

ENERGY SOURCE

Defense Logistics Agency Energy

January 2014



*A
look
back at
2013*



from the commander —

Guest contributor

Kathryn Fantasia Defense Logistics Agency Energy Executive Advisor

After a year under my belt on DLA Energy's senior leadership team as executive advisor, Air Force Brig. Gen. Giovanni Tuck wanted to share his column and allow me to provide a glance into what I do for the organization.

I see my role as exactly what my title says – executive advisor. I'm a home-grown DLA Energy person, so I do understand the energy business and some of the challenges we face in meeting warfighter requirements. This position is much more strategically focused than my previous job, so it was a big change moving from the execution arm of the organization to the strategic goals planning side.

These are very exciting and challenging times. We are being asked to do even more with either the same or less resources. That's the challenge, and one that I believe the folks at DLA Energy will rise to meet.

One area where I believe I add value is cross-communication among the various directorates and service partners, as well as across the Department of Defense. To that end, something I've focused on in the last year is bringing the major sections of DLA Energy's

new structure together to achieve our common strategic goals, along with keeping us on the same page for where the organization is going in the next two to five years. As we navigate the challenges related to Energy Convergence, it is critical that Supplier Operations, Customer Operations, Business Process Support and Procurement Process Support move in the same direction to achieve our common goal. Managing change is one of the hardest things to do, but ultimately, it's very rewarding when we reach the finish line and declare success.



Another area you've been hearing a lot about is "\$10 billion in 5," or more recently, "\$13.6 billion in 6." In simple terms, DLA Energy has been tasked with finding more than \$4 billion in savings to give back to the DoD. We developed a list of "Big Ideas" for reducing costs while improving efficiencies and continuing to meet warfighter requirements. Whether it's right-sizing storage infrastructure, converting from military specification JP8 jet fuel to Jet A1, or becoming more commercial in our quality oversight, we've come up with innovative ways to save money and improve our support. I also work with auditability and help to make sure we're prepared, especially in some of the areas we're moving into in 2014 that you can read more about in this magazine.

As we begin a new year, I'm excited about the direction our organization is going. I believe some Big Ideas in the area of infrastructure have the opportunity to improve support and achieve real cost savings for the DoD. I'm looking forward to working with all of you, as well as our partners, to achieve significant savings and improve readiness.

Energy Source

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Defense Logistics Agency Energy Commander Air Force Brig. Gen. Giovanni Tuck sat down and discussed the organization in 2013 and the way forward.

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It'll take several methods of driving down costs to meet Defense Logistics Agency Director Navy Vice Adm. Mark Harnitchek's intent for DLA to "be smart buyers of the right stuff."

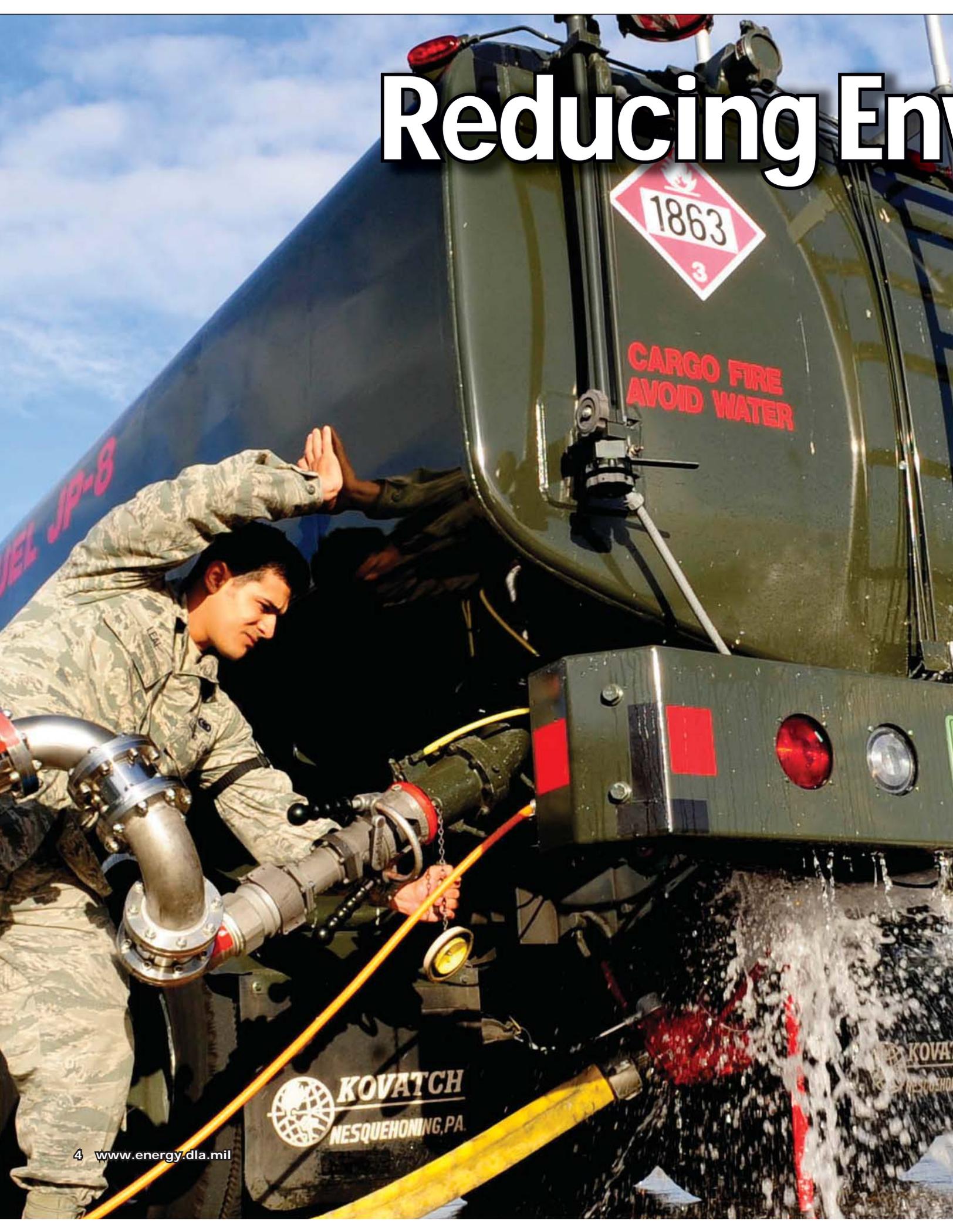
A Pipeline Runs Through It

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Pipeline networks are key to Defense Logistics Agency Energy's mission of providing energy solutions to the warfighter throughout their global areas of responsibility and in the U.S.

Reducing En



Environmental Risks

By Christopher Goulait

Risk management applies to many aspects of Defense Logistics Agency Energy's mission, from operations to security, but the organization also applies similar practices to maintaining environmental compliance.

DLA Installation Support for Energy's Environmental division staff uses a variety of tools and processes to mitigate risks and help make sure that DLA Energy continues to conform to environmental standards.

"The environmental protection specialists that represent DLA Energy work diligently every day to ensure we are maintaining environmental compliance," said Carmela Spasojevich, a DLA Installation Support for Energy environmental protection specialist. "Of course, our goal is to proactively deal with potential areas of concern and changing regulations, but when we do have an issue or noncompliance situation we work with the stakeholders to not only regain compliance, but to prevent reoccurrence."

Environmental compliance supports the warfighter's mission and protects the environment through proactive compliance with environmental regulations. A major secondary benefit allows DLA Energy to avoid being issued notices of violation with possible fines or being shut down by local, state or federal regulators, Spasojevich said. Environmental compliance is critical to DLA Energy's mission.

"We are an integral part of the DLA Energy team and our work is often behind the scenes," she said. "Our primary goal is to support the warfighter, but we must also protect the environment since environmental noncompliance could halt our mission. Unfortunately, our work can be seen as a hurdle in processes or projects."

"We work very hard to minimize the impacts of the environmental requirements," Spasojevich continued. "Our jobs exist solely to support DLA Energy in preventing environmental noncompliance."

Marcia Kicos, another DLA Installation Support for

An airman shuts off the fuel valve of a water-filled fuel truck during a major accident response exercise Aug. 30, 2012, at Royal Air Force Station Mildenhall, England. DLA Energy's corrective action plan process directs the agency to determine why a valve may have failed, and how to prevent reoccurrence. Photo by Senior Airman Ethan Morgan





Energy environmental protection specialist, said the first reason for compliance is because it is the law. Compliance is tied to enforcing laws such as Clean Water Act and the Clean Air Act, as well as Department of Defense regulations, but environmental work is more than enforcing laws and regulations.

“Most importantly, like other federal agencies, the DoD is responsible for managing public lands and it is DLA Energy’s responsibility to protect the environment for future generations,” Kicos said. “It has been proven through lessons learned since the 1960s and 1970s that considering the environment in decisions and paying attention to how we affect the environment before we take action saves money, keeps projects on schedule and protects the environment.”

Protecting the environment is the job of 16 environmental staff members who work on compliance and restoration



issues to make sure DLA Energy’s day-to-day operations are performed in an environmentally compliant manner.

To help the agency be good environmental stewards, an Environmental, Safety and Occupational Health management system is used to ensure the proper internal controls are in place.

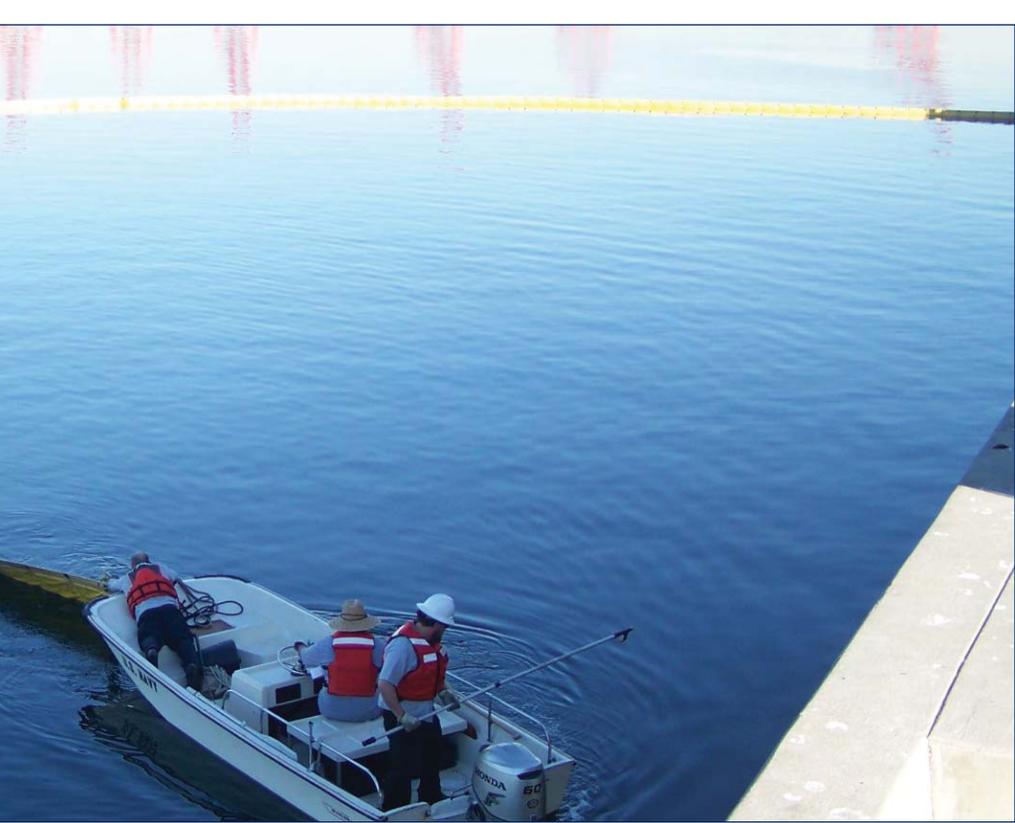
“One of the primary goals of the ESOH management system is to make environmental compliance the responsibility of all employees,” Kicos said. “DLA Energy’s ESOH Management System policy establishes proactive management practices that encourage environmental compliance, while avoiding risk, preventing pollution and promoting environmental stewardship throughout the organization.”

