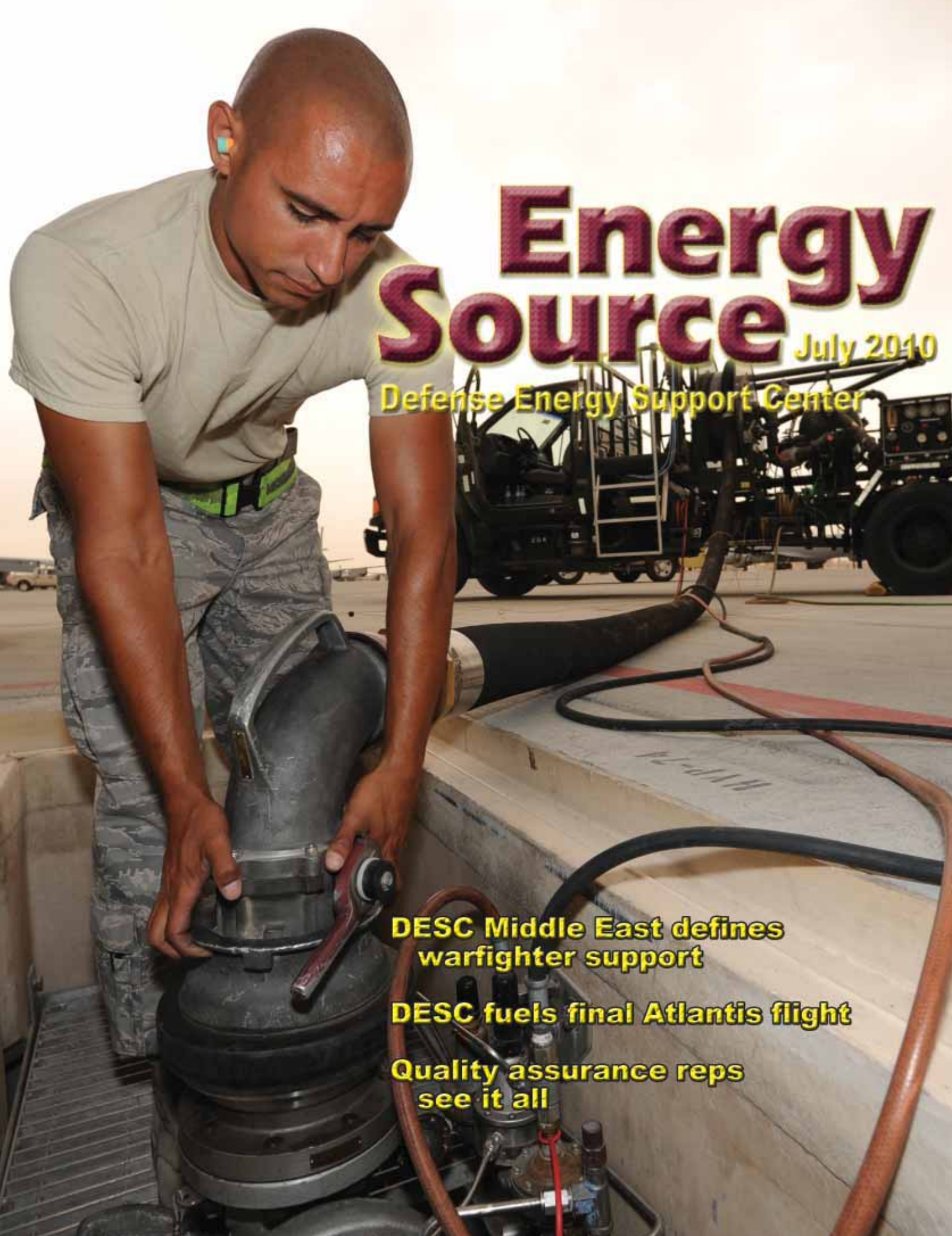


# Energy Source

July 2010

Defense Energy Support Center

DESC Middle East defines warfighter support

DESC fuels final Atlantis flight

Quality assurance reps see it all

## From the Commander

# DESC continues commitment to support the warfighter worldwide

**DESC Commander**
**Rear Adm. Kurt Kunkel**

**The warfighter and our customers depend upon and expect exceptional support no matter the circumstances, and I remain confident and am proud to say we are delivering.**

The Defense Energy Support Center continues to maintain its commitment to provide effective and efficient energy solutions for the warfighter worldwide. While this Energy Source issue highlights the regional mission and role of our Middle East team members, all of our regions play an essential part in providing us the capability to reach worldwide with our support. Over the past few months, I've had the opportunity to visit some of our region offices and see firsthand some of the challenges they work with daily, the continued commitment to overcome these challenges, and the teamwork that expands through regional offices, military Services, Combatant Commands and the Defense Logistics Agency.

All of this is done in the collective mission to acquire, support and sustain the warfighter and our customers' energy needs. These teams are our face to the warfighter in the field, to the commanders requesting our support, to the vendors or suppliers looking for our guidance, and to the local population representing, at times, not only our DLA organization but also our country. It is a tremendous responsibility and essential to our immediate and future support in energy solutions worldwide.

World events create a working environment for us that is constantly changing, even on a daily basis. Since we are called upon to overcome obstacles quickly, we must remain focused on staying true to DLA's strategic areas, which has proven to be invaluable to our mission and can be the difference between fuel sustainment in a location or a break in supply affecting the warfighter's safety and mission. In my observances, our workforce demonstrates excellence in this area. Our response to challenges, immediate humanitarian support, and short-fused requests is professional, effective and committed each and every time.

The warfighter and our customers depend upon and expect exceptional support no matter the circumstances, and I remain confident and am proud to say we are delivering. Thank you for all you do and your continued commitment to the warfighter, our DLA team and our mission.

Kurt Kunkel

# *DESC: Providing energy solutions worldwide*

# Energy Source



**On the cover:** *U.S. Air Force Airman 1st Class Michael Wladkowski, a 379th Expeditionary Logistics Readiness Squadron fuels distribution operator, defuels a KC-135 aircraft at an undisclosed location in Southwest Asia March 1, 2010. (U.S. Air Force photo by Tech. Sgt. Michelle Larche)*




*Energy Source,* formerly *Fuel Line,* is an official publication distributed by and for the Defense Energy Support Center and fuel-oriented clientele. Contents of this publication are not necessarily the official views of, or endorsed by, the U.S. Government, Department of Defense, Defense Logistics Agency, or Defense Energy Support Center. *Energy Source* is prepared by desktop publishing applications.



Address correspondence to: ATTN: DESC-DDB Defense Energy Support Center, 8725 John J. Kingman Rd., Suite 4950, Fort Belvoir, VA, 22060-6222.
Commercial: 703-767-4108.
Address e-mail to: EnergySourceMagazine@dla.mil

# DESC Alaska team supports Red Flag exercise

**By Lt. Col. John R. Martin**
**DESC Alaska**

Red Flag Alaska, a realistic 10-day air combat training exercise held four times a year concluded at Eielson Air Force Base, Alaska, April 30. Defense Energy Support Center Alaska ensured exercise participants had the fuel necessary to participate.

The exercise provides realistic training by pitting aircrews against "aggressor" aircrews flying U.S. aircraft and simulating enemy tactics.

Providing fuel for combat exercises in Alaska is part of the mission of DESC Alaska. Located on Elmendorf AFB, Alaska, the unit ensures energy support to the Alaskan warfighter by providing inventory management, quality assurance, laboratory testing and facility management expertise.

The Pacific Air Forces-sponsored exercise, which began Apr. 15, took place over Alaskan and Western Canadian airspace. Seventeen permanent military operations and high altitude training areas and two restricted areas total more than 67,000 square miles of airspace called the Joint Pacific Alaska Range Complex. The exercise typically beds down 700 people and 60 aircraft at Eielson AFB and 500 people and 40 aircraft at Elmendorf AFB, while flying 2,000 sorties and burning 4 million gallons of jet fuel.

Maria Rodriguez, a bulk fuel specialist at DESC Alaska, works with the Air Force to ensure the best possible support for Red Flag exercises. Providing large quantities of fuel for these exercises is challenging. Rodriguez must ensure that the required quantities of war reserve fuel are always available at Elmendorf and Eielson, even during periods of accelerated peacetime usage such as during Red Flag training exercises.

"It's all in a day's work," Rodriguez said. "By establishing close working relationships with our customers and knowing their requirements, it makes the process of supplying fuel much easier."

**Above:** *A fighter jet receives Defense Energy Support Center-procured fuel during a midair refueling from a KC-135 Stratotanker over the Alaska Range during recent Red Flag exercises. Photo by Air Force Staff Sgt. Christopher Boitz.*

# Proactive testing protects environment

**By Paul Rogers**
**DLA Enterprise Support**

The Defense Energy Support Center goes above and beyond to protect the environment. While federal regulations only require environmental compliance testing of certain tanks and pipelines, DESC goes further.

The Defense Logistics Agency Enterprise Support office has implemented best management testing practices at other tanks, hydrant systems piping and pipelines in order to better protect the environment through early leak detection.

The program started at 13 bases in California where testing was mandated, but has expanded to include testing at more than 110 fuel facilities worldwide this past year. It encompassed testing more than 300 tanks and 1 million linear feet of piping, said Diane Parks, environmental specialist, DES office.

"We continue to expand our tank and pipeline testing each year," Parks said.

An example of the program's success occurred at Defense Fuel Support Point San Pedro, Calif., in March. Quarterly testing of the terminal piping indicated a potential leak in the 18 inch North Line pipeline. This pipeline had passed the test conducted just three months earlier in the 4th quarter of 2009. During excavation, workers discovered a miniscule hole was leaking fuel. Because of DESC's voluntary early leak detection program, the leak was detected and repaired with minimal impact to the environment. No further environmental cleanup will be necessary for this site.

*Defense Fuel Support Point San Pedro, Calif., is one of the sites that benefited from Defense Energy Support Center's testing policy.*

DESC's efforts demonstrate the organization's commitment to being good stewards of the environment, protecting inventory from loss and preventing unnecessary cleanup costs due to undetected leaks and spills.

# Kunkel speaks at Sea-Air-Space expo


*Defense Energy Support Center Commander Navy Rear Adm. Kurt Kunkel speaks at an exposition May 4.*

**By Susan Lowe**
**DESC Public Affairs**

Defense Energy Support Center Commander Navy Rear Adm. Kurt Kunkel addressed attendees at the Navy League's Sea-Air-Space Exposition at the Gaylord National Hotel and Convention Center, National Harbor, Md., May 4.

Kunkel addressed DESC's structure and how the organization provides effective and efficient energy solutions to the warfighter especially in the alternative fuels and renewable energy arena.

"DESC exists in order to support the warfighter's energy requirements. By managing the end-to-end supply chain that moves energy products from their source to their point of consumption, the warfighter never has to worry about a lack of fuel or energy-related products," said Kunkel.

Kunkel went on to say DESC has aggressive goals for alternative fuels and renewable energy in the future, but reaching those goals is a team and collaborative effort.

"The development of alternative fuels as an energy solution is still in the initial stages, but our current engagements with the commercial industry and components of the Department of Defense will make those potential solutions a reality as we work together and leverage our capabilities to spur market growth and encourage opportunities for industry growth," said the commander.

# DESC empowers final Atlantis shuttle flight

**By Charlene Smoot**
**DESC Aerospace Energy**

NASA's Space Shuttle Atlantis made its 34th and final launch from complex 39A at Cape Canaveral, Fla., May 14 with special propellant support from the Defense Energy Support Center's Aerospace Energy business unit.

Once in orbit, the six veteran astronauts aboard will be steered by the shuttle's Orbital Maneuvering Subsystem and the Aft Reaction Control Subsystem using monomethylhydrazine as a fuel component and dinitrogen tetroxide as a corresponding oxidizer component. Both of these unique products were provided by DESC's Aerospace Energy team, which specializes in the acquisition and logistics of rocket and missile propellants.

Construction on the Atlantis began in March 1980 and was completed in roughly half the time spent on the earlier orbiter, Columbia. Weighing in at 151,315 pounds when it came off the assembly plant in Palmdale, Calif., Atlantis was nearly 3.5 tons lighter than Columbia. The new orbiter arrived at NASA's Kennedy Space Center five years later. Atlantis carried a classified payload for the U.S. Department of Defense on its maiden voyage Oct. 3, 1985. The vehicle went on to carry four more DoD payloads on later missions.

On this flight, the shuttle's on-board Auxiliary Power Unit relies on DESC-procured monopropellant hydrazine. In its final mission, Atlantis will perform a 12-day flight operation which includes delivery of an Integrated Cargo Carrier and Russian-built Mini Research Module to the International Space Station, as well as three spacewalks. After this mission and the retirement of Atlantis, NASA plans to use shuttles Discovery and Endeavour later this year for the final two launches of the nation's space shuttle program.

*Space shuttle Atlantis lifts off for its final mission May 14, a 12-day space journey to deliver cargo including a Russian-built Mini Research Module to the International Space Station. The Atlantis began her maiden voyage Oct. 3, 1985.*

"The entire Aerospace Energy team is honored to have supported NASA's Shuttle Atlantis not only in its last historic flight, but all preceding ones as well. We are extremely proud of the part we play in our customers' space and launch programs, and we look forward to working with NASA on their future initiatives," said Sharon Murphy, director of Aerospace Energy.

# DESC supports Air Force goals

**By Susan Lowe**
**DESC Public Affairs**

## Making it happen

An Air Force A-10C Thunderbolt II fueled with a blend of hydrotreated renewable jet, or HRJ, and JP8, took off from Eglin Air Force Base, Fla., March 25 in what would be the first flight of an aircraft powered by biomass-derived jet fuel.

The blend of HRJ used for the test flight was from a weed-like plant called camelina. It thrives with very little water, fertilizer or herbicides, and it isn't used as a food source. Another benefit is that the refining process and the emissions of the HRJ fuel are cleaner than that of conventional fuels.

As reported in an Air Force news article, Air Force officials said they are committed to reducing their reliance on foreign oil as well as taking steps toward flying using a greener, cleaner fuel.

Terry Yonkers, assistant secretary of the Air Force for installations, environment and logistics, said the goal of the Air Force is to reduce demand, increase supply and change the culture and mindset of our fuel consumption.

"The Air Force recognizes its role as a leader in energy management," Yonkers said."This demonstration underscores our commitment to advancing technologies that increase our use of renewable energy and reduce our consumption of imported foreign oil."

The Air Force's 2010 Energy Plan goal is to acquire 50 percent of its domestic aviation fuel from an alternative fuel blend by 2016. The Air Force's shorter term goal is to make sure its aircraft are certified to use alternative fuels by 2012, according to Yonkers.

The Air Force is planning a second demonstration using an F-15 Eagle to test performance parameters later this year. A C-17 Globemaster III will be tested because of the amount of fuel it consumes and an F-22 Raptor test is planned because of the aircraft's complexity.

## Making it possible

Flights like this wouldn't be possible without support from the Defense Logistics Agency.

In September 2009, the Defense Energy Support Center, a field activity of DLA, awarded Sustainable Oils, a company created to develop crops like camelina that can be used for alternative fuel production, with a contract to supply 100,000 gallons of camelina-based HRJ fuel to the Air Force. It includes an option to purchase an additional 100,000 gallons of HRJ.

"DESC provides acquisition, logistical and technical expertise for the acquisition of alternative fuels in support of the services' testing and certification efforts," said Frank Pane, director of DESC's Energy Plans and Programs Office.

The agency continues to move the Department of Defense forward by supporting the military Services as they strive to meet their alternative fuel energy goals, Pane added.

Members from DESC Americas played a major role in acquiring the HRJ for this demonstration.

"Our quality assurance representatives from DESC Americas working with contracting officers from DESC headquarters proved to be key, essential and integral factors in supporting this leading-edge work," said DESC Americas East Deputy Director Bo Luzey II.

Pane said he is excited about collaborating with the armed service partners.

"DESC is positioning itself to make the next strategic thrust forward: an operational pilot program that would allow us to acquire approved-specification alternative fuel in significant quantities in direct support of the military services' operational needs," he said.

**Top:** *An A-10C Thunderbolt II performs the first flight of an aircraft powered by a biomass-derived jet fuel blend, March 25, as part of a Defense Energy Support Center-fueled Air Force test program.*

**Above:** *Pre-test, Staff Sgt. Rusty Jones prepares to fuel an A-10C Thunderbolt II with a 50/50 blend of synthetic fuel and JP8 at Eglin Air Force Base, Fla.*

# Warfighter support defines DESC Middle East

**By Susan Declercq Brown**
**DESC Public Affairs**

What makes the Defense Energy Support Center's Middle East region challenges unique is a combat environment requiring 24-hour support to the warfighter, said its commander, citing the challenges of a recent weekend in the theater as example. When the warfighting environment disrupted the fuel supply chain, DESC-ME fuel specialists rapidly adjusted delivery schedules and transportation to ensure U.S. forces in the region had the fuel necessary to continue their mission.

