Energy Source

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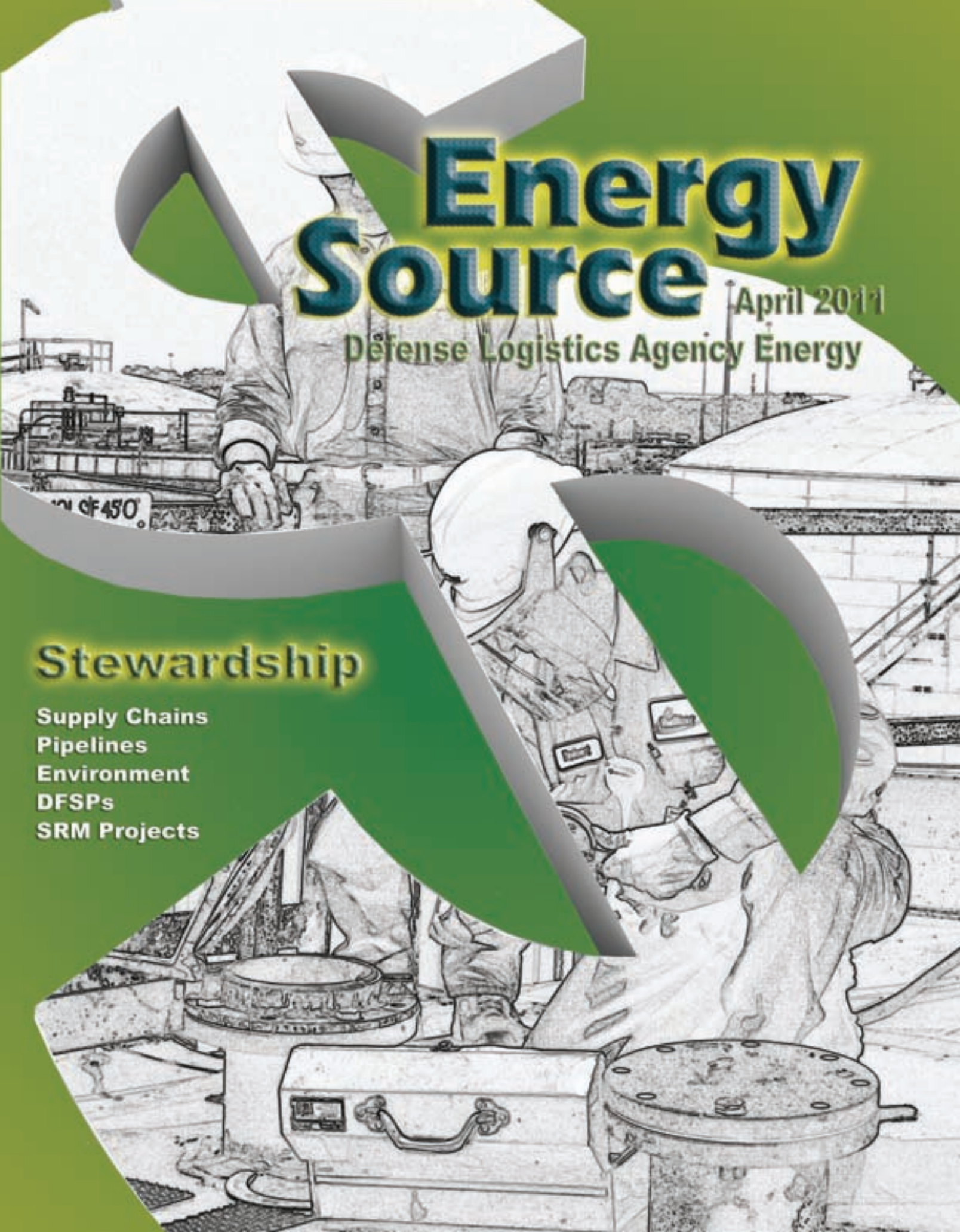

Stewardship

Supply Chains
Pipelines
Environment
DFSPs
SRM Projects

FROM THE Commander

Navy Rear Adm. Kurt Kunkel, SC, USN
Commander, Defense Logistics Agency Energy

Across the Defense Department as throughout the federal government, stewardship excellence continues to be of the utmost concern—and the Defense Logistics Agency Energy is committed to managing our processes and resources to deliver effective warfighter support at the optimal cost. This issue of Energy Source focuses on how DLA Energy supports and promotes strong stewardship as we continue providing consistently outstanding support for the warfighter's energy needs.

The Fuel Card Program Office is one of the many DLA Energy programs doing their part to be good stewards of taxpayers' dollars. The SEA Card® provides customers a way to order and pay for fuel electronically, thereby eliminating additional administrative costs. The SEA Card® program, along with the DoD Fleet Card and the U.S. Government AIR Card®, continue to grow and provide warfighters and other customers effective and efficient energy solutions while remaining fiscally responsible.

DLA Energy's stewardship efforts in supply chain management are producing higher quality and better communication as we support the warfighter. Validating and consolidating end-to-end requirements for our customers and ensuring that those requirements are met in a way that saves the customers' money comes from many hard-working links in our supply chain. From the models used in the acquisition process to inventory and quality management throughout the process, DLA Energy is working to make the best use of taxpayer resources.

Support for stewardship reaches around the world, with DLA Energy managing hundreds of defense fuel support points and the sustainment, restoration and modernization efforts necessary to keep that DFSP infrastructure in working order. Maintaining that network is essential to protecting the environment and helping keep our customers fully mission capable. Worldwide stewardship continues with DLA Energy's pipeline partnerships and improvements. Inventory management improvements in the Turkish National Pipeline System will result in huge savings and DLA Energy recently saved hundreds of thousands of dollars in storage fees while assisting the six partner nations in the Central European Pipeline System. This CEPS partnership also allows for partner nations to establish valuable fuel exchange agreements, making efficient use of resources between countries.

While fiscal stewardship is a source of pride for DLA Energy, the sentiment also extends to our efforts of environmental stewardship. Preservation of the environment through prevention and remediation measures is a mission of great importance to DLA Energy, with results that have engaged communities and assisted in the rehabilitation of a once-believed extinct species of butterfly at DFSP San Pedro, Calif.

My 2011 Commander's Guidance emphasizes our support of the DLA Director's strategic focus areas which include Stewardship Excellence, along with Warfighter Support Enhancement and Workforce Development. Future issues of the Energy Source will further illustrate the roles we play in supporting these strategic focus areas as a part of America's combat support agency.

As we go to print, the DLA Energy team is working hard to provide outstanding support to humanitarian efforts and U.S. missions in Japan as well as to Operation Unified Protector, formerly Odyssey Dawn, in support of the ongoing missions in Libya. As usual, their expertise is delivering mission-ready support!

Energy Source

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One Face

The face of the Defense Logistics Agency Energy.

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Look, Ma, no handoffs!

By Susan Declercq Brown
DLA Energy Public Affairs

In sports, the handoff is that moment when the ball or the baton ceases to be your responsibility. When you have done all you can from your position and have passed it on to a teammate who, you hope, will carry it to victory. After the handoff, the original runner often slows to a crawl, no longer responsible for maintaining the momentum. What happens next, what happens at the finish line, is no longer that team member's responsibility.

But, supply chain management is not a sport. And, the secret to a supply chain management practice that exemplifies good stewardship is banishing that handoff mentality, said a Defense Logistics Agency Energy senior leader.

"I think we've always been very good in that respect," said Mark Iden, deputy director of Operations. "We follow through from initial requirement all the way to the customer—end-to-end supply chain management—even ensuring successful execution for the parts of the chain that we don't own," Iden explained.

For instance, if a bulk fuel shipment is to be moved by an oceangoing tanker, DLA Energy doesn't contract for the shipment. The organization's Tanker Branch coordinates this requirement with the Navy's Military Sealift Command who arranges the transportation.

"But, if the tanker is late, we are ultimately held responsible by the customer for the delayed fuel delivery, so we work that part of the chain too to ensure the deliveries are completed. Even though we don't 'own' that part of the supply chain, it is still part of the chain we have overall responsibility for. So, we can't just put the fuel on the ship and wash our hands of it. We can't shirk that responsibility," Iden explained.

The same is true of free on board destination contracts like those DLA Energy uses to support the warfighters in Iraq, said George Atwood, director of the organization's Mobility Fuels Directorate.

"When a truck leaves Turkey on an FOB destination contract, the transportation company retains responsibility for the fuel until it is delivered to the final destination in Iraq. But, we still have to maintain monitoring and oversight to ensure those supplies are enroute, on time, and that they reach the final destination. Our responsibility is to our customer," explained Atwood.

DLA Energy is responsible for meeting customer requirements by selecting a source, buying and paying for the fuel, accounting for it, ensuring it's the right quantity and quality and that it moves through the distribution system to the customer.

The organization has the Executive Agent responsibilities for the Bulk Petroleum end-to-end supply chain, but the end-to-end approach doesn't stop there. "We carry the executive agent mindset through to all our commodities," Iden explained. "We just don't think in terms of handoffs—not in petroleum products, not in alternative fuels and renewable energy, not in aerospace propellants and chemicals, not in utility commodities. DLA Energy's approach is ultimately end-to-end across the board."

The benefits of that approach can be seen in the alternative fuel area as well, said the organization's director of Plans and Programs, Frank Pane. The alternative fuel supply chain begins with the warfighter or customer identifying an energy requirement, just as it does for DLA Energy's other commodity supply chains, but the organization's approach to satisfying that requirement for alternative fuel has unique aspects.

"Alternative fuels are intended as possible replacements for conventional fuels that have long established industrial and user bases. However, the industrial base for alternative fuel is not as mature as it is for petroleum," Pane explained.

Because of this, although the current alternative fuels are for relatively small quantities, they provide a unique supply chain challenge. Unlike a petroleum-derived procurement, feedstock availability is not a *given*. Also, the bio-oils are not pushed through the conventional distribution system, introducing increased variables for delays. Unique storage considerations have also been encountered. However, at the end of the day, getting specific biofuels to multiple locations at required delivery times is just another mission DLA Energy is successfully accomplishing, Pace said.

"To help enable the development of the alternative fuel industrial base to ensure product availability and sufficient quantities for future projected requirements, DLA Energy conducted considerable market research and partnered with the commercial aviation sector via the Air Transport Association of America to encourage industry to establish a more robust industrial base for alternative fuel," Iden explained.

Iden said it is that kind of expertise coupled with the 'no handoffs mentality' that keeps customers coming back to DLA Energy for their energy solutions.

Clay filters help maintain quality of fuel for one of the Defense Logistics Agency Energy's customers in the JP8 supply chain. Photo courtesy of DLA Energy Americas West.

Myriad programs protect environment

By Laura Fleming
DLA Installation Support for Energy

Because the commodities the Defense Logistics Agency Energy handles are potentially hazardous to health and the environment, the organization takes environmental stewardship very seriously. DLA Energy has a variety of programs in place to protect the environment.

How does DLA Energy protect the environment? Let me count the ways: 1. natural resource management; 2. environmental management guidance; 3. leak detection testing; 4. spill prevention and response planning and training; and 5. environmental management system implementation.

When the Oil Pollution Act of 1990 prompted all government agencies to become better stewards of the environment in the wake of the Exxon Valdez disaster, it struck a chord with the DLA field activity responsible for providing energy products and solutions for the Defense Department and other federal agencies—now called DLA Energy. Since then, the environmental laws and regulations have expanded further requiring a more proactive instead of reactive approach to environmental protection. As a result, DLA Energy has evolved accordingly—building more stewardship aspects throughout the environmental program.

Natural resource management

One of DLA Energy's proudest accomplishments in environmental stewardship is saving a species from extinction, the Palos Verdes Blue Butterfly. The PVBB was assumed extinct from 1983 until 1994, when DLA Energy and the U.S. Navy commissioned Rudi Mattoni and others to perform a biological assessment for a Chevron pipeline. Surprisingly the PVBB was rediscovered on a Defense Fuel Support Point San Pedro hillside in California, an ideal habitat. This fragile last population was estimated at 65.

Habitat restoration started immediately including field surveys and captive rearing. A highly-successful cooperative venture ensued with DLA Energy becoming a key conservationist group member along with the Navy, U.S. Fish and Wildlife Service, The Urban Wildlands Group, Inc., Palos Verdes Peninsula Land Conservancy, and Moorpark College. Though many others have also helped with the butterfly's recovery, the key to the success of this 17-year ongoing effort, while maintaining the DFSP mission, has required all parties to actively listen and cooperate with each other.

