



Logistics Directions



Newsletter of
The Council of Logistics Engineering Professionals
March – April 2015

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Weekly DAU "Lunch & Learn" Webinars

Did you know DAU offers weekly web-based "Lunch and Learn" webinar sessions? Upcoming sessions include:

- Apr 29 - Identifying Required Technical Data and Software

Identifying Required Technical Data and Software. Many legacy programs failed to obtain the rights in technical data and software that are needed to enable systems upgrades and to perform life cycle support. This presentation will discuss an approach to determine the needed data and software and some of the options available to program managers and contracting personnel to obtain additional rights, when required.

- May 6 - Are You Prepared for an IBR? Are You Prepared for an IBR? Discussion of actions and responsibilities associated with preparation for an Integrated Baseline Review

- May 13 - An Overview of the Life Cycle Logistics Process
 An Overview of the Life Cycle Logistics Process. This presentation will discuss a holistic approach for influencing the design of a weapons system with a focus on supportability. In addition to supportability analysis, the discussion will highlight the importance that Design Interface has on the integration of the quantitative design characteristics of systems engineering with the functional logistics support elements.

- May 20 - 12 Integrated Product Support Elements
 Twelve Integrated Product Support Elements. This presentation will discuss each of the 12 Integrated Product Support (IPS) Elements. It will discuss the importance of addressing these essential elements from the beginning of system acquisition as well as continuing to address them throughout the Acquisition Life Cycle. The IPS Elements are the foundation to Life Cycle Logistics for any System.

- Jun 3 - Reliability Growth Modeling
 Reliability Growth Modeling. Reliability growth must be monitored and reported throughout the acquisition process. Program managers report the status of R&M objectives and/or thresholds as part of the formal design review process, and during systems engineering technical reviews, and during other reviews, including the Defense Acquisition Executive Summary (DAES) reviews. This session will introduce you to the concepts of Reliability Growth Modeling. Reliability Growth Modeling generates

the reliability growth curves (RGCs) you need to plan, illustrate, and report reliability growth. RGCs are required for the SEP at Milestone A and the Test and Evaluation Master Plan (TEMP) at Milestone B. Note: This session will introduce you to the AMSAA "PM2 Reliability Growth Planning Curve" continuous model, but will not train you to use the model.

- Jun 10 - 5-Step FAR System Research Process
 This session will discuss and demonstrate how to search the FAR, DFARS etc.
- Jun 17 - Learn the "art" of the ARRT (Acquisition Requirements Roadmap Tool)
 This session will be a robust discussion demonstrating the functionality and power of the Acquisition Requirements Roadmap (ARRT) tool, used to develop Performance Work Statements, Quality Assurance Performance Plans, the Performance Requirements Summary, and more for your service acquisitions.
- Jun 24 - Aircraft Operations: Limiting Government Liability Thru The Application Of The "Ground and Flight Risk" Clause

The DoD limits Contractors' liability when aviation work is contracted. This presentation describes the evolution of this DoD requirement, mandatory programs, and required training that must exist to protect this liability.

These 'Lunch & Learn' webinars commence at 1230 EDT, every Wednesday (except during a holiday week) and last approximately one hour. Supervisor permitting, registering for the webinar(s) is relatively simple and is included below in addition to the URL for accessing

- Registration: <http://go.usa.gov/H2sA>
- Presentations: <https://connect.dco.dod.mil/daulunchandlearn> (Enter as a Guest)
- Schedule Changes/Updates/Session Content & Recordings: <http://go.usa.gov/3YC2w>
- Session Evaluations: <http://go.usa.gov/SZ3H>

Note that two of the upcoming sessions (May 13 and May 20) are focused on Life Cycle Logistics-related topics (An Overview of the Life Cycle Logistics Process and the 12 Integrated Product Support Elements). Encourage you to check them out.

G-4 aims to make Army logistics 'expeditionary' again

By J.D. Leipold

WASHINGTON (March 19, 2015) -- The Army's senior logistician said one of his top priorities and challenges was to make the Army an expeditionary force again, one where readiness is not scheduled, but the force is consistently sustained and ready to move on demand.

"We have new missions all around the world everyday - nine of our 10 divisions are committed to those missions outside the United States," said Lt. Gen. Gustave F. Perna, Army G-4, during an Association of the U.S. Army breakfast meeting, March 19. "We are increasing our presence and capability in places we didn't think we were going to be...but we have not deployed forces in an expeditionary manner since 2003... and our logistics skills have atrophied."

Perna reminded the audience that during operations in Iraq and Afghanistan, the Army executed the Army Force Generation, or ARFORGEN, model and understood how to schedule Soldiers and units going in and out of theaters. He said ARFORGEN became a predictable, redundant and repetitive model that was supported by forward operating bases.

"As a result of that predictability, we made decisions that worked very well for us at the time - like establishing theater-provided equipment and left-behind equipment sets while relying heavily on contractors to do maintenance and supply accountability for us," he said. "Decisions like these took unit leaders and Soldiers out of the equation - essentially separating ourselves from these readiness tasks of running the Army from day-to-day and ensuring it was expeditionary and ready to go."

In some cases, he said, those approaches led to adjusting standards downward or lowering expectations about maintenance, supply accountability and deployability.

"The Army cannot afford this approach anymore - we cannot afford it either in a financial way or a requirements standpoint," he said.

Perna said that when he became the G-4 six months ago, the Army secretary and chief of staff described their visions on what the Army needed to do to win in complex environments and that would be to, "develop agile and adaptive leaders who must be ready and modern to ensure the Army is globally responsive and regionally engaged."

The G-4's priorities toward that effort are focused on three lines of effort - leadership development, readiness - tactically and strategically - and support of the Army Operating Concept and Force 2025.

"Under leadership development, we will realign the sustainment

brigades underneath each of our division headquarters," he said. "This will strengthen our home-station relationships, allowing us to identify and manage logistics talent on a broader scale, develop our leaders and increase esprit de corps down into division and corps' levels."

He said that to be expeditionary again, the Army's 270,000 logisticians need to re-learn how to do operational logistics on the battlefield," like how to refuel an armored brigade on the move - "a lost art," he said.

"Second, in our readiness line of effort - we're fielding our new information system, the Global Combat Service Support-Army [GCSS] and it's a huge success and a game-changer in the logistics force," Perna said. "The positive impact from GCSS will result from the creation of data-driven supply, maintenance and property management that is unheard of in today's Army."

The G-4 team is also developing a business intelligence capability using data from the GCSS to provide visualization tools necessary for leaders at all levels, he added. "Future GCSS-Army increments will include aviation maintenance, ammunition management and management of Army Prepositioned Stocks or "go-to-war" equipment that is strategically placed around the world.

"Third, in our Force 2025 line of effort, we're applying innovation and technology in support of the Army Operating Concept and future requirements," Perna said. "One example is that we work together executing items like condition-based maintenance or CBM - it's about to come to fruition.

"We have 1,700 vehicles in our fleet which are capable of CBM and we're already seeing significant savings in millions of dollars in executing preventive maintenance versus reactive maintenance," he noted. "We are moving forward in solid position in executing CBM in the aviation community - our most important piece of equipment on the battlefield besides our Soldiers is aviation."

Weighing in on sequestration, Perna said should that happen, the Army will not be able to reset its equipment, which means the life-cycle will not be expanded, nor will the Army be able to train its Soldiers in expeditionary logistics.

"We will not be able to improve our force projection and onward movement in an expeditionary battlefield," he said. "We will not be able to extend our lines of communication into the theater of operations because we will not have done the necessary work to facilitate the relationships and build the capabilities from our industrial partners."

WANTED: Books

Dee Dee Krich, CLEP Member from Colorado Springs, CO is interested in acquiring old/used logistics books. She says that she is not picky and doesn't care about the shape of the books or how old the books may be - it is the content that she is interested in.

More specifically, she is interested in books on Logistics Engineering, Systems Engineering, Sustainment, Integrated Logistics Support, etc. And, as many have also discovered, certification programs and college degree programs are

more Supply chain-centric and do not cover the full realm of Logistics Engineering.

So, if you have a few volumes that you would like to unload or know someone who may be retiring and would like to reduce their library and would like to contribute to the feeding of the mind of a logistics loving gal, please contact Dee Dee at DeeDee.Krich@exelisinc.com. She is willing to pay of course... but will just have to see what might be available and what the cost might be.

Operation Atlantic Resolve enhances Polish Armed Forces training, operations

By Sgt. Christina Dion, 319th MPAD

As Soldiers and equipment arrive in country for the 1st Brigade, 3rd Infantry Division's Operation Atlantic Resolve rotation, the Polish Armed Forces General Command readies for a historic year of training.