"Unfortunately, this event highlights the challenging day-to-day missions DESC Middle East routinely supports," said DESC-ME Commander Army Col. Tom Kelly.

"All kinds of things happen in the Middle East. Our personnel and contractors perform superbly in an extremely harsh environment, "Kelly explained.

"DESC Middle East is the smallest region by land mass, but we have a huge mission," the colonel continued. "Continual combat operations consume a great deal of our time, plus planning for future contingencies."

DESC-ME provides fuel management support through a robust petroleum network, strategically dispersed bulk petroleum facilities and multiple support arrangements that enable component commanders to execute combat operations in the U.S. Central

*Trucks travel the treacherous Salang Pass, a primary fuel route into Afghanistan, in May. (Photo by Air Force  Col. Larry Cox)*

*Trucks prepare to enter a tunnel on the Salang Pass, a treacherous supply route into Afghanistan, in May. The tunnel road is often potholed and tricky to navigate, according to photographer Air Force Col. Larry Cox.*

Command's area of responsibility. The unit supports all Defense Department organizations in the AOR, including Operations Enduring Freedom and Iraqi Freedom and the anti-piracy mission off the coast of Africa.

"Support to the warfighter is the number one Defense Logistics Agency mission, and that's certainly our number one mission here," Kelly said.

The regional command, headquartered in Bahrain, conducts its mission with a team of approximately 40 fuel, contracting, logistics and inventory specialists, although it is currently filling an additional two dozen positions, said the region's Deputy Director Ron Black. While the command was once functionally aligned and headquartered in Germany, nearly all the employees are now working in the CENTCOM AOR, most in Bahrain.

"In response to a need to support the region more robustly, we decided to move all operations to Bahrain and break the command up into three pieces – OIF, OEF and the rest. But we organized around a geographical construct. OIF and OEF are supported by DESC-ME Northwest and Northeast respectively, and Central provides a lot of support to the other two," Black explained.

Each sub-region is led by a military commander and composed of logistics specialists, inventory managers, and quality specialists. The command construct is more in line with how operational military organizations are structured. It lends more credence to command and control and helps DESC-ME interact more effectively with military customer counterparts, he said.

Black explained the new structure ensures each area receives proper focus rather than having everyone become focused on the "issue du jour."

DESC-ME also co-locates liaison officers with the warfighters: two liaisons and a planner at CENTCOM headquarters at MacDill Air Force Base, Fla.; and liaisons with the DLA Contingency Support Teams in Bagram, Afghanistan; Iraq; and NATO's Allied Joint Force Command headquarters at Brunssum, Netherlands, in support of the International Security Assistance Force mission in Afghanistan.

**Continued**

*A contractor downloads fuel at a truckfill stand in the Middle East.(Courtesy photo)*

As U.S. forces drawdown in Iraq and continue to plus-up in Afghanistan, DESC-ME is adapting.

Kelly said the drawdown of petroleum products within Iraq is not an overly complicated process. The real challenge is to get the requirement correct for the remaining forces especially during the peak summer power usage period. "As the major bases close we decapitalize those sites [so the fuel is no longer DESC-owned], draw them down and eventually stop pushing fuel to the location altogether. Additionally we will also probably assume a few new locations to support in Iraq to assist the drawdown of forces," Kelly explained.

However, Afghanistan is incredibly complicated to support, and always has been, Kelly said, citing difficult terrain, poor infrastructure, extreme weather, long distances, hostile activities and other circumstances that provide logistical challenges.

"So, the focus on petroleum support in Afghanistan has taken a lot of our time, and it will continue to get more and more of our focus over the next year," he said.

Kelly said DESC-ME is dealing with growing demands in OEF by looking for more fuel sources and expanding the number of locations it delivers fuel to.

Kelly cited Bagram, Afghanistan, as an example of how demand has grown over OEF. "I think Bagram had about 1.2 million gallons of storage on the ground in 2003. Now it has more than 10 million," he said.

The expanding mission has also meant an increase in the locations requiring fuel. "Just in the last year, we've added direct delivery to three new locations in CENTCOM's Regional Command East and one in Regional Command North, and we anticipate picking up more locations in the north in the future," the colonel said. "The demand for all types of petroleum products – and helium to support the aerostat missions – will continue to grow. It's a very challenging mission, and I can't think of a tougher challenge than providing support in the land-locked country of Afghanistan."

Kelly counts meeting the growing demands from Afghanistan among the command's greatest achievements. "We've done that, and the inventory keeps growing, and primarily they stay green. We've continued to take the pressure off the warfighter by picking up more and more direct delivery locations," he said.

Another challenge highlighted was work force development. Until recently, DESC-ME was treated more like a long deployment rather than a permanent assignment, Kelly said. As a result, facilities have been minimal, and workforce development has taken a back seat. In addition, working weekends and nights has been the norm for many team members.

Because of the time difference between the East Coast and Bahrain, it is difficult to coordinate on training and personnel issues. And, there's only so much time at the end of a long day to work those issues, Black explained. In addition, DESC-ME hasn't been able to send employees outside the theater for training.

"We've been an economy of force out here; we haven't had any bench strength until recently," Kelly interjected. He said a new building is being renovated and is expected to be completed by September, expanding the DESC-ME workspace.

Kelly and Black encouraged people to seek employment in

*Defense Energy Support Center Commander Navy Rear Adm. Kurt Kunkel, center, visits a truckfill stand in the Middle East.(Courtesy photo)*

Bahrain with DESC-ME.

"For career opportunities, this is the fastest-paced environment for learning inventory management – for experienced IMs or those just entering the field," Black said. "As DESC does a regional rollout of inventory management responsibilities and tries to become auditable, DESC-ME is leading the way right now with reconciliation and auditability," he said.

"If you want to learn the IM job, and you want to be credentialed, you want to come to the Middle East," Black added.

Black and Kelly said Bahrain is a family-friendly, beautiful island with great restaurants, shops and beaches. And it's a smart career move at any stage, Kelly said.

The commander said the restructuring of the region and recently approved plans provide opportunity for upward mobility within DESC-ME for every specialty. And, assignments will be available for longer than the current 12-18 months.

As the new positions are filled and "bench strength" achieved, Kelly said training opportunities will improve and overtime will decrease.

Improvements don't stop at workforce development. The region is also enhancing its warfighter support capabilities by adding business tools and refining processes, Black said. "Right now we do a lot of manual data entry, but we're working with headquarters to automate some of those processes through a standalone system," Black explained.

Ongoing upgrades in technology and communication will improve the team's ability to share briefings. That will help DESC-ME exchange information with CENTCOM headquarters, DESC headquarters and the liaisons, he said, improving the region's ability to serve its customers.

Black also highlighted the regions stewardship improvements, saying DESC-ME is working with resource managers at Fort Belvoir, Va., and in DESC Europe and Africa to raise stewardship levels in the theater.

"We're bringing on planners, property and equipage folks and facility managers that weren't here before. We're also looking at better husbanding of government resources like vehicles and equipage in the field. These programs are traditionally handled by DLA Enterprise Support, but they haven't extended out to here, so we're working now to manage these things from within our own organization," he explained. The region is also working to improve the bill reconciliation process.

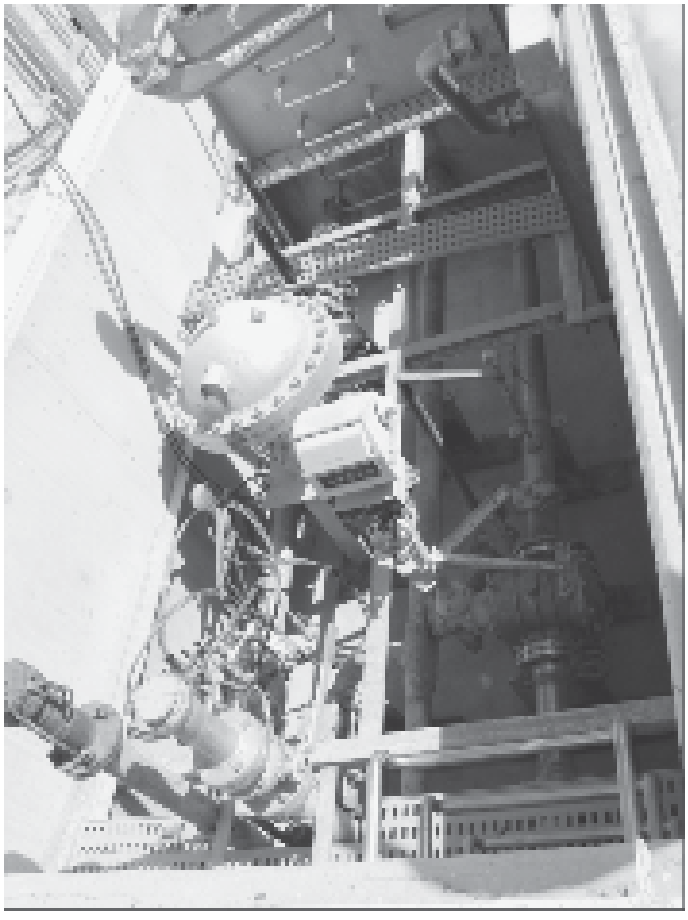
# DESC Middle East office partners with Bahrain air force

**By Army Maj. Stan Olsen**
**DESC Middle East**

The Defense Energy Support Center Middle East and the Royal Bahrain Air Force recently teamed up to meet new fuel requirements to sustain a variety of transportation missions within Bahrain.

DESC-ME's mission is to provide U.S. Central Command and other government agencies with comprehensive energy solutions in the most wartime effective and peacetime efficient manner possible. The Central sub-region of DESC-ME facilitates Class III Bulk support requirements to CENTCOM forces in Bahrain, Oman, United Arab Emirates, Saudi Arabia and Qatar.

In response to the CENTCOM Joint Petroleum Office-validated Supply Class IIIB requirement to sustain the "multi-modal" operations, the Central team coordinated with the Office of Military Cooperation in the U.S. Embassy, the Air Force component of CENTCOM and the Navy CENTCOM component's Base Operating Support function to develop the overall concept of fuel support options.



Initially, the team considered supporting this mission with Jet A1 stored at Defense Fuel Support Point Sitra, Bahrain, synchronized with an into-truck contract already in place. But, it soon became clear this could be a good opportunity to partner with host-country military forces to support the mission.

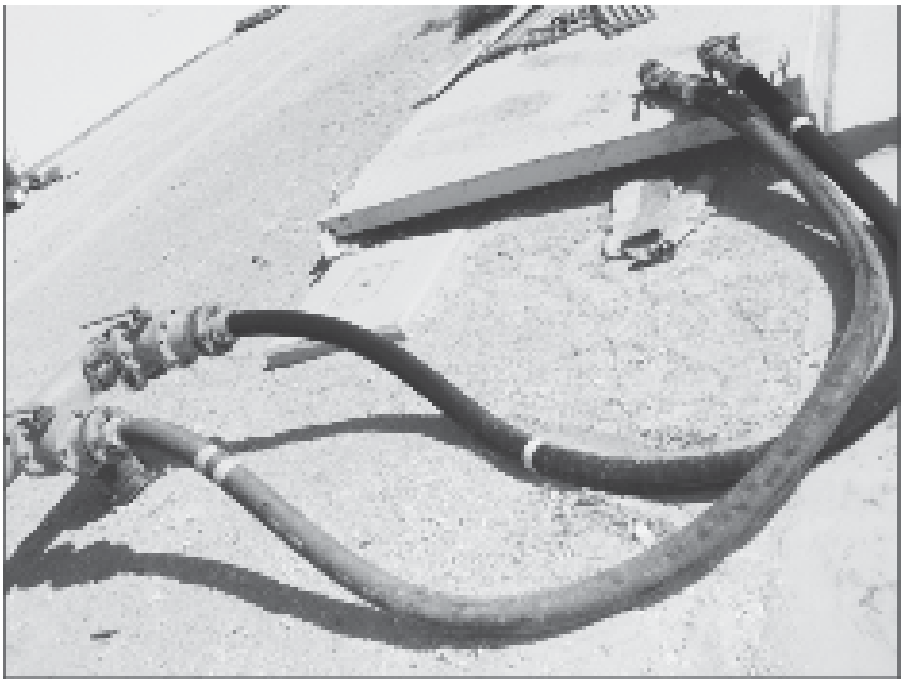
"DESC-ME recognizes and appreciates the longstanding friendly relations, cooperation and enduring defense between Bahrain and the United States," said DESC-ME Commander Army Col. Tom Kelly, saying the regional office was interested in seeing how the Royal Bahrain Air Force could expand its support role.

DESC-ME Central spearheaded meetings with RBAF to lay out mission requirements, RBAF capabilities, and enhance the cooperative partnership. After brainstorming, experts from the DESC International Agreements office were called in "to weigh in on our alternate course of action, using an existing Acquisition Cross-Servicing Agreement with RBAF," said Kelly. Bruce Jones of IA and DLA attorney Greg Zagorin flew in to Bahrain, and on the third meeting all parties agreed to price and performance. The agreement order was signed March 21.

The order provides the requirements for the Bahrain Defence Forces and the RBAF to deliver quality bulk fuel to U.S. Department of Defense fuel storage locations at ISA Air Base, Bahrain. Under this order the BDF will supply JP8 jet fuel with associated

**Left:** *The Royal Bahrain Air Force's Bulk Fuel Installation filter meter pit with an attached pantograph.*

**Above:** *Representatives from both countries tour the pump room of the Royal Bahrain Air Force's Bulk Fuel Installation. From the left are the Defense Energy Support Center's George Treloar, Bahraini Lt. Col. Ahmed Al-Sisi, and DESC's Army Maj. Stan Olsen and Deputy Director Ron Black.*



transportation costs to temporary DoD fuel storage facilities with a 1.6 million gallon capacity. The daily fuel demand is estimated at 90,000 to 280,000 gallons.

In addition, BDF shall make available its petroleum storage facilities, with a 340,000-gallon capacity, and fill stand at IAB to support the requirement in the event the demand cannot be met through the primary process.

RBAF's basic concept of support is to receive Jet A1 fuel from the Bahrain Petroleum Company into 9,500-gallon, contracted tanker trucks and additize in transition to create JP8. The fuel will then be metered prior to entry into AFCENT fuel bladders. During the initial fill, two to three turns per day will be required, transporting up to 340,000 gallons.

"During a fifth meeting, DESC-ME's goal was to introduce all the key operators, work through Concept of Support, identify any unforeseen challenges, and promote a team effort in support of the warfighter," said DESC-ME Deputy Director Ron Black. "Once all the key players were in place, including RBAF staff and operators, and representatives from AFCENT, the Contingency Response Group, Air Force Expeditionary Group and DESC-ME Central, we kicked off with a briefing from host nation signatory Bahrain Air Force Lt. Col. Ahmed Al-Sisi, commander of the RBAF's 2nd Fighter Squadron. DESC-ME Central Commander Army Maj. Stan Olsen also briefed the fuel support plan," he explained.

Once the plan was clearly understood by all responsible parties, the group walked through the fuel farm and off-loading

***Continued***

**Top:** *The fuel off-loading header of the Royal Bahrain Air Force's Bulk Fuel Installation.*

**Middle:** *Representatives of both governments gather. In the back row fom the left are DESC's George Treloar, Bruce Jones and Greg Zagorin, Navy Lt. Cmdr. Ray Santos, and Bahrain's Maj. Bassam Al-Wazzan. Front row from the left: Bahrain's Lt. Col. Wael Alsulaitim, DESC's Ron Black, Bahrain's Lt. Col. Ahmed Al-Sisi, DESC's Maj. Stan Olsen, and Bahrain's Col. Hussain Aloraifi and Capt. Sattam Al-Malood.*

**Bottom:** *Several 7.5 thousand-gallon tankers line up at the fuel facility.*

*Continued*

# Partners

area. Next they headed for the RBAF bulk fuel installation site to discuss accounting procedures.

If for any reason the BDF is unable to meet the fuel requirement set forth in this order, DESC can fill any uncovered requirements through its own resources, and the fuel shipments will have access to ISA Air Base facilities and locations to ensure continuous fuel supply. In addition, a standby additive injector will provide the security of redundancy in the fuel receipt/distribution infrastructure.

"Close coordination with our Bahrain partners at all levels will ensure uninterrupted fuel supply and smooth transition," said Kelly.