Today, the PVBB population has grown to more than 10,000. The Secretary of Defense commended the team for outstanding environmental stewardship in 1998. On March 21, 81 butterflies were released into the wild from DFSP San Pedro as part of the ongoing repopulation efforts.

Environmental management guidance

The DLA Energy Environmental Guide for Fuel Terminals, developed and maintained by DLA Energy, is another good example of proactive stewardship. When OPA 90 was promulgated, DoD fuel facility commanders and operators had a difficult time with the complexity of the changing environmental regulations and interpreting how the regulations affected their activities. As a result, the Environmental Division in DLA's fuels field activity put together a guide for use at base and terminal fuel facilities that made up the worldwide network serving our warfighters.

Initially, the guide was a hand-assembled collection of policy letters and fuel-related environmental laws put into a binder. In 1990 there were around 300 copies. Over time, the guide became more professional and better organized, with an index, separate chap-

Defense Logistics Agency Energy spill prevention and emergency response courses, such as one conducted at a defense fuel support point in Japan last year, help customers be good stewards of the environment.

ters and appendices. Today, circulation tops 3,000, and the guide is an award-winning, user-friendly and comprehensive document to promote stewardship. It has spawned a CD, a video and a poster for desk-side reference in the event of a spill. Now produced with recycled materials, the guide enables the user to link to state laws, uses non-bureaucratic language in the text, and follows a magazine-type format complete with illustrative graphics and photos. The eighth edition of the guide is scheduled for release in late summer.

In addition to the benefits of protecting the environment, DLA Energy learned a long time ago that spill prevention and early detection of spills was less expensive than spill response. As a result, DLA Energy created programs for leak detection, and spill prevention and response planning and training.

Leak detection testing

The organization developed and centrally manages a leak detection and tightness testing program for

FOCUS ON:

Stewardship

DFSPs around the world. The program goes beyond the environmental compliance regulations and applies best management testing for other tanks and hydrant systems which currently do not have mandatory testing. DLA Energy's goal is to find leaks early and when they are small—before they can turn into massive spills with far-reaching environmental impact, which might cost millions of dollars to cleanup.

The program started at 13 bases in California where testing was mandated and has expanded to include testing at more than 110 fuel facilities worldwide this past year. This encompassed testing more than 300 tanks and 1 million linear feet of piping; and, the program expands tank and pipeline testing each year.

An example of the success of the leak detection program occurred last year at DFSP San Pedro. Quarterly testing of the terminal piping in March 2010 indicated a potential leak in the 16-in. North pipeline. This pipeline had passed the test conducted just three months earlier in the 4th quarter of 2009. Upon excavation, a leak was confirmed, but very little contamination was found—less than one cubic yard of contaminated soil. As a result of the early detection, no environmental cleanup was necessary.

DLA Energy has centrally-managed programs for both spill prevention and response plan development. These are available to all DoD installations worldwide. The organization also provides spill prevention and response training to DFSP operators.

Most of DLA Energy's DFSPs are required to maintain both Spill Prevention Control and Countermeasures Plans and Facility Response Plans; they must also conduct spill prevention and response exercises annually that address a continual improvement and readiness process.

Additional spill prevention training includes a new program for underground storage tank operators. The training provides operators with measures to monitor the systems, recognize potential problems and prevent spills. Operators are trained in best management practices for facility inspections, spill and overfill prevention and protection, release (leak or spill) detection, corrosion protection system monitoring, appropriate actions in response to system monitoring alarms and emergency response.

Prevention of spills is a key component of DLA Energy's environmental program in an effort to minimize unwanted impact to the environment from DLA Energy operations and also minimize costs for environmental cleanups.

Environmental management system implementation

Finally, DLA Energy practices environmental stewardship through the Environmental Management System, which was first developed in 2004. An EMS is a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency. Implementing the EMS helps manage DLA Energy's environmental "footprint"—the environmental impact associated with its activities, products and services. An EMS not only helps an organization pay attention to its regulatory responsibilities, it also provides a means for addressing non-regulated environmental aspects such as energy efficiency and resource conservation.

By reinforcing existing operations with a comprehensive approach to environmental management, an EMS helps streamline operations, create awareness that environmental protection is every employee's job, and improve environmental performance.

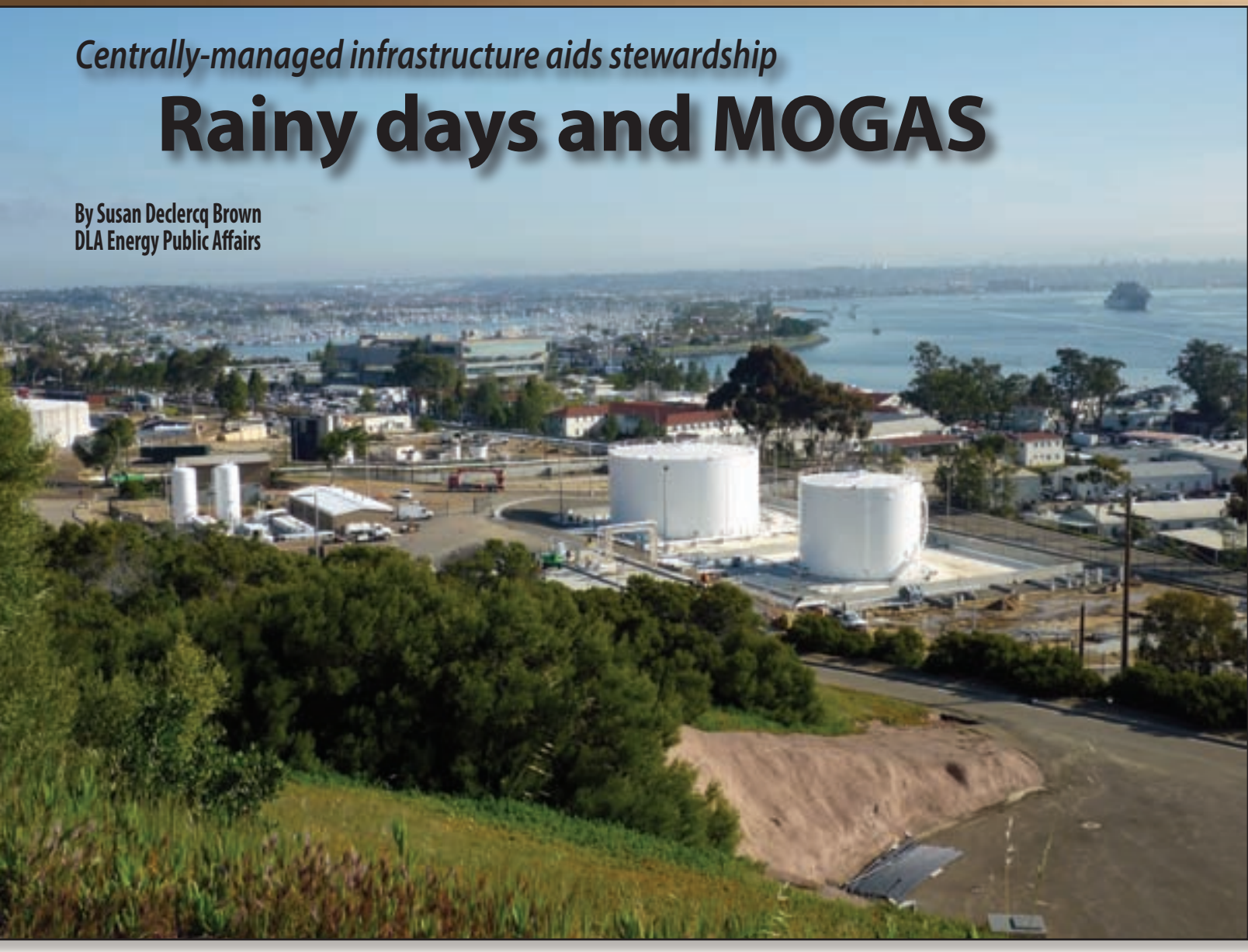
DLA Energy takes environmental stewardship seriously through a myriad of programs: providing natural resource management, environmental guidance, leak detection testing, spill prevention and response training and plan development, and development and implementation of an Environmental Management System. Financial stewardship is an added benefit, as committed environmental stewardship protects DLA Energy's inventory from loss, and prevents unnecessary cleanup costs due to undetected leaks and spills.

The Palos Verdes Blue Butterfly, assumed extinct until re-discovered on Defense Fuel Support Point San Pedro, Calif., in 1994, is now flourishing in a captive breeding program. Defense Logistics Agency Energy has actively supported this 17-year ongoing program while maintaining the DFSP mission.

Centrally-managed infrastructure aids stewardship

Rainy days and MOGAS

By Susan Declercq Brown
DLA Energy Public Affairs



Most homeowners are familiar with the concepts of routine maintenance and setting aside funds for stormy weather. Without periodic maintenance, the home infrastructure can deteriorate, and a tiny leak can become a catastrophe when the rainy days roll around. And, sometimes, despite the homeowner's best efforts, an unanticipated repair like replacing siding pulled off by a windstorm can become a financial burden if money has not been set aside for unexpected repairs.

Fuel infrastructure experts at the Defense Logistics Agency Energy know all about that challenge. Imagine managing the Sustainment, Restoration and Modernization funds for all the Defense Department's fuel infrastructure—ensuring routine preventative maintenance is completed, deficiencies identified and prioritized, unanticipated emergent needs funded and the whole worldwide fuel storage and distribution system continues to run smoothly even when some infrastructure is down for maintenance. That's what DLA Energy's Defense Fuel Support Point Management directorate does for hundreds of DFSPs around the world.

Managing a network of distribution sites

A DFSP is a fuel storage terminal that receives, stores, issues and accounts for all DoD-owned capitalized fuel. DLA Energy manages the oversight of DFSPs domestically and abroad, covering aspects from the acquisition of fuel to its distribution, transportation and inventory management. DLA Energy procures, stores and distributes a full range of fuels from JP8 and JP5 jet fuel to F76 marine diesel to E85 ethanol blend to motor gasoline, or MOGAS.

"DFSPs range from small gas stations to big terminals like Craney Island, Va., or Pearl Harbor, Hawaii. Those bigger ones have very large tanks," said DFSP Management Director Rockne Krill. "The intermediate ones are often found at air stations, and then you have the very small ones that are like regular gas stations for base motor pools."

Because DLA Energy is responsible for providing fuels directly to the end-users whether they be tank, ship or aircraft, the fuel stored in most DFSPs is DLA Energy-owned, as are the DFSPs. The military services and contractors operate the DFSPs, with infrastructure valued at nearly $20 billion, for DLA Energy. And SRM funds are generated as part of the cost of fuel purchased by the services, explained Krill.

The military services and DLA Energy work in tandem to identify DFSP infrastructure deficiencies, plan remediations and schedule SRM projects to be funded.

Managing infrastructure and funding

As a starting point, each military service is allocated a percentage of the project funds based on the percentage of the infrastructure the service operates, said Krill. Then adjustments are made based on how that distribution of funding would affect fuel operations around the world, he explained.

"At the end of the day, everybody is focused on ensuring the money that goes out the door fixes the deficiency that was identified," said the directorate's SRM Division Chief Frank Rechner. "No one here looks at it from a service-parochial aspect. We're concerned about what is best for the fuels community at large. And, that's one of the benefits of a centrally-managed SRM program.

"You can't have 70 percent of every installation's tanks out of service at one time," Rechner said, or compromise mission support by having all the DFSPs in an area under repair at one time.

"Using a warehouse term – first in, first out – you would think we would fund some of the oldest deficiencies first in the inventory," Rechner said. "But, there are operational reasons why you would want to improve or repair a newer deficiency rather than an older one, and that decision is made in conjunction with the military services in a collaborative discussion."

"DFSPs and the military service control points input discrepancies and proposed remediation into the SRM-Energy database, which will eventually be incorporated into the Enterprise Business System. Then the input is reviewed, evaluated, confirmed, turned into a project, has a MIPR [Military Interdepartmental Purchase Request] assigned, gets the funding allocated to it and is turned over to the executing agents for remediation," Krill explained.

A series of checks and balances built into the process and more stringent reviews for larger projects ensures good stewardship of the funds.

In conjunction with the military services, a schedule of approved projects, broken down by month of expected commencement and funding is established for the fiscal year.

The military services execute the project through the Army Corps of Engineers, the Air Force Civil Engineering Support Activity or the Air Force Center of Environmental Excellence, the Navy Facilities Command or Space and Naval Warfare Systems Command. These executing agents set up the contracts, obligate the funds and manage the projects. The DLA Energy SRM team oversees the projects.