“Our ESOH management system requires us to identify the aspects, or areas of risk, of our mission that could impact the environment, and we must review the list annually,” Spasojevich said. “This is a very important process because you have to know what your potential risks are before you can manage them.”

“The aspects are evaluated for their potential impacts and then ranked and stacked by severity of risk based on several criteria,” she continued. “Our aspects are then managed through objectives and targets with the areas of highest risk being addressed first.”

Kicos emphasized that the ESOH management system is not a stand-alone program, but a management practice that helps organize processes so an organization can mitigate risk.

“It is basically getting credit for what we already do



(Far left) An airman inspects a gate valve which had earlier developed a small leak. The inspection is part of a security and leak check of the fuel pipeline from bulk storage to operating storage, Nov. 14, at an undisclosed air base in Southwest Asia. DLA Energy also conducts annual training and routinely maintains and inspects facilities and equipment to prevent spills. Photo by Air Force Tech. Sgt. Michael Boquette.

(Left) Air Force and DLA Energy employees supporting fuel operations at Offutt Air Force Base, Neb., deploy a boom as part of a spill response training. Photo by Tracy Taylor

as normal business practice,” Kicos said.

She also described a management approach called the “plan, do, check, act” cycle that focuses on risk reduction and continuous improvement.

In the planning step, aspects of fuel operations that might affect the environment are identified. Targets and objectives are established to focus management on these significant areas before any actions are taken.

“It begins with the identification of activities that are of highest concern or are the riskiest,” Kicos explained. “In order to reduce the risk for a potential spill, DLA Energy has a response plan that resides with each employee responsible for spill response. We conduct annual training and we routinely maintain and inspect our facilities and equipment.”

Spasojevich said the framework follows through with planning, implementation and operation, checking progress, making adjustments to actions as needed and keeping management informed.

“The framework has proven to be very successful for DLA Energy,” Spasojevich said.

The ESOH management system framework is supported by three pillars, Spasojevich said. The environmental pillars of compliance, pollution prevention and continual improvement are complementary to one another and go hand-in-hand.

“Our ESOH management system plan ensures we incorporate all of the pillars when resolving our issues,” she said.

Risk Management in Action

For example, a risk consistent across DLA Energy fuel operations and maintenance along with the means by which to mitigate that risk is described below. The aspect review and the objectives and targets updates are done annually, and the CAPs are updated quarterly.

Aspect: The release of hazardous material or hazardous waste.

Objective: To reduce the potential for spills.

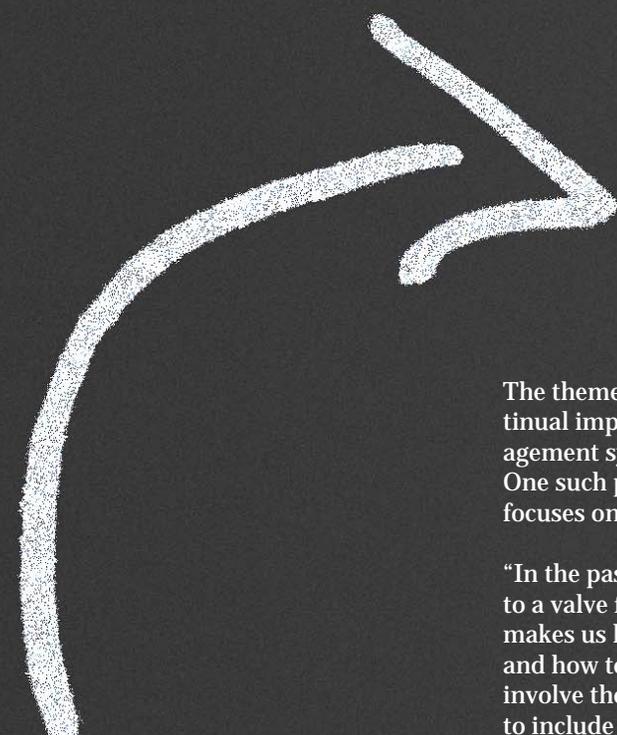
Target: To effectively manage the facility and identify potential sources for release, as well as implement corrective actions to prevent releases.

Tasks: 1. Conduct annual spill response training.

2. Annually update the Oil and Hazardous Substance Integrated Contingency Plan and actively coordinate with regulators and emergency response personnel.

3. Conduct routine inspections of storage tanks and pipeline infrastructure.

4. Periodically evaluate the effectiveness of the process to ensure it is both protective and preventative and modify processes where needed. For example, potentially shorten inspection intervals to ensure components are evaluated as often as needed to detect problems.



PLAN

The themes of compliance, pollution prevention and continual improvement help the team apply the ESOH management system to several processes around the agency. One such process is the corrective action plan, which focuses on discovering the root causes of a potential issue.

“In the past, the cause of a spill might have been attributed to a valve failure,” Spasojevich explained. “Our process makes us look deeper by determining why the valve failed and how to prevent reoccurrence. The CAP process can involve the entire Installation Support for Energy team, to include engineering and Sustainment, Restoration and Modernization personnel to resolve our issues and help prevent reoccurrence.”

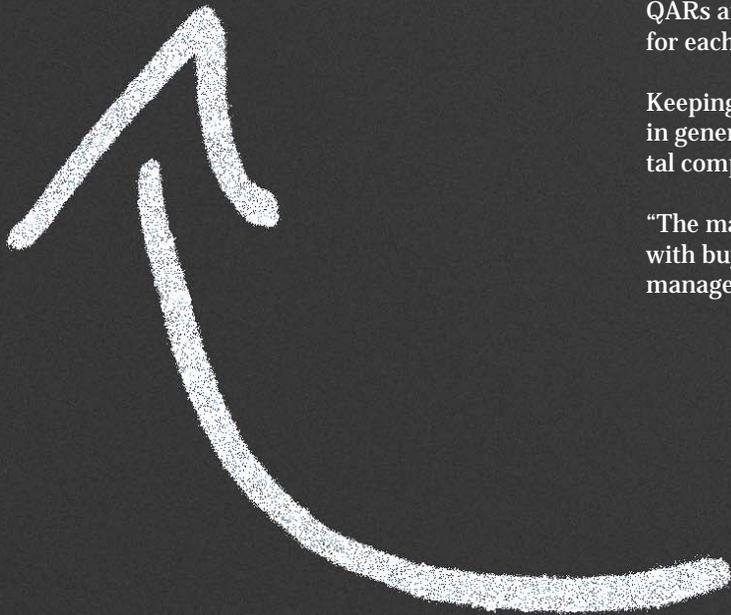
Two other elements include the quarterly Steering Committee meeting and the annual management review, Spasojevich said. Key stakeholders gather for these meetings to remain informed about the issues and to be updated on the status of the various CAPs for each site. To ensure all stakeholders are included, steering committee membership is reevaluated at each meeting.

In response to this reevaluation, the quality assurance representatives and contracting officer representatives for each of the four permitted sites were recently added to the membership, Spasojevich added. The participation of the QARs and CORs will provide valuable on-site perspectives for each location.

Keeping key stakeholders and members of the workforce in general informed is vital to the success of environmental compliance, Kicos said.

“The management process can only be truly successful with buy-in from the lowest level employee to the top level managers,” Kicos said. “The ESOH management system

ACT



CHECK

PLAN

incorporates input from everyone.”

Facility operations employees at the most basic level have input into what is significant and how things should be performed to reduce risk and environmental liability, she continued. Processes are implemented and refined along the way. Top-level managers review the processes and tweak them to improve on efficiencies.

On an annual basis, programs are reviewed, areas of improvement are identified along with funding requirements, and the process begins again, Kicos said.

When it comes time to implement the targets and objectives, more than the environmental staff members are involved in their success, Kicos said. Environmental compliance responsibilities extend to facility operations contractor staff, contracting officers, CORs, QARs, distribution facility management and engineers.

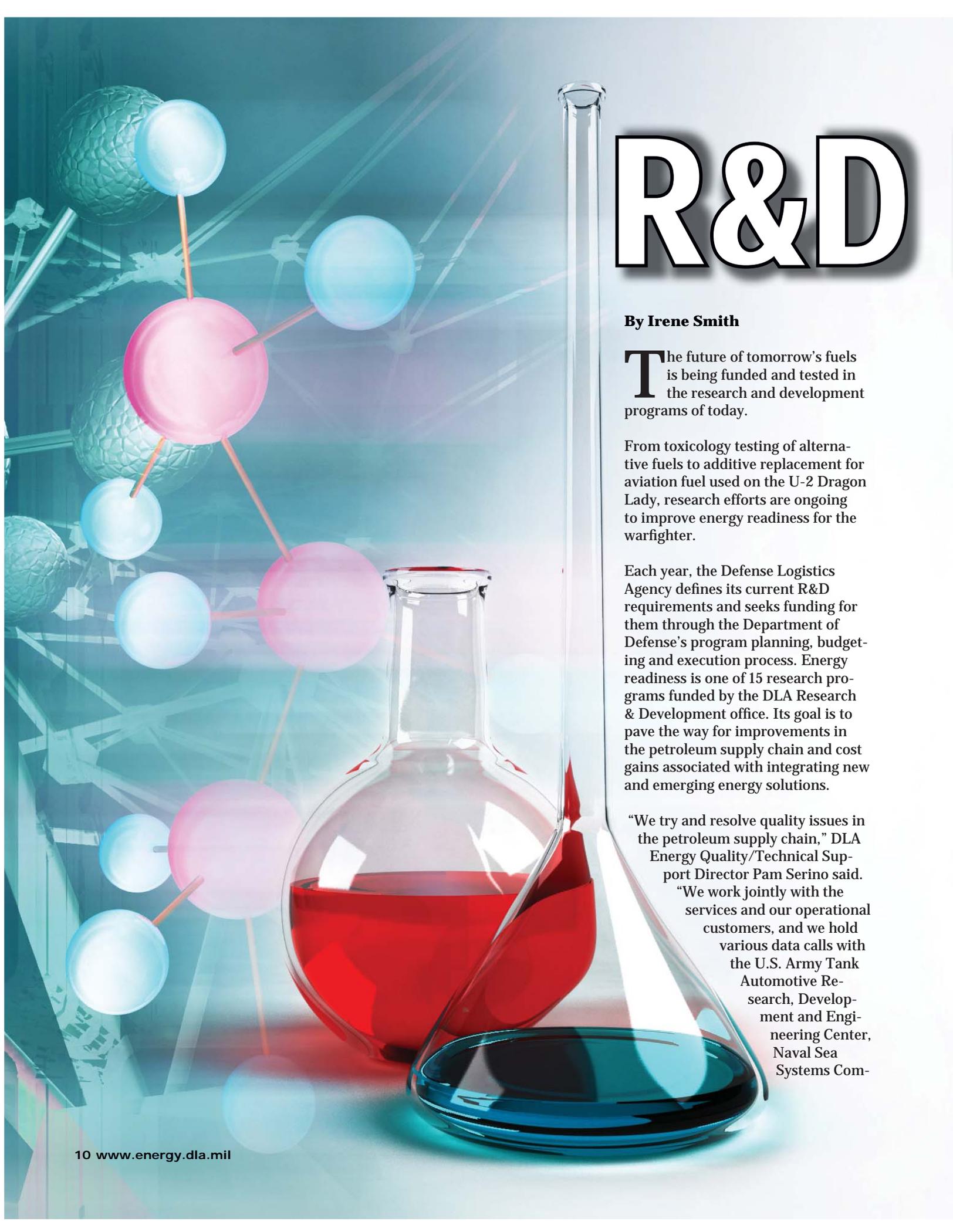
“To be successful, everyone should be actively involved, from the person turning the valves on the ground to the managers making decisions regarding inventory and funding,” she said.

