DEFENSE LOGISTICS AGENCY

LOGLINES

The Nation's Logistics Combat Support Agency

Volume 2025, Issue 2

AGILE LOGISTICS FOR A CHANGING WORLD

INSIDE DLA'S DIGITAL STRATEGY

SHARPENING THE ACQUISITION EDGE

A CONVERSATION WITH DLA WEAPONS SUPPORT

Leadership discusses the newly integrated Major Subordinate Command

DLA White Papers

- Shifting the Logistics Paradigm
- Modernization of the Distribution Network
- Reutilization as a Source of Supply

Wargaming the Future

Assassin's Mace 2025

Maintaining First Impressions

Logistics team essential to military clothing supply

WARFIGHTER ALWAYS!

Army Lt. Gen. Mark T. Simerly
Director, Defense Logistics Agency

LOGLINES

THE OFFICIAL FLAGSHIP PUBLICATION OF THE DEFENSE LOGISTICS AGENCY

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THE DIRECTOR'S MESSAGE

Welcome to the latest edition of Loglines, DLA's professional journal showcasing defense logistics in a complex, contested, and constantly evolving global environment.

The theme for this issue, "Agile Logistics for a Changing World," reflects the transformation underway across our agency – how we prepare, how we adapt, and how we rise to meet the challenges ahead. We are moving beyond legacy frameworks into a modern era, harnessing advanced tools to forecast demand, streamline operations, and strengthen sustainment.

As the joint force evolves, DLA evolves with it – exercising, rehearsing, validating, and sharpening our ability to respond to any threat. We understand the potential for conflict. Whether that moment arrives or not, we must be ready to support the joint force as they protect our national interests around the world.

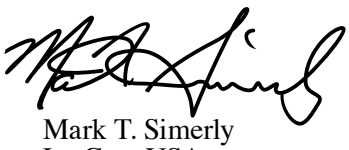
As we sharpen our ability to operate at the speed of war, this edition of Loglines turns to the stories that illustrate how DLA is preparing for the future fight. We begin with a look at the Assassin's Mace wargame, where the agency's agility and adaptability was tested in contested environments and complex scenarios. The issue continues with a discussion featuring the commanders of DLA Weapons Support, who explain how aviation, land, and maritime supply chains are being brought together under one cohesive command. We continue with features on the Digital First campaign, and the DLA expeditionary teams supporting Warfighters and humanitarian missions around the globe.

Other articles highlight the 250th anniversaries of the Army, Navy, and Marine Corps, as well as DLA Troop Support's innovative approaches to increase efficiency in the clothing & textiles supply chain. Finally, a series of white papers explores emerging concepts – from tactical energy storage and machine learning to contested logistics truths – that will shape how we deliver sustainment in the years ahead.

From modernization efforts to lessons from history, this issue underscores DLA's role as the backbone of military sustainment – fueling readiness, innovation, and adaptability for a changing world.

Agile – that's the word I want to leave you with. Because agility defines how DLA sustains the fight and secures the future.

Warfighter Always!



Mark T. Simerly
Lt. Gen, USA
Director, DLA

Mission: Loglines' mission is to publish timely, accurate information about how the Defense Logistics Agency, as the nation's logistics combat support agency, delivers agile logistics support in all domains during peace and war. It provides a forum for agency employees, military and industry customers, defense professionals and the Joint Logistics Enterprise to learn about DLA's vision, operating principles and imperatives to provide global logistics solutions in support of the military services along with the combatant commands, other federal agencies, and partner and allied nations.

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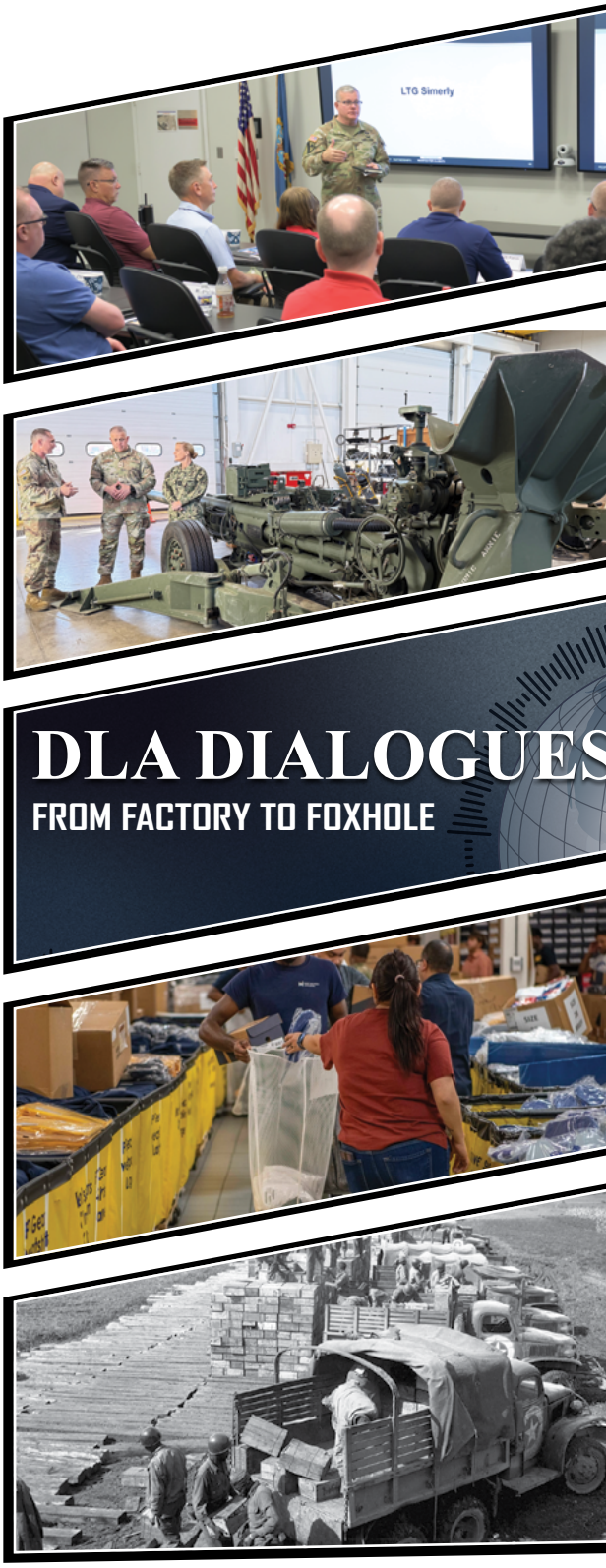


Photo by Chris Lynch

Wargaming the future to Sharpen Readiness

Defense Logistics Agency Director Army Lt. Gen. Mark Simerly provides opening remarks to DLA senior leaders participating in the Assassin's Mace wargame at the McNamara Headquarters Complex on Fort Belvoir, Virginia, in August 2025.

By Kathleen T. Rhem, DLA Public Affairs

In a world of evolving threats, the Defense Logistics Agency is using creative ways to prepare for future conflicts – one of those is wargaming. Earlier this year, DLA conducted a wargame exercise as part of its Campaign of Learning. Dubbed "Assassin's Mace," the tabletop wargame focused on a notional future conflict involving China and Taiwan.

The three-day event in August pushed senior DLA leaders to prepare for disaster while confronting complex logistical challenges in a contested environment.

"This is really about helping us understand and respond to the future writ large," DLA Director Army Lt. Gen. Mark Simerly told participants during opening remarks, emphasizing the exercise's strategic foresight.

Confronting logistical realities

Assassin's Mace placed DLA senior leaders in the roles of both the Red Team, representing China, and Blue Team, representing the U.S. and its allies, forcing them to grapple with real-world scenarios like attacks on key logistics hubs and possible challenges in sustaining forces across vast distances. A total of 28 DLA leaders participated in the wargame at DLA Headquarters, including major subordinate command and HQ staff leaders.

Even seasoned experts were confronted with the sheer scale of a potential future fight as laid out in the wargame. The exercise caused some participants to reevaluate assumptions and underscored the need for innovative solutions.

Eric Gray, a retired Marine with extensive experience in the Pacific theater, admitted that even with his background, the scale of potential casualties was sobering.

"I realized that my preconceived notion of certain numbers in place was far lower than what the reality of this (would) be," said Gray, who was chief of staff for DLA Information Operations at the time of the exercise. "I realized my ideas were not as wide as I thought they were."

Air Force Col. Matt York, executive director of DLA's Nuclear and Space Enterprise Support

Office, served as the agency's lead coordinator for Assassin's Mace. He noted many participants were surprised by the potential scope and scale of costs in people and resources of such a fight.

"This wargame really brought home for many leaders how DLA needs to be prepared to support warfighters sooner and at greater scale in harder to reach locations than we've been accustomed to," he said.

The human element

The exercise revealed that logistical challenges in such a conflict are likely to extend far beyond the physical movement of supplies.

"Decision latency repeatedly outpaced supply latency," noted Charles Barber, DLA's director of human resources.

The wargame highlighted the importance of empowering personnel with pre-delegated authorities and trained alternates, fostering adaptability and resilience in degraded conditions, Barber said.

"In a fight, logistics doesn't just move supplies; it moves decisions and trust," he emphasized.

Beyond broadening leaders' imagination about contested logistics, the wargame fostered camaraderie and teamwork among participants.

"We have a lot of new leaders in the agency now, and many of them were in the room during this event, so they had a chance to bond and get to know each other over a little less-official way to do business," Gray explained.

Lessons learned

York explained the wargame provided a vital rehearsal and a safe environment to identify vulnerabilities and refine responses to complex disruptions.

"Our biggest objective was to showcase the value of wargaming to the agency's senior leaders," he said.

> "IN A FIGHT, LOGISTICS DOESN'T JUST MOVE SUPPLIES; IT MOVES DECISIONS AND TRUST."
>
> — CHARLES BARBER

Based on comments in multiple after-action-review sessions, Assassin's Mace accomplished just that, revealing both strengths and weaknesses under pressure, York said.

For Barber, the impetus behind Assassin's Mace was simple: plans are only as good as the rehearsals that support them.

"We don't rise to the level of our plans; we fall to the level of our rehearsals," he said. "That combination revealed where our processes are crisp and where they stall under stress."

Simerly emphasized that exercises like Assassin's Mace underscore the importance of interoperability and coordination.

"We think about interoperability in the sense of joint interoperability, but also allies and partner interoperability, and then what that means from a human, technical and procedural standpoint," he said in an AAR session. "We are ensuring that we've got the ability to operate."

He added that the wargame exposed opportunities for innovation and adaptation.

Participation in the wargame wasn't limited to seasoned military personnel. DLA's chief of staff, Karyn Runstrom, is a career civil servant. She offered a candid reaction to the exercise.

"I came into this, I have no military experience, and when I was

Facilitators from the National Defense University's Center for Applied and Strategic Learning assist Defense Logistics Agency senior leaders in executing strategic decisions during the Assassin's Mace wargame. The wargame simulated a notional future conflict involving China and Taiwan.

Photo by Chris Lynch

hearing about it, first, I was like, 'Oh, Lord, what am I getting myself into?'" she said. "Coming into this room, it was very overwhelming for me, and I felt like I was behind the power curve."

However, Runstrom said her experience quickly evolved into a valuable learning opportunity, and at the end of the three-day effort, she was awarded the "Captain America" award for "outstanding U.S. and allied contributions" to the simulated battles.

"This war game gave me a better understanding of how DLA really does fit into the contested operations," she said.

Runstrom noted the simulated loss of a distribution center sparked crucial conversations about resilience and redundancy. It prompted discussions on how to prioritize recovery efforts and coordinate with other organizations.

Learning partners

DLA leaders universally praised assistance the agency received from facilitators with the National Defense University's Center for Applied and Strategic Learning, who oversaw and proctored the wargame. This included providing read-ahead materials and educational sessions with participants before the wargame started.

"Our CASL facilitators were the 'X' factor that made the event a success," York said.

Simerly expressed his admiration for how the CASL team made the wargame possible by guiding participants through decision making and helping them understand the probable outcomes of those decisions. He complimented the complexity of the exercise and the depth of the scenario and how it represented various instruments of power.

Air Force Maj. Gen. David Sanford, DLA's director of logistics operations, noted the CASL team was a tremendous help to this DLA effort despite not being logistics professionals themselves.

Photo by Chris Lynch

Defense Logistics Agency senior leaders participating in the Assassin's Mace wargame familiarize themselves with the elements of game play with assistance from facilitators. The wargame took place at DLA Headquarters over three days in August 2025.

"This is the one of the first times that a logistics enterprise has asked them to come and help teach us both how to conduct operations, employ forces, drive the employment of a force – not just the deployment, but the employment side too – so we can learn from that," Sanford said.

He added the team from CASL will help DLA develop logistics-centered wargames in the future. DLA plans to integrate wargaming into existing processes, collaborate with industry partners, and focus on specific functions within the agency under the umbrella of its ongoing Campaign of Learning.

Commitment to the warfighter

Above all, the wargame affirmed the professionalism and ingenuity of DLA leaders and key personnel, Barber said.

"This highlighted the need to equip leaders with clear authorities and to take care of families so the agency's teams can do extraordinary things under pressure," he said.

Simerly said the three-day event cemented the benefits of DLA participating in events such as this wargame.

"Some might be surprised that DLA leadership was spending their time on this, exploring the tactical and strategic operational elements of this potential fight," the director noted in an after-action session. "I don't think anybody would be surprised, though, when we explained to them we have an interest in this because we're key to sustaining that fight. The things that we do today – the things that we're doing every day between now and then – are really essential for setting conditions for victory for our nation and for our partners."

Photo by Nutan Chada

Sgt. 1st Class William Allen, left, with the Ohio Army National Guard's Combined Support Maintenance Shop talks with Air Force Brig. Gen. Patrick Launey, commander of DLA Weapons Support (Richmond) and Navy Rear Adm. Julie Treanor, commander of DLA Weapons Support (Columbus), during a visit to the shop Oct. 27, 2025. The 47,000-square-foot facility located on Defense Supply Center Columbus maintains and repairs military equipment for all 155 Ohio Army National Guard units statewide, ensuring mission readiness.

A Conversation with the leaders of DLA Weapons Support

The Defense Logistics Agency stood up a new major subordinate command dedicated to supplying spare and repair parts to the military services Oct. 1, 2025. DLA Weapons Support integrates the missions of DLA Aviation and DLA Land and Maritime into a single unified command responsible for weapon systems support to the joint force. The new MSC will operate across the two existing locations at Defense Supply Center Columbus in Ohio, and Defense Supply Center Richmond in Virginia. The transition will continue over the next year.

In this interview, the new MSC's leaders talk about the transformation, what it means for the agency, employees and warfighters, and what stakeholders can expect.

What was the driving vision behind integrating DLA Land and Maritime and DLA Aviation into DLA Weapons Support?

Navy Rear Adm. Julie Treanor, commander of DLA Weapons Support (Columbus):

This is a purpose-driven transformation to improve warfighter support. As two individual agencies, we have been operating at an exceptional level, but we do very much the same thing in the Class IX (repair parts) space. We're aligning how we do our business, taking advantage of best-in-breed practices with a goal of standardizing efficient and effective ways to do that. We aim to organize our teams in a manner more directly aligned to specific weapon systems and service operations, ultimately providing the warfighter more cost effective, more rapid and improved support.

What do you want to tell the employees at DLA Weapons Support about this transition?

Treanor:

Employees should know that we absolutely understand that change can be difficult and there might be questions about the way ahead. We want to assure them that we are patiently, technically and tactically reviewing exactly what the opportunities might be, and we are actively synchronizing them in a way that will cause the least amount of disruption. We want them to know that we are thinking of them first in the design. Since the outset, we've been identifying exactly how employees feel, and we will continuously assess how they continue to feel throughout our transformation.

We owe them education and information. They have a voice in this conversation. They are really the lethality that is DLA Weapons Support when it ultimately is formed at our final operating capability date of Oct. 1, 2026. They are at the heart of this, and they will remain in that place. Every single member, wherever they reside, is a key player in our success.

Army Brig. Gen. Patrick Launey commander of DLA Weapons Support (Richmond):

When we consider our amazing workforce, we look at the multiple years – decades in some cases – of experience that our workforce has. This is an opportunity to take the best-of-the-best in terms of method, process and ideas, harness the level of expertise and acumen they have and combine them to make us even stronger. We owe that to our warfighters and to our suppliers.

For anyone, change can be challenging, intimidating, a little scary and frustrating. It drives a lot of questions. As we are going through this change, it's critical to focus on our workforce. This is an opportunity for our workforce to stand up and identify some key areas where we could be getting better. We need their feedback.

Photo by Stefanie Hauck

Defense Logistics Agency Weapons Support (Columbus) Commander Navy Rear Adm. Julie Treanor and DLA Weapons Support (Richmond) Commander Air Force Brig. Gen. Patrick Launey lead the major subordinate command's first joint supervisors' call Oct. 27. The event, hosted in the Operations Center Auditorium on Defense Supply Center Columbus and livestreamed at the Lotts Conference Center on Defense Supply Center Richmond, signaled greater collaboration and shared purpose as the organization moves forward.

What's the message that you want to share with DLA's industry, stakeholders and customers about the new MSC?

Launey:

Our priority is to optimize what we already do. For example, in terms of forecasting demand, we have the opportunity to provide something that's more accurate and more consistent. If we're able to send a more consistent demand signal to suppliers and give them the opportunity to do their planning, shorten lead times and get things faster, then we have a warfighter who is more ready and more lethal if deterrence fails. Then they can go take care of what they need to on the battlefield.

Treanor:

What we want industry to know is that you will not see any rapid change in the way in which we do business today. What we hope to achieve in this redesign is the opportunity to more routinely, technically and tactically have conversations and a presence that allows us to integrate on shared risks, better optimize the demand signals, better communicate demand signals to ensure that there's stability, the ability to forecast, and more precisely optimize both workforce's capacities when and if we need to partner.

What are the strategic benefits of having one MSC?

Launey:

It gives us an opportunity to increase the use of our precision to make good decisions in terms of funding or prioritization. It also gives us an opportunity to streamline our processes and get after reducing redundancies. There are a lot of better opportunities available to prioritize our resources and take care of our people, and, most importantly, that should all culminate in making sure that we're bringing a better product to the warfighters.

What excites you about this transformational change?

Treanor:

What excites me most about this is the honor of being here to lead with Brig. Gen. Launey and to lead these two exceptional teams. I have worked alongside DLA for many years, and I have been a beneficiary of the exceptional support that it provides. It is a culture whose very foundation really is pinned to trust, discipline and commitment to the mission. We are a culture of people who, when unified, are ready for any challenge. We hold ourselves accountable to our performance.

We value outcomes more than we value just activities for activities' sake. We are a partner that the warfighter

Floyd Moore, right, engineering directorate director for Defense Logistics Agency Weapons Support (Richmond), leads a video teleconference group discussion about partnering with new Weapons Support colleagues Nov. 13, 2025, at Defense Supply Center Richmond.

Photo by Nutan Chada

Defense Logistics Agency Weapons Support (Columbus) supervisors join their Richmond counterparts for the major subordinate command's first joint supervisors' call Oct. 27, 2025. DLA Weapons Support (Columbus) Commander Navy Rear Adm. Julie Treanor and DLA Weapons Support (Richmond) Commander Air Force Brig. Gen. Patrick Launey lead the event in the Operations Center Auditorium on Defense Supply Center Columbus, which is also livestreamed to the Lotts Conference Center on Defense Supply Center Richmond.

Photo by Stefanie Hauck

can lean on and turn to at the time of need. It excites me to have the opportunity to do this, but also to do it well. We are always aware that the fundamental element of our success is the people who work inside our agency, and we're going to continue to hold true to that. To walk alongside them, and work with them and work for them in seeing this through, that's what excites me the most.

What else can you say about this initiative or this transformation and how it ties into DLA's Strategic Plan?

Treanor:

This transformation directly aligns with DLA's strategic plan for 2025-2030. It also aligns with the Secretary of War's priorities to optimize our warfighter support in a cost-efficient and cost-effective manner. The opportunity to align better enables our workforce to support our warfighters who are out and about every single day. It also allows us to move and to change at a rate that keeps pace with the battlefield, with the ever-evolving technologies, and with our near-peer competitors who are also making their own changes. It is imperative that we continue to evolve, and that's what this is – a strategic evolution designed to improve warfighter support.

Is there anything else you'd like to add?

Treanor:

I'd like to say to the employees that to achieve our success and our ultimate mission of improving warfighter support, we must maintain and build upon the very foundation of our success that got us here today. So, it is a dual-fronted challenge to maintain the support we provide while we seamlessly transform and achieve our future objective of evermore improvement. DLA, as an agency, has a history of change. We're built to change and built to last. That's exactly what we are doing, and we're doing it with the right team members on our side to do it well.

Launey:

What I would say to every single member of the agency, and particularly within our commands, is thank you. What you do every single day matters, not just to the agency but it matters to our warfighters. It truly matters to the defense of our nation.

When you think that in this very moment, there's an Airman, a Soldier, a Sailor, a Guardian or a Marine conducting a mission in whatever domain or area they are in. Whatever the risk or danger, they're going to come back safely. They're going to take a break, probably eat some chow, do some more work, and get after it the next day and continue the mission.

They're going to do that until they redeploy, and then they're going to go home safely to their families. They're going to be able to do that because days ago, weeks ago, months ago or maybe even a year or two ago, multiple people in this agency did their jobs amazingly well and set them up for success. I don't do that as the commander. Our employees do that. I couldn't be prouder of our team across DLA and within the commands.

Editor's Note: These interviews have been edited for clarity and length.

Photo by Dorie Heyer

LEADing the future of logistics: Inside DLA's Digital Strategy

By Michael Molinaro, DLA Information Operations Communications

The Defense Logistics Agency is the backbone of military sustainment, providing troops around the world with everything from fuel and food to spare parts and medical supplies. With a mission so vast, DLA can't afford to fall behind when it comes to technology.

Released in December 2024, DLA's Digital Strategy 2025 - 2030 is a roadmap for transformation, aligning with the Pentagon's priorities and the National Defense Strategy. It strengthens DLA's ability to improve efficiency, align technology with business goals and deliver greater value to the warfighter, workforce, customers and partners.

This digital-first strategy emphasizes precision—getting the right material to the right place at the right time, using every tool available. DLA is building a connected enterprise that integrates technology, data, people and processes to strengthen effectiveness and agility.

The agency's digital strategy is built on four pillars:

1. Leverage a digital-ready workforce
2. Enhance information technology governance
3. Advance a global digital ecosystem
4. Drive data and analytics.

Together, these efforts, known by the acronym LEAD, form the foundation for how DLA will support the joint force in the digital age.

Defense Logistics Agency Vice Director Brad Bunn is briefed on Automated Guided Vehicle modernization efforts during a tour of the Eastern Distribution Center at DLA Distribution Susquehanna, Pennsylvania, as part of a visit to DLA Distribution headquarters Aug. 21, 2025, where he also received a comprehensive update on the agency's strategic initiatives and employee contributions.

"Meeting the objectives in this strategy is critical to DLA's future," said Adarryl Roberts, DLA's Chief Information Officer. "We must stay relevant by continuously modernizing our IT environment and embracing digital concepts to retain an advantage in contested logistics environments. By leveraging data analytics, automation and innovative thinking, we remain at the forefront

of logistical excellence, ensuring the warfighter is equipped to succeed in an ever-evolving landscape."

A workforce built for the future

The first part of the strategy focuses on people. DLA leaders have said that technology is only as effective as the workforce behind it. The agency is investing in training to improve data acumen, giving employees the skills to use digital tools and artificial intelligence in their daily work.

"Digital transformation is as much about people as it is about technology. If the staff isn't on board, the whole thing falls apart," Roberts said.

For employees, the digital strategy means better tools, less repetitive work and more opportunities to apply critical thinking, Roberts said. Whether through robotic process automations, data dashboards or AI-enabled decision aids, the workforce is shifting from manual processing to mission-focused problem solving.

Director Army Lt. Gen. Mark Simerly describes this as "setting the globe"—making sure logistics capabilities are ready not just in the United States, but in key regions like the Indo-Pacific.

"It's about positioning material, supplies, people, and capabilities where they matter most," Bunn said. "It's also about building resilience in the industrial base and using innovative methods so we can respond faster—whether it's fuel, food or repair parts."

DLA is simplifying and modernizing its information technology environment. Over the last six years, the agency eliminated redundancy and reduced its information technology asset inventory by 90%, from 1,200 to 114 systems. Legacy systems are being upgraded or replaced. The current core environment, SAP Enterprise Resource Planning Central Component, will reach end of life in 2027. To prepare, the Enterprise Resource Planning Transformation Team is migrating systems to the cloud. They're also conducting business process reengineering and planning the phased transition to standard SAP before 2027.

Robotic process automation is also changing the way work gets done. DLA now runs nearly 200 automations—some operating 24/7 without human error—returning an estimated 300,000 work hours each year. With a dedicated RPA Center of Excellence, the agency plans to

> "IT'S VITAL THAT OUR STAFF HAVE THE SKILLS TO TAKE FULL ADVANTAGE OF EMERGING TECHNOLOGIES LIKE AUTOMATION AND AI."
>
> — BRAD BUNN

The strategy is designed to evolve, with key performance indicators aligned to the DLA Strategic Plan and a phased approach to AI adoption. To build an agile and digitally resilient workforce, DLA is implementing the Sourcing Talent and Technology Framework to attract and retain employees with advanced digital skills.

"It's vital that our staff have the skills to take full advantage of emerging technologies like automation and AI," DLA Vice Director Brad Bunn said during an interview with Federal News Network in September. "We're reinvigorating a culture of innovation to empower employees to adopt and apply these technologies. Through data acumen training, our workforce is refining analytical, critical and design-thinking skills while also considering the ethical implications of AI. This sets the stage for success across all digital strategy objectives."

For military customers, the benefits are:

- Real-time visibility into inventory and order status.
- Faster, more accurate forecasting to reduce shortages and back orders.
- Stronger cyber defenses across the supply chain.
- Improved global positioning of supplies to ensure readiness anywhere in the world.

DLA is also adopting commercial best practices. New warehouse management systems will function more like Amazon's fulfillment centers, providing real-time tracking and smoother supplier integration, Bunn said.

A global digital ecosystem

As a combat support agency, DLA delivers worldwide. That means ensuring networks, systems, and data are reliable, resilient and secure. DLA

maintain 20% annual growth while meeting cybersecurity and audit standards.

Roberts said DLA is also exploring automated inventory management through Automatic Identification Technology solutions. This capability could significantly improve how the agency performs inventory tracking by linking automation with its Warehouse Management System. Requirements are still being developed for the effort, but it represents the next step in connected logistics. This kind of automation depends on data integrity and secure access—much of which resides in industry—reinforcing the importance of strong partnerships.

Cognitive AI will soon accelerate decision making even further. It can help with surfacing insights, detecting anomalies and synthesizing complex information for audit and analysis.

DLA is modernizing its global supply chains to create a common digital thread from factory to foxhole. This integrated approach—spanning 46 states and 28 countries—improves inventory visibility, enhances cybersecurity and mitigates disruptions. Applying AI and improving demand forecasting are challenges in this effort.

"We are prioritizing speed, precision and mission impact over legacy structures and processes," Simerly said in a July message to the DLA workforce. "Transforming and modernizing our IT environment provides real-time access to engineering data, reduced lead times, a streamlined ordering platform, shipment tracking and a supplier portal for solicitation and response."

Data and AI as mission enablers

Data and AI are mission enablers at the heart of the digital strategy. With millions of items in motion, the ability to rapidly analyze and act on information is essential, Roberts said. DLA is using AI for predictive maintenance to repair equipment before it fails to reduce downtime.

"We are embracing AI as a cornerstone of our digital strategy," Simerly said at DLA's Industry Collider Day in September. "We already have about 56 AI models in development, testing or use—all from employee-generated ideas."