Managing a range of projects

Current projects range from multi-million dollar efforts like renovating the Red Hill tunnel DFSP in Hawaii, which is expected to begin later this year, to inspecting a filter separator or doing an American Petroleum Institute standards inspection of a tank. Every project is important, Rechner said.

Defense Logistics Agency Energy manages Sustainment, Restoration and Modernization funds for U.S. defense fuel infrastructure worldwide. Photo courtesy of DLA Energy Americas.

Potential environmental impact plays a big role in moving a deficiency to the top of the priority list. "You've got something that's either broken or going to break that's going to cause an oil spill or environmental problem. Those things need to get taken care of fast," explained Krill.

"It's operational as well. If you have a base with aircraft deploying to Afghanistan, you need to make sure they're mission capable, and without fuel, they're not going to be mission capable," he added. And, planners must ensure that SRM projects don't put assets out of commission unless alternative support infrastructure is operational to support warfighters relying on the fuel support.

Managing inspections

Still another benefit is ensuring preventative inspections are programmed for worldwide fuels infrastructure.

"We consolidate master plans into the Centrally Managed Programs, recurring things like inspections of big tanks, small tanks, piers, pipelines, and marine loading arms, which occur every five or 10 years are scheduled out in the master plan," explained Rechner. These are funded by the SRM funds and executed by the services' executing agents.

Rechner added that railroad inspections are also funded now because having viable railroads available for fuel delivery encourages competition for fuel delivery contracts, providing more options in delivery modes for the customer.

DLA Installation Support for Energy's environmental section also handles many of the inspections. And comprehensive evaluations, called installation-level reviews,

DLA environmental specialists meet with Alaskan

Susan Lowe
DLA Energy Public Affairs

Defense Logistics Agency Installation Support for Energy and DLA Energy Alaska team members traveled to Moose Creek, Alaska, to meet with interested community stakeholders Jan. 19 regarding remediation and cleanup efforts underway along the North Pole, Alaska-Eielson Air Force Base JP8 pipeline.

Since 2003, DLA Installation Support for Energy has been conducting environmental work in the Moose Creek community in connection with an historic pipeline spill. Recently, the Alaska Department of Environmental Conservation suggested that DLA form a Restoration Advisory Board for this site if there is sufficient community interest. The recent stakeholders meeting was held to determine the level of community interest in the restoration decision-making process and also provide a status briefing on the remediation effort.

"The Department of Defense recognizes the importance of stakeholder participation for Installation Restoration Programs," said DLA Energy Alaska Commander Air Force Lt. Col. John Martin. "Meeting with stakeholders is an ideal way to determine community interest in the remediation process and brief them on the work we're doing to make sure they are safe."

The IRP is a specially- funded program established in 1978 under which DoD identifies and evaluates its hazardous waste sites and controls the migration of hazardous contaminants from those sites.

Community members were notified of the stakeholders meeting and 17 residents attended the meeting. They were assured that DLA is focused on the community's well being.

look at the overall condition of a terminal or fuel distribution facility; these are generally conducted by the military services. Engineering surveys are likely to identify deficiencies that flow into the SRM process, Rechner said. DLA experts often augment the services' inspection teams.

"We work constantly throughout the year as deficiencies flow in. There is no season that is busier than the next. We always reserve a portion of the budget for emergent projects that can occur in the fourth quarter requiring maintenance, repair or minor construction, so we can fully fund projects right up until the end of the fiscal year," Rechner stressed.

Managing growth

The SRM program is growing, Rechner said. The budget for SRM has doubled in two years, and Rechner expects it may triple in the next three years as DoD and Congress increase funding for repairing and managing the aging infrastructure.

No one wants to be the next environmental villain, Rechner said, so DLA Energy and the entire DLA enterprise are positioning themselves to handle the added workload of addressing a backlog of deficiencies and upgrading facilities to meet evolving environmental regulations.

Repairs underway inside a fuel storage tank were funded through Defense Logistics Agency Energy's Sustainment, Restoration and Modernization funding process. Photo courtesy of DLA Energy Americas.

Hiring is underway as need increases for project development and oversight, master planning, and consolidating recurring inspections into the CMP.

community

"DLA takes the responsibility of cleaning up the contaminated area very seriously, and we are committed to ensuring the protection and well being of our communities and the environment," Martin said. "We are not here to determine IF we're going to clean up the site, we are here to assure the community that we ARE going to clean it up."

During the stakeholders meeting, Martin outlined three options available to the Moose Creek residents with regard to their level of involvement in the remediation process.

The first option would be to form a RAB as the ADEC initially suggested. A RAB is a forum specifically designed for exchanges of information to develop partnership among the community members, DoD and DLA. RABs are formal boards that offer community members an opportunity to provide input on the cleanup and decision-making process.

Another option was no meetings at all. DLA would continue the cleanup process as required and issue updates as needed but not in a meeting setting.

The community chose the third option—less-formal stakeholders meetings that require a smaller time commitment from community members. Meetings with the community will be held semi-annually or as often as needed should new information arise.

"Whatever option the community decides, DLA will be there regardless to do the cleanup work in accordance with the latest environmental guidance and keep the community informed," said DLA Installation Support for Pacific Facility Manager Jack Appolloni. "Communication is the key; everyone in the community needs to know what we're doing."

DLA Energy collaborates on European pipeline stewardship

A workman changes out worn out filters on the high-pressure microfilter at the Pfungstadt depot along the Central European Pipeline System. The filter cleans sediment out of the petroleum products transported through CEPS. Photo courtesy of NATO.

By Terry Shawn
DLA Energy Public Affairs

A unique stewardship alliance among six NATO member nations helps ensure fuel flows economically and efficiently in Central Europe.

The relationships forged between the U.S. Department of Defense and other participating NATO countries result in the efficient operation of the Central Europe Pipeline System despite the fact that the system spans five nations, said Army Col. Stephen Walker, commander of the Defense Logistics Agency Energy Europe and Africa region.

A recent example of the cooperation between countries came in October when the Central Europe Pipeline Management Agency requested DLA Energy Europe and Africa temporarily loan part of the U.S. military's storage allocation in the system to CEPMA. The 30,000 cubic meters, or space for 188,790 barrels of fuel, was desired from Nov. 1, 2010 to April 30, 2011, said Hauke Dins, senior technical advisor with DLA Energy Europe & Africa's inventory management branch.

The space was useful to better manage the operational constraints and a lack of capacity caused by the strikes in France and by the recent evacuation of part of the French national fuel reserve, he explained.

The DLA Energy Europe & Africa supply manager for the CEPS analyzed the current inventory situation, the lift requirements from current contracts with Total France and Motor Oil Hellas, and the U.S. inventory evolution through July 2011. Based upon this analysis, DLA Energy headquarters and Europe & Africa approved CEPMA's request. The loan will save €229,240 ($315,000) in storage cost savings for the period the space is loaned out, said Dins.

"These factors have enabled us to accommodate this special request. It has helped the CEPS headquarters to overcome the operational constraints and the lack of capacity," said DLA Energy's senior technical advisor.

"For us, this loan will result in storage cost savings while we are still able to meet our contractual requirements to the resupplying companies. Thus, it is a win-win situation for all parties," said Dins.

Operations

The CEPS is an integrated pipeline system originally built between the late 1950s and mid-1990s to serve the wartime military fuel requirements of eight NATO nations: Belgium, Canada, France, Germany, Luxembourg, the Netherlands, the United Kingdom and the United States. Canada and the U.K. no longer participate.

The CEPS currently serves the military needs of six nations. The physical facilities that make up the CEPS, including pipelines, storage depots, pump stations, etc., are located across five host nations; Belgium, France, Germany, Luxembourg and the Netherlands.

According to John Cummings, DLA Energy liaison to the U.S. Mission to NATO, the system is made up of 5,182 km, or 3,220 miles, of pipelines ranging in size from 12-inch cross-country pipelines to 4-inch airfield spur lines. Along the pipeline there are 81 high pressure pump stations, and 38 storage depots to store more than 7.8 million barrels of Jet A1. There are 13 entry points to the CEPS—six sea points accessible by tanker ships and seven refinery points.

Military and commercial petroleum products travel through CEPS. The U.S. military converts the commercial Jet A1 to military specification F34, or JP8, by injecting the required military additives at the point of delivery. Jet A1 represents roughly 80 percent of the petroleum products transported on the CEPS.

Secondary commercial petroleum products transported on the CEPS include diesel and heating oil, which enters the pipeline in Northern France and is pumped to Belgium and Germany; Naphtha, a gasoline type mixture of hydrocarbons distilled from oil and converted in a chemical plant, with a steam cracker, into ethylene, propylene and other basic products to manufacture plastics. Naphtha enters the CEPS mainly in southern France and is pumped to eastern France and southern Germany.

Twenty-four military airbases are directly connected to CEPS, including the U.S. airbases at Ramstein and Spangdahlem, Germany. Today, six non-military airports are also directly connected

At a train loading station near the French-German border at Strasbourg, France, a railway tanker car is loaded with petroleum products. Photo courtesy of NATO.

to CEPS. These are Zaventem Airport in Brussels and Bierset Airport in Liege, Belgium; Koln-Bonn Airport and Frankfurt Airport, Germany; Schiphol Airport in Amsterdam, the Netherlands; and Findel Airport in Luxembourg. Two others could be connected to the CEPS in the near future. There are also 15 active truck-loading stations and two active railcar-loading stations serviced by the pipeline system.

Fuel exchange agreements are another example of how the CEPMA partnership results in good stewardship, said Dins. An agreement between DLA Energy Europe & Africa and the German Army allows both sides to receive fuel from the fuel facilities of the other partner. Twice a year, accounts are reconciled, and the owing party returns the owed fuel in-kind to the other. The last two reconciliations were accomplished via the CEPS. The German Army returned the fuel owed to DLA Energy by ordering these amounts from their suppliers and paying for the transportation from the entry point of that supplier to the U.S. Spangdahlem Air Base.

Funding and management

Funding for the operations and maintenance of the CEPS comes from three sources: revenue from commercial transportation and storage contracts; revenue from the transportation and storage of military fuel for the six CEPS member nations; and a national contribution paid by each of the member nations. The amount of the national contribution varies yearly depending on the difference between the annual budgeted cost to operate and maintain the CEPS and the annual projections for commercial and military transportation and storage revenues. Some major maintenance work is also eligible for NATO Security and Investment Program funding.

Top-level oversight and management is provided by the Central Europe Pipeline Management Organization and its board of directors. The CEPMO BOD is made up of a chairman selected from the six member nations, additional representatives of the member nations, representatives from CEPMA, representatives from the NATO military command, and representatives from the NATO international staff.

The CEPMO BOD meets thrice annually to discuss organizational, financial and overall operational issues. Working groups meet several times each year to coordinate traffic movements; business development; infrastructure projects such as new construction, major repairs, pipeline pigging inspection programs; and the development of the following year's operation and management budget.

"This year DLA Energy will host the spring BOD meeting in San Antonio as a part of the organization's annual representation program. Annually, one nation hosts the spring meeting in their country in order to

Central European Pipeline System Dispatcher Harald Schoefer, center, explains an automated board used to track pipeline operations to Joachim Elfner, head of the Southern German CEPS, left, and a German soldier. Photo courtesy of NATO.

improve relationships and showcase national interest areas like energy, culture and history," Walker said.

CEPMA, based in Versailles, France, oversees the overall coordination of transportation traffic management, CEPS-wide product quality management and storage activities. CEPMA also coordinates CEPS pipeline maintenance and infrastructure improvement activities, system financial management and business development activities.

"Over the years, the collaboration with DLA to provide and improve the logistic services of CEPS—delivering jet fuel to its major military client, the U.S. military forces in Ramstein and Spangdahlem, has been a top priority for CEPMA and of paramount importance," said Robert Goyens, a NATO logistician and CEPMA head of traffic.

Day-to-day operational maintenance of the CEPS is the responsibility of four national pipeline organizations in Belgium, France, Germany and the Netherlands; the Belgian pipeline organization also operates the pipeline for Luxembourg. The organizations also manage the execution of the annual pipeline

diagnostic "pigging" program, overseen by the CEPMA technical department. Any needed repairs and major upgrades to the CEPS, such as increases in pipeline segment diameters, new lines, pump or pump engine replacement; etc., are first discussed and prioritized in the CEPMO infrastructure working group and then presented to the CEPMO BOD for funding authorization.

The actual execution of major repairs or new construction is carried out by host-nation construction organizations that work under the oversight of the four national pipeline organizations.

