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#### ON THE COVER

Army Spc. Raymond Sabourin, a paratrooper with the 173rd Airborne Brigade, prepares for a readiness exercise. On the next page, Amy Ramey, a quality assurance team lead with Defense Contract Management Agency Los Angeles, examines a jet canopy. Ramey is part of a 12,000-member acquisition team of contracting, quality assurance. engineering and manufacturing professionals who deliver Sabourin's equipment. His helmet, boots, radio, rifle, ballistic vest and other items were all the result of contracts overseen by employees like Ramey at DCMA. The agency also delivered the airplanes Sabourin jumps from along with thousands of other pieces of equipment the Department of Defense and other federal agencies use to keep the nation secure. Read more about Ramey's role with the agency on page 22.

Cover photo by Army Spc. Stephen Malone Next page DCMA photo by Stephen Hickok Back cover photo by Marine Corps Cpl. Reece Lodder

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## DELIVERY DEFINES OUR MISSION

By Navy Vice Adm. David Lewis, DCMA director

he Defense Contract Management Agency is, first and foremost, a product delivery organization. Our nation's warfighters expect our defense industry to deliver the equipment and systems they need to fight, survive and win. DCMA is the Department of Defense's agency tasked, on the factory floor, to make sure this happens.

These deliveries are not merely about things, inanimate objects; they are all about delivering readiness and lethality, which is the first of three distinct lines of effort outlined in the National Defense Strategy.

Making this happen on time and at the right cost depends on DCMA's integrated team of contracting, engineering, quality assurance, finance, information technology, program management and other support functions.

The role we play in getting contracts fulfilled is complex, but it can nonetheless all be summed up — our mission, our value, our return on investment — in our singular, common goal of product delivery.

This is not limited to supporting the lethality and readiness of U.S. forces alone. DCMA is heavily involved in foreign military sales programs, ensuring quality and timely product delivery to partner nations, and thereby strengthening alliances and attracting new partners — the second line of effort.

In the following pages we'll tell you about some of the contracts we oversee, from sustainment of legacy systems to one that hasn't yet been fielded. We'll look at how our work strengthens ties with our allies. We'll show you numbers so large they're hard to comprehend. But if you learn nothing else about DCMA, know that almost every item our military is using at this moment, around the world, passed through our hands.



Every radio, rifle, boot, helmet, aircraft, armored vehicle, battery and missile was tracked, quality assured, approved for payment and accepted on behalf of the government by our dedicated workforce.

The numbers, charts and graphs presented here only tell the business part of our story, which wouldn't be possible without our people — more than 12,000 subject matter experts at nearly 1,000 locations worldwide, each taking great ownership in the items we deliver.

DCMA has a fiscal responsibility to the taxpayer and a contractual obligation



By the numbers

to program offices and buying commands, but we never lose sight of our true customers — the young officers and enlisted personnel around the world who rely on us. When they reach for the tools they need, those tools have to be there, and they have to work.

What gets measured gets done, and thus we are an organization of metrics. Last year we started to look closer at what I know to be the most important numbers — what exactly we have put into service. How many products that once existed only on paper, as specifications and responsibilities agreed to between industry and the federal government, have been physically placed in the capable hands of our service members?

In the fourth quarter of federal fiscal year 2017, DCMA delivered to the warfighters more than 217 million items valued at nearly \$22 billion. This includes everything from maintenance items to multi-million dollar platforms like the F-35 Joint Strike Fighter.

More than 23 million of these items were delivered to the Defense Logistics Agency, which supplies 86 percent of the parts used by the services to maintain equipment that DCMA delivered. Equipment like the 48 combat vehicles that rolled off production lines in the fourth quarter, accepted as government property by DCMA quality assurance specialists. Or the three submarine imaging systems, valued at about \$2.5 million each, which left the contractor

12,000

percent are

35% Quality Assurance

30% Contracting & Pricing 14% Engineering

7% Industrial Specialist

3% Program Integration 3% Property Management

2% Information Technology

6% Other

main offices overseeing locations around the world

ROIT 43 to 1 In fiscal year 2017, DCMA saved, recovered or cost avoided \$6.03 billion against a \$1.4 billion budget. That's a 4.3 to 1 return on taxpayer investment.



#### RECOVERED

\$2 billion - Litigation, contract terminations and property claims



#### SAVED

\$577 million - Earned value streamlining efforts, final incurred cost rate settlements



#### COST AVOIDED

\$2.9 billion - Commercial pricing, worker's compensation

managing

343,261

active contracts at over

19,000

contractor facilities with a total contract amount of

trillion

providing direct support to DoD and other government agencies.

## Big deal deliveries



••••• 72 programs, 51 are ACAT I\*

121,000 contracts \$2 trillion

\$624B obligated • \$82B unliquidated • • • • •



••••• 60 programs, 37 are ACAT I\*

45,000 contracts \$847 billion

\$645B obligated • \$77B unliquidated • • • • • •



••••• 43 programs, 33 are ACAT I\*

35,000 contracts \$814 billion

\$577B obligated • \$51B unliquidated • • • • •

\*ACAT I, or acquisition category I, denotes a program that has either been designated by the undersecretary of defense for acquisition and sustainment as a major defense acquisition program, or is estimated to require an eventual expenditure for research, development, test and evaluation reaching a certain dollar value.



Navy photo by Petty Officer 3rd Class Spencer Roberts

### DoD Lines of Effort

The 2018 National Defense Strategy outlines three distinct lines of effort to generate decisive and sustained U.S. military advantages. DCMA is very much a part of those efforts by helping build a more lethal force, strengthen alliances and partnerships, harness technological innovation, and develop and implement reforms to improve performance and affordability.



#### REBUILD

Rebuilding military readiness as we build a more lethal joint force



#### STRENGTHEN

Strengthening alliances as we attract new partners



#### REFORM

Reforming the department's business practices for greater performance and affordability

under DCMA's watchful eye to become Navy property. Or the half-billion dollars in missiles and missile systems that went into our defense inventory, all meeting stringent contract requirements. Or the tens of millions of dollars in new, highlyspecialized surveillance, countermeasure, targeting and communication equipment that went to the field to support our military operations.

Some of DCMA's most highly-visible work is done on aircraft contracts. In fact, about a quarter of the agency's contract management offices are located on-site at aviation-related production facilities around the world. These offices include a mix of civilian acquisition professionals and military aviation specialists, including flight crews that fly the final test and acceptance flights for every aircraft that enters our defense inventory.

The rest of the agency's contract management offices are a mix of in-plant locations, usually focused on larger contractors or programs, and geographic offices that cover a large number of contractors within a state or multistate area.

There are 50 main offices divided among three continental U.S. commands, one international command and an office dedicated to special programs. In total, DCMA has more than 12,000 acquisition professionals, including 500 active duty or reserve military service members, providing oversight at approximately 19,000 contractor locations.

Eighty-five percent of the agency's workforce is acquisition certified, meeting stringent Defense Acquisition Workforce Improvement Act requirements. The agency is the largest employer

of quality assurance, industrial and industrial property specialists in the federal government.

DCMA provides contract administration services for DoD and other federal organizations. The agency is an essential part of the contracting process from pre-award to sustainment, making sure all parties meet contract obligations.

Every day, thousands of items are delivered to the warfighter through DCMA. In return, the agency authorizes \$630 million in payment to contractors every business day.

While delivery is paramount, for DCMA to make sense it has to be the best value for the services it performs.