For approximately three months, Soldiers and armored vehicles of the 2nd Battalion, 7th Infantry Regiment, 1st Armor Brigade Combat Team, 3rd Infantry Division will train with Polish Army troops.

Lt. Col. Artur Golawski, a public affairs officer with the Polish Armed Forces General Command in Warsaw, said they planned roughly 70 international and bilateral exercises this year, which is more than any previous year in Polish history. Last year the Polish Armed Forces conducted 35 international and bilateral exercises.

Some of the equipment being used by 2-7 Infantry is part of the European Activity Set. The European Activity Set is equipment the U.S. Army has staged in Europe ready for training and operations.

"Having equipment forward located as part of the European Activity Set enables CONUS-based Regionally Aligned Forces to quickly move to Europe, draw the equipment and move out on their training mission. This greatly reduces the cost and time needed to move our forces and enhance our capabilities to support our European Allies and partners," said Don Wrenn, U.S. Army Europe Public Affairs Plans and Exercises.

Although some equipment was left by previous rotations of Operation Atlantic Resolve, the 1st Brigade, 3rd Infantry Division brought more to expand operations in Eastern Europe, said Capt. Erik Hamilton, commander of Delta Company, 2nd Battalion, 7th Infantry. This is exactly what the Polish Armed

Forces General Command needed, according to Golawski. Having added equipment makes training possible on a larger scale than in the past, he said, and it was made possible due to the U.S. participation and planning.

"We are interested in joint, multinational training as it improves our skills in planning, executing and conducting military and crisis operations in an international environment," Golawski said. "[The U.S.] troops' training and presence in Poland is also the mark of the allied solidarity and trust building."

That trust building is part of the overall Operation Atlantic Resolve mission to ensure NATO remains the most successful political and military alliance in history. In order to do that, allies must seize every opportunity to work and train together.

Operation Atlantic Resolve provides that opportunity and the Polish Armed Forces intend to make the most if it, said Golawski.

"It's improving our operational capabilities, develops understanding, and enhances our soldiers' skills," he said.

"It's also discouraging a potential aggressor from interfering in our day-by-day existence."

Although Operation Atlantic Resolve's main directive is to enhance interoperability and cohesive operations between NATO nations, it's also a demonstration of the United States' commitment to NATO and the security of Europe.

The equipment will be staged in Germany until it's needed, but it also shows our adversaries that we can bring in equipment, no matter how large, to any place in the world, said Hamilton.

That's a welcome sentiment to the people of Poland.

"Poles feel much more secure, and Polish soldiers feel much more confident having U.S. boots on Polish soil," Golawski said.

"We'd like to have [the U.S. Army] as long as possible, to train and serve together.

"We will improve and build up infrastructure to host incoming allied forces because we see the benefits. The most important are peace and security.



Photo Credit: Sgt. Christina Dion
Strykers teams with the 3rd Squadron, 2nd Cavalry Regiment prepare 1st Armor Brigade Combat Team, 3rd Infantry Division armored vehicles for offloading

Safety and Warehouse Storage

Emergency preparedness is equally as important as prevention in maintaining a safe workplace.

By Michelle Coleman, *Reprinted with permission of the Author*

Safety is the top priority when designing a warehouse and choosing storage. Well-utilized storage equipment is conducive to creating a safer work environment and reducing workplace injuries for the 145,000 warehouse workers in America. The fatal injury rate in the warehousing industry is higher than the national average for all industries, and taking necessary considerations for storage equipment and warehouse design will help to minimize workplace hazards while also creating an efficient warehouse.

Accidents and injuries in warehouses are preventable and come with many serious consequences. Preventable costs of a rack collapse include worker's compensation and insurance rate increases, fines and safety violations, legal expenses, and replacing storage and damaged material. To avoid the pitfalls and detrimental effects of an accident, use the utmost caution when planning warehouse storage and design. Proper design, installation, and maintenance of storage racks will make the warehouse environment a safe and healthy workplace for all employees.

Choosing a Provider

The first step to warehouse storage safety is choosing an experienced, reputable provider. When you choose a company to assist you with warehouse design and installation, you are placing your trust and employee safety in that company's hands. Conduct research about potential suppliers' safety history, brands used, and look for red flags, such as lawsuits and negative reviews. Researching prospective storage companies will prepare you to choose a reputable supplier.

Designing for Inventory

When choosing storage for a warehouse, the size, shape, and weight of the items to be stored needs to factor into the style of racking that is selected. Ensuring the pallet racking will accommodate the proper object size and weight capacity can reduce falling items and injuries related to overloading. Loads on the racks need to be stacked even and straight to ensure weight capacity is distributed properly. Spacing between items on the racks can affect the stability of storage.

Consider how the items held on racks will be

retrieved, and plan accordingly. Heavier and larger loads should be stored on lower or middle shelves to minimize lifting and forklift injuries. Making sure stacked materials are accessible for handling will help to reduce injuries and strain from challenging lifting situations. Ensuring all hazardous chemicals are properly labeled and stored, and an MSDS sheet is kept in an accessible location, is an important step in having an emergency response plan.

Assembly and Maintenance of Storage

Safety begins with an effective warehouse design and installation of storage, performed by personnel experienced in the assembly of racks, according to manufacturer instructions. They will help you assess what will be stored and analyze the size, weight, and quantity to recommend the most suitable products and configuration.

Be sure that adequate aisle spacing is provided to allow forklifts to safely pass and transport loads. Check to make sure racks are not exposed to excessive dampness or other elements that would compromise the structural integrity. Appropriate lighting needs to be available to provide adequate visibility in work areas. It is highly recommended that capacity signs are installed on storage for reference.

A sprinkler system should be installed that corresponds with rack structure. Employees should be informed about the location of fire extinguishers, emergency response equipment, hazardous materials logs, and storage capacity information. Emergency preparedness is equally important to prevention in maintaining a safe workplace.

When installing new pallet racking, verify with the architect that the floor can safely handle proposed weight loads. The floor where storage will be installed needs to be even to support rack structure. Precautions also should be taken if there are risks for seismic or natural disasters in the region that could potentially damage the facility. Ensure columns are properly anchored to concrete slab flooring. Obtain the load capacity of the floor from the building's architect prior to planning warehouse storage and layout. Check local building codes and stay informed about OSHA regulations to prevent violations.

Regularly checking storage is essential to maintaining the safest possible working conditions. Pallet racking should be regularly assessed to ensure it is in proper condition, with no threats to structural integrity. Checking

weight capacity is in line with storage guidelines, and installing capacity plates will help to prevent overloading. Check for cracks, dents, bends, and twists that may compromise the functionality of the storage.

Nuts and bolts should be checked to verify they are tightened and that safety locks are functioning. Inspections of pallet racking should involve checking the hardware to ensure it is tightened, looking for missing pieces in hardware, and a visible assessment to check whether racks are level, square, and plumb.

If racks need to be reconfigured or adjusted, always contact your provider to ensure proper set-up and compatibility. Different brands and style of racks are incompatible with each other and could pose a risk to employees if improperly assembled.

Buying Used Rack

Buying used pallet racking can offer savings in equipment cost, an option to recycle products, and can offer a similar quality to new product. However, extra precautions should be taken when assessing the quality of used storage.

If buying used rack, look for signs it has been repaired, such as areas that look painted or evidence of welding. There is no way of knowing whether the individual who repaired the rack is qualified or that it is in acceptable condition to use. Buy used rack only if it is in prime condition and shows no sign of rust, welding, dents, or bends.

Be sure used rack has been stored indoors in a climate-controlled area. Rust can be hidden by paint and other surface coverings, so an experienced eye is needed to determine quality. Make sure you recognize and trust the original manufacturer of the material. Confirm that racking is structurally sound and properly handled during installation and tear down. Rigorous inspection standards will help you avoid purchasing a product that will deteriorate and potentially put employees at risk for injuries.

Forklift Safety

A large portion of all warehouse injuries involve improper use of forklifts or insufficiently trained operators. First and foremost, hiring licensed and experienced

— *Continued on page 7*

Scrap, transfer, or retrograde

By 1st Lt. Petar Mostarac

The U.S. Central Command Materiel Recovery Element (CMRE) had the task of retrograding, redistributing, and disposing of more than 50,000 20-foot equivalent units (TEUs) of Army equipment that had accumulated after a decade of war in Afghanistan. This proved to be a monumental task that showcased the U.S. military's logistics strength. It also changed the way planners think of retrograde operations on such a vast scale.

The task was further complicated by the fact that Afghanistan is a landlocked country. To get around being landlocked, the military used a combination of strategic air assets, truck routes to ports in Pakistan, and the Northern Distribution Network, which is a complex chain of transportation by truck, rail, and sea that meanders through Northern Afghanistan, Asia, and Europe.