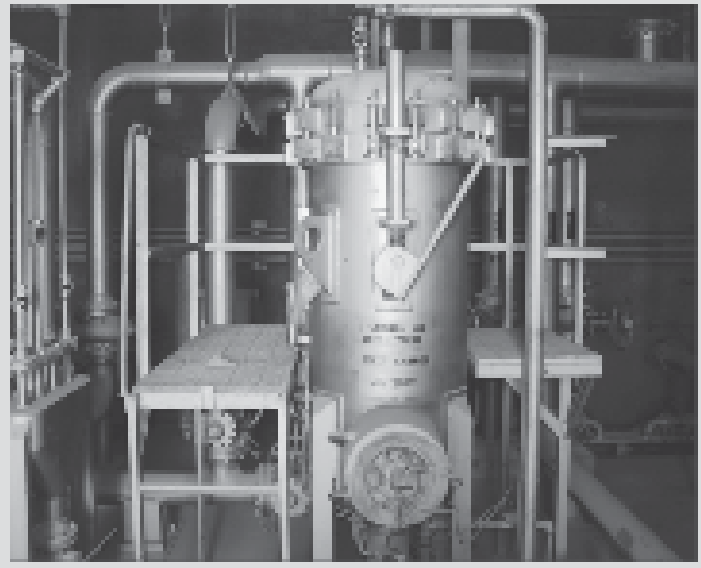
"This new agreement is another way DESC-ME demonstrates its commitment to the Defense Logistics Agency's top priority—warfighter support," Kelly said. "We are pleased to be partnering with the RBAF in this endeavor."

"All our partnerships are about relationships and ensuring DLA's goals, processes and performance are synchronized with the needs of the warfighter," he explained.

**Below:** *The Bahrain Bulk Fuel Installation filter assembly.*

**Left:** *The Bulk Fuel Installation's additive storage area.*

**Left bottom:** *The Defense Energy Support Center's Jeff Feltner, Shedric Crump and Army Maj. Stan Olsen stand to the left of Chevron's Salah Shaban, Logistics Operations, and Renu Sharma, Product Storage and Government Sales, at the Royal Bahrain Air Force's Bulk Fuel Installation.*



# Omani air force hosts DESC Middle East

**By Stephen Porter and George Treloar**
**DESC Middle East**

Representatives from the Defense Energy Support Center Middle East recently visited Omani air bases to inspect facilities as part of basing agreements the Defense Department has with the Sultanate of Oman at three Royal Air Force of Omani air bases. These include Seeb North, Thumrait and Masirah. Through these agreements, DESC-ME schedules access to the RAFO facilities approximately every 90 days to conduct inspections of petroleum infrastructure and stored petroleum products.

The most recent of these inspections was conducted by two of DESC-ME's newest employees, Steve Porter, fuels operations program manager, and George Treloar, quality assurance representative. The visit fulfilled mandatory inspection requirements and also provided an opportunity to enhance bi-lateral relationships with RAFO, the Oman Ministry of Defense and its designated contractor personnel.

*A fuel tanker positins to download fuel at the new Thumrait Air Base Tank Truck Offload Facility.*

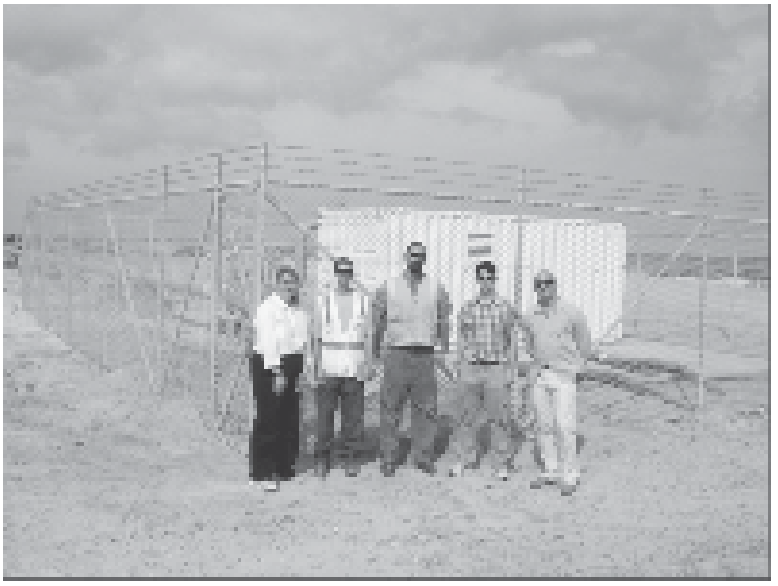
Seeb North, located adjacent to Muscat International Airport, received the first inspection visit. The site is managed by Ali Al Shuelly of Oman Oil. He escorted the inspectors to each facility where he provided a wealth of information about system capabilities, maintenance practices and other interesting facts. The inspectors found all facilities, equipment and associated assets in good operational condition, with no leaks. A review of the site's fuel quality and equipment inspection and maintenance records revealed a thorough, well-maintained documentation trail that ensured all required testing and/or inspections were accomplished on time. Al Shuelly also briefed the inspectors on the closure of Seeb North, stating that operations were scheduled to continue until at least September.

The next stop on the inspection trail was Thumrait Air Base. This required the inspectors to take a short flight from Muscat to Salalah, where they picked up a rental car and drove one hour over a treacherous, winding mountain road. They also had to navigate around many road repair sites, large fuel and cargo trucks and the occasional farm animal or roving camel. The ongoing roadwork to add additional lanes will shorten the drive time and make future trips less dangerous.

Upon arriving at Thumrait Air Base, the inspectors headed to the new Tank Truck Offload Facility, where they toured a state-of-the-art system with 10 offloading bays, capable of offloading 1,800 gallons of aviation fuel per minute. While at the TTOF, the inspectors also witnessed Pond Inc., a contractor for the Air Force component of U.S. Central Command, conducting familiarization training for RAFO and MOD workers who will take over responsibility for the operations and maintenance of this new facility. Overall, the TTOF training and operational testing conducted by Pond Inc. was a great success and should pave the way for future use of the system to meet aviation fuel receipt needs, inspectors said.

Also at Thumrait are two bulk fuel installations that can receive aviation fuel directly from the new TTOF. The inspectors visited both sites with John Thomas, site manager for Shell Oil, who briefed inspectors on maintenance procedures, system functionality and other historical information. Fuel at BFI 1A and 1B is stored in two 1.3 million-gallon cut and cover tanks until required for refueler refilling or direct issue to aircraft via a hydrant outlet and pantograph. All Thumrait RAFO fuels facilities, equipment and associate assets were in good working order and ready to support DoD and civil aircraft requirements, said inspectors.

To access the final site, the inspectors flew back to Muscat



before departing on a five-hour drive through the mountains surrounding Muscat and over open desert to a ferry that transported them on a one-hour trip from the coast of Oman to Masirah Island. While on the remote island, inspectors visited all RAFO's fuels facilities with Shell Oil Superintendent R. S. Rathore and again found most assets in good working order and ready to support all customers.

Several of the RAFO facilities within the petroleum storage depot, including the interconnected single-point mooring system and the associated infrastructure, were undergoing comprehensive maintenance and repairs and awaiting pressure testing before being returned to service. Additionally, BFI #2 was out of service and couldn't issue, transfer or receive fuel until the pipeline and tank floor leaks were repaired.

Of the Masirah RAFO facilities inspected, the most notable was the single-point mooring system and the associated infrastructure. Once fully operational, the SPMS will be capable of receiving diesel and aviation fuel from tankers or barges into Masirah's three BFIs in all sea-states, including those experienced during monsoon season. Receipts via tanker/barge during monsoon season were not always possible at Masirah due to very rough sea states and a fixed mooring system, which meant fuel had to be delivered by tank truck using the ferry system.

With the exception of SPMS/PSD projects and repair work on Masirah Island, all RAFO facilities and processes observed by the DESC-ME inspectors were found to be in good working order and ready to support DoD and civil requirements within the Sultanate of Oman. Future 90-day inspections at each of the sites will ensure a continued focus on strengthening bi-lateral relations, safe and efficient fuels operations and timely completion of the SPMS/PSD projects.

**From the top:** *The state of the art tank truck offload station on Thumrait Air Base has ten off-load bays for bulk fuel download.*

*Gathered at Petroleum Storage Depot Masirah are, from the left, Saddam of Shell Oil Company; Maj. Nathan Kartchner, an engineer at the Air Force component of U.S. Central Command; Steve Porter of Defense Energy Support Center Middle East; Mike Kenny and Mike Sanchez of CH2M Hill; Lt. Col. Stacey Anason, an AFCENT engineer; and George Treloar of DESC-ME.*

*Gathered at the single point mooring system booster pump shelter at Masirah are, from th left, Lt. Col. Stacey Anason of AFCENT, Mike Kenney and Mike Sanchez of CH2M Hill, Maj. Nathan Kartchner of AFCENT and George Treloar of DESC-ME.*

# Army floats improved system

**By Terry Shawn**
**DESC Public Affairs**

A 75-foot long tethered blimp called an aerostat, filled with helium procured by the Defense Energy Support Center's Aerospace Energy, floated over Fort Belvoir, Va., May 18 to demonstrate improvements to the Army's Persistent Ground Surveillance System.

The Office of the Secretary of Defense's Rapid Fielding Directorate hosted the event to demonstrate the capabilities of lightweight affordable payloads and advanced aerostat technologies for intelligence, surveillance and reconnaissance.

The Army and OSD collaborated to develop more mobile, smaller and easily deployable surveillance systems. Devices attached to a lighter-than-air, tethered aerostat, provide ground troops with a more complete surveillance picture through information gained from the new airborne sensor systems.

"What you see here is one of the many new capabilities that we are introducing into Afghanistan in association with the new surge effort this spring and summer - to get the forces that are already in Afghanistan set and more effective and also to accommodate the new forces that are flowing in," Ashton Carter, undersecretary of defense for Acquisition, Technology and Logistics, told reporters.

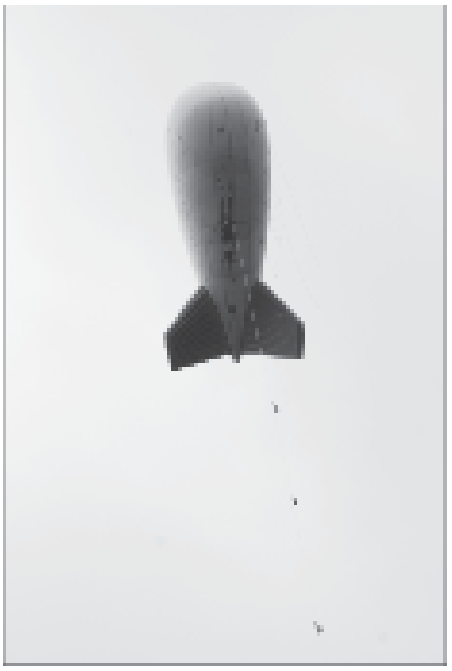
The aerostat, which was filled with 25,000 cubic feet of DESC-procured helium, is capable of flight in 70 knot/80.6 mph winds with a payload capacity of approximately 200 pounds. The aerostat can be equipped with multiple payload types, including communication relays and a camera turret for 360-degree situational awareness in day or night operations. The system is designed to function at forward operating bases located in high altitudes; the flights can be conducted up to 3,000 feet above the FOB.

Carter said aerostats with the Persistent Ground Surveillance System provide precise, local intelligence information and situational awareness around the clock.

The aerostat with PGSS offers "a great source of effectiveness to the troops deployed there because they know what's outside the wire, they know what's in their vicinity; they can see people who are trying to plant IEDs; people who are disrupting security for them at their installation or in the town," Carter explained. "It is a source of alarm, therefore, for the bad guys and a source of comfort for the good folks who look up and see this thing over - watching them and protecting them," Carter said.

Several DESC leaders observed the demonstration, including Air Force Col. Frank Rechner, director of Operations, Mark Iden, deputy director of Operations, Air Force Col. Steve Kephart, director of Mobility Fuels, and Lou Foehrkolb of Aerospace Energy's Logistics Management Division.

**Left:** *Defense Department leaders respond to the media about the aerostat-based intelligence system the Defense Energy Support Center supports in Afghanistan.*



**Above:** *An aerostat floats above Fort Belvoir, Va., May 18 filled with 25,000 cubic feet of Defense Energy Support Center-procured helium.*

**Below:** *A trailer and storage container specially designed to handle helium canisters.*

**Above:** *Quality Assurance Representative Rick Albert records data in the Defense Fuel Support Point Baltimore, Md., office.*

**Below:** *QAR Rick Albert, NuStar Energy Terminal Manager Tim Hutson and QAR Glenn Tablan review a barge shipment schedule on the dock of the NuStar Energy-owned and operated Defense Fuel Support Point Baltimore.*

# QARs see

**Article and photos by Susan Declercq Brown**
**DESC Public Affairs**

The Defense Energy Support Center relies on its quality assurance representatives to ensure the military Services and other customers receive quality fuels. Three QARs assigned to DESC Americas provide this service for a four-state region from a tiny office located on Defense Fuel Support Point Baltimore, Md.

QARs Rick Albert, Trent Buck and Glenn Tablan may share just one desk and computer in a room barely large enough to seat all three, but their responsibility spans far beyond that. And, in truth, the three spend so much time on the road, they're not often all at the DFSP at the same time, Albert said.

## At home

The QARs monitor all transfers of DESC-owned fuel at the DFSP. These include the receipt of fuel from the Colonial Pipeline and into fuel storage tanks reserved for DESC-owned fuel, as well as fuel issued to tank trucks and barges. Currently, the DFSP issues fuel to barges only; since October 2009, it handles only Jet A commercial jet fuel for DESC in support of an initiative at Dover Air Force Base, Del., which is demonstrating the feasibility of converting Air Force aviation fuel purchases to Jet A instead of military specification jet fuel JP8, Albert explained. Dover AFB is one of four air bases participating in the joint Air Force-DESC demonstration.

QARs visually inspect the fuel before it is transferred to one of three tanks reserved for DESC-owned fuels on the NuStar Energy Inc. owned and operated fuel facility, said NuStar Terminal Manager Tim Hutson, who said NuStar has nearly 60 storage tanks at its terminal on the Patapsco River southeast of Baltimore. The QARs also have fuel samples tested by Intertek Caleb Brett laboratories to verify quality, Albert explained. QARs also determine the quantities of additives to be injected into the Jet A to convert it to the equivalent of military specification JP8 before it is transferred to Dover AFB, he added.

Albert outlined the QARs' responsibilities. On the DFSP, they monitor DESC-owned fuel quantities in the storage tanks by observing NuStar employees taking measurements and calculating quantities. They monitor transfers into the Vane Brothers barges by verifying tank quantities before and after the transfer and observe crewmen taking measurements aboard the barge. Before releasing the fuel, the barge captain and QAR make separate temperature compensation calculations and compare results to ensure agreement on the quantity of fuel issued, he said.

Hard hats, flame retardant clothing, safety goggles and steel-toed boots are "de rigueur," as QARs climb 50-foot ladders to the tops of storage tanks, step over and duck

# it all

under piping, and climb atop trucks and aboard ships to conduct inspections and monitor transfers of flammable and hazardous materials. For a novice, a day of such activity can result in some muscle stiffness the morning after.

## On the road

But this site represents just a fraction of the DFSP Baltimore-based QARs' responsibilities. They also ensure fuel quality, conduct inspections, and act as DESC's face to customers and suppliers at locations across Maryland, Virginia, Delaware, New Jersey and D.C. These include pipelines, storage facilities, and barge and truck distributors. Some of the key sites include Andrews AFB, Md., Bolling AFB and Naval Air Station Anacostia, both in D.C. Due to the recent change of fuel grade, DFSP Baltimore has temporarily discontinued delivery to many customers that previously received JP8 support from them.

The team also inspects companies that issue commercial grade fuels to military aircraft through Into-Plane contracts with DESC in places as far from Baltimore as Pittsburgh, Penn.

And, in addition to petroleum-based fuels, the team ensures the quality of DESC-procured chemicals and gases at such places as the National Capital District, Aberdeen Proving Grounds, Md., and many installations that use aviators breathable oxygen, said Albert.

"Because many QARs are stationed one-deep, we also spend time on [temporary duty assignments] to fill in for QARs on leave," Albert said.

## Across the board

QARs must be fluent in accounting procedures, supply chain management, fuels transportation and customer relations, in addition to being experts on procedures and issues concerning fuel quality, said DESC Americas East Quality Assurance Manager Scott Artrip. DESC-AME QARs average more than 30 years experience in fuels, he said.

"Given the location, elevated operations tempo and criticality of their mission, the Baltimore QARs are constantly engaged. Their task is Herculean, and they always rise to that challenge," Artrip said.

**Above:** *Atop a fuel storage tank, QAR Trent Buck records data as NuStar Energy's Roberto Siguero takes fuel volume and temperature measurements.*

**Below:** *NuStar Energy's Tim Hutson observes operations with DESC Americas East QAR Glenn Tablan at the Defense Fuel Support Point Baltimore terminal Hutson manages.*

# Training promotes prevention, preparedness

**By Paul Rogers**
**DLA Enterprise Support office**

"An ounce of prevention is worth a pound of cure," Ben Franklin declared in 1736, when he organized Philadelphia's first fire department. Subscribing to the same approach, the Defense Energy Support Center provides spill prevention and response training in its environmental training program, but the emphasis is on prevention.

The Exxon Valdez oil tanker spill in 1989 is a grim reminder of the environmental havoc that can result from disregarding proper prevention tools, processes and regulations. When the tanker ran aground on Bligh Reef, it spilled 10.8 million gallons of unrefined Alaskan crude oil into Prince William Sound, causing the largest oil spill in North American history.