Head of the Southern German Central European Pipeline System Joachim Elfner, center, listens with a representative from the German Army, as dispatcher Harald Schoefer explains the operation of CEPS as depicted on the multiple computer monitors in the central control room of the CEPS. Photo courtesy of NATO.

Successful partnership

"Although an outsider may look at it as a kind of tower of Babylon, where everyone has the possibility to express himself in his own language—as English, French, German and Dutch are constantly commingled—thanks to the energy, effort and the enthusiasm of its members, solutions can be found for most technical, customs, personnel, accounting and other problems," the CEPMA head of traffic said.

Thanks to the DLA representative's expert participation in quarterly traffic meetings, problems and their solutions are usually anticipated rather than surprises, Goyens said. "Frank, transparent and open discussions are the rule here," said Goyens, allowing participants to learn from experience and prevent future problems.

Defense Logistics Agency Finance – Energy's Policy and Compliance Supervisor Jamie Morrow describes the role of good stewardship during a meeting in February. Photo by Christopher Goulait.

Stewardship more than money

By Christopher Goulait
DLA Energy Public Affairs

Managing processes and resources to support the warfighter at optimal costs is something the Defense Logistics Agency Finance Energy team takes pride in. It is at the heart of good stewardship. And, stewardship reaches further into DLA Finance Energy than some might think.

"Our goal is to support the warfighter by using taxpayer resources in the most efficient and effective way possible—by trying to make processes better and streamlining them," said DLA Finance Energy's Chief, Policy and Compliance Branch Jamie Morrow.

Though "finance" is in their name, the division's stewardship roles extend beyond the numbers.

"Stewardship is not just a financial thing," said DLA Finance Energy Director Carol O'Leary. "Stewardship is really driven by our business processes and procedures."

"We don't just look at things that necessarily affect only the financial statements. We also work in coordination with the functional components of DLA Energy on the stewardship initiative," said Morrow. "We can't just stay focused on finance all the time, since the steps before or after us can affect so much. It's mostly about understanding the end-to-end process."

Currently, the Policy and Compliance Branch is focused on ensuring that they have desktops and standard operating procedures that support all of the processes within the financial division, according to Morrow

"This not only helps with auditability, but also with all our strategic goals: stewardship, warfighter support enhancement and workforce development. It reaches into everything," said Morrow.

Morrow is not alone in leading a DLA Finance Energy team with a stewardship focus. She said she works alongside another component of the division's process-driven stewardship efforts to deliver accurate and repeatable data to those who request it.

"The Data Request team has been working over the last year to streamline the process for fulfilling data requests. Our focus has been on increasing the consistency of responses through careful design of repeatable processes," said branch chief, Tracey Andrew.

Her team's efforts provide more accurate data in a shorter period of time, making a better use of the government's resources, Andrew explained.

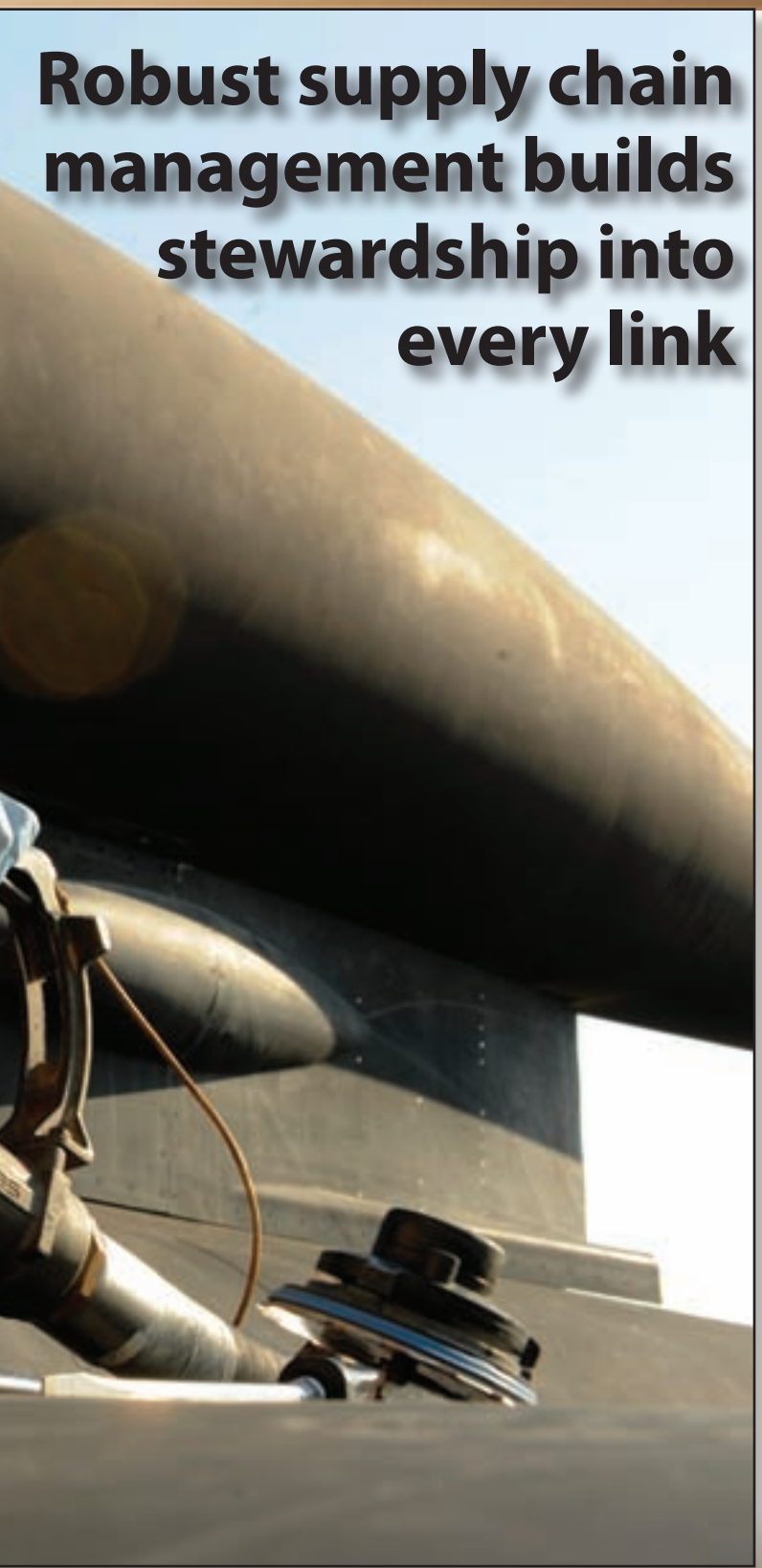
"We have enabled the users of the data to not only better support the warfighter, but to make decisions that optimize the use of taxpayer dollars," Andrew said.

"Stewardship in the financial aspects of DLA Energy strengthens the ability of the other parts of the organization to be successful, and their successes strengthen us," said Morrow. "The financial side and the functional side are learning from each other, and it's a combined effort." Morrow believes this teamwork combined with everyone's individual stewardship roles, from finances to operations and everyone in between, leads to the organization meeting its strategic goals.

"Other teams' activities are often overlooked parts of the auditibility process," said Morrow. "No matter what task you're doing, you're affecting how we support the warfighter, how our workforce develops and how we use taxpayer resources."

FOCUS ON:

Stewardship



Air Force Airman 1st Class Edgar Alcaraz, with the 308th Expeditionary Aircraft Maintenance Squadron, checks the fuel level of a U-2 Dragon Lady high-altitude reconnaissance aircraft at an undisclosed location in Southwest Asia Dec. 2. Defense Logistics Agency Energy maintains full-service regional offices covering every corner of the world to provide robust warfighter support. U.S. Air Force photo by Staff Sgt. Eric Harris.

Robust supply chain management builds stewardship into every link

By Susan Declercq Brown
DLA Energy Public Affairs

Knowing that any chain is only as strong as its weakest link, energy experts at the Defense Logistics Agency Energy integrate stewardship into every link of their supply chain management to ensure a robust, efficient supply chain to support warfighter mission requirements.

As the Defense Department's Executive Agent for Class III Bulk Petroleum, DLA Energy is responsible for the end-to-end management of this supply chain, from the moment a customer identifies an energy requirement until the customer receives the energy product, according to Mark Iden, the organization's deputy director of Operations.

In the case of bulk petroleum, DLA Energy even maintains ownership of the fuel while it is stored on military installations and Navy oceangoing tankers around the world, until it is transferred to the end user—an aircraft, a truck or a ship. And stewardship begins right at the inception, he said.

"Even in those energy areas where DLA Energy does not have Executive Agent responsibility, we focus on stewardship throughout our various supply chains," said Frank Pane, director of DLA Energy's Plans and Programs. From regional engagement with customers; validation and consolidation of requirements; quality assurance; sustainment, restoration and modernization funding for defense fuel infrastructure; information technology tools to assist with tracking, inventory, accounting and auditability; and top-notch communications with customers and suppliers, effective and efficient processes at every link in the supply chain, according to Pane.

"Whether it's the migration to DLA's Enterprise Business Systems to replace aging legacy systems and modernize and refine our supply chain management, the incorporation of an e-Procurement tool to aid our acquisition process, or using Lean Six Sigma to drive efficiency, we are not static in our stewardship focus," Pane said.

At the start, DLA Energy validates requirements with the customer. Understanding the supply chain and customer engagement is critical.

"For instance, if we get a requirement for 93 octane unleaded gasoline, which is very expensive, we can check with the service control point to see if a less expensive, lower octane fuel would be just as effective," explained Acting Director of Mobility Fuels George Atwood. "Or, we always ask whether commercial fuel would be an appropriate substitute for military specification fuel in the initial requirements. In that way, we save the services, and the taxpayer, unnecessary expense."

DLA Energy also saves the services and taxpayers money by aggregating requirements and establishing pro rata delivery with schedules and locations tailored for each customer, Iden said.

"It's a business model that works with the supplier base. We get better prices and have to do fewer solicitations," he explained.

An area of considerable current interest is alternative fuels. To position itself to efficiently support DoD policy and meet the military services' future requirements for alternative fuels, DLA Energy took supply chain management a step further by engaging "at the supporting industrial base genesis," Pane explained.

"Our Quality and Technical Support office has been instrumental in not only ensuring the fuels the military services are testing are suitable for the transportation and distribution infrastructure, but has also been aggressively synched with the commercial sector such as

Defense Logistics Agency Energy Quality Assurance Representative Trent Buck and NuStar's Roberto Silguero measure fuel volume and temperature at Defense Fuel Support Point Baltimore in April 2010. Photo by Susan Declercq Brown.

the Commercial Aviation Alternative Fuel Initiative and the Air Transport Association to leverage our collective technological capabilities to ensure a focused, coordinated development of the supply chain," he continued.

"We have also leveraged our procurement expertise from the Bulk Petroleum Directorate, our Research and Development program, and our energy legal expertise to further the advancement of these fuels. Additionally, by collaborating our efforts with the Departments of Agriculture and Energy on their respective sustainable biomass and biorefinery programs, we enable a synergistic development of the alternative fuel supply chain," Pane said.

Another link fortified by good stewardship is an acquisition process that ensures the government pays the lowest overall cost for an entire regional bulk fuel procurement. After validating fuel requirements, DLA Energy uses a sophisticated computer model called the Bid Evaluation Model, which Iden described as a mixed-integer, linear program, to determine the lowest laid-down cost of the entire purchase program. BEM combines offeror information, such as price, quantity, restrictions and refinery location; transportation rates and modes, including pipeline, truck, rail, barge, and tariffs and environmental fees; multiple destinations and additive injection options; and even takes into account Small Business set-asides to determine the lowest final cost to the government.

DLA Energy information technology solutions foster good stewardship in other ways, Iden said. "Our inventory accountability programs provide valuable oversight of the product throughout the supply chain. We track inventory through shipment, receipt and storage, including tracking losses during transit due to evaporation, spillage, etc. We even process the final sale of the product," he explained.

Units can track fuel transactions through DLA Energy's Defense Fuel Accountability System and Defense Fuel Asset Management System, added Atwood. "The systems provide greater visibility and help auditability. We're even capable of determining which aircraft downloaded the fuel and billing to that specificity."

DLA Energy's fuel card programs are one of the most visible purchasing tools used worldwide. The SEA Card®, AIR Card® and DoD Fleet Card enhance stewardship right at the point of sale. The programs allow the military ser-

Defense Logistics Agency Energy manages the supply chains for marine bunker fuel and naval aviation fuel. Navy Boatswain's Mate Seaman Dustin Hoskins, left, pulls the release lever to eject the fuel probe from the bell receiver aboard amphibious transport dock USS Ponce at the completion of a refueling at sea with dry cargo ship USNS Amelia Earhart while under way in the Red Sea Feb. 16. Photo by Mass Communication Specialist 1st Class Nathanael Miller.