THE CMRE MISSION

One of the main goals of the CMRE mission was to bring Army property to record by sorting, inventorying, and counting containers, processing materiel for retrograde, and ultimately shipping equipment back to a military depot to be put back into the Army supply system. This retrograde process accounted for only part of the equipment in theater.

Another portion of the equipment was transferred to Afghanistan through the foreign excess personal property process, disposed of as general waste, or scrapped and demilitarized in coordination with the Defense Logistics Agency (DLA) Disposition Services.

The portion sent back to the continental United States (CONUS) was where the Army really made back its money. Since volume did not necessarily equate to dollars, it made economic sense to sort through the materiel in Afghanistan before blindly shipping it home.

The cost to ship a 20-foot container back to CONUS is more than \$20,000. It would be incredibly wasteful to ship containers full of scrap metal, trash, and obsolete military and commercial equipment that could have been disposed of in theater. That is why the CMRE was needed.

RSYS AND FRES

The retrograde sort yards (RSYs) were the heart of the CMRE. The RSYs were located strategically at Kandahar Airfield, Bagram Airfield, and Camp John Pratt. Feeding into the RSYs were the forward retrograde elements (FREs), which were located at Forward Operating Base (FOB) Shank, FOB Pasab, FOB Walton, and Shindand Airbase.

Designed based on FOBs in Afghanistan, the RSYs were the major hubs and the FREs were the smaller ends of the spokes. The FREs captured materiel as far forward on the battlefield as possible. The concept was to capture the scrap and other obsolete materiel forward and avoid paying intratheater movement costs from the FREs to the RSYs.

By disposing of materiel at the FREs, the Army saved approximately \$2,000 per 20-foot container in transportation costs from the FRE to the RSY. If it did not make sense to ship scrap metal home, it certainly did not make sense to ship it from Shindand to Kandahar Airfield. It was easier to sell the scrap and dispose of other unwanted materiel directly at the FRE.

The FREs were also important in sending the potentially recoverable materiel back to the bigger RSYs, where they could be efficiently identified, processed, and shipped back to CONUS. The RSYs received a filtered wave of materiel from all of the outlying FREs around the hub. They also received an unfiltered mountain of equipment from units as they left the central hubs.

An RSY would then apply its filter in sorting through the equipment coming through the yard. Obsolete military equipment was sent for demilitarization through DLA Disposition Services. Commercial equipment that could not be put back into the supply system was ultimately scrapped through DLA Disposition Services as well.

The hidden gold, often buried in the obsolete equipment, was the class IX (repair parts). Over the past decade, component items would get separated from their main systems and accountability would be lost.

The process established through the RSYs allowed units to bring excess found-on-installation class IX to the yard and drop it off. This gave the units a responsible way to

reduce their footprint while allowing a quick and efficient way to process the items. Items could then be returned to the Army supply system, where they regained visibility through the network of Army supply depots.

SARSS

The brain behind the processing was the Standard Army Retail Supply System (SARSS). SARSS processes class IX parts and keeps track of them as they flow from the depots to the supply support activities (SSAs) and ultimately to the units.

SARSS is a live system that receives daily updates. It keeps track of the dollar value of individual items, who is ordering them, and where in the world they need to go based on their priority and condition. Type into the system an item's national stock number (NSN) and its condition code, and SARSS will give you the dollar value and the disposition of where the item needs to be sent.

In the CMRE's case, most of the items being processed from the RSYs were going to either Sierra Army Depot in California, Tobyhanna Army Depot in Pennsylvania, or Kuwait. SARSS was smart enough to reroute items directly if a unit had made a request through its local SSA. The Kandahar Airfield, Camp John Pratt, and Bagram Airfield RSYs were equipped to route processed parts directly to the local SSA if a unit made the request.

For example, imagine that a unit requests a new transmission for its mine-resistant ambush-protected vehicle that broke down in theater. If a found-on-installation transmission were processed at an RSY, SARSS would print out a materiel release order to send the transmission to the requesting SSA. The RSYs would then quickly ship the item via strategic air, or truck if it was on the local FOB, and deliver it to the SSA where the requesting unit would pick it up. This process allowed for a much quicker turnaround time and allowed for the utilization of items that had fallen off the radar.

PARTNERSHIP WITH LCMCs

The RSYs provided a central location to send excess equipment. With the RSYs in place,

Navy Engineer Impacts Public-Private Sector Research on Wearable and Embeddable Technology

How easy is it to hack a pacemaker? Your “FitBit” is designed to track your physical movements. Who else can see it?

These are among the myriad questions **Naval Surface Warfare Center Dahlgren Division** (NSWCDD) engineer Brenden McMullen researched for six months as a member of a focus group sponsored by the Department of Homeland Security (DHS) in 2014.

The questions McMullen and his counterparts analyzed had one common denominator—“wearable and embeddable technology.”

They examined surgically implanted items such as pacemakers and telemetry, as well as wearable items ranging from physical fitness bands and chips to medical telemetry, including LifeAlert® and Google Glass.

Like McMullen, scores of federal and private-sector experts throughout the country volunteered their spare time to participate in the program—managed by the DHS Office of Intelligence and Analysis on behalf of the Director of National Intelligence—to identify threats, risks, and vulnerabilities associated with wearable and embeddable technologies.

“What the private sector volunteers contributed was nothing short of genius,” said McMullen. “This was a great way to engage in cutting-edge technology. The government intelligence community volunteers were equally talented, and brought the necessary contexts from their

respective organizations.”

The annual initiative, officially known as the Intelligence Community Analyst-Private Sector Partnership Program, facilitates collaborative partnerships between members of the private sector and teams of experienced intelligence community analysts. It provides both groups with a better understanding of select national security and homeland security issues.

“I was particularly impressed with the level of expertise and experience in the working groups,” said McMullen, whose active duty positions ranged from Naval Diving and Salvage Training Center dive instructor to Camp David medical officer before he retired as a Navy Senior Chief Special Amphibious Reconnaissance Corpsman. “Programs like this are important to participate in, and a great way to stay abreast with new and emerging science that impacts national security.”

Jennifer Lasley—former Department of Homeland Security, Deputy Undersecretary for Analysis, Office of Intelligence and Analysis—also considers the volunteers’ participation important. In a letter to NSWCDD expressing appreciation for McMullen’s contribution to the program, she stressed that her DHS office and the Director of National Intelligence recognize the critical value of public-private sector partnerships in contributing to the national security mission.

The effort seeks to increase the depth of expertise among the participating analysts, but is

not intended as a mechanism for operational activities or formal coordination between industries and the intelligence community. It enables the intelligence community and industry partners to gain insight that leads to a better understanding of their respective areas of expertise.

McMullen’s military experience in ground warfare and security, as well as underwater and aviation environments, in addition to his current work as a Navy government civilian in antiterrorism and force protection, positively impacted the group’s analytic research and deliverables, according to Lasley.

“This year’s program would not have been a success without Brenden’s active engagement and partnership,” she said. “We were particularly impressed by the diversity of analytic deliverables the teams created, and we will ensure each team’s products are widely disseminated to include posting on the DHS Homeland Security Information Network, as well as other information sharing environments.”

McMullen was the only DOD civilian in his group, which included private-sector members from Disney, Monsanto, and St. Jude Medical. Intelligence community members in the focus group represented the Defense Intelligence Agency, National Security Agency, FBI, and DHS.

Safety and Warehouse Storage – Continued from page 5

forklift operators is essential to minimizing workplace injuries. Selecting storage racks that accommodate forklift traffic can help to facilitate a better working environment for forklift operators.

All aisles in the warehouse should be clear to allow safe forklift traffic and permit sufficient clearance. When forklifts will be used for item retrieval, consider purchasing drive in or drive through pallet rack. This type of rack will allow a forklift to pass under or through the shelves to provide easier access to the items being stored and can maximize floor space.

Drive in and drive through rack optimizes space and creates aisles but is more susceptible to damage from repeated forklift impact. Utilizing aisle protectors, upright protectors, and guardrails will help to reduce destruction and prolong the life of storage equipment. Corner protectors and other safety products are worth purchasing to protect the investment of storage materials

and to help preserve the structural integrity of the rack.

When installing new rack or hiring new employees, ensure operators can have supervised practice loading and unloading materials. This will ensure they can confidently maneuver the storage and handle materials without damaging the product.

Ensure that the drivers center their loads when moving items to prevent forklifts from tipping and loads from falling. Make sure drivers are aware of weight limits of the forklifts and never overload them. Drivers should ensure the loads are secured during transport and loaded as close to the mast as possible to maintain balance and security. Establish an ongoing training program for forklift operators within your warehouse. Purchase safety equipment that will protect drivers from falling materials.

