Energy Source January 2011

Defense Logistics Agency Energy



Wartighter Support Enhancement

DLA Energy reinvents helium supply chain for warlighter



DLA Energy takes on new mission on Okinawa

Expanding support in Africa

LNOs essential to fuel the fight

DLA Energy is a field activity of the Defense Logistics Agency, America's largest combat support agency.



FROM THE

Commander

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

As part of the Defense Logistics Agency—America's combat logistics support agency—warfighter support is our primary focus. And we continue to enhance that support. Meeting fuel requirements in the U.S. Central Command area of responsibility continues to be one our greatest challenges. This year we restructured DLA

Energy Middle East to better support the warfighter, and our liaison officers in the region have proven vital to providing combatant commanders with key information to support decision making. We have also forged new agreements in the theater to partner with our allies to meet U.S. fuel requirements there. Through our Aerospace Energy business unit, we continue to redefine the helium supply chain, which is critical to our efforts in the AOR. We moved helium conversion services into the theater, in the process freeing air cargo transport assets for other critical warfighter support.

We continue to expand the warfighter's access to fuel in Africa through Into-Plane and Bunker fuel contracts in the region, in addition to the defense fuel support point in Djibouti. And a restructured DLA Energy Europe & Africa provides robust support in theater through LNOs and inventory managers. And we have recently agreed to assume a new mission--management and operation of U.S. bulk petroleum storage and distribution services on Okinawa.

On the homefront, we support the warfighter through our challenging support of realistic combat training, emergency response and environmental stewardship training to operational units. Our utility privatization programs provide secure, reliable and modernized utility services so military units can concentrate on their warfighting missions. And, we continue to deliver new fuels, infrastructure and innovative solutions, such as the new E85 biofuel station on Marine Corps Base Hawaii.

But, DLA Energy's achievements do not end there. This year we supported humanitarian relief efforts around the globe—in Haiti, Indonesia, Pakistan, Russia and Africa—and at home in states ravaged by floods and wildfires. And, we continue our strong support of NASA and other federal agencies.

improve management of the Defense Department's petroleum and non-petroleum supply chains and provide greater agility in monitoring operational and fiscal performance. And, last March we allied with the Air Transport Association of America Inc. to advance the development of alternative aviation fuels and to achieve one of the Department of Defense's goals in energy security, while safeguarding the health of our environment. We continue to foster and support alternative fuel test programs for the military Services and develop energy solutions for the future. In July, we changed our name from the Defense Energy Support Center to De-

We have made great strides in de-

veloping Energy Convergence, a tool to

In July, we changed our name from the Defense Energy Support Center to Defense Logistics Agency Energy, supporting a "single-agency" environment, internally and externally, and building a greater sense of community for our employees and a more definite identity for our customers.

As we begin the new year, I encourage you to review the 2011 DLA Director's Guidance at http://www.dla.mil. The three strategic focus areas--Warfighter Support Enhancement, Stewardship Excellence, and Workforce Development—are broken down into specific DLA Energy supporting roles. These areas continue to guide, define, strengthen and inspire us.

Just & Hunkel



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Warfighter Support Enhancement

DLA Energy invents and reinvents helium supply chain

By Lou Foehrkolb Aerospace Energy

A reassuring sight for U.S. troops in Iraq and Afghanistan is the presence overhead of one of the Army's unmanned, lighter-than-air sentinels known as aerostats.

The aerostats, which bear resemblance to the Goodyear and MetLife blimps that hover over the Rose Bowl, are fitted with advanced technologies to provide a lightweight, affordable component in the Army's array of intelligence, surveillance and reconnaissance sensor platforms. With several LTA programs operating in theater, the Army's aerostats provide precise, local intelligence information and situational awareness around the clock for the protection of U.S. forces and our coalition partners.

DLA Energy Aerospace Energy, in San Antonio, Texas, is the Department of Defense's integrated material manager for helium. Aerospace Energy began supplying helium to the U.S. Central Command's area of responsibility when the first aerostats deployed for Operation Iraqi Freedom in 2003. In order to do that, DLA Energy had to establish the helium supply chain, literally from the ground up.

"There is no natural source of helium in Iraq or Afghanistan," said Sharon Murphy, director of Aerospace Energy. Rather than being extractable from the atmosphere, helium is a byproduct of mining for natural gas and is only found in a few places around the world, Murphy explained. From these few sources, helium is cooled to liquid form where it can be stored and

moved in specially-designed cryogen-





On the previous page: Crews prepare a moored aerostat for launch at a forward operating base in Afghanistan Dec. 7. These tethered airships are kept aloft with the gaseous helium provided by Defense Logistics Agency Energy's Aerospace Energy business unit. And, now, DLA Energy is bringing that support even closer to the warfighter. U.S. Army photo by Spc. Jennifer Spradlin.

ic containers and later converted to gas.

To support the Army's unprecedented requirement for bulk gaseous helium in Southwest Asia, DLA Energy conducted extensive market research and contracted with a regional supplier to convert liquid helium into gaseous form. However, there still remained the challenges of how to get the commodity to the warfighter and ensure timely sustainment.

To meet the challenge of getting the helium from the production location to the forward area of responsibility, airlift would be required. And, airliftable conveyances for gaseous helium would be needed almost immediately to transport the product.

So, Aerospace Energy experts teamed with NASA, the U.S. Air Force and the Department of Energy to rapidly obtain and refurbish a fleet of 1960s-era compressed-gas tube trailers that could be transported aboard military aircraft.

In addition, DLA Energy designed and oversaw manufacture of an innovative type of bulk container, the High Pressure Cylinder Assembly, which consolidates 25 individual high-pressure gas cylinders into a single-manifold cage, and can be forklifted or sling loaded for transport by helicopter.

With the refurbished tube trailers and the invention of HPCAs, DLA Energy was able to quickly establish an effective, streamlined helium supply chain for the ISR aerostat warfighter, Murphy said.

Now, seven years into providing this unique support, DLA Energy has again been presented with a challenging opportunity—to take the overseas helium supply chain to another level of invention.

The Army's marriage of aerostat and ISR sensor technologies has produced life-saving results for our warfighters, especially for those currently engaged in operations in Afghanistan, said Murphy. As a result, senior DoD leaders and commanders in the field, keenly aware of the aerostat program's value, have enhanced tactical capability in Operation Enduring Freedom by expanding aerostat coverage in the area of responsibility. More aersostats and increased coverage also means a greater demand for helium.

DLA Energy has been an active partner throughout the Army's planning to increase the aerostat presence. Earlier this year, Aerospace Energy experts collaborated with the Department of the Army's Directorate of Intelligence and individual aerostat program offices to effectively reinvent the concept of operations for the OEF helium supply chain.

"While we knew we needed to expand our helium container fleet to meet more robust mission requirements" explained Murphy, "we also knew we had arrived at the time where our business model could simply not continue to place growing demands on military airlift."

The Aerospace Energy team rose to the challenge. They established procurement contracts for new containers. And, more significantly, they reshaped the entire helium approach and established a support means which would have previously been considered impossible.

In October, Aerospace Energy introduced the first-of-its-kind, deployable liquid-to-gas helium conversion, or "transfill" facility inside Afghanistan. Now, gaseous helium no longer needs to be airlifted from outside the theater. Trailers and HPCAs can be refilled and reissued to the warfighter without ever leaving the ground—or the country—and in only one-third the time previously required for a retrograde movement and resupply.

DLA Energy will soon field its second helium transfill facility in Afghanistan, providing the insurance for a world-class solution to an unprecedented challenge.

So, this bowl season, when DLA Energy employees catch a glimpse of a blimp over the stadium, they may be reminded of the similar technology being employed by U.S. warfighters to detect potential threats, and of the important, evolving support DLA Energy provides.

Defense Logistics Agency Energy-procured helium, like that stored in canisters below, is essential to the intelligence, surveillance and reconnaissance mission in the U.S. Central Command's area of responsibility.



FOCUS ON:

Warfighter Support Enhancement

DLA Energy to assume new mission on Okinawa



A tanker offloads fuel at a single-point mooring off the coast of Okinawa. The Defense Logistics Agency Energy will soon be assuming responsibility for U.S. fuel operations

on Okinawa currently managed by the 505th Quartermaster Battalion.

By Christopher Goulait DLA Energy Public Affairs

he Defense Logistics Agency Energy's mission to provide quality support to its customers is due to grow with the agreement to assume the mission of the 505th Quartermaster Battalion at Okinawa, Japan, by March 2013. The 505th Quartermaster Battalion is responsible for providing bulk petroleum services for all U.S. military Services and Department of Defense agencies on Okinawa.

"This transfer of mission is groundbreaking," said DLA Energy Japan Commander Air Force Lt. Col. Carmen Goyette. She highlighted the unique conditions surrounding the mission transfer, including the transition of a large number of personnel to DLA Energy management and the operation functioning as a government-owned and government-operated defense fuel support point.

Around 100 employees are host nation personnel funded by the nation of Japan through a Master Labor Contract, according to DLA Energy Defense Fuel Support Point Management Deputy Director Keith Stedman. These employees, along with assigned Department of Army civilian workers, will transition to DLA Energy management as part of the transfer, while the U.S. Army military personnel will be reassigned to other missions. The transfer of the existing Master Labor Contract and Army civilian personnel will provide the needed continuity to ensure continued support to the Okinawa customers.

"Our assumption of this mission will allow the Army to reassign the [more than] 60 military billets to other missions," Goyette said. "That is what drove the Army's decision to deactivate the 505th Quartermaster Battalion and request that DLA Energy assume the mission"

DLA Energy conducted an economic analysis to determine the best course of action for continued petroleum, oil and lubricant support on Okinawa.

"This new mission is precedent setting for DLA

Energy, as it will be the first defense fuel support point operated by DLA civil servants under the operational control of DLA Energy," Goyette said. "Previously, we have contracted for the operation of defense fuel support points but have never actually had DLA employees turn valves, energize pumps or gauge tanks."

"This will be a different sort of transition, simply because this will be a government-owned, government-operated DLA Energy support point," said Stedman. "A lot of the forward planning will take place out of DLA Energy Pacific."

"We accepted the mission because it's in the best interest of the government—since it makes economic sense," he explained. "This is just an expansion of the DLA Energy mission."

"Based on DLA precedence and our Executive Agent role, we feel this mission transfer is consistent with our mission to provide the Department of Defense and other government agencies with comprehensive energy solutions in the most effective and efficient manner possible," said Goyette in a similar statement. "We anticipate no great affect to our current operations, as DLA Energy Japan already works with the 505th Quartermaster Battalion as a government-owned, government-operated defense fuel support point."

