

CRANE Quarterly

Crane Army of 2030



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Commander's Comments

Crane Army,

One of the keys to a successful organization is the ability to see, adapt to and anticipate change. After a year and a half in command, the only thing that I can promise is that change will always be a part of our DNA, and that realization is a very important lesson in our munitions industry. We all acknowledge that the last couple of years have been turbulent due to world events. Who could have predicted how the COVID-19 pandemic not only impacted us all personally but our global supply chain as well? Or that U.S. support of its friends and allies across the world and in particular, Eastern Europe, would become part our daily operations and workload for now almost a year? These lessons highlight that CAAA needs to remain abreast of and at times, lean forward to embrace change and develop as an integral part of the Organic Industrial Base that can quickly surge to support current and future requirements. CAAA, due to all your hard work and excellence, we have been successful in meeting our missions. Now we must continue to lean forward knowing with certainty that we must progress as Crane will continue to play a critical munitions role far into the future.

This issue of the Crane Quarterly takes a deep dive into all of the ways that we are moving forward as an organization over the next several years as we build the Crane Army of 2030. JMC 2030 strategic objectives are helping us define our goals as we continue to target and focus in on our modernization and improvement initiatives, including how we recruit, develop, employ and retain you as our valuable employees. Here at CAAA we have been focused on this for awhile and we will continue to make this a priority in the years to come.

One area of focus that has also been championed by JMC and AMC is the use of data analytics and metrics. So, at CAAA we have begun to embed data analytics and metrics into our operational culture so that we can defend our decisions with rigor and use predictive analytics to better support our mission. We are the first installation to adopt the Process Based Leadership (PBL) program which is designed to help us get everyone together by removing personality and focusing on common business goals to truly become one Crane team. Backed by the Army Material Command enterprise, it is now a useful tool for all incoming commanders to create a culture of clarity, connectivity and consistency at their own installations and depots.

I believe that achieving these goals and seeing these initiatives through to completion within our organization will continue to move us in the right direction and enable us to communicate better by having the full picture of what is occurring day in and day out at Crane Army. My hope is that this Crane Quarterly gives you more insight to initiatives at echelon which are driving our creation of Crane 2030.