Managing environmental risks using the ESOH management system construct is a powerful tool for maintaining environmental compliance, but the processes could be easily learned from or applied to other areas where non-environmental risk is commonly seen in an organization, Spasojevich said. Establishing and maintaining strong internal controls are essential elements in maintaining compliance and also in preventing noncompliance.

“Our purpose is to ensure DLA Energy is truly an environmental steward while maintaining environmental compliance with minimal impact to mission accomplishment,” she said. “We have a vested interest in DLA Energy’s success.” **ES**

CHECK





R&D

By Irene Smith

The future of tomorrow's fuels is being funded and tested in the research and development programs of today.

From toxicology testing of alternative fuels to additive replacement for aviation fuel used on the U-2 Dragon Lady, research efforts are ongoing to improve energy readiness for the warfighter.

Each year, the Defense Logistics Agency defines its current R&D requirements and seeks funding for them through the Department of Defense's program planning, budgeting and execution process. Energy readiness is one of 15 research programs funded by the DLA Research & Development office. Its goal is to pave the way for improvements in the petroleum supply chain and cost gains associated with integrating new and emerging energy solutions.

"We try and resolve quality issues in the petroleum supply chain," DLA Energy Quality/Technical Support Director Pam Serino said. "We work jointly with the services and our operational customers, and we hold various data calls with the U.S. Army Tank Automotive Research, Development and Engineering Center, Naval Sea Systems Com-

Pays Off

mand, Air Force Research Laboratory and other research facilities who help us identify priorities for funding.”

Serino said she also goes to the DLA Energy directors asking for projects.

The R&D projects generated under the Energy Readiness Program are focused on specific issues and are relatively short in duration, between one and two years, typically costing less than \$500,000. The areas of research include – product improvement, infrastructure and process improvement, alternative energy development and quality improvements.

In 2013, DLA Energy was funded \$3.9 million for 19 assorted projects to be completed in a one to two year cycle in the DLA Energy readiness portfolio.

“The projects are ongoing,” Serino said. “To fund a program, there has to be a benefit to DLA and DoD. We’ve had an R&D program since 2003 with well-defined criteria based on operational needs.”

Once inputs are received, Serino and her Quality/Technical Support team review and discuss the merits of the proposals and determine if there are benefits to DLA Energy. Once a decision is made, the research can be accomplished in two ways. If the proposal originated within DLA Energy, the Quality/Technical Support office may do the research or offer it to a military service technical office like the Air Force Research Laboratory to do the work. A commercial solicitation for a contract can also be issued.

Serino said the second way is the military services submitted a research project for approval by DLA Energy, and in that case the service would perform the research and DLA Energy would assign a program manager to monitor the project. At the end of the project, a final report would be generated. Deliverables, such as equipment or physical hardware resulting from the study, would be allocated to DLA Energy or for the service, like the Air Force, to maintain the asset.

DLA Director Navy Vice Adm. Mark Harnitchek was impressed with DLA Energy’s research efforts and return on investment and issued new agency guidance in December to develop an R&D strategy that invests available funds on shorter term projects addressing the most strategically-relevant need areas.

Operational needs, time to complete and return on investment will be key factors included in the validation criteria for proposed projects.

“Harnitchek would like to see us take on more R&D efforts because of our success,” Serino said.

“Energy R&D is very well structured and the director would like to see more involvement,” said DLA Energy Deputy Commander Michael Scott to directors and deputies in a December director’s staff meeting.

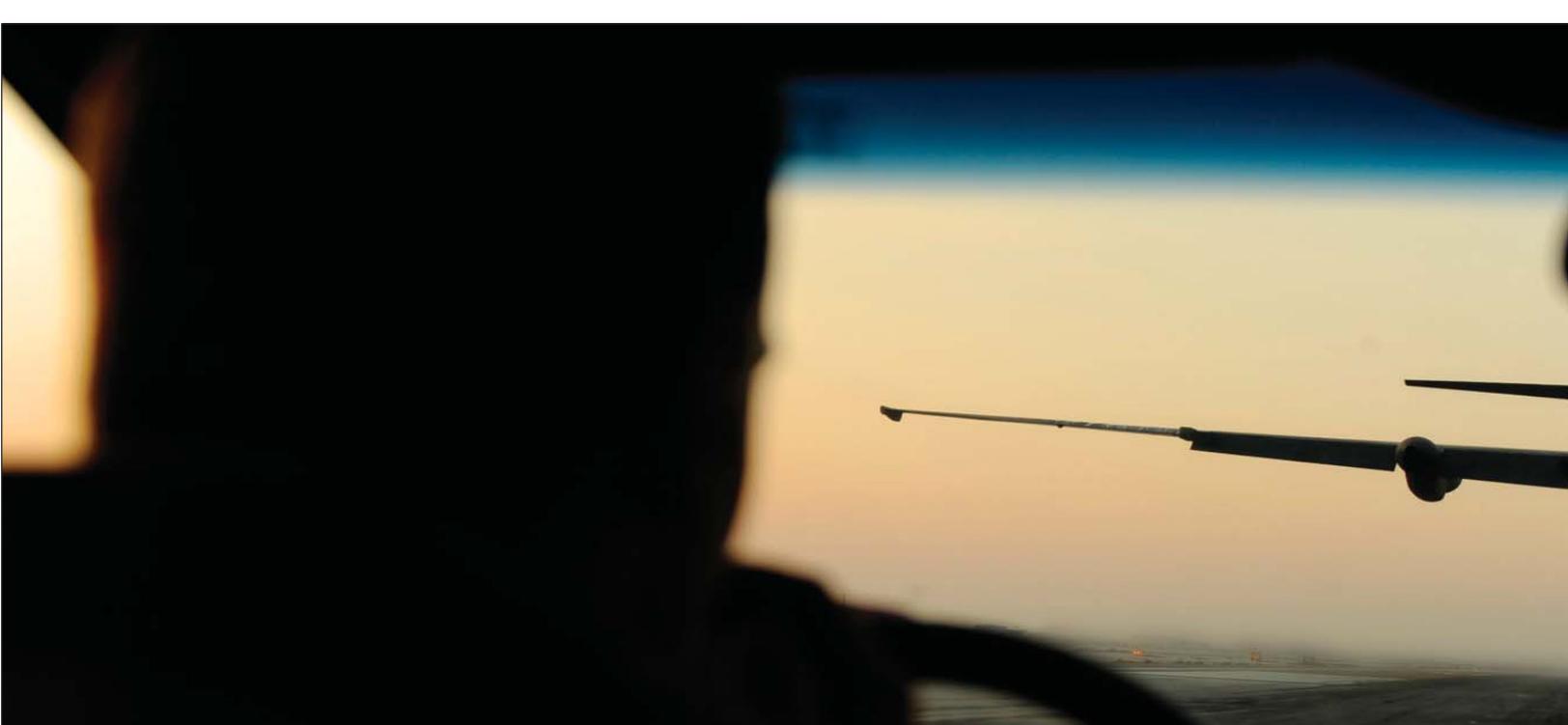
Scott told DLA Energy leaders to think big.

“Our intent is to open up R&D opportunities to the regions,” he added. “We are looking at fixing problems that can cost us money in the long run.”

DLA Energy research funding is specifically directed to improve bulk petroleum products ranging from acquisition to actual use of the product including petroleum, oil, lubricants and other products. This includes a wide range of projects from initiatives to enhance the acquisition of fuel such as production of biofuels to usage of alternative green fuels.

One of the most successful Energy R&D projects was identifying cold weather additives for biodiesel, specifically B20, a blend of biodiesel substitutes derived from vegetable oil and animal fats that can be added to diesel fuel, said DLA Energy Strategic Energy Program Manager Lindsey Hicks.

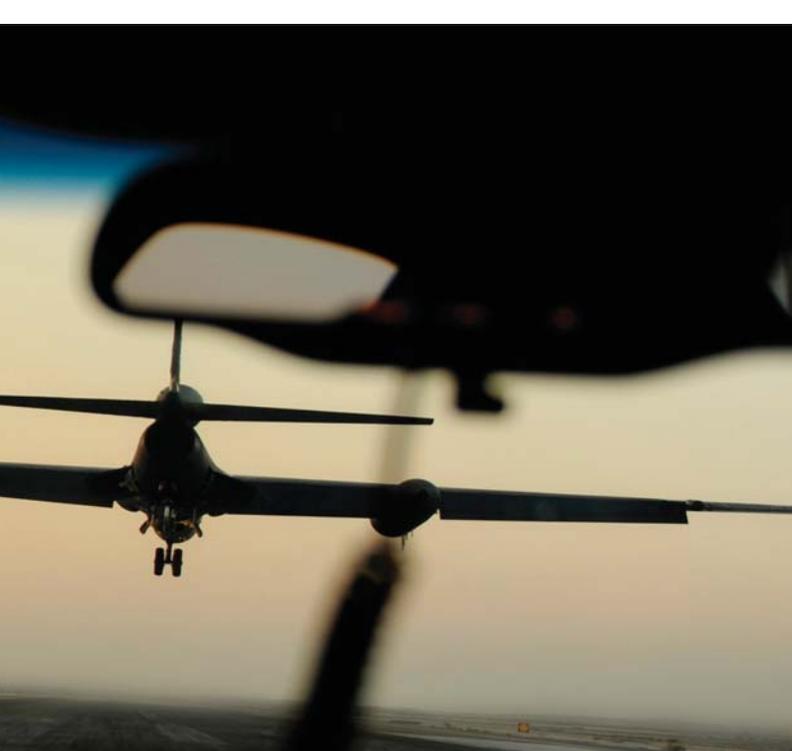
The military is required to comply with federal mandates requiring use of biodiesel in fuel-capable vehicles.



An airman drives behind a U-2 Dragon Lady as it lands at an undisclosed location in Southwest Asia. DLA Energy is working to find new additives for the legacy aircraft as part of one of its research and development projects. Photos by Air Force Staff Sgt. Eric Harris



An airman checks the fuel level of a U-2 Dragon Lady at an undisclosed location in Southwest Asia. Due to the success DLA Energy is having on the he high-altitude reconnaissance aircraft R&D project, funding is being expanded in 2014.



"We were able to identify about a dozen commercially available additives that would prevent biodiesel from congealing into a semi-gelatinous mass in cold weather," Hicks said. "This was important since biodiesel is a diesel substitute used in automotive fuels and the military is required to comply with specific federal fuel mandates. It enhances the military services to use biodiesel to achieve credits in compliance each year for acquisition of alternative fuels. When we certify fuels, it must be appropriate for all the services, not just one branch."

A lot of what the team is doing is accelerating and facilitating cost saving issues, said DLA Energy Product Technology & Standardization Division Chief Dan Baniszewski.

"For example, we have two to three programs aimed at streamlining the process so the fuel certification process can move quicker. We address emerging issues and work technical issues with the field. Our customers come to us and ask us to perform in-depth research," he said.

Baniszewski added some projects are designed to head off problems in the future such as the long term compatibility with alternative fuels.

Research efforts are underway to study the environmental cost-benefit analysis of alternative jet fuels.

One project is looking at the creation of an aviation-specific framework to assess the environmental impacts of emissions that result from using alternative fuels. The study will look at environmental factors such as greenhouse gas emissions and the economic sustainability of alternative fuel operations that could be used by today's fleet of aircraft.