A memorandum of agreement is being drafted between DLA Energy and the Army to determine the specifics of the mission transfer. Additionally, regular site visits and monthly teleconferences are scheduled to continue through to DLA Energy's assumption of the mission in March 2013 and the battalion deactivation in September 2013. DLA Energy Pacific Commander Navy Capt. Kevin Henderson continued the series of updates by briefing DLA Energy senior leadership Dec. 17.

"Ultimately, we believe we will be able to take advantage of the natural fit with the other defense fuel support points on Okinawa to provide the most effective and efficient energy support to all of our customers on the island," said Goyette.

Warfighter Support Enhancement

DLA Energy helps science survive

Richard B. Knapp DLA Energy Pacific

One of the coolest logistics missions supported by the Defense Logistics Agency is Operation Deep Freeze. During the Antarctic summer period from November to April, the agency coordinates with other Department of Defense partners to arrange for delivery of fuel and dry cargo to remote locations in Antarctica, including the South Pole, in support of Operation Deep Freeze.

This year, DLA Energy procured the fuel, arranged for transportation and assured the fuel quality when it was issued to the USNS Richard Matthiesen from the Motor Oil Hellas refinery in Thessaloniki, Greece, Dec. 12. DLA Energy quality assurance rep-

resentative Matthew Sheers monitored loading of unleaded gasoline, marine gasoil, and two types of aviation turbine fuel, JP5 and AN8. The shipment is slated to arrive in Antarctica in late January.

This annual resupply to U.S. research stations in Antarctica was first established for the 1955-1956 season and represented a build-up of capabilities to allow continued scientific study by the National Science Foundation. The construction mission itself was tasked to the U.S. Navy, which had led expeditions of its own since 1839 to chart the waters, photograph coastlines and map inland features. The Navy had established the Little America I base in 1929 to allow personnel to "winter over" and explore further inland.

With Deep Freeze I, even more permanent camps were created at McMurdo Station and later at Amundsen South Pole Station. These facilities were part of a focused, long-term effort to study the region's waters, land areas, weather, glacier movements, and wildlife.

A year before Deep Freeze I's construction, the icebreaker USS Atka searched out potential coastal landings and harbors suitable for tankers and freight vessels. The following Antarctic summer and after, Deep Freeze was officially in motion to help build the permanent base camp at McMurdo Station.

Petroleum needs were met through a combination of packaged products and bulk shipments of arctic grade diesel and

aviation gasoline to construction personnel. A construction battalion center at Davisville, R.I., loaded the USS Wyantdot with more than 840,000 gallons of diesel fuel



Two U.S. Navy Yard Oiler Ships lie frozen into the annual sea-ice at the McMurdo Station construction site in 1956. These were used as fuel storage facilities while the base was being built. National Science Foundation photo by Navy Cmdr. Jim Waldron.

arctic freeze

in 55-gallon drums bound for Antarctica.

While above-ground storage tanks were being built by U.S. Navy Seabees, static storage was created by allowing two fuel vessels to freeze in the ice off shore. The tanker Nespeien and U.S. Navy oiler YOG-34 supplied the bulk petroleum.

On land, the team constructed a pipeline using flexible hoses to deliver product from the tankers to the new tank farm.

The Deep Freeze fuel resupply missions have continued each year since, executed today by Military Sealift Command and DLA Energy. Two MSC ships – one tanker and one dry cargo ship, each with hulls and machinery specially designed to withstand the harsh environment – and their civilian, contract crews have made this voyage every year since

the station was established by the National Science Foundation in 1955. Since the 1980s, MSC's government-owned T-5 tankers have been the tankers of choice for the mission.

For DLA Energy, the remote locations and cold operating conditions of the Antarctic dictate the acquisition strategy. Past suppliers have been based in Greece and Australia. Tankers are the most practical way to deliver bulk fuel economically. Normally, bids are solicited in September for a delivery window of Dec. 1 - Jan. 31, plus a 30-day carry-over period. This represents the optimum time to avoid a literal deep freeze.

DLA Energy procures a variety of petroleum products for McMurdo Station, including midgrade unleaded gasoline, marine gas oil and two grades of kerosene-based aviation turbine fuel—JP5 and AN8. The fuels are additized for use in extreme cold weather conditions. The contract calls for

Drummed diesel fuel is loaded at the construction battalion center, Davisville, R.I., into the No. 2 hold deep tanks of the USS Wyandot in 1955. In support of the first Operation Deep Freeze, 840,515 gallons of diesel fuel were transported to the Antarctic, most of it in 55-gallon drums. U.S. Navy historical photo.



Workers construct the One Mile Pump Station at McMurdo Station in 1956. (U.S. Navy historical watercolor by Standish Backus.) "Six miles of unbreakable sea ice at the southern end of McMurdo Sound necessitated establishing a portable pipeline through which aviation gasoline and arctic diesel oil were discharged from the ships to waiting tanks erected by Seabees at one-mile intervals. These camps also doubled as the Antarctic version of the drive-in restaurant, sometimes providing hot coffee for the pipeline patrol and crews of the passing tractor trains. At the ice-edge in the background, offloading cargo, lies the Coast Guard icebreaker Eastwind, next to the tanker Nespelen, and YOG-34," then-Commander Backus said.



Escorted by the Swedish ice breaker Oden, left, the Military Sealift Command tanker USNS Paul Buck makes a delivery to McMurdo Station, Antarctica, in January 2010. Buck delivered five million gallons of Defense Logistics Agency Energy-procured fuel, enough to sustain the scientific station for a year. National Science Foundation photo by Chris Demarest.



Class E5 gasoline, the highest volatility classification. Aviation turbine fuel grade JP5 is familiar to many as U.S. Navy specification aircraft fuel; its high flash point limit (minimum 60 degrees Fahrenheit) makes for safer handling on carriers and other vessels. Additionally, aviation turbine fuel grade AN8 is an actual arctic grade with lower freezing point properties. That ensures product will flow at the low temperatures for aviation and heating purposes. That performance property is crucial for flights into South Pole Station and for activities there during winter no-fly conditions.

For the 2009-10 iteration of Deep Freeze, DLA Energy awarded a contract to BP Australia Pty Ltd Bulwer Island Refinery in Australia for a combined total of more than 5 million gallons of AN8, JP5 and gasoline. Quality Assurance Representative Bill Davenport, from DLA Energy Pacific's Guam office, provided the on-site quality assurance for the free-on-

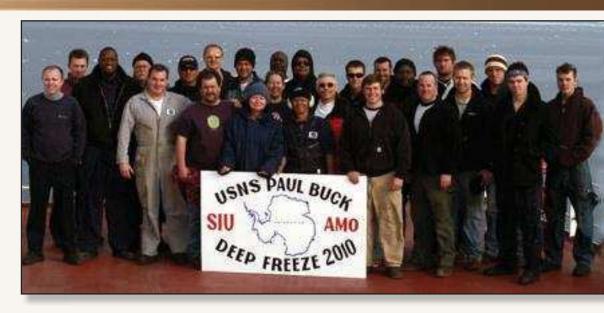
board-origin cargo. Davenport ensured the product met all specification requirements as it was loaded on MSC's T-5 tanker USNS Paul Buck, and he accepted it for the U.S. Government.

To get from eastern Australia or New Zealand south to McMurdo Station's ice pier, vessels like MSC's tanker USNS Paul Buck and MSC-chartered dry cargo ship MV American Tern must follow a route that can involve some of the worst sea conditions and hazards anywhere. During the one to two week voyage, a vessel endures unpredictably harsh weather and miles of floating ice. While the Antarctic region is considered most accessible in January and February, icebreakers, such as the Swedish vessel Oden used during the last delivery operation, still become necessary 17 miles from the destination. They are necessary to break a channel through the ice shelf. Expert navigation and cooperation between crews of the ice breaker, tanker and freighter are required.

On arrival, MSC personnel flown in advance to McMurdo Station oversee the vessels off-loading. In this case, Cargo Operations Officer Larry Larsson and Navy Cmdr. Scott Shackleton provided support for the fuel and dry cargo delivery, respectively. Shackleton is a distant relative of Sir Ernest Shackleton, an explorer who made many journeys to Antarctica in the early 20th Century.

Overall, responsibility for Operation Deep Freeze lies with the U.S. Air Force-led Joint Task Force – Support Forces Antarctica, which oversees both air and sea components. Once the MSC-delivered cargoes arrive at McMurdo Station, the Air Force takes over. The distribution of fuel and supplies to even more remote stations by air and over the snow supports uninterrupted research operations throughout the year, until the next Deep Freeze operation ramps up.

The crew of the Military Sealift Command tanker USNS Paul Buck celebrates a completed mission to McMurdo Station for Operation Deep Freeze 2010. The crew ensured Defense Logistics Agency Energy-procured fuel was delivered to National Science Foundation facilities during a critical two-month window when all fuel deliveries must be received to sustain the mission throughout the year. Photo courtesy of Seafarers International Union.



During Operation Deep Freeze 2010, Military Sealift Command tanker USNS Paul Buck passes through ice floes last January to deliver Defense Logistics Agency-procured

fuel to McMurdo Station, Antarctica. Photo courtesy of the Seafarers International Union.



FOCUS ON:

Warfighter Support Enhancement

Europe & Africa region supports the

By Clancy Duncan DLA Energy Europe and Africa

Providing quality fuel support to U.S. forces on the continent of Africa is no small task. There are many logistical challenges in supporting missions due to infrastructure constraints, said Defense Logistics Agency Energy's Europe & Africa region commander.

"But, the dedicated professionals of DLA Energy, DLA Energy Europe & Africa and the U.S. Africa Command Joint Petroleum Office are working together to attack the challenges head on," said the commander, Army Col. Stephen Walker.

Walker's team has been supporting the new unified combatant command since its inception in 2008.

AFRICOM has made inroads in improving infrastructure, explained Walker's deputy, Charles Gross, but



AFRICOM warfighter

DLA Energy is still challenged with unimproved highway and road networks, unreliable telephone networks, and limited bulk fuel storage availability.

As the U.S. partnership presence grows in the region, Europe & Africa and the JPO are making significant strides in providing more robust fuel support around the 53-nation area of responsibility. Currently, there are 29 Into-Plane contracts in 27 countries, 10 marine gas and oil bunker locations in eight countries, and a defense fuel support point in Djibouti.

The Europe & Africa's Quality Team is currently conducting surveys to further increase availability.