The agency was built to be the most efficient, effective and affordable way to deliver warfighting equipment manufactured by our industry

#### Unit cost > \$1M **PLATFORM DELIVERIES** in **FOURTH QUARTER FY2017**

These numbers represent the total number of platforms with a unit cost of more than \$1 million delivered by DCMA's global force during the 4th quarter fiscal year 2017.

INFRARED SEARCH and TRACK SYSTEMS AIR-SURVEILLANCE/DEFENSE RADAR SYSTEMS SUBMARINE IMAGING SYSTEMS AIRCRAFT ENGINES 18 COUNTERMEASURE SYSTEMS 18 MISSILES

AIRBORNE RECONNAISSANCE SYSTEMS

TARGETING and SURVEILLANCE SYSTEMS

COMBAT VEHICLES 48

MISSILE SYSTEMS

AIRCRAFT 140



\$1.1B 85 HELICOPTERS

**\$418.6M** 3 ANTI-SUBMARINE/ANTI-SURFACE

\$300M 5 ELECTRONIC WARFARE

**\$263M** 4 TRANSPORT

**\$261.9M** 4 TILTROTOR

**\$115.4M** 19 UAVs

\$30M 4 TRAINERS

**AIRCRAFT DELIVERIES** in **FOURTH QUARTER FY2017** 

This chart shows the platform, number and cost of aircraft deliveries in 4th quarter fiscal year 2017. Aircraft are some of the agency's most highly-visible programs, and about a quarter of the agency's worldwide contract management offices reside in aviation-related facilities.

counterparts. Today, there remains an incredible demand for its services.

Through continuously improving processes and reforming business practices, the agency has increased performance and affordability. We are demonstrating value and aligning with the third line of effort in the National Defense Strategy.

Whether it's the Commercial Item Group speeding acquisition, leveraging commercial technology, and providing valuable insight into fair market price; cost and pricing experts driving the best deal

for DoD throughout the contract life cycle; contractor quality and business systems reviews influencing performance; or in numerous other ways, DCMA accumulates high return on the investment the nation makes in the agency.

We have to be able to demonstrate our value, which we do proudly. Our people provide unparalleled expertise on the acquisition process, administer trillions of dollars in contracts, authorize billions of dollars in payments and deliver millions of items to the literal front lines of our

national defense.

We do all of this with a verifiable 430 percent effectiveness in terms of dollars invested in the agency.

Each year DCMA carefully measures what it saved, cost avoided or actually returned to DoD as a result of its efforts. The bottom line is this: In fiscal year 2017, DCMA saved, recovered or cost avoided \$6.03 billion against a \$1.4 billion budget. That's a 4.3 to 1 return on taxpayer investment.

We deliver.



Defense Contract Management Agency Atlanta's Fred Belton is one of the more than 12,000 global acquisition professionals who support the agency's warfighter support mission. His field of quality assurance represents 35 percent of that workforce. DCMA photo by Stephen Hickok

## How America maintains battlefield superiority

The U.S. plan to maintain ground combat vehicle supremacy relies heavily on engineering change proposals, which modernize existing programs to meet current and future capability requirements. DCMA's global force of acquisition professionals play a vital role within this massive revitalization effort.

By Thomas Perry, DCMA Public Affairs



ilitary strategy forever changed when horses first galloped onto the battlefield. These saddled combatants revolutionized a soldier's maneuverability, lethality and versatility. After a long stretch as war's predominant mobilization instrument, the horse was sent out to pasture by the development of combat vehicles. Strategists quickly learned to never bring a horse to a mechanized fight.

World War II rolled out the Sherman, the Hellcat and the Pershing. America's Cold War efforts fired up the M60 Patton, the Sheridan, the M103 and many more vehicles that advanced battlefield capability. Driven by a pursuit of technological predominance, the global evolution of combat vehicles found America, its friends and its foes searching for motorized superiority.

The U.S., in partnership with its defense industrial base, maintains an advantage within the post-Cold War environment, but other countries have continued to develop challengers.

America's current standing within the world's military hierarchy was defined within an August 2017 report to Congress on the restructuring of the Office of the Undersecretary of Defense for Acquisition, Technology and Logistics:

"The weapon systems and capabilities that the Department (of Defense) delivers to the warfighter today are, in many respects, the envy of other nations' fighting forces. However, the current pace at which we develop advanced warfighting capability is being eclipsed by those nations that pose the greatest threat to our security. Additionally, the increasing cost of our major weapon systems has placed at risk our ability to acquire and sustain these systems at sufficient levels."

Has the shine of superiority begun to fade? Can the polish of upgrades to existing designs ensure America's rolling warriors maintain dominance? The answer lies within engineering change proposals. ECPs can extend a program's life cycle, increase its lethality and maintain its battlefield superiority through upgrading, replacing and recapitalizing efforts.

According to an April 2016 Congressional Research Service report, in order to keep the M-1 Abrams Tank, the M-2/M-3 Bradley Fighting Vehicle

"Numerous countries, some not so friendly, are modernizing their armored formations with the intent of nearing or surpassing parity with the platforms in our formations ...

and the M-1126 Stryker Combat Vehicle operational and effective over a prolonged period, a variety of activities have been undertaken over the lives of these vehicles. The most common terms used to describe these activities are modernization, recapitalization and reset.

Per the report, modernizations involve upgrades, replacements, refurbishments and technology insertions to existing weapon systems. Recapitalizations involve either completely overhauling and rebuilding an item (such as a tank or truck) so that it is returned to an "asnew" condition; or upgrading a system to include substantial improvements. Resets are designed to reverse the effects of combat stress on equipment through several activities to include replacing equipment lost in theater or deemed irreparable on its return, and repairing

systems to bring them back to full mission capability.

As an example, Defense Contract Management Agency Detroit's current main battle tank ECP, known as Abrams M1A2 SEPv3 (Power), addresses power and data management systems to support inbound technology and the DoD's network requirements. It also includes protection improvements like armor upgrades and counter radiocontrolled improvised explosive device electronic jammers.

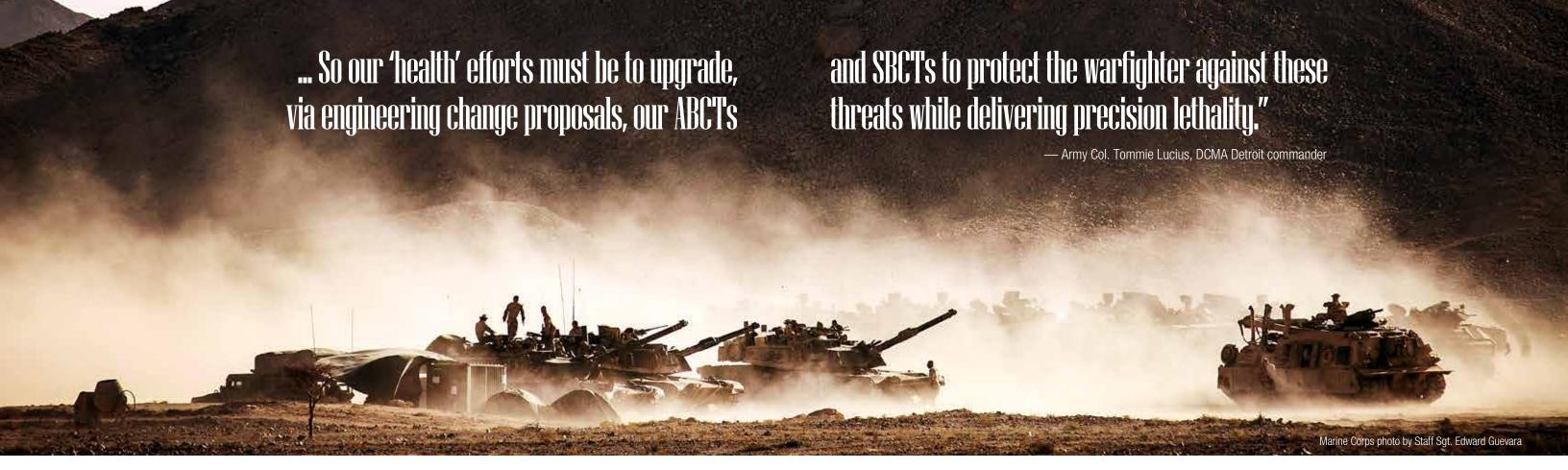
DCMA's acquisition professionals have and will continue to play a key role in the implementation and success of these changes, which will characterize the U.S. combat vehicle programs for more than a decade