This bottom-up approach empowers "citizen developers"—employees who understand their challenges best—to design digital solutions. This ensures tools meet real mission needs.

"So much of what we do is about understanding customer requirements and buying ahead of that need," Bunn said. "The better we can forecast, the better we can signal industry. That's a game changer for us."

The new AI and Analytics Center of Excellence helps DLA turn data into decisions faster and apply AI responsibly.

"DLA is investing in a flexible AI architecture designed for interoperability," Roberts said. "Our new DLA Connect platform simplifies access to AI tools and improves the overall user experience."

"AI isn't about replacing people—it's about empowering smarter decisions, reducing back orders, and giving Warfighters what they need, when they need it," he added.

The path forward

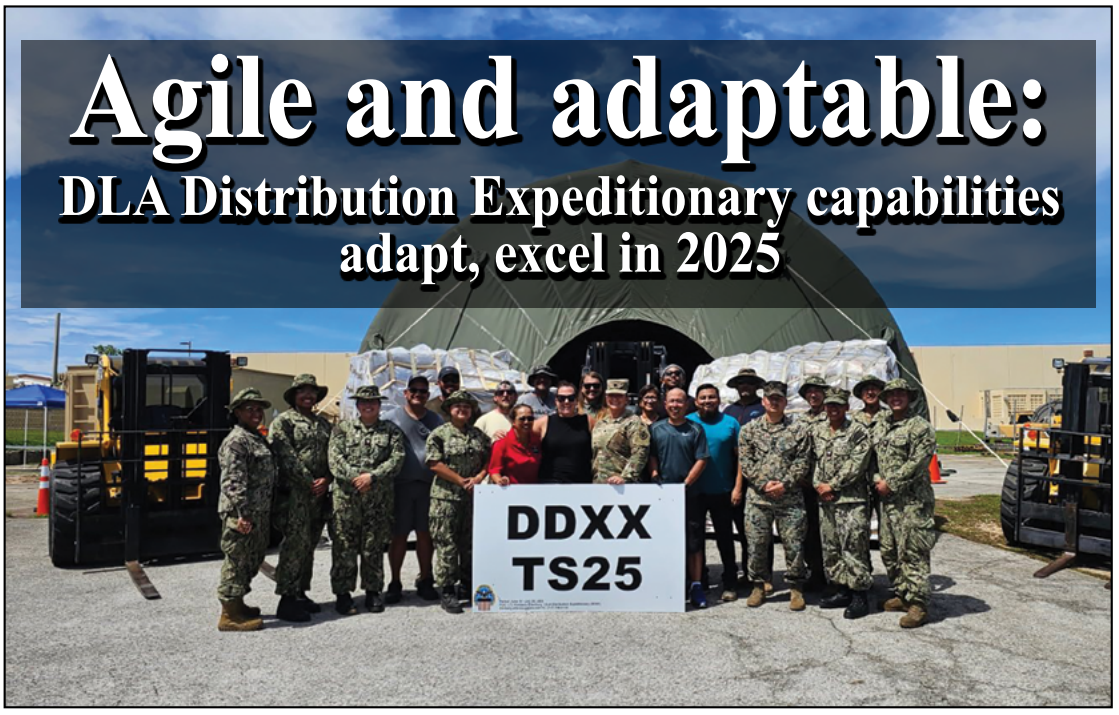
DLA's mission remains the same: to serve as the Nation's Logistics Combat Support Agency. How it accomplishes that mission, however, is changing rapidly. By embracing a digital-first mindset, investing in its workforce, and modernizing its systems, DLA is ensuring that when the warfighter calls, the answer will be ready, reliable and resilient.

Department of War photo

Defense Logistics Agency Distribution Europe Theater Consolidated Shipping Point employees prepare for an outbound transportation as part of the implementation of warehouse management system at the distribution center located in Germersheim, Germany.

Agile and adaptable:

DLA Distribution Expeditionary capabilities adapt, excel in 2025



Department of War photo

Defense Logistics Agency Distribution Expeditionary personnel establish and operate a material processing center at Andersen Air Force Base, Guam, to provide support to Talisman Sabre 25. The exercise is the Unites States' largest military exercise with Australia that provides a platform for strengthening relationships and interoperability among allies and partners.

By DLA Distribution Public Affairs

In an era marked by rapidly evolving technology and contested logistics, Defense Logistics Agency Distribution Expeditionary capabilities enable warfighter readiness, multinational exercise support and humanitarian assistance.

More than 450 active-duty service members, joint reserve forces and civilian personnel compose the DLA Distribution Expeditionary capability. Over the past 12 months, they've provided adaptable logistics support from the Indo-Pacific and Europe to the homeland. Whether establishing forward-operating distribution hubs or augmenting established supply chains, the expeditionary capability has demonstrated its commitment to rapid deployment and sustainment.

By using scalable infrastructure, real-time visibility tools and integrated partnerships with allied forces, DLA Distribution Expeditionary ensures critical material meets the demands of a rapidly changing world under even the most challenging conditions.

"The modern battlespace demands a logistics capability that is not only efficient but also incredibly agile and adaptable," said Army Brig. Gen. Kevin Cotman, commanding general, DLA Distribution. "The Expeditionary team embodies this principle, constantly innovating and adapting to meet the evolving needs of our warfighters and the nation as a whole. Their dedication ensures our forces have the right supplies, in the right place, at the right time, no matter the challenge."

A distributed team with a global reach: Composition and mission

While managed at DLA Distribution headquarters and in coordination with U.S. Transportation Command, DLA Distribution Expeditionary maintains a presence in New Cumberland, Pennsylvania, and Tracy, California. This strategic placement enables rapid deployment across both the Eastern and Western hemispheres, ensuring timely response to global events.

Beyond moving supplies, the team is a multifaceted force equipped to establish forward distribution nodes. They integrate with existing logistics networks and test alternative transportation methods, maintaining accurate material visibility through logistics information technology systems.

The team's mission is to deliver a tailorable solution for worldwide emergent requirements. The Expeditionary Distribution capability provides support to the military services and combatant commands, as well as humanitarian assistance and disaster relief operations. The team accomplishes this through four core functions:

- **Theater consolidation and shipping point:** A central hub for consolidating and cross-docking multi-consignee freight into conveyance in accordance with theater distribution and TRANSCOM air and surface route plans.
- **Forward-deployed warehousing:** A warehouse capability for providing forward positioning and

distribution operations of essential material.

- **Material processing center:** A facility for receiving, sorting, preparing and consolidating materials for distribution based on customized requirements.
- **Incident support base:** A location established in support of a Federal Emergency Management Agency mission assignment to receive and consolidate humanitarian assistance and disaster relief material, typically performing trailer transfer operations.

The DLA Distribution Expeditionary team supports established defense plans and responds to contingencies and humanitarian assistance and disaster relief operations. The team surges support to other DLA distribution centers as required. When requested, the team also deploys capabilities to establish a scalable, end-to-end distribution process that adapts to customer requirements and ensures the ability to project combat power.

Building readiness through rigorous training and joint exercises

Continuous training and participation in joint military exercises are central to the team's success. Along with enhancing skills, training improves integration among active-duty service members, joint reservists and civilian personnel. These exercises are designed to foster a joint military environment enabling the teams to build trust, communication and coordination essential for effective performance in real-world operations.

"Participation in these exercises goes beyond fulfilling training requirements," said Army Lt. Col. Kimberly Ellenburg, commander, DLA Distribution Expeditionary. "It sharpens our skills, strengthens partner collaboration and tests our capabilities in realistic scenarios. The lessons learned are invaluable and directly enhance our performance in real-world operations."

Over the past 12 months, the team has participated in several exercises, each designed to test and refine their capabilities:

- **Elite Constellation/Pacific Sentry 25:** This biannual command post exercise, conducted by U.S. Indo-Pacific Command, focuses on training INDO-PACOM headquarters staff. DLA Distribution reservists provided logistical support.
- **Freedom Shield 25:** Held in the Republic of Korea, this exercise is designed to ensure unified, combined and joint warfighting readiness. DLA Distribution joint reserve forces provided embedded support to warfighting components as well as to U.S. Forces Korea and logistics enterprise counterparts.
- **Ulchi Freedom Shield 25:** Another exercise in the Republic of Korea, UFS25 enhances the combined, joint, all-domain and interagency partners operating in a contested logistics environment.
- **Talisman Sabre 25:** As the United States' largest military exercise with Australia, TS25 demonstrated the U.S.-Australia alliance and provided a platform for strengthening relationships and interoperability among allies and partners. DLA Distribution deployed personnel to Guam to establish and operate an expeditionary material processing center at Andersen Air Force Base. They supported logistics for 7th Fleet operations, delivering supplies to the USS America Amphibious Ready Group and the 31st Marine Expeditionary Unit, ensuring uninterrupted operational readiness. In parallel, the team processed pallets for surface transport aboard the USNS Rappahannock, enabling replenishment at sea operations. DLA Distribution also deployed a team to Australia for TS25 to support DLA Indo-Pacific's effort to demonstrate logistics command and control capabilities during a crisis event in the INDO-PACOM theater.

Department of War photo

Defense Logistics Agency Distribution Expeditionary personnel erect an Alaska Defense shelter as part of their mission to establish and operate a material processing center at Andersen Air Force Base in Guam to provide support to Talisman Sabre 25. The exercise is the United States' largest military exercise with Australia that provides a platform for strengthening relationships and interoperability among allies and partners.

"THE MODERN BATTLESPACE DEMANDS A LOGISTICS CAPABILITY THAT IS NOT ONLY EFFICIENT BUT ALSO INCREDIBLY AGILE AND ADAPTABLE."

— ARMY BRIG. GEN. KEVIN COTMAN

- Following Talisman Sabre 25, the expeditionary team shipped an air theater consolidation and shipping point equipment package to Saipan in the Northern Mariana Islands for pre-positioning in one of two U.S. Air Force Pacific Air Forces-leased warehouses. This secured dedicated storage space for forward-deployed equipment, directly supporting INDO-PACOM's posture-planning objectives.

Humanitarian response: Supporting disaster relief efforts

The DLA Distribution Expeditionary team's capability extends beyond military support to also include humanitarian response missions. When Hurricane Helene struck the southern United States as a Category 4 storm in late 2024, the team joined whole-of-government efforts to supply relief to affected communities.

On receiving FEMA's request for 21 million meals, ready to eat, DLA Distribution partnered with DLA Troop Support to transport MREs from Albany, Georgia, and Marengo, Indiana, to FEMA distribution sites in Conley, Georgia, and Maxwell Air Force Base, Alabama.

"It's a testament to the expertise and reliability of the teams at DLA Distribution and DLA Troop Support that we were called upon to assist with this important mission," Cotman said. "This demonstrates not only our vital role in supporting the warfighter but also our contribution to whole-of-government operations."

Working alongside FEMA and contract partners, the DLA Distribution Expeditionary team moved up to 45 trailers daily from the Indiana facility, delivering more than 1.75 million cases of MREs to aid recovery. These efforts ran concurrently with ongoing support at the FEMA Incident Support Base at Fort Campbell, Kentucky, underscoring the team's ability to respond simultaneously to multiple crises with speed and precision.

"Our commitment extends beyond the battlefield," Ellenburg said. "In disaster response, we leverage our logistics expertise and resources to rapidly deploy and ensure critical aid reaches those communities in need."

Looking ahead: Embracing change and adapting to future challenges

As the global landscape continues to evolve, the team's continuous training, strategic pre-positioning, technological innovation and humanitarian support sustain U.S. military readiness, operational effectiveness and rapid crisis response at home and abroad.

"The future of logistics must be proactive, not reactive," Ellenburg said. "We must anticipate the needs of our warfighters and citizens, developing innovative solutions to meet those needs."

A member of the Defense Logistics Agency Distribution Korea workforce ties down cargo packed with vital materials in support of Ulchi Freedom Shield 25, an exercise in the Republic of Korea that enhances the combined, joint, all-domain and interagency operating in a contested logistics environment.

Department of War photo

U.S. Army photo by Pfc. Destiny Baker

The 173rd Airborne Brigade's Bayonet Innovation Team showcases different products created in their drone lab to U.S. Army Maj. Gen. Douglas Lowrey, commanding general of U.S. Army Contracting Command, at Caserma Del Din, Vicenza, Italy, Aug. 11, 2025. The visit was conducted with leadership from the 414th Contracting Support Brigade to assess the 173rd Airborne Brigade's ongoing projects, which enhance the brigade's readiness and lethality.

From red tape to readiness: Sharpening the acquisition edge

Guest commentary by Army Maj. Gen. Douglas Lowrey, Commanding General, Army Contracting Command

It's an honor to share a few thoughts with this community, a vital part of the Army's and the nation's logistics enterprise. As the Army's principal buying agent, the Army Contracting Command is focused on a singular, urgent mission: providing our warfighters with premier contracting support at the speed of war. To do this, we must relentlessly pursue efficiency, responsiveness and effectiveness, using every tool at our disposal.

We are at a pivotal moment. The traditional acquisition process, with its slow, sequential steps, is no longer viable in a world where technology and threats evolve at lightning speed. Our adversaries operate with a speed unencumbered by bureaucracy, and we must do the same. This cultural shift requires a commitment to a continuous transformation that is both agile and data driven. This change will be guided by three core principles:

- First, embracing the top-down mandates from our senior leaders and Congress.
- Second, operationalizing these mandates for readiness with every tool at our disposal.
- Third, empowering our acquisition professionals to be strategic partners to commanders from the very beginning.

Embracing the top-down mandate

Our push for transformation starts at the highest levels. The Secretary of War has been clear in saying software-defined warfare is not a future construct, but the reality we find ourselves operating in today.

This requires a fundamental shift from a hardware-centric to a software-centric acquisition approach. This same urgency is echoed in congressional action through the Streamlining Procurement for Effective Execution and Delivery Act and the Fostering Reform and Government Efficiency in Defense Act, which aim to cut through red tape, accelerate requirements, and strengthen our defense industrial base. The War Department and our legislative partners are working together on a comprehensive rewrite of the Federal Acquisition Regulation to make it simpler and more mission focused.

These high-level mandates must be translated into operational reality, and ACC is leading that charge by providing best practices and shaping the new regulatory environment.

Operationalizing transformation for readiness

At ACC, we are turning these mandates into action. We are aggressively leveraging tools like Other Transaction Authorities, which provide us with the flexibility to move at the speed of the commercial market. The valuable lessons we learned during the COVID-19 response fundamentally changed how we approach certain acquisitions. In fiscal year 2024 alone, ACC awarded over 1,893 actions using OTAs, amounting to nearly $6 billion. This is not just a number; it represents a more agile, iterative approach that gets critical technologies to our warfighters much faster by enabling the use of prototypes and rapid

fielding, allowing us to engage with non-traditional defense companies.

ACC is also leading a critical initiative to bring efficiency to unmanned aerial systems acquisition and sustainment. We are tackling "contracting fratricide" when different units independently purchase drones by establishing a common operating picture for all Army UAS. This is directly in line with the Secretary of War's guidance to understand the true capabilities of contractors and build a complete picture of UAS assets. This effort, coupled with our innovative UAS marketplace and our focus on performance and scalability, ensures we can equip our forces with the best technology at the speed of war.

One of the key ways we are also operationalizing change is by championing a concept that is gaining significant bipartisan momentum: the right to repair. This initiative, formalized in legislation like the Warrior Right to Repair Act of 2025, seeks to ensure that our service members have the tools, parts and manuals they need to fix their own equipment. The Secretary of War has also directed the Army to identify and propose contract modifications for "right to repair" provisions and to include them in all new contracts. This is a critical step in providing better holistic support to the warfighter, as it saves taxpayer money, increases readiness by reducing reliance on civilian contractors for simple fixes, and builds self-sufficiency in a contested environment.

This transformation is driven by a deep understanding of what's at stake. Our data-driven operations model and tools like Project Fast Track, which uses AI to slash proposal review times from weeks to hours. They are not just about saving time; they are about giving our customers better financial management and getting capabilities into the hands of soldiers faster. These advancements are part of a broader effort to modernize the entire sustainment enterprise, leveraging tools to move from reactive to predictive logistics.

The acquisition professional as a strategic partner

However, technology and innovative authorities alone aren't the entire solution. The most significant gains in efficiency come from the very beginning of the acquisition lifecycle. This is where acquisition professionals play a pivotal role. The clarity and precision of a requirement are the foundations of a successful contract. A vague or overly prescriptive requirement can lead to unnecessary delays and cost overruns. We must transition from a culture of simply processing paperwork to one of proactive, strategic partnership with our commanders.

So, what can we do to help? Here are a few methods for coaching commanders on developing clear, effective requirements:

1. Embrace a "statement of objectives" over a "statement of work." Coach commanders to define the desired outcome rather than dictating the exact process. This approach allows industry to propose innovative solutions and leverage their expertise, which is vital for fostering a dynamic and effective partnership.
2. Conduct early, robust market research together. Instead of waiting for a formal requirement to be finalized, partner with commanders to conduct market research up front. Use resources like ACC's strategic contracts portal to see what's available and what's working. This collaborative effort provides a realistic view of the market and helps shape a requirement that's both clear and achievable.
3. Establish clear, performance-based metrics. Help commanders define what success looks like in measurable terms. By focusing on metrics that demonstrate performance and effectiveness, we can build in accountability and ensure that the final product or service truly meets the military services' needs. It's also crucial to remember that sustainment and long-term support typically represent over 70% of a system's total lifecycle cost. Therefore, these metrics must always consider long-term sustainment and affordability, ensuring we are not just buying a product, but a complete, supportable solution for the warfighter.

Our collective mission is guided by three principles. We are embracing top-down mandates by operationalizing our leaders' vision for a more agile and lethal force. We are operationalizing transformation for readiness by leveraging technology and innovative authorities like OTAs and the right to repair. And we are empowering our acquisition professionals to be strategic partners, guiding commanders to build clear requirements from the start.

The complex challenges of modern logistics and sustainment require a team effort. The work we do at ACC and the Defense Logistics Agency is intertwined and essential to the Army's success. It's a collective mission that requires every dedicated professional—from the contracting officer to the logistics specialist—to support one another. By working together and embracing this new, agile approach, we will ensure our warfighters get the absolute best support, exactly when it's needed.

The sun never sets on our mission, and we are committed to winning every day.

Photo by Marine Corps Cpl. Sarah M. Grawcock

Maintaining military first impressions:

Third-party logistics team essential to military clothing supply chain

By Mikia Muhammad, DLA Troop Support Public Affairs

Behind every recruit's first set of uniforms is a team and a process that ensures more than a billion dollars' worth of inventory is handled properly.

DLA Troop Support's Clothing and Textiles supply chain works with five third-party logistics firms, also known as 3PLs, that provide outsourced logistics services including warehousing, transportation, inventory management, and procurement.

"The 3PLs are the 'tip of the spear,'" said Kenneth Gunn, 3PL program manager and Strategic Sourcing branch chief. "They're the ones that get (items) to the customers because of all of the coordination and efforts from our team.

"We're proud of making sure that the warfighter has what they need, and we'll do anything we can," Gunn continued.

DLA Troop Support Clothing and Textiles provides more than 8,000 different clothing, textiles and equipment items to U.S. service members and other customers, from uniforms, footwear and undergarments to religious items, individual equipment, flags and tents.

Approximately 98% of DLA Troop Support's Clothing and Textiles' business, or $1.4 billion worth of military clothing inventory, is supported by third-party logistics. This is the largest vendor-managed inventory in DLA Troop Support, Gunn said. Exceptions to third-party logistics warehousing support include large tents stored by DLA Distribution and some pre-positioned stock at DLA facilities in the Pacific and Europe.

U.S. Marine Corps recruits with Alpha Company, 1st Recruit Training Battalion, hold out their boots during a pick-up event at Marine Corps Recruit Depot San Diego, California, Sept. 8, 2025. DLA Troop Support's Clothing and Textiles supply chain partners with third-party logistics providers to ensure recruits across each military service receive their first set of uniform items.

Gunn leads a team of seven contracting and logistics personnel, including a team in Philadelphia and forward-deployed sourcing strategy specialists who work onsite at third-party logistics locations.

Denise Vogelei, a contracting officer in the Strategic Sourcing branch, emphasized how often she's in touch with internal stakeholders. She works every day with customer support, resolution specialists, quality technical experts and material planners.

Internal and external supply chain collaboration ensures customer orders are delivered in three to six business

days based on priority level. Next-day shipping is available for emergency orders.

Once a third-party logistics location receives a vendor shipment, the stock is put away until a customer order is received. At that point, items are picked, packed and shipped to customers.

Providing uniform support to military recruits

One of the most critical missions that third-party logistics supports is providing uniforms to new recruits across each military service, said Brett Joseph, another contracting officer for the Strategic Sourcing branch.

Third-party logistics ensures inventory for uniform items new recruits need at basic training are readily available, including military uniforms and physical training gear.

"It's their first impression of joining the military in a lot of instances, and we want to make sure that they start out on the right foot and can be dressed and look like a soldier right away," Joseph said.

Each third-party logistics vendor consolidates respective RTC orders into a weekly truck delivery, which lowers costs by combining shipments with the same customer, especially for high-volume customers.

A third-party logistics employee is also stationed at each corresponding RTC as a virtual vendor manager. They assist with inventory control, including tracking and expediting incoming shipments and identifying inventory shortfalls.

Since their inception in 2000, third-party logistics vendors have provided quicker response time to RTC customers and improved first-time fill rates from 85% to 100%, Joseph said.

Supply chain speed and innovation

From pre-production to completed uniforms, third-party logistics is integral in military clothing and textiles supply chain support, said Catherine Dillon, the Strategic Material Sourcing Group division chief.

Cooperation between DLA Troop Support's Clothing and Textiles team and third-party logistics vendors helps ensure quicker response time and higher customer satisfaction.

This speed ensures continuous customer support during emergencies and special projects. Dillon highlighted high-speed support for strategic national stockpiling during the COVID-19 pandemic as a prime example.

Other special projects third-party logistics vendors have supported outside of typical items includes warehousing clothes for manufacturing vendors in special cases and providing logistics support as DLA Troop Support Clothing and Textiles outfitted the Papua New Guinea Defense Force with 15,000 U.S.-made dress uniforms, valued at $4 million, Dillon said.

In instances where service members are deployed for various missions, there can be a lack of forecasting data to know what items customers may need, Joseph said.

Using third-party logistics data analytics helps improve forecasting and decision-making, which in turn allows the DLA Troop Support Clothing and Textiles team to respond quicker to changes and increase performance, said Shaun M. Dwyer, a supervisory customer relationship manager for operational combat and individual equipment items.

Third-party logistics allows the agency to embrace new strategies and technologies for supply chain management that enhance efficiency, resiliency and flexibility, he explained.

Employees are also encouraged to use emerging technologies to improve processes.

Nina Shea, a contracting specialist in the Strategic Sourcing branch, supports cradle to grave acquisition, including post-award processes, which she described as very extensive, detailed and time consuming.

Shea is leading a case study on artificial intelligence and automation to minimize the simple but repetitive task of verifying hundreds of shipments to allow her to pursue more strategy-oriented tasks.

Some of the third-party logistics firms are also part of a federally mandated AbilityOne program

"SINCE THEIR INCEPTION IN 2000, THIRD-PARTY LOGISTICS VENDORS HAVE PROVIDED QUICKER RESPONSE TIME TO RTC CUSTOMERS AND IMPROVED FIRST-TIME FILL RATES FROM 85% TO 100%."

— BRETT JOSEPH

providing employment for people with disabilities. These firms must meet the same performance requirements as commercial vendors, said John Kennedy, contracting specialist, Strategic Sourcing branch.

Third-party logistics support auditability

With auditability remaining a top priority for DLA, third-party logistics inventory processes help keep auditability in line, including completing physical inventories at warehouses, Gunn said.

"Accountability is critical as ongoing inventory checks, including cycle counts, are done and full wall-to-wall inventory audits are conducted annually," Gunn said.

In addition to procedures for accountability and accuracy, Gunn attributed auditability success to his forward-deployed employees. These employees monitor third-party logistics processes with an emphasis on customer satisfaction and auditability, especially for vendor-managed inventory.

They also monitor the physical inventory and ensure the third-party logistics vendors follow the contract and audit requirements.

"We're here to protect the interest of the government," said Gloria Simmons, a strategic sourcing specialist with the Strategic Sourcing branch. "We're here to assist the contractor and make sure they stay within the scope of the contract, so we're that liaison between them and DLA."

The strategic sourcing specialists are also the first DLA representatives to see products in some instances. Also, if there are issues, for example with vendor shortages or marking issues, third-party logistics are instrumental in ensuring issuable stock goes out.

Recruits receive initial uniform items inside the Golden 13 recruit in-processing center at U.S. Navy Recruit Training Command in Great Lakes, Illinois, Sept. 2, 2025. Defense Logistics Agency Troop Support's Clothing and Textiles supply chain partners with third-party logistics providers to ensure recruits across each military service receive their first set of uniform items.

Photo by Navy Petty Officer 2nd Class Stuart Posada

Just Enough Logistics: Shifting the Logistics Paradigm

By DLA Director LTG Mark Simerly, USA, and LTC Daniel Marvin, USA, DLA Headquarters

Today's battlespace is more complex, unpredictable, and technologically advanced than ever before. The modern Warfighter must operate in environments where logistics is under threat – from cyber vulnerabilities, adversarial supply chain manipulation, and constrained transportation networks.

In such an environment, a logistics model is useful. If done well, it provides structure and puts a system in place that's easy to follow and accomplishes its assigned task in a way that benefits the entire team. Over time, the Defense Logistics Agency has employed varied logistics models to meet the needs of the existing operational environment. Recent models, or paradigms, include "Just-in-Time" logistics and "Just-in-Case" logistics, which are designed to build and maintain readiness in competition, crisis, and conflict. While there are advantages to each paradigm, they also create risk across multiple factors, depending on the environment.

"Just-in-Time" logistics is a flexible and efficient system based on commercial models that focuses on cost effectiveness and waste reduction. This system requires raw materials to arrive as production is scheduled to begin but no sooner, which cuts warehousing costs and increase efficiency (Vergun, 2023). Inventory is kept low, creating a high-risk tolerance with low cost. "Just-in-time" logistics works well with a healthy, globalized defense industrial base, capable of quickly reacting to shifts in demands. What it lacks, however, is resiliency. Recent events such as the global COVID-19 pandemic, Russia's invasion of Ukraine, and rising geopolitical trade tensions with China have exposed the vulnerabilities of relying on offshore production and supply to provide essential Warfighting resources. The rate of inflation has also reduced our buying power, reducing our ability to affect the industrial base's agility monetarily. Today, in the Air Force we see the effects on the F-16, F-15, KC-135, B-52 fleets affected by long lead times on parts which reduce aircraft readiness and delays in our global transportation network.

"Just-in-Case" logistics is the idea of stockpiling supplies 'just in case' we need them. It involves holding large inventories of materials and finished goods at various points in the supply chain to buffer against potential disruptions. This model relies on multiple supplies for the same component, whether necessary or not, to ensure a back-up in case one fails. In this model, suppliers are placed on long-term contracts to guarantee access to materials through demand fluctuation. The primary goal is to avoid stockouts at all costs, regardless of inefficiency. While in theory, this model would produce flexibility for all possible scenarios, it frequently results in the opposite – reduced flexibility due to large inventory commitments, making it harder to adapt to changing customer demands or new product introductions. In other words, you're stuck with what you've already ordered, including the high costs of storing the inventory. These costs include warehouse space (rent, utilities, maintenance), insurance, opportunity costs of capital tied up in inventory, and obsolescence of technology or spoilage of perishable goods.