This will help assess the environmental impact of alternative jet fuel on air quality, global climate change and

freshwater and land usage, Baniszewski said.

One of the ways DLA Energy is working to better serve DoD customers is through the evaluation of fuel particle counters.

In November, a study was completed to develop particle counting technologies to assist in field-level quality monitoring and analysis of aviation turbine fuel. Using existing sensor technology, the study was able to provide baseline data on particle counting technology's ability to provide real-time data analysis of the quality of an aviation turbine fuel.

"There are test methods already out there that measure contamination, but we are looking to improve fuel filtration," said Baniszewski, who selects and evaluates project proposals and provides guidance and direction to the chemist project managers. "When contaminants like water and dirt get in aircraft fuels, they need to be filtered out. By using existing sensor technology to monitor fuel quality within the fixed and mobile infrastructure used to store and distribute aviation turbine fuel, we can identify locations within the distribution system that have potential to introduce significant contaminants like water and dirt particles."

The benefit is a cost savings of \$791,000 to DoD customers and provides a portable capability to determine contamination levels throughout the supply chain.

Finding new additives for legacy aircraft such as the U-2 Dragon Lady is another R&D challenge DLA Energy is funding. The U-2 is an aging, high-altitude reconnaissance aircraft operated continuously by the Air Force, and has been in service since the Cold War. The U-2 is one of several aircraft types that have been operating for more than 50 years.

DLA Energy and Air Force personnel are working together to test and evaluate the effectiveness of currently approved additives for JP8 jet fuel, which increases the stability of the fuel at a higher operational temperatures, as a suitable replacement for the JFA-5 additive in JP5.

"This is a huge issue for us," Hicks said. "The Air Force's decision to continue flying the U-2 meant we had to make sure we had the correct additives to keep the U-2 flying. Quality's core business is to ensure fuel specifications and standards are in compliance with our customers. We are working on finding a suitable replace for the JFA-5 additive used in the U-2 aircraft thermally stable jet fuel. The additive is no longer in production and the Air Force supply is dwindling. We only have enough supply to last us until 2017."

DLA Energy R&D funding is being expanded in 2014 as a result of successes like the U-2, Jet A and biodiesel. 

AN INTERVIEW WITH THE GENERAL

DLA Energy Commander Air Force Brig. Gen. Giovanni Tuck

By Jonathan Stack

ES: *How was your first year at Defense Logistics Agency Energy?*

TUCK: The first year was incredible. It's kind of hard to talk about 2013 without dipping into 2012 because in 2012 we had Hurricane Sandy and my first six months in this command – so it's understanding the regions, how we support the regions and the combatant commanders – making sure as we drew down out of Afghanistan, after coming out of Iraq except for a few sites and supporting the Horn of Africa, how would we in 2012 shift and look at the Pacific.

The biggest thing we took on in the rebalance was do we have the fuel sized right for the Pacific. We believe through the global positioning and distribution plan we can cover all of the combatant commanders ... by partnering with

industry so in time of war or humanitarian assistance we can actually go contact a company, contract through that company to get fuel that is on ships and at some point replace it. It seems to be working great from the vantage point of supporting multiple combatant commanders.

The difficulties this year for us were sequestration in March, our workforce going through furloughs this summer and the government shutdown in October. So, we have a lot of financial responsibilities. One of the neatest things we did that shows the strength of this organization and our commitment to our suppliers and the partnership we have with our suppliers was to be able to get a 100 of them on a phone line with me and the leadership team to talk about how we were going delay payments with interest to keep our workforce going to support the warfighter.



“You’d be amazed at how much I learn from ... connecting with our people.”

That happened almost immediately in October. We've gone through a lot as an organization. We've lost some people along the way. ... For the most part, this family of ours has risen to the challenge and performed as they always do making minor miracles happen every single day.

ES: What would you like a customer or supplier to think when they hear the name DLA Energy?

TUCK: If they had a choice to do business with anybody else on the planet, no matter what, they would always choose us. That's the customer focus I want with our customers and supplier base because of our business practices and the level of expertise we bring. It's the skill set that our folks get through lots of training and years of experience that make us the choice of our suppliers.

ES: What experiences over the past year have helped you to be a better commander?

TUCK: There's nothing more defining as a commander then being in

contact with your folks and being out on the road with your region commanders, understanding the pressures and the environment they live in to get a better sense on how we can provide support to them in a very efficient and effective manner. That's been gold.

ES: What do you look forward to when you come to work?

TUCK: The interaction with the people. If someone asked if I'd rather telework or come in to work, coming to work would win every time, because I get to interact with folks and our team. I value being here with our folks. You'd be amazed how much I learn from walking around the building and connecting with our people – the issues they bring to me are real and they want someone to listen. I hope I can be a good listener and at the same time take the issues on and find a way to help. For example, when you take a look at the business units and somebody wants to apply for a job and they don't make the certification round we don't give them feedback. Now we are going to do training, bring the New Cumberland,

Pa., people down, and train on how to write resumes, how to strategize for the best application that works for the individual and still be fair and honest when the person applies.

ES: What is something you do as a commander that people might not be aware of?

TUCK: I think some people would probably not realize that I do take time for myself. Even though they see emails from 8 p.m. to 10 p.m. at



Photos courtesy of DLA Energy Public Affairs

night, I do take time for myself. I take time for my spiritual, emotional and personal growth, as well as my discipline in being the best commander I can be for DLA Energy. I think a lot of people might think that all commanders do is live and breathe the job they are in, but I can compartmentalize if I need to, take time off, put the cell-phone down and then enjoy time with friends and family.

ES: *What direction do you see DLA Energy going in the future?*



TUCK: It's huge. Think about the strategic moves we did this year – we have 23 people moving from DLA Energy from January to June over the next year. So in the short time, as people retire and we rotate our staff to the field and our field to the staff, I think you'll find we're going to harness great synergy, we're going to harness experience and we're going to allow people to operate in an environment they might not be comfortable with. They are going to learn, and it's going to expand their horizons in terms of being the complete DLA Energy member we need folks to be. I'm very proud of our future in that regard.

As far as the product lines we are going to do, I believe you'll see with petroleum and non-petroleum that we are going to try and go after more versus leaving stuff on the table. We're going to try to get 100 percent of the natural gas industry. When it comes to electricity, we are going to go after more ways to do energy so we can

continue to provide more of a savings to the Defense Department.

I'm thrilled about how DLA Energy has come along since I've been here. I take credit for none of it – it's Mike Scott, DLA Energy deputy commander, and Kathryn Fantasia, DLA Energy executive advisor, that roll up their sleeves every day to make the world a better place for the warfighter, and I really appreciate that.

ES: *Anything you'd like to add?*

TUCK: I want to say thanks to our workforce. We put our folks through incredible pressures this year ... I want our staff to know I pay attention to it. It's one of the few things in my job that keeps me up at night as I worry about our workforce. I want to make sure they are squared away. Thanks to our folks and always believing that there's a greater cause and they make a difference each and every day. **ES**





Open for Business

By Susan Lowe and Jonathan Stack

The Defense Logistics Agency Energy grew in 2013 by opening the doors of two organizational entities – the Strategic Programs and Initiatives directorate and Equal Employment Opportunity office.

After many discussions, DLA Energy Commander Air Force Brig. Gen. Tuck and DLA Energy Deputy Commander Mike Scott decided to authorize the stand-up of a new organization within DLA Energy, the DLA Energy Strategic Programs and Initiatives directorate, to manage long-term projects.

“The gap we were attempting to address with this new organization is the difficulty DLA Energy has traditionally had in managing long term projects that cross multiple business units or directorates and require large commitments of time and resources,” said DLA Energy Strategic Programs and Initiatives Director Navy Capt. Ed Bogdanowicz.

For example, the DLA director’s “Big Ideas” have required DLA Energy personnel to develop multiple initiatives in material and operational cost centers impacting all directorates, he said. Previous to the stand-up of the new directorate, the command had no organization to manage such a large and complex program, and now the gap has been filled, he added.

The directorate is comprised of personnel who already worked in DLA Energy and is made up of the Auditability office, Management Initiatives office and Executive Agent office. The new entity is made up a small number of people, so will not be doing the majority of the work on many of the projects.

“We will be responsible for the traditional project management functions, such as identifying resources, managing key schedule events, coordinating actions across organizations and de-conflicting competing requirements and priorities,” Bogdanowicz said. “We exist to support the

command teams’ priorities and to assist the other directorates in their roles supporting those same priorities.”

Bogdanowicz said he sincerely hopes the new directorate will be able to assist the command and the leadership team in setting priorities and accomplishing its most critical tasks on time and on budget.

“This is an exciting opportunity for me personally, since I have been involved since the inception of this idea and I have been able to watch as the idea matured into the team that stands ready for tasking today,” he added.

The other organizational entity, the DLA Energy EEO office, was established Sept. 23.

The office partners with managers, supervisors and employees to develop solutions to empower the workforce in achieving their full potential and unify the workforce to achieve the mission.

In December 2012, DLA Director Navy Vice Adm. Har-nitchek issued fragmentary and operation orders directing DLA Energy to staff a new EEO office, said Darcy Hall, director of DLA Energy’s Manpower and Workforce Analysis directorate.

The DLA director mandated the realignment of personnel billets and resources to create a model EEO program throughout the agency, which includes increasing the capabilities of the headquarters’ DLA EEO directorate and standardizing the EEO office structure in the primary-level field activities, she said.

The office is staffed with an EEO manager and EEO



specialists who will serve all of DLA Energy's employees.

In a message to the workforce, Tuck explained how the office will be set up.

"The EEO office will be led by our new director, Jerry Francis ... and Irrainna Blackmon-Corbin in her new administrative role," Tuck wrote.

Francis reported for duty Oct. 7 and joins DLA Energy with more than 25 years of experience in federal EEO and diversity programs. He previously worked at the Defense Equal Opportunity Management Institute.

"I envision having a synergistic relationship with all division heads and employees with transparency, accountability and fairness with the intent of developing a work environment free of discrimination and harassment," Francis said.

Francis said he looks forward to working with managers and creating a work environment where all ideas are welcome and encouraged.

"The team and I will be out and about conducting training and holding face-to-face meetings with our customers on a regular basis to ensure that EEO and diversity are engrained into the culture of DLA Energy," he said.

"I encourage everyone to use communication skills in listening, articulation, cultural awareness and understanding to have an all-inclusive workforce where everyone is valued. Further, I want DLA Energy to be a model employer of choice," Francis added.

Peck came on board from Naval Sea Systems Command Sept. 23 and has been in the EEO field for more than 10 years.

"About the only thing I haven't done in my career is help stand up a new office, so I am thrilled to have this opportunity," Peck said.

The office is a fully functioning, standalone EEO office that will process EEO and alternative dispute resolution cases, as well as organize community outreach and special emphasis programs. 

Audit

By Susan Lowe

Defense Logistics Agency Energy is doing its part to be in compliance with the Department of Defense-mandated auditability regulations.

The fiscal 2010 National Defense Authorization Act requires DoD to be audit ready by fiscal 2017.

The DoD is the only remaining federal agency that has not achieved auditability on its annual financial statement, according to the financial improvement and audit readiness guidance website.

Former Secretary of Defense Leon Panetta directed the department to accelerate key elements of the financial improvement and audit readiness plan in a memo sent to DoD senior leaders Oct. 13, 2011.

“As a key step, we must improve financial information and move toward auditable financial statements. Auditable statements are needed to facilitate decision-making, to comply with the law, and to reassure the public that we are good stewards of their funds,” Panetta wrote.

Auditability is a goal that every commander, every manager, and every functional specialist must understand and embrace to improve efficiency and accountability at the DoD, he further wrote.