The congressional report also described the Abrams, Bradley and Stryker as the centerpieces of the Army's Armored Brigade Combat Teams and Stryker Brigade Combat Teams, known as ABCT and SBCT respectively. Under current Army modernization plans, the Army envisions all three vehicles in service with active and National Guard forces beyond fiscal year 2028. The ECPs are designed to address Congress' concern regarding these vehicles' long-term effectiveness.

"The health of the ABCTs and SBCTs are vital to the lethality and effectiveness of the U.S. armed forces because threats to the Army's ground combat vehicles are increasing quickly," said Army Col. Tommie Lucius, DCMA Detroit commander. "Numerous countries, some not so friendly, are modernizing their armored formations with the intent of nearing or surpassing parity with the platforms in our formations. So our 'health' efforts must be to upgrade, via engineering change proposals, our ABCTs and SBCTs to protect the warfighter against these threats while delivering precision lethality."

Prior to a vehicle's final delivery and acceptance, DCMA professionals work with DoD program offices and their industry counterparts to ensure each vehicle meets contract requirements and returns to the warfighter a better product.

"DCMA Detroit plays a vital role in the modernization and production of Armored and Stryker Brigade Combat Team vehicles, but it's a collaborative



effort, and Detroit is just one cog in upgrading and producing ground combat vehicles," said Lucius. "Our ECP efforts for Abrams, Bradley and Stryker set the stage for production at numerous facilities throughout the DoD enterprise with DCMA leading the charge. My point is that acquisition is a team sport with one goal, deliver the best equipment to the warfighter."

Joint Services Manufacturing Center Lima, Ohio, DCMA New Cumberland, Pennsylvania, and DCMA Huntsville, Alabama, all play pivotal roles within combat vehicle production. Combined with program office personnel, a multitiered supply chain and industry staff, the ECP effort involves an army of subject matter experts driving vehicle upgrades to the finish line.

Crossing that line a second time can provide unique challenges to DCMA professionals who often focus on the development and sustainability of new programs once a contract is awarded.

"The biggest differences of working on modernization of current vehicles vice the development and support of new programs is being constrained to the parameters of the current vehicle design and systems," said Carlos Lago, the Abrams' modernization program integrator at DCMA Detroit. "With ECPs, not every technology in the vehicle is being replaced, so you have size, weight, power, cooling and cost, or SWAP-CC, considerations with the insertion of new technologies. Additionally, if part of the ECP effort is introducing a whole new technology you have to ensure that there is a space claim for it, as well as the power generation requirements to power the new system."

For the DoD's contracting agency, delivery is paramount and delays and cost overruns can play a villain's role. So inserting new technology into older systems to enhance effectiveness is counter balanced by schedule and budget requirements. It is at times an expertly designed juggling act, which ultimately ends with a delivered product and a happy warfighter.

"The interface isn't always as simple as intended, so the plug-and-play approach varies with each piece of new technology modernization," said Michael Batarseh, Detroit's Engineering and Manufacturing director. "Engineers are constantly

challenged. During design or testing, it's often discovered that there is a technical challenge, which increases the scope of work leading to increase in cost and schedule delays."

Batarseh explained that new programs undergo analysis and design planning prior to production, which can mitigate unforeseen challenges that often occur with modernization efforts. He estimated 50 percent of Detroit's current command focus is on ECP, modernization and redelivery efforts.

It is a massive undertaking when considering thousands of vehicles will eventually undergo the rejuvenation process. A prime example is the Abrams. The Army accepted the first vehicles with the current upgrades in late 2017.

"The Abrams M1A2 SEPv3 is the first in a series of new or significantly improved vehicles that we will be delivering to the Army's ABCTs," said Maj. Gen. David Bassett, the former program executive officer for Ground Combat Systems. "It is a great step forward in reliability, sustainability, protection and on-board power, which positions the Abrams tank and our ABCTs for the future. Even in

a fiscal environment that has greatly hampered our ability to move towards entirely new vehicles, the Abrams M1A2 SEPv3 shows we can still deliver meaningful and operationally relevant improvements."

As the M1 Abrams first rolled off the production line in 1984, such successes within a 34-year-old program continue to cement ECP viability and reinforce fiscal responsibility to the American taxpayer.

"Producing a new combat vehicle is expensive and lengthy," said Lucius. "ECPs allow the Army to upgrade ground combat vehicles at key and strategic points throughout the tanks life cycle. It has continually upgraded the Abrams with reduced risk and cost, while taking advantage of the current technologies that each ECP offered to increased mobility, protection and lethality."

These changes along with the pursuit of future technologies are designed to provide America's service members an advantage when conception becomes reality on the battlefield. It is a perpetual race run by the world's military strategists, engineers, scientists, technicians and quality assurance specialists. It is a race

where success means victory and failure means much worse. It is a race DCMA and its team members strive to win each day.

"I'm proud of our program support teams supporting both production and ECPs," said Lucius. "It's hard work, and our folks are fully vested in ensuring these efforts are successful. Our PST members, regardless of their functional area, know the end state is the warfighter having the best equipment, at the place and time of their choosing."

Considering that time and place must afford an anywhere-in-the-world zip code, comprehensive communication is paramount. Batarseh credited leadership's balanced approach to communication as a key factor in the offices warfighter support mission — externally with the program executive office and program managers, and internally with its agency partners to perpetuate best practices.

"Leadership from Lima, New Cumberland, Huntsville and other locations come together face-to-face to discuss quality of reports, adequacy and quality of support, future support requirements, and to recognize personnel for their outstanding support to DCMA Detroit programs," said Batarseh. "The outcome of these engagements moves us forward in the collaboration of information resulting in the CMO being better postured to provide insight that informs acquisition decisions."

One of those key decisions has already been reached. In late 2017, the Abrams Modernization Team received the Abrams SEPv4 ECP contract, which will upgrade the M1A2 SEPv3 to M1A2 SEPv4 Abrams tank.

"The SEPv4 will be designed to be more lethal, faster, lighter, better protected and equipped with new sensors," said Lago. "The lethality effort will include development and integration of new laser rangefinder technology, a color day camera, integrated on-board networks, new slip-rings, advanced meteorological sensors, ammunition data links, laser warning receivers and other enhancements to ensure the warfighter will continue to have the most advanced, lethal and combat proven main battle tank in the world."

For now, at least. The race goes on, and everyone is trying to find the fastest horse.



## ABSOLUTE VALUE

fter last year's Senate confirmation as the next director of Defense Contract Management Agency, Navy Vice Adm. David Lewis used his 38-plus years of military experience to craft his new commander's intent.

By Thomas Perry, DCMA Public Affairs

With his most recent leadership role atop the Space and Naval Warfare Systems Command fresh in his mind, Lewis' threetiered guide to organizational success focused on delivery, best value and fluidity.