Just-in-case logistics essentially serves as a band-aid to underlying issues within the supply chain. Relying on safety stock is an expensive way to avoid addressing the root causes of delays or disruptions. Even worse, it creates more issues than it solves, such as the potential for waste if demand does not materialize, difficulty in demand forecasting, and strain on supplier relationships due to

the inability to keep up with or anticipate large-quantity orders. Further, this model is less responsive to market changes from sudden shifts in market trends or competitor actions. Its aim to avoid lost sales results in higher overall costs and reduced flexibility, outweighing its benefits. Lastly, battlefield risks are elevated due to limited mobility, degraded ability to disperse, and ties up critical resources that combatant commanders need elsewhere.

In today's operational environment, stockpiling complicates the ability to move mobile command posts weighed down by expensive and potentially sensitive inventory that cannot be left in the hands of our adversaries. The just-in-case paradigm burdens tactical units who must train with, maintain, and move excess equipment across a contested battlefield. It also drains precious resources at the strategic level, where leaders must plan for, resource, and execute the sustainment functions of these tactical units across the globe.

Enter a paradigm shift to "Just Enough" Logistics – a resilient, efficient, and adaptable model that fully enables units in a Contested Logistics environment. The word "enough" makes leaders take pause, as in Ranger School being issued your "just enough" 2,200 calories a day while maintaining a 10,000-calorie-a-day OPTEMPO. However, that's not what Just Enough logistics means in today's modern battlefield where we are contested across all domains and the war for resources rages at home and abroad. Just Enough logistics differs from traditional models in a commercial setting, factoring in a much higher and diverse operational risk in a military environment. This approach offers a more resilient, efficient, and adaptable logistics solution, enabling forces to operate effectively in complex and unpredictable environments. It's about smart preparedness, focusing resources where they are needed most and leveraging technology to enhance visibility and responsiveness. This means utilizing data and AI to improve precision in dynamic demand forecasting. It means decentralized, secure, and interoperable systems that ensure the right supplies are at the right place, at the right time to enable the Warfighter. It also balances risk to the Joint Logistics Enterprise (JLEnt) by investing early, before the time of need, preventing unnecessary lives lost on the battlefield.

Just Enough Logistics involves a Service-tailored approach, mitigating risks using tiered readiness levels and pre-positioned stocks. Just Enough doesn't mean equal readiness for everything, it means prioritizing between critical (Tier 1), important (Tier 2), and support (Tier 3) items. It involves dynamic risk assessment, contingency planning, and real-time intelligence integration, ensuring diversified and resilient supply networks. Using advanced predictive maintenance and spares management, Just Enough Logistics uses sensors and data analytics to predict equipment failure and proactively orders spare parts. It also deploys 3D printing capabilities at forward sites to manufacture on-demand parts, reducing the need for large stockpiles or reliance on long supply lines. Digital supply chain visibility and control is powered by real-time tracking, blockchain technology, and AI-powered demand forecasting. This allows for the monitoring of location and condition of supplies in transit, enhanced transparency and security of the supply chain, and analysis of historical data, operational plans, and intelligence reports. Finally, Just Enough Logistics utilizes modular and scalable logistics systems such as containerization (standardized containers for easy transport and handling of supplies), and rapid deployment capabilities, for maintaining the ability to quickly establish logistics hubs and distribution networks in new locations.

Implementation of Just Enough Logistics is not without its challenges. It involves rewiring the current culture to shift from the traditional "stockpile everything" mindset to sharing data across joint services and allies to deliver high-quality, real-time data in a Contested Logistics environment. Cybersecurity remains crucial, as the need to protect the digital supply chain from cyberattacks is paramount. When implemented, Just Enough logistics will deliver resilience, cost optimization, and customer satisfaction, in contrast to the previous models which were prone to disruption vulnerabilities, excessively high costs, and lack of responsiveness to demands.

In the air domain, specifically in the INDOPACOM theater, speed will be the determining factor on who will win. The USAF will need the requisite parts and support equipment in theater prior to hostilities to be effective against a competitive adversary. This requires DLA and USAF to collaborate and integrate by sharing data and increase demand planning accuracy to better understand the needs to support the Agile Combat Employment (ACE) scheme of maneuver or depot repair outside the Air Logistics Complexes within a combatant command's theater. Just Enough Logistics allows for precision in our prioritization of resources and forward positioning at the point of need.

The Navy, operating across vast and contested maritime domains, understands the critical need for adaptable logistics solutions beyond simplistic stockpiling or just-in-time delivery. Just Enough Logistics aligns with the Navy's dispersed operational posture, enabling forward-deployed units to maintain readiness without being tethered to vulnerable supply chains. This approach

"WHEN IMPLEMENTED, JUST ENOUGH LOGISTICS WILL DELIVER RESILIENCE, COST OPTIMIZATION, AND CUSTOMER SATISFACTION, IN CONTRAST TO THE PREVIOUS MODELS WHICH WERE PRONE TO DISRUPTION VULNERABILITIES, EXCESSIVELY HIGH COSTS, AND LACK OF RESPONSIVENESS TO DEMANDS.."

— LTG MARK SIMERLY, USA, LTC DANIEL MARVIN, USA

supports maritime dominance by prioritizing essential resources, leveraging predictive maintenance, and fostering distributed manufacturing capabilities at sea. By balancing risk and responsiveness, Just Enough Logistics ensures the Navy can project power and maintain sea control in an increasingly complex and uncertain world. This paradigm shift is essential for sustaining naval operations in the era of great power competition. (Stewart, Ali, 2024)

The eight principles of logistics are an important set of core tenets that guide sustainment operations. (JP 4-0, 2025) They remain relatively unchanged from the tactical level, through the operational and strategic levels, including how we mobilize our Defense Industrial Base for global conflict. You can apply the concepts of integration, responsiveness, economy, and resilience to a commercial entity, just as a logistics element commander can use these principles to maintain Class III resupply to the Division's main effort. Just Enough Logistics uses these principles to their full effect by integrating with defense partners in the industrial base and partnering with the Service's force-provided units to create responsiveness to and anticipation of needs.

Rapid advances in technology and operational reach necessitate that the sustainment community get leaner and meaner at the forward edge. The current and future battlefield requires a greater need to move and protect ourselves at smaller echelons, dislocated from long traditional supply lines, with compromised lines of communication. The current and future fight may have a traditional Forward Line of Troops (FLOT) but will certainly have a multi-dimensional, asymmetric battlefield component from the FLOT all the way back to the homeland. This battlefield with be dense and packed with civilians on the battlefield, insurgent groups, and espionage and disruptive activity affecting every aspect of our operations. Precision, sustainment posture, and a resilient, agile base with coinciding distribution network will be critical to success in any theater.

Preparing for the future fight with a competitive adversary requires that our Warfighters learn and transform in ways that are known and unknown at this point. As sustainers, we must unburden our Warfighters of excess equipment, while supporting the Service's transformation efforts with adaptable solutions to complex sustainment challenges at a speed that has not been seen since World War II. We will partner with industry to improve supply chain health, strategically execute acquisitions that focus on priorities, and build in resiliency that can respond and a distribution network that will deliver at the point of need, because Just Enough Logistics will be just that – Just Enough…to win.

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The Joint Logistics Enterprise's Modern "Contested Logistics Truths"

By DLA Director LTG Mark Simerly, USA,
and Leighann Martin, DLA Headquarters

From its inception, the military has played a significant role in the development of the United States. As the Nation approaches its 250th anniversary, a consistent theme for our military emerges: the enduring imperative to defend, deter, and prevail in conflict. History has demonstrated that the linchpin of success in conflict always relies on logistics.

Since 1961, the Defense Logistics Agency (DLA) has provided indispensable support to the Warfighter. Despite its critical work, DLA is relatively unknown to the average American. For decades, logistics was an unsung hero in military conflicts, ensuring that forces were equipped and determining the pace, direction, and successes of war. U.S. military leaders recognized the need for a more formal and cohesive approach to logistics in joint operations, and so in 2010, the Joint Concept for Logistics introduced the Joint Logistics Enterprise (JLEnt). This collaboration, which includes the key global logistics providers within the Military Services, Combatant Commands, Defense Agencies, Interagency Partners, and Industry, offers a globally integrated logistics network with the goal of achieving mission success.

Over time, the efforts and nature of military logistics have been dissected, discussed, and debated, further pushing the science of military logistics to the forefront of warfare. In 2015, Lt Gen John B. Cooper (Ret.), USAF codified six enduring Logistics Truths, or "LOGTRUTHS"[1] as he called them, for the Air Force:

1. Rear operations must be connected and respond to forward operations
2. You don't have to own it to use it
3. A better trained Airman is a more capable Airman
4. Accurate requirements = effective logistics
5. USAF logistics cannot succeed without Joint logistics
6. All good logistics work is done in process

While these truths remain relevant today, we have the responsibility to fully address the complexities of modern logistics in Contested Logistics environments. The current landscape is distinctly more complex, characterized by a diminishing and fragile Defense Industrial Base and adversaries who intend to delay, disrupt, degrade, and eliminate our logistical capabilities. Furthermore, in the mere decade since Lt Gen Cooper's LOGTRUTHS were conceived, rapid technological advancements, such as artificial intelligence, machine learning, digital twins, and other innovations, have significantly reshaped the strategic and operational environments.[2]

To remain at the forefront of this evolving landscape, the JLEnt, with DLA serving as a principal partner, must reassess and redefine logistics truths to align with the demands of Contested Logistics environments. These "Contested Logistics Truths" account for the challenges of modern warfare, incorporate emerging technologies, and address the persistent threats and challenges in the current landscape. By embracing these truths, DLA and our JLEnt partners will strengthen supply chain operations to be smarter, faster, better connected, and better protected, further empowering Warfighters and ensuring operational readiness and lethality in future conflicts.

1. **Logistics wins wars when data leads the fight:** Logistics is not a back-office function, it's a battlefield imperative. Strategic plans must translate into tactical impact, which requires resilient, adaptive execution driven by real-time data. Theoretical models and static plans collapse under pressure if Warfighters are lacking resources. Effective logistics bridge the gap between operational plans and tactical combat by anticipating disruption, and being agile, adaptive, and resilient by using precise data to prioritize and sustain the fight.
2. **"Just-in-Time" is not on time:** Historically, Just-in-Time logistics emphasized cost efficiency and waste reduction but often lacked resiliency and responsiveness. Today, logistics must be prioritized in a tiered process and leverage modern technologies to ensure Warfighters have the right materiel, at the right time, and at the right place – ensuring Warfighters have 'just enough'. Just Enough logistics enhances our precision, agility, and adaptability, strengthening our ability to support Warfighters and bolster overall resiliency.

1 Cooper, J. B. (2016). Some logistics truths. Logistics Officer Association - The Exceptional Release, (Spring 2016), 4–8.
2 Martin, L. (2025, April). Modernizing defense logistics: converging kill chains and supply chains. Loglines Magazine, 2025(1), 19–20.

3. **Logistics networks must be better connected and protected:** Centralized logistics systems are vulnerable to disruption in Contested Logistics environments. Decentralized networks with strong cybersecurity measures enhance resilience, mitigating the impact of attacks. Digital interoperability across Services and Combatant Commands is crucial for information sharing and coordinated logistics efforts, enabling a unified Joint Force.
4. **Precise requirements drive readiness:** The ability to accurately forecast Warfighter needs is a key to success in contested environments. Reliable forecasts begin with clear visibility into supply chains, consumption rates, and battlefield conditions. Leveraging real-time data and predictive analytics allows for more precise requirements estimates and reduces the risk of shortages or surpluses. With more precise requirements and dynamic, accurate forecasting, we can better anticipate and adapt to rapidly evolving operational requirements.
5. **Resilient distribution networks power operational dominance:** In Contested Logistics environments, static and overly centralized distribution models are vulnerable. Distribution networks must be dynamic, multi-nodal, and capable of reconfiguration to maintain the continuous flow of materiel at the point of need. Leveraging autonomous platforms, pre-positioned stocks, and resilient infrastructure ensures redundancy and responsiveness across all domains.
6. **We can't be lethal without Logistics:** Behind every uniform, meal, fuel tank, missile, and weapon system there is a logistics plan to get that materiel to the right place and at the right time. The very tools for survival and success are nothing if there's not a plan for procuring, storing, and delivering these tools to the Warfighters. Protecting, prioritizing, and innovating logistics is a matter of increasing readiness and lethality for the Warfighters and Combatant Commands.

Applying these logistics truths may not necessarily ensure success in the next conflict. In every scenario, there are a multitude of factors that will determine the outcome. However, they serve as a common framework that, if applied in wargames, exercises, and operations, will greatly improve the probability of Warfighter freedom of movement in an increasingly complex global environment. The time to operationalize these truths and transform is now.

To accelerate progress and meet evolving demands, DLA identified three mission-critical priorities for fiscal year 2026. These priorities, focused on enhancing our efforts and driving mission impact, are: *Set the Globe* by strategically positioning DLA to deliver sustained readiness in the homeland and INDO-PACIFIC; Set the Agency by accelerating internal transformation and building resilient capabilities; and *Set Supply Chains* by modernizing operations to move faster, think smarter, and respond stronger. Through these priorities, DLA will empower strategic logistics, strengthen partnerships, and foster a forward-leaning mindset. These modern Contested Logistics Truths describe our shift toward a more adaptive, data-driven, and resilient logistics capability – one where survival, not just efficiency, defines success.

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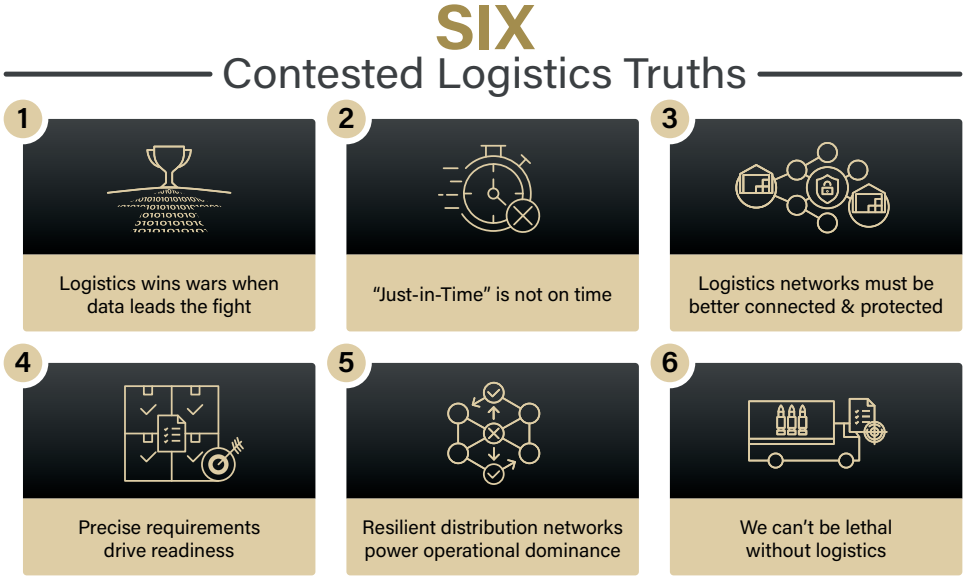

Modernization of the Distribution Network

By MAJ James Marley, USA, DLA Distribution

Logistics is no longer a back-end function; it is a front-line enabler of military success. The ongoing conflict in Ukraine has underscored the critical role of logistics in modern warfare, where the ability to move, store, and deliver material at speed will be a decisive factor in conflict outcomes.[1] The supply chain is increasingly contested as the United States faces strategic competition with China and Russia. This includes cyberattacks on infrastructure, such as the 2021 Colonial Pipeline ransomware attack, which disrupted fuel distribution across the Eastern United States and highlighted vulnerabilities in critical infrastructure.[2]

DLA sits at the center of this challenge. Its mission extends beyond storing parts. It provides a logistics foundation that allows the Joint Force to respond when needed, in any environment. As codified in DoD Directive 5105.22, the Defense Logistics Agency is tasked with providing logistics support across the Joint Force and Combatant Commands, defining its role as an operational enabler rather than just an administrative function.[3] However, fulfilling that role today requires more than what the directive envisioned. The operational environment has become faster, more contested, and increasingly digital. DLA Distribution can no longer rely on old systems designed for predictable problems. The mission has shifted. Logistics must now operate under pressure, across domains, and with interconnected systems capable of absorbing disruption and maintaining tempo. This paper focuses on how DLA Distribution is modernizing to meet those demands.

Introduction: Translating Military Readiness into Commercial Resilience

DLA is often compared to Amazon.[4] At a glance, the comparison holds. Both operate vast distribution networks and leverage automation and data to manage inventory at scale. But the missions diverge sharply. Amazon is designed to move finished consumer goods to predictable locations under stable conditions, where demand is forecasted, infrastructure is intact, and delivery timelines are measured in hours or days. DLA's portfolio is far more complex. It includes food, fuel, medical supplies, repair parts, and construction material – often delivered into contested or degraded environments. It operates across domains, supports joint and coalition forces, and must execute under the friction of real-world operations. Where Amazon maximizes efficiency, DLA maximizes readiness. Its distribution network is not built for convenience; it is built for conflict.

DLA Distribution's decision to modernize was not driven by trends or convenience. It was a calculated response to an evolving threat environment. The global logistics landscape is becoming more complex, less predictable, and increasingly contested. From cyber threats to infrastructure vulnerabilities, the ability to move and sustain materiel under pressure has become a critical warfighting function. DLA's modernization campaign is designed to meet that challenge head-on. While this paper focuses on DLA Distribution's internal modernization, many of the approaches developed under pressure have broader application, especially for civilian logistics leaders navigating today's volatile environment. DLA's logistics model is built for military readiness, not market profit, which leads to different priorities than what is typically seen in the civilian sector. While most commercial supply chains are optimized for cost, speed, and predictability, DLA must operate through uncertainty, degraded conditions, and operational complexity. This contrast is not a critique, it is a different design for a different mission. But in today's increasingly unstable global environment, there are meaningful insights that civilian logistics leaders can draw from the way DLA plans and operates.

Civilian logistics planners can learn from DLA's posture toward disruption. DLA positions inventory based on mission urgency and operational risk – not just geography or warehouse cost. It maintains latent surge capacity using cold-site warehouses, modular infrastructure, and trained teams that can activate quickly. Critically, it also prepares for degraded operations, with systems and processes that continue under cyberattack, data loss, or infrastructure failure. While these practices

1 Hilmes, Rolf, "Lessons Learned from Ukraine Logistics," *European Security & Defence*, June 22, 2023.
2 Panettieri, Joe, "Colonial Pipeline Cyberattack," *MSSP Alert*, May 13, 2021.
3 U.S. Department of Defense, DoD Directive 5105.22: Defense Logistics Agency (DLA), April 3,2017.
4 Reece, Beth, "Innovative Partnership Transforms Critical DLA System," *Defense Logistics Agency*, August 22, 2023.

may seem inefficient during steady-state operations, they offer decisive advantages when the unexpected occurs – a lesson many companies learned during the COVID-19 pandemic and recent global shipping disruptions.

This paper outlines how DLA Distribution is transforming its workforce, infrastructure, and technology to ensure it can support the Joint Force in both routine operations and contested environments. By focusing on speed, visibility, and data driven decision-making, DLA is building a logistics enterprise capable of surviving and thriving under stress. The civilian sector may optimize for simplicity – but DLA achieves operational resilience through a deliberately complex logistics system. That principle, tested under fire, is both the foundation of DLA's modernization effort and a strategic insight for any organization preparing for the unpredictable.

Campaigning and Framework

Campaigning is the mechanism through which logistics become actions: aligning resources, operations, and investments toward strategic outcomes. For DLA Distribution, modernization is how logistics becomes campaign capable. As outlined in the 2022 National Defense Strategy (NDS) and the Joint Strategic Planning System (JSPS), campaigning is the continuous alignment of operations, activities, and investments to advance national objectives.[5] Modernization is how DLA Distribution aligns its logistics mission with that broader campaign framework – not just for today's demands, but to prepare for tomorrow's fight.

DLA Distribution's approach to modernization is rooted in building resilience through well-structured systems. It aligns with the agency-wide initiative "DLA Transforms – A Call to Action" and supports the Department of Defense's global campaigning architecture.[6] This effort is not theoretical or paused for convenience. The modernization effort was designed to unfold in stride, maintaining full mission tempo while adapting to the future fight. DLA did not wait for a break in the action. It modernized through motion, proving that resilient logistics emerge not despite complexity, but because of it. The campaign framework is organized around four mutually reinforcing functions that guide modernization across DLA Distribution:

1. Setting the Conditions: establishing the right culture, posture, and standards to enable innovation and change.
2. Systems Management: integrating enterprise-level tools and platforms that improve visibility, coordination, and control.
3. Data-Driven Management: using analytics, production oversight, and standardized processes to drive performance and anticipate demand.
4. Warehouse Operations: applying advanced technologies to enhance throughput, reduce manual labor, and improve flexibility on the floor.

These functions are interdependent, working together to create a logistics system that adapts under pressure without compromising output. Whether through 5G infrastructure, wearables, production management, or network optimization, every effort is nested within this framework to ensure the enterprise can evolve in stride with mission requirements.

Modernization allows DLA Distribution to position logistics as an active enabler of global campaigning. The agency is building a distribution network that supports the Joint Force with speed, transparency, and resilience – on day one, and every day after.

Managing with Data: A Data-Driven Approach to Logistics

In any enterprise, complexity without clarity leads to chaos. For DLA Distribution, data provides that clarity. It allows decision-makers to see what is happening, what is needed, and what is coming next.[7] Managing with data is about turning complexity into insight and insight into action. As the agency modernizes, data acumen has become a core competency at every level of the organization. From the floor to the enterprise, leaders are expected to interpret real-time insights, adjust workflows, and anticipate demand before gaps appear.

This shift is not theoretical. In 2017, DLA forward-positioned over 40 million dollars in Class I and Class IV material based on projected need. That material was never used.[8] While the overbuying carried a financial cost, the larger issue was the lack of precision forecasting. The result was misalignment that ultimately pushed waste and inefficiency back onto the customer. Today, with tools

5 U.S. Department of Defense, 2022 National Defense Strategy of the United States of America, October 27, 2022; U.S. Joint Chiefs of Staff, CJCSI 3100.01F: Joint Strategic Planning System (JSPS), December 20, 2018.

6 Defense Logistics Agency Distribution, *Distribution 2030 Campaign Plan*, Internal agency document, accessed April 2025.

7 DLA Distribution Public Affairs, "DLA Distribution Susquehanna Expert Recognized for Excellence," Defense Logistics Agency, April 4, 2025.

8 Reventlow, Keith D., and Matthew Williams, "Meeting Logistics Challenges in a Contested Environment," *Marine Corps Gazette*, March 2022, 7–9.

such as Qlik and the Labor Management Module, DLA tracks performance in real time, visualizes operational trends, and applies predictive analytics to prevent that kind of mismatch. Data is no longer a lagging indicator. It is a decision-making tool that shapes how Distribution allocates resources, manages labor, and postures inventory.

But data alone is not enough. The value lies in how we frame it and the speed at which we act on it. Logistics generates massive volumes of information, but commanders do not need more dashboards. They need clarity. That clarity comes from curating the right data with the right operational context to drive decisions that influence the fight. Whether identifying a break in the supply chain, forecasting a Class IX shortage, or adjusting posture for a surge, the goal is the same – operational foresight, not after-action reporting.

In a contested logistics environment, speed of thought matters as much as speed of movement. Data enables responsiveness when it matters most. It allows logisticians to stay ahead of friction rather than respond to it. Transparency, auditability, and the ability to act on information at speed are essential in an environment where timing can define success. Data, when curated and operationalized, becomes a weapon system in its own right.

Automation and Advanced Equipment: Driving Efficiency

Speed and precision in logistics do not happen by accident – they are engineered. As operational demands grow and human capacity reaches its limits, automation bridges the gap. The true value of automation lies not just in speed, but in giving commanders more ways to sustain the fight. It transforms warehouse operations from labor-intensive to intelligent, enabling DLA to move faster, smarter, and more resiliently.

Technologies like Automated Guided Vehicles (AGVs), Automated Storage and Retrieval Systems (ASRS), and voice-activated workflows are already in use across DLA Distribution to streamline operations and optimize space. When paired with Very Narrow Aisle (VNA) racking, ASRS dramatically increases storage density – a critical advantage in high-demand environments where physical expansion is not feasible.

These capabilities hedge our bets in both directions. If an adversary disrupts our mechanical systems, trained personnel can take over with minimal downtime. If the disruption constrains our manpower – whether through denied access, contested environments, or labor shortages – automation preserves throughput. We are deliberately building complexity into our system because structured complexity creates resilience. These systems make complex situations less complex by giving commanders multiple paths to sustainment.

Private-sector examples like Amazon highlight the power of automation at scale. The company operates more than 750,000 mobile robots and robotic arms across its fulfillment network.[9] This investment has reduced order fulfillment costs by 25% and significantly increased throughput.[10] But these gains are built for predictable environments and consumer expectations. Amazon's systems are optimized for speed, not survivability. DLA operates under different conditions – where infrastructure may be degraded, access may be denied, and the mission cannot pause. Our automation must be more than efficient; it must be resilient. While Amazon builds for convenience, we engineer for contested logistics. The goal is not just to move faster, but to ensure continuity under pressure – delivering speed in peacetime and survivability in crisis.

Critically, these platforms are fully integrated with the Warehouse Management System (WMS), which provides real-time visibility into inventory, material movement, and storage status. This synchronization reduces error rates, improves auditability, and ensures inventory can be located, moved, and accounted for without delay. In degraded or denied environments where manual reconciliation is not feasible, this digital visibility becomes essential.

Automation is not a replacement for people, it is a strategic overlay that ensures operations continue despite disruption.[11] In environments where infrastructure is strained and demand is unpredictable, these systems allow DLA Distribution to sustain operational tempo without pausing the mission.

Warehouse Management System (WMS) and Warehouse Execution System (WES)

Coordination is the heartbeat of logistics, and in DLA Distribution, that heartbeat is digital. The Warehouse Management System (WMS) and Warehouse Execution System (WES) serve as the command and control layer for warehouse operations. WMS governs inventory: what we have, where it is, and how it moves. WES controls execution: which tasks happen, when, and in what sequence. Together, they transform fragmented, manual

9 Gray, Catherine, "Amazon Deploys 750,000 Robots to Unlock AI Opportunities," AI Magazine, April 16, 2024.
10 Jassy, Andy, "Amazon CEO Andy Jassy's 2023 Letter to Shareholders," About Amazon, April 11, 2024.
11 Robotics Tomorrow, The role of automation in Supply Chain Resilience, *Robotics Tomorrow*, September 2024).

processes into synchronized operations. These systems give warehouse operators the ability to act in real time and commanders the confidence to plan boldly, even in contested or degraded environments.

WMS serves as the digital backbone of DLA Distribution.[12] It manages material workflows, provides real-time visibility into inventory, and synchronizes operations across all Distribution Centers. Integrated with platforms like ASRS and AGVs, WMS ensures that every transaction, whether storage, movement, or issue, is recorded, auditable, and recoverable. In conflict scenarios where manual reconciliation is not feasible, this digital traceability becomes critical. WMS also enables interoperability with the Services, allowing shared data access that accelerates resupply decisions and provides transparency across the logistics enterprise.

While WMS governs inventory logic, WES commands the floor. It choreographs task execution, dynamically balances workloads, and synchronizes people and machines. Robotic arms, conveyor belts, and human operators are all connected through a unified system. When the mission surges or friction emerges, WES responds instantly to maintain momentum without requiring manual intervention.

WMS and WES do more than streamline operations – they absorb disruption. They are the digital infrastructure that allows DLA to scale under pressure, recover quickly, and deliver with precision in complex environments. Like automation, these systems introduce complexity by design – because complexity, when engineered properly, is what creates resilience.