Conclusion

By taking the necessary precautions when

planning warehouse storage and design, a safe warehouse environment will be created. Creating an ongoing education program within your company will help employees stay informed and keep safety in mind at all times for every situation. Addressing risks and effects associated with specific equipment will help employees avoid common mistakes and improve your rates of injury and lost-time incidents.

About the Author

Michelle Coleman is director of Marketing Communications & Online Sales at Storage Solutions (www.storage-solutions.com/), a leading provider of warehouse storage racks. She can be reached by calling the Westfield, Ind.-based company's main line at 866-474-2001. For more material handling industry information, visit www.blog.storage-solutions.com.

Army, Industry Discuss Common Modular Open Architecture

By Allison Barrow, CERDEC Public Affairs

Army engineers met with more than 100 industry representatives to discuss efforts to integrate communications, electronic warfare, and position, navigation and timing capabilities into common modular hardware during the technology day here April 1.

The Hardware/Software Convergence Technology Day, hosted by the Communications-Electronics Research, Development and Engineering Center, or CERDEC, provided potential technology partners with an opportunity to learn about the mission and activities of the HW/SW Convergence Working-Level Integrated Product Team.

The goal of the HW/SW-WIPT is to develop and execute a plan to achieve a modular, open family of hardware and software components for implementing interoperable Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance, or C4ISR, and Electronic Warfare capabilities on Army ground vehicles.

"We're building on prior Navy and DARPA science and technology investments to develop leap-ahead technologies to provide an intelligent C4ISR network that provides seamless and cooperative operation of RF systems. The time is right to change the way C4ISR/EW systems are engineered and integrated onto platforms," said Dr. Paul Zablocky, director, CERDEC Space and Terrestrial Communications Directorate.

Zablocky opened the morning session, followed by an overview of Hardware/Software Convergence by Benjamin Peddicord, chief, CERDEC Intelligence and Information Warfare Directorate's Intel Technology and Architecture Branch.

"The point of today's technology day really is to make sure that our industry partners have an early look at what we're doing, and can help us avoid making some mistakes. We want to create a common modular open architecture that will solve some problems, but we don't necessarily want to constrain solutions that you can provide for us," Peddicord said.

The morning continued with presentations on the architectures and specifications that have been selected, to include Vehicular

Integration for C4ISR/EW Interoperability, or VICTORY, Modular Open RF Architecture, or MORA, OpenVPX and REDHAWK.

Industry members asked questions and addressed concerns to the group throughout the presentations.

The event concluded with afternoon private sessions between industry representatives and CERDEC, where they could have a more detailed dialogue on the architecture specifications and present product offerings they felt were relevant to CERDEC's HW/SW convergence activities.

"We're open, willing and anxious to have your [industry] feedback on these things, and we're willing to make changes," Peddicord said. "But we think we have a really good start; we've done a lot of work and want to let you know what we're doing. Hopefully we'll have your help contributing and improving the capabilities of the Army going forward."

CERDEC, in cooperation with Program Executive Office Command Control Communications -- Tactical, Program Manager Tactical Radios, has released a

Request for Information "on how an interested contractor could implement an architecture which maximizes the use of open architectures and standards, reduces size weight and power, or SWaP, and facilitates the use of common radio frequency (RF) component types across communications and EW technologies on Army platforms." Submissions are due by April 17.

The Communications-Electronics Research, Development and Engineering Center is part of the U.S. Army Research, Development and Engineering Command, which has the mission to develop technology and engineering solutions for America's Soldiers.

RDECOM is a major subordinate command of the U.S. Army Materiel Command. AMC is the Army's premier provider of materiel readiness -- technology, acquisition support, materiel development, logistics power projection, and sustainment -- to the total force, across the spectrum of joint military operations. If a Soldier shoots it, drives it, flies it, wears it, eats it or communicates with it, AMC provides it.



HW-SW Convergence Overview

Benjamin Peddicord, chief, CERDEC I2WD Intel Technology and Architecture Branch, discusses the Hardware/Software Convergence initiative at HW/SW Convergence Technology Day April 1.

The U.S. Air Force Targets a Total Transformation of Its Supply Chain

By: Global Logistics & Supply Chain Strategies

Through an innovative program called Expeditionary Logistics for the 21st Century, or eLog21, the U.S. Air Force is replacing outmoded, stove-pipe processes and disjointed IT systems with an enterprise-wide infrastructure that optimizes its supply chain.

The U.S. Air Force is supported by one of the largest and most complex supply chains in the world. Like commercial supply chains, it includes delivery, transportation, maintenance, repair, procurement, inventory management and product lifecycle management of both inexpensive consumable items as well as very expensive repairable items with long lifecycles. Unlike commercial operations, the Air Force's main objective is to provide weapon system capability and readiness to the warfighter, and it must be flexible enough to meet any contingency.

Historically, the Air Force has not had the tools required to rapidly re-plan, respond and allocate resources as operational priorities change. In order to meet these needs, the Air Force several years ago launched Expeditionary Logistics for the 21st Century (eLog21). This campaign is a portfolio of initiatives to transform Air Force supply chain processes from stove-piped processes to planning-based, integrated operations. eLog21 is guided by a strategic vision to provide a logistics system across the service that delivers superior capabilities to the warfighter in a flexible, scalable, modular, and

expeditionary manner while minimizing costs. The goals of this transformational effort include an enterprise-wide optimization of equipment availability and a 10-percent reduction in operations and support costs by 2011.

To guide this effort, the service developed an enterprise-wide strategy and architecture called the Air Force Logistics Enterprise Architecture (LogEA). By requiring compliance with the LogEA, the Air Force ensures its transformational initiatives are focused on the following four fundamental concepts:

1. Customer Focused to manage processes under a single enterprise and provide mission support to the warfighter. Supply chain planning is based on the operational requirements of theater commanders and based on enterprise-wide requirements and resources in a shared-data environment.
2. Goal Driven initiatives that increase equipment availability and reduce operations costs. The Air Force says its logistics community is adopting management by responsibility, accountability, and authority rather than through oversight.
3. Network-Centric structure with dynamic command, control, communication and intelligence providing real-time and near real-time feedback permitting rapid supply chain reconfiguration.
4. Mission Focused, so functions that do not directly support the Air Force logistics

mission are improved and realigned. The strengths of other public or private organizations are being integrated with Air Force supply chain processes creating strategic partnerships wherever possible. In addition to the above four concepts, the LogEA also guides the management of the Air Force supply chain through the creation of the Air Force Global Logistics Support Center (AFGLSC), which merges what is currently wholesale (Air Logistics Center) and retail (base level) supply chain entities. The AFGLSC is responsible for establishing and executing plans for the purchase, delivery, return, repair and lifecycle management of materiel. The organization also manages supply chain performance, business rules, budgeting processes and technology requirements. To accomplish these objectives, the AFGLSC is organized around three main supply chain functions:

1. Supply Chain Planning and Execution (SCPE) provides oversight of supply chain planning and sourcing processes. The mission of SCPE is twofold:
 - (1) to develop the plan for each repairable and consumable part needed to meet weapon system availability targets and
 - (2) to work with the sources of supply and repair to eliminate gaps between the demand plan and the supply plan. In particular, SCPE is responsible for meeting projected requirements.

— Continued on page 11

Ames Lab's New Rare-Earth Process Will Improve Nylon Manufacturing

The Critical Materials Institute, a U.S. Department of Energy Innovation Hub led by Ames Laboratory, has created a new chemical process that makes use of the widely available rare-earth metal cerium to improve the manufacture of nylon.

The process uses a cerium-based material made into nanometer-sized particles with a palladium catalyst to produce cyclohexanone, a key ingredient in the production of nylon.

Traditional methods of producing cyclohexanone involve high temperatures and high pressure, and require the use of hydrogen.

"After a lot of trials, we managed to find a reaction that works very well at room temperature and ambient pressure," said CMI and Ames Laboratory scientist Igor

Slowing. "That's a huge advantage cost-wise. It's more energy-efficient, and requires much less hydrogen."

The discovery is a rather unique way that CMI is addressing global concerns about the supply and demand of rare-earth metals.

"The research group focused on three or four different catalytic reactions used in high production volume chemicals, including this one for producing a precursor to nylon, which as an industry has enormous applications," said Slowing, who is also an adjunct assistant professor of chemistry at Iowa State University.

"We are the only CMI scientists looking at catalysis, and so we are looking at this problem from a different angle. While other scientists are trying to find ways to use less of the least abundant rare-earths, we are

trying to find ways to use more of the most abundant ones."

At first that seems counterintuitive to the research mission of CMI, which includes reducing reliance on rare-earth materials.