"DCMA was built to be the most efficient, effective and affordable way to deliver Department of Defense warfighting equipment manufactured by our industry counterparts," said Lewis, citing his second tenet of intent. "If we are not always the most efficient, effective and affordable provider, there is no need for DCMA."

As one of Lewis' commanders, Army Col. Jeffrey Caldwell is charged with implementing strategies and initiatives that afford his acquisition professionals at DCMA Huntsville, Alabama, a clear path toward delivering best value to customers, American taxpayers and, ultimately, warfighters.

In the best of circumstances, it is a challenging mission to navigate the intricate world of defense industrial base contracting. Like many DCMA locations however, Huntsville's challenges are elevated by distance and program variance.

The northern Alabama workforce provides contract management services throughout Alabama, Mississippi and Tennessee. Its area of responsibility covers approximately 140,767 square miles, 580 active facilities and 8,100 DoD, NASA and Department of Homeland Security contracts valued at more than \$35 billion.

Caldwell champions the agency's capabilities model, his team's pride in the stewardship of taxpayer dollars and a collective commonality within its workload partnerships as keys to mission success.

"The capabilities model is a major driver to finding ways to be more effective and efficient," said Caldwell. "It also allows us to provide critical functions and services that helps to manage cost, schedule and performance, which is important to all stakeholders. We overcome our challenges by working as one team and as a whole of government with other strategic partners. It comes down to a simple approach, communication, collaboration and coordination to achieve common objectives."

Those objectives can change daily depending on location and which program

"If we are not always the most efficient, effective and affordable provider, there is no need for DCMA."

— Navy Vice Adm. David Lewis DCMA director

support team is involved. Some of Huntsville's responsibilities include:

- Major Program Support for the Integrated Battle Command System software contract for Army Integrated Air and Missile Defense.
- Terminal High Altitude Area Defense, or THAAD, ballistic missile defense system.
- Targets and countermeasures.
- Small business support for a diverse group of high-volume contracts.

With such a comprehensive portfolio, leadership works diligently to relay the importance of best value.

"It provides our military and other government agencies we support a competitive advantage, whether it's fighting on the front lines or providing capabilities to our nation, delivering best value allows the U.S. to be decisive in its quest to

provide global leadership," said Caldwell.
For Martha Walker, DCMA
Huntsville's THAAD quality assurance
supervisor, her team's value stems from its
ability to prioritize workload management.

"We use a risk-based approach to perform our quality assurance surveillance activities," said Walker. "By using this approach we can focus our efforts in areas of higher risk by freeing up resources and reducing time spent on low-risk areas across the entire program."

The targets and countermeasures program provides unarmed targets designed to represent adversary missiles and ensure realistic testing. It is a vital program given the world's current ballistic climate. It also benefits from risk determination. Joseph Buscemi, a quality assurance specialist at the DCMA Huntsville Courtland office, said his team's risk determination provides value "that is relevant to the customers' requirements of asset performance."

He explained that because of the program's high op-tempo every bit of time saved can make an impact.

"There are hundreds of tests performed to integrate a target so that all stakeholders in the one shot chance to acquire and kill a target missile is a success," said Buscemi. "By working to support the successful delivery of target systems, we are actually supporting the success of all ballistic missile defense systems. This country's missile defense system enhancements cannot be appropriately demonstrated without the target assets being integrated and delivered on the contracts that we support."

In a literal cosmic job in program size but not importance, Lee Precision



## COMMANDER'S INTENT

By Vice Adm. David Lewis, DCMA director

We Deliver — We are, first and foremost, a product delivery organization. Our Nation's

warfighters expect our industry counterparts to deliver the equipment and systems they need to fight and win our Nation's wars, and DCMA is the Department of Defense organization tasked to make sure that happens at the factory floor. Timely, effective product delivery requires insightful and proactive integration across contracting, engineering, quality assurance, finance, information technology, and program management. We must always perform as an integrated team; a team focused on the singular, common goal of product delivery.

We Must Always Provide "Best Value" to the Nation — All of the services provide product delivery and contract administrative functions. DCMA was built to be the most efficient, effective and



Cheryl Ellis, a DCMA Huntsville quality assurance specialist, listens as Dynetics' Johnathan Stapler explains the Small Glide Munition Seekers environmental stress screening process, which is designed to verify its functionality. Like many agency locations, Huntsville team members manage a wide-range of programs over a large area of responsibility — in this case, approximately 140,767 square miles. Photo courtesy of Dynetics

in Athens, Alabama, is a small business that provides a wide array of products in support of government contracts. Ken Knight, a lead quality assurance specialist, who supports those contracts said DCMA Huntsville personnel have supported more than 100 regional small business facilities, and he expects that number to grow as the area continues to expand "as an industry boomtown." While the dollars and facilities may shrink in size, the best value mission looms just as large in Knight's mind.

"Lee Precision continually produces and manufactures an extremely large amount of complex and technical products for the government," said Knight. "Just to provide oversight and keep up with documentation for the amount of product produced is an accomplishment in itself. Lee Precision produces intricate and technical parts that all have critical safety requirements or specialized applications. The workload is tremendous, challenging and very frequent.

"These parts that are manufactured in the little old town of Athens are shipped worldwide for all branches of the DoD and placed on some of the most technologically advanced equipment in the world. We continuously work to improve the procurement process with all major buying commands and all major agencies within the United States government."

According to Army Maj. Brian Moran, DCMA Huntsville's Army Integrated Air and Missile Defense program integrator, the warfighter and American taxpayer have directly benefited from Huntsville's implementation of a detection to prevention methodology that saves dollars and supports ontime delivery.

"Huntsville uses efficiency, effectiveness and affordability to deliver value to the warfighter by utilizing detection to prevention methods and enforcing DoD and DCMA policy to ensure the contractors are providing efficient and effective delivery of warfighter products," said Moran. "Additionally, the independent assessments that the team provides to senior DoD leaders allows them to make informed decisions, demands efficient process improvements, and ensures the contractors are delivering efficient, effective and affordable products to the warfighter."

Efficiency, effectiveness and affordability are all products of Lewis' best value blueprint. Like he said, if his team cannot deliver on these principles there is no reason for his agency's existence. Based on the feedback and performances of the acquisition professionals from a Northern Alabama boomtown, who work with giant missiles and minor precisions, the organization's windows will not be shuttered anytime soon.

"I have traveled around quite a bit, worked for several different government agencies in Europe and in the U.S., and I could not be prouder of the scope of work we perform here in Huntsville," said Knight. "Our team is fully supported by our command, management and all of the professionals of Huntsville. I take a lot of pride in what we do, but that is a direct reflection of my director, my first line supervisor and the best quality assurance team I have ever been associated with in my entire career. We touch so many programs, every commodity, from small glide munitions to U.S. flags flying over the capitol."

affordable way to deliver Department of Defense warfighting equipment manufactured by our industry counterparts. If we are not always the most efficient, effective and affordable provider, there is no need for DCMA.

Today, we have far more demand for our services than we can accommodate with our current methods and workforce. Therefore, we must constantly assess the value we provide through our work against the cost to provide it, across the full spectrum of our mission. We must always be ready to respond to changing DoD

program requirements, resource allocations and industry capabilities by modernizing our methods, improving our tools and, most critically, being flexible with our workforce assignments and professional skill sets in order to deliver best value to both the warfighter and the taxpayer.