As a result of that spill, Congress enacted the Oil Pollution Act of 1990 that, among other things, requires that operators of oil and fuel storage and pipeline facilities be trained to respond to spills in order to mitigate the environmental impact of any accidents.

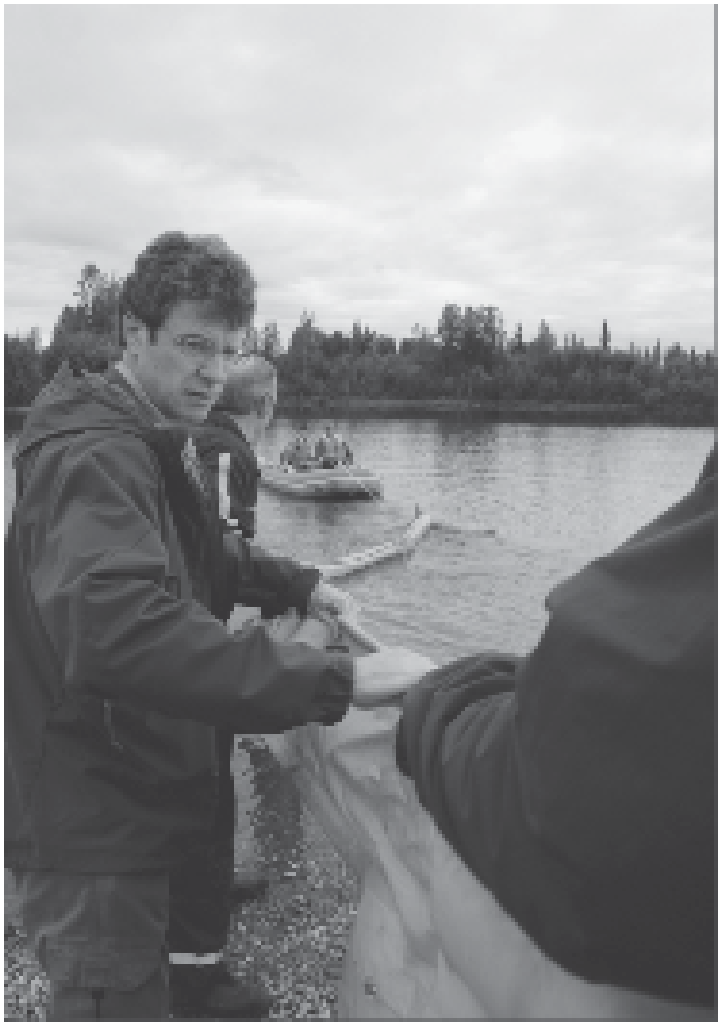
DESC takes this responsibility seriously. The defense fuel support points, which receive, store and dispense DLA-owned fuels, are required to maintain a facility response plan. They must also conduct annual spill response training and regular spill response exercises to ensure continuous improvement and readiness. This National Preparedness for Response Exercise Program meets the requirements of the U.S. Environmental Protection Agency and the U.S. Coast Guard for spill response at oil and fuel storage and pipeline facilities. It also meets the intent of OPA '90 for spill response preparedness.

DESC's OPA '90 program provides training on emergency procedures, unannounced exercises, "qualified individual" training, spill incident management and tabletop exercises. DESC also provides hands-on equipment deployment exercises and execution training.

But, responding to spills is not DESC's primary focus. In DESC, prevention is the name of the game. Preventing spills before they occur is the environmentally sound approach and much more productive.

DESC recently initiated regular spill prevention training for DFSP operators. This training is primarily focused on operators of underground storage tanks and piping systems; it provides operators with measures to monitor systems to recognize potential problems and prevent spills. Operators will be trained in best management practices for facility inspections, spill and overfill prevention and protection, leak or spill detection, corrosion protection system monitoring, appropriate actions in response to system monitoring alarms and emergency response.

The environmental program stresses prevention to protect the environment and minimize any unwanted impacts from DESC operations. An added benefit of this good stewardship is improved financial stewardship—saving money through minimizing costs associated with environmental cleanups.



*Tom Rayburn, an oil and fuel spill clean-up instructor under a Defense Energy Support Center contract, helps place a containment boom into Bear Lake during an oil and light fuels spill water contamination clean-up exercise at Eielson Air Force Base, Alaska, last year. A containment boom provides a barrier between contaminated and uncontaminated water. (Photo by Air Force Tech. Sgt. Eric T. Sheler)*

# Ashes to ashes

## *DESC team learns firefighting skills*

**By David Pamplin**
**DESC Europe and Africa Petroleum Lab**

One day after ash was spread over a wide swath of Northern and Central Europe by a volcanic eruption under Iceland's Eyjafjallajokull glacier, Defense Energy Support Center Europe and Africa employees generated some ashes of their own in Germany. In an April 15 training exercise, the DESC-E/A team learned how to prepare for and properly extinguish a variety of fires.

Fire Protection Inspectors from the U.S. Army Garrison's Fire Station #6 conducted the training at the DESC-E/A Petroleum Lab on Rhine Ordnance Barracks in Kaiserslautern. Inspectors Klaus Kueppers and Mario Hoinigg provided instruction on the types of portable extinguishers suitable for confronting fires fueled by different categories of materials including paper, wood, oil, grease and petroleum.

The instructors led soldiers and civilians assigned to DESC-E/A through the steps involved in using the correct portable extinguisher. These included removing the safety pin, directing the extinguisher nozzle towards the combustion area above the surface of the flammable liquid, and fanning the extinguisher stream across the entire surface of the fire in order to smother all re-ignition sources.

"The instructors structured the exercise to ensure we'd learn all the appropriate lessons," said DESC-E/A Quality Assurance Manager Mike Cochran.

The trainers used diesel fuel combined with less than 10 percent gasoline to quickly generate a sustained blaze that they had determined could be easily extinguished with one full, portable, dry-powder fire extinguisher in the hands of a skilled operator. But, DESC participants were not so lucky, Cochran said. They initially attacked the fire with a partially-full extinguisher, provided by the trainers, but could not put out the fire. Only when they resumed the attack with a full extinguisher did they have success.

*Lab Technician and Fire Warden Army Sgt. Gilbert Lopez tackles a fire with the help of Fire Protection Inspector Klaus Kueppers and Fire Inspector Mario Hoinigg*

Before the DESC team tackled the blaze, instructors threw water on the flame to demonstrate that the water would not extinguish the blaze, and that it would worsen matters by spreading the fire over a larger area.

The DESC team learned several important lessons, Cochran said. First among these were the capabilities of the laboratory's inventory of firefighting equipment. This is critical to ensure the responder has the proper fire extinguisher for the type of fire encountered.

And, of course, as the trainees learned firsthand, the fire fighter should always start with a full extinguisher of sufficient capacity.

Team members also learned some potential unintended consequences of fire extinguisher use; for instance, the extinguisher stream can propel flammable materials away from the firefighter. And, some employees were surprised that "the safety pins on the extinguishers are not as easy to remove as many thought they would be," Cochran added.

The team agreed on what was perhaps the most important lesson for all—the value of teamwork in addressing a fire situation.

*DESC Europe and Africa's Petroleum Laboratory Chief David Pamplin tackles a fire during training at the lab April 15 in Germany.*

# Do you have integrity issues?

**By Dani Irvine**
**DESC Office of Counsel**

So here's the thing—as a contracting organization we spend lots of time making sure that the contractors we deal with have a satisfactory record of business integrity. But, what if the tables were turned and it was your integrity as a government employee being scrutinized? Your government computer records, your government phone usage, your interactions with contractors and other non-federal entities - would your record stand up to the same scrutiny?

## Can you stand up to scrutiny?

Take your use of the government computer and communications systems, for example. The general rule is that you may not use government property, including official time, for other than authorized purposes. But, you are authorized to use government resources for personal purposes if the use: does not adversely affect the performance of official duties; is of reasonable duration and frequency; serves a legitimate public interest (such as keeping you at your desk); does not reflect adversely on the Defense Department and results in minimal or no significant additional cost to DoD.

Of course, the reality is that you are probably not going to pull out this rule and do a legal analysis every time you take a minute to check your bank account online or make a local call home to remind the kids to do their homework. But, as professionals, you should have a general awareness of these rules and use common sense to recognize when your activities might be approaching the line of what is impermissible. A quick toll free reminder to the kids to do their homework is fine; staying on the phone for 30 minutes to go over it with them during work hours is obviously not acceptable. Again, this should be common sense.

Of course, while that is a pretty clear example, other situations may not be so obvious. If you find yourself in one of these gray areas, contact your ethics counsel.

## Some records don't stand up

Unfortunately, we do see examples where a lack of integrity on the part of government employees results in violation of the government resource rules. And, we're not talking about gray areas! We've seen phone and internet records where an employee regularly made personal long distance calls on the government phone and spent hours checking personal e-mail, doing online banking, checking horoscopes, and searching and filling out applications for various jobs. Good thing they were looking for another job, because that employee was terminated within a couple of weeks.

We've also seen internet and e-mail records where an employee was viewing and forwarding, well, let's just call it "adult" content on the internet. The employee claimed they weren't aware that this was not an authorized use of the government computer. Really? That one doesn't even pass the laugh test, let alone the "Washington Post" test. The employee is no longer with our organization. See a pattern?

## Interactions with non-federal entities

Interactions with contractors and other non-federal entities is a more complex matter that requires constant vigilance by the employee to avoid violations. As a government employee, you've taken the training, and you know or should know that the laws and rules governing issues like gifts, conflicts of interest, endorsement, misuse of position, nepotism, and participation/support relating to non-federal entities are extensive. So extensive, in fact, that there just isn't room to discuss them all here.

Instead, the key point is for government employees to remember that professional and ethical integrity and the integrity of the agency should trump all other considerations. In this arena, it is far better to think not only in terms of "can I?" but "should I?"

If the idea of personal integrity isn't motivation enough, there's more to consider.

## Consequences

Punishment for violations can be quite severe, with several statutes providing for criminal penalties, including fines and imprisonment. And, the judicial or administrative courtroom isn't the only place a government employee is likely to be tried for violations. Even if you haven't actually violated the law, your actions may appear so inappropriate that you may still be tried and found guilty in another forum – the court of public opinion!

Of course, the most infamous of recent DoD cases involving improper contractor relationships is the Darleen Druyun case. Druyun was the deputy assistant secretary of the Air Force for Acquisition and Management. She was convicted of violating federal conflict of interest laws by arranging for employment for herself, her daughter and her son-in-law with Boeing, all while managing procurements and contracts involving Boeing. In addition to fines, Druyun was sentenced to and served nine months in federal prison, followed by a period of house arrest and court-ordered supervision. And, oh by the way, that job with Boeing didn't really work out after all of this came to light. This was not exactly the way she planned to kick off her retirement.

So, what would your government internet, e-mail, and phone records say about your integrity as a government employee? How about your interactions with contractors or other non-federal entities?

All employees should look at these issues objectively and think about what your actions say about your ethics as a government employee.

## Learn more

To learn more about specific laws and rules on these topics, you can visit the Office of Government Ethics website at http://www.usoge.gov/index.aspx. Click on the "Common Ethics Issues" link on the left side of the screen.

# Hydrogen fuel cell car excels

**By Terry Shawn**
**DESC Public Affairs**


*This Chevrolet Equinox Fuel Cell is a crossover sports utility vehicle that uses zero petroleum, runs on hydrogen and uses an advanced fuel cell propulsion system. It is on loan to DESC's Pam Serino, director of Quality and Technical Support, as part of GM's Project Driveway, a test market program that places vehicles in Washington, D.C., New York City and metropolitan areas of California.*

Visitors to the seventh Defense Energy Support Center-sponsored 2010 Worldwide Energy Conference may have seen the Chevrolet Equinox Fuel Cell car, an electric vehicle powered by General Motors' advanced fuel cell propulsion system, parked at the front entrance of the Gaylord Hotel in National Harbor, Md., site of the conference and expo in May.

The vehicle is on loan to DESC Director of Quality and Technical Support Pam Serino from GM. It is one of 100 fuel cell cars placed by GM's "Project Driveway" in the metropolitan areas of Washington, D.C., New York City and California as part of what the carmaker calls "the first meaningful market test of fuel cell vehicles."

"The vehicle has great pickup, 0-60 in eight seconds," Serino reported. "Of course, the range is still very limited – only 200 miles per tank of fuel, and there are no hydrogen fueling stations except here on post. That will all come with time," she said.

While the vehicle looks like any new five-door front wheel drive crossover sports utility vehicle that travels our highways daily, it consumes no petroleum. It is an Environmental Protection Agency-certified zero-emissions vehicle that emits only water vapor and has a propulsion system that emits zero greenhouse gas emissions. Its fuel storage system is made up of three carbon fiber fuel tanks with compressed hydrogen gases.

## How to tell if you might have an integrity problem:

- If you spend so much work time on FarmVille that your virtual farm is generating more sales than your business unit … you may have an integrity problem.
- If you've helped so many relatives get jobs here that the annual picnic is also your family reunion … you may have an integrity problem.
- If you've accepted so many promotional gifts from contractors that you could open an online toy store selling miniature fuel trucks and teddy bears with flight jackets … you may have an integrity problem.
- If you haven't paid for your own lunch since 1999 because you've done the math and figure you can get five $10 lunches per year from each vendor your division does business with … you may have an integrity problem.
- And finally, if you're a government employee or military member and don't think that anything in this article applies to you … you definitely have an integrity problem!

# Energy solutions hinge on technology and incentives

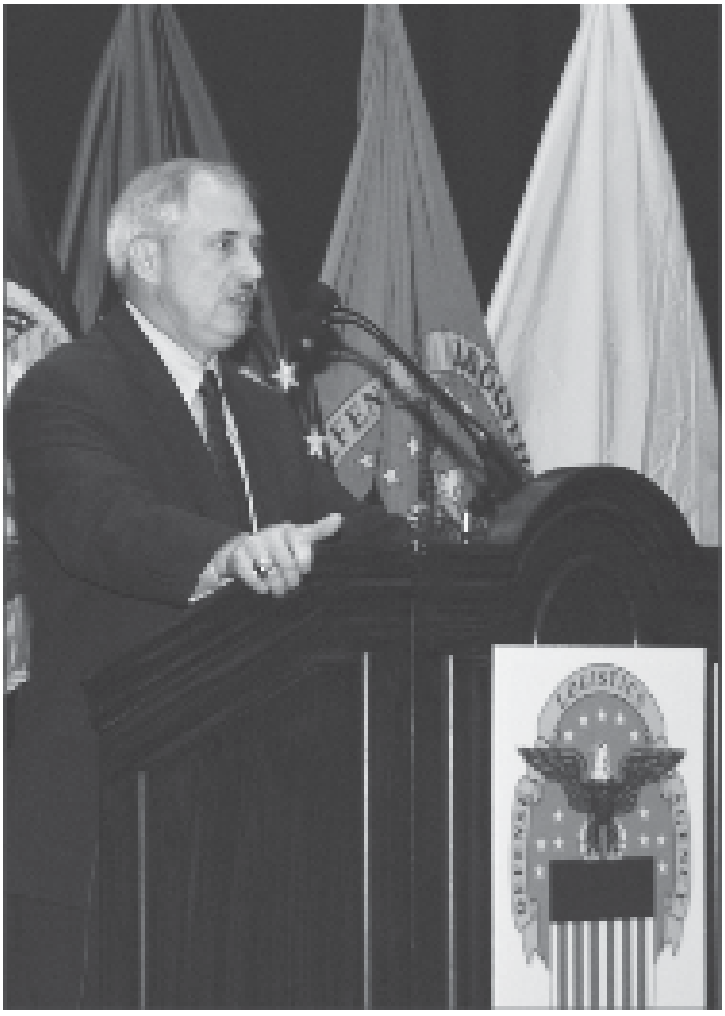
**By Susan Declercq Brown**
**DESC Public Affairs**

Key note speakers, addressing a record number of attendees at the Defense Energy Support Center's 2010 Worldwide Energy Conference at National Harbor, Md., May 11, stressed alternative fuels will need to be commercially viable and environmentally friendly for the federal government to meet its alternative and renewable energy goals – and that financial incentives and technological advances will play an important role in that.

William Hagy III, special assistant for alternative energy policy in the U.S. Department of Agriculture's Rural Development area, and Anthony Kitson-Smith, global technology manager for Exxon Mobil Corp., provided perspectives on historical energy use, current programs and the outlook for alternative fuels and renewable energy in the United States.

## DESC

DESC's Navy Rear Adm. Kurt Kunkel, commander of the Defense Department activity charged with supplying fuel and energy to the nation's armed forces, set the stage for the



speakers by outlining DoD's goals for alternative and renewable energy usage and the steps DESC and the military Services are taking to meet those challenges.

"The threats to our national security are many," Kunkel declared, "but certainly our dependence on fossil fuels must rank up there as one that warrants our immediate attention. Our president and other national leaders have demanded a call to action to curb this dependence."