Strategic Positioning for Operational Advantage

The true strength of military logistics lies in how the network is positioned to support operations. DLA Distribution is reshaping its network to create operational advantage through deliberate infrastructure upgrades, scalable surge capabilities, and targeted stock placement. Each initiative supports a unified strategy designed to position logistics as a decisive advantage in contested environments. The following sections explore how DLA is turning distribution into a warfighting enabler.

Optimizing the Network: Infrastructure and Global Logistics

DLA Distribution's modernization strategy extends beyond automation and inventory – it includes reshaping the global logistics network to better support the Joint Force. A major component of this effort is the deliberate rebalancing of stock across the Continental United States (CONUS) and Outside the Continental United States (OCONUS) sites. Inactive materiel has been consolidated at locations like DLA Distribution San Joaquin, while high-demand inventory is positioned closer to points of need, such as at Susquehanna. This reduces excess movement, increases velocity, and supports DoD's Warehouse Utilization goals.

Critically, DLA does not move material on its own. Strategic lift into theater is executed by U.S. Transportation Command (USTRANSCOM), while onward movement within theater relies on Common User Logistics Transportation (CULT), managed by geographic Combatant Commands and supported by the Military Services. DLA must remain synchronized with these partners to ensure seamless transitions from storage to movement, particularly under surge conditions. Cold site warehouses (referred to contingency warehousing in the civilian sector) – smaller, low-profile locations – add a layer of resilience, enabling DLA to maintain global reach while mitigating infrastructure risk. Meanwhile, infrastructure upgrades at major sites – including 5G connectivity, Internet of Things (IoT) integration, and full wireless coverage, are being implemented without disrupting operations. Modernization is occurring in parallel with daily mission requirements, proving that DLA can evolve its infrastructure without pausing its operational tempo.

Surging Capacity in Conflict

Modern warfare moves fast – sustainment must move faster. The ability to surge is not a luxury, it is a requirement. DLA Distribution's modernization efforts are designed to support more than routine operations – they are structured to enable surge during conflict. In a high-end fight, the ability to rapidly scale distribution operations can become a decisive factor in sustaining the Joint Force. Modernized facilities, automated systems, and a trained, data-aware workforce form a layered ecosystem that allows DLA to flex and adapt in response to operational demand.

Forward-positioned material, real-time inventory visibility, and automated throughput help reduce time from requirement to delivery. At the same time, cold site warehouses provide additional surge depth, allowing DLA to quickly activate prepositioned nodes in at-risk or emerging theaters. The Warehouse Execution System enables floor-level adaptability, shifting workflows as mission priorities change. With Common User Logistics Transportation (CULT) supporting movement within

12 Defense Logistics Agency, "Warehouse Management System (WMS)," *Defense Logistics Agency*, 2024.

"DLA DISTRIBUTION'S MODERNIZATION IS NOT ABOUT TECHNOLOGY FOR ITS OWN SAKE. IT IS ABOUT BUILDING A DISTRIBUTION NETWORK THAT CAN OPERATE UNDER PRESSURE AND DELIVER WHEN IT MATTERS MOST."

— MAJ JAMES MARLEY, USA

theater and USTRANSCOM executing lift into theater, DLA Distribution's ability to surge is dependent on tight coordination with strategic partners. Together, these capabilities form a responsive, resilient network; structured not for simplicity but for adaptability under pressure.

Targeted Stock Positioning – Streamlining for Readiness

In modern military operations, sustainment is not just about speed – it is about positioning. Material located too far from the fight risks arriving too late to matter. The early stages of the Ukraine conflict highlighted this reality, where pre-positioned materiel and rapid resupply proved critical to sustaining U.S. forces supporting the NATO Response Force.[13] Targeted stock positioning transforms distribution from a reactive supply chain into a proactive force multiplier, directly shaping the tempo and effectiveness of operations.

As part of DLA Distribution's modernization strategy, stock positioning efforts are aligning material with mission. Instead of storing inventory based on legacy habits or convenience, DLA is deliberately placing high-demand parts near the points of need. This approach reduces lead times, minimizes excess handling, and drives down distribution costs – efficiencies that directly support warfighter readiness and deliver value back to the Services. All while retaining the structural depth required to adjust positioning as operational priorities shift.

At locations like DLA Distribution Red River, this concept is already being executed as part of a network-wide effort to align stock with readiness requirements. At Red River, high-demand parts for tracked Army vehicles are strategically positioned to support Red River Army Depot (RRAD), a key site for ground combat systems sustainment. Instead of relying on long-distance shipments, maintainers have immediate access to critical repair parts, accelerating depot repair cycles and improving platform availability.[14] Red River's role demonstrates how tactical execution across the network supports enterprise-level objectives.

Simultaneously, low-demand and inactive materiel is being consolidated at locations like San Joaquin, freeing up space and reducing unnecessary movements. This effort supports DoD's Warehouse Utilization (WU) initiative and allows DLA to reclaim capacity from commercial off-site storage.[15] The result is a more agile and predictable supply chain – one capable of scaling to meet operational demand while maintaining support to depot-level maintenance across the Services.

Conclusion: Modernizing for Readiness

DLA Distribution's modernization is not about technology for its own sake. It is about building a distribution network that can operate under pressure and deliver when it matters most. From workforce transformation and data-informed decision-making to warehouse automation and network optimization, every initiative is designed to improve responsiveness, increase visibility, and support readiness in contested environments.

This effort is not isolated. It is nested within the broader Department of Defense strategy and directly supports the Joint Force's ability to campaign globally. It also reinforces the logistics architecture that underpins power projection.

The agency depends on USTRANSCOM for strategic lift, on theater-managed Common User Logistics Transportation (CULT) for in-theater movement, and on close coordination with the Services to position and move the right materiel at the right time. But integration cannot be assumed. It must be built through shared systems, shared visibility, and consistent communication. The success of this modernization effort hinges not just on

13 Congressional Research Service, Defense Primer: Defense Working Capital Funds (DWCF), Updated November 18, 2020.

14 Resnick, Adam C., Jeremy M. Eckhause, and James Syme, Army Stock Positioning: How Can Distribution Performance Be Improved? Santa Monica, CA: RAND Corporation, 2017.

15 U.S. Government Accountability Office, Weapon Systems Sustainment: DOD Needs to Improve Its Reporting for Warehousing Pilot Program, GAO-23-105929, Washington, DC: U.S. Government Accountability Office, March 30, 2023.

DLA's capabilities, but on how well we connect them to the broader joint logistics enterprise. To deliver under pressure, we must over-communicate in planning, over-coordinate in execution, and align efforts with a common understanding of risk, timing, and operational demand.

Looking ahead, modernization is about more than sustaining the current mission. It is about posturing for the next one. That future will demand more from the logistics enterprise: faster decisions, deeper visibility, and greater resilience under stress. To meet that challenge, DLA must continue working closely with the Services and Combatant Commands to pursue adjacent opportunities and shared investments.

At the heart of this transformation is a deliberate acceptance of complexity – not as a burden to be avoided, but as a design principle that enables adaptability. DLA is not simplifying its mission. It is engineering a distribution network capable of thriving in contested, unpredictable environments. That blueprint is the foundation for resilience – and for readiness.

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DLA Disposition Services: Reutilization as a Source of Supply

By Angela Wilbur, DLA Disposition Services

For decades, military forces have relied on a systematic approach to targeting and engaging enemy forces, known as the "Kill Chain," or F2T2EA sequence: Find, Fix, Track, Target, Engage, and Assess.[1] The ultimate goal of warfare is to create significant combat effects, which can be either kinetic, such as destroying an enemy missile launcher with a precision-guided bomb, or non-kinetic, like disrupting an adversary's radar systems through electronic jamming. To achieve significant combat effects, military forces must execute a seamless kill sequence. First, they must identify and locate targets, and then rapidly fix their position or maintain continuous tracking. Next, they must precision-target and engage the enemy using a range of advanced military assets. Finally, they must conduct a thorough assessment of the attack's outcome to determine its effectiveness. However, the success of these complex operations depends on a critical enabler: the availability of functional weapons systems and adequate spare parts. Without a reliable supply of these essential resources, military forces are hindered in their ability to execute their missions, and the entire Kill Chain sequence is compromised. This is where a well-oiled and efficient Supply Chain proves indispensable, ensuring that military forces have the necessary resources to carry out their operations with speed, precision, and effectiveness.

The Joint Logistics Enterprise (JLent) supply chain system is a complex and critical system that enables the US military to acquire, maintain, and sustain its forces and equipment. There are multiple, separately managed supply chains that focus on specific commodities that make up the entire DoD supply chain, which consists of a wide range of activities, including Procurement, Logistics, Maintenance, and Supply Chain Management. For the purposes of this paper, these supply chains will be referred to simply as the military supply chain. The Jent is continually seeking ways to optimize its logistics and supply chain operations to support the warfighter, and one often overlooked source of supply by the Military Services, is the DLA Disposition Services Reutilization process. In fact, historically, only about 3% of the property DLA Disposition Services receives is eventually reutilized by customers ranging from the Military Services, Special Programs, and eligible Federal, State, and Local agencies. Reutilization can provide a rapid and cost-effective means of acquiring necessary materials and equipment for free between governmental entities. Since 1973, DLA's Disposition Services' first mission priority is to reutilize as much excess property as possible to support the warfighter. However, that proves difficult when the warfighter doesn't realize that DLA Disposition Services exists, not just to take their excess equipment, but to provide a variety of valuable, free-issue equipment. Per the Defense Material Disposition: Reutilization, Transfer and Sale of Property, DOD Manual 4160.21, Volume 3, DoD is required to reutilize DoD excess property to the maximum extent feasible.[2] The DoD Manual does not, however, state how this must be done, only that DLA Disposition Services provides asset referrals via front-end screening. It does not mandate the use of DLA Disposition Services as a major source of supply via Reutilization. This white paper introduces the idea that the DLA Disposition Services Reutilization process should be fully integrated into the Supply Chain as another primary source of supply and provides recommendations for implementation.

Supply Chain Concerns

The military supply chain is facing unprecedented risks due to the current global economy and Great Power Competition. It is now common knowledge that China's dominance in critical materials and components has created significant challenges for the U.S., making it difficult to acquire necessary resources. U.S. reliance on global supply chains, which are often obscure and vulnerable to disruption, has created a range of risks, including:

1 "Targeting," U.S. Air Force Doctrine, November 12, 2021, https://www.doctrine.af.mil/Portals/61/documents/AFDP_3-60/3-60-AFDP-TARGETING.pdf.

2 "DoDM 4160.21, Vol 3, Defense Materiel Disposition: Reutilization, Transfer, and Sale of Property," DoD Issuances, November 18, 2022, https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodm/416021_vol3.PDF?ver=OS5mgrLSsArG_LtaW2INpg%3d%3d.

1. **Material shortages:** China's control over critical materials and components has led to shortages and stockpiling, making it challenging to maintain a stable supply of essential resources.3
2. **Counterfeiting and tampering:** The risk of counterfeit or tampered components entering the supply chain is high, which could compromise the safety, security, and effectiveness of military equipment and systems. [4]
3. **Cyber threats:** The increased reliance on digital technologies and connected systems has created new vulnerabilities to cyber threats, which could disrupt or compromise the supply chain. [5]
4. **Geopolitical tensions:** The Great Power Competition has created an environment of heightened tensions, which could lead to trade wars, sanctions, or other forms of economic coercion that disrupt global supply chains.[6]

To effectively mitigate these risks, the JLEnt must pursue a proactive, comprehensive strategy in four critical areas. First, it should broaden and diversify its supplier base to reduce vulnerabilities associated with over-reliance on single sources. Second, it must enhance supply chain visibility and transparency across the DoD to ensure greater resilience and responsiveness. Third, it should prioritize investments in domestic production capabilities for critical materials and components, thereby strengthening national security and industrial independence. Finally, it must implement and maintain robust cybersecurity measures to safeguard supply chain integrity against evolving threats. By addressing these risks, the JLEnt can reduce its vulnerability to supply chain disruptions and ensure the continued readiness and effectiveness of its military forces. DLA Disposition Services is here to help, partly, through Reutilization.

DLA Disposition Services Reutilization and the Supply Chain

The JLEnt's Reutilization program is governed by various regulations and policies, including the Federal Property and Administrative Services Act of 1949, Code of Federal Regulations Title 32, the National Defense Authorization Act, and DoD Manual 4160.21. These sources provide a foundation for understanding the policies, procedures, and best practices related to Reutilization. DLA Disposition Services was designated as the agency that performs Reutilization, and it plays a critical role in mitigating supply chain risks through Reutilization. Here are some ways DLA Disposition Services can help:

1. **Reutilization of excess assets:** DLA Disposition Services reutilizes excess military equipment, vehicles, and other assets, reducing the need for new purchases and minimizing reliance on external suppliers. This approach helps to:
   - Reduce lead times and wait times for critical components,
   - Decrease the risk of supply chain disruptions due to supplier insolvency or geopolitical tensions, and
   - Lower costs associated with purchasing new equipment.
2. **Extension of equipment life:** By reutilizing and refurbishing existing equipment, DLA Disposition Services can help the military services extend the life of assets, reducing the demand for new equipment and minimizing the risk of obsolescence. This approach helps to:
   - Reduce the risk of equipment failures and downtime,
   - Decrease the need for costly repairs or replacements, and
   - Minimize the environmental impact of disposing of excess equipment.
3. **Supply chain diversification:** DLA Disposition Services can help diversify the supply chain by identifying alternative sources of critical components and materials. This approach helps to:
   - Reduce reliance on single suppliers or geographic regions,
   - Minimize the risk of supply chain disruptions due to supplier concentration, and
   - Increase the resilience of the supply chain to external shocks.
4. **Data-driven decision making:** DLA Disposition Services can provide valuable data and insights on equipment turn-ins, condition, and Reutilization demand, enabling more informed decision making and:

3 U.S. Government Accountability Office, "Critical Materials Are in High Demand," U.S. GAO, March 20, 2025, https://www.gao.gov/blog/critical-materials-are-high-demand.-what-dod-doing-secure-supply-chain-and-stockpile-these-resources.

4 Brandon Sullivan and Jeremy Wilson, "Center for Anti-Counterfeiting and Product Protection," Center for Anti-Counterfeiting and Product Protection, 2016, https://a-capp.msu.edu/article/counterfeit-parts-in-the-u-s-department-of-defense-supply-chain/.

5 Jason Wolff et al., "The Department of Defense's Digital Logistics Are under Attack.," Brookings, July 13, 2023, https://www.brookings.edu/articles/the-department-of-defenses-digital-logistics-are-under-attack/.

6 Ling S. Chen and Miles E. Evers, "'Wars without Gun Smoke': Global Supply Chains, Power Transitions, and Economic Statecraft," MIT Press Direct, October 1, 2023, https://direct.mit.edu/isec/article/48/2/164/118107/Wars-without-Gun-Smoke-Global-Supply-Chains-Power.

- Optimized inventory management and procurement strategies,
- Reduced risk of overstocking or understocking critical components, and
- A more efficient and effective supply chain.

5. **Support for readiness and modernization:** By reutilizing and refurbishing existing equipment, DLA Disposition Services can help support military readiness and modernization efforts, ensuring that critical assets are available and functional when needed.

Reutilization offers several advantages over traditional sources of supply. One is the absence of lead time, as materials and equipment are already in our inventory. This allows for rapid requisition and deployment, supporting the warfighter's need for timely and reliable logistics support. Additionally, Reutilization supports supply and repair by providing a source of spare parts and materials, reducing the need for new procurements and minimizing waste. When the JLEnt leverages these capabilities, DLA Disposition Services plays a vital role in mitigating supply chain risks and supporting the overall readiness and effectiveness of the military.

DLA Disposition Services also has a unique advantage: access to the government's entire legacy of property spanning decades of acquisitions and operations. Since the agency receives all types of property from across the military and other federal entities, the agency's inventory is a treasure trove of excess and surplus assets, including construction equipment, vehicles, weapon systems, aircraft, repair parts, and supplies, many of which are available for Reutilization, transfer, or donation (RTD). While items with certain demilitarization codes are exempt from RTD, most of the property is fair game, making DLA Disposition Services the go-to destination for the Military Services, DoD Special Programs, and Federal, State, and Local agencies seeking to tap into this vast inventory of excess and surplus assets. This extensive inventory provides a valuable source of ready-to-use components and repair parts, enabling the military, and other customers, to fill backorders, reduce downtime, eliminate unnecessary procurement lead times, and optimize the availability of critical equipment.

Understandably, stakeholders may have questions regarding the alignment of DLA Disposition Services' inventory to mission need across the services, including:

- How in demand is current inventory?
- What percentage of the property is up to current standard and usable with today's technology?
- How well does the current inventory fill orders for rare, hard to find, or backordered material?

To address those questions, we'll explore current inventory information and provide real world examples in the next section.

Inventory Analysis

Current inventory demand varies significantly across categories and is truly relative in this situation. The DLA Disposition Services inventory is the epitome of the saying "one man's trash is another man's treasure." The demand for current inventory is difficult to gauge because we never know what property will be turned in, but we can look at how much property received was issued out via RTD. This is what we call the Reutilization rate. DLA Disposition Services began analyzing Reutilization rates in FY25 as part of the 2025 Strategic Plan initiative to improve warfighter readiness through increased Reutilization. At the beginning of the fiscal year, the Reutilization rate was around 3% of all turn-ins. By making targeted adjustments through the receipt process and increasing the percentage of property made available for RTD, as of September 2025, the rate has trended up to 4.52%. However, there is still much room for improvement.

Understanding the percentage of property suitable for current standards can be answered by reviewing the supply condition code (SCC) of property in inventory. Property is assigned a condition code at turn-in based on what the military unit determines. Correctly assigned SCCs can indicate that property is serviceable and immediately usable, needs repair or depot level maintenance, is only good for parts, or is scrap (see Appendix 2 for list of supply condition codes). Without accurate condition codes, an activity requesting excess property from DLA Disposition Services will not know if the property will meet its requirement.[7] The figure below shows FY25 to Date Receipts broken down by Supply Condition Code:

The data shows that DLA Disposition Services receives primarily SCC F and H property, 73.4% to be exact. However, history tells us that it is simply a mechanism customers use to clear their property books. Much of the property in SCC F and H conditions still have usable life to someone. DLA Disposition Services' job is to find that someone Regardless of SCC, the DLA Disposition Services field team evaluates the property at receipt, determines its general usability, and either puts it on the shelf with its current SCC, or downgrades it. This is called the On-The-Shelf (OTS) rate and is also

7 "Condition Codes," Defense Logistics Agency, accessed September 23, 2025, https://www.dla.mil/Disposition-Services/DDSR/Quick-Links/Condition-Codes/.

Figure 1. FY25 to Date Receipts by Supply Condition Code

Supply Condition Code	Quantity of DTIDs per SCC
A	223,393
B	99,487
C	1,405
D	4,169
E	3,279
F	299,875
G	34,998
H	1,406,367
K	632
L	32
Q	24,050
S	227,391

tracked as part of the Strategic Plan initiative to ensure the agency is making an effort to put as much of the right property on the shelf as possible. As an important note, DLA Disposition Services lacks the specialized testing and inspection capabilities necessary to upgrade an item's SCC, though downgrades remain possible when warranted. This creates a critical dependency on initial accuracy: since property enters the RTD cycle with its original assigned SCC, customers must rely on this designation when making requisition decisions, despite potential inaccuracies. While photographs provide valuable visual verification of actual condition — a topic addressed in subsequent sections — the integrity of the entire process hinges on military units' precision when determining SCC during the initial turn-in phase.

The inventory's effectiveness in filling critical supply gaps is evident in many examples, but sometimes difficult to nail down with hard data. Since the DLA Disposition Services inventory is in a constant 42-day turnover cycle and automated tools do not yet exist to make the order fulfillment process automatic, the agency relies on field team members, Disposal Service Representative (DSRs), military service liaisons, and the RTD headquarters team to bridge the gap where there are critical needs. Work is currently being done to connect DLA and military service backorders to the receipt process but more needs to be done to make the Reutilization backorder fulfillment process second nature and automated. Moreover, assessing the value of reusable stock in terms of current technology and usability standards can be misleading. Obsolete or out of use property for one unit may be just what another needs to perform a current mission or operate a training function.

Nevertheless, as an example, in 2024, an Army unit turned in a Mobile Command Center which was quickly picked up by the Naval Air Warfare Center Aircraft Division at Naval Air Station Patuxent River, Maryland, saving $1.3 million in original acquisition value to the Navy.[8] In another example, DLA Disposition Services and DLA Distribution collaborated to rapidly fulfill the Navy's urgent need for 48 radar transponders worth $2.8 million. When the Naval Air Systems Command contacted DLA requesting the transponders that the Air Force was turning in at Warner Robins, Georgia, both DLA organizations expedited the normal process. Through quick coordination, DLA processed the transponders into Disposition inventory within 24 hours and delivered them to the Navy within three working days.[9]

The alignment of DLA Disposition Services inventory— the Reutilization supply—to mission needs depends on three critical factors: what property is turned in, what capabilities are required, and which organizations need them. As mentioned, what makes our inventory particularly valuable is its evolving composition. While we continue to receive legacy equipment with outdated technology, we're increasingly seeing cutting-edge assets that reflect the rapid pace of technological advancement.

8 Jeff Landenberger, "Navy Command Saves an Additional 1.3 Million with DLA Disposition Services," Defense Logistics Agency, June 18, 2024, https://www.dla.mil/About-DLA/News/News-Article-View/Article/3806396/navy-command-saves-an-additional-13-million-with-dla-disposition-services/.

9 Tim Hoyle and Dawn Bonsell, "Agency Rallies to Support Navy's Critical Part Need," Defense Logistics Agency, April 1, 2019, https://www.dla.mil/About-DLA/News/News-Article-View/Article/1802034/agency-rallies-to-support-navys-critical-part-need/.

Items like unmanned aerial systems and other emerging technologies are becoming more prevalent in our inventory, offering mission-relevant capabilities that support both current operations and future requirements across diverse mission sets.

To provide further analysis, we will dig into the wide range of Class IX parts that can be reutilized to support the repair and maintenance of current military systems. As an example, between October 2024 and September 2025, DLA Disposition Services received over 2.3M DTIDs accounting for 1.6B pieces of property with almost $244B in acquisition value. Of that property, 18,045 DTIDs were available for a subset of Class IX Repair Parts and Components based on Federal Supply Class (FSC) 4900 National Stock Numbers (NSNs) relating to Motor Vehicle Maintenance and Repair Shop Specialist Equipment alone throughout the FY. FSC 4900 includes NSNs such as lifting and handling equipment, diagnostic and testing equipment, tire and wheel service equipment, lubrication and fluid exchange equipment, brake service equipment, exhaust system equipment, body repair equipment, and other specialized tools. By leveraging this inventory, military units can accelerate repair and maintenance activities, ultimately enhancing operational readiness and supporting the effective execution of military missions. Additionally, RTD is not limited to repair parts; underfunded agencies or those that are simply looking to save taxpayer dollars and require operable equipment can take advantage of Reutilization to supply themselves with property ranging from desks and computers to HMMWVs, firetrucks, or generators. A few examples of recent requisitions supporting these efforts are in Appendix 1.

DLA Disposition Services has consistently achieved impressive results in reutilizing excess property. Figure 2 highlights the agency's notable Reutilization statistics over the past three fiscal years, as well as the current fiscal year to date, showcasing a compelling trend of success in redirecting valuable assets back into the military's supply chain. This data underscores the significant contributions of DLA Disposition Services in supporting military readiness, reducing waste, and promoting fiscal responsibility.

Further, between October 2024 and September 2025, DLA Disposition Services achieved significant Reutilization milestones, with the top 25 Federal Supply Classes (FSCs) by acquisition value accounting for over 21K DTIDs, 373K line items, and totaling over $1.1 billion as shown in Figure 3.

DLA Disposition Services facilitates Reutilization through multiple channels, primarily via local offices and the online RTD Website. This centralized platform provides 24/7 global access, allowing customers to search inventory, view detailed photos, create want lists, and submit requisitions from anywhere in the world. The system, though a bit dated, streamlines the requisition process and reduces acquisition time in many cases. More importantly, it generates substantial cost savings by enabling the reuse of excess property rather than purchasing new items, while providing access to vast inventories that help prevent critical backorders.

Room for Improvement

While these facts and figures demonstrate significant potential, the current Reutilization rates tell a different story—less than 5% of available property is actually reutilized, and 54.5% of received property is downgraded to scrap. Property condition alone does not account for the low utilization rates. To unlock the full potential of Reutilization as a cost-saving resource, we must examine the underlying barriers preventing wider adoption of DLA Disposition Services' inventory.

- Lack of understanding of Reutilization: Many potential users across the Department of Defense and federal agencies remain unaware of DLA Disposition Services' capabilities and the Reutilization process. This knowledge gap extends from individual users to organizational leadership, resulting in missed opportunities to acquire mission-essential equipment at significant cost savings. Without proper training and outreach efforts, agencies continue to procure new items rather than exploring available Reutilization options.
- Not mandated: Unlike new procurement processes that follow strict regulatory requirements, Reutilization

Figure 2. Historical Requisition Data

	Requisitions	Quantity	Acquisition Value
FY25 (10/1/24 through 9/23/25)	104,985	2,318,454	$1,697,468,642.75
FY24	79,659	2,420,775	$1,682,829,788.24
FY23	87,928	3,267,576	$1,395,699,814.23
FY22	121,628	5,023,245	$1,538,122,193.75

screening is often viewed as optional rather than mandatory. The absence of enforceable policies requiring agencies to check available Reutilization inventory before initiating new purchases means that cost-effective alternatives are frequently overlooked. This discretionary approach undermines the potential for significant government-wide savings.

- Hard to use interface: The current system interface presents usability challenges that deter potential users from effectively searching and identifying suitable property. Complex navigation, outdated search functionality, and non-intuitive design elements create barriers to efficient property discovery.
- No photos/lack of data: The absence of comprehensive visual documentation and detailed property specifications hampers user confidence in available items. Without photographs showing actual condition or complete technical data, potential users cannot adequately assess whether property meets their operational requirements. This information gap forces conservative decision-making that favors new procurement over Reutilization.
- Ineffective shipping/long wait times: Lengthy processing and shipping timelines can make Reutilization incompatible with urgent operational needs. Unfortunately, DLA Disposition Services does not control shipping priorities and there is currently a lack of visibility once orders are handed over to shipping partners. Unpredictable delivery schedules and inadequate tracking capabilities can discourage reliance on reutilized property for time-sensitive requirements.

Figure 3. Oct 2024 - Sep 2025 Top 25 FSCs Reutilized by Acquisition Value

FSC	Description	Requisitions	Quantity	Acquisition Value
6665	Hazard-Detecting Instruments and Apparatus	145	3,579	$185,205,351.06
2320	Trucks and Truck Tractors, Wheeled	1,438	1,493	$139,603,332.64
2350	Combat, Assault, and Tactical Vehicles, Tracked	31	169	$133,747,573.00
5895	Miscellaneous Communication Equipment	464	3,620	$80,548,860.62
2355	Combat, Assault, and Tactical Vehicles, Wheeled	45	66	$73,061,363.20
5855	Night Vision Equipment, Emitted and Reflected Radiation	901	7,890	$64,475,840.91
6810	Chemicals	19	16,492	$63,584,535.76
1550	Unmanned Aircraft	215	365	$56,772,331.39
5865	Electronic Countermeasures, Counter-Countermeasures, etc.	28	267	$43,259,047.76
1510	Aircraft, Fixed Wing	1	1	$40,000,000.00
6115	Generators and Generator Sets, Electrical	1,070	1,933	$34,630,836.21
2330	Trailers	723	762	$30,901,653.12
3930	Warehouse Trucks and Tractors, Self-Propelled	603	889	$25,234,818.48
1905	Combat Ships and Landing Vessels	3	3	$21,101,307.00
1560	Airframe Structural Components	630	3,548	$20,413,191.08
8340	Tents and Tarpaulins	862	11,584	$19,687,955.00
5120	Hand Tools, Non-edged, Non-powered	2,916	39,353	$16,044,175.67
3805	Earth Moving and Excavating Equipment	186	253	$15,105,166.50
8145	Specialized Shipping and Storage Containers	1,180	6,711	$14,937,539.20
8465	Individual Equipment	6,598	241,966	$13,702,212.67
2815	Diesel Engines and Components	273	2,599	$13,080,992.73
7025	Information Technology Input/Output and Storage Devices	1,234	19,369	$12,949,156.33
4210	Firefighting Equipment	405	2,366	$12,884,385.35
5180	Sets, Kits, and Outfits of Hand Tools	1,078	3,333	$12,693,333.76
5985	Miscellaneous Communication Equipment	565	4,996	$11,344,750.45
	Sum of Top 25 High Acq Value	**21,613**	**373,607**	**$1,154,969,709.89**

- Truly unusable or scrap property: A significant portion of received inventory arrives in conditions that preclude meaningful Reutilization, regardless of process improvements. Property damaged beyond economical repair, technologically obsolete equipment, or items missing critical components naturally limits Reutilization potential.
- Inadequate Forecasting and Planning: The lack of visibility into incoming property prevents strategic planning and coordination between Reutilization and procurement processes. Without forecasting data on what property will be turned in, services cannot proactively align their acquisition strategies with available assets, leading to inefficient timing of purchases and missed cost-saving opportunities.