DLA Energy supports many ongoing operations through its Horizon Terminal contractor-owned-and-operated Defense Fuel Support Point Djibouti. The terminal provides marine aviation fuel JP5 and marine diesel F76 to U.S. Naval vessels transiting the Suez Canal. It also fuels international forces supporting Combined Task Force 150's maritime security mission and Combined Task Force 151's counter piracy mission.

Djibouti is also home to the U.S. Navy's Camp Lemonier, the only U.S. forward-located operating base on the continent. Camp Lemonier and Combined Joint Task Force Horn of Africa conduct operations in the East Africa region to build partner nation capacity in order to promote regional security and stability, prevent conflict and protect U.S. and coalition interests. The Europe & Africa team is heavily engaged in improving bulk storage capabilities for the base as it transitions from an expeditionary to an enduring location.

DLA Energy also provides fuel support to critical exercises in the region. Combined exercises with African countries not only foster partnerships and build inter-operability, they also help stimulate local economies where ground fuels may be purchased under local procurement authority.

In 2010, the Europe & Africa team oversaw support to more than 24 exercise training events with combined fuel requirements of more than 2 million gallons. These include critical exercises like the U.S. Army Africa's Natural Fire humanitarian assistance and disaster relief exercise in Uganda.

Left, a tactical refueling underway in Kitgum, Uganda, one of 29 locations on the continent where Defense Logistics Agency Energy has established Into-Plane contracts.



Fuel storage tanks at the Horizon Terminal contractor-owned-and-operated Defense Fuel Support Point Djibouti. The Defense Logistics Agency-fueled DFSP provides fuel to U.S. Naval vessels transiting the Suez Canal.



Pierside fuel facilities at the Horizon Terminal contractor-owned-and-operated Defense Fuel Support Point Djibouti, which provides fuel to U.S. Naval vessels transiting the Suez Canal.

As AFRICOM continues to build capability in Africa, DLA Energy Europe & Africa representatives will continue to work alongside the unified combatant command's planners to ensure responsive fuel support in the AOR, Walker said.

FOCUS ON:

Warfighter Support Enhancement

Navy conducts first test of shipboard alternative fuels

By Terry Shawn DLA Energy Public Affairs

The U.S. Navy conducted a full power demonstration today at Naval Base Norfolk, Va., of an experimental Riverine Command Boat, powered by a 50/50 blend of algae derived F76 and traditional F76 fuel procured by the Defense Logistics Agency Energy.

According to DLA Energy's Energy Plans and Programs Office, the fuel was provided to the Navy for testing and certification through one of DLA Energy's research and development projects called Alternative Energy from Organic Sources.

"DLA Energy stands ready to support the alternative fuel and renewable energy requirements

for the military Services as they continue their testing of these biofuels in an effort to reduce their reliance on fossil fuels," said Navy Rear Adm. Kurt Kunkel, commander of DLA Energy.

This isn't the first time DLA Energy has supported the Navy's alternative fuel requirements. On Earth Day, April 22, DLA Energy contracted the 50-percent mixture of a fuel refined from the crushed seeds of the flowering camelina sativa plant for the Navy's testing of an F/A-18 Super Hornet, dubbed the Green Hornet, at Naval Air Station Patuxent River, Md.

"The Navy has aggressive energy efficiency goals



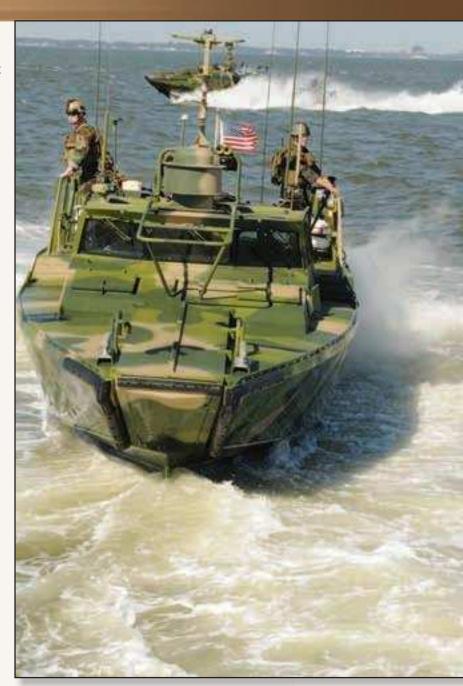
and we are prepared to support their alternative fuels requirements that will enable them to meet those goals," Kunkel said.

The testing and demonstration of alternative fuels for ships is led by Naval Sea Systems Command's advanced fuels program office. Working in coordination with the Task Force Energy Maritime Working Group, the office supports the Secretary of the Navy's energy target to demonstrate a Green Strike Group of biofuel and nuclear-powered vessels in local operations by 2012.

The creation of the Green Strike Group is one of the energy targets announced by Secretary of the Navy Ray Mabus Oct. 14 at the Naval Energy Forum in McLean, Va. Mabus said the Green Strike Group fleet would be deployed by 2016. Other energy targets announced by Mabus include: reducing petroleum use in its 50,000 commercial vehicle fleet by 50 percent by 2015 by phasing in hybrid and electric vehicles; producing at least half their shore-based energy requirements from renewable sources, such as solar, wind and ocean generated by the base; and by 2020, ensuring at least 40 percent of the Navy's total energy consumption comes from alternative sources.

"The important part of our procurement support is that we ensure the alternative fuels purchased for the Services' testing and certification purposes are drop-in replacement fuels, meaning the current distribution systems and infrastructure for fuel storage can be used," said Mark Iden, DLA Energy deputy director of operations.

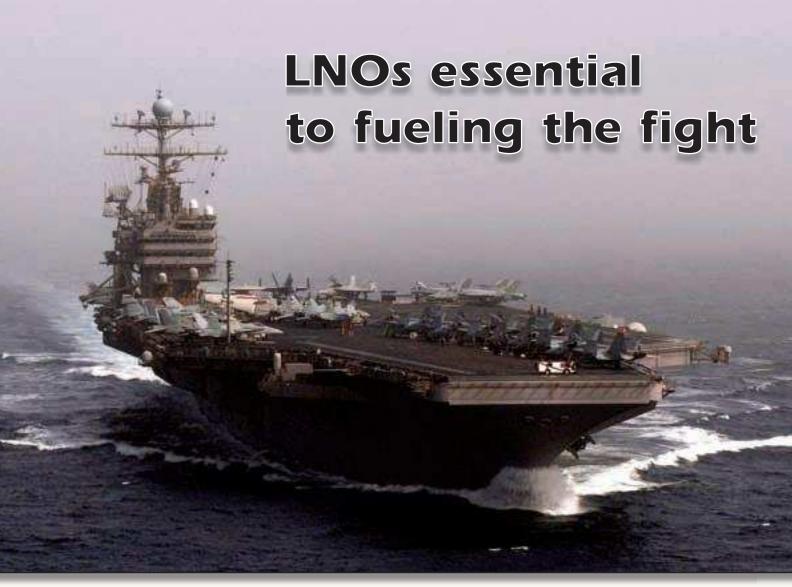
Currently, the Navy's shore energy is down more than 14 percent since 2003 and 12 percent of the Navy's total annual energy needs are produced from renewable sources. The Navy has also reduced the fossil fuel use of its nontactical vehicle fleet by 30 percent since 2005.



Above and left, sailors assigned to Riverine Group 1 conduct maneuvers aboard Riverine Command Boat (Experimental) at Naval Station Norfolk in Va. The craft is powered by an alternative fuel blend of 50 percent algaebased and 50 percent NATO F76 fuels procured by the Defense Logistics Agency Energy in support of the secretary of the Navy's efforts to reduce total energy consumption on naval ships. Photo by Petty Officer 3rd Class William Jamieson.

FOCUS ON:

Warfighter Support Enhancement



By Air Force Maj. Nick Moore DLA Energy Middle East

Whether it's a pair of F-15s taking off or a convoy of Mine Resistant Ambush Protected vehicles heading off base in support of Operation Enduring Freedom, without fuel they are useless. In Afghanistan, fuel is especially critical to the brave men and women who take the stand everyday to defeat terrorism. Providing fuel support here is extremely challenging. There's no country in the world more difficult, remote, or land-locked.

One of the keys to DLA Energy Middle East's success in fueling that fight is strategically placed petro-

leum liaison officers in Afghanistan, U. S. Central Command headquarters at MacDill Air Force Base, Fla., and at International Security Assistance Forces headquarters.

These five liaisons, or LNOs, stationed at Bagram Air Base, the U.S. Embassy in Kabul, NATO Headquarters at Joint Force Command Brunssum, Netherlands, and Tampa, Fla., provide crucial support to Afghanistan fuel operations and also function as the eyes and ears of DLA Energy Middle East.

"Providing fuel to Afghanistan has never before been pushed to the limit as it has been over the last five

Trucks travel the treacherous Salang Pass, a primary fuel route into Afghanistan, in May. Five Defense Logistics Agency Energy Middle East liaison officers at Bagram Air Base, the embassy in Kabul, NATO headquarters in the Netherlands and U.S. Central Command headquarters in Tampa, Fla., provide crucial support to Afghanistan fuel operations. Photo by Air Force Col. Larry Cox.

Left, aircraft carrier USS Abraham Lincoln transits the Arabian Sea while conducting flight operations. The Abraham Lincoln Carrier Strike Group is deployed in the U.S. Central Command area of responsibility and is supported by Defense Logistics Agency Energy Middle East. DLA Energy liaison officers in the region provide combatant commanders with critical real-time information to enhance warfighter decision making and support. Photo by Seaman Adam Randolph.

months [August-December]. Numerous fuel delays due to increased demand for fuel and transportation challenges have shown the true importance of these LNOs as they provide support to the combatant commander, ensuring no disruption to fuel support for the warfighter," said DLA Energy Middle East Deputy Director Ron Black.

The holy month of Ramadan, Pakistan flooding, rail congestion on the Northern Distribution Network and impediments at the Pakistan/Afghanistan border crossing are some of the issues the LNOs assisted commanders with.

Fuel is a simple concept of supply and demand. It works the same way in Afghanistan as it does in Nashville, Tenn.

In Afghanistan, the supply portion of the equation is the difficult piece. DLA Energy Middle East has multiple fuel suppliers, transportation contractors, defense fuel support points and commercial storage locations operating in conjunction with a quality oversight contractor used to fuel U.S. forces. In an average month, DLA Energy Middle East suppliers provide more than 30 million gallons of aviation and ground fuel to 10 locations throughout Afghanistan. These locations act as a hub and spoke system to push fuel to 204 forward operating bases in Northern and Eastern Afghanistan. So where do the LNOs fit in to the supply chain, and why are they so important?