THREE

Work Smarter not Harder — We live in a rapidly changing world. What was great last

year may only be good today, and could be clearly headed for awful by next year. If we stand still,

we will fail to deliver the best possible product to our customers and fail to meet our mandate of efficient, effective and affordable service. Information technology, manufacturing processes, quality assurance, business systems, and test and evaluation are all evolving and improving in new and exciting ways. We must not only keep up, we must be the Department's leaders and innovators in performing our work, adapting to and leveraging these changes in order to better deliver products at ever lower costs. We must provide insight as well as oversight.



warm welcome can quickly go from hello to ciao and from hola to bonjour when you are a member of the Defense Contract Management Agency's International workforce.

Currently that cordial conversation opens with konnichiwa as DCMA International professionals work to deliver the F-35 Joint Strike Fighter to the nation of Japan.

As a whole, this region focuses on providing contract administration services to both the Department of Defense and its partner nations to ensure delivery of products and services to the warfighter.

International's headquarters are in Fort Lee, Virginia, but its offices can be found around the world from Canada to the United Kingdom, Middle East, Israel, Japan, Europe and Korea.

Some of the first challenges employees work through when arriving at one of these contract management offices are figuring out the language, rules, laws and civil systems. At the same time, they may need to help their families understand transportation, medical, schools and grocery stores in a foreign country, often in an area without military bases, said Navy Capt. Sonya Ebright, DCMA International commander.

"When our people are in every time

zone, living in 24 different places within countries ranging from small populations and rural to packed life, their everyday work takes on a different and impactful meaning," Ebright said. "For example, as a representative of DCMA, you are the face of the United States government. What your foreign counterparts see from you is directly reflective of what they may think of the rest of the U.S. government."

DCMA United Kingdom provides an example of building and maintaining positive working relationships.

"Whether we're talking about the U.K. or one of our Scandinavian partners, we enjoy strong relationships that have been strengthened over many years



## "In an ever-changing geopolitical environment, it's the personal relationships that have enabled mission success."

- Navy Capt. Preston Gill, DCMA Europe commander

of working together in the pursuit of common interests," said Air Force Lt. Col. Paul Ferguson, the agency's U.K. commander. "Our host nation partners perform outstanding work, surveilling foreign contractors under our delegation."

This location is not an anomaly. The relationships and trust fostered through collaborative exchanges like this are only examples of the different ways the agency interacts with partner nations.

"The women and men of DCMA Pacific play a vital role in ensuring the readiness of United States and allied weapon systems throughout the Indo-Asia Pacific region, roughly 52 percent of the earth's surface," said Thomas Mulqueen, acting DCMA Pacific commander. "Our key responsibilities include influencing negotiations, product acceptance, deliveries and contractor effectiveness capabilities on multiple aircraft overhaul, maintenance, modification and repair contracts throughout the region.

"The importance of the timeliness and preciseness of our actions to influence the quality and on-time delivery of weapons and services is elevated by the strategic import of the region and ongoing geopolitical issues."

These collaborations have enabled

key partnerships to continue through ally missions.

"In an ever-changing geopolitical environment, it's the personal relationships that have enabled mission success," said Navy Capt. Preston Gill, DCMA Europe commander. "This trust has gained us access to key decision makers and critical assurances, in most cases, simply by a phone call. This is all critical to the ambassador's situational awareness of acquisition and industry insights pertaining to their area of responsibility."

Such collaborations are meant to strengthen the industrial base and economic ties around the world.

"DCMA Americas' and (the nation of) Canada's relationship also serves as a force multiplier, extending our reach across North America from coast to coast," said Robert Billington, DCMA Americas director. "Our Canadian DCMA employees provide a tremendous source of knowledge, leadership, and continuity."

The U.S. partners with 21 nations to work with around the world in contractors' and subcontractors' plants to provide quality surveillance. DCMA's role is to hold those foreign suppliers accountable for the performance within these contracts.

"Our agency provides surveillance on international contractors and subcontractors responsible for key components of U.S. weapon systems," said DCMA Director Navy Vice Adm. David Lewis. "Overall, this surveillance of foreign subcontractors enables prime contractors, program offices and ultimately joint warfighters to have confidence in the international industrial base."

Some of the equipment the agency oversees production of ranges from Joint Strike Fighter parts to all calibers of ammunition, high tech cameras, advanced software development, aircraft overhauls, major aircraft

component production and repair, to armored vehicles and sustainment, and much more.

The U.S. military receives their equipment operable and to standard because of the in-country presence DCMA provides. "Our service members are on the front lines protecting us," Ebright said. "It's our responsibility to protect them in return by ensuring they receive the appropriate equipment that the U.S. contracted for."

Delivery does not stop there as part of their mission ties to Foreign Military Sales for partner nations. A DCMA facility in Saudi Arabia handles a large portion of those transactions.

"We work with our coalition partners as they develop national military capabilities that support U.S. national security and regional stability through Defense Security Cooperation," said Air Force Col. Louis Orndorff, DCMA Saudi Arabia commander. "Our mission and our people directly supports regional stability, so when the coalition jets fly and tanks roll from here, U.S. forces don't have to."

These additional programs strengthen ties to U.S. allies and DCMA serves as the primary government entity responsible for the delivery of U.S. equipment to those allies.

"They use our equipment, which

enables their systems to seamlessly interact with our systems," Lewis said. "Additionally, U.S. warplanners' intimate knowledge of ally weapon system capabilities enables robust contingency planning."

Overseas employees must adhere to host nation and international agreements. These agreements are tailored to each countries' capabilities. From these agreements there are Allied Quality Assurance Publications, that quality assurance professionals must reference. These publications are commonly found in partnering nations' commercial contracts or purchase orders to suppliers.

"Despite the number of documents and agreements in place to deliver congruent parts and equipment to warfighters around the world, it's always the people that make it all come together," Ebright said. "Our people are the biggest investment and the source of our success in International.

"Each person who moves to International goes through some sort of culture shock and the overall challenges of working in an unfamiliar environment," she said. "Yet, they overcome these obstacles to ensure the U.S. presence and the products delivered are always meeting the expectations of our foreign counterparts and our warfighters."

## STRENGTHENING alliances



#### ROYAL AIR FORCE WYTON, England Nov. 22, 2017

In a recurring international discussion, 62 participants from four nations collaborated on joint responsibility efforts to improve the host nation government

Despite cultural differences which can complicate contract administration, the group discussion helped break down communication barriers and build professional relationships through material and knowledge sharing designed to better align organizations across international borders



KABUL, Afghanistan Sept. 20, 2017

During his deployment to Afghanistan with the DCMA Combat Support Center, John Griffiths witnessed first-hand the agency's direct global impact.

As an administrative contracting officer, Griffiths contributed to the nation's overseas mission in the areas of pre-award contract and anti-counter corruption efforts. For his work he was personally recognized by Ashraf Ghani, the president of Afghanistan.



#### GARMISCH-PARTENKIRCHEN, Germany July 27, 2017

This year marked the 16th iteration of the Host Nation Conference, a forum designed to exchange ideas and to develop international agreements.

The annual forum led DCMA International to establish a contracts audit position at DCMA Europe to standardize field audit issues and implement contract auditing recommendations and improvements from foreign partners. The event also provided insight into contract audit and how countries with host nation auditing agreements plan and conduct cost and pricing reviews.



#### NAGOYA, Japan June 9, 2017

The unveiling of the first F-35A Lightning II Joint Strike Fighter assembled in Japan marked the official acceptance by DCMA from Lockheed Martin and Japan's Mitsubishi Heavy Industries as part of the foreign military sales process.

Japan's assembly facility became the second fully operational international F-35 production facility after Italy's Cameri plant. DCMA's administration of the F-35 program involves more than 1,500 active global suppliers, making it the largest aircraft program in size and complexity.

