From the Commander —

Brig. Gen. Martin Chapin, USAF
Defense Logistics Agency Energy

Please welcome DLA Energy’s new deputy commander Guy Beougher! Guy brings a wealth of Army and DLA J3 operational experience to the team. In this issue, Guy shares his insights and thoughts in an in-depth interview. You may be surprised by the hidden creative side of our deputy commander!

In this issue of the Summer Energy Source, we focus on “Smart Energy Solutions,” a theme highlighting significant DLA energy contract projects and many more strategic and cost-saving ways we are doing business.

DLA Energy supports the Department of Defense’s installation energy strategy to reduce energy costs and improve the energy resilience of our fixed installations through its competitive natural gas and electricity purchase programs, its execution of energy savings performance contracts and its negotiation and award of large-scale, on- and off-site renewable energy generation contracts for the military services. The completion of three large energy contracts at Fort Hood, Tinker Air Force Base and Fort Polk helps to lower energy and water costs, reduce the DOD’s reliance on fossil fuels and improve the energy resilience of our military installations. These efforts reduce energy use, save money and enable the DOD to reallocate resources to warfighter mission readiness. Engaging industry and other partners in the delivery of effective and affordable solutions is a “Smart Energy Solution.”

Energy Source

In this issue, the reader will take a journey through the life of a barrel of jet fuel. This is a complex evolution beginning from a Houston, Texas, refinery to the tanks of an F-16 Fighting Falcon or a KC-135R Stratotanker. Along the way, the crude oil goes through many physical changes and additives are added to the refined fuel to complete the transformation to jet fuel. DLA Energy personnel are involved in every step of the journey, ensuring the warfighter has the quality fuel they need to meet their mission.

People and Culture continue to be a major focus of our 2016-2018 Lines of Effort Crosswalk. Find out what it is like to be a GS-14 and GS-13 director in “A Conversation with . . .,” featuring DLA Energy Small Business Director Greg Thevenin and Internal Review Director Maria Spicer.

Inside this issue you will find other interesting DLA Energy activities. Reach out to our editorial staff online and give them feedback on the articles or even some story ideas at EnergySourceMagazine@dla.mil.
4 Meet Energy’s Deputy Commander
An in-depth interview with DLA Energy’s new Deputy Commander, Guy Beougher.

6 Worldwide Energy Conference
A record number of attendees from the energy industry gather for the 2017 DLA Energy Worldwide Energy Conference.

8 Smart Energy Evolves at WWEC
Collaboration during and after the WWEC is fostering change and improvement at DLA Energy and with its industry partners.

10 Smart Energy Solutions
DLA Energy’s contributions to major Department of Defense renewable energy projects are saving the DOD money and energy.

14 Investing in Federal Women’s Futures
DLA Energy women expand their leadership horizons at the Federally Employed Women National Training Program conference.

16 Confined Space Training
Defense Fuel Support Point San Pedro teams up with the Los Angeles Fire Department to provide a unique training opportunity.

18 Clean Break
Defense Fuel Support Point San Pedro closes an aged fuel facility and protects its local environment.

24 Fueling Innovation
Collaboration with the University of Arkansas is helping predict efficient pipeline flow and reduce fuel delivery delays.

26 Refinery to Flight
Trace the journey of a barrel of jet fuel from where it’s made, to the warfighter. It’s more than just loading and unloading barrels of fuel.

A Conversation with ...
23 ...... Maria Spicer
30 ...... Greg Thevenin
Meet DLA Energy’s new Deputy Commander

Guy C. Beougher

Interview by DLA Energy Public Affairs

ES: Please tell us about yourself and your career.

I served 30 years as a quartermaster in the Army and retired as a colonel in 2010. I had fuel units in every level of command from platoon leader to brigade commander. My first experience with Defense Logistics Agency was in 2000 as a battalion commander in Kosovo as I was drawing fuel from the French in Pristina. Stephen Grace was helpful in securing a fuel injector for fuel system icing inhibitor (FSII), otherwise we would have been dumping FSII into 5k tankers with a bucket. Before I left that mission, DLA was instrumental in sending rail tankers to Camp Bondsteel rather than my unit sending tankers to Pristina, which was about 12 hours away.

I have served outside the continental U.S. for 14 of the last 37 years of my professional career. That includes Korea, Canada, and 10 years in Germany. I have deployed to Bosnia, Kosovo, Iraq, and most recently Afghanistan, as a GS-15 from DLA. I have been in the Senior Executive Service for five and a half years, and this new role will be my fourth SES position.