The U.S. military is being asked to radically alter its use of petroleum-based fuels by 2016, Kunkel said. "Over the next six years, we've been challenged to put to use renewable energy and other alternative fuels in order to operate a significant portion of the U.S. armed forces," he explained.

Kunkel highlighted the Air Force's flight tests and certification of a 50/50 blend of synthetic alternative fuel and conventional aviation fuels and an aggressive goal to acquire 50 percent of its 2016 domestic requirements with environmentally friendly fuel. He said the Navy is pursuing a number of shore and sea-based

**DESC's Worldwide Energy Conference and trade show activities photos by Susan Declercq Brown**

**Left:** *William Hagy III, special assistant for alternative energy policy in the U.S. Department of Agriculture's Rural Development area, addresses the plenary session May 11.*

**Opposite bottom:** *Greg Abernathy from Cape Systems Inc. examines the Cameron Valves and Measurement exhibit.*

**Right:** *Gene O'Brien of Core Engineered systems gestures as he speaks to Gordon Johnson of MARS Systems.*

**Below:** *DESC's Director of Aerospace Energy Sharon Murphy meets with contractor Deepak Mehta of Global Gases Inc.*

initiatives, including plans to operate an overseas "green" strike group by 2016. The Army also has a number of initiatives underway, he said.

DESC is pursuing a comprehensive approach to determine potential use and availability of renewable fuels including domestically produced, algae-based and biomass derived aviation, maritime and ground fuels, the admiral said. He cited DESC-procured Fischer-Tropsch synthetic fuels made from both natural gas and coal as key enablers of the Air Force blend certification process, adding that DESC is now supporting additional Air Force and Navy flight tests.

A recent strategic alliance between DESC and the Air Transport Association of America is designed to leverage the collective market and purchasing powers of the two entities and encourage fuel suppliers to bring commercial renewable fuels and energy into the market place, Kunkel said.

## USDA energy programs

Hagy said providing incentives to businesses to develop and produce biomass fuels for the commercial market is key—including providing those incentives to farmers, ranchers and forest owners to encourage them to invest.

"Farmers don't just change overnight," said Hagy. "They're very conservative, and you have to convince them there's going to be a long-term financial investment in the new crop, some sort of crop insurance program for energy crops, and a sort of minimum price established to ensure energy crops are a viable business choice."

Hagy said the USDA seeks to boost market development for biomass fuels by supporting the research, development and production of biomass fuels through a variety of loan guarantee and grant programs. USDA also seeks to revitalize rural industry through green business. Hagy said the programs have

financed 4,000 projects, provided $1 billion in loan support and $210 million in grants, and helped create 4,500 new green businesses and more than 14,000 new jobs over the past four years.

"Long range, we feel the bulk of our dedicated research and development should be directed toward third generation products," said Hagy. Third generation, sometimes called drop-in, products are biomass fuels that replicate the molecular structure of conventional petroleum-based fuels. First generation biomass fuel includes corn kernel starch ethanol; second generation fuels such as those DESC purchases for the Air Force and Navy alternative fuels programs now, must be blended with conventional fuels.

Hagy said emphasis must also be placed on developing solutions to storing, transporting and converting huge volumes of energy crops, which are often quite bulky. USDA also supports wind, geothermal, solar, anaerobic digest, hydroelectric and ocean wave business development.

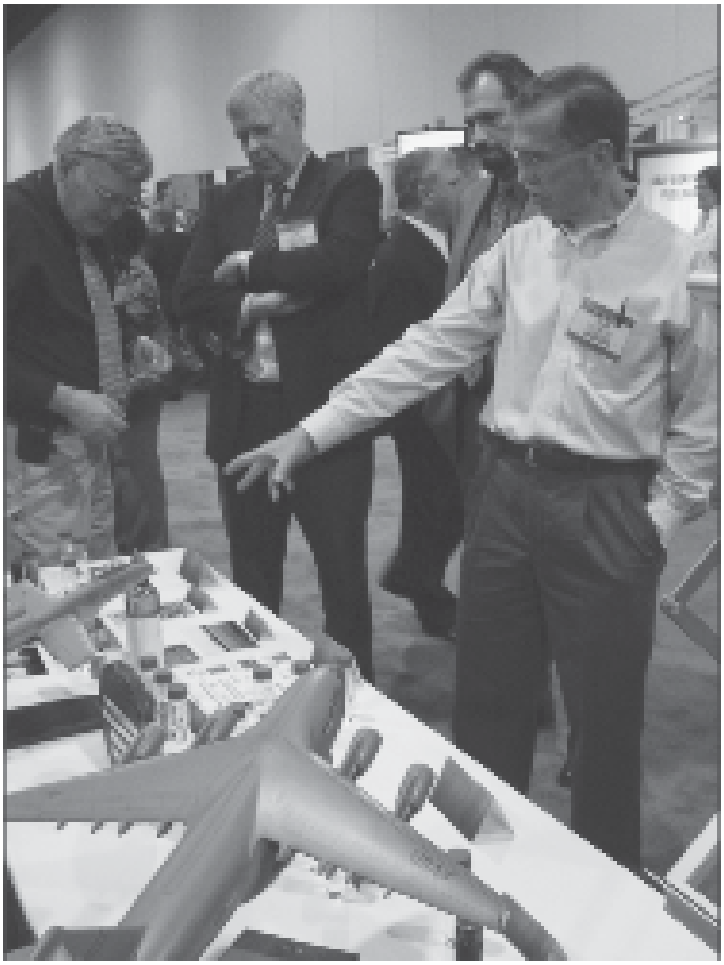
## Industry perspective

Kitson-Smith shared his company's projections for energy demand, output, use and development over the next two decades. He stressed the need for financial incentives for businesses to develop alternative fuels and fuel efficient technologies for the end consumers.

Kitson-Smith said his company is very optimistic about the use of technology in increasing energy efficiency, and that energy efficiency, technological advances and emerging alternative fuels will all be key to meeting the world's ever increasing demand for energy.

Kitson-Smith said he believes steady improvements in energy efficiency will allow developed nations like the U.S. to continue to grow their economies while holding energy consumption at a steady level. But, developing nations will triple their energy requirements over the next two decades as their economies grow. Energy efficiencies will be encouraged both through environmental stewardship concerns and incentives, such as taxes on carbon dioxide production, Kitson-Smith predicted.

"The driver on technology is an imperative," said Kitson-Smith. He said alternative energy use alone cannot help the world meet the demand for fuel; small efficiencies will play a big role as well. Without these efficiencies, Kitson-Smith said, energy demand worldwide will grow by nearly 95 percent, rather than 30 percent.



**DESC's Worldwide Energy Conference and trade show**

**Left:** *Mike Denham and Ed Znoj of Amec Global Engineering and Project Management talk with Michael Gladson of the Air Force Center for Engineering and the Environment.*

**Above:** *John Datko of the Air Force Research Lab points out an element of the display to DESC's Executive Agent Office team members Bill Gibson and Mark Chamberlin.*

Technology is the key, said Kitson-Smith. "We need to increase efficiency, expand the fuel supply and mitigate the impact of what we're doing on the environment. And the way that that all gets achieved is through technology."

Kitson-Smith talked about several technological advances his company is working on, saying they are investing $600 million in an algae-based biofuels research program to develop drop-in replacements for a variety of fuels.

## Algae potential

He said that while there are a variety of alternative fuels currently in development, Exxon Mobil favors the algae based drop-in because the short lifecycle of the crop enables quicker research and development times than with other products. In addition, algae offers the potential to yield much greater volume per acre than crop-based biofuels—perhaps as much as 2,000 gallons of fuel per acre, Kitson-Smith said.

Another advantage to algae is that it can be grown on land and water unsuitable for food production. That's important when you look at greenhouse gasses, he said.

## The conference

The conference, which DESC sponsors every two years, brings together DESC's experts, representatives from the military and other federal agencies, foreign partners and energy industry professionals to discuss challenges and solutions and to learn about the latest products, services, initiatives and trends. This year's conference saw a 15 percent increase in attendance and a 33 percent increase in the number of trade show exhibitors from DESC's 2008 conference, according to conference organizers.

**Photos by Susan Declercq Brown**

**Right top:** *FMW Composite Systems' Dale McBride answers questions from Senior Master Sgt. Lawrence Rimmer of 10th Air Force.*

**Right:** *The Naval Operational Logistics Support Center -- Petroleum's Kelli Thorpe and Lynda Turner display a variety of biomass and alternative fuel sources and oils.*

# DESC, Navy milestone in

**By Kelly Widener**
**DESC Public Affairs**

The Defense Energy Support Center celebrated with the Navy April 22 as an F/A-18F Green Hornet flew for the first time using a 50/50 blend of traditional jet fuel and a biofuel derived from camelina plants.

The event at Navy Air Station Patuxent River, Md., was a first for the Navy and its show of

# DESC team wins 'green' award

**By Terry Shawn**
**DESC Public Affairs**

The Defense Energy Support Center's Biofuels Support Team learned in late April they are the winners of the Defense Logistics Agency's Green Products and Services Award for fiscal 2009. DESC Commander Navy Rear Adm. Kurt Kunkel and DLA Director Navy Vice Adm. Alan Thompson thanked the team for its support of the Defense Department's emerging renewable fuel requirements.

The team was recognized for outstanding support to the Navy and Air Force in supplying renewable fuels, promoting fundamental research into biofuel development and assessing biofuel use in aviation, maritime and ground transportation.

The DESC team led the award of an $8.5 million algae-derived F-76 marine diesel, ships' bunkers fuel research and development project. This procurement was completed in less than 120 days, despite requiring significant Defense Contract Audit Agency audit assistance.

"The fuel provided under this contract will support Navy testing and certification efforts — a key step toward the Navy's 2016 Green Carrier Battle Group goals," said Dan Baniszewski, chemist, Quality and Technical Support.

In direct support of Secretary of the Air Force energy goals, the DESC team executed an acquisition of hydro-treated renewable jet fuel, known as HRJ8, for the Air Force to support certification and testing efforts.

"This is a crucial step prior to the fuel being approved for future use on Air Force aircraft. The team successfully coordinated the unique specification requirements with the Air Force technical office, ensuring this cutting-edge renewable fuel met the needs of the Air Force," said Pam Serino, director of Quality and Technical Support .

All acquisition steps for this tailored procurement were executed in less than 90 days, and two contracts for HRJ8 were awarded per Air Force requirements.

The team "…successfully integrated elements of procurement, technical, organizational structure and research development, reflecting its commitment to incorporating these fuels into DESC's overall supply chain fabric," said Thompson in a congratulatory memorandum.

This annual award recognizes DLA's commitment to providing customers with products or services that assist them in meeting their environmental obligations and furthering the national goals of environmental stewardship.

For the first time, there was a tie for first place between DESC's Biofuels Support Team and Defense Supply Center Philadelphia's Medical Technical Branch. The DSCP team used reverse distribution principles with their customers, vendors and manufacturers to ensure that expired drugs are removed from circulation and safely disposed of to avoid contamination to land or water.

DESC team members were Dan Baniszewski, Patricia Wilkins, Chuck Allyson and Pam Serino from Quality and Technical Support; Phyllis Orange, Emma Smith, Farheena Khan, Linda Coleman, Anastasia Prado and Bruce Blank from Bulk Petroleum; Jeanne Binder and Frank Pane from Energy Plans and Programs; Kay Bushman from Office of Counsel; and John Dormer, DLA Contracting Support Office Philadelphia.

Kunkel praised the recipients and noted the highly regarded award is a direct reflection of the organization's dedication to warfighter support.

"You have shown the DLA family how DESC can set the standard for others to follow," Kunkel said.

# achieve Naval aviation

**Left:** *An F/A-18 strike fighter, dubbed the "Green Hornet," conducts a supersonic test flight. The aircraft is fueled with a 50/50 blend of biofuel and conventional fuel procured by Defense Energy Support Center. (Photo by Liz Goettee)*

**Below:** *The aircraft is fueled with the biofuel/conventional blend before the test April 22.(Photo by Liz Goettee)*

stewardship toward the environment and Naval aviation defenses on the 40th Earth Day.

Piloted by Lt. Cmdr. Tom "Pi" Weaver and Lt. John "Crank" Kollar, the frontline fighter aircraft performed test maneuvers and achieved Mach 1.2, according to Navy Secretary Ray Mabus.

"This is the most visible demonstration we've had to date of our commitment to change the way we produce and use energy in the Navy and Marine Corps," Mabus said. "We are moving toward a new energy future. We are moving toward increased efficiency. Doing the same job with less fuel, and we are also moving toward sustainable alternative fuels to replace those fossil fuels."

The biofuel, awarded by DESC in a $2.7 million contract to Sustainable Oils for approximately 40,000 gallons of camelina biofuel, supports one of many steps toward the Navy's energy goal to a certifiable alternative fuel source for aviation platforms.

"The Navy is working toward qualifying an alternative fuel source in the F/A-18F Hornet and other aircraft platforms," said Rear Adm. Kurt Kunkel, DESC commander. "They have aggressive energy efficiency goals and the DESC stands ready to support the energy and fuel requirements for the Service to be successful."

In general, DESC is a centralized purchaser for energy and fuel requirements in the Department of Defense.

"Where we procure the traditional petroleum products for the military Services, we also procure the alternative fuels requirements supporting their individual energy goals," Kunkel said.

Over the past few years, DESC has purchased alternative fuels for the military Services as part of their testing and certification processes, said Mark Iden, DESC deputy director of Operations. The important piece of this procurement support is to ensure the alternative fuels purchased for testing and certification purposes can be drop-in replacement fuels, meaning the current distribution systems and infrastructure for fuel storage can be used.

The biofuel procured for Thursday's Green Hornet flight was a blend derived from camelina plants, a biofuel with significant potential in the field as a drop-in replacement to aviation jet fuel as well as a suitable potential crop for biofuel production.

Camelina is a member of the mustard family. It can be grown in rotation with crops like wheat and can be grown in every state in North America. "This is the future of Naval aviation," Mabus said, adding that the successful flight was a clear indicator the fuel is a practical alternative and can effectively adapt to existing equipment.

DESC has also awarded contracts in support of algae-derived marine diesel, renewable jet fuel from producers using two different biomass oil feedstocks, and Fischer-Tropsch synthetic fuels in support of military Services' testing and certification program. In March, the U.S. Air Force highlighted its first A-10C Thunderbolt II flight fuel using a 50/50 blend of biofuel. The event marked an aviation milestone for that Service as well. The camelina-derived biofuel was also procured by DESC.

"Our military is headed toward a new future with energy," Kunkel said. "It is our mission to support this new emerging energy future, and we have the skilled and committed team to do it."

In addition to thanking DESC, "who got the biofuels and made this day possible," Mabus recognized all the energy experts and Naval leadership who worked to achieve the F/A-18F test flight.

"We stretched our imagination a little bit further today, in fact, our imagination flew today," Mabus said. "That is American ingenuity. That is American leadership. I congratulate everyone on a job well done but remind you that this is one of the first steps in a long, long road that is going to lead us to energy independence and energy security."

# Doing business with DESC

**By Kelly Widener and Susan Declercq Brown**
**DESC Public Affairs Office**

When Defense Energy Support Center employees hear news of defense missions around the globe, they respond with pride – and rightfully so. That's because Defense Department missions rely on DESC to supply the energy behind the action.


With that kind of mission span, there are plenty of opportunities for companies to compete for DESC contracts supplying products or services, said Gabby Earhardt, director of DESC's Acquisition Policy and Oversight Office. DESC also encourages small businesses to compete for contracts and to seek sub-contractor opportunities as well.

DESC's more than 1100 employees span 34 locations worldwide ensuring warfighters have the necessary fuel and energy support needed to complete missions anywhere on the globe. These employees drive worldwide coordination within both the military and civilian industries to meet service requirements and manage critical fuel infrastructure.

Recognizing the importance of maintaining a mission that must continually adapt to the changing needs of its customers and environment, the center is also a Defense Department leader in the area of alternative fuels and renewable energy. These bulk petroleum and energy solutions position DESC to expand its support to other government and federal civilian agencies such as NASA and the Federal Emergency Management Agency.

DESC's structure, composed of 14 directorates and business units and four regional offices, permits focused and specialized customer support in all areas of energy support. The organiza-

tional structure enables center employees to establish and maintain partnerships that help overcome the logistical and communication challenges of a worldwide mission.

"We not only focus on providing efficient energy solutions to the warfighter and our customers, but we also ensure our customer support is immediate with in-depth expertise and knowledge of that customer's needs," said DESC Commander Navy Rear Adm. Kurt Kunkel.

"The Defense Logistics Agency is the Department of Defense's Executive Agency for bulk petroleum and energy solutions," said Kunkel. "To successfully support this mission, we are required to continually ensure our solutions are adapting and growing with emerging technologies, changing requirements, environmental and national security sustainment, and supply chain management growth. Worldwide missions always include some challenges, however DESC personnel are committed to not only providing the energy solutions of today to our customers, but engaging aggressively to lead the DoD to the energy solutions for the future."