V/R,
Col. Vasquez

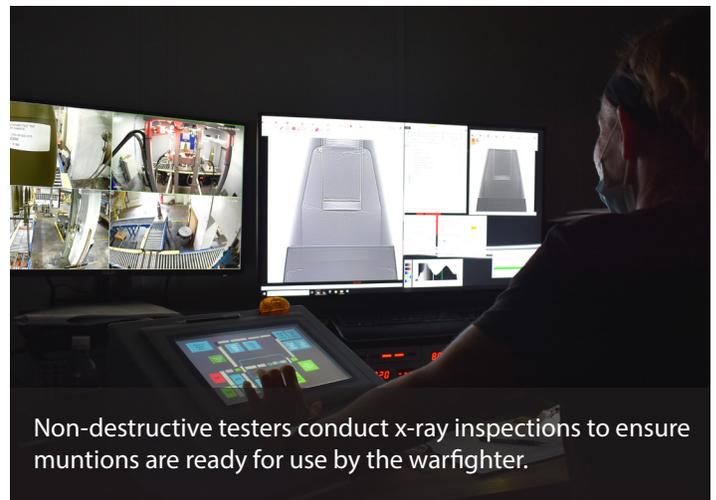
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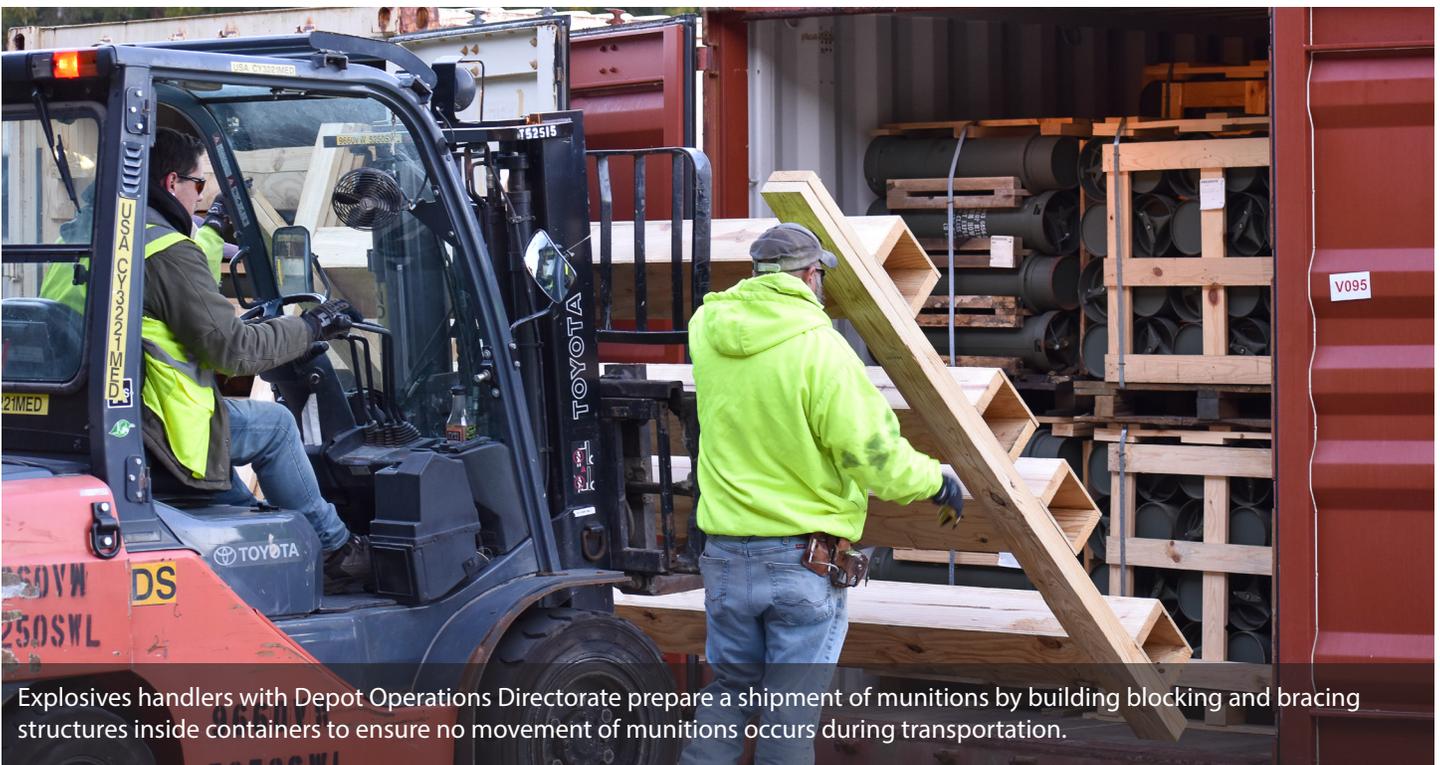
M1122 projectiles undergo refinishing and painting during renovation procedures. (This photo has been altered for security purposes.)



An explosives handler with Manufacturing and Engineering Directorate operates a smokeless powder loading station.



Non-destructive testers conduct x-ray inspections to ensure munitions are ready for use by the warfighter.



Explosives handlers with Depot Operations Directorate prepare a shipment of munitions by building blocking and bracing structures inside containers to ensure no movement of munitions occurs during transportation.

What Are the Organic Industrial Base Modernization War Games?

Who: Joint Munitions Command and Life Cycle Management Command commanders, Program Executive Offices, select staff (S4s and G4), Army Materiel Command commanding general, the Modernization Task Force, the Defense Logistics Agency and the Army Corps of Engineers.

What: AMC validation of funding requirements on future projects across the JMC enterprise

When: Approximately twice a year (revolves around annual budget cycle).