Despite the logistical challenges and thirst for realtime information, DLA Energy Middle East LNOs stationed in Afghanistan at Bagram Air Base and the U.S. Embassy in Kabul ensure accurate and timely information is passed through the chain of command to allow time-sensitive operational decisions.

Just normal operations right?

Not so much. When on-hand inventory and capacity concerns reach the combatant commander level, things get exciting. Fuel supply disruptions outside the control of DLA Energy or the U.S. government caused concern over the past months, but the LNOs proved their true



value in the process. The LNOs on the ground worked directly with fuel suppliers for DLA Energy Middle East, Joint Sustainment Command-Afghanistan and NATO leadership to gather and disseminate accurate information to dispel rumors and calm fuel concerns. Additionally, the DLA Energy Middle East LNO stationed at USCENTCOM in Tampa was able to correlate and relay accurate real-time information to leadership at the USCENTCOM level and within DLA Energy.

Ensuring information flow, whether good or bad, is one of the most important, deliberate steps a leader can take to calm the rumor mill and gain control of the situation.

These LNOs enabled the commander of DLA Energy Middle East to communicate a strategic fuel support forecast and subsequent recovery plan. Without these critical updates and information flow, chaos would have ensued, and the information battle would have been lost before it started.

"The LNOs are a critical enabler in providing realtime information to the warfighter, NATO, CENTCOM and DLA Energy, ensuring consistent petroleum support throughout the AOR," said Army Col. Thomas Kelly, DLA Energy Middle East commander.

"The LNO position comes with a great deal of responsibility. And he or she faces many challenges; however, the fruits of LNO's labor cannot be denied," echoed Black.

FOCUS ON:

Warfighter Support Enhancement

By DLA Energy Americas West staff

The United States armed forces are widely recognized as the most formidable in the world. That military superiority is attributable in large part to the Department of Defense's commitment to realistic training scenarios, according to senior leaders. And the Defense Logistics Agency Energy plays a big part in supporting combat training that gives America's warfighters the edge they need.

Realistic combat training requires a steady diet of fuel. And, DLA Energy Americas West, responsible for supporting DLA Energy customers west of the Rocky Mountains, keeps three of the military's premier training programs fully fueled. The Army's National Training Center at Fort Irwin, Calif.; the Navy's Fighter Weapon School, called Top Gun, at Naval Air Station Fallon, Nev., and the Air Force's Red Flag and Green Flag exercises at Nellis Air Force Base, Nev., are all supported by the Americas West team.

"These are the 'Big Three' training and force projection facilities in the world," said DLA Energy Americas Commander Army Col. Bill Keyes, "and supporting them creates many fuel challenges."

There at the inception

Once fuel contracts are awarded through DLA Energy business units at Fort Belvoir, Va., it becomes the mission of AMW to make sure clean, on-specification products reach the training facility. Two of DLA Energy America's primary inventory managers, Keith Embree and Dave DeHoag, work together to schedule delivery to the military Services' training facilities.

Because there are no local refineries in the region supporting DoD, and because other contract specifics can differ from year to year, "award patterns can be quite elaborate," explained Lee Oppenheim, AMW's deputy commander. "The supply pipeline is different in each case, and timing is everything, so planning begins at about 60 days prior to the start of an exercise."

Aviation Jet Fuel Grade JP8 is the primary fuel used throughout the training programs, and not just for air operations. The team places orders with suppliers using current contracts. Then the local quality assurance representative, Tom DiPaola or Clyde Flwellen, inspects and assures both the quality and quantity of fuel purchased from the suppliers.

Currently, JP8 for these locations is supplied to DLA Energy by one of two refineries: Chevron Richmond, Calif., or Shell Martinez, Calif. BP Cherry Point, Wash.; Valero Benecia, Calif.; and Exxon-Mobil Torrance, Calif., refineries have also held contracts in support of these locations.

The JP8 is amassed at DLA Energy's contract storage facility in the San Francisco Bay Area. Embree coordinates tanker schedules with the DLA Energy Tanker Division to move the JP8 to the Los Angeles Basin. JP8 ordered from su ply contracts currently arrives at either of two L.A. Basin def fuel support points—DFSP San Pedro or DFSP Carson—via a ship on charter to the Navy's Military Sealift Command. The validates quantity and quality of the fuel both upon arrival a and again when it is discharged into the DFSP storage tanks

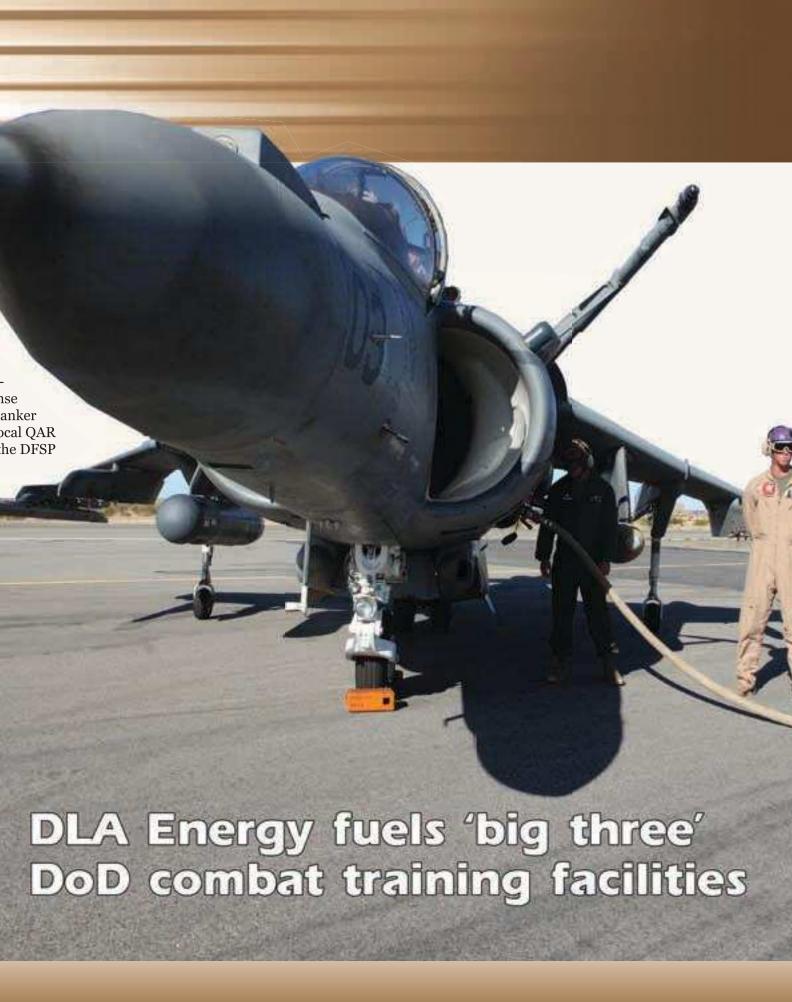
Delivering the goods

Nellis Air Force Base

Nellis AFB is the home of the Air Force's premier military training area with more than 12,000 square miles of airspace and 2.9 million acres of land. With 1,900 possible targets, realistic threat systems and an opposing enemy force that cannot be replicated anywhere else in the world, Nellis is the home of a "peacetime battlefield," providing combat air forces with the ability to train together in a realistic combat environment.

Red Flag and Green Flag exercises are held throughout the year to train aircrews

In addition to the "big three" combat training facilities, Defense Logistics Agency **Energy Americas supports many training** programs and exercises across the continental United States and South America. Here U.S. Marine Corps aircrewmen refuel an AV-8B Harrier II aircraft during a training mission at Laguna Airfield at Yuma Proving Ground, Ariz., in October. The mission was part of Weapons and Tactical Instructor Course 1-11. Photo by Marine Cpl. Benjamin R. Reynolds.



from the United States, NATO partners and other allied countries in real combat situations.

"The exercises almost pull fuel faster than we can give it to them," said AMW's Bo Swenson, distribution manager. "It's very challenging, and the trick is to 'frontload' the system with fuel because these exercises use more fuel in one day than most commercial airports do," he explained.

DeHoag works with DLA Energy's transportation partner Kinder Morgan Energy Pipelines to schedule shipments from the L.A. Basin through the KMEP network, allowing for a seven-day transit time. Ultimately, the JP8 is received into the KMEP Las Vegas storage facility under the careful surveillance of DLA Energy's local QAR.

The QAR validates the fuel quality once again to assure the JP8 remains on-specification. The QAR must be especially vigilant; lax quality control procedures could result in the JP8 being tainted by another fuel type, Oppenheim explained.

During Red Flag exercises, the base consumes 6,000 to 8,000 barrels per day of JP8. Normally, batches of 25,000 barrels of fuel move through the line. So, to ensure adequate stock for the exercise, the team "frontloads" the supply.

"Just prior to any exercise, Embree works mightily to make sure all the available tankage at Las Vegas and on Nellis AFB is full," AMW Commander Air Force Lt. Col. Tam Gaffney explained. Even with these preparations, sometimes the exercise consumes fuel so fast that AMW must request KMEP increase the parcel size to be 40,000, or even 75,000 barrels in order to meet mission needs.

The DLA Energy QAR Glenn Beshara tracks daily shipments and monthly receipt schedules during the Red Flag and Green Flag exercises. He maintains communication between Nellis' fuels management team, KMEP and the AMW inventory manager.

Fort Irwin

By fueling the Army's National Training Center and the support battalion at Fort Irwin, DLA Energy fosters vital training of Army and other U.S. forces. NTC training is often supported by air assets from Nellis AFB as well.

The NTC focuses on battalion task force and brigade levels to provide "tough, realistic joint and combined arms training," according to its website. The

U. S. Air Force instructors from the 12th Combat Training Squadron debrief tactical air control party students after the completion of a combat training scenario on the Fort Irwin Training Range, Calif., Nov. 1. Defense Logistics Agency Energy Americas West fuels training on Fort Irwin, Nellis Air Force Base, Nev., Naval Air Station Fallon, Calif., and numerous other facilities west of the Rocky Mountains. Photo by Senior Airman Stephanie Rubi.

training helps commanders develop trained, competent leaders and soldiers, and it helps to identify unit training deficiencies, provide feedback to improve the force and prepare for success on the future joint battlefield. "The NTC conducts force-on-force and live-fire training for ground and aviation brigades in a joint scenario across a spectrum of conflict" which includes a "highly-lethal" opposing force.