## Bulk Petroleum / Direct Delivery

Bulk Petroleum and Directly Delivery support by DESC extends into the acquisition and material management of motor gasoline, diesel fuels, kerosene, jet fuels, fuel oils, aviation gasoline and alternative fuels. However, support does not end with procurement; it extends to fuel-related services such as contractor-operated defense fuel support points, lab testing and environmental compliance, assessment and remediation.

"Our responsibilities include not only the procurement of these fuels for the warfighter and our customers but also the material management and logistics for these commodities to reach their customers," said Bruce Blank, director of bulk petroleum.

"Being part of the Executive Agency for bulk petroleum for DoD, our team recognizes that this mission faces various challenges in its execution," said Blank. "With our worldwide reach capability, we encounter hazardous delivery conditions, remote locations with logistical challenges and even limited fuel storage capabilities. Any of these challenges, and more, can be present in any support location; however, our job is to overcome and ensure fuel sustainment – and we do."

The center also ensures fuel supplies to federal organizations requiring delivery of commercial grade fuels directly to their operations worldwide.

"We support installations and Service locations around the world, contracting with commercial vendors at ports and airfields to supply commercial grade fuels to military govern-

**Continued**

**Opposite top:** *An airman changes the product identification code on a fuel vehicle from JP8 to Jet A at Dover Air Force Base, Del. The Defense Energy Support Center is conducting a 12-month demonstration in conjunction with the Air Force. (U.S. Air Force photo)*

**Left:** *The forward refueling station aboard the guided-missile destroyer USS John S. McCain receives a fuel line from Military Sealift Command underway replenishment ship USNS Alan Shepard Mar. 4. DESC supplies marine bunker fuel to the Navy. ( Photo by Petty Officer 2nd Class Byron Linder)*

**Above:** *A B-52 Stratofortress prepares to recieve fuel from a KC-135 Extended over Afghanistan. DESC provides military specification fuels in support of warfighter operations worldwide. (Photo by Master Sgt. Lance Cheung)*

ment vehicles," said Kathryn Fantasia, director of Direct Delivery Fuels. "Direct Delivery engages in routine programmed buys as well as short-fused requirements to support natural disasters, humanitarian relief efforts and Service exercises. The key in this is communication and coordination with our customers and vendors; it is a process that gives DESC an understanding of our warfighters' energy requirements – then we step in to support."

## Installation, Enterprise and Alternative Energy

The future of energy solutions continue to take shape as emerging research and development, technology, supply-chain management process improvements and interagency coordination push fuel and energy forward into new capabilities and options.

"Supporting the warfighter and customers worldwide, allows us the unique opportunity to pull mutual interagency goals together and shape not only our way forward in fuel support but industry and federal civilian side as well," said Frank Pane, director of Energy Plans and Programs. "DLA is already recognized as one of Defense Department's best resources for research and development of alternative fuels and renewable energy."

In keeping with this responsibility, DESC recently signed a Strategic Alliance for Alternative Aviation Fuels agreement with the Air Transport Association of America Inc. solidifying an alliance for the development and deployment of alternative aviation fuels.

"This is a significant step forward in the alternative fuels arena, and further shows commitment by the Department of Defense and the commercial aviation industry in our mutual goal of promoting energy security and safeguarding the health of our environment," said Kunkel at the alliance signing event this March. "The intent of the strategic alliance is to establish a collaborative forum focused on spurring aviation alternative fuels market growth."

Other alternative energy initiatives continue to expand. Biomass units, which turn waste into fuel, are being tested, and ultra-low sulfur diesel and heating oil are examples of developing programs focusing on the needs of DESC customers while increasing overall beneficial environmental practices. DESC also continues its support of Air Force and Navy test programs to incorporate synthetic and biomass fuels into defense aviation programs.

"Military Services and customers including the Department of Energy, Environmental Protection Agency, Department of Veterans Affairs and NASA, also turn to us for procurement and management of natural gas, coal, electricity and renewable energy sources," said Kevin Ahern, director of Installation Energy. "We are able to provide our organization as a centralized acquisition agency and to leverage economies of scale by combining customer requirements to get the best value."

To date, the center has awarded more than $430 million in energy savings performance contracts and has issued multiple procurements for long-term purchase agreements to facilitate development of on-site renewable projects.

DESC also helps the military Services to upgrade and modernize utility infrastructure without upfront investments through its utility privatization programs.


**Left:** *Clayton Allen, a quality assurance representative from DESC's Americas East region, inspects fuel trucks in Honduras in March. DESC ensures all fuel issued to customers meets specifications. (DESC photo)*

**Opposite top:** *Members of DESC's helium team supervise transportation of the volatile chemical to customers in Iraq via canisters and truck specially designed for the commodity. (DESC photo)*

**Opposite right:** *A Navy fuel specialist refuels a military aircraft whose pilot supplied an AIR Card® for billing. DESC manages AIR, Fleet and SEA Cards® to assist customers in purchasing fuel at commercial locations worldwide. (DESC photo)*

## Aerospace Energy

DESC energy support is not limited to a global reach. The center also meets customers' needs for exotic commodities required by customers like NASA, the commercial space launch industry and specialized DoD missions.

U.S. satellites are launched, kept in space and able to maneuver by rocket and missile propellants supplied by DESC's Aerospace Energy business unit, said Sharon Murphy, director of the unit. Global Positioning Systems, satellite reconnaissance photos, satellite phones and other devices rely on those satellites.

DESC also supplies other space-related commodities such as cryogenic fluids and pure gases in bulk quantities, as well as helium for use in aerostats [tethered blimps], which suspend surveillance equipment over Iraq and Afghanistan to monitor movement, Murphy added.

Supporting such commodities is challenging because all of the materials are hazardous and some products are so distinctive that only one supplier can provide them. Additionally, supporting space missions and sophisticated weapons like missiles and lasers requires DESC, contractors and customers to handle and transport these commodities in extreme conditions. Low temperatures, high pressures and hazardous materials can present a danger to personnel and the environment; this must be taken into account when designing energy solutions, Murphy said.

## Fuel Card Program

DESC's energy solutions must be adaptable to local environments and infrastructure to meet customer demands worldwide. The center's three fuel card programs — the Aviation Into-plane Reimbursement Card, known as the AIR Card®, the Ships' bunkers Easy Acquisition Card, known as the SEA Card®, and the Fleet Card — let customers purchase fuel for aircraft, vessels and ground fleet requirements from commercial sources when buying from a DoD facility is not possible.

The AIR and SEA cards permit customers to purchase fuel at specific contracted locations, on the open market or at non-contracted locations, said Ann Sielaty, program manager for the SEA Card. AIR Cards are accepted at more than 7,000 locations in 190 different countries. In fiscal 2008, program sales exceeded $848 million, Sielaty said. The SEA card program, an online ordering system with contracts covering 235 contracted ports worldwide, has totaled $543 million in transaction since it began in fiscal 2005, she said. And, the Fleet Card program supports ground vehicles through more than 700,000 transactions annually.

## Quality and DFSP Management

DESC also serves its customers by providing quality assurance and assistance in inventory and infrastructure management from experts co-located with customers. This is done through recently created headquarters directorates to focus oversight on these critical areas, and by stationing experts throughout DESC's four regions of operations—the Americas, Europe, the Pacific and the Middle East, said Iden.

*Continued*

Whether it is jet fuel for operations in Iraq, F76 for Naval humanitarian missions to Haiti, or helium for an aerostat hovering over Kabul, DESC Quality and Technology Support's quality assurance and product technology professionals are essential to the supply chain.

"Quality works quietly behind the scenes to ensure the soldiers, sailors, airmen and Marines of the United States military get the right product and the right quality every time," said Pam Serino, director of Quality/Tech Support.

DFSP Management oversees the efficient and effective operations of the Defense Department's 627 defense fuel support points. Worldwide, these facilities store DESC's extensive fuel inventories. It also serves as the focal point for the worldwide inventory management of all DoD-owned fuel, said Rocky Krill, director of the unit. Inventory experts and customer service representatives employed in the regions work face-to-face with DFSP personnel to troubleshoot and improve fuel storage, issuance and inventory processes.

"Meeting customers' needs, providing the most efficient processes to support them and exceeding their expectations. That's what DESC does every day," Kunkel said. "We continue to expand, adapt and innovate to keep our energy solutions one step ahead of the customer's evolving requirements."

## Opportunities

Energy industry businesses can identify current DESC procurement opportunities by checking the Federal Business Opportunities Web site, www.fedbizopps.gov and the Solicitations area of www.desc.dla.mil.

Information on Small Business programs such as Veteran-Owned, Service-Disabled Veteran-Owned, HUBZone, Small Disadvantaged, Women-Owned, Small Business Innovation Research, Small Business Technology Transfer, Mentor-Protégé, Indian Incentive, Historically Black Colleges Tribal Colleges, Hispanic Serving Institutions, and other Minority Institutions, is available at www.acq.osd.mil, said Joan Turrisi, DESC's director of Small Business Programs.

# Breaking down the

**By Kelly Widener and Susan Declercq Brown**
**DESC Public Affairs**

As the Department of Defense's combat logistics support agency, the Defense Logistics Agency provides the Army, Navy, Air Force, Marine Corps, other federal agencies and joint and allied forces with a variety of logistics, acquisition and technical services. The agency sources and provides nearly 100 percent of the consumable items America's military forces need to operate, from food, fuel and energy, to uniforms, medical supplies and construction and barrier equipment. DLA also supplies about 84 percent of the military's spare parts.

DLA has about 26,000 employees worldwide. DLA's business revenues were nearly $38 billion in Fiscal Year 2009.

The Defense Energy Support Center provides the Defense Department and other government agencies with effective and comprehensive energy solutions to meet today's requirements and those of tomorrow. The center provides a host of ground, marine and aviation fuels as well as space and missile propellants, chemicals and gases, utility fuels and electricity. In addition, DESC is DoD's center of expertise for alternative fuels and renewable energy and serves as the executive agent for DoD's bulk petroleum supply chain. The center also manages inventory, quality and infrastructure for the department and provides associated management services.

## Petroleum procurement

DESC's Bulk Petroleum and Direct Delivery Fuels business units procure petroleum-based products.

Bulk Petroleum Fuels improves the management and oversight of DESC's largest energy supply chain. The unit, which procured $13.6 billion of bulk petroleum in fiscal 2008, accomplishes this mission through a variety of services.

DESC-B, as it is known, administers all bulk fuels contracts and provides worldwide acquisition support for fuel-related services, such as contractor-operated defense fuel support points, alongside-aircraft fuel delivery, lab testing and environmental compliance, assessment and remediation.

The unit is also the single source for drafting, negotiating, concluding and amending international fuel agreements with foreign governments supporting worldwide DoD

# DESC mission

operations. It manages 40 agreements with 23 different nations or treaty organizations.

DESC-B procures large quantities of refined fuel meeting military specifications; nearly 72 percent of the $19 billion in contracts awarded by DESC in fiscal 2008. Other purchasing programs include lube oils, jet propulsion thermally stable, fuel system icing inhibitor, strategic petroleum reserve and foreign military sales. A growing program is aviation synthetic fuels.

DESC's Executive Agent office is tasked by DoD with improving efficiency and effectiveness of all Bulk Petroleum supply management from source of supply to the point of customer acceptance. It works with military services to facilitate initiatives that optimize end-to-end, facilities and equipment, training, information management and quality across DoD.

Direct Delivery Fuels is the go-to organization for DoD and other federal organizations requiring delivery of commercial grade fuels directly to their facilities via tank truck or tank wagon at government facilities worldwide.

The unit, known as DESC-P, procures a variety of commercial specification fuels such as motor gasoline, aviation gasoline, marine gas oil, fuel oils, kerosene, diesel fuel, jet fuels and alternative fuels, including biodiesel, E85 and gasohol. These are delivered directly to the users at government facilities worldwide. DESC-P also contracts with commercial vendors at ports and airfields to supply commercial grade fuels to government vehicles on demand.

DESC-P comprises four divisions, three of which are responsible for delivery to installations through the Post, Camps and Stations program. The fourth focuses on contracting for fuel from commercial vendors at airports and seaports worldwide through the Into-Plane and Bunker delivery programs. PC&S contracts are primarily fixed price with economic price adjustment, using Free on Board Destination deliveries with a typical contract performance period of three years.

The unit routinely contracts to supports relief efforts due to natural disasters domestically and worldwide.

## Alternative fuels and renewable energy

DESC-B has been purchasing Fischer-Tropsch Iso-Paraffinic Kerosene synthetic fuel for the Air Force's test and certification programs since 2007, and it recently completed a hydrotreated renewable fuel buy for Air Force and Navy alternative fuel tests.

The Navy and Air Force have established challenging goals to increase use of alternative energies. As a result, DESC recently procured hydrotreated renewable JP5, called HRJ5, for the Navy and hydrotreated renewable JP8, called HRJ8, for the Air Force. HRJ5 and HRJ8 are new commodities for DESC.

Four contracts were awarded: one for 40,000 gallons of HRJ5 using camelina feedstock, plus the 150,000 gallons option quantity, and one for 1,500 gallons of algal-oil derived HRJ5; one for 100,000 gallons of HRJ8, with a 100,000 gallon option, using tallow feedstock; and one for equal quantities of HRJ8 using camelina feedstock.

DESC awarded its first renewable energy contract in 2001 through its Installation Energy business unit, known as DESC-A. The program has since awarded more than 4.5 million megawatt hours of renewable energy credits. To date, DESC has awarded more than $430 million in energy savings performance contracts and has issued multiple procurements for long-term purchase agreements to facilitate development of on-site renewable projects. DESC participates on the Renewable Energy Working Group and Federal Utility Partnership Working Group.

DESC's Research and Development office evaluates, establishes and develops energy initiatives to support the integrated supply chain, while the Business Development office develops and implements a comprehensive communications strategy for alternative fuels and renewable energy. The team also develops and implements policies and procedures specific to AFRE and emerging mission and supply chain execution. In addition, it ensures AFRE requirements are integrated for

**Left:** *DESC Bulk Petroleum procures large quantities of refined fuel meeting military specifications. Bulk fuel is typically delivered via pipeline or tanker ship.(Courtesy photo)*

**Above:** *DESC Direct Delivery Fuels is the go-to organization for Defense Department and other federal organizations requiring delivery of commercial grade fuels directly to to their facilities via tank truck or tank wagon. (Courtesy photo)*

execution within each of DESC's business units.

DESC is currently conducting a study, mandated by the 2010 National Defense Authorization Act, on the use and potential use of renewable fuels in meeting the energy requirements of the DoD. The study will assess the use of renewable fuels, including domestically produced algae-based, biodiesel and biomass fuels, as alternatives in aviation, maritime and ground transportation, and whether it would be beneficial to establish a renewable fuel commodity class distinct from petroleum-based products.

DESC continues to implement AFRE-related initiatives ranging from carbon capture sequestration to the development of the Electronic Power Control and Conditioning Gamma System, a mobile 500-kW containerized system that can integrate conventional and renewable sources of electric power and convert DC to AC, providing load management. The EPCC system is slated for delivery in spring as part of a U.S. Central Command-sponsored technology demonstration.

## Aerospace energy

The Aerospace Energy business unit, known as DESC-M, provides worldwide logistics support of chemicals, gases, rocket and missile propellants and cryogenic fluids to the federal government. Customers include DoD, NASA and the Department of Energy. The unit also supplies products to defense contractors and U.S. commercial space launch companies, as authorized under the Commercial Space Launch Act, as well as colleges and universities working under federal grants.

The unit provides worldwide inventory management, transportation and container management for commodities such as hydrazine, dinitrogen tetroxide, liquid and gaseous nitrogen and oxygen. In addition, they provide special propellants such as JP10 for missiles and specialty gases such as hydrogen peroxide, argon, fluorine, deuterium, helium, neon and xenon to support military aerostats and missiles. All of the commodities are classified as hazardous materials. DESC-M holds nearly 9,000 pieces of specialized equipment to handle specific commodities.

The unit also provides "cradle to grave" support to inventory managers and transportation specialists in acquisition planning. Requirements are awarded on a competitive basis, resulting in multi-year, indefinite delivery requirements contracts that provide long-term coverage and extensive flexibility in meeting unique customer needs.

## Utility procurement and privatization

When it comes to procuring coal, natural gas, electricity or renewable energy or implementing energy conservation measures, DoD and federal agency customers turn to DESC-A.

The unit manages more than 2.6 million tons of coal, 129 million dekatherms of natural gas and 15.7 million megawatt hours of electricity under single and multi-year contracts. An experienced cadre provides value through procurements that leverage DoD's buying power, often resulting in lower, more competitive pricing. And, in 2009, customers participating in DESC's electricity demand-response programs received more than $1.7 million in financial rebates.