DLA Energy is following the financial improvement and audit readiness guidance, also known as FIAR, which was first published in 2005. The guidance provides instructions for implementing a department-wide plan for achieving DoD’s financial improvement and audit readiness objectives.

“Audit readiness is an integral part of our everyday business processes,” said DLA Energy Auditability office Chief Claudia Waters. “Our efforts aren’t something new or separate.”

Readiness

Audit readiness means they can demonstrate that the key controls within the business processes are functioning properly, which provides a reasonable assurance that financial statements are appropriately stated, she said.

Just about every business unit, office or directorate engages in some type of business process in order to carry out their missions effectively, Waters said.

“So imagine that the key steps in those business processes have to be identified, tested and documented. If a deficiency is found, it needs to be worked out before the process can be considered working efficiently and effectively,” she added.

Being audit ready isn't the sole responsibility of the finance department, Waters said.

“We have to remember that what ends up on the financials [stems from] our business processes,” she said. “Everything from procuring product to paying the vendor to receiving the funds from our customers triggers the events that produce the data on the financial statements.”

Part of the audit readiness efforts include making sure the organization's key controls over its business process operate effectively.

“Key controls are in place to safeguard from fraud, waste and abuse,” Waters said. “And they need to be tested throughout the various business processes and systems.”

As of now, Waters said, DLA Energy is working toward the many milestones

needed to be ready for assertion.

“There are several different dates for assertion that are key for DLA Energy with inventory and real property in fiscal 2014, and all our other key processes like Procure to Pay and Order to Cash will assert in fiscal 2015,” she added.

Waters said the audit readiness effort is important because that kind of financial data knowledge can help management make sound decisions.

Even though DLA Energy is working to meet the assertion timelines, Waters said, there isn't much wiggle room.

“Our biggest challenge is that we are in the midst of moving our business into the Enterprise Business System along with the rest of DLA,” Waters said. “We have the additional challenge of having to wait until our move to EBS is completed to document our business processes or test our key controls. We couldn't do it in our legacy system, which makes our timeline to be audit ready very slim.”

“If the organization hits any real roadblocks, like any deficiencies in the processes or controls, we have an even tighter timeline to get them corrected and then validated to ensure they are working properly,” she added.

Reliance on financial statements is the key to how well our business practices are operating, Waters said. Financial statements reflect the agency's business health.

“We have a short amount of time to do a lot of work and it's been very

challenging,” Waters said. “It will take everyone's support and efforts for us to achieve the goals set forth over the next couple of years.”

Energy has the best employees, and they are working very hard to make sure DLA Energy achieves all goals for audit readiness, she added.

In the 2014 DLA Director's Guidance, DLA Director Navy Vice Adm. Mark Harnitchek said DLA is aggressively pursuing audit readiness at DLA.

“Instead of planning for the 2017 deadline mandated by the Department of Defense, we're targeting the end of fiscal 2015 as our deadline, and we're making steady progress. DLA's Hire-to-Retire program has already achieved assertion, three months earlier than planned. This coming year we're focusing on really proving our numbers, and I need every one of you engaged in this important effort. Understand your processes and the internal controls within them, and make sure the data is accurate and in compliance with the rules. Audit readiness makes us a stronger organization and enhances the trust the public places in us to get things done and done right,” he wrote.

In his guidance, the director encourages DLA personnel to “prove it” and wrote employees should “demonstrate our commitment to transparency and accountability through our culture of judiciousness, meeting assertion dates, identifying and driving improvement opportunities, and expanding audit readiness beyond process integrity to process excellence.” 

Decrease Direct Material Costs Be Smart Buyers of the Right Stuff

Story by Amanda Neumann

It will take several methods of driving down costs to meet Defense Logistics Agency Director Navy Vice Adm. Mark Harnitchek's intent for DLA to "be smart buyers of the right stuff."

As one of Harnitchek's five "Big Ideas" implemented in March 2012, DLA is working to decrease direct material costs. This is a large part of efforts to shed \$13.6 billion in expenditures by 2019. Methods DLA is using to drive down costs include: reverse auctions, value management, strategic sourc-

ing, and improvements to the agency's procurement systems and processes.

Although the agency has already reached or exceeded most of its targeted goals for fiscal 2014, which include savings from both fiscal 2012 and 2013, improvements can be made in some areas, said Tim Stark, head of the functional group for material cost reduction in DLA Acquisition.

"We've done really well starting up," he said. "The targets get more and more aggressive as you go forward. And although we're doing great, we've got a long way to go."

Reverse Auctions

A large portion of the savings come from reverse auctions, which have saved DLA more than \$1.6 billion over the past year, Harnitchek said at his Sept. 17 Director's Call with agency employees.

In reverse auctions, sellers bid online for contracts. These can be contracts for either instant procurements, for items needed to send directly to a customer or to be stored by DLA, or for long-term contracts for a term usually lasting five years, said Carmen Pillitteri, a business process analyst at DLA Land and Maritime.



Regular auctions have multiple buyers bidding toward one source supplier. Reverse auctions are a Web-based pricing tool that fosters competition between contractors to reduce the price the government pays for a particular item. By requesting an item from multiple suppliers, DLA is able to get those suppliers to bid against each other to give DLA the best price. Graphic by Paul Crank

By allowing sellers to view the lowest offer and bid against it, the process creates intense competition between firms, which drives prices down, he said.

"Since it's a competition-based event, we need to have at least two vendors that are quoting and that are competitive with each other," Pillitteri said. "When they log in, they see their own price and they also see the current lowest price on the procurement. They don't know who their competitors are, and they don't know how many competitors they have in the auction, but they see the prices and have an opportunity to lower their price."

Auctions run for no longer than an hour, Pillitteri said.



Obtaining Technical Data Packages used to manufacture spare parts allowed DLA Land and Maritime’s value management team to increase competition when procuring parts for up-armored construction equipment, like this heavily armored Caterpillar D9 bulldozer. Previously bought sole-source, the competitive technical data packages have led to a total of \$1.6 million in savings to date. Photo courtesy of DLA Land and Maritime

“We set it up, give the [sellers] two days to prepare, run it for a half hour to an hour and then it’s done,” he said. “If someone bids in the last few minutes, the time will be extended by five minutes, so every vendor has an opportunity to put in their best price. But it’s a very definite and relatively short timeframe. That’s one of the best parts about it.”

DLA requires reverse auctions for procurements of \$150,000 or greater, but reverse auctions can be used for procurements at any price, Pillitteri said. For instance, DLA Land and Maritime temporarily changed its local policy to require reverse auctions on procurements at the \$25,000 threshold, providing a substantial increase in reverse auction opportunities. As a result, the organization conducted seven times as many reverse auctions in fiscal 2013 as it did the previous year, resulting in savings of \$28.5 million by July 2013. This sum far exceeded the

DLA Land and Maritime target of \$3.3 million in savings by the end of fiscal 2014, he said.

Held almost daily, reverse auctions have also worked well for other DLA field activities, including DLA Aviation, which has already exceeded its fiscal 2014 goal of \$4 million. From October 2012 to July 2013, DLA Aviation conducted 241 reverse auctions, 49 percent of which were successful and saved the organization \$27.96 million, said LaKisha Andrews, DLA Aviation’s reverse auction program manager.

“DLA Aviation’s contracting officers have done a great job embracing the use of reverse auctions, which has been a great benefit to the successful push of [DLA] Aviation’s overall savings,” she said. “Two of our most successful auctions were for parachutes and turbines. The parachute yielded savings of \$7 million, and the turbine

yielded savings of \$2.1 million.”

DLA Energy is also using reverse auctions to get better prices and increase competition in awarding fuel contracts, said Anthony Thomas, policy chief of the Procurement Planning Branch in DLA Energy.

In fiscal 2013, DLA Energy achieved \$400 million in savings by using reverse auctions.

“We’re using this tool across the different business areas where we think it’ll add value and help us get better pricing,” he said.

Value Management

With a goal to promote competition, value management is a systematic process of reducing material costs while retaining the same or better quality, reliability and function.

At DLA Aviation, F-15 Eagle aircraft wire harnesses have garnered the most savings through value management, helping the organization easily meet its fiscal 2014 target of \$14 million, said Ralph Newlon, deputy director of DLA Aviation's Engineering directorate.

"Five years ago, DLA Aviation Engineering worked with the Air Force in Warner Robins, [Ga.], to fund an effort to revise and complete the technical data they already had so we wouldn't have to buy these items sole-source," he said. "Once completed, we used that technical data to break out the item through a source selection process. We ended up selecting a new contractor ... whose prices were just about half of what [the previous vendor's] were. To date, we've saved about \$48 million over the past two years. We expect to save about \$60 million total."

By July 2013, DLA Aviation had saved \$42 million, in part due to another successful effort: creating additional sources for ballistic foam, used to prevent explosive vapors in Air Force A-10 Thunderbolt II aircraft wings, Newlon said.

"Several years ago, our Air Force customer helped us to realize the manufacturing process for that foam was going to be phased out, so we

had to find a new ballistic foam out of necessity," he said. "We worked with and funded the Air Force's research and came up with a new foam, which created a new national stock number and a sole-sourced item. Anytime you have a sole-source situation, prices tend to be a little bit higher. Now, we have a second source on all [types of] the foam. So far, we've awarded three contracts against those NSNs, and we've saved \$200,000, but it's very early in the savings window. Over the six-year window, we expect to save about \$12 million just by adding that [additional] source."

Strategic Sourcing

DLA Acquisition's Stark said the main area under reducing material costs in which DLA has yet to hit its target is "strategic sourcing," or increasing government-wide cooperation in purchasing goods. Using DLA's buying power helps get better prices for a wider range of customers. Strategic sourcing uses a variety of techniques, including prime vendor relationships, long-term contracts, and "performance-based logistics," which is a way to provide support for a weapons system by having the contractor be responsible for the performance of the system, not just supplying spare parts.

"That's where we see most of our large contracts with original equip-

ment manufacturers and other big manufacturers," Stark said. "Those contracts have just been put into place over the course of this past year, and a lot of them are coming due in the next few months. Once those are in, we fully expect to make the fiscal 2014 target for those as well."

The agency's target savings through strategic sourcing exceeds \$4 billion, but DLA Troop Support has already saved \$66.1 million, said Ruth Herman, a senior procurement analyst at DLA Troop Support.

"All the big stuff we're doing is under strategic sourcing," she said. "The big one in DLA Troop Support Subsistence is increasing manufacturer discounts. We're negotiating discounts for our National Allowance Pricing Agreement program. It's actually pricing agreements we have with major manufacturers like Kellogg's and Nabisco to give us the best deal, and we've got about \$20 million in savings through July."

DLA Troop Support Medical is expected to save \$791 million alone over the next 10 years due to a recent negotiation to lower pharmaceutical prime vendor distribution fees, Herman said.

"We just negotiated a better deal from a negative 5.28 distribution fee to negative 8.87 percent," she said. "That's giving us \$6 to \$7 million a month, so that's going to give us another \$12 to \$14 million alone [by the end of fiscal 2013]. We've also awarded our first national [generic drug] contract, so we'll start seeing those savings soon."

While the "Big Ideas" initiatives have been challenging, it has pushed the supply chain to make more aggressive moves, something that better aligns

Switching a sole-sourced ballistic foam, used in the wings of A-10 airplanes to prevent the buildup of explosive vapors, to a second source will save the Defense Logistics Agency \$12 million over six years thanks to a value management initiative in DLA Aviation. Photo courtesy of DLA Aviation





A FRAM oil filter in commercial (left) and military-specification packaging (right). The switch from military to commercial packaging is expected to save the agency hundreds of millions of dollars over the next five years due to the First Destination Transportation and Packaging Initiative. Photo by Laura Fearing

DLA with the commercial sector, Herman said.