Stewardship

A Marine refuels a tank during training exercises in the United States in 2008. Defense Logistics Agency Energy manages supply chains for a myriad of fuel supporting the warfighter's ground operations worldwide. Photo by Nutan Chada.

vices to purchase commercial fuels from commercial outlets, often in remote areas of the world, with state-of the-art receipting, billing and accounting.

"The fuel cards leverage discounts on commercial fuel sales at airports where we don't have existing contracts," Atwood explained. "Additionally, the programs employ a number of management oversight checks and balances that ensure we only pay for what we received, even though the aircraft, vehicle, or vessel lifted fuel from a commercial location thousands of miles away."

Iden said one of the most important ways DLA Energy injects stewardship into its supply chain management is through relationships. The practice of centralized contracting but decentralized execution maximizes financial efficiencies while enhancing relationships, communication and on-spot customer service, he explained.

"We have good, talented people throughout the world supporting our customers on their thresholds," Iden stressed.

DLA Energy has full-service regional offices covering every corner of the world—quality assurance representatives who interact with the customer at defense fuel support points, flightlines, ships and transportation hubs worldwide; and liaisons embedded in each of DoD's regional combatant commands as well as U.S. Transportation Command and U.S. Strategic Command to ensure valuable communication flow with the warfighter. And, because each of the military services has co-located energy entry control points with DLA Energy at Fort Belvoir, Va., Iden said, DLA Energy can better vet requirements and better serve its customers.

"Communication and relationships are the key to providing strong support to the warfighter and improved stewardship of resources for our ultimate customer—the American taxpayer," Iden said.

The Defense Logistics Agency Energy's Installation Energy team gathers outside DLA headquarters, Fort Belvoir, Va., March 8. Standing, from the left, are Charles Mayfield, contract specialist; Mark Warno, contracting officer; Bruce Byrd, energy manager; James Harkless, Renee Brown and John Fantasia, contract specialists. Seated are Ruth Porter and Damion Biagas, contract specialists. Not pictured: Charlie McCoy, energy manager. Photo by Terry Shawn.

Natural Gas team reduces financial sting of harsh winter

By Mark Warno
DLA Energy Installation Energy

The winter of 2010 was severe for most of the United States. From extreme snowfalls across much of the nation to consistent temperatures well below normal, the country suffered though a winter most were glad to see end. For the Defense Logistics Agency Energy Natural Gas team, the low temperatures meant more than just having to scrape an icy car windshield before the drive to work. Cold temperatures often translated into interruptions to DLA Energy customers' natural gas supply.

The natural gas team used its market expertise to provide economical solutions for customers impacted by a veritable blizzard of interruptions.

The DLA Energy Installation Energy Directorate serves as the Defense Department's central procurement agent for the direct-supply natural gas program. Since mid-November, the team has been busy assisting customers to ensure operational requirements were met as economically as possible, despite numerous interruptions to natural gas supplies.

Many DLA Energy customers in the Northeast and mid-Atlantic regions pay a discounted rate for natural gas in return for allowing the contractor to "cut-off" or curtail their natural gas supply during periods of high consumption. This occurred frequently this past winter due to a flurry of temperature-related demand spikes.

"With all the interruptions this winter, our team was challenged to deliver cost-effective solutions to our customers while ensuring operations were sustained during the curtailment periods," said Installation Energy Deputy Director Pam Griffith. "They did an exceptional job."

When natural gas service interruptions occur, the DLA Energy team usually alerts customers to switch to their fuel oil supply. However, this past season, the team recognized an opportunity to save the government money by purchasing natural gas in the daily market.

A comparison of the daily-spot-buy price of natural gas and DLA Energy's contract price of fuel oil revealed significant savings could be achieved if the customers burned natural gas in lieu of fuel oil.

The team even worked through power outages to purchase daily volumes of natural gas on behalf of its customers, said Griffith. After four long months and daily purchases totaling more than 178,000 dekatherms, the team's efforts have saved its customers—and the taxpayers—an estimated $2.5 million, as compared to what they would have spent on fuel oil.

"Choosing to work with contractors day-in and day-out to make these time- and price-sensitive purchases was certainly not the easiest path," she said. "But the team recognized the opportunity to save money by taking advantage of the price discrepancy between natural gas and fuel oil."

Leveraging opportunities like this helps DLA Energy contribute to the cost reduction initiatives occurring throughout DoD, she explained.

"Recognizing their role as stewards of our taxpayer dollars, our team did an outstanding job in finding opportunities to reduce overall costs during some of the most trying times this winter," said Installation Energy Director Kevin Ahern. "We all recognize the challenges our military customers face in meeting the department's cost cutting initiatives. Providing cost effective solutions is paramount to our program's success."

Research and Development Division employees Lindsey Hicks and Jose Maniwang from the Defense Logistics Agency Energy Quality and Technical Support Office meet on Fort Belvoir, Va., in February to discuss upcoming alternative fuel research and development support. Photo by Christopher Goulait.

Division makes alternative solutions a reality

By Jose Maniwang and Lindsey Hicks
Quality and Technical Support

As the Defense Department's requirement for alternative fuels and renewable energy grows, the Defense Logistics Agency Energy has grown along with it to address the new and developing technologies in industry necessary to support the burgeoning AFRE mission. A new division encourages development of new AFRE sources and helps ensure the military services receive quality energy products.

The Research and Development Division is the newest addition to DLA Energy's Quality and Technical Support office. Established in late 2009, the division, also called QR, is responsible for the implementation and oversight of all projects that support AFRE research and development efforts and strategy development.

"This team is essential to this increasing mission and also enhances and supports our overall organization," said Pam Serino, director of Quality and Technical Support.

The QR team manages projects in four program categories.

Programs to support the acceptance and certification of alternative fuels

The team ensures these fuels comply with the expressed goals of the military services to incorporate alternative fuels blended with traditional petroleum-based fuels into their standard acquisitions in the

coming decade. The division's experts help provide technical support during the acquisition and delivery processes of alternative fuels. The fuels are evaluated through fit-for-purpose testing protocols coordinated by the military services, and the team oversees the technical aspects of the applicable supply contracts once they are established.

Programs submitted by offerors in response to solicitations from the DLA Logistics Research and Development Requirements for Energy Broad Area Announcement

Areas of interest under this program include developing biofuel feedstocks and production pathways for alternative hydrocarbon fuels; developing modular and transportable advanced hydrogen-based energy storage systems that can be adapted to forward operating bases; evaluating new mobile technology that converts waste generated at forward operating bases into fuel to supplement base energy needs; and advancing existing research technologies in carbon capture and sequestration for the future production of coal-based jet fuels for DoD.

Alternative energy R&D programs established through Congressional earmarks

These support areas of interest similar to those under DLA's program.

Alternative energy R&D programs funded under the DLA Energy Readiness Program

These are specifically developed within Quality and Technical Support to address emerging needs in handling new fuels within the DoD fuel supply system.

Throughout the year, the QR team provides technical and project management leadership, Serino explained. Funding and contract administrative support for the division is coordinated through the Research and Development Program Office of the DLA Energy Plans and Programs Directorate. They work hand-in-hand with QR to manage the R&D projects, from project development and contract award up until contract completion.

"QR's technical expertise and diligence in executing alternative energy research and development projects is a key aspect of developing alternative energy solutions—and in positioning DLA Energy to meet the military services' future energy requirements," said Jeanne Binder, head of the R&D Program Office.

Current projects include a carbon capture and sequestration study that provides assessments of existing and advancing CCS technologies for commercial coal-to-liquids and coal-to-electricity process applicable to DoD facilities. And, a mobile demonstration of waste-to-liquid conversion technology that produces liquid fuel products that meet the specifications for diesel and jet fuel in a forward base environment setting.

QR also handles Congressional Add projects that are contracted to research facilities at universities across the country. These will develop and evaluate pathways for the production of alternative jet fuels using non-food biomass feedstocks. One such project involves the assessment of grasses to be converted to sugars to feed algae, which in turn would produce oil to be hydroprocessed into jet fuel. Another project involves a company producing hydroprocessed renewable F76 marine diesel fuel, or HR76, for the Navy's certification efforts in meeting its Green Fleet initiatives. Still another is looking at gasifying forestry waste and pulp wood material for chemical conversion directly to fuel.

An intriguing Congressional Add study involves the development of a transportable greenhouse system that will grow an energy-dense, sorghum-like plant as a power source for use at military forward operating bases. The plant material would either be converted to ethanol as a hydrogen source for powering fuel cells, or it would be gasified to provide direct electric power to an FOB.

So far, QR has managed nearly $50 million in projects.

"The leading edge technologies advanced by this research may be tomorrow's energy solutions," Serino said. "And the team looks forward to fostering continued R&D efforts that may help reduce DoD's energy footprint and, at same time, increase America's energy independence."

Fuel facility closures target savings in Korea

By Air Force Maj. Ronald Peterson
Commander of DLA Energy Korea

Defense Logistics Agency Energy Pacific's Korea office has been actively seeking ways to generate savings and efficiencies while still meeting mission requirements. As a result, some fuel facilities on the Korean Peninsula have been closed and other closures are underway.

Historically, there has been a natural ebb and flow in defense spending which reflects national levels of conflict or crisis. For example, the U.S. went from spending less than 2 percent of its gross domestic product on the military in 1940 to almost 38 percent in 1944, according to the office of Management and Budget. Similarly, our defense spending has risen by 1.5 percent of gross national product since the terrorist attacks of 9/11, the World Bank reported. But, Secretary of Defense Robert Gates recognizes the department will face a sizeable reduction in funding in the near future. To remain an effective fighting force, DoD must "generate efficiency savings by reducing overhead costs, improving business practices, or cutting excess or troubled programs," Gates said in a January briefing at the Pentagon.

The Korea office recognizes the importance of these efforts. To this end, the office, in conjunction with its customers and partners, has closed some fuel facilities—fuel service stations at two U.S. Army garrisons and a hot refueling point on another garrison. The Uijeongbu Defense Fuel Support Point is also in the process of being closed, and the bulk fuel ground tanks at Air Force contingency operating bases on the peninsula are being drawn down for closure. These initiatives ensure DLA Energy Korea is fully implementing the secretary's guidance and producing substantial savings.

The U.S. Army is in the process of a major relocation—moving much of its northern forces south to U.S. Army Garrison Humphreys. USAG Stanley is involved in this relocation and redistribution of assets and troops. When USAG Stanley's fuel service station required replacement, DLA Energy and DLA Installation Support along with its Army partners at Installation Management Command decided it was not economically responsible to spend more than a million dollars on a fuel station at a non-enduring installation. Due to other Army relocations, the Korea office and IMCOM also decided to close the service station on USAG Long and the hot refueling point on USAG Eagle. While these stations did not require immediate repair or replacement, historical sustainment, restoration and modernization costs on the three stations were significant. Additionally, the Ko-

Left, the camera looks inside an empty storage tank at Defense Fuel Support Point Uijeongbu, Korea. Emptying the tank of Defense Logistics Agency Energy fuel reduced storage and terminaling fees by $275, 275 per year. **Below**, working together to reduce fuel management costs are, from left, Lt. Col. Brad Anderson, U.S. Forces Korea; Warrant Officer Jeremie Coleman, 8th Army; Sgt. Han-Ki Lee, USFK; Michael Holgate, DLA Energy's liaison to USFK; and Kyoung-Sun Lee, DFSP Uijeongbu general manager. Photos courtesy of DLA Energy Pacific.

rea office was able to save fuel service contractor costs while still meeting customer demands by expanding its service at a nearby military facility.

The Army relocation has also given the Korea office ample reason to reevaluate its terminaling and storage agreement with the Daehan Oil Pipeline Corporation, which runs the Uijeongbu DFSP. Based on March consumer price indexes and currency exchange rates, closing the DFSP will save tens of millions of dollars annually. To parallel the Army's scheduled move, the Korea office is drawing down the DFSP through normal annual customer usage and adjusting the contract when individual tanks are completely empty. The drawdown is scheduled to be completed mid-year 2013.

Lastly, the Korea office, in conjunction with 7th Air Force, is in the process of drawing down the bulk fuel ground storage tanks at all the Air Force contingency operating bases. DLA Energy has replaced the bulk tank capabilities with direct delivery Posts, Camps, and Stations refueling contracts to provide fuel support directly to the customer. Providing this service through PC&S contracts saves money in the immediate and long term.