DESC's Energy Enterprise business unit is DoD's center of expertise for utility system privatization. UP enables military services to upgrade and modernize utility infrastructure without upfront investments. Instead, commercial sector investment funds the projects. Privatizing the infrastructure takes advantage of commercial expertise and timeliness while greatly enhancing reliability of installation utility systems critical to military missions. UP also enables the military services to concentrate on core missions.

UP comprises two contractual actions: selling the government-owned, on-base, utility distribution system to a private entity; and contracting with that entity for utility services for up to 50 years. Across its installations, DoD currently owns approximately 2,600 utility systems valued at $50 billion.

## Customer outreach

Four regional offices—Americas, Pacific, Middle East, and Europe and Africa —bring contracting, transportation, inventory, quality and customer relationship expertise directly to DESC's customers and suppliers worldwide. DESC representatives, often stationed on-site with customers, maintain strong face-to-face contact. The regions also co-locate liaison officers with combatant commands to ensure on-site energy expertise for planning and execution.

DESC's Government Fuel Card Program Management Office

enables military aircraft, vessels and vehicles to conveniently purchase commercial fuel from participating suppliers worldwide through three card programs: AIR Card®, SEA Card® and Fleet Card. The programs process more than 800,000 transactions annually for approximately $900 million in sales. DESC hopes to field a fourth program by the end of the year which will enable smaller vessels to purchase fuel from marinas in a "gas and go" style.

The SEA Card® Order Management System is an electronic order, receipt and invoice system that allows participating vessels to purchase fuel from commercial merchants at more than 2,500 ports worldwide. If a port does not have a bunker contract in place, the vessel can place an order through a competitive quote Open Market "spot buy" process.

DESC assists the warfighter through DESC-B's fuel storage management contracts with 157 government-owned contractor-operated and 39 contractor-owned contractor-operated sites under contract worldwide to store government-owned fuel, and its DFSP Management unit, known as DESC-N, which was created last year to improve management oversight of DoD's 627 defense fuel support points. DESC-N oversees the efficient and effective operations of the facilities storing DESC's extensive fuel inventories while serving as the focal point for the worldwide inventory management of all DoD-owned fuel. DESC-N's responsibilities also include requirements generation, inventory accounting, training and infrastructure. The team works closely with experts in DESC's regional offices to assist military DFSP operators.

DESC's Quality and Technical Support office also works closely with representatives at the regions to ensure the quality of DoD's energy products is never compromised. DESC-Q's quality assurance and product technology professionals are essential components of the supply chain. Quality gets involved before the first drop of a fuel is refined. Military and commercial specifications and standards are the basis for all of DESC's procurement actions. The validation and application of these key requirements are the core functions of DESC-Q's chemists.

## Small business outreach

Behind the scenes of DESC's warfighter support is the Small Business Office, advising DESC's leadership and contracting community in an effort to contract 28 percent of that support to small businesses. To achieve this goal, team members field daily calls, host meetings with businesses and contracting representatives and conduct or attend various small business outreach events.

DESC's 28 percent goal is made up of the following: 20 percent for small business, 4 percent for historically underutilized business zone small business, 1 percent for small disadvantaged business, 0.5 percent for women-owned small business and 3 percent for service-disabled veteran-owned small.

Small businesses unable to contract directly with DESC can participate via subcontracts and mentor-protégé arrangements.

**Opposite:** *DESC has been procuring a variety of alternative fuels and renewable energy since 2001 and has active research and development initiatives in this area. DESC's Aerospace Energy provides worldwide logistics support of chemicals, gases, rocket and missile propellants and cryogenic fluids to the federal government, commerical space launch companies and universities.*

**Left:** *DESC's Installation Energy procures electricity, coal, natural gas, renewable energy and contracts for energy conservation projects. The Energy Enterprise unit enables military services to upgrade and modernize infrastructure without upfront investment through utility privatization.*

*DESC quality assurance representatives provide strong customer interface and ensure all fuel issued to customers meets specification. (Courtesy photos)*

# Commander visits Texas employees, suppliers

**Above:** *Gathered at DFSP Houston are Lt. Col. Keith Sylvia; Rear Adm. Kurt Kunkel; Doug Copley, Magellan Midstream Partners; Col. Bill Keyes and Col. Steve Kephart.*

**By Navy Lt. Cmdr. Bruce Begley**
**DESC commander's executive assistant**

Defense Energy Support Center Commander Navy Rear Adm. Kurt Kunkel visited employees and suppliers during a visit to Texas April 26-30. This was his first visit to DESC's Aerospace Energy business unit, DESC's Financial Operations Retail Management Staff, and DESC's Americas region since assuming command of DESC Jan. 27.

"It was a great opportunity meet with members of the DESC team who are in the forefront supporting the warfighter everyday in the U.S. and supporting America's missions in space. Their work is vital to the nation's security as well as to moving toward cleaner energy and less reliance on foreign fuels," said Kunkel.

His visit began at the DESC Americas and Americas East headquarters in downtown Houston. There he met with senior leadership, held a monthly business review and conducted a town hall meeting where he presented several awards to DESC Americas employees. During the town hall meeting, Kunkel shared his leadership philosophy and discussed current issues taking shape within the center.

The following day, the admiral toured several facilities in the DESC Americas bulk petroleum and alternative energy supply pipelines. These included the Shell Deer Park refinery, Defense Fuel Support Point Houston and a Colonial Pipeline terminal. He finished with a tour of Centauri Technologies, the plant that provided the biofuel used to fuel the Navy's F/A-18F "Green Hornet" on its first flight with a 50/50 blend of conventional fuel and a biofuel derived from camelina plants on Earth Day 2010.

"It's important to get out and see the supply chain in person," Kunkel said. "I was impressed with the face-to-face professional relationship our representatives have with the suppliers and transporters along the chain," he added.

Kunkel then traveled to San Antonio to meet with members of the Aerospace Energy team and DESC's Financial Operations team. There he conducted a series of briefings before walking through employee workspaces to meet one-on-one with employees. Afterward, he presented awards during a brief ceremony.

**Top:** *DESC Commander Navy Rear Adm. Kurt Kunkel at Defense Fuel Support Point Houston.* **Middle:** *In front of the Centauri Technologies refinery are Donna Robertson, Bonar Luzey, Col. Steve Kephart, Fred Cheney, Scott Artrip, Rear Adm. Kurt Kunkel, President of Centauri Technologies Kyle Killebrew, Col. Bill Keyes and Lt. Col. Keith Sylvia.*

**Right:** *The DESC commander and terminal manager at DFSP Houston.* **Far right:** *Rear Adm. Kurt Kunkel speaks to DESC's Aerospace Energy and Financial Operations employees in San Antonio.*

# New commander comes aboard in Pacific

*Navy Capt. Kevin Henderson addresses his team after assuming command of the Defense Energy Support Center Pacific region June 10. (U.S. Navy photo)*

**By Krista Ludwigsen**
**DESC Pacific**

U.S. Navy Capt. Kevin Henderson, a Jacksonville, Fla., native, assumed command of the Defense Energy Support Center Pacific region during a ceremony at Camp H.M. Smith, Hawaii, June 10. DESC-PAC is responsible for Defense Department energy requirements throughout the Pacific area of responsibility.

DESC Deputy Commander Patrick Dulin officiated, saying, "Command of a DESC region requires a special person of immense talent and tenacity. I truly believe that we have that in Captain Kevin Henderson."

Henderson received his bachelor's degree from the University of South Carolina in 1986 and was commissioned in May 1987. The commander came to DESC Pacific from the Fleet and Industrial Supply Center Norfolk, Detachment Naval District Washington, based at the Washington Navy Yard, D.C. He served previously as supply officer aboard the USS KEARSARGE (LHD 3). In 1997, Henderson earned his Master of Business Administration with a concentration in Petroleum Management from the University of Kansas.

"I am proud to be the commander of DESC Pacific with such an amazing group of teammates in support of American and allied warfighters in the Pacific," said the captain.

Henderson replaced Navy Capt. Ron Black who retired in December and now serves as deputy director of DESC Middle East. Henderson has been assigned to the DESC Pacific region offices since January.

# DESC helps save species

**By Paul Rogers**
**DLA Enterprise Support office**

The Defense Energy Support Center is a good example of environmental stewardship. It even helps save lives.

In partnership with others, DESC has helped restore the habitat and population of a species once thought extinct. Despite the challenges of balancing the ongoing mission of storing and providing fuel to defense forces in the San Diego area with nurturing a habitat to support a growing population of endangered butterflies, Defense Fuel Support Point San Pedro, Calif., DESC, the U.S. Navy and other partners have earned accolades for their successful efforts.

The Palos Verdes Blue Butterfly, once prevalent in the lush habitat of California's Palos Verde peninsula near San Diego, was listed in 1980 as an endangered species protected by the federal Endangered Species Act. It continued toward extinction until the last known population of a mere 7,000 was lost during construction of a baseball diamond in 1983. The PVBB was assumed extinct for 11 subsequent years. However, strong environmental interest remained with the hope of finding any evidence the butterfly was still surviving somewhere on the Palos Verdes peninsula.

Enter the DFSP and DESC. In 1994, DESC and the Navy commissioned Rudi Mattoni, scientist with the UCLA Department of Geography, and others to perform a biological assessment for a Chevron pipeline. Surprisingly, the PVBB was rediscovered during the assessment. It was found on a hillside on the DFSP, where indigenous vegetation provided an ideal habitat for the PVBB to feed and lay eggs. Researchers estimated this fragile last population at just 65 butterflies.

Habitat restoration began immediately, including field surveys; a captive breeding and rearing program was deployed.

DESC became an essential partner, as maintenance of the fuel facilities and all traffic and operations around the site had to be tailored to meet mission requirements while protecting the butterfly's habitat. The center provided continuous funding for the habitat restoration and breeding program, which was initially established in a series of net cages on the DFSP site but which eventually expanded to a local college, zoo and other locations on the peninsula.

A highly successful cooperative venture ensued with DESC becoming a key conservationist group member with the Navy, U.S. Fish and Wildlife Service, The Urban Wildlands Group Inc., Palos Verdes Peninsula Land Conservancy and Moorpark College.

The success of this 16-year-old effort and continued successful DFSP relies on the commitment of all parties to actively listen and cooperate with each other. Success can be measured in many facets of the program.

The DFSP stores more than one million barrels of fuel, which is transferred by pipeline to San Diego in support of the Navy's 3rd Fleet and by pipeline to Nellis Air Force Base, Nev. Four two week-long Red Flag exercises each year, to provide realistic

combat training against adversary forces, use more fuel in one day than most commercial airports.

The butterfly flourishes as well. A captive breeding program has grown from producing 186 butterflies a season to more than 10,000. New PVBB populations have now been established at additional sites on the peninsula. Funding has supported contracts to allow students to work on the captive rearing, repopulation and conservation projects; students gain skill and knowledge which better prepares them for future conservation efforts and the project flourishes through their efforts and those of countless volunteers who care for the habitats.

Publicity efforts of the conservation team and the establishment of a breeding program at a public zoo have helped to raise public awareness for the plight of the PVBB and other endangered species as well as an understanding of the roles government, industry, non-profits and individuals can work together to steward a healthy environment. DESC has received accolades for the center's active role in these efforts, including recognition from the White House.

Scientist Jana Johnson of Moorpark College, who launched and runs the captive breeding program for the PVBB, describes the collaboration and its results as "the quintessential endangered species story of inspiration."

DESC is committed to continued involvement to support the survival of the butterfly. Increased production of the butterfly and continued releases to the wild, along with further research, publications, public education and presentations at conferences are planned in striving toward a full recovery for this species.

With the help of DESC, the PVBB has been pulled back from the brink of annihilation. And to think it all began with its rediscovery at a storage site for DLA-owned fuel.

# Crossing the seas for greener environment

**By Andrea Kincaid**
**DESC Installation Energy**

At a time of surging energy prices and increasingly limited access to freshwater resources, conservation is of paramount importance to government installations like the United States embassies worldwide. The Defense Energy Support Center's Installation Energy can play a key role in helping these installations achieve their goals by providing expertise in renewable energy and energy conservation projects, said the unit's director, Kevin Ahern.

Ahern participated in the Department of State's "Green Embassies Workshop" in Paris April 13 to help participants understand how DESC can help them meet their goals.

The workshop, hosted by the U.S. States ambassador to France and the DOS Bureau of Overseas Buildings Operations, focused on three main areas to ensure that U.S. embassies become greener by conserving energy, saving water and reducing traffic congestion.

## Challenges

While these key areas are major topics in the United States, addressing them in foreign countries presents special challenges. These include the unique location of some of the embassies' facilities and the fact that some embassies occupy historical buildings that are nationally preserved monuments. Nevertheless, OBO is developing repeatable strategies to increase efficiency, reduce consumption and promote the U. S. government's commitment to conservation through its operations in European countries during these climate-conscious times.

"There are a number of challenges that the U.S. embassies in Europe will need to overcome in order to achieve the goal of greening their facilities. A potential partnership between the embassies, Departments of State and Energy, and DESC would be a positive first step in making these ambitious goals a reality," said Ahern.

U. S. ambassadors from the European Union and foreign service officials from Germany, Finland, Sweden and Greece attended the workshop, held at the ambassador's residence. Other representatives from the U.S. government and private sector also participated. The workshop was the final event of the Green Industries Trade Mission Conference, held in a Paris conference center.

## Energy Savings Performance Contracts

At the workshop, representatives from the Department of Energy discussed their energy savings performance contracts, a method for federal agencies to leverage private funds to implement energy efficiency and renewable energy projects.

*A building renovation capitalizes on environmental technology. The solar panels do double duty: they provide energy and shade. They collect energy for electricity and lower the ambient temperature within the building by shading the windows. (Courtesy photo)*

Once the projects are completed, the guaranteed energy savings are used to repay the energy service company for its investment. DoE has awarded sixteen indefinite delivery-indefinite quantity contracts to participating companies.

## DESC task orders

DESC helps the Defense Department and other federal organizations establish task orders under these contracts to implement energy efficiency and renewable energy projects.

"We welcomed the opportunity to discuss how DESC could support the Department of State's initiatives," Ahern said.

DESC uses DoE's ESPCs to help federal agencies streamline implementation of efficiency measures. "Our partnerships with DoE and its national labs to facilitate energy efficiency projects at federal facilities have resulted in new business opportunities and refinement of our contracting expertise in this area," Ahern explained. "OBO's efforts to "green" their facilities lend to a potential partnership with DESC that leverages DESC's experience and knowledge to allow OBO to implement energy efficient measures that will effectively reduce the environmental footprint of its installations."

*The flagship of the National Oceanic and Atmospheric Administration fleet, the Ronald H. Brown, docked at Charleston, S. C. As of April, NOAA had registered 17 of its vessels in the DoD SEA Card® Order Management System. (Photo courtesy of NOAA)*

# NOAA registers for SEA Card

**By Ann Sielaty**
**Government Fuel Card Program Office**

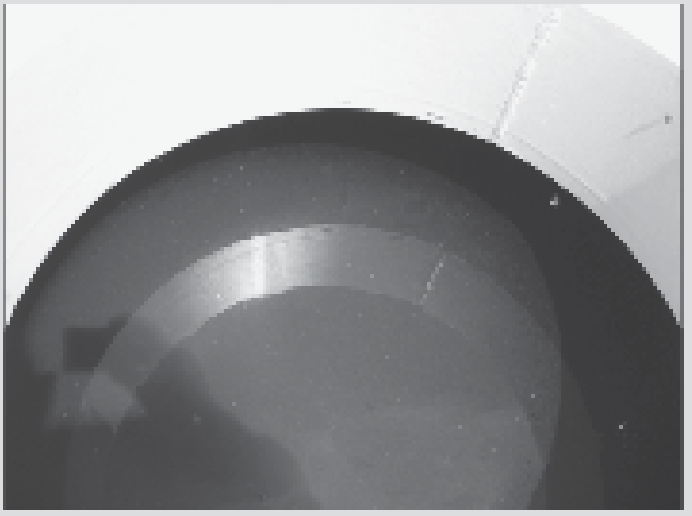
The National Oceanic and Atmospheric Administration has joined the military services and U.S. Coast Guard as users of the DoD SEA Card® Order Management System to purchase bunker fuel at Defense Energy Support Center contract bunker locations. NOAA registered 17 vessels to participate in the program, and ordering officers and accountable officers are now training to use the system. DoD-SCOMS® provides vessels a secure online web-based order, receipt and invoice system for purchasing bunker fuel.

The state of the art bunkering system established in 2005, provides real-time vessel to contractor communication and around the clock, seven-days-a-week customer support. The system allows the vessel to enter a port and purchase the appropriate contracted fuel. In the event the vessel chooses a port that does not have a DESC contract merchant, the vessel can proceed with the open market competitive quote process. DoD-SCOMS® provides the vessel with robust reporting capability, so fuel costs can be better managed.

Previously, NOAA received fuel through DESC bunker contracts, but processed all the orders with paper orders and invoices. DoD-SCOMS® will streamline this process, enabling payments to the bunker merchant to be timelier and visibility of bunker transactions for the vessel to be available anytime.

