitment to the Army and the Joint Force that we will do everything we can to ensure our troops remain ready today and are prepared for the future fight.

Readiness is the Army's number one priority, and materiel readiness is the reason Army Materiel Command exists. Any one of our four core competencies—munitions logistics, storage and surveillance, manufacturing and demilitarization

—is key to ensuring that AMC can deliver combat readiness to the Warfighter. It requires that all of our employees, both direct and indirect, function as a team. Each one of you contributes to readiness.

So how do we prepare now to be readiness providers in the future? We must shape CAAA's organization for efficiency, and ensure our workforce is positioned with the right people in the right positions. We must ensure that our workforce is informed, trained and enabled to make suggestions to improve our processes. We must ensure that every employee safely executes the work expected of them daily. And while readiness is the #1 priority; we can't lose sight of cost, quality and schedule as those markers are how we provide that readiness now and in the years to come. Through these steps, CAAA will ensure that it is keeping its pledge to not only provide readiness today but into the future.

It is very easy to develop tunnel vision on deadlines, production schedules and workload. I admit I am guilty of that at times. But, we cannot afford to lose sight on what matters most—the readiness of our Armed Forces. I rarely talk about my experiences in combat; and I don't tell many war stories—I think that's best left to others; however, after dropping my retirement packet last week, and upon reflecting on my time here at Crane this past weekend, I do want to pass this along to each of you. It was not too long ago that I was a part of a small group of Soldiers throwing 120mm mortar rounds into the back of Blackhawk helicopters in the middle of the night. A small combat outpost near a place called Forward Operating Base Salerno, in eastern Afghanistan, was in danger. A large group of enemy fighters had gathered in the mountains surrounding this outpost and were preparing to attack and possibly overrun the place. The mortar crews at this outpost had shot every 120mm mortar round they had that night. We were able to get two Blackhawks and an escort of Apache gunships to make an emergency resupply. We stuffed the troop compartments of these two helos full of 120s...HE, WP, and Illum...and the candles in those illumination rounds were manufactured here, by you. Those HE and WP rounds were likely stored and shipped from here, by you. The helos hovered briefly at the outpost and the crews pushed the crates out of the aircraft to the Soldiers below. Those rounds got the Soldiers at this outpost through a difficult night.

Don't ever forget the real reason you do what you do each day. Readiness—what you receive, store, ship, inspect and manufacture has to function right the first time every single time. Much of this issue of the Crane Quarterly focuses on readiness and how all of you contribute to it. As you go about your day-to-day operations, keep this question in the back of your mind: *what have you done to support them today?*

**Col. James P. Hooper**



## COMMAND STAFF

**Col. James P. Hooper**  
Commander

**Norman Thomas**  
Deputy to the Commander

**Danny A. Wiley**  
Chief of Staff

## EDITORIAL STAFF

**Thomas Peske**  
Public and Congressional Affairs

**Marshall Z. Howell**  
Public Affairs Officer

**Raeanna Morgan**  
Public Affairs Intern

## EDITORIAL OFFICE INFORMATION

The Crane Quarterly is an authorized publication for members of Crane Army Ammunition Activity and the Department of Defense. Contents of the magazine are unofficial and are not necessarily the views of, or endorsed by, Crane Army Ammunition Activity, the Department of the Army, the Department of Defense, or any other U.S. Government agency.

The editorial content of the Crane Quarterly is the responsibility of the Public Affairs Office at CAAA.

## Mailbag

**Q. In years past CAAA celebrated its anniversary with a picnic and other events. Is there any plan to bring this back for the 40th anniversary?**

A: CAAA leadership, in partnership with the Union, have begun planning efforts for a CAAA picnic. Though still in the early stages of development, these plans have passed a legal review to ensure they fall within established rules with respect to a command-wide event, such as a picnic.