Each of these contingency base tanks and its product were capitalized, and the tanks were nearing their life expectancy—thus requiring costly repairs or replacement in the near future. The fuel stored at each location was based on contingency requirements rather than normal operations. The Korea office coordinated through the United States Forces Korea's Logistics Wartime Host Nation Support Division and the Republic of Korea Ministry of National Defense's Wartime Host Nation Support and Mobilization Division to incorporate wartime contingency clauses into the PC&S contracts. The contracts were then added to the Wartime Host Nation Support Plan as an enabler to continue using the robust Korean commercial tank truck infrastructure to support USFK ground fuels requirements in the event of a national emergency or contingency.

DLA Energy estimates this initiative will save millions in immediate inspection, replacement and repair costs, as well as continued annual savings in the sustainment, restoration, and modernization costs of maintaining the contingency ground fuel stocks. Additional benefits include reduced operational manpower and quality assurance oversight costs. Lastly, the PC&S-contracted fuel can now be used as required and generate returnable profits rather than tie up defense working capital fund assets to maintain dormant fuel stocks.

While the Korea office is still working under the confines of the peninsula's contingency bulk fuel storage requirements, it is seeking every opportunity to be more efficient and cost effective. The department and the military service components have begun to proactively reduce their overhead costs while maintaining capabilities. The Korea office is partnering with them to be fiscally responsible—a part of everyone's duty.

Joint fuels team hones management at Bagram Airfield

By Air Force Capt. Scott R. Thomas
DLA Energy Middle East

They launch aircraft into the sky for close air support of combat operations; they power the countless number of security convoys 'outside the wire,' or off base. And, they serve as life support to all personnel on the ground.

"They" are the million gallons of fuel that pass through Bagram Airfield each week. Vital to the overall Afghanistan effort is the proper management and accountability of this highly-valued resource. Two new contracts at Bagram help hone that management and accounting.

Bagram's fuel is jointly managed by several organizations. These include the Army's 101st Sustainment Brigade, the 17th Combat Sustainment Support Battalion, the Air Force's 455th Expeditionary Logistics Readiness Squadron, and Defense Logistics Agency Energy, a field activity of DLA. This ensures Team Bagram can supply the right fuel, at the right time in support of the Afghanistan mission.

Four expeditionary airmen led by Bagram Responsible Officer Air Force Capt. Rob Sonnenberg work within the construct of the 101st Sustainment Brigade to track each gallon of fuel at Bagram Airfield. This small team represents the work horse of the accounting machine as they report daily inventories, gains and losses to DLA Energy. This daily report drives strategic and operational planning and translates into hundreds of millions of dollars in fuel each year.

Air Force Maj. Nicholas Moore of the DLA Energy Middle East office understands the challenges Sonnenberg and his team face. "It's a daunting task in an expeditionary environment to properly account for each gallon of fuel as it is received, stored and ultimately passed to the customer. And, essential to this degree of oversight is the absolute need for precision accounting equipment," explained Moore.

In spring 2010, DLA Energy awarded a contract to ensure all fuel meters supporting DLA Energy direct delivery sites within Afghanistan are properly calibrated. In total, this contract will support hundreds of meters at 11 operating locations. Accurate metering of product allows DLA Energy and its customers to properly fund, track and support fuel operations, Moore said.

The contractor calibration team operates hand-in-hand with DLA Energy representatives to ensure all meters are inventoried and maintained within the contract parameters. Meters located at forward operat-

The sun rises over the South Fuel Farm on Bagram Airfield, Afghanistan. Fuel inventory control here was improved by installing pre-configured TACFUELS kits, electronic gauging systems designed for the rubberized, collapsible storage tanks commonly used in an expeditionary environment. Photo courtesy of DLA Energy Middle East.

ing bases are shipped to Bagram where they are inspected, calibrated and returned to the customer.

Bagram Airfield has also initiated testing of a unique system known as TACFUELs, a product of Varec Inc. It is an electronic gauging system designed for rubberized, collapsible storage tanks commonly employed in an expeditionary environment. This state-of-the-art, completely automated system replaces a decades old, manual gauging method.

Then-Bagram Responsible Officers Air Force Capt. Dara Hobbs and Air Force Master Sgt. Tate Thomas began the acquisition process for electronic gauging technology in fall 2009. Believing in the electronic gauging technology, Hobbs and Tate initiated a purchase request, lobbied for funding and configured an order for the first phase of testing. In March 2010, the Bagram Central Contracting Office, via the 82nd Sustainment Brigade, directed Varec Inc. to install and commission an automated tactical fuel measurement system.

That fall, 16 pre-configured TACFUEL kits were installed at Bagram for use on 210,000-gallon collapsible fuel storage tanks. The kits included all the required system components including gauges, ruggedized laptop computers, data capture units and associated cables. This installation enabled the Responsible Officer to capture all fuel movements in and out of the entire JP8 tactical system. Users are able to capture data on multiple tanks simultaneously, thereby reducing the gauging time to a fraction of the manual gauging process.

In January 2011, Bagram moved approximately 20 million gallons of JP8 through various fixed and tactical systems.

Sonnenberg has seen immediate results with the new equipment. “Since installing TACFUELS, we have experienced a whole new level of accuracy and consistency in the tactical environment,” he said.

With the ability to offer precision gauging, track historical data and depict valuable trends, electronic gauging offers many advantages. In minutes versus hours, Bagram Responsible Officers are able to track temperature, volume correction,and gross/net inventories for each collapsible storage tank.

In a tactical environment, this is extremely valuable when gathering causative research and correcting processes, said Sonnenberg. “The system ultimately adds consistency, reliability and real-time visibility of physical stocks, and it greatly improves the transparency of fuel accounting,” he explained. “Initial testing indicates electronic gauging of tactical storage tanks has the capability to become a true game changer.”

Specialists at the Red Star Fuel Facility on Bagram Airfield, Afghanistan, calibrate fuel meters as part of inventory management procedures. Defense Logistics Agency Energy awarded a contract last spring to ensure all meters supporting DLA Energy direct delivery sites within Afghanistan are properly calibrated to help DLA Energy and its customers properly fund, track and support fuel operations. The contract will support hundreds of meters at 11 operating locations. Photo courtesy of DLA Energy Middle East.

DLA Energy team improves pipeline inventory procedures

By Donald Brown
DLA Energy Europe and Africa

Defense Logistics Agency Energy Europe and Africa has instituted changes to the Turkish National Pipeline System use agreement that will result in large fuel inventory savings; the changes were the result of a recent Lean Six Sigma project conducted by the Europe & Africa team.

The use agreement was modified to include temperature compensation for inventory debits from tank truck loading at the Adana contractor-owned-and-operated storage facility supplying fuel convoys headed for northern Iraq. Temperature compensation accounts for changes in liquid fuel volume based on the temperature of the fuel. The original use agreement excepted tank truck loading racks from required temperature compensation of all inventory credits and debits.

Lean Six Sigma is a systematic, structured method of improving business efficiency and effectiveness, which combines benefits from two systems. Lean improves the process by removing waste or non-value-added steps, streamlining operations. Six Sigma, which is more data-driven, reduces and eliminates variation in a process with the intent to eliminate defects.

The temperature compensation initiative was born out of concerns first expressed by Europe & Africa inventory manager Wolfgang Leis.

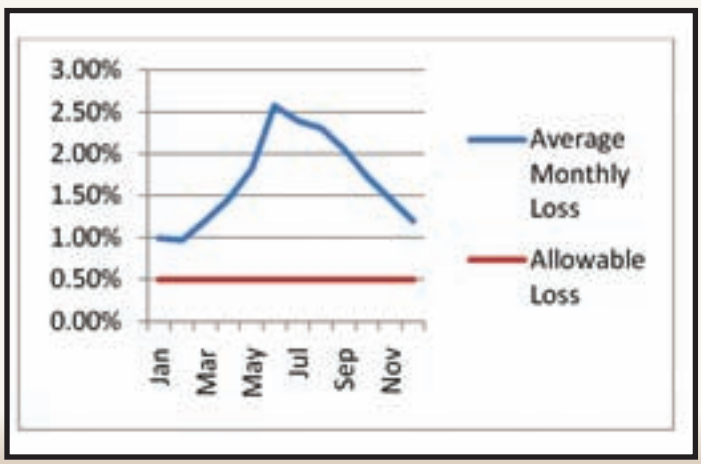
Leis manages the inventory ledgers for the TNPS account as well as the ledger recording fuel loaded for export to Iraq. He noticed a consistent negative difference between the loading rack meters and the quantity of fuel certified for export on the tank truck weigh scales.

"The discrepancy in quantities concerned me and I wanted to help resolve the issue," Leis explained.

Leis brought the problem to the attention of the regional office's Auditability Branch Supervisor Alan Brooks and to Donald Brown, the specialist assigned to oversee accounts in Turkey. Europe & Africa's International Agreements, Operations and Quality divisions played key roles in the sustained team effort to resolve the discrepancy, Leis said.

The cleanest solution to the problem seemed to be using the weight scale to determine debits for truck loading instead of the loading rack meters; this would provide a single, consistent quantity measurement. However, officials from the Turkish Ministry of National Defense, Fuel Supply and the NATO Petroleum, Oil and Lubricant Facilities Operating Agency didn't support this option. So, a team of representatives from the Operations, Auditability and Quality divisions traveled to Adana to find another solution. The LSS green belt project was born of the data ini-

Graph 1:
Percent loss between meters and weigh scales by month



The Defense Logistics Agency Energy Europe and Africa team conducted a Lean Six Sigma project which identified an improved process for inventory procedures of fuel issues through the Turkish National Pipeline System. Team members from left to right are Donald Brown, team lead, Air Force Senior Master Sgt. Michael Caddy, McCoy Greer, Wolfgang Leis and Rene Tudon.

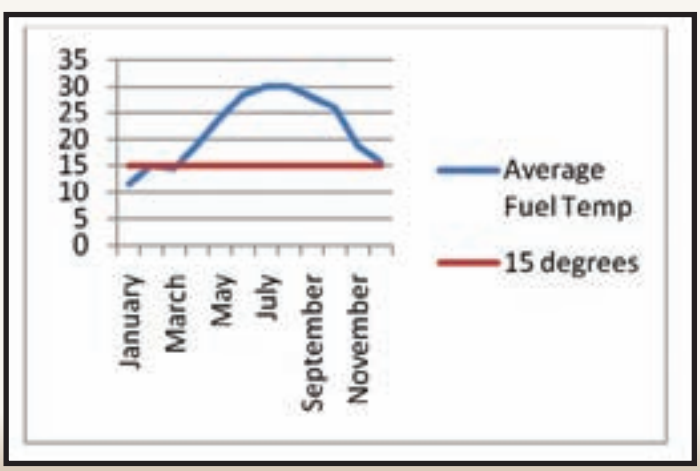
tially gathered during this trip.

The data showed a strong correlation between fuel temperature and the percentage of loss between the loading rack meters and the weight scales.

Graphs for fiscal 2009 and fiscal 2010 data produced remarkably consistent curves.

The charts demonstrated graphically the primary cause for variation between meters and weight scales was the lack of temperature compensation.

Graph 2:
Average fuel temperature by month degrees Celsius



The visit set the wheels in motion to modify the TNPS use agreement to require temperature compensation for tank truck loading debits, and an LSS project was begun, ensuring focus remained on the issue until it was resolved.

The LSS team held a Rapid Improvement Event in October 2010 and recommended using temperature-compensated before and after tank gauge readings to calculate the tank truck loading debit from the TNPS. The team discussed the possibility of temperature compensating meters, but they agreed the expense of installing the meters should be delayed until the future duration of tank truck loading operations could be determined. With the projected withdrawal of U.S. troops from Iraq, the team felt the mission might not last long enough to justify the cost of procuring, installing and maintaining temperature compensating meters.

In January 2011, Brown, representing the Operations division; Rene Tudon, Auditability division; Turkey Liaison Officer David Lamm, and Army Sgt. 1st Class Juan Nieves, the quality assurance representative for Turkey, visited Adana to validate the solution proposed by the RIE and measure the effect of using temperature-corrected gauge readings instead of loading rack meters to calculate the tank truck

Operations at the Adana contractor-owned-and-operated truck loading rack are evaluated in the Lean Six Sigma project.

loading inventory debit. The current month tank truck loading data was analyzed, as were the inventory records for August 2010, to measure winter and summer months. Personnel of the Turkish owner-operator contractor were very cooperative, providing inventory records and helping ensure the accuracy of the data recorded by the DLA Energy team. Lamm's Turkish language skills were invaluable.