Budget Timelines Involved: Next FY, FY Plus 3 through FY Plus 5 (Future Years Defense Program operates on an iterative five-year timeline).

Why: The war game approach is an iterative process that is executed as needed to maintain relevance and forward looking to ensure transparency.



Gen. Ed Daly, Army Materiel Command commanding general and the Army's senior sustainer hosts leaders from AMC's Life Cycle Management Commands, the Program Executive Offices and the 23 depots, arsenals and ammunition plants for an OIB Modernization War Game at AMC headquarters.

In recent years, Crane Army has cut the ribbon on several new facilities, unveiled extensive renovations on others and set clear goals to support a long-term modernization strategy. What may be less clear to those unfamiliar with the process is how these kinds of projects are prioritized and funded across the U.S. Army's Organic Industrial Base during what has come to be known as the Modernization War Games. Unlike more "tactical" war games where service members and supporting actors role-play various scenarios to develop the best course of action for a military campaign, the modernization war games involve sustainment commanders and staff prioritizing projects and determining which projects are going to be funded with the limited budget available.

The federal government has a planning, programming, budgeting and execution process that is used to develop funding requests which the Department of Defense will ultimately submit to the president for inclusion in the annual budget for the United States government. The War Games continuously look at OIB modernization in five-year increments to validate the right projects to execute; properly prioritize them; identify redundancies, duplications or single-points-of-failure across the facilities; and identify capabilities to add to the OIB.

"Locally we help support that effort by identifying all of our funding requirements via different means throughout the year and submit those to Joint Munitions Command," Cassidy Dages, Crane Army Ammunition Activity's facilities and equipment manager (S4), said. "So specifically for facilities and equipment modernization we are tracking our project requirements and equipment needs in a spreadsheet, and ultimately a system that Army Materiel Command has started using called VULCAN. So that system has all of our modernization and sustainment project requirements."

Both JMC and AMC validate CAAA's project requirements to ensure the activity is requesting the right type of funding for individual projects which are ultimately completed based on a prioritization algorithm. This algorithm helps installations truly prioritize their needs and takes personal preference out of the equation. This selection process is the starting point for what happens during annual and semi-annual budget cycles at AMC.

"They validate them and then whenever we go into the War Game they will look by fund type and by fiscal year," Dages said. "They usually start out with military construction projects because that's always the big dollars and they will go through all of the FY24 planned MILCONs, for example, and then they'll go through the FY25, FY26, and FY27. They will then look for head nods from the site commanders or the LCMC commanders on their projects that are above the cut line. Are they still executable? Can you still get these done? Are they still required? And then they will ask for projects that are below the cut line and ask the commanders if they want to fight for anything that is below. So they either have to fight for them to get above the line or put them in another year where it can be above the line to fund eventually."

"This is about having the hard conversations and making the tough decisions that are foundational for the next 40 to 50 years of Army readiness and modernization," Gen. Ed Daly, AMC commanding general, said.

CRANE 2030

The world is changing, and the Army is changing with it, establishing set goals to remain the dominant land force on battlefields of 2030. To meet the evolving threat, the Army is undergoing a once-in-a-generation transformation to develop the capability to converge effects on land, in the air, sea, space and cyberspace. This transformation includes investments in people, reorganization of forces, the development of new equipment and the adoption of new concepts on how to fight that allow the Army to maintain superiority over any potential adversary.