To address these issues, DLA Disposition Services is transforming its approach under the 2025 Annual Operating Plan. The agency is shifting its priorities from speed and throughput to accuracy and maximizing reuse. This cultural and procedural change empowers staff to make more informed decisions about property handling, ultimately making more materials available for reuse rather than disposal.

Consequences of Bypassing Reutilization

Beyond the operational impacts, the services' reluctance to fully embrace Reutilization creates fiscal accountability issues that directly impact taxpayers and go against the basic principles of responsible government spending:

- Wasting billions in already-purchased assets: With over $244 billion in property received in FY25, services that ignore Reutilization essentially discard already purchased assets while forcing duplicate spending for similar capabilities.
- Missed savings: Individual examples like the $1.3 million Mobile Command Center and $2.8 million in radar transponders demonstrate how defaulting to new procurement could be wasting hundreds of millions annually in taxpayer dollars.
- Questionable compliance with Federal Policy: Arguably, the military services are not following the Code of Federal Regulations Title 32 requirement which states, "…DoD policy, in accordance with 41 CFR chapters 101 and 102, is to reutilize DoD excess property and FEPP to the maximum extent feasible to fill existing needs before initiating new procurement or repair." [10]
- Inefficient resource allocation: Funds wasted on duplicate purchases could support modernization, training, or other critical capabilities, reducing military effectiveness per taxpayer dollar.
- Inadequate Due Diligence: Purchasing without screening available DTIDs demonstrates poor spending discipline and fails basic fiscal accountability standards.

In essence, failing to utilize DLA Disposition Services Reutilization represents a systematic waste of taxpayer money, poor stewardship of public resources, and a lack of demonstrated fiscal responsibility that citizens rightfully expect from their government institutions.

Recommendations

To strengthen the DoD supply chain and fully capitalize on the benefits of Reutilization, a deliberate and coordinated approach is required, and DLA Disposition Services needs broader DoD support to make this happen. The following recommendations present a structured plan to enhance training for military personnel, align policy with operational priorities, and leverage technology to improve visibility and responsiveness, enabling DLA Disposition Services Reutilization to be embedded into core logistics processes. Several of these initiatives are already in progress, laying a strong foundation for implementation. Building on this momentum will not only reduce costs and waste but also ensure that the JLEnt maintains the agility and readiness necessary to meet evolving mission demands.

1. **Reutilization Training for the Services:** To fully integrate Reutilization into the "Find" step of the Kill Chain sequence, it must become a standard component of professional military education across the JLEnt. This begins with embedding Reutilization instruction into the curricula of key military officer training institutions, such as the U.S. Army Logistics University (Fort Gregg-Adams, VA), the Navy Supply Corps School (Newport, RI), the Air Force Institute of Technology's School of Systems and Logistics (Wright-Patterson AFB, OH), and the Marine Corps Logistics Operations School (Camp Johnson, NC). Training should provide officers with a comprehensive understanding of Reutilization procedures, inventory management best practices, supply chain optimization strategies, and the technical steps required to obtain the correct system roles for RTD Web access and profile creation. However, this education should not be limited to Officer commissioning and advanced courses. Reutilization awareness and skills should

10 "Title 32 PART 273—DEFENSE MATERIEL DISPOSITION," Discover U.S. Government Information, July 1, 2024, https://www.govinfo.gov/content/pkg/CFR-2024-title32-vol2/pdf/CFR-2024-title32-vol2.pdf.

"THE DLA DISPOSITION SERVICES INVENTORY IS THE EPITOME OF THE SAYING 'ONE MAN'S TRASH IS ANOTHER MAN'S TREASURE.'"

— ANGELA WILBUR

also be embedded into enlisted supply specialist training, warrant officer logistics programs, and procurement and contracting courses across the JLEnt. This top-down and bottom-up approach will ensure that every level of the DoD logistics workforce—from strategic planners to front-line supply clerks—understands and actively leverages the opportunities DLA Disposition Services provides. The result will be a force that instinctively considers available DoD assets through DLA Disposition Services before initiating new procurement, driving cost savings, reducing waste, and improving readiness.

2. **Policy Updates:** In accordance with CFR Title 32 and current policy, Reutilization should be prioritized as another primary source of supply. Despite these policy directives, the current framework only encourages the use of Reutilization, rather than requiring it as a key source of supply. To fully leverage the benefits of Reutilization, it is essential that policy be revised to mandate the military services to utilize DLA Disposition Services' Reutilization program as a primary source of supply. By making this policy change, Reutilization can be fully integrated into the supply chain, maximizing the potential for cost savings, reducing waste, and enhancing operational readiness.
3. **IT Initiatives to Connect the Supply Chain:** To further enhance support to the warfighter, DLA Disposition Services is advancing a series of IT initiatives designed to seamlessly integrate its inventory into the broader supply chain. These efforts will give customers greater visibility into available property, directly link their requirements to existing assets, and accelerate fulfillment. Three priority integrations are underway that focus on what we call targeted reutilization, or reutilization based on the needs of the customer:
   - RTD Web Want Lists – In February 2025, DLA Disposition Services upgraded the Electronic Turn in Document (ETID) system to automatically flag receipts for property that matches a customer's RTD want list. When such a match occurs, the system alerts field site personnel, prompting warehouse staff to place the item on the shelf for requisition. This ensures high demand property is made available quickly and efficiently.
   - DLA Backorders – Building on the Want List capability, the agency is developing a similar automated flag for DLA backordered items. The goal is to identify and fulfill these backorders directly from existing DLA inventory, reducing procurement delays and improving supply responsiveness.
   - Service Backorders – In parallel, work is underway to address backorders from individual service branches using the same automated approach. Data analysis and initial testing have begun to define requirements and validate processes for this capability.

These enhancements will provide real-time notifications to DLA Disposition Services warehouse receivers, enabling them to prioritize targeted reutilization of known needs from current inventory.

Beyond improving property receipt processes, DLA Disposition Services is implementing comprehensive upgrades to its customer-facing systems. The agency has launched several concurrent projects to modernize RTD Web's functionality, improve system performance, and enhance user experience. Recognizing the critical importance of visual documentation, DLA Disposition Services is also exploring innovative IT solutions to simplify and automate the process of incorporating property photographs into the RTD Web database for customer viewing and exploring options for order shipment tracking. While the potential benefits are significant, completing these initiatives will require additional resources and sustained information technology support. Once fully implemented, these tools will make DLA Disposition Services' inventory more transparent, accessible, and responsive—empowering customers to source a wider range of property quickly, reducing costs, and strengthening operational readiness across the force.

Additionally, as artificial intelligence tools advance, DLA Disposition Services is pioneering methods to seamlessly integrate ordering, forecasting, disposal, reutilization, and shipping with evolving service requirements. Through targeted research and development, we're mapping current processes, piloting agile proofs of concept, and gathering insights from a broad spectrum

of stakeholders to unlock new possibilities. The ideal future state would include fully integrated systems that communicate across the DoD and make ordering through DLA Disposition Services Reutilization as seamless as any other ordering process.

Reutilization Integrated as Source of Supply:

By aligning enhanced training initiatives, updated policy frameworks, advanced IT integrations, and sustained AI-driven research and development, DLA Disposition Services can be fully integrated into the "Find" step of a unified Supply Kill Chain. The services will be aware of and trained to requisition property through Reutilization. When logisticians and warfighters require end items, spare parts, or critical equipment, they can prioritize DLA Disposition Services as a primary source—alongside the DLA Catalog, FEDMALL, GSA, and commercial vendors. This cohesive integration expedites access to mission-ready assets at minimal or no additional cost, significantly reduces procurement lead times and material waste, and reinforces the DoD's agility and readiness to meet evolving operational demands.

Conclusion

In conclusion, the U.S. military supply chain is facing unprecedented risks and challenges, and it is imperative that the military services adopt a proactive approach to mitigating these risks. One critical component of this approach is the integration of Reutilization into the supply chain, leveraging the capabilities of DLA Disposition Services to provide a rapid and cost-effective means of acquiring necessary materials and equipment. By prioritizing Reutilization as a primary source of supply, we can reduce our reliance on external suppliers, minimize the risk of supply chain disruptions, and enhance operational readiness.

The data presented in this paper demonstrates the significant contributions that DLA Disposition Services can make to supporting military readiness, reducing waste, and promoting fiscal responsibility. With a vast and diverse inventory of excess property, DLA Disposition Services is well-positioned to provide military units with the critical items they need to execute their missions. Integrating Reutilization into the "Find" step of the Kill Chain sequence, incorporating Reutilization training into the curriculum of various training schools, revising current policy to mandate the use of DLA Disposition Services' Reutilization program, and integrating IT initiatives to connect it all, can unlock the full potential of Reutilization and create a more resilient, efficient, and effective supply chain. By increasing targeted reutilization efforts, DLA Disposition Services will be able to better support warfighters when they have an identified need via want lists, DLA backorders, or service backorders, and standard reutilization, transfer, and donation processes.

Ultimately, the successful integration of Reutilization into the DoD supply chain will require a cultural shift, as well as changes to policy, procedures, and training. However, the benefits of this effort will be well worth it, as the JLEnt is able to reduce costs, enhance operational readiness, and support the effective execution of military missions. As Lieutenant General Simerly stated during a Town Hall event at the DLA Disposition Services Headquarters in September 2025, connecting the supply chain in our rugged digital terrain is "a great opportunity to enhance readiness." Embracing Reutilization as a key component of its supply chain strategy will ensure the DoD that its military services have the resources they need to succeed in an increasingly complex and challenging operational environment.

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APPENDIX 1:

DLA Articles Featuring Reutilization Efforts to Support the Warfighter

- Navy command saves an additional 1.3 million with DLA Disposition Services
- (A new) Home on the range: NTTR
- Excess equipment to help build special operations capability
- (A new) Home on the range: JRTC
- Excess equipment bolsters operational readiness
- Japan firetruck reuse helps NH Air Guard
- DLA Disposition Services supports ROTC winter training in New Hampshire
- Europe and Africa team notches buzzer-beating assist for Army Special Forces in Eastern Europe
- DLA helps grounded C-17 fly
- Okinawa team helps restore joint range
- DLA Reutilization program supports COVID-19 relief with 2.5 million medical items
- Agency rallies to support Navy's critical part need
- Coast Guard finds a bargain at Okinawa site
- Air national guardsman uses Defense Logistics Agency Reutilization program to save millions of dollars

APPENDIX 2:

Relevant Supply Condition Code Definitions

Code	Description	Condition
A	SERVICEABLE (ISSUABLE WITHOUT QUALIFICATION)	New, used, repaired, or reconditioned materiel which is serviceable and issuable to all customers without limitation or restriction. Includes materiel with more than 6 months shelf-life remaining.
B	SERVICEABLE (ISSUABLE WITH QUALIFICATION)	New, used, repaired, or reconditioned materiel which is serviceable and issuable for its intended purpose but which is restricted from issue to specific units, activities, or geographical areas by reason of its limited usefulness or short service life expectancy. Includes materiel with 3 through 6 months shelf-life remaining.
C	SERVICEABLE (PRIORITY ISSUE)	Items which are serviceable and issuable to selected customers, but which must be issued before SCCs A and B materiel to avoid loss as a usable asset. Includes materiel with less than 3 months shelf-life remaining.
D	SERVICEABLE (TEST/ MODIFICATION)	Serviceable materiel which requires test, alteration, modification, technical data marking, conversion, or disassembly. This does not include items which must be inspected or tested immediately prior to issue.
E	UNSERVICEABLE (LIMITED RESTORATION)	Materiel which involves only limited expense or effort to restore to serviceable condition and which is accomplished in the storage activity where the stock is located. May be issued to support ammunition requisitions coded to indicate acceptability of usable SCC E stock.
F	UNSERVICEABLE (REPARABLE)	Economically reparable materiel which requires repair, overhaul, or reconditioning; includes reparable items which are radioactively contaminated.
G	UNSERVICEABLE (INCOMPLETE)	Materiel requiring additional parts or components to complete the end item prior to issue.
H	UNSERVICEABLE (CONDEMNED)	Materiel which has been determined to be unserviceable and does not meet repair criteria; includes condemned items which are radioactively contaminated; Type I shelf-life materiel that has passed the expiration date; and Type II shelf-life materiel that has passed expiration date and cannot be extended. (NOTE: Classify obsolete and excess materiel to its proper condition before consigning to the DLA Disposition Services Field Office. Do not classify materiel in Supply Condition Code H unless it is truly unserviceable and does not meet repair criteria.)
Q	SUSPENDED (PRODUCT QUALITY DEFICIENCY)	Potential and confirmed product quality deficiency related materiel which is prohibited for use within DoD and prohibited for Reutilization screening. Includes product quality deficiency exhibits returned by customers/users as directed by the integrated materiel manager (IMM) due to technical deficiencies reported by Product Quality Deficiency Reports. Exhibits require technical or engineering analysis to determine cause of failure to perform in accordance with specifications. Includes product quality deficient materiel identified by SF 368 Product Quality Deficiency Report; DD Form 1225, Storage Quality Control Report; SF 364, Supply Discrepancy Report (Security Assistance only); or authorized electronic equivalent.
S	UNSERVICEABLE (SCRAP)	Materiel that has no value except for its basic materiel content. No stock will be recorded as on hand in SCC S. This code is used only on transactions involving shipments to DLA Disposition Services Field Offices. Materiel will not be transferred to SCC S prior to turn-in to DLA Disposition Services Field Offices if materiel is recorded in SCCs A through H at the time materiel is determined excess. Materiel identified by NSN will not be identified by this SCC.

Incorporating Tactical Energy Storage War Reserves: DLA's Vital Role in Sustaining Strategic Assets

By COL Sue Styer, USA, MAJ Emile Prosko, USA, and Kristin Molinaro, DLA Weapons Support

War Reserve Materiel (WRM) is critical to minimizing supply chain disruptions inherent in contested logistics. For over sixty years, forward-deployed, prepositioned war reserve materiel (PWRM) has enabled rapid response to contingencies and strengthened deterrence against emerging threats. However, as the U.S. fighting force relies increasingly on technologically sophisticated and environmentally sustainable equipment, a critical gap exists in the current WRM framework: the absence of batteries and Tactical Energy Storage (TES). While batteries generally refer to individual units used to power small devices, such as flashlights, TES describes a larger system designed to provide reliable, portable regenerative power in demanding situations, ensuring greater durability across a range of extreme environmental conditions and changing needs on the battlefield.[1] As technology advances and the demand for clean and renewable energy continues to grow, this omission warrants reconsideration. This paper explores the importance of integrating batteries and TES into WRM to enhance operational capability, reduce risk, and secure a decisive advantage for today's modernized, electrified, and sustainable force. It describes the impetus for TES and battery inception, explains governing policies, and illustrates the WRM gap created by the changing character of war in the 21st century.

This paper highlights the evolving landscape of military energy needs necessitating available energy storage technologies required on a distributed, multi-domain battlefield. Finally, this paper provides recommendations to the Department of Defense (DOD) and Military Services to integrate energy storage into the PWRM to posture Combatant Commanders for successful sustainment of highly technological Large-Scale Combat Operations.

Introduction to War Reserve Materiel

The 2022 National Security Strategy (NSS) states that, "aligning military strategy with available resources is crucial to national security."[2] In light of global threats posed by technologically advanced adversaries including a disruptive Russia and China's pacing threat, the 2022 National Defense Strategy (NDS) charged U.S. Military Services with advancing national defense goals through integrated deterrence, campaigning, and building enduring advantages.[3] Each requires a globally distributed, ready, and modernized force.

To be ready for the next fight, Combatant Commanders are tasked with ensuring resources are aligned to provide immediate support to the Joint Force when and if conflict breaks out. Therefore, the Military Services maintain mission-essential equipment, supplies, munitions, and prepositioned stock around the world as part of our global posture to support strategic objectives and maximize operational readiness in response to immediate threats and contingencies. This materiel is defined as War Reserve Materiel (WRM) or prepositioned WRM (PWRM).

PWRM varies across the Military Services based on the theater-specific needs of Combatant Commanders. It provides initial equipment, repair parts, supplies, and munitions to support weapon systems and military forces during contingency operations until replenishment processes can be established to meet demand.[4] USAF Instruction 25-101 further explains the two components of PWRM: starter stock and swing stock. Starter stock lasts until resupply; swing stock, which is aligned against more than one contingency,[5] is "intended for

1 Cummins, "Cummins Unveils New Battery-Powered Tactical Unit for U.S. Military." Cummins, October 14,2019, accessed October 27, 2024.
2 Department of Defense. 2022 National Defense Strategy, Nuclear Posture Review, and Missile Defense Review. October 27, 2022, 22, accessed September 27, 2024.
3 U.S. Department of Defense. National Defense Strategy Fact Sheet. Washington, D.C.: U.S. Department of Defense, March 28, 2022, 2, accessed September 28, 2024.
4 Defense Acquisition University. "Pre-positioned War Reserve Materiel (PWRM)." Acquipedia, accessed September 28, 2024.
5 U.S. Department of the Air Force, Air Force Instruction 25-101: Headquarters United States Air Force Management of Logistics (Washington, D.C.: U.S. Department of the Air Force, May 13, 2020), 55, accessed September 28, 2024.
5 U.S. Department of the Air Force, Air Force Instruction 25-101: Headquarters United States Air Force Management of Logistics (Washington, D.C.: U.S. Department of the Air Force, May 13, 2020), 55, accessed September 28, 2024.

use until sustainable logistical lines of communication are established in a region that has transitioned from competition to crisis or conflict."[6]

Since its Cold War era inception, PWRM has evolved and expanded globally as needed to deter new threats in multiple regions. Today, PWRM remains critical to realizing integrated deterrence in the current, contested logistics environment because it is strategically located globally in each area of responsibility and reduces the time required to achieve an operational capability or an operational effect. PWRM creates efficient and timely resourcing by minimizing reliance on strategic airlifts, alleviating backlogs caused by inadequate supply lines, and ensuring responsive sustainment for Combatant Commanders during the initial phases of military operations.

PWRM governance is designed to address regional threats and support forward-positioned military equipment while maximizing resource efficiency. Each theater's PWRM stockage list and levels are customized based on DoD guidelines and doctrine. Individual Combatant Commanders determine specific operational requirements based on theater plans and in accordance with the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 4310.01[7], which establishes logistics planning guidance for PWRM application during the full spectrum of contingency operations. DoD Instruction (DoDI) 3110.06 outlines the responsibilities for managing WRM across various DoD components, following the prioritization guidelines set forth in the CJCSI 4310.01D for assigned, allocated, or apportioned forces.[8] DoDI 3110.06 mandates the acquisition and maintenance of WRM inventories during peacetime, ensuring sufficient resources will be available to achieve and sustain strategic objectives, as directed by the Secretary of Defense (SECDEF) in the annual Defense Planning Guidance.

Successful management of PWRM involves both appropriated funds from Congress and defense working capital funds that purchase and manage inventories to stabilize item supplies and prices.[9] The Military Services are responsible for managing and funding their own WRM. However, they rely on the Defense Logistics Agency (DLA) for certain DLA-managed items critical to military operations, and DoDI 3110.06 directs DLA to coordinate with the Military Departments to contract, stock, or perform storage and distribution functions for WRM. "To maximize the use of existing funds, the military departments should minimize WRM requirements with alternative sources of support, this includes coordinating with other military departments and agencies, including the DLA. The DLA coordinates with the military departments to contract, stock, or perform storage and distribution functions for designated WRM and contingency retention stock in coordination with the CJCS to support mission requirements."[10] The military departments, who own the responsibility to equip forces, validate WRM requirements to achieve the greatest practical flexibility and responsiveness to a full spectrum of regional contingencies while minimizing DoD investment.[11] While Combatant Commanders and Military Services play a key role in determining what prepositioned materiel is required in times of crisis and conflict, the SECDEF ultimately retains the authority to authorize the release of PWRM to allocated forces for a military operational employment.

Management and maintenance of PWRM is a team sport across the joint enterprise. All Military Services maintain PWRM stocks worldwide in a variety of settings as a comprehensive global power projection strategy. The Army, Navy, Air Force, and Marine Corps each have their own stocks, either afloat or ashore, serving as mobile power projection platforms to deter adversaries from threatening global security while enabling rapid response capabilities.[12] The Military Services collaborate with the DLA to manage the contracting, stocking, and distribution of designated PWRM to effectively meet their mission requirements. Among many other examples, two historical instances of this Joint Force collaboration highlight its effectiveness. During Operation Desert Shield in 1990-1991, PWRM pre-staged in the Central Command Area of Responsibility enabled the delivery of armored units to the Persian Gulf. This material equipped Marine Corps forces one month before the arrival of similar units shipped from the United States. In 2022, the Army rapidly issued PWRM, referred to as Army Prepositioned Stock (APS-2), to the 1st Armored Brigade Combat Team deploying in

6 Ibid., 7.
7 Chairman of the Joint Chiefs of Staff, Chairman of the Joint Chiefs of Staff Instruction 4301.01F, Logistics Planning Guidance for Pre-Positioned War Reserve Materiel, Joint Chiefs of Staff, 2022, 1, accessed September 26, 2024.
8 Department of Defense, Department of Defense Instruction 3110.06: Subject (Washington, D.C.: U.S. Department of Defense, 2024).
9 Congressional Research Service, Department of Defense: Overview of the FY2021 Budget Request (Washington, D.C.: Congressional Research Service, March 18, 2020).
10 Department of Defense, Department of Defense Instruction 3110.06: Subject (Washington, D.C.: U.S. Department of Defense, 2024),
11 Ibid, pg. 9.
12 Defense Acquisition University. "Pre-positioned War Reserve Materiel (PWRM)." Acquipedia.

support of the NATO Response Force following Russia's invasion of Ukraine.[13] Having the PWRM available not only eliminated the burden of time and assets on strategic airlift, but also extensively reduced the estimated time to issue and respond to Russia's aggressions.

Understanding the Gap in PWRM

Although examples of PWRM supporting global operations indicate the program's effectiveness in countering past threats, the NDS stresses the importance of adapting to evolving geopolitical, economic, and technological advancements that alter the character of war. As the threat environment changes and the equipment in the U.S. inventory modernizes, PWRM must evolve to keep pace with changing operational requirements. Already, the Military Services are fielding more unmanned systems, electrifying vehicles, and adding sensors and sophisticated communications suites to existing equipment.[14] The blistering pace of technological innovation is changing the way we fight and creating significant gaps in current PWRM materiel allocations. PWRM must modernize to successfully support the multi-domain style of warfare emerging on the battlefields of Ukraine, Gaza, and Haiti, and expected in future conflicts.

In addition to new technology, three aspects of modern war challenge current sustainment constructs: decentralization, mobility, and disrupted lines of communication. According to retired Marine Corps Commandant, General David Berger, "The biggest problem facing the Navy and Marine Corps' plans to deter great power competitors is how to supply a widely distributed maritime force in a contested environment."[15] He called for "smaller, highly mobile Marine expeditionary units capable of operating in multi-domain environments."[16] The Marine Corps is not alone in recognizing this need and its inherent challenges. To support in a contested environment, the Army is reconfiguring its collection of vehicles and facilities used to deliver supplies to sustain military operations – known as a "logistics tail" – by experimenting with hybrid power, autonomous aircraft, watercraft and vehicles, and artificial-intelligence-enabled predictive logistics tools.[17]

A Joint Force operating in highly mobile, decentralized formations in a contested logistics environment demands a new support framework. This way of fighting requires accessible and sustainable energy sources to fuel the fight until secure lines of communication can be reestablished. This brings us to the most significant shortfall in PWRM to support a transforming military: the lack of modern energy sources, including batteries and battery hybrid power systems for military use – known as TES.[18]

Disruptions in power supply can have cascading effects, impacting everything from specific tactical missions to broader operational plans. Both energy sources offer advantages and disadvantages: fuel-powered energy involves combustion or chemical processing, typically offering higher energy density but with environmental off-sets. Battery-powered energy stores electrical energy in chemical form, offering greater efficiency and cleaner energy but lower energy density and longer recharge times.[19] With advancements in technology and logistics contested in all domains, the demand for TES continues to rise because fuel-powered options are heavier and less mobile at a time when almost every weapon system requires some level of battery power and power regeneration on the battlefield. However, there are currently no TES sources allocated to PWRM, highlighting a critical need to adapt our reserves to meet modern warfare and energy requirements.

The Evolving Landscape of Military Energy Needs

According to the Hamilton Commission on Securing America's National Security Industrial Base, "Advancements in energy storage, such as NG [Next Generation] lithium batteries, will be key in the DoD's reorientation for great power competition."[20] The commission was created by the Hudson Institute, a Washington. D.C.-based research think tank, to examine sectors critical to American national security and propose policy recommendations to reduce dependence and

13 Department of Defense, Office of the Inspector General, Audit of the Department of Defense's Acquisition of F-35 Aircraft (DODIG-2023-053), March 27, 2023.
14 Hope Seck, "As Tactical EV Plans Take Shape, Army Charges Ahead, Marines Stay Cautious," National Defense Magazine, February 12, 2024, accessed 5 October, 2024.
15 John M. Doyle, "Berger Says Supporting a Widely Distributed Maritime Force Will Be a Challenge," SEAPOWER, The Official Publication of the Navy League of the United States, April 7, 2021.
16 Ibid., 2.
17 Jen Judson, "What is the Army's New Contested Logistics Team Working On?" Defense News, October 9, 2023.
18 Cummins, "Cummins Unveils New Battery-Powered Tactical Unit for U.S. Military." Cummins, October 14, 2019.
19 Text generated by ChatGPT, December 13, 2024, OpenAI.
20 "Powering Innovation: A Strategic Approach to America's Advanced Battery Technology," Hudson Institute,.

advance U.S. leadership in these industries. Energy storage offers operational continuity, logistical efficiency, power management and rapid response capabilities to support increased modernization needs related to battery power requirements. Most modern weapon systems, which include equipment ranging from drones and lasers to tanks and submarines, now require battery electrification and recharging.[21] "Batteries power everything from unmanned systems to electromagnetic warfare systems."[22] Despite this, fuel remains the predominant energy source in military operations; for every gallon of fuel used in the recent Afghanistan war, seven gallons were required for transportation. Focusing war reserves solely on fuel, rather than including energy storage solutions, channels limited resources (financial and storage) into a high cost, high volume, and easily targetable commodity that does not satisfy the requirements of modern warfare. Alternatively, smaller, cost-effective TES and batteries enable distributed formations with electrified fleets to recharge equipment from a reduced logistics footprint that decreases adversary detection. Thus, updating war reserves to include a balanced energy portfolio is critical to sustain modern warfare.