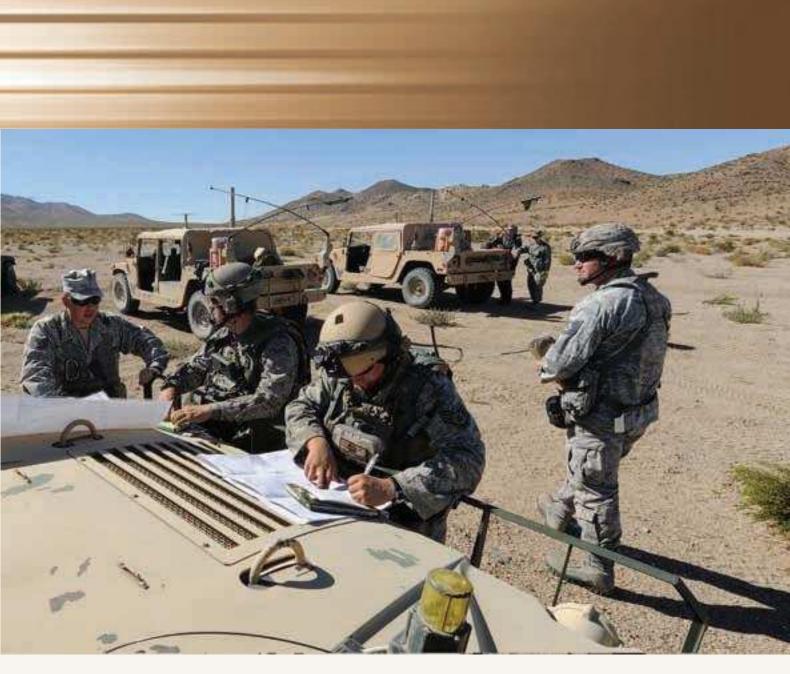
Rotational combat exercises are held throughout the year to support Army, Air Force, Marine, Navy, Army reserve, NATO and allied country forces.

From DFSP San Pedro, DeHoag schedules truck assets to load JP8 for delivery to Fort Irwin. During each two-week exercise, the DFSP ships seven to eight truck-loads per day, or about 50,000 gallons, to the NTC. QAR Talbert Hignight provides product quality surveillance at DFSP San Pedro, and QAR Glenn Beshara monitors truck receipts at Fort Irwin, where he takes product samples for analysis in order to meet product specification. Beshara also provides customer support for fuel issues related to upkeep and maintenance of the fuel distribution system to the Fort Irwin fuel group.

"His persistence in tracking daily shipments during these exercises and maintaining communications with the AMW inventory manager has allowed the organization to maximize contribution to the war fighter," Gaffney said.

Naval Air Station Fallon

NAS Fallon is the only U.S. Naval facility where advanced integrated Carrier Air Wing strike training can take place, combining realistic flight training in electronic warfare, air-to-ground, air-to-air weapons delivery, special weapons delivery, and enemy evasion tactics. Military aircrews from the Navy, Air Force, Marine Corps, and Nevada Air National Guard train at NAS Fallon, located 70 miles east of Reno. Aircraft currently stationed at the base include the F/A-18, F-14, A-6, and F-5 jet aircraft, and the H-3 and HH-1 helicopters. The Naval Fighter Weapons School is also located here, pro-



viding strike planning and execution training opportunities in a dynamic, realistic, scenario-driven simulated wartime environment.

Training at NAS Fallon is ongoing yearround. The training period for each Carrier Air Wing Group is typically 30 days.

Last year, DLA Energy provided approximately 525,000 gallons of JP8 per month to NAS Fallon. This supported all traffic at NAS Fallon, both directly fueling the aircraft for Top Gun training and other aircraft used to transport personnel and material associated with the training exercises.

Currently JP8 is piped from the refinery in the Bay area to KMEP's Concord, Calif., station. Embree maintains liaison with KMEP and schedules deliveries into and out of the Concord terminal for use by all DLA

Energy customers in this pipeline segment.

JP8 arrives at the KMEP Sparks, Nev., DFSP with product quality and quantity surveillance performed by local QAR John Guzzardi. Once he validates the fuel quality, the JP8 is pumped to NAS Fallon, approximately 65 miles from the Sparks terminal. DFSP Fallon's base fuels facility can also receive via tank truck, also from the KMEP Sparks facility.

"We estimate this year's consumption will increase significantly," said Oppenheim. "There are, on average, 2,200 refuelings per month performed by the base fuels personnel."

The AMW QAR support to NAS Fallon is performed both on a set frequency interval and through some unscheduled on-site visits. Currently, a QAR visits the site semi-annually and keeps in touch through



many unscheduled phone and e-mail contacts, Guzzardi said.

NAS Fallon Fuel Director Steve Isaacson, a long-time and very experienced Navy employee, is also the DFSP's responsible officer. Along with his assistant, accountant D. Shaun Lamb, he is responsible for all the DFSP's infrastructure and oversees all the base fuel receipt and issues operations. These are performed by LB&B Associates Inc., a private contractor, under a DLA Energy facilities multi-year contract.

The AMW distribution group keeps a close eye on the projected fuel requests that the responsible officer submits, based on the responsible officer's weekly coordination with the Fallon NAS training flight section. Then the AMW San Pedro distribution group slates fuel procurement from the current DLA Energy Bay Area refinery contracts or from pre-positioned DLA Energy stocks. The team coordinates with the KMEP pipeline scheduling office as the JP8 begins its long journey to Fallon NAS through the KMEP multi-product pipeline initial entry point in the Bay Area.

A coordinated AMW team effort is required to ensure NAS Fallon's requirements are satisfied, Oppenheim explained. Many inventory specialists and QARs take part in rendering service to NAS Fallon, both directly and indirectly.

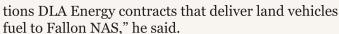
"The QAR is also involved in providing assistance in reference to any issues with the Post, Camps and Sta-



efense Logistics Agency Energy's Americas West supports realistic training at Nellis Air Force Base, Nev., The exercises held there are challenging to support because of the rapid rate of fuel consumption associated with the number of aircraft participating.

Left, U.S. Air Force C-130 Hercules aircraft fire chaff and flare countermeasures over the Nevada Test and Training Range Nov. 17. Approximately 40 C-17 Globemaster III and C-130s flew over the range to conduct air and ground operations as part of a biannual Air Force Weapons School mobility air forces exercise. Photo by Air Force Master Sgt. Kevin Gruenwald.

Right, An F-16 Fighting Falcon approaches the boom on a KC-135 Stratotanker to refuel Oct. 11 during a Red Flag training exercise at Nellis Air Force Base, Nev. Red Flag tests aircrews' warfighting skills in realistic combat situations. U.S. forces and coalition forces were fueled by Defense Logistics Agency Energy-procured fuel. DLA is the nation's largest combat support agency. Photo by Air Force Master Sgt. Kevin Gruenwald.



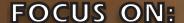
At the end of the pipeline tail, the QAR's duties include witnessing or monitoring quality and quantity oversight of the JP8 batch receipts at the terminal just prior to the training location. The fuel batch cuts are also carefully additized with Fuel System Icing Inhibitor and Static Dissipater Additive during the batch cuts, and are line-injected as the fuel is being transferred and stored into the DLA Energy fuel dedicated, leased tanks in the terminal. The product stored in the leased tanks will undergo additional testing before it is approved for shipment to the base DFSP and other DLA Energy customers in the area.



Satisfying the customer

Gaffney is proud of her team's support to the warfighting customer.

"Because the Americas West professionals strictly adhere to detail and maintain superior technical knowledge of the products, we have never purchased off-specification fuels for our customers, and we deliver products to them on time," she said. 🔼



Warfighter Support Enhancement



By Ron Nelson DLA Energy Pacific

Officials gathered on Marine Corps Base Hawaii Nov. 18 for the grand opening of a Defense Logistics Agency Energy-funded E85 fuel dispensing station. The ribbon-cutting ceremony marked the first time an E85 fuel dispensing station has come online at a military installation in the Pacific region.

"We are proud to collaborate with Marine Corps Base Hawaii and our industry partners to bring the first E85 station to Hawaii. This is just one more step on the continuing journey to reduce our dependence on fossil fuels," Navy Capt. Kevin Henderson, commander of DLA Energy Pacific said as he snipped the ribbon with Marine Corps Base Hawaii Commanding Officer Col. Robert Rice.

E85 is a blend of 85 percent ethanol and 15 percent gasoline. Ethanol fuel is a sustainable energy resource intended to provide a more environmentally and economically friendly alternative to fossil fuels such as diesel and gasoline. Unlike petroleum, ethanol can be produced from agricultural feedstocks such as sugar cane, potato, manioc and corn.

"We are excited to lead the way in conservation, and it is a great privilege to have the first shipment of E85 come to our base," said Rice. "The use of E85 alternative fuel along with 70 flex fuel vehicles, three hybrids and 20 electric carts, will drive Marine Corps Base Hawaii's carbon footprint lower and decrease our reliance on imported oil."

The alternative fuel project was funded by DLA Energy's Sustainment, Restoration and Modernization program, and DLA Energy contracted for more than 130,000 gallons of E85 to be delivered to the base.

"With this station up and operational, Marine Corps Base Hawaii hopes that it will be a model that will help pave the way for wider use of E85 in both state and federal governments in Hawaii," said Cmdr. Robert Michels, supply officer at Marine Corps Base Hawaii.

"Other federal agencies have inquired about using the station; we have said yes to all in hope to support their mission," Michels said.

Fulfilling its commitment to provide effective and efficient energy solutions for the warfighter in the Pacific region, DLA Energy Pacific is helping the base meet environmental goals in other ways as well. It is converting a 12,000-gallon diesel tank for B20 usage at the installation, and has already awarded a contract for more than 460,000 gallons of B20 product to be delivered when that tank conversion is completed. B20 is a biodiesel fuel that is an effective substitute for diesel and will be used in tactical and government vehicles.

DLA Energy continues to provide support to the Department of Defense's efforts to reduce the carbon footprint and dependence on foreign oil. The use of E85 and flex fuel vehicles supports the base's goal of reducing energy consumption by at least 10 percent by summer 2011.

This alternative fuel program was established through close collaboration between representatives of DLA Energy, Naval Supply Systems Command and the base.

"DLA Energy's expertise in acquisition, logistics and energy technology ensured the right solution

for Marine Corps Base Hawaii," said Henderson.

[Contributing to this article were Krista Ludwigsen, Lee Edwards and Greg Coleman of DLA Energy Pacific.]