**CAAA 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.crane.jmc.mbx.caaa-cdr-site@mail.mil](mailto:usarmy.crane.jmc.mbx.caaa-cdr-site@mail.mil).**

**Postal address: CAAA Newsletter, ATTN: JMCN-PA, 300 Highway 361, Crane, Indiana 47522-5099.**



## Cover photos:

Top Left: A CAAA employee works on the 5"/54 projectile production line.

Top Right: CAAA depot operations workers support Warfighters worldwide.

Bottom Left: Paratroopers reload a M119A2 105mm howitzer during a live fire on Malemute drop zone at Joint Base Elmendorf-Richardson, Alaska, Nov. 22, 2016. (U.S. Air Force photo by Justin Connaher)

Bottom Right: Soldiers utilize CH-47F Chinook helicopters to conduct a low-cost, low-altitude resupply training mission on Fort Stewart, Ga., Jan. 9. (U.S. Army photo)



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## Commander's Training Report

**Who:** 221st Ordnance Company from Fort Wayne, Indiana

**What:** Mobilized Ordnance Specific Training (MOST) Battle Assembly

**When:** February 11-12, 2017

**Where:** Crane Army Ammunition Activity

**Why:** Increase unit readiness through hands-on training with Joint Munitions Command ammunition depots. Soldiers experience the entire spectrum of their military occupational specialty.

**Summary:** CAAA Depot Operations hosted the 221st OD Co (11 Soldiers) for battle assembly. The Soldiers processed more than 190 pallets of inert ammunition related items for demilitarization and storage functions. Approximately two days of work was safely accomplished in seven hours. Soldiers received mentoring on materiel handling equipment from CAAA's experienced operators and exposure identifying inert ammunition items.

**So What:** Unit met mission essential task list (METL) training objectives and increased readiness. Hands on training supports the Warfighter worldwide with effective ammunition logistics skillsets. CAAA and other JMC depots are great locations for ammunition logistics training.



2

## LEMC Experiences Successful Production Validation Line for LCRRPR

The Low Cost Reduced Range Practice Rocket was developed to assist the U.S. Army and Marine Corps with their annual training requirements.

As part of this effort, the LCRRPR team at Letterkenny Munitions Center downloads old stock Multiple Launch Rocket Systems by disassembling the pod, removing the rocket and reusing certain components. LEMC also performs inspection and certification of the rocket motors, which includes a leak test and radiographic inspection. This process certifies a rocket for an additional ten years shelf life. Looking forward, LEMC plans to integrate reworked igniters, to be produced at Crane Army Ammunition Activity, into the operation, which will cost the military 70 percent less versus procuring new igniters.



3

## Phase I Complete of LEMC Rocket Motor Demilitarization Facility

In 2013, Letterkenny Munitions Center began construction of a new facility that will support demilitarization requirements of Ammonium Perchlorate Based Composite Rocket Motors by providing environmentally friendly closed loop thermal destruction. The new ARMD facility will greatly reduce the need for static burn of rocket motors, reducing both noise and environmental pollution, and LEMC will be able to support increased daily rocket motor demilitarization requirements.



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# Recon



## **Clockwise from Top Left:**

An explosives handler helps CAAA exceed production goals on the 5"/54 line.

CAAA surveillance and inspection activities ensure that all ammunition sent to the Warfighter is both high-quality and reliable.

State-of-the art ammunition shipping and receiving facilities allow CAAA Depot Operations personnel to directly support Warfighters all over the world.



## Senior Leader Profile: Secretary of Defense Jim Mattis

**Jim Mattis became the 26th Secretary of Defense on January 20, 2017.**

- Enlisted in the U.S. Marine Corps Reserve at the age of 18
- Served more than four decades in uniform, commanding Marines at all levels, from an infantry rifle platoon to a Marine Expeditionary Force, including combat tours in Iraq and Afghanistan.
- Commanded U.S. Joint Forces Command, NATO's Supreme Allied Command for Transformation, and U.S. Central Command, where he directed military operations of more than 200,000 Soldiers, Sailors, Airmen, Coast Guardsmen, Marines and Allied Forces across the Middle East.
- Following his retirement from the U.S. Marine Corps in 2013, he served as the Davies Family Distinguished Visiting Fellow at the Hoover Institution at Stanford University, specializing in the study of leadership, national security, strategy, innovation, and the effective use of military force.