Lighter designs, fast-charging capabilities, and extended charge capacity battery innovations enable the shift from fuel as the military's primary energy source. A relevant case for immediate and available energy is Ukraine's defense during Russia's invasion. To bolster its defensive capabilities against Russia, Ukraine required rechargeable TES/batteries to power the Javelin, a man-portable anti-tank missile designed for precision strikes against armored vehicles, bunkers, and other targets. Over an 18-month period, DLA provided a total of 60,000 batteries for the Javelin, enabling Ukrainians to repel a numerically superior Russian force from seizing the capital city of Kyiv.[23] This example reinforces the ability of TES to enhance flexibility and rapid response in multi-domain operations, minimizing the risk of extended and contested supply lines by ensuring the consistent availability of power for weapon systems. The lack of Tactical Energy Storage in PWRM creates a critical gap, hindering the availability of immediate and accessible energy during urgent situations.

The Rise of Renewable Energy

Introducing TES and batteries into PWRM not only addresses a key gap in forward-positioned energy reserves, it also supports the military's fight against another threat identified in the NDS – climate change. As geopolitical dynamics shift and the focus on renewable energy and climate policy increases, there is a growing emphasis on next-generation (NG) weapon systems supported by sustainable energy sources. This approach enables end-to-end management from raw materials access and processing to recycling and reclamation, fostering a more sustainable and resilient energy ecosystem.

Integrating renewable energy sources into military operations offers several key advantages. Renewable energy enhances the use of advanced technologies on the battlefield; ensures resilience when fossil fuels are limited; and provides cost efficiencies through rechargeable and environmentally friendly energy sources. Additionally, the shift to renewable energy increases energy security by reducing reliance on overseas sources and manufacturing

"SINCE ITS COLD WAR ERA INCEPTION, PWRM HAS EVOLVED AND EXPANDED GLOBALLY AS NEEDED TO DETER NEW THREATS IN MULTIPLE REGIONS. TODAY, PWRM REMAINS CRITICAL TO REALIZING INTEGRATED DETERRENCE IN THE CURRENT, CONTESTED LOGISTICS ENVIRONMENT BECAUSE IT IS STRATEGICALLY LOCATED GLOBALLY IN EACH AREA OF RESPONSIBILITY AND REDUCES THE TIME REQUIRED TO ACHIEVE AN OPERATIONAL CAPABILITY OR AN OPERATIONAL EFFECT."

— COL SUE STYER, USA, MAJ EMILE PROSKO, USA, KRISTIN MOLINARO

21 Joseph Webster, "Batteries as a Military Enabler," War on the Rocks, June 20, 2024.
22 "Powering Innovation: A Strategic Approach to America's Advanced Battery Technology," Hudson Institute.
23 John Dreska, "DLA Procurement & Transition Plans," briefing at the OSD Battery Summit, Alexandria, VA, October 30, 2024.

while countering China's dominance over the battery supply chain. Energy security is a critical issue tangential to TES that will be addressed in a future paper. While storing batteries does present some risks due to the varying shelf-lives of different products depending on battery type and chemistry, effective battery management strategies can help minimize wastage. As battery technology advances, shelf-life will extend, further reducing risks and supporting more sustainable and reliable energy solutions for military operations.

The DoD is rapidly transitioning from traditional fuels to renewable energy, signaling the increasing need for TES and batteries.[24] The Military Services leverage the Battery Energy Storage System (BESS) to move, store, and augment fossil fuels to reduce energy disruptions.[25] The Defense Innovation Unit currently partners with the Air Force, Navy and commercial industry to develop advanced mobile and stationary BESS solutions.[26] "Another renewable energy effort, the Extended Duration for Storage Installations (EDSI) Project, aims to create backup power systems for DoD installations and operational energy platforms that can be mobile or stationary. The EDSI Project goal is to increase operational availability and minimum power threshold for batteries, bases and battlefield energy."[27] These efforts support the 2022 NDS priority to "build a resilient Joint Force and defense ecosystem."[28]

Current Efforts to Evolve Energy Supply and Storage

DoD leadership recognizes the technological, operational, and sustainable importance to invest in TES and batteries. In April 2022, Dr. Kathleen Hicks, the Deputy Secretary of Defense, directed an increase in energy supportability and a reduction in energy demands across all capability development activities.[29] To optimize investments, the DoD continues to drive Department collaboration and compels the Military Services to standardize batteries across major weapon systems. Dr. Hicks noted that "It is vital to improve standardization. The standardization of batteries will enable distributed operations in contested environments, contribute to interoperability with Allies and partners, help streamline acquisition and minimize supply chain vulnerabilities."[30]

In addition to battery standardization efforts, whole of government teams across the DoD are actively working toward new battery solutions to address emerging threats and limit operational vulnerabilities.[31] As the DoD's only Logistics Combat Support Agency, DLA remains focused on supporting TES on the battlefield and currently supports the Services with over 4,000 various types of batteries composed of various chemistries and technologies.

DLA plays a pivotal role in battery innovation, seeking opportunities to reduce risk within the battery supply chain. One of DLA's notable programs is the Battery Network (BATTNET), a designated Operational Energy Program under the Defense ManTech Program. BATTNET collaborates with other government and industry partners to develop high-performance battery technology solutions. A few of BATTNET's accomplishments include low-cost battery manufacturing innovations and material production and development of an integrated lithium-ion-based power system to increase runtime, eliminate legacy equipment, and mitigate obsolescence.[32] BATTNET's advancements in new manufacturing designs and processes for lithium-ion and bipolar lead-acid power sources enhance capabilities like operational reach and endurance in U.S. military tactical vehicles, aircraft, and equipment.

DLA and the Military Services share a critical role in driving transformation to ensure combat effectiveness extends beyond the tactical level.[33] To that end, DLA manages a diverse battery portfolio from the ubiquitous AAA battery powering wildland firefighting efforts among millions of examples to high-energy thermal

24 Samaras, Constantine, William J. Nuttall, and Morgan Bazilian. 2019. "Energy and the Military: Convergence of Security, Economic, and Environmental Decision-Making." Energy Strategy Reviews, Volume 26. January 11, 2019.

25 Jack Peters, Kurt Myres, Porter Hill, Svendsen, Abdullah Noore, and Jonathan and Rae, "Camp Arifjan Pioneering Energy Resilience: First-of-Its-Kind Microgrid Sets Standard," Army.mil, September 17, 2024.

26 Defense Innovation Unit, "Defense Innovation Unit Partners with Departments of the Air Force, Navy, and Army to Accelerate Innovation," Defense Innovation Unit.

27 Ibid., pg. 3.

28 Department of Defense. 2022 National Defense Strategy, Nuclear Posture Review, and Missile Defense Review. October 27, 2022.

29 Department of Defense, Energy Supportability and Demand Reduction in Capability Development (memo, April 22, 2022).

30 William A. LaPlante, The Under Secretary of Defense, Enforcing Battery Standardization Requirements (memo, Department of Defense, August 24, 2024).

31 Rear Admiral Nobel, Douglas. 2023. "DLA Tactical Energy Storage Working Group (DTESWG) Charter."

32 Hutchens, Matt, "Battery Network (BATTNET) Research and Development," 2024.

33 Lt. Gen. Mark Simerly and Col. Wes Adams, "The Defense Logistics Agency' s Role in Overcoming the Challenges of Contested Logistics, "

"TO ENSURE JOINT FORCES HAVE ACCESS TO THE ENERGY NEEDED TO FIGHT AND WIN WHILE OPERATING WITHIN CONTESTED ENVIRONMENTS, THE DEPARTMENT WILL REDUCE OPERATIONAL ENERGY DEMAND, DIVERSIFY OUR ENERGY SOURCES, IMPROVE SUPPLY CHAIN RESILIENCE, AND ENHANCE THE ENTERPRISE-WIDE VISIBILITY OF ENERGY SUPPLY AND DEMAND."

— JOHN DRESKA

batteries supporting the Intercontinental Ballistic Missiles of the Nuclear Triad. Each battery type, regardless of size, cost, or power, is a vital energy source enhancing the effectiveness of military operations and bolstering response to national security crisis and emergencies. To support military departments and Combatant Commanders, DLA invests annually in high-demand energy storage and batteries. The agency maintains a two-year stock-on-hand (SOH) for the top 53 lithium-ion battery requirements and an average of six months SOH for 6TAGM lead-acid batteries, which power more than 100 critical military weapon systems. DLA responds to approximately 15,000 demands each month for the 6TAGM alone.[34]

These highly technical efforts support a broader DoD effort to modernize its energy supply. However, DLA-maintained battery SOH is only designed to meet minimum surge requirements, meaning current supply availability is insufficient for the forecasted high-volume demands of a modern, large-scale conflict. While DLA's on-hand supply of batteries has historically met immediate operational requirements, addressing emerging needs in the context of multi domain operations and contested logistics necessitates a reevaluation of DoD battery and TES stocks. A failure to invest in a largely renewable energy inventory introduces significant risk to future combat effectiveness. Therefore, it is essential for the Military Services to consider adding TES and battery systems to Service PWRM inventories.

Conclusion and Recommendations

Energy is a critical enabler of military capability. The 2023 Operational Energy Strategy dictates, "To ensure Joint Forces have access to the energy needed to fight and win while operating within contested environments, the Department will reduce operational energy demand, diversify our energy sources, improve supply chain resilience, and enhance the enterprise-wide visibility of energy supply and demand."[35] The DoD relies on energy resilient forces and weapon systems to fulfill its mission in a highly advanced technological modern operating environment, and PWRM is critical for operational readiness in achieving the DoD's strategic objectives, especially when global crises inevitably occur and require rapid DoD action or mobilization. Contested logistics and the complexities of energy use present significant challenges to maintaining energy security.[36] As the DoD focuses on transformation to sustain and strengthen U.S. deterrence against our pacing threat, PWRM stocks require reevaluation, realignment, and expansion beyond the current commodities and categories. Foremost, integrating TES and batteries into PWRM strategy would enhance the military's deterrence posture by aligning energy resources with the needs of rapidly evolving weapon systems technology, while efficiently and sustainably supporting decentralized and highly mobile modern military formations. To echo the DLA Director's recent challenge to operate in a contested logistics environment, we don't have to have everything, everywhere, all at once, but we should have the things we need at the right place and the right time.[37]

DLA Today, June 2024, pg. 8.

34 John Dreska, "DLA Procurement & Transition Plans," briefing at the OSD Battery Summit, Alexandria, VA, October 30, 2024.

35 U.S. Department of Defense, Operational Energy Strategy, May 2023.

36 Ibid., pg. 2.

37 Lt. Gen. Mark Simerly and Col. Wes Adams, "The Defense Logistics Agency' s Role in Overcoming the Challenges of Contested Logistics," DLA Today, June 2024, pg. 11.

Finding Advantage in the Economic Attributes of Supply Chain Management

By MAJ Antonio Randolph, Michigan Army National Guard

The tension between culmination and operational reach is inherent in all operations and at every echelon. Historical examples abound. The German push into Stalingrad in 1942, in pursuit of a moral victory, and again with their desperate offensive at the Battle of the Bulge in 1944, are two of the more notorious references. Germany started WWII with relatively minuscule industrial capacity (e.g. 4.8 % of the global motor vehicle capacity), limited access to fossil fuels and light/heavy metals, and a delusional sense of invincibility abetted by their early tactical successes by way of Blitzkrieg.[1] All of this was complemented by a self-assured will to fight predicated on initial weapons design prowess and an ideological sense of superiority. Even still, the strategic intent was to annihilate opposition expeditiously via fast-acting maneuver in order to avoid attritional warfare. The Wehrmacht's shortfalls across their various campaigns are more apparent in hindsight. Sustainment flaws, for one, plagued the German army. Momentum frequently stalled when German ammunition, fuel, and personnel resupply withered to a halt. At these moments, the reality of scarcity could not be ignored. The Wehrmacht's dogged pursuit of breakthroughs versus the actuality of dwindling resources during WWII are not isolated instances. There are also modern military and non-military examples of supply chains and production systems being disrupted by material conditions that reflect classical economic postulates. Often overlooked in military logistical planning, these economic principles are valuable because they connote predictable patterns of supply chain behavior. By examining the operational approaches of German forces during WWII, product lifecycle examples of the civilian sector, and the depleting nature of the current Russo-Ukrainian war, the sustainer/logistician of the future can see how predictable supply chain challenges can give way to new paradigms for avoiding sustainment failures. When properly understood, these approaches can be resourceful across a multitude of mission sets and allow us to combine elements from multiple disciplines to better understand the operational environment. Ultimately, these economic precepts should continue to enhance doctrine as a favorable reference for friendly forces and an overwhelming problem for adversaries and enemies.

How does the US military avoid sustainment failures in future conflicts? Of course, it must work to secure its strategic/operational/tactical links (e.g. lines of communication and main supply routes); nodes (e.g. supply depots and support areas); and motor transport assets (e.g. line haul and the vehicle fleet). In doing so, it can better support efforts up to, and beyond, the forward line of its own troops. Just as importantly, the US military must employ special focus on preserving the frameworks that influence and guide the comprehensive logic and behavior of its supply chain. It must work to protect these critical vulnerabilities while also planning and preparing to exploit those pertaining to the enemy's sustainment system (i.e. red logistics). Comparative advantage, unplanned obsolescence, and surge capacity are some of the activities that theater-strategic, operational, and tactical sustainers can leverage, in theory and in practice, for a distinctive edge during battlefield operations. They are cornerstones of basic supply chain practices and economic theory. These conceptual bedrocks require only a rudimentary understanding to grasp their principles and appreciate the significance of their utility.

Since the origin of the exchange of goods and the beginning of markets, comparative advantage has been a pervasive characteristic of global economics. British economist David Ricardo introduced the concept in the early 19th century. [2] Essentially, it refers to the fact that some countries and organizations have found either the desire, or a very efficient means, to produce certain goods and services more effectively than the great majority of others. They typically control these markets. The world's disproportionate reliance on Taiwan's microchip fabrications is a prime example. Without complete control of the inputs and other transformational activities, the chances for inopportune failures, borne from the setbacks of suppliers or the malicious intent of an enemy, increase significantly. During WWII, German tank and aircraft designs were best-in-class, but their desire to produce complicated variations (e.g. Panzer I-VI) put significant strain on their limited production capacity. Their comparative advantage was ingenuity, but they overindulged in it, resulting in standardization

1 Heinz Guderian, *Achtung – Panzer!,* trans. Christopher Duffy (London: Arms and Armour Press, 1992), 208.
2 David Ricardo, *Principles of Political Economy and Taxation* (London: John Murray, 1817), 123-124.

challenges and ultimately maintenance dilemmas. Like the German forces during WWII, the US Army sustainment warfighting function is susceptible to operational disruptions to its comparative advantage: the utmost competence and capability to sustain large scale combat operations at scale. This critique underscores the need for sustainment to protect itself against some of the compromising supply chain interdependencies created because of globalization. Over-the-horizon supply chains and complex weapon systems with niche technologies are network and materiel advantages that require far-reaching and unique commitments to support. The urgency for further assessment and evaluation to find, and control for, these liabilities is a critical task that has been outlined in former President Joe Biden's Executive Order 14017. [3] Steps the sustainment warfighting function can take to minimize comparative advantage risks include dual-sourcing for critical materials, strengthened intellectual property protections, capacity burden sharing with alliance partners, and a design philosophy that prioritizes standardized inputs in conjunction with process divergence when customization is necessary.

Unplanned obsolescence is another critical vulnerability the sustainment warfighter needs to understand and continuously evaluate. It occurs when the utility of/demand for an item diminishes or disappears and suppliers stop producing it.[4] In many instances, even the tooling is discarded, sold, or repurposed. Like comparative advantage, "an ounce of prevention" is recommended. Managing unplanned obsolescence can be both a defensive and an offensive endeavor for sustainment. Historically, within the business operations processes surrounding durable products, such as high-quality incandescent light bulbs, there have been conscious attempts to institute tactics like adulteration.[5] It is a form of obsolescence that involves intentionally selecting a component, of a larger assembly, that degrades rapidly and ultimately reduces the life cycle of the manufactured good. For the Germans during WWII, ersatz oil, a synthetic oil replacement derived from coal, was blended with motor oil distilled from crude oil, which was increasingly in short supply during the war.[6] The subsequent product was an inferior option with poor lubricating properties and resulted in more frequent vehicle maintenance and engine overhauls. Sanctions and embargoes were the source of the shortage. Russia is currently experiencing a similar issue with nitrocellulose, an artillery propellant raw material. And like the Germans, the Russians are exploring alternatives (e.g. polyvinyl nitrate (PVN)) at the expense of quality, safety, and performance.[7] For both militaries, commodity limitations compelled them to use sub-par substitutes, thus impacting their combat effectiveness. For the US, this can be adopted as an offensive mechanism, particularly useful if markets within the US sphere of control and influence feed into manufacturing provisions for enemy supply chains. Defensively speaking, this framework has an inherent risk of creating a deleterious effect on productivity if an adversary can use the same premise. This can be most effective in situations where lower-level components that feed into the larger, more critical modules of high value assets, are involved. There are a couple of ways to combat this idea, both of which also serve as methodologies that can be applied in an offensive manner. Obtaining market control is one way to mitigate this risk. Another is to achieve the compliance of suppliers, codified in contractual terms, for the most durable, raw materials. To some extent, this practice is already in motion within military supply chains, but the considerations and scope should be constantly reassessed by sustainers for opportunities to expand the list of products.

Surge capacity is the coordination of supplies and services in response to unforeseen ebbs and flows in demand.[8] Planning and preparation can address some of these types of fluctuations, but adequate responses hinge on sound execution. During Operation Barbarossa, German logistics were frequently overextended. Rapid advances were characteristic of German operational tempo, and the controls instituted to provide timely service and support were often insufficient. German logisticians sustained and maintained units primarily through a push system. While this aided the Wehrmacht when they planned for decisive operations, it restricted the flexibility

3 "Executive Order 14017—Securing America's Supply Chains," The White House, February 24, 2021, https://www.whitehouse.gov/briefing-room/presidential-actions/2021/02/24/executive-order-14017-securing-americas-supply-chains/.

4 Esther Jang, Matthew Johnson, Edward Burnell, and Kurtis Heimerl, "Unplanned Obsolescence: Hardware and Software After Collapse," in Proceedings of LIMITS '17, June 22–24, 2017, Santa Barbara, CA, USA, https://doi.org/10.1145/3080556.3080566.

5 The Centennial Light (bulb) hangs inside the Livermore-Pleasanton Fire Station in California. It has been in continuous service, minus a few moments, since 1901 largely due its thicker carbon filament and other superior parts. Martin Kykta, "The Mystery of the Centennial Bulb: an Incandescent Light Bulb," MAK Electro-Optics, 2021, https://www.centennialbulb.org/docs/centennial%20bulb%20report.pdf.

6 Anand Toprani, Oil and the Great Powers: Britain and Germany, 1914–1945 (Oxford: Oxford University Press, 2019), 199.

7 Simon Ostrovsky, "How Cotton from Central Asia Is Helping Fuel Russia's War in Ukraine," PBS NewsHour, December 10, 2024, https://www.pbs.org/newshour/show/how-cotton-from-central-asia-is-helping-fuel-russias-war-in-ukraine.

8 Bradley Martin, "The Problem of Surge Capacity," RAND Corporation, accessed February 17, 2025, https://www.rand.org/pubs/commentary/2023/07/the-problem-of-surge-capacity.html.

of forces directly impacted by random Russian resistance (e.g. partisans, Russian counterattacks) and severely cold weather. Having the capacity to manage such challenges is just as much a matter of producibility as it is throughput of supplies to the frontlines. In particular, and because it is far upstream within every supply chain, tool wear is usually overlooked as a potential obstacle, especially at the beginning of high-velocity fighting. In future fights, it will require the allocation of capacity, usually at the expense of new-make items. For example, if the Russian military is shooting 20,000 artillery rounds per day in the Ukraine conflict, they are likely changing out the cannon tubes for maintenance after reaching an original equipment manufacturer (OEM) approved round limit. [9] Assuming a standard barrel life of 6,000 rounds and that 80% of the total artillery systems being used daily are of the tube variety, the Russian army would be required to change out roughly three artillery tubes/barrels per day. This removal process could potentially require an entire day to complete, depending on the crew's experience level, and it detracts manpower from the battlefield as well as capacity from new tube production lines. Add in another three weeks for the depot level maintenance/overhaul of the tubes, along with a 10% scrap volume, and during any given 21-day period, the Russian army could be without 60 artillery guns because of scheduled maintenance with six possibly never being reintroduced back into the fight. Additionally, some consumables (e.g. lubricants) and steel products used for the tube refurbishment may be under sanction and may be difficult to procure. The strategic planners for the sustainment supply chains must include these types of considerations during their extensive discussions with military industrial base suppliers. Beyond cornering certain consumable markets to create friction points for opposing forces and validating that suppliers can manage demand peaks and friendly force maintenance requirements, some additional verifications include: demonstrated cycle times, first-time yields, bandwidth/throughput, and repair turnaround time. Proactivity can help develop effective preplanned measures to address these challenges, to include tool wear, before they surface. Preemptive planning for sustainment surges must continue to be a critical requirement for sustainers. The purview must begin with tool wear and extend the length of the supply chain to materiel transported to the battlefield.

German forces were competent, but not able to overcome their sustainment issues, especially once the Allied Forces' attritional strategy emerged. For future sustainers, the cumulative effect of actions implemented to manage some of the key supply chain and economic activities will reduce risks and improve subsequent outcomes on the battlefield. The aforementioned concepts can be leveraged offensively and defensively within the broad dominion of sustainment. There are opportunities to impose warfighting "will" and protect provisioning interests for receptive sustainers. Regardless of what tactics and procedures are employed, the sustainer/logistician of the future will need to broaden their aperture of supply chain management and economics practices both during and in-between conflicts in order to achieve and maintain advantage. With this wisdom, decision-making can move commands closer towards dominance at the strategic, operational, and tactical levels.

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Defense Materiel Disposition in a Contested Logistics Environment

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The emerging joint operating environment (JOE) is characterized by an erosion of U.S. military competitive advantages as adversaries obtain technologically advanced capabilities at a faster pace than ever before to deny, disrupt, and degrade our nation's ability to protect itself and advance national interests. This is resulting in unique and complex challenges for military forces engaging in a wide range of operational activities across the competition continuum.[1] The most vulnerable advantage the U.S. military has over its adversaries in contested environments is the Joint Logistics Enterprise (JLEnt), which has the purpose to "project and sustain military power, enable global reach, and provide a full range of flexible and responsive options to joint force commanders."[2] As adversarial competition increases and expands throughout the conflict continuum the JLEnt becomes more tenuous. Especially in situations that require intensive logistics support when resources are declining, and supply lines are increasing. The JLEnt is a center of gravity for adversaries to aggressively and continuously contest today to affect essential capabilities to project and sustain our military power across the globe tomorrow.

The Defense Logistics Agency (DLA) Director, LTG Simerly, recognizes the U.S. military is "currently and actively contested in all domains, and we expect contests to begin in cyberspace, and expect them to continue."[3] The reality is that contested logistics environments will become more challenging as adversaries exploit advantages that disrupt JLEnt capabilities from the homeland to the foxhole over extended distances. According to Simerly, the overarching challenge is affecting "meaningful change that can deliver exceptional global logistics support and win in today's rapidly changing and contested logistics environment." DLA's strategy to overcome current and future challenges of operating in a contested logistics environment is through transformation that focuses on four imperatives - people, precision, posture, and partnerships – to "deliver agile, adaptive, and resilient logistics support across the continuum of conflict," which requires leaders and logisticians to think, act, and operate in new ways.[4]

Along with DLA, other JLEnt stakeholders must have their own respective and mutually supporting strategies that collectively result in an effective "globally integrated network of responsive logistics providers" that spans the globe while being contested in all five domains (land, maritime, air, space, and cyberspace).[5] A primary challenge for the JLEnt and warfighters is overcoming a "logistic vacuum" that emerges and expands as supply chains overextend and resources become scarce in a contested logistics environment.[6] Ineffective strategies will result in losing competitive advantages over adversaries at great cost. Our military's success in tomorrow's battle spaces requires rethinking how excess materiel can mitigate 'logistic vacuums' and sustain war efforts by conserving scarce resources.

Leveraging Local Resources to Sustain War Efforts

Given limited logistics resources, capability shortfalls, and a deteriorating U.S. Defense Industrial Base (DIB), precedence for our best strategy to avoid 'logistic vacuums' in future contested environments can be found in military history. Attila the Hun may provide the best example from over a thousand years ago, of effectively covering vast distances with highly mobile forces and decisively overwhelming enemies without the need for large supply trains by using local resources.[7] The Huns superior logistical skill provided a competitive advantage over adversaries, and if not for the death of Attila, this advantage may have enabled the total conquest of the Roman Empire.

1 Joint Force Development, *Joint Doctrine Note 1-19: Competition Continuum* (Washington, D.C.: Joint Chiefs of Staff, 2019).
2 Kenneth D. Jones, "The Joint Logistics Enterprise of the Future," *Army Sustainment*, March–April 2018, 21.
3 LTG Mark Simerly and William Adams, "The Defense Logistics Agency's Role in Overcoming the Challenges of Contested Logistics," *DLA White Paper* (Ft. Belvoir, VA, June 2024).
4 LTG Mark Simerly, "DLA Strategic Plan 2025–2030," Defense Logistics Agency, September 2024, https://www.dla.mil/Info/Strategic-Plan/.
5 Jones, "The Joint Logistics Enterprise of the Future," 21.
6 Vladimir Prebilic, "Theoretical Aspects of Military Logistics," Defense and Security Analysis 22, no. 2 (June 2006): 159–177.
7 Jason Linn, "Attila's Appetite: The Logistics of Attila the Hun's Invasion of Italy in 452," The Journal of Military History 83, no. 2 (April 2019): 325–346.

In our own nation's history, the American Expeditionary Force (AEF), consisting of 2 million soldiers, had to overcome a monumental 'logistic vacuum' during World War I (WWI) created by significant trans-Atlantic Ocean shipping challenges and an inadequate industrial base not prepared for large-scale wartime production. This was done by creating a logistics system in 1918 that heavily relied on local resources to sustain the war effort. Local resources consisted of massive amounts of goods (i.e., food, horses/ mules, wagons, etc.) procured from host nation sources, and the significant expansion of salvage (i.e., discarded and captured items) operations to resupply the AEF. During World War II (WWII), salvage would again become essential to U.S. military success as its importance "increases in direct proportion to the increasing difficulty in meeting [materiel] requirements."[8] This led to the proliferation of salvage units, dumps (i.e., collection points), and depots throughout every Theater of Operations to minimize and eliminate logistic vacuums. It is very clear that victory in both World Wars was enabled by salvage activities on the home front to the front lines, which reduced the need for new supplies and prevented the overextension of supply lines.

After WWII, reliance on local resources to sustain forces lessened during military operations over the succeeding decades. This was a deliberate outcome of modernizing the U.S. military in the 1980s and 1990s to make it a more lethal, technologically capable, and self-sustaining force to achieve a higher level of readiness and operational freedom over adversaries. The JLEnt is crucial in maintaining this advantage across the competition continuum in a contested logistic environment. However, the JLEnt has only been comprehensively tested in uncontested logistics environments. The last time the U.S. military truly operated in a contested logistics environment was WWII.[9] Local resources will need to again become essential to the U.S. military's success in large scale and protracted conflicts when logistic vacuums emerge in contested environments. Integrating salvage, or what is now referred to as materiel disposition, into logistics concepts, plans, and activities will be crucial for conserving materiel to fill requirements when supply chains fail. Unfortunately, the lack of integration down to the lowest levels throughout the military services remains a concern.