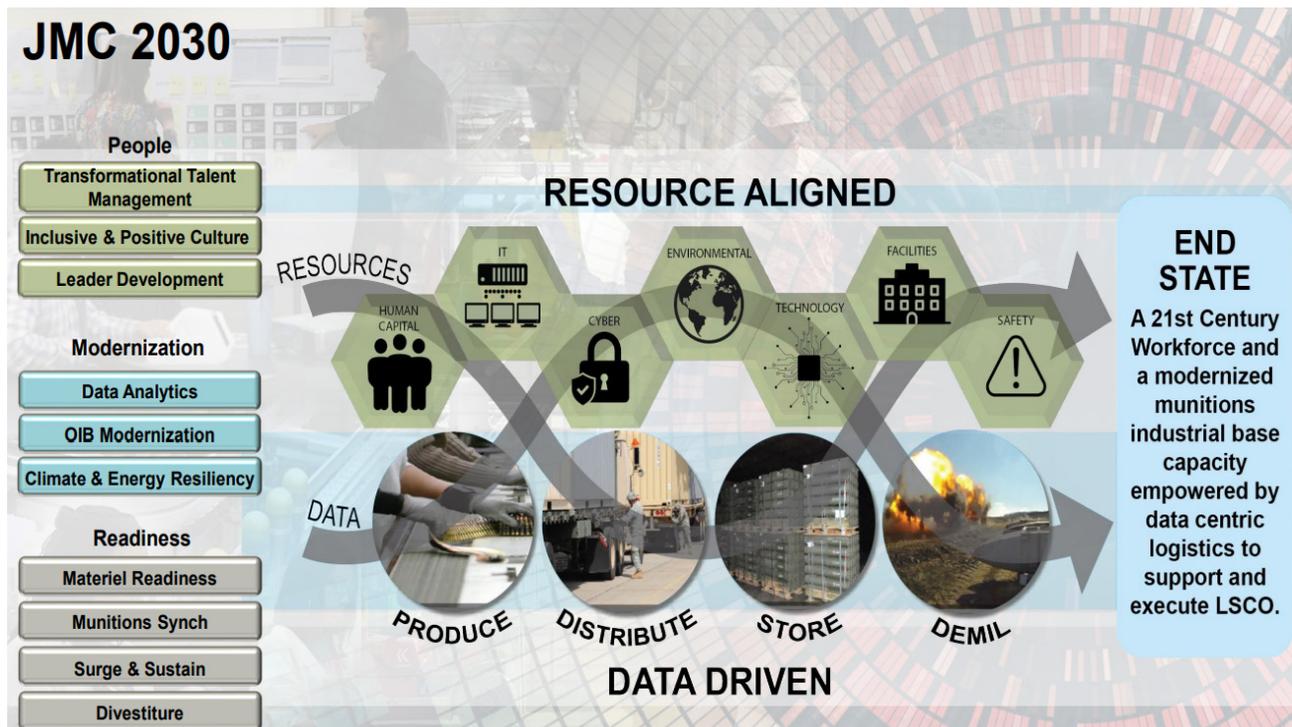
Where We Are Going

Crane Army, as a subordinate of Joint Munitions Command, is nesting its own planned efforts and activities over the coming years to fall in line with JMC 2030 strategic objectives. Sharing the priorities of people, modernization and readiness with the echelons above it (Army Materiel Command and the U.S. Army) JMC is working to oversee the development, implementation and tracking of three main objectives across the JMC enterprise:

People: Becoming the premier organization of choice in how it recruits, develops, employs and retain employees

Modernization: Holistically operationalizing the Organic Industrial Base modernization effort to enable munitions readiness

Readiness: Solidifying JMC as the recognized experts for munitions and logistics readiness



“We will embed data analytics into our operational culture to defend decisions with rigor with a modernized industrial base capacity empowered by data centric logistics to support Large Scale Combat Operations.”

—Col. Landis Maddox, JMC Commander

Some of the key tenets of the JMC 2030 concept include integrating innovative workplace practices with modern technology to increase productivity and effectiveness, holistically operationalizing the Army Organic Industrial Base Modernization Plan, and leveraging data analytics and strategic partnerships to inform and influence the Army's sustainable munitions strategy.

"We need to get out of the spreadsheet and PowerPoint business and move to dashboards that are updated in real time," Col. Landis Maddox, JMC commander, said in advocating for databases with predictive analytics to make decisions rather than spreadsheets that require personal input. Excel is still a useful tool, but a spreadsheet at one person's desk or shared among a small team doesn't allow a large group to understand the issue. "We are not there now, but we have a lot of energy and we are moving in that direction."