## Town Hall Notes



**Gen. Gus Perna, the commander of Army Materiel Command, hosted his first Army Materiel Command Global Town Hall in February. He talked about his background, his leadership style and above all the importance of Army Materiel Command's mission.**

"An Army that is well equipped and well sustained is hard to defeat."

"We need 100 percent of the people doing 100 percent of the job, and we need to make sure we're all paying attention and we're all part of the solution."

**Brig. Gen. Richard B. Dix, commander of Joint Munitions Command, hosted a JMC Town Hall in February. Dix emphasized how JMC's readiness directly impacts the Warfighters' readiness. He highlighted how JMC's strategic priorities are nested within the strategic priorities of the Chief of Staff of the Army and Army Materiel Command.**

"Lives depend on what we produce on a daily basis. We must be efficient, effective, and at the best value in all that we do. Everybody depends on us to get it right."

"When they pull the trigger, it's got to work the first time. Every time."





# On The Line

## Exceeding Production Goals Through Innovation and Dedication

**A**t the close of 2016, after multiple program delays and continuous improvements made by employees, Crane Army Ammunition Activity surpassed production goals of 5"/54 projectiles in a nine month period by an additional 500 projectiles.

The mission was completed within a short timeframe in order to meet the Navy's increased demand for the projectiles. Col. James Hooper, the commander of CAAA, recognized the accomplishment and congratulated all who had a hand in successfully carrying out the mission.

"This manufacturing effort was a great example of the professionalism, competence and dedication of the CAAA workforce," Hooper said. "The 5"/54 production program at CAAA is a great example of how industrial base activities like Crane contribute to strategic readiness of the Joint Force."

Production of the 5"/54 projectiles began in April 2016 but by October a new goal was set with an increase of 23 percent. Kevin Doerner, CAAA continuous improvement specialist and program manager, and the engineering team on the project immediately set out to implement several improvements in order to meet the December deadline.

"When we first started this project we were running four presses, and we knew from past programs roughly how many rounds they would produce in a day," Doerner said. "The engineering team came up with projectile body thread protectors, which took that part of the process from 14 minutes down to two minutes. That changed the game."

More presses were needed in order to keep up with the speed at which the rounds were ready for the next step in the production

line. Once a fifth press was added in August 2016 daily production rates increased 73 percent, and after the addition of a sixth press the production rate more than doubled original production rates.

"When I told the guys in the press room what the new rate was going to be, they came back to me and said, 'We'll get you that and probably more.' They realized how important it was to reach this goal for the Navy, and that's when you saw the numbers climb," Doerner said. "I started looking at the production rates coming out of the press room each day and I saw an increase as we made improvements. Those guys did 12 hours a day, so it was really them taking ownership."

"I'm very proud of the workers out there," Doerner said. "It was a total team effort from supervision, to quality control, to X-Ray technicians, to engineers, to technicians, to the people in the machine shop building our tools for us to the maintenance support. It took a lot of communication."

While recognizing CAAA employees for their work, Hooper pointed out the importance of the mission and how it reflects Crane Army's legacy of efficiently and effectively providing the Joint Warfighter with munitions that function the right way, the first time, every time.

"Through continual process improvement, quality control, First Pass Yield analysis, process control, near-miss reporting, solid leadership and, most importantly, the dedication of our employees to work 12-hour shifts, six days per week, we maintained quality, met the schedule safely, and filled an urgent operational need for the Warfighter," Hooper said.