Worldwide Defense Materiel Disposition Program

The Defense Materiel Disposition Program (DMDP) allows the U.S. Department of Defense (DoD) to dispose of excess military materiel (i.e., equipment and supplies) globally by reusing within the DoD, transferring to other government agencies or allied nations, donating to qualified non-profit organizations, or selling on the open market when permissible.[10] When these methods are unable to properly dispose of excess property, demilitarization and mutilation (i.e., physical destruction) occurs while adhering to compliance regulations to maximize recyclable scrap materials and minimize waste. Key components of the program are DLA, as the DoD program manager; Disposition Services, a DLA subordinate organization that implements and manages the processes for disposing excess property and hazardous waste (HW); and DoD components, which are to ensure materiel disposition is an integral part of supply chain management and disposal actions are planned at all levels of their organizations.[11]

Currently, there are two notable weaknesses within the program that were identified during audits the past three years which will impact the effectiveness of materiel disposition in a contested logistics environment. The first is incorrect demilitarization coding and disposition decisions for DoD materiel, which may result in the inadvertent release of excess items to unauthorized recipients or needless destruction. Based on a report to congressional committees, DoD acknowledged coding discrepancies with 3 percent of national stock numbers in the Federal Logistics Information System (FLIS) for hundreds of major end items, including Mine-Resistant Ambush Protected (MRAP) vehicles.[12] As of October 2024, recommendations for executive action remain open, resulting in the continuation of risk of property with military characteristics being obtained by unauthorized recipients.[13] In a contested environment, adversaries could exploit this weakness to obtain and use property requiring

8 Erna Risch and Chester L. Kieffer, The Quartermaster Corps: Organization, Supply, and Services, Volume II (Washington, D.C.: U.S. Government Printing Office, 1955), https://history.army.mil/portals/143/Images/Publications/catalog/10-13.pdf.

9 William Smith, "Contested Logistics | AI, Optimization, and Rational Thought (A Mathematician's Lament)," Army Sustainment (Winter 2024): 32–33, https://asu.army.mil/alog/ARCHIVE/PB7002401FULL.pdf.

10 ASD for Logistics and Materiel Readiness, Defense Materiel Disposition: Disposal Guidance and Procedures, vol. DODM 4160.21 (Washington, D.C.: Department of Defense, 2022).

11 ASD for Logistics and Materiel Readiness, Defense Materiel Disposition, 2022.

12 U.S. Government Accountability Office (GAO), Defense Logistics: DOD Can Better Manage Demilitarization Coding and Disposition Decisions (Washington, D.C.: U.S. Government Accountability Office, 2022), https://www.gao.gov/products/gao-22-105251.

13 GAO, Defense Logistics: DOD Can Better Manage Demilitarization Coding, 2022.

demilitarization against the U.S. and its allies.

The second weakness is low reutilization of excess property from DLA Disposition Services' inventory by the Military Services despite DoD and service specific policies "promoting the maximum reuse of excess property to satisfy requirements before purchasing new property".[14] A 2022 DoD Inspector General (IG) audit attributed three reasons to DLA and the military services for not fully complying with policies.[15] The first was DLA's lack of promoting awareness and military services not maximizing reuse of excess property. The second was not addressing ordering personnel concerns about condition code accuracy and the serviceability of excess property. Lastly, the lack of interoperability between automated systems required ordering personnel to place and check orders manually, which discourages the reuse of excess property. The military services acknowledge the need to maximize reutilization of excess property though results continue to fall short, which reflects institutional, systemic, and cultural challenges that continue to persist throughout DoD.

Material Disposition During Recent Conflicts

Recent U.S. military history provides benchmarks of the evolution of materiel disposition during contingency operations, as well as an azimuth check for steps still to be taken toward optimization in a contested logistics environment. The Persian Gulf War was considered a logistical triumph that enabled a quick victory over Iraq in 1991, though this is not to say it was without logistical problems. The most notable issue was a widespread lack of supply discipline, which led to unnecessary loss, unauthorized destruction, and improper disposal of materiel. This was largely due to the absence of planning, preparation, and execution of materiel disposition by DoD components down to the lowest levels within the theater of operations to properly collect, manage, reclaim, reuse, and dispose of excess property items generated during the war. The result was the absence of salvage capabilities and operations like what was employed in past comparable wars. To fill this critical gap, Disposition Services (then known as the Defense Reutilization and Marketing Service (DRMS)) was given a new, impromptu mission after the war ended to extend materiel disposition support beyond enduring locations (EL) to dispose of acres upon acres of excess property discarded by redeploying units.

By comparison, in the decade following the Gulf War, excess property generated during contingency operations was of much smaller quantities and retrograded to an enduring location (e.g. home station) for disposal. This concept began to falter as the Iraq and Afghanistan Wars became prolonged conflicts in the mid-2000s. With large number of forces deployed to several contingency locations (CLs) throughout the respective Joint Operation Areas (JOAs), excess property was significantly increasing over time. Fortunately, deployed forces were maintaining supply discipline with few issues, as compared to the end of the Gulf War, but retrograding large amounts of excess property to an enduring location (EL) for disposal was impractical and costly (e.g., retrograding materiel from Afghanistan to Germany).

Disposition Services was again unexpectedly called upon – the Gulf War was viewed as a one off - to establish capabilities within Iraq and Afghanistan to dispose of excess property at CLs. Because Disposition Services did not have a standing expeditionary capability, it had to quickly create and sustain an ad hoc capability, along with addressing the new challenge of directly supporting warfighters in combat zones, throughout the remainder of the decade with less-than-optimal results. After the Iraq War ended in 2011, a transformational period began to reshape, improve, and formalize expeditionary capabilities within Disposition Services. The immediate objective was to improve the effectiveness and efficiency of materiel disposition activities ongoing in Afghanistan. The overarching intent was to set the conditions and maintain the right expeditionary capabilities to successfully deliver world class materiel disposition support during future contingency operations.

The priority focus area was to create a standing expeditionary force that was fully capable and deployable in support of warfighters' materiel disposition requirements within a JOA during contingency operations. Lessons from previous decades helped establish a robust program with resources to ensure the manning, equipping, and training of an expeditionary force that would meet all applicable objectives and standards. Changes improved the effectiveness and efficiency of supporting materiel disposition requirements at their peak in Afghanistan and have largely remained in-place through the present day.

Agreements, the next focus area, became more important for enabling in-country disposal of hazardous waste (HW) and scrap materials in nations hosting the military during exercises and contingency operations.

14 Office of the Inspector General (OIG), U.S. Department of Defense, Audit of the Reuse of Defense Logistics Agency Disposition Services Excess Property (Washington, D.C.: Office of the Inspector General, 2022), https://media.defense.gov/2022/Jun/16/2003018958/-1/-1/1/DODIG-2022-105.PDF.

15 OIG, Audit of the Reuse of DLA Disposition Services Excess Property, 2022.

If this is not possible, agreements are still required to export HW and scrap to another country with the requisite approvals and capabilities for disposal. Process velocity is essential to avoid storage issues and costs when HW and scrap materials are already being generated by warfighters. Persistence also became important when dealing with bureaucracies that could stretch the process up to a year or longer. However, the key to successfully securing in-country disposal support, or need to export, well in advance of requirements is identifying and prioritizing nations during exercise and contingency planning cycles. This proactive approach facilitates formal coordination with applicable parties to move 9 the agreements process at a deliberate and controlled pace, which avoids reactionary methods with less than desirable outcomes.

Lastly, reverse logistics operations, also referred to as retrograde, became more important in Afghanistan as military services increased efforts to reduce excess property that had accumulated over several years of it being a low priority. "While easy to overlook and often difficult to implement, reverse logistics operations are key to maintaining efficient living and work areas at combat outposts and forward operating bases" according to CPT Donnahoe, a Reverse Logistics Officer in Afghanistan.[16] Importance became exponentially greater as the drawdown of military forces accelerated over the final years in Afghanistan. The deliberate drawdown forced transformative cultural and procedural changes that led to U.S. military forces to develop materiel disposition plans and closely coordinate efforts with Disposition Services and other key partners. This resulted in effective and efficient reverse logistics operations through the withdrawal of forces until Disposition Services departed on July 19, 2021. One month later, the majority of remaining U.S. military equipment used by U.S. troops were retrograded or destroyed as the last U.S. military planes left Afghanistan on August 30th.[17]

Creating a standing expeditionary capability, establishing agreements, and enabling effective joint reverse logistics operations facilitated the transformation of a passive mindset into a proactive culture within DLA and Disposition Services regarding planning, preparing, and performing materiel disposition activities through all operational phases of contingency operations. Standardization of processes, procedures, training, and equipment enabled the transition from an ad hoc to a standing and ready expeditionary force. Disposition Services can now more easily extend and expand materiel disposition support to warfighters deployed to CLs with the right expeditionary capabilities. Inroads were also made with JLEnt partners regarding their Defense Materiel Disposition Program responsibilities to prevent excess property problems like what occurred during the Gulf War and early years of the Iraq and Afghanistan Wars. Collectively, the transformational efforts the past decade have established a sound foundation to explore evolutionary and revolutionary changes that will better leverage and optimize materiel disposition as an integral means to overcome logistic vacuums in contested environments.

Materiel Disposition in Future Contested Logistics Environments

Logistics in modern warfare requires a paradigm shift away from maximum efficiency - prevalent in uncontested environments to project combat power at the greatest point of need – to maximum effectiveness, which will be essential in contested environments to sustain and regenerate combat power within battlespaces.[18] The Russia-Ukraine war provides an advance warning for choosing logistics efficiency over effectiveness in a contested environment. Key factors in Russia's failures are the predominance of logistics practices designed to maximize efficiency (e.g., "push" logistics) and the absence of an expeditionary logistics system when forces operate at an extended distance from their national support base.[19] Conversely, Ukraine has been successful in avoiding capitulation – when many thought the war would end in a few weeks – primarily due to partnering with Western allies to seek innovative solutions that maximize

16 Christopher A. Donnahoe, "Reverse Logistics Operations in Afghanistan," Army Sustainment (2012): 28–32, https://alu.army.mil/alog/PDF/Reverse_Logistics_Operations.pdf.

17 Lead Inspector General, Lead Inspector General for Operation Enduring Sentinel and Operation Freedom's Sentinel: Quarterly Report to the United States Congress, April 1, 2022 – June 30, 2022 (Washington, D.C.: Office of the Secretary of Defense, 2022).

18 Gerard Roncolato, "The Navy Needs a Lot More Logistics, or a Different Strategy," Proceedings 150, no. 5 (May 2024): 1455, https://www.usni.org/magazines/proceedings/2024/may/navy-needs-lot-more-logistics-or-different-strategy.

19 Ronald Ti and Christopher Kinsey, "Lessons from the Russo-Ukrainian Conflict: The Primacy of Logistics over Strategy," Defence Studies 23, no. 3 (2023): 381–398, https://www.tandfonline.com/doi/epdf/10.1080/14702436.2023.2238613?needAccess=true.

logistics effectiveness over extended distances.[20] These innovations have enabled Ukraine to regenerate combat power faster than Russia to avoid or minimize a 'logistic vacuum' in forward operational areas.[21]

This provides a competitive advantage over Russia, and Ukraine may prevail if it maintains this advantage.

The principal lesson is the imperative to reduce logistic vulnerabilities in a contested environment by shifting from efficient to effective and resilient capabilities will lessen the effects of a 'logistic vacuum.'[22] This is a reoccurring characteristic of military conflict as the result of adversaries targeting logistics activities and mounting support deficiencies (e.g., resource shortfalls) that degrade warfighter readiness.[23] As covered earlier, the application of expeditionary logistics principles (self-sufficiency, flexibility, robustness, and mobility) has been successful as far back as Atilla the Hun and into modern U.S. military history to minimize and overcome the effects of a 'logistic vacuum' and decisively defeat the enemy.[24] The difference today is the changing character and higher probability of a contested environment experiencing significant disruptions and delays for all supply chains that result in adversaries having the competitive advantage.

The overarching implication for materiel disposition is the utility and value of this logistic function exponentially increases as the 'logistic vacuum' grows in scope and magnitude in a contested environment. Overcoming challenges that this will present in an ever-evolving world will require a reoccurring cycle of evolutionary, and potentially revolutionary, change in practices and adoption of innovative ideas to maximize the effectiveness and resiliency of materiel disposition in a contested logistic environment. To achieve this goal, the JLEnt needs to pursue initiatives that are linked to or mutually supportive of DLA's transformational imperatives and strategic objectives to affect change and improvements in the following areas.

Reutilization: With the transition from uncontested to a contested logistic environment there is a corresponding and pressing need to improve the reutilization rate of excess property for several reasons. First, reutilization immediately improves warfighter readiness by filling aged material backorders with excess property. Secondly, it improves stewardship by avoiding the purchase of new items when excess property is available, which enables the use of recouped funds for other warfighter readiness requirements. Lastly, it facilitates warfighter resiliency when it is most needed to mitigate the effects of a 'logistics vacuum' in battlespaces. For these reasons, initiatives need to strive toward improving reutilization soonest, so it becomes automatic and seamless in a contested logistics environment.

Reclamation: Given supply chain vulnerabilities in a contested logistics environment, removal of serviceable items (repair parts, components, assemblies) from principal end items of equipment or assemblies classified as unserviceable and non-reparable is essential for improving warfighter readiness. Reclamation is supposed to be performed by the military services prior to turning excess property into DLA Disposition Services, and when it does not, equipment needs to be withdrawn to remove serviceable parts needed to fill open requirements. Unfortunately, this does not always happen if the equipment is turned in with the incorrect code to identify it as having serviceable parts, or if the warfighter in need of a part is not in the local vicinity of where the excess property is being held. Ensuring the reclamation of serviceable parts in critical demand from unserviceable equipment in Disposition Services inventory, prior to ultimate disposal, will be a challenge requiring a joint solution with the military services.

Recovery: Recovery (also referred to as recycling, repurposing, and upcycling) of raw and scrap materials (i.e., salvage) has been essential to U.S. war efforts dating back to the revolutionary war. The "Salvage for Victory" campaign during WWII provides the best example of how crucial this concept was to conserving resources like metal, plastics, rubber, and paper for the manufacture of military equipment and supplies. This concept is even more relevant today as the U.S. military plans to leverage 3D printing of parts and equipment at outposts, bases, and aboard ships in contested environments when supply chains do not deliver.

The need for materiel disposition activities to maximize the recovery of scarce materials from excess property, which are used in some 3D print alloys, could become crucial. The challenge in a contested logistics environment will be streamlining the process from the

20 Manuela Tudosia, "Lessons Learned from Ukraine: Logistics," ESD: European Security & Defence, June 23, 2023, https://euro-sd.com/2023/06/articles/31845/lessons-learned-from-ukraine-logistics/.

21 MG Ronald Ragin and MAJ Christopher Ingram, "Theater Sustainment Transformation: Lessons from the Russia- Ukraine War," Army Sustainment (Spring 2024): 36–39.

22 Vladimir Prebilic, "Theoretical Aspects of Military Logistics," Defense and Security Analysis 22, no. 2 (June 2006).

23 David Beaumont, "Fighting in the Void – Combat Operations in the Logistics Vacuum," Logistics in War, January 31, 2017, https://logisticsinwar.com/2017/01/31/fighting-in-the-void-combat-operations-in-the-logistic-vacuum/.

24 Ti and Kinsey, 381-398.

recovery of the materials through the 3D printing of parts inside logistic vacuums. If through innovations the entire process can be done within a theater of operations or logistics vacuum, the U.S. military will retain a significant competitive advantage over its adversaries.

Returns: The DLA Materiel Returns Program (MRP) should be the primary option for the disposition of serviceable excess property managed by DLA for two reasons. The first is readiness as returns to DLA Distribution depots help prevent further delays in filling back orders for needed materiel. Secondly, credit is granted for the timely return of serviceable excess to the designated depot with a need for the materiel, which in turn also helps readiness by using the credit toward other priority requirements. In a contested environment, the MRP can best enable DLA to fill requirements when stock levels fall below target material availability rates. DLA must actively manage the MRP to avoid missing opportunities that would satisfy backorders and off-set or prevent unnecessary procurements. Military services also play a critical role in not just maximizing the use of the DLA's MRP for excess serviceable materiel but also striving for a 100% acceptance rate for material returns, which currently averages well below this target due to a significant number of returns being rejected at the depots for various and preventable supply clerk errors. Rejected materiel returns are redirected to Disposition Services for disposal. DLA's Eastern Distribution Center alone averages two to four full truckloads per week of rejected materiel returns from the military services, which provides a glimpse of the potential loss of serviceable materiel across all DLA Distribution depots over time. This loss of materiel, which is in demand to fill open orders, must be minimized in a contested logistics environment.

Retrograde: Current processes prioritize the efficient retrograde of excess property while ensuring accountability as property moves through a reverse logistics network. In a contested logistics environment, we need to shift to a strategy of effective reverse logistics that prioritizes timely information sharing and transparency to improve decision-making regarding the disposition of excess property.[25] This will require two critical elements to maximize the effectiveness of reverse logistics networks in contested environments. The first is coordinating and collaborating with external stakeholders in the systemic process of planning, implementing, and controlling the flow of excess supplies and equipment from the warfighter (i.e., end user) to the designated point of disposition (i.e., military service supply or maintenance activity or DLA Disposition Services field activity). This return flow is critical for expediting resource recovery, repair, and disposal of excess property that in turn supports readiness. The other critical element is employing the right capabilities to effectively manage the flow of excess property and execute the requisite functions at the designated point of disposition. Effective reverse logistics networks, especially in support of a regional or global war, will require the organization's full spectrum of capabilities (e.g., enduring field activities; expeditionary forces; agreements; contracts; etc.) to be leveraged and synchronized with the Combatant Command and service component commands during all operational phases – starting with shaping the theater and ending with redeployment operations.

Overcoming Contested Logistics Challenges

Achieving and sustaining effective disposition of materiel will be just as crucial, or more, for the success of the U.S. military as it was in the last contested logistics environment during WII. A major difference between U.S. military logistics in WWII and today is the importance of salvage, now known as excess materiel or property, in overcoming logistic vacuums to enable victory over enemy forces. This can be attributable to differing cultures and values of the "Industrial Warfare" and "Modern Warfare" epochs. This has led to marginalizing instead of optimizing materiel disposition within the culture and capabilities of DoD and military services. To elevate materiel disposition to the level of what it needs to be to effect success in a contested logistics environment requires a transformational strategy that will be embraced and actively implemented throughout the JLEnt. This strategy should have two primary objectives. First is aggressively improving the effectiveness of materiel disposition activities to conserve resources and fulfill supply requirements, which helps avoid procurement of new materiel, while there is continuous adversarial competition below armed conflict. The more complex and challenging objective is setting conditions to leverage materiel disposition as an effective means to offset the impact of 'logistic vacuums' in a contested environment. This must include establishing and managing cohesive reverse logistics networks within JOAs, theater of operations, and globally which are effective in retrograding repairable and excess materiel to quickly regenerate military power and fill materiel requirements with scarce resources based on commander priorities.

25 "Understanding Reverse Logistics in the Military Supply Chain," Military Logistics, June 24, 2024, https://totalmilitaryinsight.com/reverse-logistics-in-the-military/#Elevating_Efficiency_The_Future_of_Reverse_Logistics_in_the_Military.

The DLA strategic plan (2025 – 2030) provides the direction to transform capabilities, strengthen partnerships, and shift to more resilient and decision advantage realm through a culture of continuous transformation and innovation. The Agency's transformational framework, which focuses on people, precision, posture, and partnerships (4Ps), will drive evolutionary and revolutionary changes that create and maintain competitive advantages over adversaries in a contested logistics environment. JLEnt partners should consider adopting the Agency's framework to transform their respective logistics capabilities as many are interdependent with the Agency and other JLEnt partners. This would facilitate the synchronization and pursuit of shared and mutually supporting transformational initiatives toward achieving common goals and objectives. At the top of the list should be optimizing the Defense Materiel Disposition Program across the conflict continuum by integrating the 4Ps across the JLEnt to avoid overextension of supply chains and conserve resources as a center of gravity in sustaining war efforts.

People: One of DLA's transformation imperatives is to build organizational agility through people and culture, which enables the Agency to successfully support the warfighter in a contested logistics environment.[26] One of LTG Simerly's objectives is to "foster JLEnt thought, communication, and collaboration," which is very relevant and essential for leveraging materiel disposition to mitigate disruptions within supply chains. [27] Optimizing the DoD Materiel Disposition Program and its activities down to the lowest levels will improve the resiliency and agility of the JLEnt to more easily and effectively respond to supply chain disruptions. It will also do the same for warfighters that are caught within logistics vacuums that emerge because of supply chain disruptions. This will only be possible by improving the skills of personnel to make evidence-based decisions and create a culture, like what existed in WWII, that embraces materiel disposition (salvage) to conserve resources and fill critical warfighter requirements. While it has become something of a truism, this starts and ends with every supply clerk in each military service. It is imperative, then, that the supporting cast throughout the JLEnt makes materiel disposition as easy, responsive, and effective as possible for its people to execute.

Precision: Calibrating resilient and responsive logistics solutions, in support of military readiness, will facilitate achieving the desired level of precision to meet and exceed target readiness and supply availability metrics with a balanced cost.[28] Materiel disposition activities contribute toward improving supply availability and military readiness rates with no additional procurement costs, but currently with a sub-optimal level of precision. This is primarily due to the lack of interoperability between automated logistics systems within DoD, which was previously noted in a DoD IG audit as a reason for low reutilization rates of excess property (2022).[29] Engineering precision into systems, processes, and procedures used for the disposition of materiel is essential toward optimizing the reuse of excess property while avoiding procurement of new supplies and equipment. This will be a challenging and crucial undertaking as the results have a direct bearing on mitigating supply disruptions and improving combat readiness in a contested logistics environment.

Posture: The focus of this imperative is to "enhance support to integrated deterrence across the continuum of conflict in contested logistics environments."[30] For materiel disposition to be effective the JLEnt must set conditions in advance of logistic vacuums emerging within contested environments. This requires DLA, as the DMDP manager, to drive optimization of materiel disposition activities within the JLEnt to "illuminate and mitigate global supply chain risk to increase resiliency and agility."[31] The outcome should be comprehensive and mutually supporting strategies and initiatives to effectively establish, extend, expand, and pivot materiel disposition activities within contested environments. Teaming with JLEnt partners will facilitate achieving this objective by focusing on key areas that optimize materiel disposition across the continuum of conflict. These areas include enhancement of customer support channels, updating systems and processes with Artificial Intelligence (AI) capabilities, streamlining reverse logistics networks for effectiveness, and improving expeditionary capabilities, which can employ the full range of materiel disposition activities within multiple theaters of operations. Initiatives that focus on these areas will collectively ensure that the presence, position, and stance of materiel disposition activities contribute toward enhancing global and regional sustainment of military power.

26 Simerly, "DLA Strategic Plan 2025–2030,"7.
27 Simerly, "DLA Strategic Plan 2025–2030,"8.
28 Simerly, "DLA Strategic Plan 2025–2030."
29 OIG, *Audit of the Reuse of DLA Disposition Services Excess Property*, 2022.
30 Simerly, "DLA Strategic Plan 2025–2030."
31 Simerly, "DLA Strategic Plan 2025–2030," 10.

Partnerships: DLA's imperative to "lead logistics interoperability across Department, Allies, Whole of Government, and Industrial Base" is very ambitious and challenging, but essential for unifying and integrating the JLEnt to ensure success in a contested logistics environment.[32] With respect to materiel disposition, Disposition Services is the lead for several initiatives with existing and new partners that will help set conditions for success in a contested logistics environment. Traditional long-standing Department partnerships, especially those with military services and warfighters in the 'field', are crucial for a range of materiel disposition activities down to the lowest levels to maximize reuse, ensure proper disposal, and adhere with regulations as standard practices. These partnerships are DLA Disposition Services' raison d'etat and therefore initiatives that improve interoperability from planning to the execution of activities are paramount. Partnerships with Allies, Whole of Government, and Industry are critical for bridging or negating organizational gaps and delivery of optimal disposition solutions. Initiatives include establishing an agreement with Australia's military to dispose of U.S. excess property within their country; leveraging industry in a standing contract that will enable rapid extension and expansion of property disposal capabilities during expeditionary operations; and pursing partnerships that facilitate the development of innovative solutions using new technologies to improve materiel disposition, such as recovery of rare earth materials used to print parts with 3D printers. Collectively, partnerships are a significant multiplier for enhancing capabilities and capacities toward optimizing materiel disposition activities across the continuum of conflict – which becomes more important in an expanding and protracted war.

Conclusion

The U.S. military is in a constant state of operating in the third phase of war - seize the initiative - with numerous adversaries around the world. This phase is marked by hostilities which are currently occurring in cyberspace, as well as in the cognitive and economic domains of military power. The reality is that the U.S. is teetering on the tipping point of the next phase of war – major combat operations – that fully encompass a region and potentially leads to global conflict. The implication is that the JLEnt, as a strategic center of gravity, will experience an exponential increase in the number and severity of attacks in all domains from the frontlines to the homeland. The last time the U.S. military encountered a comparable contested logistics environment was WWII, when forces had to endure the overextension of supply lines and scarce resources. The U.S. military clearly learned the need and value of salvage (excess property) to sustain the war effort during WWI. During WWII, salvage was just as crucial for sustaining combat power within logistic vacuums on the front lines and conserving scarce resources for the industrial base on the home front. The scope and magnitude of supply chain disruptions and subsequent scarcity of materiel within theaters of operation – especially in a protracted war – will likely be severe if there are no enhancements to prevent the emergence of logistic vacuums. As efforts progress to make supply chains more resilient and agile, effective materiel disposition should be leveraged as the most viable and low-cost means to help mitigate risk in a contested logistics environment. Success requires optimizing materiel disposition activities from end to end through mutually supporting initiatives. To facilitate collaboration, synchronization, and integration throughout the JLEnt, initiatives should link to DLA's transformational imperatives of people, precision, posture, and partnerships. This task will not be easy, though it will be made easier by changing a culture that marginalizes materiel disposition into one visible throughout history, from Atilla Hun to U.S. Army logisticians during both World Wars, who embraced the critical need to use local resources to sustain military power in the absence of new materiel. This reflects what LTG Simerly describes as the need to "think, act, and operate differently to create the right culture to meet our commitments and set conditions for victory as we operate in a contested logistics environment."[33] Doing so will drive the collective pursuit of transformational materiel disposition initiatives at the fastest pace possible to enable the sustainment of military power when supply chains falter … before the start of the next armed conflict.

32 Simerly, "DLA Strategic Plan 2025–2030."
33 Simerly and Adams, "Contested Logistics,"22.

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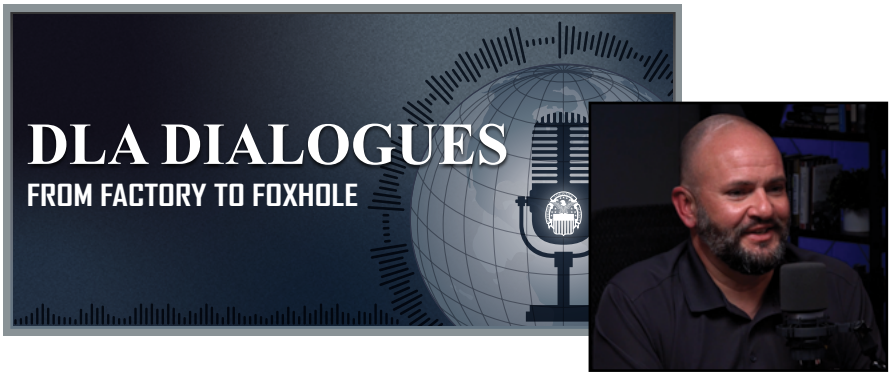

DLA Dialogues: From Factory to Foxhole – A new podcast to discuss logistics

By DLA Public Affairs

As part of the Defense Logistics Agency's ongoing Campaign of Learning, "DLA Dialogues: From Factory to Foxhole" is a new monthly podcast series bringing together agency subject matter experts for candid conversations on the latest challenges and innovations in defense logistics.