CAAA is currently developing its own initiatives, metrics and deliverables under the three JMC umbrella objectives to establish goals for the next five to seven years. Like JMC, to close capability gaps and achieve success, CAAA must sustain the munitions readiness we have achieved while simultaneously transforming into a data-driven culture. When it comes to analytics, initiatives like Process Based Leadership (see page 8) will help CAAA establish and look at the metrics that really matter to us—the metrics that tell us if we are winning or losing—and that will define the right strategic deliverables to bring CAAA closer to its desired end state in 2030.

CAAA's Investments

People: Our people are our #1 priority, and our workforce is inextricably linked to our success in providing munitions readiness to the warfighter. The purpose of this objective is to provide a professional and diverse workforce across the enterprise that stands ready to deliver ready, reliable and lethal munitions at all levels of war. At CAAA, this means we must develop high-performing leaders and growing critical skill sets through the integration of a Human Capital Strategic Plan (talent management) along with focusing on building a culture of safety, accountability and learning. For safety, deliberately tracking metrics like our safety incident rates and compliance for deliverables such as an explosive site safety plan and ISO 45001 certification will help CAAA better prevent potential workplace injuries or illnesses. The expansion of leader development and mentoring opportunities, tracked through metrics such as leave, award budget execution and more responsive disciplinary actions will help CAAA identify, recruit and hold on to people who will drive our success in 2030.



Modernization: The foundation of the Army's Organic Industrial Base Modernization Strategy is set. At CAAA, we are making the most of opportunities to improve our infrastructure and prioritizing resources across the major tenets of modernization (i.e., human capital, technology, facilities and energy). The transition to a data-centric environment will allow us to leverage analytics on our business processes and productive yield to inform and influence our readiness posture to better support the Army and Department of Defense of the future.

Readiness: Munitions readiness is the reason CAAA exists – it's what we do and will continue to do to support JMC as the recognized experts for munitions and logistics readiness. To ensure this title is retained, we will continue performing our core competencies and capabilities to standard with quality, precision, accuracy and timeliness. Quality initiatives in areas like maintenance and storage and delivery initiatives in areas such as a rail holding yard and fiber improvements will assist CAAA in improving the quality of its products and services, supported by data-driven operations and execution excellence.

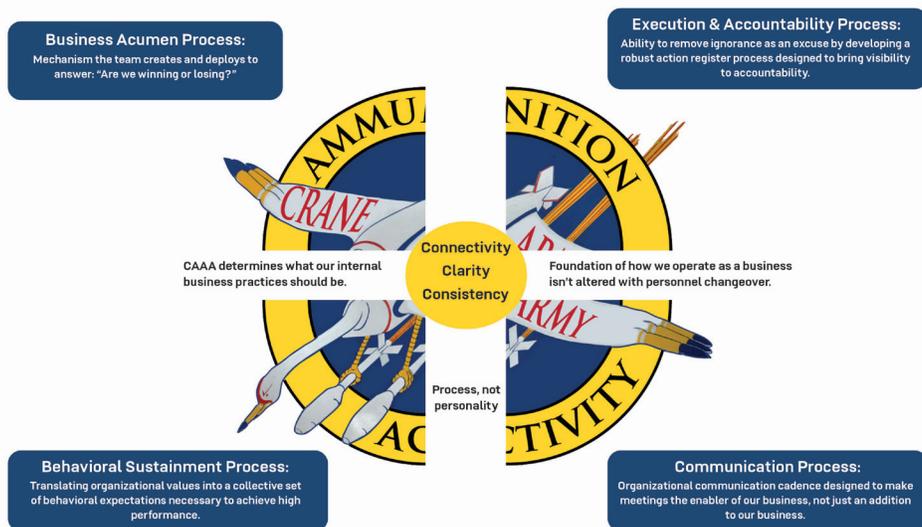
PROCESS BASED LEADERSHIP

Leading the Change through Processes, Not Personality

Of all the modernization efforts Crane Army is planning in the days, months and years ahead, one of them will impact all the rest and touch how every employee does business – Process Based Leadership. CAAA has contracted Competitive Solutions Inc., to help us adopt the Process Based Leadership methodology to create a culture of clarity, connectivity and consistency. This is a modernization effort that is designed to help CAAA become one Crane team, working toward clear common goals that move our business forward and help ensure our relevancy for the next 40 years.