The team was pleased with the results. As expected, the difference between the meters and tank gauges was minimal in January due to fuel temperatures being very close to 15 degrees Celsius. But, in August when the average temperature was almost 28 C, the difference between temperature-corrected gauge readings and the loading rack meter was marked.

Using temperature-corrected gauge readings could have saved DLA 288,000 liters or 76,000 gallons of fuel, the LSS project team lead said. Calculating cost at the August 2010 standard price of $2.34 per gallon, $178,000 would have been saved using temperature compensation. The average variation between COCO-loaded quantities and weight scale quantities would have been reduced from 2.6 percent to 1.5 percent, he explained.

The preliminary survey supports the changes to the user agreement and indicates temperature compensation will result in an overall TNPS inventory fuel savings for DLA, since fuel temperatures are above 15 C for most of the year. The new procedure will also reduce the variation between the quantity debited for truck loading and the quantity recorded on the weight scale for export to Iraq.

The necessary changes have been incorporated into the TNPS use agreement, which is awaiting approval and signature.

The changes could save several hundred thousand gallons of fuel this year alone, said DLA Energy Europe & Africa's Deputy Commander Charles Gross, who lauded the team. "The initiative began with one concerned employee and became a true team effort to be better stewards of DLA resources," he said.

Discovery safely maneuvers to final touchdown

By Terry Shawn
DLA Energy Public Affairs

With its drag chute unfurled, space shuttle Discovery rolled down Runway 15 of the Shuttle Landing Facility at NASA's Kennedy Space Center, Fla., for the last time just before noon March 9, after a 13-day mission to the International Space Station. With energy products provided by Defense Logistics Agency Energy's Aerospace Energy, the shuttle was able to perform the complex maneuvers necessary to disengage the space station and return safely to Earth.

The touchdown also marked the end of Discovery's illustrious career.

NASA space shuttle Discovery lifted off from the Kennedy Space Center for its final flight Feb. 24. Discovery carried 2,500 gallons of dinitrogen tetroxide and monomethylhydrazine procured by the Aerospace Energy business unit.

These two products are loaded into spherical pods in the space shuttle and the combination of the two creates combustion to propel and maneuver the shuttle while in the zero gravity of space. DLA Energy Aerospace manages the procurement; transportation and storage of these products for the Defense Department, NASA and commercial space launch programs. Shipments are made under the direction of the Aerospace Energy's Transportation Office.

On board Discovery for its 39th and final mission were retired Air Force Col. Steve Lindsey, commander; Air Force Col. Eric Boe, pilot; and mission specialists Nicole Stott, Dr. Michael Barratt, retired Air Force Col. Alvin Drew and Navy Capt. Steve Bowen. The six-member crew delivered the Permanent Multipurpose Module, packed with supplies and critical spare parts, as well as Robonaut 2, the dexterous humanoid astronaut helper, to the orbiting outpost.

Space Shuttle Discovery touches down March 9 at the Kennedy Space Center, Fla., completing a 13-day mission enabled by Defense Logistics Agency Energy's Aerospace Energy products. This 39th mission for Discovery was also its final mission. The craft has spent more than 365 days in space, orbited Earth 5,830 times and traveled 148,221,675 miles in its 27-year career.

Government fuel card program still going strong

By Susan Lowe
DLA Energy Public Affairs

The Defense Logistics Agency Energy provides the Department of Defense and other government agencies with comprehensive and efficient energy solutions. The organization provides a host of ground, marine and aviation fuels as well as space and missile propellants, chemicals and gases, utility fuels and electricity. In addition, DLA Energy is DoD's center of expertise for alternative fuels and renewable energy and serves as the executive agent for DoD's bulk petroleum supply chain.

"A mission this big has required the organization to implement innovative methods to ensure customers' needs, especially those of the warfighter, are met while guaranteeing mission success," said DLA Energy Deputy Commander Pat Dulin.

To that end, in the mid-1990s DLA Energy implemented fuel card programs for the purchase of ground and aviation fuel, and in 2005 the fuel card program expanded to include marine fuel. The fuel cards help customers make purchases when a suitable contract is not in place, when a merchant is unable to supply fuel against an existing contract or a new location is established and not yet under contract. The fuel card office implements, manages and improves fuel purchases for the warfighter and other customers.

Currently, DLA Energy manages an Aviation Into-plane Reimbursement Card Program, also known as the AIR Card®, used at commercial airports worldwide to pay for into-plane refueling. DLA Energy also manages the DoD Fleet card for purchase of ground fuel and vehicle maintenance for DoD-owned or leased vehicles. The DoD Fleet card is used at commercial service stations and repair facilities.

DLA Energy also offers the Ships' bunkers Easy Acquisition Card or SEA Card®, which is the newest government fuel card. The state-of-the art program provides a sophisticated, yet easy-to-use, secure Internet-based solution to marine fuel procurement challenges. The SEA Card® Order Management System, known as DoD-SCOMS®, is an electronic order, receipt and invoice system that allows military services, U.S. Coast Guard and authorized federal agency vessels to purchase fuel from commercial ship refueling merchants at more than 2,300 ports worldwide. Fuel orders are directly placed with DLA Energy bunker contracted suppliers, or if a port does not have a bunker contract in place, the vessel can place an order through a competitive quote Open Market 'spot buy' process.

The SEA Card® program recently celebrated its fifth anniversary, marking the purchase of more than $860 million dollars worth of marine fuel and more than 7,000 transactions since October 2005.

Using the SEA Card® to order fuel is quick, easy and efficient according to Ordering Officer Chief Logistics Specialist Louis Wade of the USS Rodney M. Davis.

"It's a great system; basically I send an email order for the amount of fuel I need, when I need it and where it is to be delivered. It's that simple. When our oil frigate gets to its destination, the fuel is there," he said.

Wade has been the ordering officer for nearly two tears and has always used the SEA Card®. "This is the only way I've had to order fuel. I understand it was much more difficult before we used the SEA Card®, with a lot more paperwork involved," he said.

The SEA Card® Program was initiated to make fuel procurement and the resulting payment process more efficient for both vessels and merchants, but also to decrease administrative costs for the government.

"Stewardship excellence is a fundamental principle

The SEA Card® Program ribbon-cutting ceremony Oct. 6, 2005, in Norfolk, Va., involves three vessels: USS Flickertail State, USS Cornhusker State and USS Gopher State. The system allows the military services, Coast Guard and authorized federal vessels to purchase fuel from commercial refueling merchants. Photo courtesy of DLA Energy Government Fuel Card Program Office.

at DLA Energy, and when using the SEA Card® system, customers can order and pay for fuel electronically, thereby eliminating paperwork, decreasing administrative costs and ensuring accuracy," said DLA Energy Fuel Card Program Office Director Ann Sielaty. "We're doing our part to be good stewards, and that's a good feeling." She said the SEA Card® is a valuable tool to her customers because it offers them worldwide coverage as well as a virtual dispute resolution tool.

In order to continue to meet the evolving needs of the warfighter and other customers, DLA Energy has several initiatives underway. One initiative will allow smaller vessels that can't use DoD-SCOMS® to 'gas and go', allowing customers to make individual fuel purchases under the Simplified Acquisition Threshold of $150,000. The new program, known as the Swipe SEA Card®, is being piloted with a co-branded charge card and is due out in early 2011, with full rollout expected by October 2011. Recipients of the Swipe SEA Card® are expected to include the Coast Guard, Navy, Army Corps of Engineers and Army Reserve.

"DLA Energy is proud of the successful strides the SEA Card® program has made over the past five years, but we aren't resting on our laurels. We remain committed to supporting the warfighter and will continue to do what it takes to meet our customer's energy needs," Dulin said. "The SEA Card® program helps us do just that," he added.

With more than 1,100 employees working in 34 locations worldwide, DLA Energy ensures warfighters and customers have the necessary fuel and energy support needed to complete missions anywhere on the globe. These employees drive worldwide coordination within both the military and civilian industries to meet service requirements and manage critical fuel infrastructure.

"Using the SEA Card® really streamlines our ordering process; we don't have to worry about finding

a vendor or negotiating fuel prices. And since our mission changes so often and with very little warning, we have the flexibility to change our fuel order without risking mission failure," Davis said. "It's great to have a system that works so well and to work with people who are so interested in helping us succeed."

The measurable success of the SEA Card® Program contributed to DLA Energy's 2007 David Packard Excellence in Acquisition Award. The Government Fuel Card Team, contracting personnel, and service component program managers were recognized for making the acquisition system more efficient, responsive and timely while demonstrating a consistent pattern of warfighter support, fiscal stewardship and proactive action, Sielaty said. The Deputy Undersecretary of Defense for Acquisition and Technology James Finley congratulated the team for finding innovative ways to work with industry and for managing their projects in ways that expand the talents of their people and stretch the purchasing power of scarce dollars.

"DLA Energy realizes it's imperative to not only provide the most comprehensive energy solutions to the warfighter but to also be good stewards of taxpayers' money," said Dulin. "That can be quite a challenge, but with successful programs like the SEA Card®, AIR Card® and DoD Fleet Card available for our customers and the warfighter, we are able to meet those challenges head on."

Dulin went on to say that the warfighter can count on having the necessary fuel for a successful mission in part because of DLA Energy's fuel card program. "These programs allow our customers to use DLA's most visible purchasing tools, which are recognized and accepted worldwide. This allows us to directly and positively impact our support to the warfighter."

DLA Energy is a primary level field activity of the Defense Logistics Agency. DLA is America's combat support agency. Headquartered at Fort Belvoir, Va., DLA provides effective and efficient worldwide support to warfighters and other customers and is responsible for sourcing and providing nearly every consumable item used by the U.S. military forces worldwide.

QARs ensure mission-ready fuel for CENTCOM warfighters

By Bill Hendricks
DLA Energy Middle East

The U.S. Central Command's area of responsibility covers 4.6 million square miles and 20 countries – it is one third larger than the United States. Defense Logistics Agency Energy Middle East currently has five assigned quality assurance representatives who bear the responsibility of assuring that all the fuel procured, stored and delivered to its customer in the region, the warfighter, meets expectations of quality and quantity, where and when it is needed. Meeting this awesome responsibility is often a daunting task.

The QARs' mission usually requires working in often inhospitable climates and under social and political conditions that range from not too bad to downright hostile. Additionally, the QAR mission includes working on and inside ship tanks, climbing 28-meter storage tanks in 45C weather, and standing for hours in laboratories, some with ventilation or air conditioning that begs for improvement. DLA Energy contracts requiring product testing do not address creature comforts – only that they provide the ability to test product according to the prescribed method.

"Like all other QARs worldwide, DLA Energy Middle East QARs witness testing in laboratories that range from large, state-of-the-art facilities to closet-sized laboratories with nothing but very old basic manual instrumentation," said DLA Energy Middle East's Sub-Region Central Commander Army Maj. Bryan Ryder.

DLA Energy Middle East QARs cover testing at up to eight refineries, 10 shipment and storage terminals, and several contracted third-party laboratories. The process for QARs to verify laboratory compliance to contract requirements varies with the type of contract being administered. For example, when performing contract quality assurance at bulk procurement facilities, the process requires a high degree of QAR hands-on verification due to the high operational and financial risk involved with accepting large quantities of critical, complex and very expensive product.

U.S. Navy Aviation Boatswain's Mate Airman Sean White flushes out a fuel hose on the catwalk aboard amphibious assault ship USS Kearsarge while under way in the Gulf of Aden Jan. 1. Photo by Mass Communication Specialist 2nd Class Joshua Mann.

"It's the QAR's responsibility to assure the integrity of products from the supplier all the way to the end customer," said DLA Energy QAR Robbie Robinson.

At a bulk procurement facility, the process starts with the supplier. The company samples and tests each batch or shipping tank to be offered for acceptance. The tests must include all specification tests, what DLA Energy refers to as A tests. Once the batch or shipping tank is "certified" by the supplier as being fully on specification, the QAR must verify the results.

The QAR reviews the certified A test report to ensure that all characteristics have been tested and results are within the allowable limits. At that point, the QAR requests the supplier take samples of the certified tank in the QAR's presence. Samples are taken at all levels to assure a representative picture of the entire tank, and samples are also taken individually from upper, middle and lower levels to test for homogeneity of the batch.

Then, based on the A test results, the QAR will determine if any results seem abnormal or at the extreme minimum or maximum of the limit range. The QAR will then request the supplier test the samples for the normal verification tests such as appearance, flash point, density, distillation and any retests of abnormal or marginal results. This process is called verification testing, that is simply verifying the results stated on the supplier's certified A test report. The results found during the QAR verification tests should be within the stated repeatability or accuracy range of the test method used.