But rare-earth metals like cerium, which is as abundant as copper, are the primary products of mining for other, more valuable rare-earth elements. With minimal demand for these abundant rare-earths, they are stockpiled. Finding widely marketable uses for these stockpiled materials makes the best use of all mining resources and improves the economic feasibility of mining overall.

Slowing said the technology also has other possible applications, like the treatment of biomass.

Organic Resupply - Aerial resupply lands on ground troops

BY JEFF SISTO, NSRDEC PUBLIC AFFAIRS

The U.S. Army is streamlining efforts to provide squad- and platoon-level ground Soldiers operating in austere environments with an organic aerial resupply capability that will empower and sustain them on the battlefield.

The Enhanced Speed Bag System, or ESBS, fills this capability gap by drastically increasing the survivability rate of critical resupply items such as water, ammunition, rations and medical supplies, which must be air-dropped from helicopters to small units on the ground. The system includes a hands-free linear brake, rope, and a padded cargo bag that can hold up to 200 pounds and be dropped from 100 feet.

ESBS was originally developed by engineers from the Natick Soldier Research, Development and Engineering Center's Aerial Delivery Directorate and the Armament Research, Development and Engineering Center's Logistics Research and Engineering Directorate to standardize the improvised airdrop methods used in theater to resupply units in remote locations where traditional resupply methods, such as truck convoys, are too impractical or threat laden.

"The goal was to standardize ad-hoc techniques used with body bags and duffle bags by providing a material solution and giving units enough knowledge and training to utilize it," said Dale Tabor, NSRDEC's Aerial Delivery Design and Fabrication team leader.

"We originally received this need from the field, specifically for emergency ammunition resupply," said Bob Forrester, an engineer with ARDEC's Logistics Research and Engineering Directorate at Picatinny Arsenal, New Jersey. "We originally received the requirements, found the funding, and teamed with Natick as the technical lead.

"Essentially, we worked the ammunition survivability piece, and NSRDEC worked the aerial delivery piece," Forrester said.

At an evaluation conducted in July 2013 at Fort A.P. Hill, Virginia, teams packed six ESBS cargo bags with 12,720 rounds of ammunition, each distributed based on a squad-level basic load, and dropped from a 100-foot crane. They thoroughly inspected the rounds and conducted a live-fire to determine the ammunition system's effectiveness.

The results were a 98-percent survivability rating of ammunition dropped with the ESBS—a vast improvement from the 50-60 percent experienced with ad-hoc methods.

Subsequent evaluation at Army Expeditionary Warfighting Experiment Spiral I 2014, prompted ARDEC to "recommend the immediate fielding of ESBS to deployed Soldiers," Forrester said.

"What we have done is taken resupply to the lowest possible level—the squad and platoon levels," Tabor said. "Soldiers at unit level are

trained how to get the system packaged, loaded in the aircraft, and delivered. In this way, ESBS provides an organic resupply capability."

Advancement of the system gained increased momentum through the involvement of the U.S. Army's Rapid Equipping Force, or REF, an organization uniquely chartered to combine requirement validation, acquisition authority and flexible funding under one roof.

REF's mission to "harness current and emerging technologies to provide immediate solutions to the urgent needs and capability gaps faced by Soldiers deployed globally" led it to the ESBS.

"REF received a 10-liner requirement from a unit that needed a safe and reliable way to resupply water and other critical items to ground Soldiers, in a location where traditional resupply options, such as convoys, were not practical due to environmental factors and threats," said REF Project Manager, Todd Wendt. "The unit was aware of NSRDEC's Enhanced Speed Bag System and identified it as a possible technology solution. Upon mission analysis and further market research, REF identified ESBS as a good candidate solution."

The ability to directly engage with deployed units and access business practices across the Army's functional areas allowed the REF to facilitate a comprehensive approach to ESBS validation.

"By leveraging an existing Army effort, REF is able to give deployed Soldiers solutions even faster than if we started a project from scratch. This also means we can help our friends at NSRDEC Aerial Delivery Directorate, by getting their design into the hands of Soldiers and collecting operational feedback. It's just one example of how REF can address an urgent need, but at the same time, also help advance a technology and support a big Army solution," Wendt said.

In December 2014, Tabor's team led a Train-Up event at the Rhode Island Air National Guard base in Quonset Point, Rhode Island. The multi-organizational event included personnel from NSRDEC, ARDEC, U.S. Army Mountain Warfare School, Vermont National Guard, Rhode Island Air National Guard, and the REF. The purpose was to train REF tiger teams and members of the Army's MWS on the proper use and deployment of the ESBS.

The training focused on receiving the ESBS kit, unpacking it, setting up the rigging in the aircraft and learning the packing procedures—skills that will be passed on to Soldiers who will use the system.

The ESBS training will provide the MWS instructors a period of instruction on small unit resupply that meets the needs of mountain Soldiers, while the REF trainers will take the knowledge they gained directly in theater to train units requesting the capability.

"The initial info seemed complex, but today, I definitely feel sufficient to train Soldiers on this system," said Dusty Hunt, training consultant, Rapid Equipping Force, Tiger Team, at Fort Benning, Georgia. "With the old methods, they were losing 50 to 60 percent of the supplies. Finally, there is a good solution in the ESBS, which we will take to Afghanistan to train the unit's trainers."

"We rehearsed on the ground, and conducted a final check for rigging and spotting," said Jason Miller, training consultant, REF, Tiger Team, at Fort Bragg, North Carolina. "From the aircraft, we looked at how the bundles fell and responded to the drop."

In an after-action review, or AAR, the REF trainers had positive and insightful comments about the system.

"We learned that rigging the system is key to a successful drop. So attention to detail in how it's rigged is important," Miller said. "Also, more elaborate communication with the pilot and the aircrew should be explored."

"There were weather limitations, but the job went well," Miller said. "We lost only one water bottle out of more than 240 and additional five-gallon jugs dropped. It was an outstanding result—we had no issues."

"The benefit is the simplicity of it," Hunt said. "You can take a regular Soldier and train them on ESBS, as long as they are comfortable in the aircraft."

"Aerial resupply also means one less convoy needed on the road, and that's a good thing," Tabor said.

The ESBS will undergo further testing throughout 2015. If the system is selected for fielding, a formal program of record, or POR, will be established, and the REF will have met the immediate need.



The Enhanced Speed Bag System, or ESBS, is a low-cost, materiel technology solution developed by NSRDEC and ARDEC that uses padded cargo bags, which help increase the survivability of Class V munitions up to 98 percent during aerial re-supply missions and provides small units with an organic, rapid resupply capability. (U.S. Army photo by NSRDEC Public Affairs)

Transformation of Supply Chain - Continued from Page 9

Planned and unplanned orders from customers must be balanced with labor, machine time and inventory. SCPE combines planning and execution functions currently accomplished at various levels. Commodity items provided via contract support are also integrated with the enterprise supply chain plan. Lastly, SCPE manages the execution of the supply plan, which is tied to the aircraft availability targets established at the enterprise level. For the first time in its history, the Air Force has created a single organization responsible for balancing resources and requirements with an integrated focus on enterprise-wide priorities.

2. Supply Chain Operations (SCO) is the single point of contact of AFGGLSC to the customer and is responsible for order management processes, in-process order information management and communication, and order fulfillment. It has the authority to direct and redirect materiel support to satisfy customer demand. It is also responsible for the development of enterprise business rules to prioritize and redistribute assets, to fill orders and optimize readiness. It may reallocate assets from finished goods inventory locations, as well as redirect the source, direction or speed of resupply. SCO provides feedback to SCPE to identify plan deviation that have a long-term impact and that may require re-planning or inclusion in future planning. This ability to make instantaneous changes to the plan makes the AFGGLSC critical for the Air Force and its partners.
3. Supply Chain Strategy and Integration (SCS&I) manages supply chain metrics, analysis, policy and business rules developed by SCO. This team integrates AFGGLSC processes and activities, to include other related process improvement initiatives. SCS&I is the "sense and respond" node of the Air Force supply chain. It measures supply chain health to ensure standardization of processes and consistent application of business rules and resources.

The Air Force is transforming its IT systems to enable these new supply chain processes and organizational structure. The current IT environment consists of over 700 systems, many of which are duplicative, stand-alone and ineffective, thereby limiting visibility of resources and requirements. Non-standardized reporting processes create credibility issues throughout the supply chain, resulting in customers circumventing the system to obtain needed supplies. To address these issues, the Air Force is implementing an enterprise resource planning system called the

Expeditionary Combat Support System (ECSS). The ERP system enables advanced planning and scheduling, proactive collaboration with suppliers and customers, sales and operations planning, vendor managed inventory, and collaborative planning and forecasting for replenishment.