The series is designed to challenge assumptions, fuel professional growth, and equip listeners with insights into DLA's strategic direction as it adapts to today's contested logistics landscape.

Each month, the podcast features experts who share firsthand insights and lessons from their work at DLA.

These in-depth conversations discuss complex contested logistics challenges – from emerging global threats to shifting customer needs – and showcase expertise within the organization.

The inaugural episode features Peter Battaglia, DLA's deputy director of Mission Assurance, who analyzes the September 2024 Hezbollah pager attacks as a case study in supply chain risk. His discussion highlights the sophistication of modern threats and emphasizes the vigilance required to protect DLA's logistics networks.

In episode two, Sharon Croll, manager of DLA's Industrial Capability and Warstopper Program, explains how the program ensures rapid military access to critical supplies during times of crisis. Croll describes how unique contracts and carefully cultivated relationships keep key production capabilities on standby – offering flexibility and speed in responding to events like the COVID-19 pandemic.

Upcoming episodes will tackle cybersecurity threats facing supply chains, the importance of critical material reclamation and reuse, and the role of wargaming in shaping DLA's strategic direction.

"DLA Dialogues: From Factory to Foxhole" is available through the agency's Campaign of Learning website, as well as DVIDS and YouTube.

The podcast is hosted by DLA Public Affairs Media Chief Jake Boyer.

The Defense Logistics Agency created its Campaign of Learning to promote a shared understanding throughout the joint logistics enterprise of today's rapidly changing and contested logistics environment, and to capitalize on the strengths and capabilities of numerous organizations involved in logistics operations. The campaign includes white papers highlighting strategic issues, Warfighter Talks featuring presentations from defense leaders, and a curated reading list on topics like supply chain management, data analytics, risk management and more. These news briefs highlight previously published white papers and recent Warfighter Talks.

Modernization key to countering global threats

The Defense Logistics Agency must adapt to the complexities of a rapidly changing global landscape by modernizing its approaches to cybersecurity and supply chain security, William Evanina, former director of the National Counterintelligence and Security Center, told DLA employees in October.

He highlighted the interconnected nature of global threats and emphasized the need for DLA to maintain a heightened state of vigilance.

Adversaries are strategically repositioning offensive measures and countermeasures against the U.S. from the government to the private sector, Evanina said, to include vendors DLA relies on. Threat actors also target infrastructure and telecommunications which, if implemented, could critically disrupt DLA's movement of goods and services to the warfighter.

Some of the largest companies in the U.S. have fallen victim to data breaches, he said, many caused by a compromised vendor who swam upstream.

To mitigate these efforts, Evanina recommended practicing good cyber hygiene and proactive risk management, as well as establishing vendor compliance standards.

"We're only as good, from a supply chain threat perspective, as our vendors," he said. "And the vendors have no incentive to get better until we give them incentive."

This is especially important for larger vendors, Evanina said. He cautioned against becoming reliant on any single vendor or system, as their failure could mean mission failure for DLA and the warfighters they serve.

– Kristen Wong
DLA Public Affairs

JS vice director: Operational environment presents new challenges, opportunities

The Defense Logistics Agency stands at a pivotal moment in history in which the global strategic environment is shaped by unprecedented challenges and opportunities, Navy Rear Adm. Paul Spedero Jr., Joint Staff vice director, told DLA employees in May.

"The world today is marked by heightened geopolitical tensions, rapid technological advancements and pressing environmental concerns," he said. "As leaders, thinkers and citizens, we must navigate this complex landscape with foresight, resilience and cooperation."

Reviewing the current strategic environment, Spedero said a strategy for using AI and other advancing technologies was critical. AI's impact extends beyond workload reduction; it's revolutionizing research and development, intelligence, analysis, force employment and sustainment.

Data remains central to everything in reporting operations, he said, including logistics data to report expenditures but also predictive analysis to get in front of operations so goods and services can be moved in advance.

There has been an emergence of unmanned platforms, Spedero said. Integrating the platforms with AI would make them extremely difficult to overcome; they could incorporate domain awareness or intelligence analysis of tactics and then apply the data in real time to make them more survivable and able to exploit enemy vulnerabilities.

"Nothing happens without logistics, but logistics are going to be contested," he said, emphasizing the need for survivability and redundancy to sustain operations. "There must be innovation in how we deliver logistics, not just in where we place it, but how we get it there."

– Alexandria Brimage-Gray
DLA Public Affairs

Insights help DLA employees understand challenges posted by China

The U.S. and its partners must understand the depth and breadth of challenges posed by China to effectively compete in the physical and information domains, the director of the China Aerospace Studies Institute at National Defense University told Defense Logistics Agency employees in June.

Brendan Mulvaney warned of China's warfighting capabilities: its enormous shipbuilding capacity – 230 times that of the U.S. – and its work to increase space, information and aviation capacities.

All of these can be mobilized whenever needed, he said.

The Chinese consider the information domain – to include cyber and psychological operations – as a domain of war, equal to air, land, sea and space domains.

Because of this information domain, there's a need to prepare U.S. military and government personnel and their families for potential information warfare attacks, Mulvaney said.

Looking to the future, China aims to be at the center of the world stage politically, diplomatically, economically, culturally, scientifically and militarily by 2049, which marks the 100th anniversary of the declaration of the Republic of China, he said.

Mulvaney highlighted the U.S.' challenges of getting to the Pacific theater and producing munitions and repair parts in sufficient quantities to support a potential conflict in the region. The U.S. needs to think about how it could pre-position supplies and equipment ahead of time, he added.

"That's really where we need to focus because it isn't going to be a pickup game," he said. "We are not thinking long term enough about how we build the industrial base and how we build acquisition and supply lines that are going to be ready for that."

– Alexandria Brimage-Gray
DLA Public Affairs

Diplomat to logisticians: Diplomacy and logistics makes victories happen

Diplomacy and military logistics may seem like distant cousins, but the nation was founded on this partnership, the Deputy Assistant Secretary of State for Global Operations told Defense Logistics Agency employees in July.

"Logistics makes victories possible and diplomacy makes logistics happen," Seth Green said.

The State Department provides global diplomatic platforms around the world through its over 270 embassies and consulates in about 160 countries globally.

This includes logistics operations, Green said. His team enables the nation's whole-of-government partners to succeed and execute the administration's agenda in their assigned country.

This year, DLA and the State Department signed a 10-year, $600M interagency partnership agreement for the acquisition of all goods and services across the agency's catalog in steady state or in crisis to execute their mission.

DLA Energy and DLA Troop Support provide logistics support in locations where it may be challenging to get fuel or certain subsistence items and even assist in contingency planning, Green said.

The State Department has also purchased pharmaceutical and medical equipment from DLA. Their embassy and consulate acquisition staff are also using DLA's FedMall catalogs to buy goods for the State Department and whole-of-government partners at posts around the globe.

"The mission remains, whether it's humanitarian missions in the Horn of Africa, deterrence in Europe, crisis response in the Middle East or global competition in the Indo-Pacific," Green said. "Our national security goals still depend on the precise stance of diplomatic access and logistical power."

– Alexandria Brimage-Gray
DLA Public Affairs

Navy works to keep fleet ready during increasing global demand

The Navy is actively addressing the dual demands of maintaining and modernizing its fleet while keeping up with operational demands around the world, Navy Rear Adm. Andrew Biehn, director of Surface Maintenance, Modernization and Sustainment for Naval Sea Systems Command, told Defense Logistics Agency employees in September.

Shortages in the surface fleet necessitate a higher percentage of the fleet being "combat-surge ready" at any given time. A ship is considered combat-surge ready if it is not in maintenance, has completed a significant portion of its training cycle, and is fully manned with working equipment, Biehn said.

To address this challenge, he said the Navy is focused on modernizing existing ships to introduce new combat capabilities and working to extend the service life of its ships to avoid early decommissioning.

Key obstacles to combat surge readiness are delays in maintenance and modernization availabilities. Unplanned work, stemming from underestimating the scope of modernization or the material condition of ships, accounts for about 40% of these delays, Biehn said.

Material availability is also an issue, he said, with ships often entering maintenance without all necessary funds, plans, parts or maintenance personnel on hand. To remedy this, the Navy is working to improve forecasting and communication with the logistics community and not beginning maintenance unless the work could begin immediately.

Biehn highlighted the importance of understanding maintenance data to identify primary cost, downtime and logistic delay time drivers for ship systems. This information will be used to improve training and documentation, and to potentially redesign parts that fail prematurely, he said.

– DLA Public Affairs

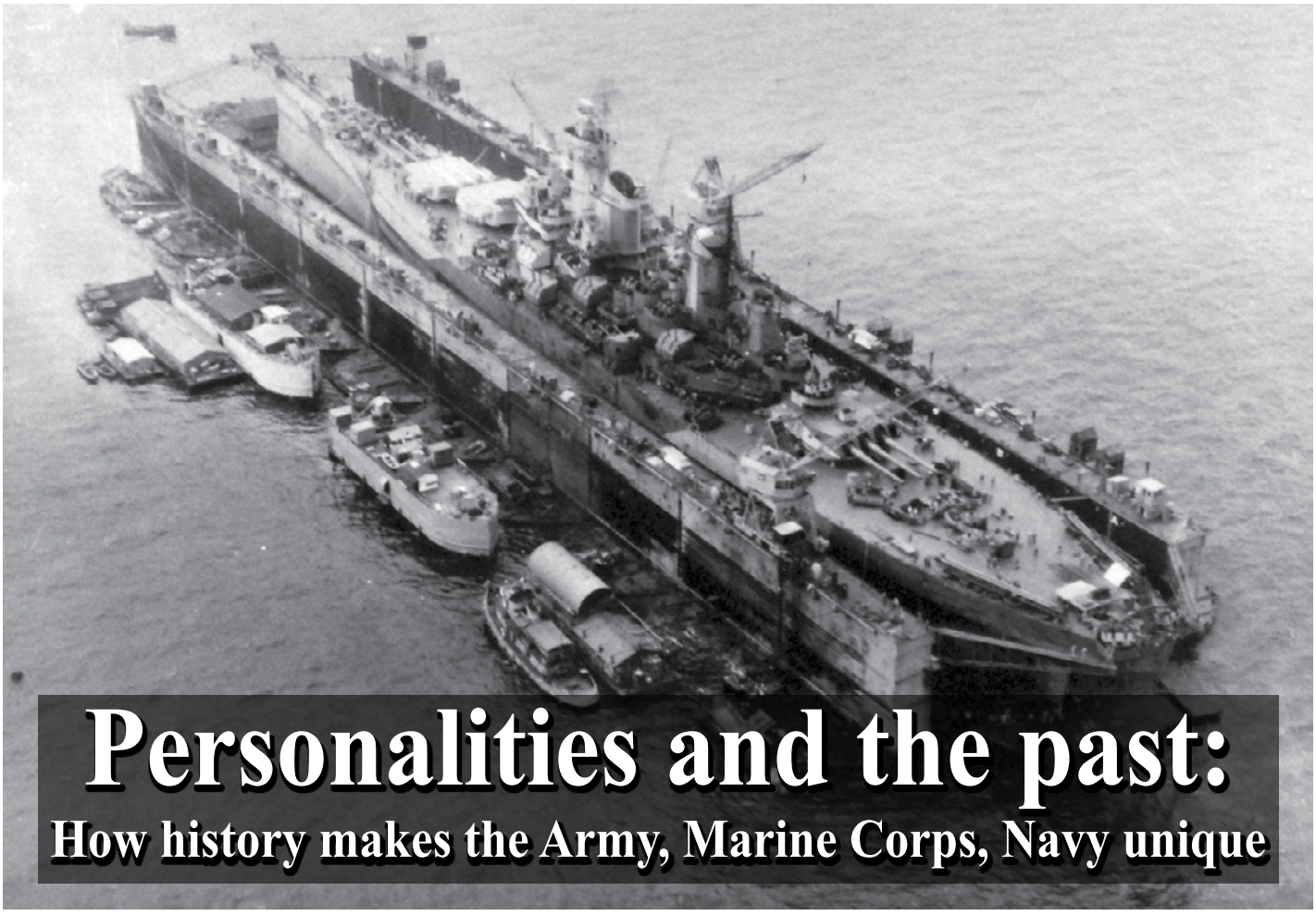

Photo courtesy of the U.S. Navy

Personalities and the past:

How history makes the Army, Marine Corps, Navy unique

By Colin J. Williams
DLA Historian

Officers joining George Washington's army outside Boston in the summer of 1775 didn't swear allegiance to the United States. They couldn't: America didn't exist. The U.S. Marine Corps, Navy and Army all celebrated their 250th anniversary in 2025, making them a year older than the nation they support.

Elder status doesn't mean the Army, Marine Corps, and Navy rise above the nation. It does mean their traditions are long established. These traditions influence how services conduct operations, provide logistics and solve problems.

Traditions aren't arbitrary or accidental. Instead, they are based on history and reflect fundamental differences arising from the separate domains in which the services fight.

In his book "The Masks of War: American Military Styles in Strategy and Analysis," the late Carl Builder posits that "service personalities are … marked by the circumstances attending their early formation and their most recent traumas." Builder suggests that those who work with the services should know their personalities.

Early formations and most recent traumas

It is difficult to downplay the extent to which the Army is defined by its early history. Organizers of every change of command in the past quarter millennium have followed a set format that mirrors Washington's assumption of command outside Boston on July 3, 1775. Also derived from the Revolutionary War is the view that soldiers represent America. This view has two origins. First, much of what land forces accomplished during the war was performed by militias, which the Continental Congress convinced states to place under Washington's command whenever he thought it necessary. Second, even soldiers in the Continental Army returned home after relatively short enlistments. Although many today think of the Army as one continuous formation, Congress had to recruit four times during the war.

Aerial of USS Iowa (BB 61) while in the floating dry-dock, ABSD-2, Manus, Admiralty Islands, Dec. 28, 1944.

Although the Army's recent experiences in Afghanistan and Iraq can justifiably be considered as traumatic by participants, it was Vietnam that profoundly shook the service. The Southeast Asian conflict was fought with draftees and became the first time in history America lost a war. The Army bore the brunt of the fighting.

Like the Army, the Marine Corps also has its beginnings in the American Revolution. Formed by Congress on Nov. 10, 1775, Marines served on the first U.S. ships and successfully raided the Bahamas. The Marine Corps hymn omits the Revolution, however. Instead, the first conflict it refers to is the Barbary Wars, America's attempt during the early 19th century to stop pirates from accosting shippers. "The shores of Tripoli" and subsequent operations against non-governmental entities, called counterinsurgency today, are very much part of the Marine Corps' identity. Examples include interventions in Latin America during the second half of the 19th century and first two-thirds of the 20th century, as well as non-kinetic aspects of Vietnam and the Global War on Terror.

In addition to conducting counterinsurgencies, the Marine Corps has also acted as a land force. Famous battles in locations such as Belleau Wood in World War I, the Chosin Reservoir in Korea, Khe Sanh in Vietnam, and the second battle of Fallujah in Iraq all prove Marines can fight far from a shoreline. Even so, Defense Department civilians questioned the need for the Marine Corps after World War II. Its island-hopping campaign across the central Pacific helped defeat Japan, but there seemed to be little need for an amphibious assault capability early in the postwar period.

The Navy is similar to the Marine Corps in that, while formed during the American Revolution, its foundational story dates to a more recent conflict. Although John Paul Jones set a paradigm for independent command in the Revolution, winning ship-on-ship battles and raiding the British coast, it was the bold captains of the War of 1812 whose victories are glorified today. Isaac Hull, Charles Stewart, Thomas McDonough, David Porter, William Bainbridge and Stephen Decatur all set a standard for boldness and bravery that sailors still admire more than 200 years later.

The Soviet fleet had justified the service's existence during the Cold War; its removal as a threat was good for peace but bad for the nation's blue-water force. Despite supporting roles in the First Gulf War and the War on Terror, the Navy became "A Global Force for Good," serving the nation in important but non-warfighting ways.

Why service personalities are important

Builder's "Masks of War" remains valuable today because it connects service personalities with

Soldiers with the Red Ball Express load trucks with combat rations in preparation for a convoy to the front line Dec. 21, 1944, in the European theater of operations.

Photo courtesy of the U.S. Army

recruitment. In the era of an all-volunteer military, the services have to attract talent. Helped by literature, movies, and the gaming industry, the services promote glorified interpretations of their pasts to fill ranks with young men and women.

To both soldiers and the public, the European Theater of Operations in World War II is the Army's most exalted success. Occurring 80 years ago, the campaign was the largest concentration of Army units moving against a single objective in service history. The advance through Europe from D-Day in June 1944 to V-E Day in May 1945 showcased the effectiveness possible from synchronizing movement, maneuver, fires and sustainment.

World War II was also the height of warfighting success for the Navy and Marine Corps, with the exception that the Pacific and not Europe is deemed the theater worth emulating. Although the common claim is that the Navy entered World War II having engaged in only 56 hours of combat, four years of conflict in the Pacific multiplied the service's combat experience by many times. Of the several identity-shaping battles were fought over those years – Coral Sea, Guadalcanal, Philippine Sea, Leyte Gulf – Midway is the best remembered today.

The Marine Corps also considers World War II in the Pacific an ideal model for replication because its advance across the Pacific allowed it to conduct amphibious operations instead of counterinsurgency or land warfare. If Midway is the pinnacle of success for the Navy, then Iwo Jima fills that role for the Marines. To many Americans, the battle is the defining achievement for the Corps.

The Marines survived as a separate service because of the Korean War. Seizing Inchon in September 1950 and defending the Chosin Reservoir three months later secured the Corps' existence to the present day.

Photo by Marine Corps Staff Sgt. WW. Frank

As against "The Shores of Tripoli" in the Marines Hymn, Leathernecks use scaling ladders to storm ashore at Inchon in an Amphibious invasion, September 15, 1950. It was one of the fastest operations on record, perfectly timed, with waves of Marines almost stumbling over preceding ones. The attack was so swift that casualties were surprisingly low.

How traditions are expressed

Traditions are expressed in many ways. Ceremonies are the most intentional. When ships enter ports, crews man the rails. Uniforms are the most ubiquitous. Army Lt. Gen. Andrew T. McNamara, DLA's first director, received pushback from the Marines when he tried to standardize belt buckles on dress uniforms. Equipment is the most substantial. Many in the Army opposed transitioning from horses to tanks for sentimental reasons. Because DLA provides parts, procures uniforms, and participates in ceremonies, understanding how history affects service traditions is important for the agency. In addition to explaining how and why the services differ, this history defines America, itself on the brink of its 250th birthday.

DLA News Wire

ARMY CHINOOKS EXCEL IN DELIVERING EXCESS TO DLA

As part of the Army Transformation Initiative, the 10th Combat Aviation Brigade at Fort Drum, New York, is working to offload excess equipment.

Elements of the unit are working against a hard deadline to offload used and excess equipment. The effort aims to streamline operations and repurpose facilities.

Army Maj. Nick Berry with the 6th Squadron, 6th Cavalry Regiment, explained that his unit is inactivating, requiring the disposal of all equipment by a specific date.

"Cleaning all of this stuff out allows us to restore some of these (Fort Drum) buildings to their normal facilities," Berry said.

Instead of traditional ground transport, the squadron used Chinook helicopters to move excess items to the Defense Logistics Agency Disposition Services site in Pennsylvania.

"It was definitely a large muscle movement for us to get this done, and I'm glad we were able to utilize the assets across the combat aviation brigade to accomplish the mission," Barry said, noting that using internal aviation assets was key to meeting the deadline.

Army Chief Warrant Officer 2 Jake Bennefield, a Chinook pilot, said the flights provided critical training for his crews.

"They're divesting their equipment, and we were able to knock out some training as well, so kind of a two-for-one deal," Bennefield said.

He added that the mission simulated deployment conditions, including refueling, navigating busy airspace, and landing in unfamiliar zones.

DLA Disposition Services Susquehanna Area Manager Chris Stouffer noted the uniqueness of the delivery.

"I've been here over eight years now and that's definitely the first conveyance by helicopter that that we've ever received," Stouffer said.

The DLA Disposition Services team must screen the turned-in property. Usable equipment will be listed for reuse, while unusable items will be sold at auction or as scrap.

By Jeff Landenberger
DLA Disposition Services
Public Affairs

DLA DISTRIBUTION KOREA SUCCESSFULLY LAUNCHES NEW WAREHOUSE MANAGEMENT SYSTEM

Defense Logistics Agency Distribution Korea has successfully transitioned to a new Warehouse Management System, modernizing logistics operations and ensuring continued support for U.S. Forces Korea and the Pacific theater.

The WMS Go-Live, which began in late August, marks an advancement in supply chain modernization.

"This transition is a testament to the months of preparation and the dedication of our workforce," Army Lt. Col. Celina Pargo, commander of DLA Distribution Korea, said. "Our team ensured that the cutover was seamless and that warfighter support remained our top priority throughout the process."

Planning began in January, with power users deployed from DLA Distribution Anniston, Alabama, and DLA Distribution Yokosuka, Japan, to provide training. DLA Distribution Korea Operations Chief Marcus Ridgeway explained that these efforts produced training plans, videos, and standard operating procedures.

Cho Yong-a, a DLA Distribution Korea employee trained in Japan, said, "We learned how to deal with real-life situations and then were about to train our fellow DLA Distribution Korea employees on the basic usage and processing procedures."

Pre-Go-Live training included classroom and on-site instruction. A DLA Distribution headquarters team was present to address immediate issues. Mun Ho-sik, a transportation assistant, called the training thorough, allowing the team to transfer it to production on the first day.

To address language barriers, training materials were clear and accessible to both English- and Korean-speaking team members. The agency actively sought employee feedback to improve the implementation.

A WMS transition notice was distributed to customers across the region to ensure stakeholders were fully informed.

"DLA Distribution Korea's successful transition to WMS demonstrates the power of preparation, cross-organizational teamwork and proactive problem-solving," Pargo said. "By leveraging training, communication and leadership engagement, the organization achieved a smooth cutover with minimal impact to warfighter support."

By Army LTC Celina Pargo
and Dorie Heyer
DLA Distribution Korea and
DLA Distribution Public Affairs

DLA News Wire

PHILIPPINE HAZARDOUS WASTE DISPOSAL INCREASES DLA FLEXIBILITY

The Defense Logistics Agency Disposition Services Indo-Pacific team completed a hazardous waste removal operation in the Philippines on behalf of Special Operations Command Pacific and U.S. Marine Corps Forces, Pacific.

The initial removal took place in July at Camp Navarro in Zamboanga, and Camp Aguinaldo in Manila, targeting overcapacity storage sites. The mission aimed to maintain environmental compliance and support U.S. forces' operational readiness.

Environmental Protection Specialist Jose Santos led the effort, ensuring compliance with both U.S. military and Philippine safety standards and environmental regulations.

"Every phase of this mission required detailed planning and flexible execution," Santos said. "We coordinated closely with SOCPAC, the contractor, and local personnel to remove the waste safely and efficiently, even under adverse weather conditions."

The operation involved removing 8,064 units across 41 line items of non-regulated waste, including used oil, batteries, contaminated soil, and chemical containers. The team faced challenges such as heavy rainfall, flooding, port closures, and equipment compliance issues.

"This operation marks a milestone for hazardous waste removal in the Philippines," DLA Disposition Services Indo-Pacific Director Faron Cordrey said. "The lessons learned here provide a framework for future environmental support missions, demonstrating how meticulous planning and collaboration can overcome logistical and environmental challenges."

Cordrey added that DLA's focus on local partnerships and coordination with contractors and military stakeholders protects personnel and the environment. Additional hazardous waste removal operations are planned.

"Our mission is to optimize every resource in support of the warfighter," Cordrey said. "The success of this operation reflects our commitment to smart stewardship, strong partnerships, and timely execution."

By Poma Lauer Darasamay
DLA Disposition Services
Indo-Pacific

DLA TROOP SUPPORT USES 3D PRINTING TO PROVIDE SAFER TESTING FOR MILITARY

The Defense Logistics Agency Troop Support's Product Test Center Analytical has developed 3D-printed hands to improve safety during glove testing.

The hand simulates a human hand, allowing researchers to test glove integrity without risking exposure to hazardous materials. PTC general engineer Edward Dalton conceived the 3D model after being asked to test gloves designed to protect workers handling jet fuel.

"One of the tests dictated that a tester put on a glove, put their hand in a bucket full of jet fuel, then flex their fingers repeatedly," Dalton said. "If the glove leaks, it fails the test."

"A leaking glove also means the tester just got jet fuel all over their hand, which is a significant safety concern," Dalton said. "This got me thinking that maybe we could create an artificial hand with the ability to flex its fingers. This would give us the capability of still performing the test without putting a tester at risk."

Skin exposure to jet fuels can cause dryness, itching and rashes. The project now reduces risks and saves time spent on decontamination. PTC Supervisory Chemist Mike McClain had tested gloves with the previous safety precautions.

"Even with the efforts to protect my hand and arm, there was still some that got on me and the smell permeated through the protective plastic," he explained.

The 3D-printed hands also offer flexibility in sizing.

"Ed (Dalton) can scale the surrogate hands to match what we need for testing and adjust finger lengths to fit the design of the gloves," McClain added.

"I was motivated to use the tools we have access to in order to enhance the safety of our testing," Dalton said.

By Maurice Matthews II
DLA Troop Support Public Affairs

Photo by Maurice Matthews II

Defense Logistics Agency Troop Support Product Test Center engineer Edward Dalton and PTC Supervisory Chemist Mike McClain explain the 3D hand model concept to Troop Support Commander Army Brig. Gen. Sean P. Kelly during his PTC Analytical tour in July 2025.

I AM DLA

My name is:
Matt Borsinger

I am:
A Small Business Innovative Programs program manager with DLA Research and Development at Defense Supply Center Richmond, Virginia.

Describe your job in a sentence:
I help manage about 150 active contracts within the Small Business Innovative Research program, making it easier for small-business R&D efforts to meet DLA needs.

How long have you worked for DLA?
Eight years

Why did you apply for the Enterprise Rotational Program?
My experience working with the R&D group sparked my interest in the program. I'm fascinated by their unique contracting solutions and believe this program offers a valuable opportunity to learn how to effectively manage innovation and contribute to DLA's mission of providing the best possible solutions.

Photo by Nutan Chada

Matt Borsinger

Matthew Borsinger, left, and Danielle Williams discuss the Defense Logistics Agency Enterprise Rotation Program at the Defense Manufacturing Conference in Austin, Texas, Dec. 2, 2024.

How is it different than your previous position/job series?
My previous position was team lead engineer, supporting engineers and product specialists in value management projects. That position had a heavy technical focus, with the programmatic aspects being a secondary focus. I'm learning more from the R&D team about the different ways to handle the program management side and the contracting vehicles available to collaborate more with vendors on hard-to-solve issues. The key difference is that now, the programmatic aspects are my primary focus, requiring me to leverage those contracting vehicles and program management knowledge more directly.

What is your favorite thing about your assignment?
Working with excellent program managers and learning about their programs, history and the impressive work they do.

What are your best memories of working at DLA?
Working with a great team responding to the Ukraine Contingency Response while deployed to Germany. I liked being able to see and support our customers in the field while working with personnel from all of the DLA commodities. I learned a lot about our customers and what they expect from us while also learning how each of the commodities perform their missions.

How does your role or office make DLA more agile?
SBIR is known for fast award times and flexible acceptance of funds. This rapid acquisition process allows DLA to quickly address emerging needs and adapt to changing battlefield conditions, providing a critical advantage to our warfighters. We can get solutions on contract fast!