This system will help Crane Army make decisions based on proven processes and not personality. Process Based Leadership is currently taught at Army Materiel Command to incoming commanders and civilian leaders and will provide stability through any changes of personnel or worldwide events. While CAAA is the first JMC depot to adopt PBL, the methodology and Competitive Solutions, Inc. have a proven track record of working with big name Fortune 500 companies to improve the way they do business.

Any Crane Army employee who has been in the organization for some time knows there have been initiatives like this in the past. The difference between those and this one is PBL is helping us create a solid foundation of how we run our business through collective involvement. This process will start at the top with the Colonel, Deputy, Chief of Staff and Directors, and slowly cascade down to all employees over the coming two years. And in the end, it will help every employee know what is happening – they will know if CAAA is winning or losing – and what their role is in making us successful. This is the beginning of a long-term commitment that will set the Crane Army Way of Business.



The Metrics Drive the Mission

Process Based Leadership will help CAAA look at the metrics that really matter to us – the metrics that tell us if we are winning or losing. The difference between these metrics and ones that were forced on us in the past is that CAAA is developing them as a team. Crane Army is determining what is key to look at based on the needs of our customers – the warfighter – and our higher headquarters.

Communication and Culture

This modernization effort is also a commitment to communicating better with all employees. It is in response to a comment by Crane Army's employees that has been repeated in different surveys and discussions – the desire to be better informed about what is happening. CAAA has an obligation to provide all of its employees clarity on what is happening within CAAA, use metrics that matter and help drive us to success, and a way of work that is consistent for everyone.

As PBL is deployed throughout different levels of the Activity, a common business language and culture will emerge where all employees have clarity around their expected contributions to organizational goals, feel connected to the organization and other teams within the organization, and have consistency in operational expectations and interactions. Communication up and down will be strengthened, decisions will be made based on metrics and facts not on personality and emotion, and the way CAAA does business, the work that it does, will become consistent.

MANUFACTURING AND ENGINEERING

In the Manufacturing and Engineering Directorate, Crane Army's workforce is driving toward efficiency, effectiveness and being more environmentally friendly. Over the next seven years, the directorate is working on modernizing facilities, replacing aging equipment and implementing new processes to ensure CAAA is prepared to meet the needs of the Army of 2030.

The countermeasures flare facility will spearhead many of Manufacturing and Engineering Directorate's priorities to modernize.

"By 2030, we are going to have a skilled and trained workforce that embraces technology," Trish Staggs, commodity manager, said. "We are going to increase our capacity by modernizing facilities and replacing equipment."

Staggs' team visualizes the future of ME needing less operators but more maintenance workers. "Our operators will be hands-off from equipment, which will be safer for our workforce," Staggs said. The automation of certain manufacturing processes will eliminate exposure to hazardous chemicals improving the safety of the workforce and at the same time, be more environmentally friendly. "We're going to be more environmentally conscious. But most importantly, we will be able to do more for the warfighter."

CAAA provides proven technical data packages to the flare industry that contributes to the national production of countermeasure flares for the U.S. military and partner nations. A modernized flare facility will allow Crane Army to better meet the demands of future requirements.

"We are the insurance policy for the flare industry," Staggs said. "While flares are used by most of our military, there are few companies who produce them. Crane Army will continue to be integral to the military in this way through 2030 and beyond."



DEPOT OPERATIONS



(This photo has been altered for security purposes.)

Depot Operations Directorate at Crane Army Ammunition Activity is responsible for the safe receipt, storage, inventory, inspection and shipment of munitions in direct support of Joint Force operations around the world. To bolster the directorate's ability meet real world demands and to better prepare the organization for existing mission and future requirements, Crane Army has recently completed several projects to update its aging infrastructure and provide a clearer path for a more modern and ready munitions depot.