Read about these stories and more at www.dcma.mil.





he jeep captured the hearts of World War II GIs with its seemingly endless utility and ability to navigate all terrains. Through fond memories, small- and silver-screen cameos, positive press coverage, and post-war civilian availability, the jeep earned its place within the American lexicon of legend.

Its replacement, the Humvee, made a splash in the early '90s as its imposing and brash appearance entered American homes each night through Gulf War media coverage. Its reputation was bolstered by a muscle-bound Austrian immigrant turned movie star, whose first glimpse of the four-wheeled beast literally created a big fan. Arnold Schwarzenegger was not alone in his adoration, as many civilians purchased the 6,000 pound behemoth when the H-1 hit the showroom.

Unlike the jeep, the Humvee's service member endearment burned more lukewarm than hot. As the vehicle's role expanded to the urban battlefield out of necessity, future engagements left its memory wanting.

In 2007, the Mine Resistant Ambush

Protected vehicle, or MRAP, began its role as a safer option for warfighters conducting patrols, convoy security and missions within Iraq. The Army, however, continued to hold discussions on a long-term Humvee replacement plan.

Four years later, Defense Contract Management Agency Milwaukee stepped out of its post-contract-award comfort zone and began an atypical role in the development of the Joint Light Tactical Vehicle — a partial-replacement program for the Humvee. According to Brad Lee, the DCMA Milwaukee program integrator for Oshkosh Programs, there are approximately 150,000 Humvees in all service inventories. The total buy for Oshkosh's JLTV is estimated at 55,000. Most of the vehicles will be delivered to the Army, with the Marine Corps receiving 5,500.

Much of DCMA's typical acquisition work currently begins once a contract is awarded to a company for production. With the JLTV, this was not the case.

"DCMA Milwaukee has been involved with the program since about February

2011," said Chuck Kiessling, DCMA Milwaukee deputy director. "Our team became involved during the engineering and manufacturing development phase, which is much sooner than we have been involved in other programs. DCMA was able to help shape the direction of our portion of the program, rather than having to make changes once the program was underway."

The JLTV has entered low rate initial production, which calls for roughly 17,000 vehicles. Reliability and maintainability testing is currently ongoing with the first fleet units scheduled to be delivered in December. This means the agency's Milwaukee team members are currently working within their standard program support role.

"I have read much about the program's development successes and it possibly being a model program for future defense contracts," said Kiessling. "DCMA's main contributions to this success have been our interaction, experience and advice to the Joint Program Office."

Lee agreed, and highlighted his team's

good working relationship with the JPO and the contractor as a positive factor. This collaboration led to a vehicle designed to better handle current and future battlefield dangers.

"The vehicle offers improved protection, payload and maneuverability," said Lee. "It provides MRAP-like protection but on a lighter, more agile frame. The JLTV is made to survive in hostile environments where roadside bombs, ambushes and other irregular threats might be prevalent. That was never the intent of the original Humvee."

Warfighter safety was considered a top priority from the program's onset. DCMA played a role and contributed to many of the drawing changes prior to the final configuration was locked in. Standing in front of an end product is much different than looking at a design on paper. Many are unaware—even some of those in the military—of what happens between design and delivery.

"The warfighter and general public see the final end-item, however there is a multitude of functions that go



Greg Schnell, a Defense Contract Management Agency Milwaukee quality assurance specialist, examines a Joint Light Tactical Vehicle, which will serve as a partial-replacement program for the Humvee. The agency began contributing to the JLTV program in the development phase. DCMA typically begins its work after contract award. DCMA photo by Thomas Perry

unseen yet materialize in a tangible product that affect the quality, timing and cost of the program," said Army Lt. Col. Chris Foster, DCMA Milwaukee commander. "The DCMA team conducts manufacturing process and compliance reviews, knowledge of automotive quality management such as the International Automotive Task Force

16949, Component First Article Tests, subcontractor surveillance, production timelines, shipment instructions and cost control. These activities ensure a reliable and cost-effective vehicle enters the warfighter's hands."

That handoff can take years. Agency team members will have provided JLTV support for nearly eight years prior to the



first vehicle reaching an operational status.

"Every day at DCMA can be challenging and rewarding," said Kelly Graef, a DCMA Milwaukee quality assurance specialist. "By working with the contractor to ensure that the product is made to the correct requirements and then testing the product is very rewarding. To actually see the vehicle go through the test track and the slopes is fun not only to witness but also to ride along. Walking through the manufacturing facilities and seeing these vehicles being built is really something."

Milwaukee manages the production schedule of five Oshkosh programs.

Although the JLTV program garners much of the outside attention as the newcomer, the DCMA team provides full support for the under-the-radar programs as well.

"We have oversight over all of the products that Oshkosh (Defense) makes," said Lee. "They make most of the trucks whether they're the heavy, medium or JLTV variant. We inspect for quality, and we have engineers here looking at their engineering designs and incorporation of change proposals. We have a contract team here performing receipt and review and closeouts. We really have a multi-functional team here to ensure the government is getting their bang for the buck."

That value is enhanced by the in-plant DCMA team that has years of experience managing vehicle contracts. They learn from their findings and ensure lessons learned are applied to all of their programs.

"Working within multiple programs ensures holistic understanding of the impact of all contractual requirements," said Foster. "By focusing on process control along with product inspection, DCMA creates a spectrum that identifies and prevents potential problems that reduces risk and unproductive activities, thus keeping vehicles produced on time and on budget."

For Kiessling, who has been with the agency and its predecessors for nearly 32 years, on time and on budget are doctrine.

"This never gets old," he said. "The DCMA Milwaukee family is an amazing organization, full of amazing people, doing amazing things. I have been fortunate to have worked with some of the best, most dedicated folks I have ever met, and Milwaukee has some of the greatest."



DCMA photo by Thomas Perry

"It's exciting to see this truck from conception, to build, to even getting better ... It's exciting to see that kind of cradle to grave program."

— Brad LeeDCMA Milwaukee program integrator

Some of that greatness can be credited to the entire team's unwavering commitment to excellence, said Kiessling. Some of it can also be contributed to the reason behind that commitment.

"Approximately 54 of the DCMA Milwaukee workforce are prior military," said Kiessling, who served in the Marine Corps. "I believe this increases their dedication to the warfighter, having been on that side of the supply chain. Our employees without direct military

experience are, of course, no less dedicated, and are given many opportunities to interface with current and past members of the military. That provides a great insight into what it is like to have been in the military, and how DCMA and their individual efforts contribute to the success of our military and its mission."

The team's current military members agree and understand the impact of delivering high-quality products to the warfighter. Particularly those forward deployed, where the quality of a product could be the difference between victory and defeat, between life and death.

"The most important contribution we make is ensuring the warfighter receives the weapons and equipment in a timely manner to defend our nation and achieve victory in battle," said Foster. "Many of us are, or were, warfighters, or may have family who are warfighters. We have tremendous pride knowing that we impact our nation's capability to defend our liberties."

It is clear the acquisition professionals of Milwaukee work as one unit to ensure the best possible product is delivered downrange. It is hard, complex work, and they take it seriously. That doesn't mean there isn't a little room for fun along the way.

"It's kind of cool playing with trucks," said Lee, while standing among a formation of JLTVs. "A lot of folks here have served and still serve — we have some reservists. So most people — myself included — look at it like an extension of our service. We're in the rear with the gear so to speak, but we are pushing forward some of the best products for our service members. So I think a lot of people are excited by the opportunity that we get to continue to serve long after our service — for me Navy — has ended."