Out of the last seven years as a civilian, I spent 18 months at U.S. Army Forces Command. I started my federal career as a senior research fellow for the Center for Joint Strategic Logistics at National Defense University, working for retired Army Lt. Gen. Claude Christenson who immediately sent me back to Iraq to help the Ministry of Defence create a five-year budget plan. About 90 days into that role, I was hired as the DLA Business and Opportunities division chief (J35). From October 2010 through August 2011, I gained perspective by being something other than an SES in Logistics Operations (J3). There, I learned about the DLA governance processes, from the Alignment Group to the Executive Board.

In August 2011, I deployed to Kabul, Afghanistan, as a civilian deputy to the Deputy Commanding General for Support, U.S. Army Forces Afghanistan. At the same time, I applied to be the deputy logistics (G4) at USFORSCOM. Unfortunately, that tour was cut short, and in January 2012, I went to USFORSCOM at Fort Bragg, North Carolina and became the deputy G4, a Tier II SES billet, for 18 months. Following that assignment, I returned to DLA as an SES.

ES: How have your past experiences prepared you for the leadership role as the DLA Energy deputy commander?

The biggest impact on preparation would be my operational experience in the DLA Operations/Logistics J31/J34 directorates. DLA sustains the warfighter’s operational readiness around the clock and around the world. The processes in providing, acquiring and distributing food and fuel drive every military and humanitarian assistance operation, exercise and plan. The challenge is providing those supplies and services in a new location in the middle of a crisis. I think my operational perspective, relationships with combatant commands and familiarity with the elements of planning, examining facts and assumptions and developing courses of action help in the role of a deputy commander.

While in the J31, I created the 24/7 Joint Logistics Operations Center. The need for a 24/7 Joint Operations Center was validated when we had our first civilian casualty, Stephen Byus, who was killed in action in Kabul, Afghanistan.

I learned very early the sun never sets on DLA and that the operational tempo in Pacific Command, European Command and Central Command are at opposite ends of the clock. The fuel-related support to Nepal following the earthquake and the humanitarian assistance of critical non-food items provided for Syria and Iraqi refugees in 2015 validated the need for a 24/7 operations center. These events occurred outside our normal working hours.
ES: What does leadership mean to you? Does leadership change when you move jobs or when you become a civilian, especially as a member of the Senior Executive Service?

I have changed jobs 28 times in my 37-year career, seven of which being a civilian. I think the tenets of leadership always remain the same. What motivates a young private is different from what motivates a GS-13-14-15 civilian. Therefore, being a leader in the military is different than being a leader in the civilian career field.

DLA is interesting. In some places there is an influx of military, other places not so much. You have to find a great balance and always understand that the workforce is looking up to you to lead. In every job I have encountered, I took time to understand the culture, the language and the values while applying the same leadership tenets.

There is a reason you have one mouth and two ears. Learn to listen, learn to understand and ask the right questions. Try to understand the second and third effects of what you hear, and try to connect the dots with your experience.

The importance of failure

People learn more from failure. I have seen a lot of people fail, and I always want to figure out why they failed. In J31, I usually told people to fail faster because you are going to learn a lot more, especially when you try something new. Think outside the box, and if you are not successful at it, you will have learned something from the experience.

Sometimes failures are our strongest lessons. I am not advocating we fail at everything, but when we do fail, we shouldn’t hide from it. That is what the after action review process is about: identifying the things we can improve.

I’ve seen some very unsuccessful leaders in my 37 years. If you spend as much time examining why they failed, as one would spend examining how someone was successful, I think you can learn a lot.

ES: What is your message to DLA Energy employees?

I want employees to know I work for them. I have an obligation to represent them to the enterprise, the rest of the agency and to make sure DLA Energy and Air Force Brig. Gen. Martin Chapin are successful. I always want feedback on how to better represent the Energy workforce.

ES: In your visit to the Commander’s Action Group, someone asked what your pet peeves are and you replied, “Timeliness and dishonesty. If you don’t know the answer, don’t lie. Get back with me once you find it out.” Would you please expand on these topics?

I don’t look at this as peeves, it is more common respect. Timeliness is meeting management expectations and meeting suspenses on time. If you think you are going to go over, or miss a suspense, tell someone; that is respectful of everyone associated with it, up and down the chain.

The dishonesty piece is two components. Dishonesty is flat-out lying, or misleading with malice of intent. The other one is that in my experience, people are afraid to say, “Sir, I don’t know and I will get back to you.” Most of the time people will try to answer a question they don’t know the answer to, and then you have to listen and ask the question another way.

I would rather have a person say, “I understand what you are asking, however, I don’t have an answer right now. I will get back to you.” Usually, people get it after I have asked a question the third time. I am inquisitive, I have a thousand questions, and there is a lot to learn at Energy. I will never be the resident expert, but among my peer group, I have a lot of resident experts like Mike Scott, George Atwood and Pat Dulin.