Leaders from Defensive Logistics Agency Energy and Marine Corp Base Hawaii gather Nov. 18 at a ribbon cutting ceremony marking the opening of the first E85 dispensing station in Hawaii. The project was funded through DLA Energy's sustainment, restoration and maintenance fund. DLA Energy also procures the biofuel blend. Ribbon-cutters include, from left, Larry Adams, director of Sales and Marketing for Aloha Petroleum Ltd., supplier of the E85; Navy Capt. Kevin Henderson, commander of DLA Energy Pacific; Marine Col. Robert Rice, commanding officer of MCBH; Wray Matesich, construction manager for the E85 Project with Innovative Technical Solutions Inc., and Marine Master Sqt. Jonathan Scott, Combat Logistics Battalion 3, MCBH.





By Susan Declercq Brown DLA Energy Public Affairs

Tyndall Air Force Base, Fla., joined the ranks of 55 other Department of Defense installations Sept. 28, benefiting from utility privatization contracts executed by the Defense Logistics Agency Energy. Under the utility privatization program, the base's utility infrastructure was transferred to private companies who now own, operate and maintain these systems.

Gulf Coast Electric Cooperative received a contract with an estimated value of \$117 million to own, operate and maintain the electric and water systems on the base, bring the infrastructure up to industry standards and provide utility services across the systems for the next 50 years, said Laurie Carlson, a division chief with DLA Energy's Energy Enterprise business unit. She estimated the company will invest \$725,000 to upgrade the systems. Peoples Gas received the contract for the base's natural gas system with an estimated value of more than \$14 million, Carlson added.

The utility privatization program, which began in 1997 after a 1990 fatal pipeline explosion at Fort Benjamin Harrison, Ind., highlighted the danger of DoD's deteriorating utility infrastructure, provides many benefits to DoD, the military Services and installations, explained Deputy Director of Energy Enterprise Eric Moore.

"First and foremost is energy security," Moore said.
"The lives and safety of base workers and families is our top priority. Installations benefit by receiving utility

services via safe, reliable and modernized systems with the assurance that the new system owner will maintain this level of service throughout the contract performance period," he explained. "Absent the privatization of these systems, it might not be possible [for installations] to obtain the additional funding needed to address utility system deficiencies." Moore added that some of DoD's utility infrastructure is more than 50 years old.

The program also helps the military Services and installations budget for expenses because most of the new system owner's costs for upgrades and maintenance are recovered over the 50-year contract period in a monthly service charge. And, because the military units at the installation no longer have to provide personnel to manage and operate the utility systems, they can concentrate on their critical missions, Carlson said.

Finally, Moore said, one requirement of the program is that the cost of privatizing a system must be at least 10 percent lower than the estimated cost of the government continuing to own, operate and upgrade the system to industry standards.

Though neither Moore nor Carlson noted it, officials in communities surrounding installations participating in utility privatization have also cited local job opportunities as another possible benefit of the program.

Moore said the Air Force and Army both participate in DLA Energy's program, and the Services determine which installations will be offered for utility privatiza-

FOCUS ON:

Warfighter Support Enhancement

Left: Units at Tyndall Air Force Base, Fla., can now concentrate on their critical missions, like those supported by this F-22 Raptor, without dedicating personnel to maintain and operate natural gas, electricity and water systems on the base. The Defense Logistics Agency Energy utility privatization program recently executed contracts to transfer these systems to civilian companies who will own, operate and maintain the systems for the next 50 years.

Below: Utility privatization contracts like those just executed for Tyndall Air Force Base, Fla., by the Defense Logistics Agency Energy, provide safe, modernized and reliable utility services for installations' operations, services and housing areas, including the child development center.



tion contracts through the DLA Energy program. Electric, natural gas, water and wastewater systems can all be privatized. As of Dec. 5, DLA Energy had privatized 91 utilities systems at 55 installations with an estimated total contract value of \$9.5 billion. Moore expects those figures to rise to 65 installations and more than 140 systems by 2017 based on Army and Air Force projections.

The utility privatization process, which comprises two contractual actions—transferring ownership of the system to a company and procuring 50 years of utility services, takes two years to complete.

"There's a lot of effort, coordination and teamwork required to reach the goal," Carlson said. The military Services are involved at the service level, major command level and installation level, Moore explained, and DLA Energy legal, resource and policy professionals work alongside the Energy Enterprise team to ensure success.

Defense Department-wide, there are 2,600 utility systems valued at \$50 billion in 2005. Many could benefit from utility privatization.

Warfighter Support Enhancement

Tampa units benefit from DLA Energy course

By Ronnie Brock DLA Energy Americas East

Fuels professionals at the Defense Fuel Support Point Tampa and MacDill Air Force Base, Fla., honed their emergency response skills, Nov. 3-4, as part of a course offered by the Defense Logistics Agency Energy. The two-day course, held at the Florida facilities, included a spill response exercise.

The annual course, presented by Spectra Tech/Ensafe Joint Venture, a DLA Energy support contractor, helps military Service fuel facilities meet requirements of the Oil Pollution Act of 1990. It helps ensure those who handle defense fuels are current in safe handling techniques, legal requirements and spill response procedures—protecting both the environment and fuels personnel. The course is customized to specific facilities and operations to ensure maximum applicability for the participants. It includes classroom discussion and outdoor, hands-on experience.

DFSP Tampa is a government-owned, contractor-operated facility located on MacDill AFB. Operated by Hawthorne Services, the facility stores around 6 million gallons of JP8 jet fuel and is resupplied by ocean barge and tankers.

The DFSP ships an average of 1.6 million gallons monthly via pipeline to MacDill AFB and tank truck to six other customers in Florida—Patrick AFB, Northrop-Grumman in support of federal programs, Cape Canaveral Air Force Station, Clearwater Coast Guard Station, and sheriffs' offices in Osceola and Brevard Counties. Two DLA Energy quality assurance representatives, Ronnie Brock and Air Force Tech. Sgt. Ted Davis, monitor the transfer of fuels and ensure the fuel received and issued from the DFSP meets all applicable quality specifications.

The training included a review of the DFSP's facility response plan, called the Red Plan. The facilitators helped students evaluate the plan's effectiveness and interoperability with MacDill AFB's emergency action



procedures. Students also reviewed the storage location and operation procedures for emergency response equipment.

On the second day, the group initiated a mediumsized spill scenario to train students and evaluate Hawthorne Services' capabilities to contain the spill and prevent it from reaching navigable waters. In the scenario a fuel line on the truck loading rack has ruptured. Because the peninsula on which the DFSP is located is close to waterways leading to Old Tampa Bay, the goal is to minimize or stop the movement of the spill in the surrounding waterway leading to the bay.

Hawthorne Services operator's responded effectively to the scenario. Wearing Tyvek coveralls, goggles and chemical resistant boots and gloves, the team employed a front end loader and containment booms and pads to contain the "spill" on the DFSP grounds. They also established some new ways to contain spills within the tank farm area and prevent the spill from entering the waters of Tampa Bay. Among other methods, the response team used plywood to prevent flow through culverts and a Bobcat to move dirt into the ditch, creating a dam.

"Every year we learn something new," said John Deininger, the DFSP's terminal superintendent.

Representatives from MacDill AFB's environmental, disaster preparedness and fuels management section

Left: Pete Fells positions a Bobcat loaded with dirt to create a dam in a nearby ditch during a spill response exercise at MacDill Air Force Base, Fla., Nov. 4. The exercise was part of Defense Logistics Agency Energy-sponsored annual fuel safety training. Fells is Defense Fuel Support Point Tampa's assistant terminal superintendent for Hawthorne Services. Photo courtesy of Spectra Tech/Ensafe.

Below: John Deininger, terminal superintendent of Defense Fuel Support Point Tampa, directs others' attention as part of a strategy session during a fuel spill response exercise on MacDill Air Force Base, Fla., Nov. 4. Other exercise participants in the foreground, from the left, are Tech. Sgt. Lonnie Ulrich, the base's non-commissioned-officer-in-charge of Fuels Compliance; Lloyd Savage, a security guard for DFSP operator Hawthorne Services; and Donald Martin, an environ-

mental protection specialist from Defense Logistics Agency Energy's headquarters at Fort Belvoir, Va. In the background, from the left, are Kris Fells, a DFSP fuels distribution system operator, and one of the course instructors, engineer Larry Bowers. DLA Energy contractor Spectra Tech/Ensafe leads the two-day annual course for DFSPs around the world. Photo courtesy of Spectra Tech/Ensafe.

were also able to participate in the training and the spill exercise. Participants from MacDill AFB said the exercise helped them realize they are an important reach-back source for booms and other spill response equipment. Also, both DFSP and MacDill AFB representatives experienced first-hand how critical it is for base and DFSP

response plans to complement each other.

"This training is a great example of how DLA takes a proactive, preventative approach to protecting the environment while supporting the warfighter," said DLA Energy Americas East Commander Army Lt. Col. Keith Sylvia. "It's stewardship at its best."



Energy

New system to enhance decision making, data snapshot

By Jacob Bover DLA Strategic Communications

Ometimes, finding efficiencies can be as simple as moving to a new computer system that allows an organization to better manage the movement of goods throughout a given supply chain. But, often the process is more complex, Defense Logistics Agency Energy leaders said. Especially if it involves making the system work with the various others that run a parent organization's entire enterprise. DLA Energy's Energy Convergence is just such a venture.

Energy Convergence will bring DLA Energy into DLA's Enterprise Business System, by adding a business industry solution - SAP Oil and Gas - to the agency's technology backbone to support the petroleum supply chain. Other parts of EBS will provide support for DLA Energy's non-petroleum supply chains. Pat Dulin, DLA Energy's deputy director, said the project will reap multiple efficiencies for his activity and the agency as a whole.

"It will fully integrate a coherent, end-to-end business solution that will enable DLA Energy to accomplish much better supply chain management across all commodities," Dulin said. "All aspects of our end-toend business will be linked and updated on a real-time basis. As changes occur in one process, other people will be made aware of the changes, both for situational awareness and actual updated actions and decisions."

The push for energy convergence came about in 2003 when the Office of the Secretary of Defense directed that DLA merge the two enterprise resource platforms; one that supported the petroleum supply chain, and one for the rest of the enterprise, said Mike Broderick, DLA Energy's director of Business Process Support.

DLA Energy manages five supply chains – petroleum, natural gas, coal, electricity and aerospace fuels - which represent \$15 billion in revenue for DLA. Energy Convergence will replace the legacy systems that have managed all five to this point and will bring full automation to the non-petroleum chains, which have had limited automation in the past, Broderick said.