Once all the testing has been verified and found to be acceptable, the QAR can authorize the product movement. The testing process continues throughout the product movement at various stages along the way, based on published requirements.

"These procedures ensure that our customers are supplied with the quality products needed to perform their vital missions," said DLA Energy Middle East Deputy Director Ron Black.

[Hendricks is the quality manager for DLA Energy Middle East.]

T-5s retire, State class tankers keep fuel moving

Hail and Farewell

Above, two flexible hoses run from a manifold on the Empire State to the single-point mooring buoy off of Okinawa, Japan, as the State Class tanker begins its first delivery to the Defense Logistics Agency Pacific region Jan. 19. **Below,** the Empire State remains moored as fuel is discharged through the offshore distribution system to Defense Fuel Support Point Okinawa at Chimuwan. Photos by Richard B. Knapp.

By Richard B. Knapp
DLA Energy Pacific's Japan office

Since the 1980s, T-5 Champion class tankers and their crews have been familiar associates to Defense Logistics Agency Energy and Department of Defense marine terminals. Their 25-year service transporting bulk petroleum is coming to an end this year as the last of the T-5s, the USNS Richard G. Matthiesen retires. The Empire State, one of the larger State class tankers assuming the mission formerly performed by the T-5s, performed its first delivery to the DLA Energy Pacific region in January.

Farewell

Of the 75 tankers that were constructed in the 1980s under the Merchant Marine Act of 1970, five were dedicated to the Navy's Military Sealift Command for the transport of bulk petroleum to defense fuel support points. Motor tankers Paul Buck, Samuel L. Cobb, Gus W. Darnell, the Matthiesen, and Lawrence H. Gianella, built in 1985 and 1986, carried the load for DoD.

These five tankers were named for Merchant Marines awarded citations of the Distinguished Service Medal for heroism beyond the call of duty during World War II.

The five tankers were constructed under long-term lease contracts with the U.S. Navy—the lease arrangement allowed costs to be spread across several years and avoided a large, one-time commitment of funds. By 2003, all except the Gus W. Darnell became U.S. Navy vessels under MSC.

Champion-class T-5s were built with double-hulls strengthened to allow use in extreme cold weather conditions and high seas. Additionally, the Matthiesen and Gianella have modular fuel delivery

Japanese local national specialists aboard the Empire State connect the first of two flexible hose lines to be used to transfer JP8 jet propulsion fuel to Defense Fuel Support Point Okinawa Jan. 19. The State Class of tankers replaces the T-5 class which has served Defense Logistics Agency Pacific since the 1980s. Photo by Richard B. Knapp.

systems with an underway replenishment capability for alongside refueling of Navy oilers and other vessels. During their service to MSC, the tankers transported bulk petroleum worldwide from commercial refineries to fuel terminals and between fuel terminals. The vessels also supported specialized activity like Joint Logistics Over the Shore exercises while paired with Off-Shore Petroleum Discharge System vessels.

For Operation Deep Freeze, they performed the seasonal resupply to McMurdo Station, Antarctica. Toward the other pole, tankers tasked with Operation Pacer Goose delivered fuel to Thule Air Base, Greenland. T-5s provided essential fuel resupply during Operations Desert Storm, Iraqi Freedom, Enduring Freedom and other large-scale military missions. They also were available to deliver fuel in support of contingency operations and humanitarian relief.

The Gianella became part of MSC's Maritime Prepositioning Force in July 2009. The Cobb and the Buck were redirected to the National Defense Reserve Fleet, operated by the Department of Transportation's Maritime Administration in October 2010. The NDRF holds merchant design vessels to be used for national emergencies.

The Matthiesen spent its final months loading and delivering product to DLA Energy customers in multiple regions around the world. The vessel was scheduled to leave MSC's service in March and transfer to the NDRF following cargo CC4191.

Hail

In January, cargo CC4162 on the tanker lift schedule signaled a transition to the new tankers for DLA Energy Pacific. This 235,000-barrel delivery of JP8 jet fuel, loaded at the SK Global refinery in Korea and discharged at DFSP Okinawa, was the first use of the State class tankers in support of the petroleum distribution mission in the region. The MT Empire State carried the load.

At origin, Quality Assurance Representative Army Staff Sgt. Rodrigo Gonzalez, from DLA Energy Pacific's Korea office, verified the product met specifications and was loaded to protect its quality during movement. At destination, representatives of the 505th Quartermaster Battalion met the vessel at the DFSP's off-shore single point mooring site to sample the product and verify quantity. Laboratory testing confirmed on-specification fuel, and cargo discharge into the fuel terminal commenced Jan. 19. Following the receipt, shore-to-shore quantities comparing load and discharge were confirmed as within allowable limits. Terminal personnel reported a good experience working with the MT Empire State and its crew.

MSC has chartered two State class, or PC-1, tankers, the Empire State and the MT Evergreen State. Built and launched by General Dynamics' National Steel and Shipbuilding Company Yard in San Diego in 2010, the double-hulled tankers are 600 feet long with a 331,000 barrel cargo capacity, larger than the T-5 tankers they replace. The vessels comply with the Oil Pollution Act of 1990 and are operated by Crowley Maritime Corporation for American Petroleum Tankers LLC.

The Empire State's maiden voyage moved 235,000 barrels of JP8 to DLA Energy storage along the U.S. West Coast. Upon delivery of the Evergreen State in December, the Empire State was repositioned to support the DoD petroleum mission in the Pacific theater.

Help comes from across enterprise

By Susan Declercq Brown
DLA Energy Public Affairs

Political unrest

When a Marine Corps KC-130 aircraft airlifted 45 Egyptian refugees from Djerba, Tunisia, to Cairo, Egypt, March 11, it did so with the help of the Defense Logistics Agency Energy's Europe and Africa region. The flight brought the number of Egyptians transported to 835, according to a Defense Department news article. DLA Energy procures fuel for these operations.

The first flights began March 5 as part of a request from the Egyptian government's to help Egyptians fleeing political unrest and violence in Libya return home. The KC-130 aircraft flew from Naval Air Station Sigonella, Italy, to Djerba, to load passengers. DoD officials said U.S. planes will fly Egyptians home as long as needed.

DLA Energy Europe & Africa team provides fuel to U.S. forces in Europe, Africa and Northern Iraq, said Samuel Cooks, DLA Energy liaison officer to U.S. Africa Command.

The organization supports NAS Sigonella by pipeline resupply of jet fuel from Defense Fuel Support Point Augusta Bay, Sicily. DoD's access and use of the pipeline is governed by a DLA Energy international agreement with the Italian air force.

DLA Energy Europe & Africa is working with petroleum officers from European Command and African Command to conduct contingency fuel support, planning and posturing in support of Operation Odyssey Dawn. DLA Energy representatives continue to work alongside planners to ensure responsive fuel support in the area, initiating Web-based bulk petroleum contingency reports for selected DFSPs. LNOs are working with operational units to forecast fuel demand for the operation.

DLA Energy Europe & Africa has adjusted scheduled resupply in coordination with [DLA Energy's] Tanker Branch and Operations, Cooks said, to bring inventories to maximum capacity at selected DFSPs and provide greater flexibility to support air operations and fleet replenishment.

Disaster relief

The Defense Logistics Agency is helping U.S. forces provide humanitarian relief as part of Operation Tomodachi following March 11's devastating earthquake and tsunami in Japan.

Early on, DoD provided fuel to Japanese helicopters conducting search and rescue operations from the deck of the USS Ronald Reagan, said Navy Capt. Kevin Henderson, DLA Energy Pacific commander. Fuel has also been supplied to a sewage plant in Yokosuka to avert an emergency, and efforts were made to ensure American bases in northern Japan had access to adequate ground, aviation and generator fuels and cryogenics needed for flight operations.

The 353rd Special Operations Group landed transported DLA Energy-procured fuel by an MC 130P Combat Shadow aircraft to Yamagata Airport in support of Operation Tomodachi. Marines staged at the airport serve as members of a forward area refueling point team, also known as FARP. Their mission was to refill four fuel bladders buried under two feet of snow.

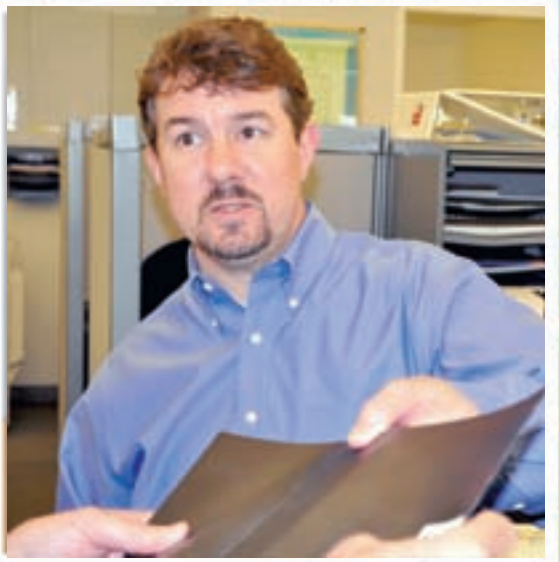
The disaster wiped out northern Japan's capability to refine and distribute ground fuels, so, "our main concern right now is making sure our military customers in northern Japan get the fuel they need to support operations and take care of families," Henderson said March 14.

DLA Pacific readied to distribute emergency relief supplies, including pre-positioning meals ready to eat and food from DLA Troop Support's subsistence prime vendors, water, diapers, blankets, medical supplies, potassium iodide tablets used to counteract the effects of radiation exposure, and radiological equipment said Navy Cmdr. Jason Bridges, DLA Troop Support Pacific commander March 14.

"We are properly positioned to provide supplies and ensure we can have them in the right place at the right time," Army Col. Sheila Bryant, DLA Pacific commander, said March 14.

The face of the Defense Logistics Agency Energy...

One Face



Name: Mark Brewer

Job: Project manager for petroleum equipment in the Defense Logistics Agency Energy Executive Agent Office. I work with the different military services to identify opportunities for joint applications to meet their equipment requirements. When I see an opportunity, I work to persuade the services to leverage their resources to develop joint solutions to common problems with petroleum handling equipment. A lot of emphasis is placed on standardization and inter-operability with the focus being on the Department of Defense rather than on the Army, Air Force, Navy, Marines or DLA Energy. Joint solutions are more cost effective and improve interoperability, so it makes sense to find appropriate opportunities for a standardized approach.

Energy experience: I came to work for the Defense Fuel Supply Center, as DLA Energy was then known, as a student trainee in contracting in January 1989. After graduating from college, I returned to the contracting field, earning my DAWIA [Defense Acquisition Workforce Improvement Act] Level III Certification in 1997. I worked as the ordering officer in the Balkans Office in Croatia as part of the DLA Contingency Support Team. I completed the Multi-Functional Training Program in 2001 and transitioned from contracting to inventory management. I've been in the current job since 2007.

Challenges and rewards of the job: The most challenging aspect of my job is wading through the complex policies and procedures of one military service and then trying to integrate those with the different complex policies and procedures of another service. The end goal is an application that all the parties can agree to, but it's tough going to get there. To accomplish this, I work closely with representatives from all the military services and their entry control points. That relationship is rewarding, especially when a service comes to me for assistance with one of their initiatives—like tactical automatic tank gauging, fuel quality mapping and a tactical automated service station. I'm also able to seek and share information in an international forum as a member of the U.S. Delegation to the NATO Petroleum Handling Equipment Working Group. It's very interesting to see how our NATO allies approach the tactical refueling mission and compare the equipment they use to do it.

A memorable mission: One of my strongest memories involves a collapsible fuel storage tank, sometimes called a fuel bladder, one of the types of equipment I seek to standardize. In 2008, I witnessed the first article testing of the first collapsible tank built to joint specification—the MIL-PRF-32233, which was developed in an effort facilitated by DLA Energy. It was the first time I'd seen a collapsible fuel tank this big—think of it as a 210, 000 gallon water bed mattress. This was also my first experience with of a group of military and DoD civilian personnel that I have come to depend on for subject matter expertise on all aspects of collapsible fuel tanks.

Future plans: Tactical automatic tank gauging seems to be the next big thing in fuel handling equipment. The military services have been approaching this initiative on their own so far. But, we hope to be able to steer this into a single DoD direction rather than two to four service directions. It's equipment ripe for a joint solution.

DEFENSE LOGISTICS AGENCY Energy

2011 Commander's Guidance

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