APS pilot programs have already enabled an integrated, near-real-time, capability to centrally plan for and balance resources and requirements. These efforts provide an automated, alert-based system to identify, examine and resolve supply chain issues by exception before they impact daily execution. This APS solution uses commercial-off-the-shelf technology for supply chain planning and decision support functions. Commercial implementations of these products have resulted in significant improvement to order fulfillment cycle time and cost efficiency. Additionally, ECSS incorporates APS technology to provide total asset visibility across the enterprise allowing the Air Force to manage supply chain cycles while synchronizing supply and demand.

The Air Force purchases billions in materiel and services each year giving it considerable marketplace leverage. It launched the purchasing and supply chain management (PSCM) initiative that takes advantage of this leverage through creation of commodity councils responsible for developing enterprise-wide procurement strategies; bringing customers and suppliers together in a collaborative environment; driving commonality and standardization of procurement processes; and leveraging purchasing power. Commodity council processes are a revolutionary approach for the Air Force and are based on five principles:

1. The more that each individual organization knows about the parts and services it buys and manages, the more value it generates for the entire Air Force
2. They are cross-functional and fully leverage organizational expertise and knowledge
3. They focus on groups of similar commodities grouped by demand volume, price, impact on equipment and/or weapon system availability or other factors
4. They are persistent structures that operate continuously and are not created and disbanded around particular events
5. They operate at the enterprise level making decisions relative to specific materiel from an Air Force-wide perspective.

Commodity councils ensure that required parts and services are procured and managed to support strategic goals while minimizing supply chain costs and cycle times. Councils

collect and document market intelligence for a respective commodity, including suppliers, trends and directions, risks, costs and price drivers. They work with customers to understand problems and issues impacting enterprise goals. They can make trade-off decisions between different potential sources of value such as quality, delivery time, and price. They assess the current state by conducting a detailed spend analysis of specific commodity groups looking at total spending levels, existing contracts, performance against existing contracts and internal agreements, and the impact of those commodity groups on readiness. This analysis is then used to develop specific commodity group strategies and plans that lay out how the council will source and manage the commodity and relationships with internal and external suppliers. These plans are used as inputs to the supply chain planning process, which drives the supply chain execution processes.

AFGLSC is helping to merge wholesale and retail processes, so SCO can make effective decisions with fewer people. SCO is resolving near-term needs at the point of execution, and it is working with the SCPE to change the priority of production schedules in support of readiness goals and objectives. SCPE provides the immediate collaborative information stream the combatant commanders need to execute the mission.

The Air Force is also seeing significant results from the depot maintenance transformation initiative of eLog21. For example, the Ogden Air Logistics Center's F-16 Fighting Falcon wing shop at Hill Air Force Base in Utah has reduced workflow days from 64 to 27 days and improved on-time delivery by 67 percent. The C-5 Galaxy depot maintenance at the Warner Robins Air Logistics Center at Robins Air Force Base in Georgia, has been cut from 339 days to 225 days. Workers at the Oklahoma City Air Logistics Center at Tinker Air Force Base have cut KC-135 Stratotanker flow days from more than 400 to about 200.

The support equipment commodity council (SECC) represents a broad cross section of items, including weapon system testers, stand-alone equipment, vehicles, life support items, and hand tools. These are low-demand items provided by many suppliers. In FY07 the SECC consolidated thousands of contracts into four 3PL contracts used by customers to purchase 8,000 different items with unit prices of \$10,000 or less. Purchases of these

Scrap, transfer, or retrograde - Continued from page 6

the next question was how to identify all of the items. Not every item had an NSN. There were thousands of different pieces of equipment, some of them for obsolete military systems.

Subject matter experts (SMEs) were needed to help sort these items. So, the Army Materiel Command sent some of their SMEs to help. Each Life Cycle Management Command (LCMC) oversaw its own portion of Army property. The Aviation and Missile LCMC was responsible for aviation parts, missiles, and unmanned aerial vehicles, and the Communications-Electronics Command was responsible for a variety of electronic equipment. The TACOM LCMC was responsible for vehicles and weapon systems.

The SMEs from the LCMCs worked alongside the Soldiers and helped them identify valuable parts that might otherwise have slipped through the system. This partnership was an efficient way to retain as much high-value materiel as possible while retaining the velocity needed to complete the retrograde.

THE RPAT YARD

Another key partnership was between the RSY and the redistribution property assistance team (RPAT). The RPAT processed all of the major end items leaving theater, including a variety of weapon systems, generators, and other miscellaneous equipment.

However, the biggest thing the RPAT handled by volume was vehicles. The RPAT yard cleaned, inspected, and shipped more than 10,000 vehicles back to CONUS. Through a constant daily relationship, the RSYs redirected billions of dollars' worth of equipment to the RPAT yards to be returned to the United States.

SUCSESSES AND LESSONS LEARNED

During its mission, the CMRE was incredibly successful. Between December 2011 and December 2014, the RSYs processed more than 25,000 TEUs of equipment and produced more than 960,000 materiel release orders in SARSS. Of the 25,000 TEUs processed, 2,700 were shipped back home with \$1.2 billion worth of equipment inside.

With the assistance of the LCMC SMEs, 4,400 TEUs of equipment were redistributed

across theater. The equipment was accounted for and placed directly with units in country that needed it. TEUs that were not retrograded or redistributed were sold as scrap in Afghanistan.

Even with all of the success, there are still ways to improve the retrograde process. It may be some time before the United States has another large-scale war, but it makes sense for logisticians to prepare for the future.

Logisticians should ask these key questions: Is there a way to retrograde faster if necessary? If so, at what cost? The velocity of retrograde operations may be increased, but at what cost? Perhaps we could reduce our footprint more quickly, but it might mean destroying valuable equipment that could have been recaptured. With excess speed comes mistakes and waste. Logisticians and planners must balance velocity with responsibility when planning future operations.

Another problem in the recovery efforts was capturing commercial equipment. In the rush to meet the needs of Soldiers in the early parts of the war, the military used commercial equipment to fill requests that could not be met by the Army supply system. Many of these items were never

standardized and had no NSNs. Thus, there was no standardized way to capture these items and return them to the United States.

Over the years, massive amounts of unused or serviceable commercial equipment accumulated in theater. In the future, we need to consider how to balance the needs of our troops on the battlefield with the need to retain accountability of and responsibility for equipment.

The reduction of the U.S. military footprint in Afghanistan has been one of the most massive logistics feats accomplished in the modern military world. Hopefully the successes and lessons learned from this mission will be used to shape even more efficient and impressive logistics operations.

1st Lt. Petar Mostarac is the brigade plans officer for the 369th Sustainment Brigade. He has a bachelor's degree in business administration from Fordham University. He is a graduate of the Leader Development and Assessment Course and the Basic Officer Leader Course.



Photo Credit: Spc. Wilson Cuevaquioga
Staff Sgt. Jermaine Hope, 133rd Quartermaster Company, directs materials-handling equipment in the Kandahar Airfield retrograde sort yard

Transformation of Supply Chain - Continued from Page 11

items represent only two to four percent of the total dollar value of this commodity class. Through this and similar strategies, the SECC has avoided administrated costs of nearly \$4.9m and reduced administrative lead-time from 127 days to five.

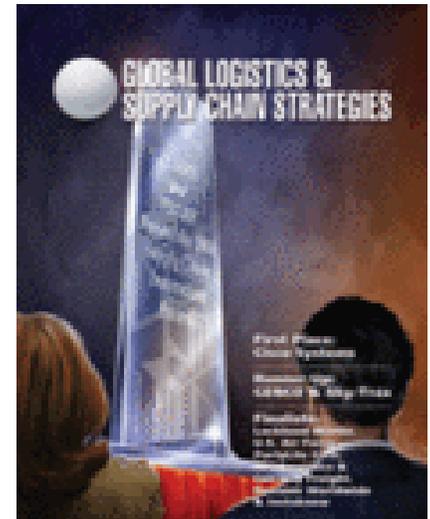
The Air Force feels the full benefits of eLog21 are just beginning. The focus will soon shift from creating the organization to improving it. Aligned resources and centralized oversight will provide operational efficiencies not previously achievable. Reengineering of current processes and elimination of duplicative processes will result in overall improvements and savings. Additional results will be fully realized when ECSS is fielded in FY13 to include:

1. Enabling greater combat support capability to joint and Air Force commanders and airmen
2. Merging base level and wholesale logistics systems
3. Improving synchronization of operations/logistics planning and execution
4. Improving command and control
5. Providing near real-time worldwide visibility of assets

6. Retiring more than 400 legacy systems
7. Reducing, creating, and enhancing current job roles
8. Enabling improved availability of mission critical weapon systems
9. Supporting expeditionary and in-garrison operations with seamless peace to wartime operations
10. Delivering significant savings over the Future Years Defense Program

Although the eLog21 campaign will end in 2013 when ECSS is fielded, continuous process improvement has become the norm for the Air Force and will continue to improve its supply chain. The AFLGSC is working to establish the Center of Process Excellence (COPE) that will work hand-in-hand with eLog21 to instill a culture of continuous process improvement within the AFLGSC, oversee AFLGSC improvement initiatives to effectively utilize scarce resources, and ensure improvements are aligned to AFLGSC strategic goals. The COPE will drive process improvement accountability throughout the AFLGSC to ensure eLog21 targets of 10 percent cost reduction are met and an

enterprise wide optimization of equipment availability. Lastly, the AFLGSC will establish a Fusion Center to provide leadership with near real-time access to integrated, supply chain information to drive accurate decision making. These improvements will help ensure that the Air Force supply chain continues to provide enterprise warfighter support efficiently and effectively.