## Kabul construction complete

*Two new JP8 storage tanks in the final stages of construction at Defense Fuel Support Point National in Kabul, Afghanistan. Nondestructive and hydrostatic testing, internal coating application and calibration work is on-going. The two tanks, with a combined storage capacity of 2.5 million gallons, were expected to begin receiving product by the end of last month.*



*New storage tanks and piping at Defense Fuel Support Point National in Kabul, Afghanistan, undergo hydrostatic testing. This process uses water to pressure test pipelines, connecting hoses and holding tanks. Hydrostatic testing is important to ensure these items do not leak or have manufacturer defects, said Air Force Maj. Andrew Marsiglia, commander of Defense Energy Support Center Middle East's Northeast subregion. The tests verify the system can withstand four times the maximum operating pressure of the device, he explained.*

# Barges transport Jet A fuel

**Article and photos by Susan Declercq Brown**
**DESC Public Affairs**

Barges uploading fuel at the Defense Fuel Support Point Baltimore are supporting a joint Air Force-Defense Energy Support Center demonstration which could help the Service save money by moving away from military specification products.

Three to four barges a week, loaded with 420,000 gallons of Jet A jet fuel, depart DFSP Baltimore in support of the demonstration, said Rick Albert, one of three DESC quality assurance representatives who ensure the quality of DESC-owned fuel at the DFSP.

The demonstration was begun after an Air Force business case analysis showed the Service could save approximately $40 million a year if it converted from military specification fuel JP8 to a more readily available commercial jet fuel Jet A, said Master Sgt. Mark Walter of the Air Force Petroleum Agency.

Savings result from the reduced cost of fuel based on more competition and a reduction in fuel additives as the injection point is moved closer to the point of sale, Walter explained.

DESC established a joint initiative office to coordinate supply chain challenges associated with the demonstration.

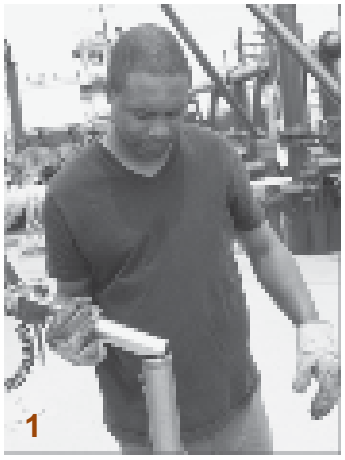
The timing for the demonstration was perfect, according to Richard Jaekel, DESC Jet A initiative project manager. This initiative enabled DESC to supplement the supply chain with Jet A in the most cost-effective way, Jaekel explained. Under the demonstration, fuel additives are added at different points in the supply chain.

Four bases are participating in the demonstration— Little Rock Air Force Base, Ark., McChord Field, Wash., Minneapolis St. Paul Air Reserve Station, Minn., and Dover AFB, Del., which receives its fuel through DFSP Baltimore.

The DFSP, which is owned and operated by NuStar Energy Inc., receives Jet A from the Colonial Pipeline. Then DFSP employees inject Fuel System Icing Inhibitor, Static Dissipater Additive, and Corrosion Inhibitor/Lubricity Improver under the watchful eyes of DESC Americas East quality assurance representatives, before issuing the fuel to a Vane Brothers barge for transport to the DFSP at Port Mahon, Del. From there, the fuel is transferred to Dover AFB by pipeline.

Eventually, the FSII injection will move further down the supply chain to a transfer line on the base, said Jaekel.

To support the demonstration, DESC temporarily transferred support of other JP8 tank truck customers to other DFSPs, said Albert. To ensure quality, QARs observe all fuel transfers, send samples for testing, determine the quantities of additives to be injected, observe injections, and verify quantities of DESC-owned fuels, he said.







**From the top left:** ***1.*** *Vane Brothers Barge Captain Marvin Fulford prepares to tape the barge fuel tank to take volume and temperature measurements.* ***2.*** *The barge captain and Defense Energy Support Center Quality Assurance Representative Rick Albert take measurements.* ***3.*** *The QAR records data as the barge captain calls out readings from the taping.* ***4.*** *Below deck, the QAR and the barge captain reconcile calculations and agree on the quantity of Jet A fuel transferred to the barge.*

# View from Kabul

**By Susan Declercq Brown**
**DESC Public Affairs**

Defense Energy Support Center reservist Air Force Col. Larry Cox recently provided photos he took of life in Afghanistan. Cox, a federal civil servant and a reservist assigned to Direct Delivery Fuels, is currently serving at the U.S. embassy in Kabul.

Cox coordinates with the Afghan Ministers of Foreign Affairs and Finance and the Director of Customs and Revenues to facilitate transport of DLA-owned fuels into the country and related taxes and customs actions. Because his work entails travel to and from Afghan government offices, Cox sees more of Afghan life than most Americans deployed to the region. Most American servicemembers assigned to the embassy remain on the compound, Cox said.

Cox said he took many of the photos through the windshield or side window of his vehicle. Some were taken by Afghan coworkers who took Cox's camera to events and places Americans would not generally have access to.

The colonel was originally deployed to Bahrain in September for a 12-month tour, but when a back-fill was required at the embassy, Cox volunteered.

"His job at the embassy is key to the U.S. Central Command mission there, and without his constant attention to the details, higher level intervention would be required," said DESC Middle East Deputy Director Ron Black of Cox's service.

Cox said he benefits from his experience immediately following 9/11 when he deployed to negotiate with government ministers in the Middle East to obtain regional fuel support for American forces. This experience with regional governments helped prepare him for the embassy job, he explained.






**Photos above and then from the top: 1.** *Free carwash outside the tunnel on the Salang Pass.* **2.** *Near the border crossing.* **3.** *The Butchers Street in Kabul.* **4.** *Another market in Kabul.* **5.** *Transportation. (All photos by Col. Larry Cox)*

# Admiral visits Middle East

**By Susan Declercq Brown**
**DESC Public Affairs**

Defense Energy Support Center Commander Navy Rear Adm. Kurt Kunkel visited DESC Middle East employees, customers and suppliers in March. The trip was one of his first since taking command of the center in January.

"These visits to the regions enable me to gain valuable insights into how DESC is performing our crucial support mission," said Kunkel. "I can see firsthand how we are supporting the warfighter in the U.S. Central Command area of responsibility and get feedback from our customers and suppliers in the region."

First on the agenda March 6 was a tour of the truck fill stand area in Kuwait with DESC Middle East Commander Army Col. Tom Kelly, DESC-ME Northwest Commander Air Force Maj. Ryan Bakazan and Annette McDonald, quality assurance representative. At Camp Arifjan, the admiral met with Army Col. Don Okura, the sub-area petroleum officer and then with Army Brig. Gen. Jack O'Connor, director of Logistics for Army Forces Central Command, to discuss energy support to the theater. That afternoon, Kunkel met with senior officers of long-time trucking contractor Jassim Transportation, including Chief Operating Officer Andreas Mohr, Senior Division Manager for Contract Logistics Antonio De La Cruz, and Fleet Utilization Manager Bill Baker.

The next day, Kunkel met with executives from Kuwait Petroleum Corporation, DESC's sole supplier there, to discuss supply chain and transportation issues before traveling to the United Arab Emirates.

While in the UAE, the admiral met with DESC Middle East Commander Army Col. Tom Kelly, other DESC leaders, and senior officials from another long-time DESC contractor – Supreme Fuels. The next morning, March 8, the entourage travelled to the port city of Jebel Ali to tour the defense fuel support point there and meet with Star Energy CEO Douglas Van der Wiel, Commercial Manager Zaher Abuiqran and Logistics Manager Deepak Bhatia. Star Energy operates the fuel terminal at DFSP Jebel Ali. That afternoon, Kunkel met with Aziz Ahmad Atif, CEO and President of Emirates National Oil Company which operates the local refinery. Next, the DESC team met with Deepak Metha, the managing director and CEO of Global Gases, which supplies DESC-procured helium to warfighters in the theater. At the end of the full day's itinerary, the admiral met with senior leaders of another supplier in the region. These included Chevron Country Chairman Todd Grubin, Regional Manager Renu Sharma and Business Support Coordinator Bassem Battisha.

The next morning, the DESC contingent flew to Qatar where they met with Nasser Fakhroo, chairman of Qatex Ltd., whose company owns and operates the DFSP at Mesaieed, Qatar. Kunkel toured the pipeline and terminal facilities. Later he met with other representatives from Qatex and Chevron.

The next day, the DESC group flew to Bahrain, home base of DESC Middle East. There, Kunkel held a town hall meeting with DESC employees, including those in Iraq, Afghanistan, Pakistan and Kuwait, who attended via teleconference. He shared his leadership perspective and recognized employees for their achievements in support of the warfighter.

"It was important for all the team members of DESC-ME to meet

Admiral Kunkel and learn his vision and goals first hand," said Kelly.

After receiving the DESC Middle East update briefing face-to-face, rather than by video teleconference as he usually does at Fort Belvoir, Va., Kunkel met with Naval Forces Central Command's Capt. Frank Hruska to discuss energy support in the theater. The next morning, Kunkel and Kelly toured DFSP Sitra, owned and operated by Chevron, and observed operations at the truck fill stand and DFSP. Next, he met with the acting CEO of the Bahrain Petroleum Company, a key supplier in the region, and several senior managers of the company.

That afternoon, Kunkel discussed theater energy support with NAVCENT Commander Navy Vice Adm. Bill Gortney before participating in a forum and taking questions from members of the Southwest Asia Supply Corps Association. From there, he caught a late-night flight to D.C.

**1.** *DESC Commander Rear Adm. Kurt Kunkel, front, tours a Qatex Ltd. facility with Terminal and Operations Manager Moidutty Mayyeri,DESC-ME Commander Col. Tom Kelly and DESC Director of Operations Col. Frank Rechner.* **2.** *The Admiral greets Middle Distillate Sales Manager Anwar Al-Matook and Sales Team Leader Emad Al-Kandari. (DESC photos)*

# Deployed airmen power long term

**By Staff Sgt. Kelly White**
**379th AEW Public Affairs**

As the 379th Air Expeditionary Wing in Southwest Asia transforms from its short-term origins to an enduring operation, the petroleum, oil and lubricants flight is one key to this revolution as the base's providers of energy.

"A lot of people think of POL as the guys on the flightline in the big tan trucks," said Tech. Sgt. Jeffrey Harden, a 379th Expeditionary Logistics Readiness Squadron fuel service center non-commissioned officer in charge. "Yes, we provide aircraft with fuel, but we're more diverse than that. We also receive, store, quality test, issue and account for capitalized fuel and cryogenics belonging to the Defense Energy Support Center."

In addition to fueling hundreds of aircraft a day, POL airmen provide fuel to power plant generators producing electricity for various base areas. They also support missions such as Army parachute riggers, radar sites, British ground equipment, cryogenic support to the entire area of responsibility and encoding gas keys for every vehicle on base to refuel at the base service station.

"Making sure clean, serviceable fuel is available basewide is a multifaceted process the flight of less than 100 specialists is tasked with," said Master Sgt. Paul Hutcheson, the fuels operations section chief. "We are broken into multiple areas to properly manage resources." The POL flight consists of eight internal elements; fuels storage, laboratory, support and training, maintenance, cryogenics, service center, compliance and distribution.

"Before we can distribute the fuel, it goes through many different steps for quality assurance to ensure we are issuing (on specification) product," Hutcheson said. "Without strict quality-control measures, the mission here would be severely impacted. Laboratory personnel work behind the scenes to ensure our fuel is on-spec every time. Distribution moves fuel on the flightline."

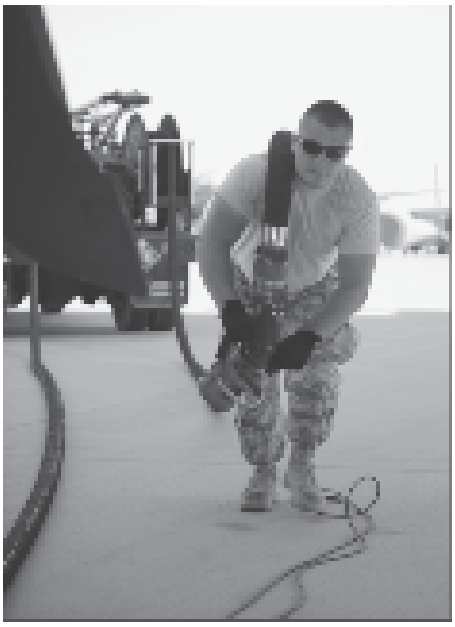
As the 379th Air Expeditionary Wing missions shift toward establishing a permanent presence in Southwest Asia, significant changes are taking place in how the fuel business is done here.

When this rotation first arrived in January, the POL flight was tasked with removing temporary fuel storage and distribution systems that had been replaced with a fixed-hydrant facility system.

"At one time, tank trucks used to deliver all the fuel to base to be stored in 200,000-gallon fabric bladders," said Tech. Sgt. Tobie Inman, the 379 ELRS fuels storage NCOIC. "There was (nearly three) miles of expeditionary above-ground pipeline on base that connected two geographically separated storage points to replenish mobile refueling units. Although the pipeline served its purpose for almost eight years, it proved to be an arduous means of re-supply with constant maintenance issues and the extra manpower needed to operate. This ultimately slowed response time to the aircraft."

Eighteen people were tasked to remove the expeditionary storage systems.

"It was manual, labor-intensive work, transferring fuel out of the bladders until we reached the unobtainable level," Sergeant Inman said. "From there, we used a pump, like a water pump made especially for fuel, to empty what remained in the bladders, transferring it into one collection point."



*Tech. Sgt. Bradley Childs, 379th Expeditionary Logistics Readiness Squadron fuels craftsman, prepares to fuel a KC-135 in May. (Photo by Tech. Sgt. Michelle Larche)*

Their innovative actions saved the Air Force nearly $450,000 in disposition fees for about 170,000 gallons of unserviceable JP8 fuel.

"We could have barreled the fuel and turned it into hazardous waste, but we reclaimed it, filtered it and put it back as usable stock, with no product deficiencies," Sergeant Inman said.

A contractor-provided, state-of-the art hydrant system and underground hydrant piping to the flightline are now in place.

The mission of some POL Airmen deployed here also takes them downrange. "This base is a hub," Sergeant Harden said. "There are three two-man teams that fly with the aerial bulk fuel delivery system while loaded on a C-130 Hercules or C-17 Globemaster III. They fly downrange to offload the requested fuel in support of (remotely piloted aircraft)."

The face of the Defense Energy Support Center

# One Face


**Name:** Maj. Stan Olsen, U.S. Army

**Job:** Central Sub-Area commander, Defense Energy Support Center Middle East, providing fuel support to U.S. Central Command. We manage daily re-supply of bulk fuel and additives throughout the region. I work in concert with the CENTCOM Joint Petroleum Office. Most of my job involves logistics planning, coordinating and synchronizing efforts. I work directly with unified and component commands. We also oversee management of key strategic defense fuel support points in Qatar, Oman, Bahrain and the United Arab Emirates, and associated distribution, into-plane, bunker and petroleum services contracts. We ensure the uninterrupted supply of more than 711 million gallons of Jet A1, JP8, JP5, and F76 valued at more than 2 billion dollars needed to move hundreds of thousands of warfighter personnel and equipment throughout the area of responsibility.

**Fuel experience:** As a petroleum, oil and lubricant truck platoon leader during the mid 90s, I oversaw a few missions, but that was the extent of my Class III experience until I arrived here at DESC-ME. I have worked in Bosnia, Macedonia, Kosovo supporting various logistical requirements, as well as supporting logistic requirements for OIF and OEF with Surface Deployment and Distribution Command in and out of theater. I participated in sustaining logistical requirements for Hurricane Katrina. As a multifunctional logistician I dug in quickly and learned a lot about petroleum operations from numerous great folks here.

**Challenges and Rewards of the Job:** I have really enjoyed the challenges. The most difficult aspect is providing strict oversight and technical expertise to support requisitioning, transportation, storage, and distribution of petroleum products throughout the AOR. It is amazing how far and deep our mission has an impact. For me, the most rewarding element is being part of the logistics planning process and seeing a mission get underway and then working through the unforeseen challenges.

**A memorable mission:** Supporting the Mine Resistant Ambush Protected-All Terrain Vehicle Conops, and working with all the American and host nation planners.

**Future plans:** I am gearing up for military retirement. Looking forward to collecting coconuts on the beach and possibly working as a logistics manager.

DESC-DD
Defense Energy Support Center
8725 John J. Kingman Rd.
Suite 4950
Fort Belvoir, VA 22060-6222

PRESORTED STANDARD
U.S. POSTAGE PAID
TEMPLE HILLS, MD
PERMIT NO. 4004

**1- 800 - 2 TOP OFF**

Space shuttle Atlantis lifts off from NASA's Kennedy Space Center, Fla., May 14 with Defense Energy Support Center-procured propellants, gasses and chemicals. This mission to the International Space Station is the last planned mission for Atlantis. (Photo courtesy of NASA)