# For The World's Best



## ***How Crane Army Supports Combat Readiness***

**One** of Crane Army Ammunition Activity's top priorities is to ensure it is always delivering combat readiness to the warfighter. As such, the impact of the work being done at Crane Army Ammunition Activity extends far beyond its physical footprint encompassing 100 square miles of rolling hills and wooded ravines at its secure inland location in southern Indiana. Crane Army employees and contractors are contributing to a legacy mission, dating back to WWII, of supporting Warfighters worldwide by receiving, storing, shipping, renovating, demilitarizing and producing conventional ammunition, missiles and related components. The activity maintains up to one-third of the conventional ammunition inventory for all five service branches within the Department of Defense, directly supporting the Army's mission of delivering readiness to the Joint Force.



**With 124 miles of paved roads and 94 miles of active railroads connecting 1,800 storage magazines spread out over 51,000 acres, the activity maintains the capability to leverage 4.9 million square feet of storage space into a strategic mobility platform that can make short-notice shipments in support of the Joint Force anywhere in the world.**



**"It's not about your proximity to the fight that leads to the importance of your contributions."**

Gen. Gus Perna,  
Army Materiel Command Commander



As the DOD's second largest munitions depot, Crane Army receives, stores and ships a wide variety of conventional ammunition and munitions for warfighter training and combat. With a consistent focus on safe and efficient execution, Crane's logistics professionals perform inventory and surveillance operations and intra-depot movement on more than 650,000 tons of explosives and related ordnance items. CAAA's logistics professionals excel by focusing on the details; at Crane even the shipping containers are groomed down to the stenciling in a state-of-the-art container repair facility. The facility provides container-inspection stands and International Organization for Standardization (ISO) data strips and re-stenciling kits for the Navy and other customers.



Crane's manufacturing and engineering infrastructure includes more than 200 production buildings, a chemical laboratory and a 72,000 square-foot machine shop where a variety of pyrotechnic and other ammunition items are produced. In recent years, Crane engineers have teamed with Naval Surface Warfare Center, Crane Division, to build and upgrade aircraft countermeasures such as the MJU 32A/B, MJU 57A/B and MJU 61A/B decoy flares for the Navy and Marine Corps. Without receiving the upgrades from the Crane Army countermeasure team, which include replacing the igniter to improve both shelf life and reliability, the decoy flares would otherwise be destroyed.

Crane Army's demilitarization team supports the larger Joint Force mission of global readiness by safely disposing of excess or obsolete munitions to ensure only the most advanced materiel is kept ready for use in the military's stockpile.

Working closely with other services has allowed Crane Army to effectively and efficiently react to Warfighter needs. In addition, Crane Army directly supports the reserve components by hosting National Guard and Army Reserve units on the installation to train in ammunition storage and logistical operations as well as performing construction and engineering projects.

Crane's multiple focus areas require flexible employees who can bring their unique skillsets together to support the Joint Warfighter. Every effort Crane Army makes is designed to help support, as Secretary of Defense Jim Mattis said, "the criteria that everything we do in the military up until that point when we put our young men and women across the line of departure, is they will be at their most lethal stance."



U.S. Army photo by Staff Sgt. Corinna Baltos



For fifteen years, CAAA has partnered with the Navy by producing aviation countermeasure flares which has provided more than \$16 million in savings to the taxpayer.

# Supporting Team Crane

## The CAAA/NSWC Partnership

In 1941, during World War II, the Naval Ammunition Depot at Crane was formed with the mission of ensuring that the flow of ammunition would always reach those who need it on time, every time. Today Crane Army carries on that legacy mission which it assumed in 1977 from what is now Naval Surface Warfare Center, Crane Division. By the time the split happened NSWC had evolved from a maker and supplier of ammunition to a technology-driven warfare center for the Navy. While the missions for these two largest tenant commands on the base, now named Naval Support Activity Crane, are different, it is still important to understand the capabilities and strengths of each. There is a greater chance to find areas where collaboration might exist by understanding better what CAAA and NSWC each do to provide readiness to the Warfighter.