In September 2021, Crane Army unveiled a centralized receiving facility which regularly processes munitions in support of Department of Defense activities.

"The new building's capabilities increase effectiveness of receipts with both receipt and inspection in one facility," Matt McGowen, Depot Operations director said.

In addition to the construction of new structures, DO is also working with the S4 team to implement a Net Explosive Weight and Land Optimization Plan (*see STAFF next page*) along with also ensuring older buildings are up to standard and ready to meet current and future mission requirements.

"Through the use of construction contracts, Crane Army is in the process of restoring and modernizing Depot Operations' shipping, inspection and storage facilities," Cassidy Dages, CAAA S4 facilities and equipment manager, said.

The S4 team is also supporting DO in the incorporation of water infiltration and humidity control measures in earth-covered magazines. The goal of this project will be to reduce moisture-based degradation of stored munitions while at the same time enhancing the quality of work environments for the workforce.

"We will use concrete crack injection and replacement of failed waterproofing membranes below the earth cover to combat water infiltration," Dages said. "Active and passive humidity control measures will also be tested over the next few years to determine which solutions are most effective and economical to implement across the installation."

In addition to new facilities, streamlined rail and road networks and restored magazines, DO is also in the process of replacing its aging fleet of material handling equipment, forklifts and other weight-bearing vehicles—new roadrailers, hooklift Stellar trucks and other heavy lift items were recently added to DO's daily operations.

"Proper lifecycle management of MHE is critical to ensuring the organization continues to meet mission requirements," Steve Cummings, logistics management specialist, said. "By tracking equipment lifecycles we are able to stay ahead of equipment shortfalls and add additional equipment as required."

With no slowdown of DOD activities in sight and a whole-of-Army modernization effort underway, Crane Army's Depot Operations is ensuring it is well-positioned to meet future mission requirements.

ACTIVITY SUPPORT

In Activity Support, Crane Army employees are preparing for the workload of 2030 by investing in modernized inspection equipment. A team in AS is working to replace two Coordinate Measuring Machines each year, with the goal of having the full set of seven machines replaced by 2030.

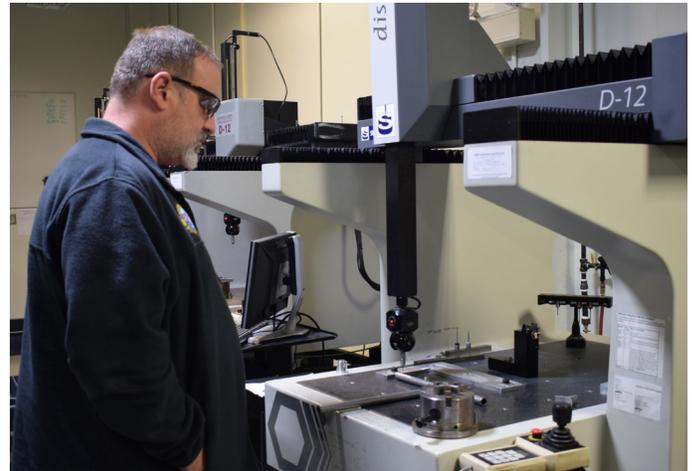
“Traditional machining and measuring won’t cut it in 2030,” Cotey Noble, quality assurance specialist fellow, said. “Having new hands-off machines means there’s less human error and our measurements can be more accurate than ever.”

The team is also procuring micro harness equipment for new product lines that will be coming to the machine shop by 2030.

“We are increasing the breadth of components that Crane Army can inspect,” Richard Pearson, machined parts inspector leader, said. “As our workload changes, we’ll be able to keep all of the quality assurance inspections in-house.”

Though more automated machines will be coming to AS in the forthcoming years, operators will still be needed in addition to programmers and employees who monitor machines while they operate.

“The machines eliminate human error from our inspections, but operator influence on measuring and cutting is everything,” Pearson said.