The activity's petroleum business has been managed by Business Systems Modernization-Energy.

"All of our non-petroleum supply chains – aerospace energy, coal, natural gas and electricity - have effectively been unsupported by a business system for decades," he said. "We want to support them and bring them into that EBS solution."

Dulin said since DLA Energy's supply chains are all managed separately, it is difficult for the organization to get insights on where efficiencies can be wrought. Each chain's information – purchasing prices, selling prices, transportation costs and the like – has to be manually compared to another's to see what is working and what can be done better. Having all of this data in one place will allow DLA Energy to find those crucial points more auickly.

"It gets visibility. [Now] I only get visibility into separate stovepipes when I say, 'The three of you collate the data together for a particular answer for me.' - so it's going to start giving us insights into where we can find other efficiencies as we go through here. Insights that I can only get right now with slow manual processes I'll now get with automated processes. I'll be able to sort the data left, right and sideways," Dulin explained.

Energy Convergence will allow DLA as a whole to make better decisions for the same reason, Dulin said. Instead of having to go to separate systems to get data on separate supply chains, DLA leadership will be able to pull information from EBS on all of its supply chains.

"It gives DLA visibility in what we're doing," he said. "They may be able to look at it and get into just straight financials, because financially, I'm able to see what you're doing a little bit better than I can in stovepipes. Now I see how fast your transactions are going through, and I can anticipate better what my cash flow is going to be. Instead of waiting until the end of the month, now I've got more of a minute-by-minute view. If I understand my cash flow a little better, I can make better business decisions as I go through. That helps at the DLA level."

In addition to giving DLA's leaders a better look at the agency's overall operations, Energy Convergence will enhance the stewardship of its resources, Broderick said. Both DLA and DLA Energy will be able to better ensure processes are being done efficiently and effectively because they can access stores of data from across their respective areas of concern.

"A big part of what's coming and needs to come is auditability," he said. "Today we tend to call it stewardship, but it's the control of costs. The thing that has to come with EBS: a robust metrics, business reports, business analytics capability. We want to move from chasing data to having things in the system, moving through the system and being analyzed."

Beyond that integration, Energy Convergence will combine SAP Oil and Gas with both the SAP enterprise resource platform already running EBS and SAP Public Sector, the business solution running on the ERP. Ensuring all of these pieces work together along with other new additions to EBS was one of the biggest hurdles the project faced, said Nelson Gonzalez, Energy Convergence deputy program manager.

"The first challenge we had to go through was to go through SAP to ensure that the product was going to work within that ERP so the financials would work," he said. "SAP modified the core product to ensure that the petroleum solution of their software would work with the public sector solution we have in EBS and our enterprise procurement solution, EProcurement, so that all those parts could work together."

The shift in how things are done will lead to changes

within DLA Energy. Broderick said BSM-Energy, the system currently in use for the petroleum supply chain, has good and bad points. As that supply chain is moved to EBS, decisions will be made about what works and what does not. The same will hold true for the others.

"Certainly, a goal is to eliminate all legacy systems as much as possible," he said. "We have our BSM-Energy tool. It's effectively a family of systems. It's a large number of different applications that all work together. We know we're going to terminate some of those applications when we move to EBS. We know we're going to retain some

pieces of our legacy systems.

"We have an application at the majority of our [defense fuel support points] that's used to gather all of that sales data," he continued. "We're running upwards of a million transactions a month at these DFSPs and making those individual sales. They could range from a gas can that I'm going to use to cut the grass to a 20,000-gallon sale to a C-17 [cargo plane.] The tool at that location is one we're going to keep. Hence, we know it has to be integrated with our future solution."

Energy Convergence is planned as a phased rollout, with supply chains being brought into EBS beginning in late 2011, Gonzalez said. The first release will involve a nonpetroleum supply chain. But, Gonzalez said, officials have yet to decide which of the four it will entail or if doing all four at once makes better sense. As these supply chains transition, DLA Energy personnel will require training on the new system and their roles in it. A variety of training opportunities will be offered.

"Users will be expected to take EBS courses. New courses will be prepared for the new capabilities that DLA Energy folks will need," he said. "Some of the training will be online, and some will be actual courses in classroom settings. Furthermore, we will be [conducting a train-the-trainer class], training a group of DLA users to deliver the training to their community members."

Electricity will be one of the first Defense Logistics Agency Energy supply chains to be brought into the the Enterprise Business System through the Energy Convergence program. Rollout of non-petroleum supply chains will begin later this year.



Energy

Relief fueled by DLA Energy



By Terry Shawn DLA Energy Public Affairs

The Defense Logistics Agency Energy often brings its considerable fuel and logistic capabilities, experience and expertise to bear when natural disasters strike domestically and worldwide. In the past year, DLA Energy has responded to earthquakes in Haiti and Indonesia, heavy flooding in Texas and Pakistan, wildfires in Russia, and typhoon relief support in the Philippines.

DLA Energy and its regional offices and business units coordinate with local authorities and other federal agencies to provide logistical support and secure contracts for the fuel needed to carry out humanitarian relief efforts. "DLA Energy's successful support to these humanitarian efforts is a testament to the hard work, training and planning by the men and women of the DLA Energy team. While effectively supporting the warfighter, our ability to also play a vital role in supporting relief efforts in rugged and sometimes dangerous conditions where infrastructure is severely damaged is remarkable," said DLA Energy Deputy Commander Patrick Dulin.

Since March 2006 when DLA Energy signed an interagency agreement with the Department of Homeland Security's Federal Emergency Management Agency, DLA Energy has worked closely with FEMA to support

A U.S. Navy hospital corpsman aboard the hospital ship USNS Mercy observes a Seahawk helicopter assigned to Helicopter Sea Combat Squadron 23 deliver a load of supplies from the Military Sealift Command fleet replenishment oiler USNS Pecos in the Banda Sea. Defense Logistics Agency Energy Pacific procured Class III Bulk F76 and JP5 fuel for Mercy's propulsion plants and helicopters. Mercy was deployed to Southeast Asia for five months in support of U.S. Pacific Fleet's humanitarian and civic assistance program, Pacific Partnership 2010. Photo by Petty Officer 2nd Class Eddie Harrison.

its fuel requirements in response to presidentially declared emergencies and natural disasters. To do this in the most efficient way, DLA Energy established a contingency contract with Foster Fuels, Inc., a commercial fuel vendor, to procure, distribute, transport and issue retail fuel to end-users as authorized by FEMA. The contract runs through April 30.

The DLA Energy-FEMA Implementation Annex outlines the complete scope of DLA Energy's responsibilities. Eugene Turner, of DLA Energy's Contingency Plans and Operations Division, explained the process: FEMA sends an activation fuel tasker to DLA Energy and the contingency contract is activated; DLA Energy places orders using the Ground Fuels Paperless Ordering and Receipt Transaction Screen, known as PORTS, directly with the vendor for delivery to designated locations. The vendor is required to deliver the fuel to the disaster-impacted areas within 48 hours after the fuel order is issued.

"During these events, the vendor must maintain availability for receipt orders and other communications around the clock during the activation periods," Turner said.

DLA Energy's ability to respond quickly to domestic emergencies and natural disasters is a result of communication, planning and exercises in conjunction with FEMA. Originally, weekly teleconferences were held between Defense Logistics Agency headquarters, DLA Energy and FEMA. These meetings are now conducted on an as-needed basis, usually at the beginning of each hurricane season. For all major weather events, FEMA conducts teleconferences between its regional offices, DLA headquarters and DLA Energy.

Twice a year, DLA Energy, in conjunction with FEMA, conducts two three-day readiness drills to test and evaluate the vendor's capabilities to deliver approximately 20,000 gallons of fuel to designated locations within a 48-hour timeframe.

DLA Energy has shown it can overcome challenges to provide support during international disasters. Three days after the 7.0 earthquake that caused more than \$10 million in damages in Haiti last January, the ground fuels division of DLA Energy's Direct Delivery Fuels received the first request from the U.S. Southern Command to procure 8,000 gallons of diesel fuel to mobilize relief and rescue efforts. Within days, DLA Energy communicated with current contractors and developed a plan for sustainment support of Operation Unified Response. And DLA Energy had liaisons on the ground within hours of a request from USSOUTHCOM, said DLA Energy Americas East commander Army Lt. Col. Keith Sylvia.

Through DLA Energy teamwork, significant hurdles were cleared in the early days and hours of Operation Unified Response. Spanish-speaking members of the DLA Energy team were able to negotiate with new vendors in the Dominion Republic, while a contracting officer from DLA Energy's ground fuels division arranged to have a Haitian-based petroleum company open its hurricane-damaged terminal specifically to meet DLA Energy's distribution and storage requirements.

Foster Fuels Inc. deployed 36 people and 12 tank wagon trucks to Haiti within days of the earthquake. According to DLA Energy's Contingency Plans and Operations division, DLA Energy has procured 4,800 gallons of Jet A fuel, 21,000 gallons of gasoline and 790,369 gallons of diesel fuel in support of Operation Unified Response in Haiti.

Pakistan

The U.S. Navy's Kearsarge Amphibious Ready Group, powered by Defense Logistics Agency Energyprocured fuel, arrived in the 5th Fleet area of responsibility with embarked Marines of the 26th Marine Expeditionary Unit Sept. 16, to contribute to the flood-relief effort in Pakistan.

To support the relief effort, the Kearsarge group and the Marine Corps unit began their regularly scheduled deployment a month early. In addition to supporting Pakistan relief, they also served as the theater reserve force for U.S. Central Command when the Peleliu Amphibious Ready Group completed its deployment in early November.

The U.S. response to Pakistan's request for aid was immediate. Thirty-six hours into the flooding, Air Force C-130 and C-17 cargo planes were flying aid into the area delivering more than 436,000 religiously-ap-

Energy

propriate meals for distribution to Pakistani authori-

According to the State Department, there are currently 26 U.S. military helicopters in Pakistan supporting relief efforts with more offshore on the USS Peleliu. To date, U.S. aircraft have evacuated more than 26,000 people and delivered approximately 20 million pounds of relief supplies. Hundreds of U.S. military and civilian personnel are working around the clock in Islamabad, in flood affected areas, and at Pakistani military bases in support of flood relief operations.

The U.S. has also provided mobile water treatment units that each produce enough clean water for 20,000 people a day, water bladders for the storage of clean water, water purification tablets; Zodiac inflatable rescue boats, concrete saws and blades, blankets and plastic sheeting for the construction of temporary shelters. These relief supplies, brought in from U.S. Agency for International Development warehouses in Dubai, United Arab Emirates, Italy, and the United States, are in addition to the supplies purchased locally by aid partners.