### Did You Know?

**Naval Surface Warfare Center, Crane Division is a naval laboratory and a field activity of Naval Sea Systems Command (NAVSEA) with focus areas in Expeditionary Warfare, Strategic Missions and Electronic Warfare. The warfare center is responsible for multi-domain, multi-spectral, full life cycle support of technologies and systems enhancing capability to today's warfighter. Both CAAA and NSWC are located on Naval Support Activity, Crane.**

### Expeditionary Warfare

NSWC Crane Special Mission experts rapidly respond to Warfighter needs with proven solutions, including individual weapons and technical training. NSWC delivers multi-mission, multi-platform sensors and weapons solutions utilizing open architecture/cost efficient design concepts for warrior-centric applications.

### Strategic Missions

NSWC Crane's Strategic Mission's personnel are dedicated to developing, deploying and sustaining the technology that ensures strategic weapons systems are fully reliable and always available to the Warfighter.

### Electronic Warfare

NSWC Crane possesses the largest concentration of multi-spectrum, multi-domain, and electronics warfare experts across the Department of Defense. Its Electronic Warfare Center has decades of experience developing solutions in Airborne Electronic Warfare, including more than 40 years in infrared countermeasures.





## Production Support

CAAA stepped in to become the go-to manufacturer for Navy decoy flares when NSWC Crane needed support with its decoy flare production after its commercial partner experienced problems. For fifteen years this partnership has represented the key value of having Navy engineers co-located with the Army's production facilities on the same base.

The decoy flare program was born out of a crisis that the Navy experienced in 2001. The Navy's prime supplier of the MJU 32B decoy flare had suffered a large fire resulting in fatalities and OSHA had shut the facility down. The Navy approached CAAA to see if the Army could fill the gap.

CAAA renovated two separate facilities to produce the 32B flare, one to mix and extrude the composition into flare planks which were then transferred to the other for production into full-up flares. Once funded in December of 2001, CAAA produced an acceptable first article and the first lot of flares within a year. The Navy's prime supplier did not come back online until late 2003 so CAAA was tasked with producing additional quantities of MJU 32Bs and MJU 38Bs.

While continuing to manufacture these flares, Crane Army's role soon changed when it began providing initial production quantities of new development flares which helped the Navy development team to provide more robust technical data packages. By being co-located on the same base CAAA was able to leverage the advantage of having quick access to Navy design engineers, which accelerated production set-up time and helped to debug processes. The Navy gained advantages by having ready access to production engineers and process lines so they could produce a more mature TDP.

CAAA was soon leading the industry by tackling even more difficult flares to produce, including the 57B (thrust), 57A/B (thrust) and MJU 55B and MJU 55A/B (dual payload hybrid pyrophoric flares) while also successfully reworking flares that would not ignite. By replacing the igniters, CAAA was able to provide a longer shelf life for these flares that were previously destined for demilitarization. These upgrades converted the 32B flare to a 32A/B. Since then, CAAA's flare program has expanded to multiple other types of flares and provided more than \$16 million in savings to the taxpayer.



## Logistical Support

Throughout the year Crane Army assists NSWC Crane with the unloading of various items, including intermodal containers. NSWC Crane receives containers but lacks the personnel, equipment and skillsets to safely and efficiently accomplish this mission.



## Environmental Support

It is not enough for Crane Army to carry out its mission safely and efficiently—it must be environmentally sound as well. NSWC Crane's environmental office works hand and hand with CAAA safety and environmental staff to ensure that all operations remain compliant with federal and state codes.



## Machining Support

Crane Army's metal fabrication capabilities are key to assisting NSWC Crane with the building of a wide variety of parts and frames, including circuit boards, rocket motor test fixtures, turret leveling rings, gear boxes, rocket launcher system frames and much more. If NSWC Crane can draw it, the people in the machine shop will go to work to produce it for them.



**“Readiness is the key to victory.”**  
—Chief of Staff of the Army Gen. Mark A. Milley



[www.crane.army.mil](http://www.crane.army.mil)

**Only Our Best For The World's Best**