“This is making people negotiate harder and be a little bit more aggressive,” she said. “They’re doing a little bit more market research and seeing what the commercial market is getting. But the biggest challenge with the Big Ideas, across all of the levers, is measuring the savings. Putting levers together and trying to figure out how you’re going to save the money is one thing, and then figuring out how you’re going to count the money is another thing.”

DLA Energy has also seen significant success in its strategic sourcing ef-

forts, namely in its negotiation techniques with suppliers, Thomas said.

“It’s a package of things that has helped us,” he said. “We did a number of initiatives to squeeze every penny we could out of our deals, including getting suppliers paid faster and upping the amount of guaranteed product that will be purchased under a contract. In the fuel industry, if you can shave a penny or two off per gallon, you can claim success; it’s just that tight.”

Just like at DLA Troop Support, aligning with commercial practices has also helped DLA Energy achieve savings, Thomas said.

have a profound effect on costs and performance. Current initiatives with PSPI include the expanded use of “should-cost” assessments to find out items’ actual values, improved customer returns and an increased use of the agency’s Procurement Automated Contract Evaluation system.



A brake pad in military-specification packaging (left) and commercial packaging (right). Already implemented in March 2013, 4.2 million items within targeted supply chains, or 93 percent overall, are eligible for the commercial packaging in the First Destination Transportation and Packaging Initiative, saving not only material costs but labor costs as well. Photo by Laura Fearing

“Aligning the quality standards to commercial practices is a huge change in how we’ve done business that applies to all contracts,” he said. “We’ve tried to move toward more commercial [fuel] product because it’s more readily available, which improves competition. Even predictability of when a solicitation will come out is beneficial since [suppliers] will be prepared and ready for it.”

DLA Energy is expected to save \$195 million over five years by procuring more commercial fuel for the military services.

Procurement Systems and Process Improvements

Improvements to the agency’s procurement systems and processes can

One of the most anticipated initiatives in the agency is the First Destination Transportation and Packaging Initiative. With a twofold approach to reduce packaging costs using commercial-specification packaging and decrease transportation costs by allowing vendors to use DLA’s inbound transportation providers, the initiative is expected to save the agency hundreds of millions of dollars over the next five years, said Todd Jenkins, program manager for the initiative at DLA Land and Maritime.

“The [First Destination Transportation and Packaging Initiative] is really a catalyst to help both of these process functions achieve optimum savings,” he said.

Since the initiative’s start in March, 4.2

million items within the targeted supply chains, or 93 percent overall, are eligible for the commercial packaging, saving material and labor costs, Jenkins said.

“It really comes down to just using some of the industry’s best practices to package an item,” he said. “There’s a misconception that [military] packaging is excessive; sometimes it’s the right amount of packaging in order to get an item service-ably to the customer. However, when people put an extra level of packaging in, that adds extra cost. More than the material itself, it was the repackaging labor portion that would drive costs up.”

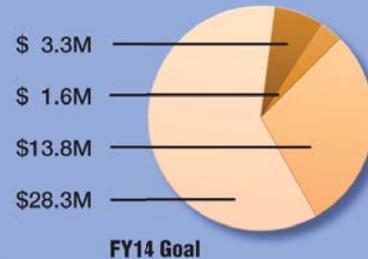
While the agency has found many opportunities for commercial packaging, Jenkins said, some items, like hazardous materials, will still be shipped using military-specification packaging. It is important to note that any savings from the initiative will filter right back to customers.

“This really has been a collaborative, interagency effort that had been in the wings for a while until we had tremendous support, like the director’s, that pushed it,” he said. “We in the government have to be the ones that latch onto as much of these savings as possible, so that we can get the value of the dollar to go a little further for the Defense Department during these tough times. Whatever savings we make, we pass that back to the warfighter for personnel, equipment and other operations that are already stretched thin.”

Due to be implemented in late October 2014, transportation changes within the continental United States will help consolidate shipments from local vendors, using DLA trucking to travel from one local destination to the next, said Roy Pitman, a

DECREASING DIRECT

DLA LAND AND MARITIME



Reverse Auctions:

- Seven times as many auctions as FY12; 2,064 to date.
- Rifle bipod – award value \$1.28B awarded March 2013, historical savings of \$91,119.

Strategic Sourcing:

- 120,000 original equipment manufacturer and long-term contracting actions to negotiate reduced unit prices for items.
- More than 225 long-term contracts awarded.
- Eaton competitive project, awarded September 2013, will save \$1.5M over five years.

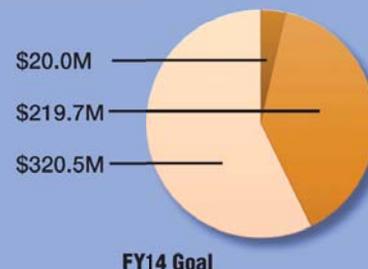
Value Management:

- 955 awards on 655 VM projects, top 15 projects produce \$15.8M in savings.
- Three successful antenna projects saved \$6M alone.
- An additional \$5.6M is expected from a Hawker Battery source breakout.

Procurement Systems and Process Improvements:

- 169,000 contract actions resulted in \$9M in savings.
- First Destination Packaging and Transportation Initiative, implemented in March 2013, will provide further savings.

DLA ENERGY



Reverse Auctions:

- Three June auctions, for a mix of fuel to be delivered to forward operating bases throughout Afghanistan, netted \$400 million in savings.

Strategic Sourcing:

- By procuring more commercial fuel for the military services, DLA Energy is expected to save \$195M over the next five years.

Procurement Systems and Process Improvements

- Upcoming Enterprise Business Systems eProcurement rollout in April 2014 is expected to save millions.

CT MATERIAL COSTS

DLA AVIATION



Reverse Auctions:

- So far, 211 auctions conducted, of which 93 were successful.
- Three auctions on parachutes netted \$9.5M in savings.

Strategic Sourcing:

- Supplier and Department of Defense partnerships.
- Tailored logistics support / performance-based logistics. (Also in DLA Land and Maritime.)



Value Management:

- Three contracts for \$200,000.
- A-10 ballistic foam – Over six years, expect \$12M in savings.
- F-15 wire harness to date has saved \$48M, \$60M expected savings total.

Procurement Systems and Process Improvements

- First Destination Transportation and Packaging Initiative will provide further savings. (Also used in DLA Land and Maritime and DLA Troop Support's industrial hardware and construction and equipment supply chains.)

DLA TROOP SUPPORT

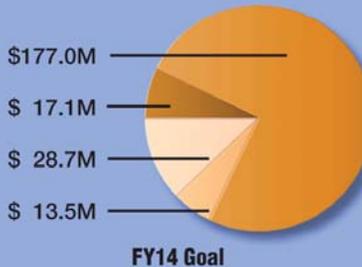


Reverse Auctions:

- 128 awards, 70 in clothing & textiles.
- Largest dollar savings.
- \$2.1M C&T award for enhanced ballistic inserts.

Strategic Sourcing:

- Increased manufacturer discounts under National Alliance Pricing Agreement program has generated \$17.6M (subsistence).
- Negotiation savings generated \$10.3M (construction & equipment).



Value Management:

- Most savings in clothing and textiles due to the break out of sole-sourced items.
- A bag waste kit saved \$1.1M per year, total \$2.2M so far.
- A sole-sourced turned competitive retro lantern kit has saved \$1.2M total for FY12 and FY13.

Procurement Systems and Process Improvements

- Expanded use of "should cost" assessments (C&T).

program analyst and contracting specialist at DLA Land and Maritime.

"For inbound procurement, DLA does business with about 7,300-plus ... company locations," he said. "Each one of them operates independently. They could be right next door to each other, but they're not taking advantage of using the same trucks that are coming in. We're paying for their transportation rates, which are not nearly as good as what we can buy. Plus, we've got \$7 billion to spend as opposed to each of those vendors, two-thirds of which are small businesses. Their spending doesn't allow them to get good transportation rates from DHL, FedEx, UPS and other carriers, so we can leverage ours to get better rates."

For DLA, although the cost savings from this initiative will trickle in slowly, the plan will pay off in the long run, he said.

"This isn't a sprint; this is a marathon," he said. "This is a strategic initiative."

By separating the transportation costs, DLA will get a better idea of the true cost of a product, Jenkins said, something that could also open the door for more small business competition.

"We're actually doing things that will give us a clearer picture on the actual cost per product," he said. "We're 'debundling' things that were previously embedded, like transportation and packaging. And as we look at those numbers, we're starting to realize that people used transportation to cover a lot of their general and administrative costs. By doing this, we're going to get down to the real cost of the product itself, and that will open up the doors for small- and medium-sized businesses." 

A Pipeline Run

By Terry Shawn

Pipeline networks are key to Defense Logistics Agency Energy's mission of providing energy solutions to the warfighter throughout their global areas of responsibility and in the U.S. by connecting storage and distribution systems with fuels and lubricants.

In Europe and Africa, the NATO Pipeline System supplies forces and areas overseas with the capacity and flexibility required by today's security environment. In the continental United States, DLA Energy Americas uses more than a dozen pipelines as the main conveyances of refined product from the Gulf Coast and throughout the country. In the Middle East, DLA Energy uses three pipelines to convey jet fuel from fuel facilities in Afghanistan and Qatar to U.S. airbases in the region.

DLA Energy Pacific sub-regions use a Navy-owned pipeline in Guam while Korea employs the Trans-Korea Pipeline and South-North Pipeline. The only pipeline system operated by DLA Energy employees is in Okinawa, Japan. Agency employees began operating the system after assuming the U.S. Army's petroleum mission there.

"The great thing about pipelines is you can move large quantities of petroleum products, and even natural gas, cheaply and efficiently," said DLA Energy Director of Customer Operations Air Force Col. Steve Kephart. "Without pipeline networks, operations could see potentially significant delays."

Pipelines of Europe and Africa

The NATO Pipeline System, which was set up during the Cold War, is approximately 7,456 miles long and runs through 13 NATO countries with a storage capacity of 5.5 million cubic meters. The system consists of eight national pipeline systems and two multinational systems, according to NATO's website.

DLA Energy has agreements with five of the 10 major NATO pipeline systems providing fuel in support of U.S. forces in Europe.

The Central European Pipeline System is the largest multinational/multi-product system covering approximately 3,418 miles in Belgium, France, Germany, the Netherlands and Luxembourg. The U.S. is a partner nation in this

pipeline that also operates like a banking system allowing participating entities to introduce product into the line and lift product from any point along the pipeline.

"The definition of this [banking system] means that it is vitally important that each receipt into the pipeline system by a partner country meet all military specification standards," said DLA Energy Europe and Africa Inventory Management Chief McCoy Greer.

While this pipeline provides a significant military capability, the excess capacity is used to move commercial product for which the pipeline operators charge money, helping to defray the costs to NATO, Greer explained.

CEPS provides aviation fuel to the major U.S. air bases in Germany – Ramstein and Spangdahlem. It also has the flexibility to move fuel in support of activities in other combatant commands from tanker loading/off-loading points in Marseille, France, Greer added.

In Turkey, the Turkish NATO Pipeline System is made up of two pipeline systems – one in the East and another in the West. Both are operated and maintained by a civilian organization attached to the Turkish Ministry of Defense.

The pipeline has 10 operational districts with a headquarters in Ankara. DLA Energy injects fuel into the TNPS at the Port of Mersin, explained DLA Energy Europe and Africa Operations Center Chief Air Force Maj. Robert Lyon.

"This pipeline supports Incirlik Air Base and was also the source of aviation fuel for U.S. forces in Iraq during Operation Iraqi Freedom and Operation New Dawn," Lyon said.

Another pipeline network used by DLA Energy is the Northern Italian Pipeline System, operated and maintained by a civilian firm under contract to the Ministry of Defense.