Better Buying Power 3.0 stresses innovation, affordability

By Amaani Lyle, DoD News

The latest update of the Defense Department's acquisition efficiency initiative stresses innovation and cost-consciousness, the Pentagon's top acquisition official said.

Frank Kendall, undersecretary of defense for acquisition, technology and logistics, described Better Buying Power 3.0 April 15 during the Navy League's Sea-Air-Space Exposition in National Harbor, Maryland.

Noting the April 9 release of the initiative's implementation directive, Kendall said the department will continue its emphasis on affordable programs, but will enhance that focus by predetermining production costs and the feasibility of seeing new weapons and systems to completion.

Dominant Capabilities, Controlling Life-cycle Costs

The other main mandate in Better Buying Power 3.0 is to achieve dominant capabilities while controlling life-cycle costs, Kendall noted.

"'Should-cost' is the idea that our managers are responsible for cost," he said. "They would then identify opportunities for savings and improve our buying power for value-added military capability."

Kendall also cited the need for greater agility and responsiveness as threats change, which he said translates into creating a tighter relationship with the intelligence community and a focus on cybersecurity, calling the latter a "pervasive problem."

"Our program managers need to be thinking about cybersecurity through the life cycles and every aspect of the programs, whether it's the supply chain, logistics systems, or weapons systems," the undersecretary said. "All of those interfaces have to be [considered]."

Incentivizing contracts and stressing innovation and productivity have proven effective in government and industry partnerships, Kendall said. "We do want to align profit with performance; if you do a better job for us, you should make more money," he added. "We like to incentivize contracts where they apply [and] think about the contract we need for the job that we're doing."

Kendall also told the audience that Better Buying Power 3.0 calls for greater leverage of commercial technology, acknowledging that the private sector moves faster than the

Defense Department's normal development cycle.

"We can take more risks and speed it up a bit, but it fundamentally takes longer to do a complex new weapons system," he explained. "We need to think about making revisions on our designs to bring technology in as it matures."

Reassessing Research and Development Costs

Better Buying Power 3.0 also includes reassessment of the Defense Department's research and development expenditures, Kendall said. This includes increasing control and reducing bureaucracy in internal lab and independent research and development processes, he added.

The latest version of Better Buying Power also documents the department's commitment to science, technology, engineering and mathematics, the undersecretary told the audience. "Our economic welfare and national security depend upon the creativity of people in these fields and the products and ideas they bring to the table," he said.

SECNAV DIRECTS NAVY TO EXPAND USE OF LEDs

From the Secretary of the Navy Public Affairs

Secretary of the Navy Ray Mabus recently directed that brighter, longer-lasting and more energy-efficient lighting be installed on U.S. Navy ships under construction as part of a strategy designed to help increase these ships' time on-station, decrease time spent on maintenance, and prevent shipboard injuries.

Program managers for all new construction ships have been directed to pursue installation of Light-Emitting Diodes (LEDs). Their reduced drain on the ship's electrical load, compared to conventional florescent bulbs, translates to increased time between refueling, which means more time on-station.

"We are continuing to become more efficient in how we use energy. The move to LED saves between two and three percent of the total fuel usage for each ship and that adds up in a fleet of 300 ships," said Mabus. "Upgrading to LEDs on our ships will increase our ability to provide the global presence that is vital to America's national security and economic well-being."

The memo authorizes program managers to spend up to \$2 million per ship from the ship's change order funding, subject to the funds' availability. Additional funding is available with approval, in the event installation on a particular ship is more expensive. LEDs' lower energy consumption means the bulbs will "pay for themselves" in one to five

years.

LEDs have already been installed on more than 170 Navy ships. Program managers and program executive officers are empowered to install LEDs on new construction ships through a more streamlined process.

LED lights' increased operational life translates to 80 percent less time spent on ladders and lifts changing bulbs. The Navy Safety Office predicts this will cut down on slips, trips, and falls, which are the most common shipboard injuries. The longer life also means less storage space aboard ship needs to be dedicated to replacement bulbs, thereby freeing it for other operational uses.

"The LED lighting we're installing aboard ships today is making a difference where it counts: improving Sailors' quality of life, saving time, and reducing safety risks," said Master Chief Petty Officer of the Navy Mike Stevens.

LEDs are a type of Solid State Lighting (SSL) that produces light by passing electrical current through semiconductor material. LEDs use approximately 50 percent less energy and last up to five times as long as conventional florescent lights, between 40,000 and 50,000 hours, according to a Naval Sea Systems Command Business Case Analysis.

Modern Lighting Improves Visibility, Saves Time And Energy, Reduces Maintenance and Safety Risks

By Rear Adm. Kevin Slates, Director, Chief of Naval Operations Energy and Environmental Readiness Division

This week marks the beginning of Energy Action Month, which is a great opportunity to highlight the importance of Navy's commitment to energy security. While we talk about our energy actions throughout October, Navy is hard at work on initiatives to increase energy efficiency all year long. A great example of this is the light emitting diode (LED) lighting that is being installed on ships.

If you visit USS Chafee (DDG 90), USS Preble (DDG 88) or USS Independence (LCS 2), you may notice that everything seems brighter within the ships' interior spaces compared to other ships. That's because on these platforms — and an ever-increasing number of surface ships and submarines — Naval Sea Systems Command has replaced conventional light bulbs with LEDs that produce better light quality. That means improved working conditions for Sailors, which is a key benefit. LEDs will enable us to more easily see the details of our work, identify hazards, and perhaps avoid mishaps in previously dark areas of ships that will now be better illuminated. While LEDs are more expensive to buy up front, they save money over the long term and provide other advantages.

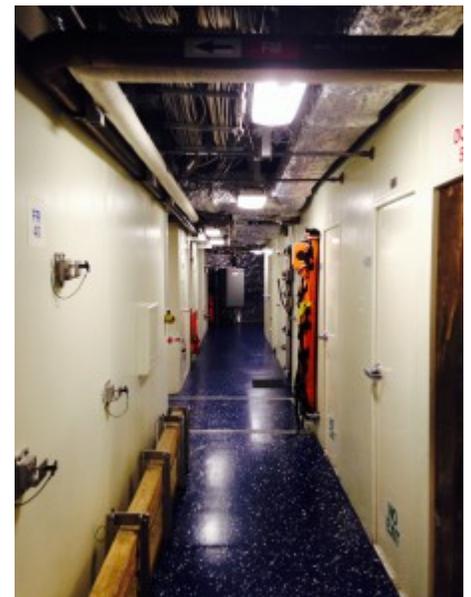
For one, these lights last up to five times longer. That means your shipmates will spend

up 80 percent less time on ladders and lifts changing out bulbs. An obvious side benefit is that we'll be able to stock fewer bulbs in our supply rooms, which frees up space for other vital equipment. In terms of focusing on the important things we need to do at sea to make sure the ship and crew are mission-ready, that time saved on tedious maintenance activities will be a major advantage. LED lights are also more durable than regular bulbs, meaning they are less prone to failure due to vibration and temperature fluctuations. Unlike older bulbs, LEDs also contain no hazardous materials — and that means we won't be exposed to those chemicals when LED bulbs break, which improves safety.

As a final, key benefit that's closely linked to CNO's tenets of warfighting first, operate forward, and be ready, LED lights use approximately 50 percent less energy than conventional florescent bulbs. This reduces ships' electrical load, which in turn extends our on-station time and takes a small bite out of our dependence on oilers at sea.

Be on the lookout for LED bulbs coming to a ship near you. If your ship or sub is among those that already have LEDs installed, let us and NAVSEA know how they're working out. If you want more information about how

energy affects our mission, check out the Energy Warrior webpage (<http://greenfleet.dodlive.mil/energy/energywarrior/>) or download the free Energy Warrior app from your app store.