Like so many aspects of life, endings often offer the hope of new beginnings. As the JLTV program matures and begins to enter full-rate production, the DCMA Milwaukee team will continue their product delivery mission, which began seven years ago in the development phase.

"It's exciting to see this truck from conception, to build, to even getting better with test findings being improved upon," said Lee. "It's exciting to see that kind of cradle-to-grave program."

## BALANCING COMMUNICATION

DCMA works closely with customers and defense contractors to maximize teamwork and collaboration to maintain on-time delivery schedules for items and services.

By Tonya Johnson, DCMA Public Affairs







"The tool allows us to prioritize our

workload and enable us to take a more

proactive approach to improving on-time

delivery and reduce our aging schedules,"

said Julie White, the industrial specialist

team leader. "We timely measure and

assess things we can control so that we

make changes as necessary. Enhanced

when interacting with our internal and

communication at DCMA Syracuse, the

contract management office has focused

on building better relationships with

"There has been enhanced

only within the manufacturing and

communication and collaboration, not

contracts groups, but with our various

and the Air Force, to establish a clear

said Wayne Wall, the Engineering and

Wall noted there were a couple of

the CMO's customers to improve OTD and

"We will approach and work with

DLA on a supplier with continual OTD

examples of enhanced collaboration with

business rhythm and expectations,"

Manufacturing group lead.

reduce delinquent schedules.

customers, including the Defense Logistics

Agency, Navy Supply Systems Command

continues to remain top priorities

In addition to enhanced

external customers."

communication and building relationships

efense Contract Management Agency Syracuse employees are continuing to look for ways to enhance communication with each other, customers and government contractors.

Collectively, DCMA employees believe in the agency's mission, "one team, one voice." As a way to increase on-time deliveries and to reduce aging schedules, teamwork is essential.

"Working together as a team allows our functional specialists to more clearly understand the lines of responsibility," said Correen Pounds, Contracts director. "At the same time, working collaboratively across functional areas to seek a resolution enables our manufacturing and contracts team members to develop more complete solutions that meet their respective needs."

The manufacturing and contracting teams decided to form a group of 10 employees dedicated to working on how to better synchronize and prioritize their workload in 2016. The team consisted of administration contracting officers, procurement technicians, industrial specialists and contract administrators. There were no supervisors or managers.

As a result of setting up the team, a cross-tasking tool was created assisting in prioritizing tasks that needed to be completed between manufacturing and

problems," said Wall. "We can request that DLA considers placing that supplier on their Defense Contractor Review List, also known as a DCRL. When DLA places the supplier on the DCRL, it stops automatic contract awards. This should slow down the DLA contracts awarded to that supplier.

"In addition, we have been

"In addition, we have been engaging with NAVSUP and the Air Force to revise repair order contractual language that otherwise would negatively affect our supplier's on-time delivery."

Workload prioritization and communication has also enabled DCMA Syracuse to help suppliers understand their roles and responsibilities when bidding on a contract as well as execution of it.

"Our approach is to bring all parties — DCMA, customers and suppliers — together to solve problems," said Pounds. "We work to address each party's concerns and find a feasible solution, whether their concerns stem from problematic contract language, or government or supplier delays, we're here to dig in and look for resolution."

As part of the effort to minimize delays, an industrial specialist and contract administrator visit higher volume suppliers each month. The monthly site visits allow agency personnel to assess potential problems in meeting the contract schedule and take proactive corrective actions as needed.

"During the monthly visits, we learn what's going on at the facility," said White. "Those visits allow us to gain valuable insight. Over time our personnel identify trends and causes for late deliveries such as in the production planning and control area and the inability to forecast or make the government aware they are not going to meet the contractual delivery date, which would trigger a Defense Priority Allocation System notification requirement."

According to White, the industrial specialist makes sure the contractor can meet contract requirements and suggest process improvement methods where applicable. Each industrial specialist engages with suppliers to ensure compliance to the contract and to make sure the warfighter gets timely product that is within budget.

"A late schedule is not always the supplier's fault," said White. "There are a variety of reasons suppliers may not meet their on-time delivery date, including government-caused delays. These delays could be assets not received for repair or late processing of a contract modification. The role of the industrial specialist is to assess all potential delinquencies and assist in proactive correction action for resolution. This proactive corrective action includes knowing when to escalate."

problems."

"Our approach is to bring all

parties — DCMA, customers and

suppliers — together to solve

Rigid contractual repair dates readily show up as delinquencies when assets are not consistently received in time to be repaired.

"If we are not able to modify the contract language, this is an ongoing problem," Wall stated. "A contractor had several repair order contracts that had defined delivery dates in them and they were not getting the assets in time to fulfill the contract requirements. We worked with the Air Force and NAVSUP to revise the contracts to align delivery dates to the repair turnaround time from the receipt of the asset. This ensured the supplier's monthly on-time delivery was not negatively impact when assets were not received from the government."

However, if a delivery issue is the supplier's fault, agency personnel have different approaches on how to solve the problem. Suppliers negatively affect the delivery schedule by using nonconforming parts or having limitations or deficiencies within the supplier's production planning or control system.

20 percent for more than 12 months," said White.

"The owner was bidding on every contract even when the owner knew the company couldn't deliver. DCMA staff went to meet with the owner to explain the expectations of delivery on the contract and the importance of on-time delivery. We explained that it was advantageous to the company to bid on contracts that it could definitely deliver on."

"In addition, as this supplier's primary workload was DLA, we were able to utilize their DCRL process to assist with supplier improvement," added White. "After following the process with DLA and the supplier being placed on the DCRL, we started to see great improvement in the supplier's on-time delivery. Currently they are maintaining a mid-to-high 90s percentage for on-time delivery. Working collaboratively with the buyer and supplier made this one of our success stories."

Pounds said teamwork in and outside of the agency has helped everyone remember to focus on the mission of providing for America's warfighters.

"Teamwork is critical, and our emphasis on 'one team, one voice,' has helped DCMA Syracuse to work smarter

and more collaboratively both internally across functions and externally across our customers and suppliers," she said.

"The key is our ongoing surveillance and a thorough root cause analysis by the supplier to correct the violation."

White said communicating and working with suppliers to understanding their contractual obligations is key to providing quality products and services to the agency's customers.

"One specific example of on-time delivery improvement at one of

— Coreen Pounds. DCMA Syracuse Contracts director

In certain situations, these issues may

result in a Corrective Action Report issued

to the supplier. A CAR documents when

contractual non-compliances are found at

a supplier's site. When suppliers are unable

to articulate to the government that they

are going to be late, DCMA has the ability

"It is kind of an early warning

indicator that there are problems with

internal communication, shop loading

or production planning," said White.

to issue a CAR.

"One specific example of on-time delivery improvement at one of our poorest performing supplier's had an average on-time delivery of





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Industry's technological evolution is reshaping DCMA's approach to quality assurance. The move from a hands-on assembly line approach to a universal data-driven system is expanding the roles of all agency team members.

By Stephen Hickok, DCMA Public Affairs

s Army Sgt. James Johnson takes his final step out of a C-130, his heartbeat accelerates, his adrenaline rushes and suddenly he feels weightless. Yet his mind remains steady as the aircraft disappears in the distance and his line opens. The riggers motto — "I will be sure, always" — plays over and over in his thoughts.

"My second time ever on an airplane, I was jumping out of it," Johnson said, pictured below holding a photograph of himself during his time as a paratrooper with the Army's 647th Quartermaster Company. His repeated training taught him to trust his gear.

"It's not a feeling you're used to," he said. "But just going through our training and inspections, and knowing the work quality assurance specialists do for service members, increases our trust during the leap of faith into the open breeze."