Its operations are directed and controlled by the Italian Air Force that also controls off-base facilities. The pipeline comprises 466 miles of pipelines with a total of 217,500 cubic meters of storage throughout 10 depots.

It is connected to two refineries and one sea terminal, and there are five Italian air bases connected to the system with an additional eight not connected, but supported by

ins Through It

the NIPS, Lyon explained.

Aviano Air Base also receives aviation fuel from this pipeline.

In Spain, the Spanish Pipeline System was constructed by the U.S., as authorized under the Spanish American Agreement of 1953, to supply petroleum products from Rota Naval Station to air bases in the interior of the country. The pipeline runs from South to North through the center of Spain, extending approximately 485 miles and supplying fuel to Defense Fuel Support Point El Arahah, Moron Air Base, Loeches Inland Terminal, Torrejon Air Base, La Muela Inland Terminal and Zaragoza Air Base.

“Presently, the U.S. only utilizes about 70 miles of the pipeline from Naval Station Rota to El Arahah and Moron Air Base,” Lyon said.

Key to the DLA Energy mission in the United Kingdom, is the Government Pipeline and Storage System, a fully integrated system connecting five refineries, eight sea terminals and 16 military and four major civil airfields in primary support of Royal Air Force bases Lakenheath, Mildenhall and Fairford.

The Continental U.S. Pipeline System

In the continental U.S., there are more than 161,000 miles of refined product pipelines supporting commerce throughout the country, according to the National Association of State Fire Marshals.

DLA Energy Americas uses pipeline systems in 29 of the 48 states in the U.S.

Of this network, the region uses only a portion of the vast pipeline infrastructure to provide bulk petroleum products to the military services in the U.S. Northern Command area of responsibility, said Greg Knowles, DLA Energy Americas liaison officer to U.S. Northern Command.

“We accomplish this by managing and transporting petroleum product through 17 multi-product pipelines in both sub-regions,” Knowles said. “In DLA Energy Americas at Houston, we utilize the Buckeye Northeast, Buckeye Ohio, Colonial, Explorer, Magellan, Plantation, and Rocky Mountain pipeline systems. For DLA Energy Americas at San Pedro, Calif., we utilize Chevron No. 1, Chevron No. 2,



A contractor detaches the elbow joint pipe to clean and replaces the anode to protect the steel pipe from deterioration and corrosion at Marine Corps Base Hawaii, Kaneohe Bay. Photos by Marine Private 1st Class Roberto Villa Jr.



Soldiers of the 62nd Engineer Battalion construct the beginnings of the Inland Petroleum Pipeline System in Kuwait during Operation Iraqi Freedom. Defense Logistics Agency Energy uses pipeline systems, like the one pictured above, to convey fuel to U.S. facilities. Photo courtesy of the Army's 62nd Engineer Battalion

Cal Nev, Holly Corporation, Idaho, Kinder Morgan Energy Partners (East, North, and Southwest) and NuStar pipelines.”

Pacific Pipelines

DLA Energy Pacific sub-regions use a variety of pipeline systems.

In Korea, the South-North Pipeline is used to provide DLA Energy-procured jet fuel to DFSP Waegwan and DFSP Seongnam. Seongnam then transports the JP8 through approximately 46 kilometers of the Trans-Korea Pipeline to Suwon and Osan Air Bases and Camp Humphreys. DLA Energy also supports Kunsan Air Base through a U.S. pipeline from Kunsan DFSP.

The Japan sub-region moves JP8 from DFSP Hachinohe to DFSP Misawa and Misawa Air Base through 17 miles of pipelines maintained by Fleet Logistics Center Yokosuka.

This pipeline currently runs along the northern Japan coastline through residential area, prefectural forests and across several rivers, said DLA Energy Pacific at Japan Deputy Director Jeff Connell. While environmental and security concerns are mitigated by a 24 hour patrol team, the two governments are addressing the issues.

“The U.S. government is working with the government of Japan to re-route the pipeline completely underground in double-walled pipe to reduce both the environmental and security concerns,” Connell said.

To provide fuel support to DLA Energy customers in Guam, fuel is received by ocean-going tanker at commercial and military fuel piers. The fuel is offloaded into DFSP Guam and then can be conveyed from DFSP Guam through 16.7 miles of underground Navy-owned pipeline to DFSP Andersen and Andersen Air Base.

The operation and maintenance responsibilities for this cross-country pipeline are shared by the Navy and Air Force, with DFSP Guam operating and maintaining the southern half of the pipeline running from DFSP Guam to Tiyon Junction. DFSP Andersen and the 36th Civil Engineering Squadron personnel operate and maintain the northern half of the pipeline from Tiyon Junction to DFSP Andersen.

This pipeline system consists of two 10-inch lines from DFSP Guam to Tiyon Junction, where it is reduced into one 10-inch line from Tiyon Junction to DFSP Andersen, DLA Energy Pacific at Guam Deputy Director Joy Griffith said.

“A fiscal year 2013 military construction project will add a second 10-inch line from Tiyon Junction to DFSP Andersen and will make other significant repairs and upgrades to the rest of the pipeline system,” she added.

Unlike other pipeline networks, sub-region Okinawa is unique in that its pipeline operation is run by DLA Energy employees. In 2009, the Army decided to deactivate the 505th Quartermaster Battalion that supported Department of Defense activities on the island from its force structure and asked DLA Energy to assume its petroleum

mission. After a 30-month transition, DLA Energy officially assumed the strategic bulk fuel and quality control missions at DFSP Okinawa, Japan, in March.

DLA Energy employees are not only responsible for the day-to-day operation of the DFSP including receipt, storage, inventory and accounting, but the maintenance of the fuel facilities, as well as the quality of fuel issued to the island's primary customers.

DLA Energy Pacific at Okinawa operates a DFSP with six tank farms with a 56 million gallon storage capacity, 78 miles of underground pipeline, two deep sea fuel piers and two offshore tanker discharge facilities. The DFSP provides all bulk petroleum, oil and lubricant support on Okinawa including JP8, JP5 and F76.

Okinawa supports the Air Force's 18th Wing at Kadena Air Base, Marine Aircraft Group 36 at Marine Corps Air Station Futenma, the Navy's USS Bonhomme Richard Expeditionary Strike Group at White Beach, the Army and Air Force Exchange Services gas stations island-wide and all DoD installations on the island.

The Security of Pipeline Delivery

In the Middle East, DLA Energy uses a pipeline in Qatar from the DFSP to Al Udeid Air Base to deliver jet fuel, a pipeline in Afghanistan to deliver fuel from the fuel facility to Bagram Air Base and a third pipeline is under construction to deliver jet to Al Dhafra Air Base in the United Arab Emirates.

There are a number of advantages to using pipelines versus tanker truck deliveries.

The main advantage these pipelines provide is speed in delivering volumes of fuel and increased security because fuel trucks are not required to enter the base to download, said DLA Energy Middle East Operations Chief Gary Whittacre.

If a base consumes 300,000 to 400,000 U.S. gallons of fuel a day, it would require a 10,000 gallon-capacity truck to make 30 to 40 deliveries daily.

The operations chief also said there are other advantages of using a pipeline system instead of truck deliveries.

"Pipeline deliveries are considered one delivery [through a receipt meter], and it's less of an accounting burden than accounting for 30 to 40 separate truck receipts," he said.

Pipelines also reduce vulnerability to driver pilferage; siphoning off fuel en route, Whittacre said.

"Using the pipeline delivery method reduces normal variance caused by temperature variation and residual fuel

that cannot be extracted from tanker trucks," he added.

In the continental U.S., DLA Energy Americas transports 75 percent of their petroleum products to support the military and DFSPs via pipeline, Knowles said.

"The main advantage in using pipelines over other modes of transportation is that pipelines provide the region the ability to transport large volumes of petroleum product from refineries or commercial terminals to either military service supported sites or our own DFSPs," he added. "Pipelines also provide true secure line of communication, have an excellent safety record, and are overall cheaper than alternate modes of transportation for movement of bulk petroleum products."

In Case of Emergency ...

The pipelines also play a role in emergency response to natural disasters in the U.S.

If there is time to plan for an event such as a pending hurricane or tropical storm, DLA Energy Americas officials would direct the sub-regions to bring their supported service sites and DFSP inventory levels to a higher point in the projected path of the storm based on information provided by the National Oceanic and Atmospheric Administration data and location information on DoD facilities, Knowles said.

"This gives the commander and senior leadership the ability to thoroughly plan for mitigation strategies for supply support given the assumption that there is a disruption in pipeline support," he said. "During the recent national emergencies such as Hurricane Sandy, the [DLA Energy Americas] region was still able to provide petroleum products to the services along the Eastern Atlantic Coast."

However, he added, there were challenges associated with the impact of the hurricane upon landfall.

"These challenges were worked with and through our commercial energy partners to ensure the region provided uninterrupted product to supported military service sites and DFSPs," Knowles said.

Other disruptions in pipeline service may develop due to repairs or unforeseeable conditions.

"If pipeline operations were disrupted, we have contingency plans to use trucks to move the required fuel onto the base," Whittacre said. "We routinely augment pipeline deliveries with a small amount of truck deliveries to keep the procedures current."

Using trucks also allows DLA Energy Middle East to deliver fuel from other sources not connected to the pipeline.



During Operation Iraqi Freedom, 240th Quartermaster Battalion soldiers attach an aluminum pipe with a Victaulic pipeline coupling as part of the Inland Petroleum Pipeline System in Kuwait. DLA Energy uses pipeline systems in many countries to provide fuel to its customers. Photo courtesy of the Army's 240th Quartermaster Battalion

For example, if the Afghan Government restricted a contracted company from operating in Afghanistan, Whittacre said his team could have fuel delivered to Bagram Air Base from the DFSP in Kabul via tanker truck.

In Okinawa, the pipelines play a role in supporting the DLA Energy customers on the island but if a natural disaster were to occur and damage that delivery conveyance, truck deliveries are still an option.

"With the pipeline maintenance crew at [U.S. Army Garrison] Torii station public works, we would be able to repair minor damages within a few days," said DLA Energy Pacific at Okinawa Deputy Director Edward Guthrie.

In Guam, while repairs are done to the pipeline that may cause a disruption, DFSP Andersen's alternate receipt capability would be enacted, Griffith said. Tanker trucks

would fill at DFSP Guam's truck fillstand and deliver fuel directly into DFSP Andersen's hydrant operating tanks.

"This secondary mode of resupply ensures the continued flow of fuel to the warfighter," Griffith said.

The role of fuel exchange and pipeline agreements

"DLA Energy leverages host nation fuel exchange agreements in [Europe and Africa region] pipeline systems to provide tailored fuel support solutions for operations and exercises," said DLA Energy Europe & Africa International Agreements Program Division Chief Kevin Epstein

"A perfect example of this region's ability to leverage a pipeline fuel exchange agreement was our recent strategic support efforts with the Spanish Air Force that enabled the transfer of more than 2 million gallons of fuel in support of 10 NATO member nations for the conduct of a multinational exercise," Epstein said. "Not only did this innovative course of action directly support the DLA tenet of enhancing support to the warfighter, it doubly supported the organizational edict to provide proper stewardship of government funds by saving in excess of \$160,000."

Through the use of FEAs in concert with multi-national pipeline systems, DLA Energy is able to obtain fuel from or provide fuel to our host nation partners and directly support U.S. warfighter elements in the Europe and Africa areas of responsibilities, said Air Force Capt. Carissa Deeney, DLA Energy International Agreements liaison officer to the United Kingdom.