DLA Energy is prepared to procure fuel for relief efforts within Pakistan if the government of Pakistan requests the assistance. DLA Energy Middle East is supplying five Pakistan forward area refueling points with direct fuel deliveries in support of the humanitarian operations in Pakistan. As of Nov. 2, DLA Energy Middle East had delivered nearly 215,000 gallons of fuel in support of U.S. military airlift operations to deliver food, water, medical supplies and basic essentials. Humanitarian relief efforts for this event ceased Dec. 10.

Europe and Africa

DLA Energy Europe & Africa stays poised to respond to humanitarian missions by engaging in exercises and training events with humanitarian and disaster response scenarios. This year, Exercises Austere Challenge and Flexible Response, later named Flexible Leader, addressed scenarios in Europe, while Judicious Response addressed African scenarios. DLA Energy has liaison officers embedded with both U.S. Africa Command and U.S. European Command staffs to help plan and execute fuel deliveries using support agreements with NATO allies and through commercial means.

DLA Energy Europe & Africa also embeds operations officers with military Service Component fuel

staffs to facilitate planning at the operational and tactical levels. During exercises, DLA Energy liaison and operations officers work in concert with the DLA Energy Europe & Africa Operations Division to ensure DLA Energy support is optimized to meet combatant command requirements.

The exercises were affective, realistic training for the team, said Samuel Cooks, Jr., DLA Energy's liaison to EUCOM. "All fuel movement was virtual, but the actual planning and coordination efforts were real-world intensive, in accordance with joint planning guidance for petroleum management," he explained.

Philippines

When Typhoon Megi's sustained winds in excess of 140 mph buffeted the Philippines Oct. 18, DLA Energy already had a presence in the region. DLA Energy representatives assessed the damages to infrastructure to determine how best to proceed with humanitarian relief efforts.

DLA Energy currently provides support through the 3rd Marine Expeditionary Brigade in the Philippines with Into-plane and Post, Camps, and Stations contracts. DLA Energy-procured fuel was also provided to the 7th Fleet Amphibious Ready Group off the coast of the Philippines via Military Sealift Command ships, according to DLA Energy Pacific Logistics Management Specialist-Operations Stewart Clarke.

"DLA Energy was one of the first agencies to be contacted for assistance following this disaster due to our close contact with customers," said Clarke. "Our field staff gathers intelligence throughout the region to support existing and future fuel support locations."

Because the DLA Energy Guam headquarters is located within an area called "Typhoon Alley" from June to December of each year, the island of Guam received Joint Typhoon Weather Center forecasts approximately 72 hours before the typhoon was scheduled to pass Guam.

Teamwork and collaborative efforts of DLA Energy Guam Commander Navy Cmdr. Andrea Lemon, key staff and DLA Energy Pacific logistics personnel were important in gathering and applying information in this emergency situation.

Clarke explained that by monitoring the storm as it headed west, and keeping an eye on DLA Energy inventories and capabilities along the way, the DLA Energy team were able to respond quickly and effectively.

"Another reason we were involved so early in Typhoon Megi when [it] hit the Philippines is because we have been planning for and supporting the 3rd Marine Expeditionary Brigade conducting Amphibious Landing Exercise in the Philippines. The exercise was scheduled Oct. 11-22," said Clarke. "The U.S. Navy also had ships operating in support of this exercise, and the Navy repositioned them following the storm to render aide when necessary."

Additionally, DLA Energy Pacific supports the USNS Mercy hospital ship by procuring Class III Bulk F76 and JP5 fuel for the ship's propulsion plants and helicopters. The Mercy departed its homeport of San Diego, Calif., last May to begin a five-month deployment to Southeast Asia in support of U.S. Pacific Fleet's humanitarian and civic assistance program, Pacific Partnership 2010. To date, Mercy has received a total of 1.8 million gallons of F76 and 224,000 gallons of JP5.

The Mercy's annual humanitarian deployments,

which began in 2006, have provided humanitarian assistance through medical treatment, procedures and surgeries to more than 150,000 patients as well as civic assistance through 70 engineering projects. USNS Mercy is scheduled to visits ports in Vietnam, Cambodia, Indonesia, Timor-Leste and Papua New Guinea this year.

U.S. Navy amphibious assault ship USS Kearsarge, powered by Defense Logistics Agency Energy-procured fuel, transits the Suez Canal in Egypt. The 26th Marine Expeditionary Unit deployed aboard the ships of the Kearsarge Amphibious Ready Group in late August 2010 in response to an order by Secretary of Defense Robert M. Gates to support flood relief efforts in Pakistan. Photo by Lance Cpl. Tammy K. Hineline.



We Are DLA

DLA consolidates mercury

By John Reinders DLA Strategic Materials

The DLA Strategic Materials mercury consolidation project reached a key milestone Dec. 3 when the final truckload of elemental mercury left Somerville, N.J. Shipments of Somerville's mercury inventory – nearly 3,000 tons – began in September. The new home for the mercury is Hawthorne Army Depot, in a remote area of Nevada. DLA's remaining mercury inventory of about 2,000 tons – located at New Haven Depot, Ind., and Warren Depot, Ohio – is scheduled for early 2011 shipments.

The mercury consolidation project was formally launched with an Environmental Impact Statement in 2001. Hawthorne Army Depot was selected as the consolidated mercury storage site in 2006.

Consolidation of elemental mercury storage operations will offer cost efficiencies and improved security for the material without sacrificing the quality of day-to-day oversight, officials said.

After four years of work to satisfy requirements of Nevada's Chemical Accident Protection Plan and the upgrade of Hawthorne's 14 warehouses for mercury storage, the Nevada Division of Environmental Protection approved transfer of the mercury to Hawthorne Army Depot in August.

DLA Strategic Materials Administrator Ronnie Favors said the mercury project is a good example of how careful



DLA Strategic Materials employee Mike Mastronardi loads a pallet of elemental mercury onto a truck at a New Jersey storage site as part of a mercury consolidation initiative. Photo by John Reinders.

planning and strong emphasis on safety pays off.

"Safety, security and compliance with Nevada's CAPP requirements have been our top priorities," Favors explained. "For instance, the mercury packaging includes multiple layers of protection with steel flasks sealed inside airtight and liquid-tight steel drums that virtually rule out the possibility of mercury being introduced into the environment."

Specialized work completed to address specific concerns of regulators included re-inspecting more than 125,000 mercury flasks contained in more than 20,000 over-packs to confirm that all containers were in proper condition for shipment before transfer to Nevada.

DLA supplies parachutes

By DLA Distribution Susquehanna

The Aerial Delivery and Textile Section at DLA Distribution Susquehanna, Pa., is the U.S.'s sole source for aerial delivery equipment used in Afghanistan. The team packs and maintains war stock contingency parachutes used during resupply missions. Each month it also receives, stores and ships more than 2,500 of the new low-cost parachutes.

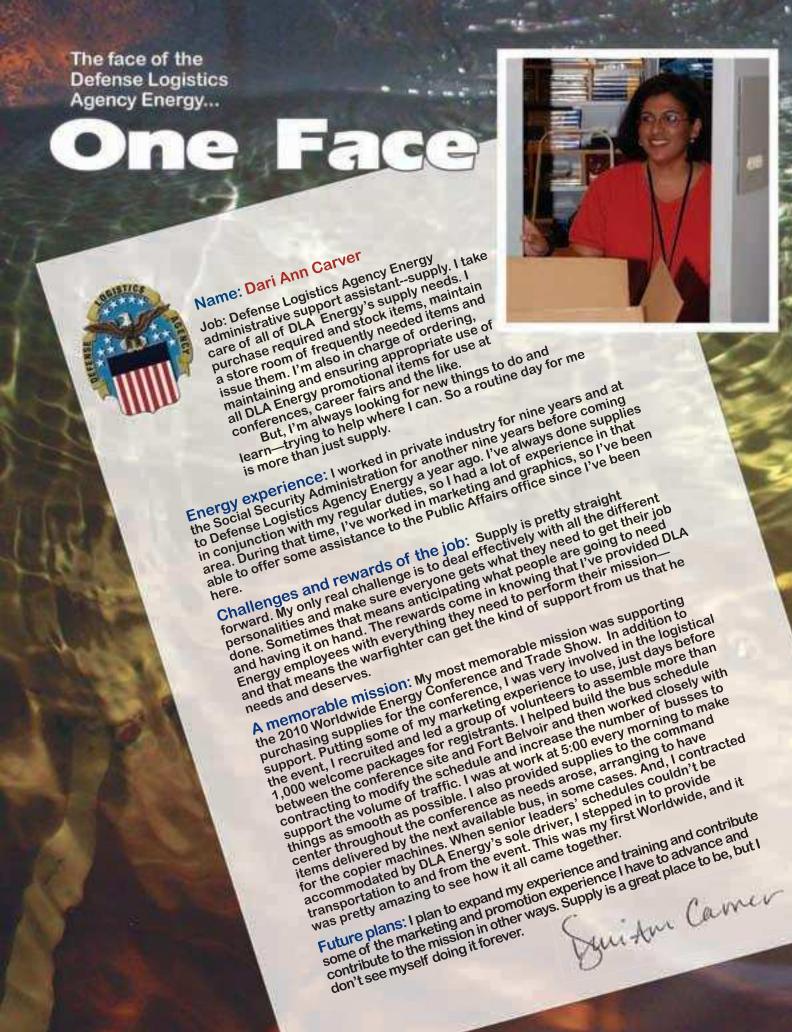
The section has shipped more than 17,000 parachutes in support of this essential mission.

There are three different types of parachutes currently being packed, shipped, and maintained by the unit: the high velocity, or High-V; the low velocity, or Low-V; and the cross parachute. These parachutes are used for to airdrop material for the warfighter that cannot be delivered via truck or alternative transpor-

tation due to the difficult terrain. Each parachute uses a low-cost air delivery system, or LCADS.

The LCADS High-V parachute was developed as an alternative to the 26-foot-high velocity ring-slot parachute. It has a weight capacity of 2,200 lbs. and can be dropped from an altitude of 15,000 to 25,000 ft. Known as the Black Widow, it looks like a spider floating down on an invisible web.

The Low-V parachute is bigger and beefier. It may have up to 20 "legs," each 25-feet long, and is made of a simple woven polypropylene fabric that costs less than \$0.50 per yard. The cloth closely resembles that used for sand bags and is simple and quick to obtain. It is used to deliver loads from aircraft flying at low altitudes.





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