New Coordinate Measuring Machines (CMM), that replace outdated versions, allow for faster measurement with increased accuracy.

STAFF

Responsible for resource procurement and equipment, energy and facilities management, Crane Army’s S4 team is also the driving force behind several infrastructure modernization efforts that will help the organization better prepare for Joint Force readiness in the next decade and beyond. But first things first: in order for many of these efforts to come to fruition, the S4 team must first ensure that CAAA has the room to grow.

“The S4 team is leading the development of a Net Explosive Weight and Land Optimization Plan over the next year,” Cassidy Dages, Crane Army’s logistics manager said. “This plan will solidify a strategic plan for Crane Army’s earth-covered magazines and rail holding yards. The project will evaluate reorganization of facilities on the installation to maximize buildable space based on Explosives Safety Quantity-Distance requirements.”



Cassidy Dages,
S4 Facilities and Equipment
Manager

The intent is for the Net Explosive Weight and Land Optimization Plan to serve as the catalyst to increase the amount of land that can be used for new construction. This will ultimately allow for greater flexibility to execute changes to existing missions and enable future emerging requirements, such as other infrastructure modernization efforts Crane Army’s S4 is working toward including relocating the pyrotechnic production complex out of the downtown area before 2030.

The optimization plan will also allow the organization to identify specific areas for specialized storage missions to reduce future construction and sustainment costs. It will have the added benefit of enabling Crane Army to coordinate magazine storage with rail and road networks to support future operations more efficiently.

While the S4 team is leading for now, the whole Crane Army team will mobilize to ensure these plans can be used to develop executable projects to best support the mission for years to come.

EMPLOYEE SPOTLIGHTS

Vickie McKibben

Lead Supply Systems Analyst



For 45 years, Crane Army has been a workplace where people put their roots down. While the activity sets down the path toward the Crane Army of 2030, the foundation of careers here won't change. Great benefits and a critical mission are among the many reasons that employees come to CAAA and stay, including Vickie McKibben, lead supply systems analyst, who started working at Crane Army more than 41 years ago.

"Much of my family is in the military, and initially I wanted to serve," McKibben said. She ended up moving to Indiana and taking a job on the installation instead. "Working for the military here at Crane was another way to serve my country."

Working her way from inventory to analyst, McKibben has seen her fair share of outloads, commanders and a big technological shift across the activity.

"When I started, we filled out key punch cards and 80 column sheets by hand. We'd wait three to four days for the information we needed to do research with," McKibben said. "Automation of processes, whether it's in an office or out in our facilities, has been the biggest change by far."

McKibben sees the command moving toward even more automation in the coming seven years. After seeing how the new receiving facility improved efficiency in depot operations, she believes that automating materiel handling processes like scanning barcodes and materiel identification will be what moves CAAA into the future.

Brandon Cantrell is an explosives handler that started working at CAAA at the end of October 2022. Since then, he has spent much of his time onboarding, completing training and getting licenses to ensure he is fully equipped to start moving munitions around base.

"Crane Army is a good place to be for the long haul," Cantrell said. "There are a lot of jobs here and lots of ways to move up."

Though he is still new to the job, he has been able to see much of the installation and observe the work environment at CAAA. To Cantrell, the Crane Army of 2030 doesn't look much different than it does now – the mission will always be the same, but ideally, the activity will employ different tools to make his work as an explosives handler more efficient. Cantrell is also looking forward to modernization of training in the future.

"I wish I had been able to get hands-on with my job quicker," Cantrell said. "I learn best that way, when I'm hands-on and working with people."

McKibben's advice for Cantrell and other new Crane Army employees is to pay attention to their safety and look out for one another. She also wants them to always remember that despite the good paycheck and benefits package, at the end of the day, the most important part of working at CAAA is serving the warfighter. Though McKibben has spent more time at CAAA than Cantrell, their outlook on Crane Army is the same: the work they do directly contributes to the U.S. military and our partner nation's ability to fight and win wars.



Brandon Cantrell

Explosives Handler

Only Our Best For The World's Best

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