Now, after 16 years as a paratrooper, Johnson works as a QA specialist with the Defense Contract Management Agency in Santa Ana, California, overseeing production of the parachutes his fellow soldiers trust their lives to.

"I still actually have brothers in arms

"If you take a major program and look at those three indicators of cost, delivery, quality — if one of them is in the red, it's going to impact the others."

Michael Shields
 DCMA executive director of Quality Assurance

from the rigging field and talk with quite a few paratroopers and skydivers," he said. "They're ecstatic they have somebody that knows their job doing quality assurance."

Johnson is part of a crucial step in the process of product delivery. He, along with 35 percent of the agency's 12,000-plus employees, is a QA professional ensuring the equipment contractors build for the

government will perform as designed.

Over time, not much has changed in the function of a parachute, like much of the Department of Defense's product inventory, it has a singular purpose. But as manufacturing technology and industry evolve, QAs like Johnson are changing the way they perform their jobs.

"Historically, a typical day for QA work at DCMA involved inspecting products when the contractor was done with them," said Amy Ramey, a QA team lead with DCMA Los Angeles. "A government source inspection was requested, the QA would go to the facility and take measurements, check certifications and make sure everything was fulfilled to the contract."

Before DCMA, Ramey worked in aircraft operations as an Air Force master sergeant, and like Johnson, she experienced the importance of DCMA first hand.

"One of my responsibilities was to ensure aircraft took off on time and mission requirements were fulfilled," she said. "I coordinated with maintenance and logistics personnel to make sure maintenance was completed and they



Army photo by Gertrud Zach



had the parts they needed to maintain the aircraft. Often the parts that made it from manufacturer to the field were not quality parts and they had to be sent back and that directly hindered the mission."

Much like her work in the Air Force, Ramey said DCMA's old process worked, but if issues were found, it was too late to fix them. "What we discovered at that point is if we did find any issues, it's too late in the game," she said. "We need to find the issues while the parts are being made."

The fact that it is too late to detect deficiencies at the end of the assembly line is part of a major shift in the role of QA specialists and the agency as a whole.

DCMA Executive Director of Quality Assurance Michael Shields explained the core parts of DCMA's mission — cost, delivery and quality — are interdependent.

"Our focus is always on — first-andforemost — out at the very edge, taking care of the warfighter," Shields said. "What do we need to get to them? How fast does it need to get out there? And what is the quality level? That's number one. Number two, as stewards of the taxpayer's money, we need to make sure we're doing it at the best cost and price."

To illustrate the interdependency, Shields explained that if a product worth \$10 is underbid by a contractor willing to make it for \$5, that could affect the quality. Likewise, if there are failures in the manufacturing process, that may affect the cost. And finally, if there are problems with a contractor's supplier it could affect delivery.

"They're strongly interrelated, they always have been, but for some reason, traditionally people have looked at those as separate elements," Shields said. "If you take a major program and look at those three indicators of cost, delivery, quality — if one of them is in the red, it's going to impact the other ones in some way, shape or form."

Another cause for the shift is in response to advancements in technology and industry, to which Shields uses the TV show "American Chopper" for comparison.

"When they're making these bikes, all of the design is done in the office," he said. "When you go out to the shop, it's being formed on a machine. There are no variables in the cutting. The only variables are: Is it the right aluminum? Yes. Is it in the jig the right way? Yes. Is the tool sharp? Yes. Everything else is generated by the machine based off the design in the computer."

The amount of variables in manufacturing that required hands-on inspection at the end of the assembly line have greatly reduced, according to Shields. "Additive manufacturing is coming on board now, manufacturing machining has gotten better, people are getting trained a lot more, the welding processes are a lot better — so the manufacturing capabilities have gotten a lot better and that has helped us to transition from a lot of inspection oversight to oversight of the data," he said.

For QA specialists, the transition is better known as detection to prevention, or D2P.

"This is a major paradigm shift, we don't drive around with a truck full of hand tools and do independent inspections," Shields said. "Moving to D2P we're interested in what their systems look like and whether their processes are capable of meeting the design

requirements. That's where we focus in because that's how we prevent defects from happening."

"It's something we do every day," said Johnson. "We're always trying to prevent a non-conformance and to iron out the process so if we do detect anything we now have insight into what to look forward to next."

Johnson said the detection then rolls naturally into preventing continued mistakes throughout production allowing the QA specialists focus to shift deeper into the processes.

That shift has changed the type of work QA's perform, Ramey added. "What we've done as QA representatives is increase our surveillance with process reviews of whatever the contractors manufacturing processes are and then decrease the product examinations at the end," she said.

But with the focus further up the assembly line, Johnson and Ramey face another challenge — stepping on toes.

"Years ago, nobody talked about multi-tasking," Shields said. "This is your box, this is what you do, here's where you stay. Don't look to the left or right, this is what you do. We can't survive in that environment anymore."

Every functional area across DCMA is adjusting their processes to support the exchange of information according to Shields. "It's now — okay, here's my piece of this mission, of this business process," he said. "What do I need to have from other people to be more efficient and effective and who needs that information to do their part of the mission more efficient and effective?"

Shields and Ramey see the new business process as a puzzle. "Maybe a good way to look at it would be to say, we've got great puzzle pieces, really good puzzle pieces," Shields said. "What we're trying to do now is put those puzzle pieces together to give us a better holistic view of what's going on and how we service the department and our warfighters."

Ramey sees the change as adopting a full-team concept. "Quality is just one piece of the big puzzle," she said. "QA works directly with other functions in the agency such as industrial specialists, property managers, contracting officers and engineers. We all work together to ensure the contractor is delivering a

good quality product to the customer in a timely manner and that is our sole purpose."

Everything the agency sees is important to the service program offices, according to Shields. "What's of value to them? It's all that information," he said. "How to better manage big data and how to collect it and what the relationship is between that data — we need to know these things. The opportunities are wonderful if you think about how we'll prepare our workforce for the 21st century — for the next 25 or 30 years. Think about the rate of change now. We need to build a learning organization that's agile and flexible to react to a lot of these changes."

The data gathered from QA specialists, like Johnson and Ramey, will shape the future of DCMA and the ability of the DoD to purchase quality products, but for now, Johnson focuses on the task at hand.

Each time a task is completed, he asks himself one simple question. "Would I jump with this chute? That's the bottom line. If I wouldn't feel safe leaving the bird with it, I don't want to give it to anybody else."





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Navy Cmdr. James Wong DCMA Boeing St. Louis ICAT member

"We enable the final acceptance and delivery of critical services, sustainment and systems to America's armed forces and foreign military sales customers. We provide value via critical insight and support, earned value management, cost and pricing analysis, and contract close-out to our customers."



Erin Babcock

DCMA Hampton, Va., administrative contracting officer

"I provide actionable acquisition insight to DoD by providing practical, on-the-ground feedback to buying commands about the business systems and practices of federal contractors with which they are doing business."



Dean Cowart

DCMA Atlanta quality assurance specialist

"As a QAS, you are the last line of defense to ensure warfighters have quality products to complete their mission safely. You are closing the circle of the products' life cycle."



Kim Poindexter

DCMA Garden City, N.Y., mission support office chief

"At DCMA we are helping to ensure the acquisition process works efficiently and effectively to provide combat logistical support to our military commands around the world."



DeVonn Fray

DCMA Lockheed Martin Marietta, Ga., administrative contracting officer and contingency response force representative

"Working on both the front line and on the factory floor, I get to work alongside our troops determining their needs as well as alongside our contractors ensuring they provide the right services and equipment our military members need to accomplish the mission."