Suspect Counterfeit Data

From Government - Industry Data Exchange Program (GIDEP)

About

The counterfeiting of components and assemblies used in the government has increased notably during the past decade. The extent of the counterfeiting problem has been documented in a number of high level reports such as the Department of Commerce report titled "[Defense Industrial Base Assessment: Counterfeit Electronics](#)" and the General Accountability Office (GAO) report titled "[DOD Should Leverage Ongoing Initiatives in Developing Its Program to Mitigate Risk of Counterfeit Parts](#)". These triggered congressional hearings that resulted in mandates for to DoD to curtail the impact on its weapon systems. Counterfeiting has expanded beyond commodity areas such as, audio, video, and game recordings into the areas of electronic parts for critical health and defense systems. The aerospace industry has seen a rapid growth in reports of counterfeits and is trying to better support anti-counterfeit efforts through various interagency and industry efforts.

GIDEP contains information on equipment, parts, and assemblies which are suspected to be counterfeit. After visual inspections and, in many cases, extensive testing and analysis, GIDEP members provide fact-based reports on items received that are suspected to be counterfeit. The GIDEP reports on these items are important to many of the participating companies and activities since it allows these activities to actively screen their inventories for items which might have been identified as counterfeit.

Since the manufacturers of parts which may have been copied have little or no responsibility for counterfeit items in the supply chain, it is incumbent on government and industry equipment makers and customers to use GIDEP as a central repository for sharing information on suspect products. U.S. Federal Agencies, including DoD, and Industry Associations are actively engaged in developing policy and guidelines to assist government and industry alike in the mitigation of issues related to counterfeit. On 26 April, 2013, DoD signed out an instruction [DoDI4140.67 "DoD Counterfeit Prevention Policy"](#) which, in part, states that it is policy to "Document all occurrences of suspect and confirmed counterfeit materiel in the appropriate reporting systems including the

Government-Industry Data Exchange Program (GIDEP)".

Benefits

A strong reporting program helps prevent the recirculation of items suspected to be counterfeit in the supply chain. In addition, it is important to minimize the introduction of items suspected to be counterfeit into Department of Defense (DoD) weapon systems and other programs critical to the infrastructure of the United States and Canada. Although the majority of information in GIDEP on counterfeit parts is related to electronic components, there is also information on other types of commodities, such as, valves, fasteners, circuit breakers, etc. Suspect Counterfeit reports assist users in avoiding an impact on the availability, reliability, maintainability, quality and safety of their systems and equipment. These suspect counterfeit issues may result in significant unplanned expenditures to user organizations, and more importantly, may avoid or reduce injuries and saved lives. The ongoing availability of timely suspect counterfeit data can help preclude equipment/system malfunctions, and help obviate the need for equipment redesign.

Submitting Data

Suspect Counterfeit reports are special non-conformances under the Failure Experience Data (FED). Using appropriate forms (ALERT, SAFE-ALERT, Problem Advisory, and Agency Action Notice) within FED depending on the problem type, manufacturers and GIDEP participants can [submit](#) suspect counterfeit data to the GIDEP Operations Center electronically. A manufacturer does not have to be a member of GIDEP to submit data to the program. In fact, GIDEP welcomes and encourages the submission of suspect counterfeit reports by non-participating companies (as long as these are reports on product marked as theirs) by using the forms. As a related factor, programs should monitor the parts they plan to use that approaching obsolescence. These items are "ripe" for counterfeiting.

(See [Reporting Suspect Counterfeit Parts: http://www.gidep.org/data/failure/counterfeit_instructions_rev_mar2015.pdf](#))

Related FAQ

Q: Why are suspect counterfeit reports considered Failure Experience Data?; How is the suspect counterfeit data stored?; Where does the suspect counterfeit data come

from?; What happened to the Interim Counterfeit reporting policy that was in effect a couple of years ago?; Why are suspect counterfeit reports considered Failure Experience Data?;

A: Suspect counterfeit issues commonly are non-conformances and can lead to failures or degradation in reliability in end-items. Consequently, a suspect counterfeit issue would appropriately be reported as one of the four primary types of FED reports: Alerts, Safe Alerts, Problem Advisories, and Agency Action Notices. The detailed guidelines for submitting a report and other FED information can be found in Chapter 7 of the GIDEP Operations Manual.

Q: How is the suspect counterfeit data stored?

A: Suspect counterfeit data is maintained in an on-line relational database. The GIDEP database has reports of ALERTs, SAFE-ALERTs, Problem Advisories, and Agency Action Notices in pdf format. Documents can be searched for using part number, keyword, date range, or other related information.

Q: Where does the suspect counterfeit data come from?

A: Information on suspect counterfeit products is primarily submitted by Independent Distributors, government organizations and industry contractors that find the discrepancy. They submit fact-based information to GIDEP supported by test reports and photographs as appropriate. Agency Action Notices may only be issued by government activities.

Q: What happened to the Interim Counterfeit reporting policy that was in effect a couple of years ago?

A: During the period Sep - Dec 2010 an interim policy was authorized where counterfeit reports could be submitted to GIDEP with the identification of the supplier optional. Based on the data submittal results from this period it was determined that the interim policy was not meeting the GIDEP community's needs. Therefore, the interim policy was discontinued and is no longer in effect.

What's Going On Within CLEP

There have been several members asking about establishing a local chapter of CLEP in the areas where they live. The Board of Officers are always eager and willing to assist whenever and wherever they can to help with establishing chapters. Several members had asked about a chapter in the Washington DC area, so a survey questionnaire was sent out to the members in the area asking for suggestions of where to meet initially, how often to hold meetings, etc. The Greater Washington DC Chapter of CLEP officially met on March 24 at a local restaurant to discuss the directions for the future of the chapter. All members present agreed that offering training and networking opportunities should be large parts of CLEP's activities. Lincoln Hallen, CLEP VP-Education, discussed training curriculum that he is developing for one to two day seminars covering each logistics element to offer these seminars to the public as a means of providing formal training to personnel currently working in the logistics industry. Networking time for attendees would also occur during these seminars or during other chapter activities. In addition to offering training seminars, the

group discussed the possibility of organizing a logistics conference in the future. In order to form a chapter in accordance with CLEP bylaws, the chapter must have a designated chapter chairman, vice chairman for administration, and a vice chairman for finance. CAPT Bob Bevins, USCG stepped up and volunteered to serve as the Chapter Chairman and Ron Charest volunteered to serve as the Vice-Chairman for Administration. The position of Vice Chairman for Finance is currently open. The next meeting of the Greater Washington DC Chapter will be May 13 at the offices of DWBH LLC in the McLean, VA area. We have also had some interest in establishing chapters in the Charleston, SC area and the Colorado Springs, CO area, so stay tuned for more on this in the coming weeks. Finally, many of you have expressed an interest in and a desire to be a member of a Virtual Chapter – a chapter without borders. A Virtual chapter appeals to many of our CLEP members who do not live in an area where a local chapter could be established or who may not have the time to attend local chapter meetings and events – but still want to participate with chapter functions, training events and

networking opportunities. We would like to get the CLEP Virtual Chapter established and operating soon, but we need to hear from you first. What do you expect to get out of being a member of the Virtual Chapter, what kinds of programs would you be interested in, and perhaps most important, would you be willing to volunteer to help with the operation of the Virtual Chapter? Also, a very important requirement for a Virtual Chapter – Video Teleconference Capabilities. **[If you or your employer would be willing to donate this capability to the Virtual Chapter (this may also be tax a deductible donation), please let me know.]** Finally, the Board of Officers of CLEP have a commitment to helping members organize and establish CLEP Chapters. You may contact me with any questions and I will respond as quickly as possible.

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The Council of Logistics Engineering Professionals



<http://logisticsengineers.org>

HOW CAN WE BETTER SERVE YOU?

As we continually strive to meet the requirements and of our Logistics Community, we need to hear from you concerning what you would like to see CLEP accomplish in the future to better serve you.

Do you have a need for workshops on particular subjects, job assistance, or filling job requirements on a program within your organization? We can help. Contact us by email, phone, or stop by our web site at

<http://logisticsengineers.org> and let us know how we can assist or serve you better.

We also need your help. As we have begun our new program year, we need volunteers to serve on our committees. If you have a talent in a particular area and would like to participate on a committee, please contact us.

If you would like to submit an article for our newsletter, please contact Bill Horne (communications@logisticsengineers.org).

Linked in Join the Conversation, Discussion and Networking at:
http://www.linkedin.com/groups?gid=1358457&trk=hb_side_g

CLEP Information

The Council of Logistics Engineering Professionals is a professional organization composed of individuals devoted to enhancing logistics technology, education, and management. For membership information or if you are interested in starting a Chapter in your area, contact Scott Juneac (membership@logisticsengineers.org) or Bill Horne (bhorne1@cox.net).