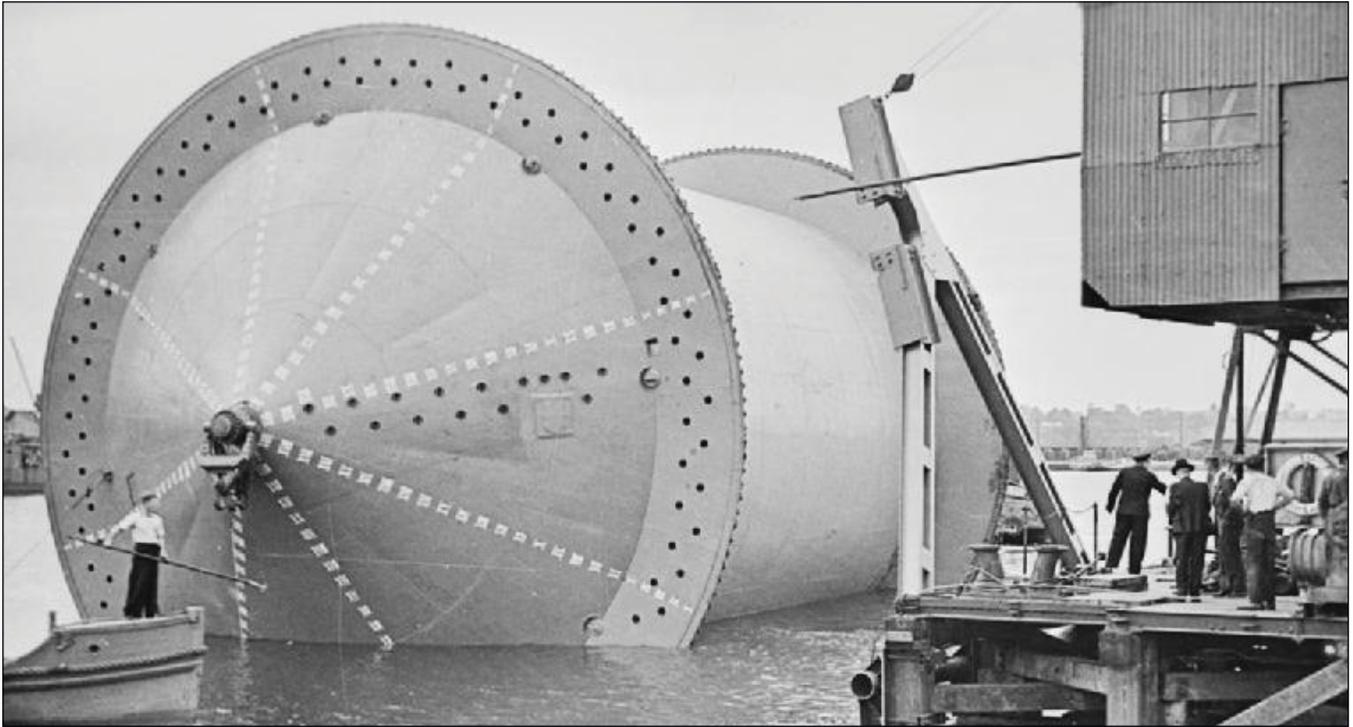
Despite such a vast network of pipelines used by DLA Energy Europe & Africa, the Central European Pipeline System is the only pipeline in the region to cross multiple countries.

"Language and logistics challenges are overcome by the use of a management agency board made up by representatives from each country," Deeney said.

The pipeline networks DLA Energy uses to fulfill its mission not only cover vast and diverse geographic areas; they eliminate significant delays and are versatile as well as cost and time effective.

"Pipelines allow us to move large volumes of products at one time and, through the use of "pipeline cuts," enable us to use the same pipeline to move multiple products," Kephart said.

"The timeframes involved with downloading other transport modes are time consuming, manpower intensive and are sometimes limited by factors such as space and download header capabilities," the Customer Operations director added. "And lengthy download times could lead to operational impacts." 



During World War II, Operation Pluto was executed to lay pipeline under the English Channel to supply fuel for the Allied armies after D-Day. The operation involved wrapping pipe around cone-ended drums, also known as conundrums, similar to the one pictured above, that were approximately 30 to 40 feet in diameter and weighed 1,600 tons when fully loaded. The conundrum could then be towed by two tugboats across the channel, laying out the pipe behind it. Courtesy photo

Pipelines Supporting the Front

By Terry Shawn

Editor's note: Portions of this article were gathered from the autumn 2003 issue of the "Quartermaster Professional Bulletin."

During wartime, the fuel pipeline proved to be the conveyance used to meet the United States' emergency needs and support Allied armies during World War II. Those challenges still exist today in combat operations in the Middle East.

Security and secrecy surrounding Allied war plans in 1944 were factors in Europe, and thanks to Walt Disney cartoon characters, these operations were concealed through the use of unique code names.

During the early planning stages of the invasion of Normandy, plans were made in 1944 for "Pipe Lines under the Ocean" or Operation Pluto. The operation would relieve the Allies' dependence on oil tankers, which were susceptible to bad weather at sea and German submarines.

Two routes were designated for the underwater pipelines. The original route was to run across the Strait of Dover to

France, a distance of 31 miles. Fearing the Germans would learn details of D-Day, the June 6 invasion, the pipeline operation was relocated and another pipeline, code name Bambi, was laid from the Isle of Wight in Great Britain to Cherbourg, France. On that route, a 70 nautical miles pipeline was successfully laid by the British ship HMS Latimer in August 1944. Once operational, the pipeline could deliver 56,000 gallons of fuel per day.

As Allied troops gained more territory, it became possible to lay a pipeline as originally planned; across the Strait of Dover. It took only five hours to lay the pipeline, code-name Dumbo, across this shorter route in October 1944.

By the end of Operation Pluto, a total of 280 miles of pipeline had been laid along the Bambi route to Cherbourg and 500 miles of pipeline along the Dumbo route to Boulogne, France. It is estimated that by Victory in Europe Day, May 8, 1945, more than 172 million gallons of gasoline had been pumped to the Allied forces in Europe.

Closer to American shores during World War II, oil tankers bringing crude oil and refined product from the United States' Gulf of Mexico region to refining and distribution areas near New York City and Philadelphia by way of the

As part of Operation Pluto, a conundrum, wrapped with miles of pipeline, was towed across the English Channel from the Isle of Wight to Cherbourg, France in 1944.

Once operational, the pipeline could deliver 56,000 gallons of fuel per day to Allied forces after the D-Day invasion at Normandy. Photo courtesy of the National Archives



Caribbean were routinely subject to attack by German submarines.

Recognizing the vulnerability of America's tanker transportation system to submarine attacks, then-Secretary of the Interior Harold Ickes wrote President Franklin D. Roosevelt July 20, 1940, "The building of a crude oil pipeline from Texas to the East [coast] might not be economically sound, but that in the event of an emergency it might be absolutely necessary."

In response, construction of the Big Inch and Little Big Inch pipelines for the U.S. began in 1942 to serve as an alternative to the tanker deliveries, according to "Big Inch and Little Big Inch," a compilation of data and published articles related to the war emergency pipelines.

With the Inch pipelines freeing up the oil tankers from the long dangerous travel from the Gulf Coast, the tankers were put into service transporting petroleum products by the shorter route from the East Coast refining and distribution centers across the Atlantic to meet the soldiers' needs in Europe.

The pipeline, now named the Plantation Pipeline, is still in operation and delivers approximately 600,000 barrels per day of gasoline, jet fuel,

diesel and biodiesel through its 3,100 mile pipeline network. Along the way, it serves various metropolitan areas including Birmingham, Ala., Atlanta, Charlotte, N.C., and Washington, D.C., according to the pipeline operator's website.

The head terminal of the pipeline is located less than three miles from the Defense Logistics Agency headquarters at Fort Belvoir, Va.

In more recent operations, the pipeline effectively provided fuel support to the warfighter in the warzone.

During Operation Iraqi Freedom, the Army's 49th Quartermaster Group and its 240th Quartermaster Battalion were tasked with finding innovative solutions to keep fuel flowing to the forces. During various phases associated with construction and the operation of more than 200 miles of pipeline, 20 pump stations and 17 million gallons of tactical fuel storage in tactical petroleum terminals, the battalion performed many missions.

Preparation for the fuel support operation began in March 2002, a year before OIF started, with the initial deployment of the battalion for construction of the base terminal of the Inland Petroleum Distribution System at Camp Virginia in northern Kuwait.

The base terminal would be capable of storing 1.8 million gallons of fuel when construction was completed in January 2003.

The final stage of the prewar preparation was the construction of more than 100 miles of IPDS pipeline connecting Camp Virginia, Camp Udari and Breach Point West, a tactical petroleum terminal at a location on the Kuwait/Iraq border. The pipeline section required 10 pump stations. These pump stations were operated by the Army's 267th Quartermaster Company.

The IPDS was an example of the most efficient means of moving fuel in the theater of operations with a pipeline that was built as far forward as possible. Along the way, the 240th Quartermaster Battalion used innovation to develop tactics, techniques and procedures while achieving a number of "firsts." Previously, the 240th had not operated a commercial pipeline; used water to test and flush the pipeline; employed FM communications to relay information along the pipeline or developed a tactical design for the protected pump stations.

At the peak of operation more than 30 million gallons of fuel was moved through the IPDS. 

One Face

The face of Defense Logistics Agency Energy...



Army Col. William Rush
DLA Energy Middle East
Commander
Bahrain



Mission: DLA Energy Middle East provides fuel integration for the U.S. Central Command combatant commander and supporting service component commanders. We are forward-stationed in the CENTCOM area of responsibility to be the conduit to

our customers, the war-fighters and suppliers. We manage the day-to-day fuel support to Operations Enduring Freedom in Afghanistan and New Dawn in Iraq

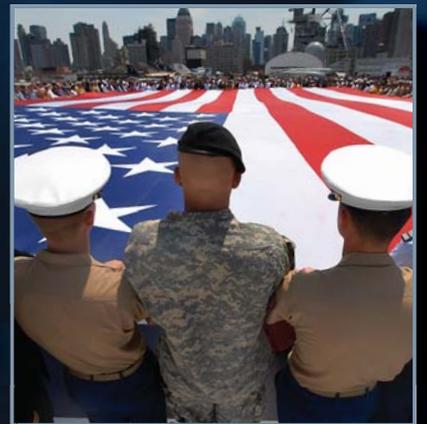
and oversee defense fuel support point operations in support of multiple operation plans and contingency plans.

Highlights: In the summer and fall of 2011 we were importing about 40 percent of our fuel for Afghanistan through Pakistan. In late November of that year, an unfortunate cross-border air strike mistakenly targeted Pakistani soldiers, who were believed to be insurgents firing on friendly forces from within Pakistan. The incident resulted in Pakistan closing their ground lines of communication, forcing all fuel to be shifted to the Northern Distribution Network. Concurrently, Afghanistan experienced a winter with heavy snowfall, which closed the Salang Pass for days between January and March 2012. Compounding that challenge, weight restrictions were imposed on DLA fuel trucks transiting Salang, limiting them to about 66 percent of their previous throughput capacity. Through it all though, DLA Energy and our suppliers were able to keep all warfighter sites supplied without exception, and by March were rebuilding stock levels to the mandated 60 days of supply.

Challenges: The major challenge operating in the Middle East is unpredictability. The United States has a significant military presence in the CENTCOM AOR to support ongoing combat operations and serve as a key deterrent to potential regional state actor aggression. Requirements change frequently in concert with mission priorities and focus, and environmental challenges in wartime require constant vigilance to foresee and mitigate threats to supply operations.

Something for the workforce to know: The Middle East region is critical to the stability of the world's economy due to the production and export of crude oil from its nation states. Persistent conflict in the region threatens access to critical oil reserves and key navigation points for a significant amount of overall world trade. There are ongoing insurrections in Iraq and Afghanistan. Many other countries enjoy only a fragile peace. The U.S. presence in the region will continue long after combat forces withdraw from Afghanistan next fall.

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