ES: Can you tell us something that might surprise us about you?

I am a published cartoonist and my wife is a harpist. I published a cartoon book, “CGSC Life,” while I was a student at the Command and General Staff Course at Fort Leavenworth, Kansas, in 1993, where I sold 1,200 copies.

I started my doctorate in Public Policy and Administration with Virginia Tech as a GS-15 and worked on it here and at Fort Bragg and Kabul. Since becoming an SES, I put the program on hold since I don’t have time for both.

“There is a reason you have one mouth and two ears. Learn to listen, learn to understand and ask the right questions. Try to understand the second and third effects of what you hear, and try to connect the dots with your experience.”

— Guy Beougher
DLA Energy Deputy Commander
A success for the entire energy community

By Elizabeth Stoeckmann

A record turnout of more than 2,300 attendees and 256 exhibitors from the Department of Defense, federal civilian agencies and industry’s energy supply chain participated in the Defense Logistics Agency Energy Worldwide Energy Conference held April 10-12 at the Gaylord National Resort and Convention Center in Oxon Hill, Maryland.

“The Worldwide Energy Conference could not have gone better!” said DLA Energy Commander Air Force Brig. Gen. Martin Chapin in an email to the DLA Director. “We far surpassed our previous attendance records. Everything - the trade show, the workshops and the plenary session - proved first class.”

A highlight of the conference was the first-ever fuel exchange agreement signed between Australia and DLA Energy. The newly-signed agreement expands the scope of reciprocal fuel support and enhances interoperability by enabling bulk fuel exchanges to optimize supply chain efficiencies. Financially, DLA Energy benefits from authorizing settlement via replacement-in-kind and equal-value-exchange, vice solely monetarily. On average, Australia and the U.S. exchange 36 million gallons of fuel valued at $85 million annually.

Chapin and Air Commodore Stephen Winterton, director, General Fuels Services Branch, Joint Logistics Command, Australian Department of Defence, signed the agreement.

“In today’s global energy market, it is even more imperative that we gather energy industry professionals from around the world to discuss how the federal government, specifically the DOD, develops strategies to meet future energy needs,” Chapin said.

The 2017 WWEC theme, “Refining Global Energy Strategies,” focused on leveraging commercial capability to gain supply chain efficiencies and enhancing supply diversity, a focus that will help the DOD continue to get more for the taxpayer dollar.

Former DLA Director Air Force Lt. Gen. Andy Busch joined Chapin for a trade show ribbon-cutting ceremony and highlighted the importance of DLA Energy supply chain management.
“DLA and DLA Energy look forward to exchanging new innovative ideas as we work together to meet energy goals for the nation, the DOD and most importantly, for the warfighter and our customers,” Busch said.

Conference participants also collaborated on energy challenges facing the DOD and federal agencies. Participants included representatives from petroleum refiners and brokers; fuel, energy services and infrastructure providers; natural gas, electricity and missile propellants suppliers; renewable energy providers; and companies providing utility services to military bases.

Energy security, operational energy and energy diplomacy were the themes in a plenary session with panelists Alan Eyre, director, Office of the Middle East and Asia Bureau of Energy Resources, U.S. Department of State; Steven Iselin, acting Assistant Secretary of the Navy (Energy, Installations and Environment) and Oliver Fritz, acting Deputy Assistant Secretary of Defense for Operational Energy.

“How the world is changing and how those changes impact us affect how we all do business tactically and strategically every day,” Chapin said.

DLA Energy and the fuels community celebrated 51 years of excellence in fuels management operation and fuel handling in an awards ceremony during the conference.

“The awards ceremony was a great way to honor those who represent the very best of us in the fuels community,” said Capt. Charles Morton, deputy director of Air Force Fuels Operations Support. “It was exciting to see all the services and DLA Energy come together, symbolizing that delivering capability to the warfighter is, at its core, a joint effort ... very awe-inspiring!”

DLA Energy is planning the next WWEC, which will be held May 20-23, 2019, at the Gaylord National Resort and Conference Center in Oxon Hill, Maryland.
Smart Energy Solutions evolve from 2017 DLA Energy Worldwide Energy Conference

By Irene Smith

Jim Mandziara, director of Defense Logistics Agency Energy’s Business Process Support Directorate, had three goals for attending the 2017 DLA Energy Worldwide Energy Conference. “I wanted to see what commercial industry applications were available for DLA solicitations, discover what advancements commercial industry made in their support to their energy supply chains and lastly, gain insight into the commercial industry participating in the J6 Enterprise Technology Services contract,” he said.

DLA has two different solicitations needing solutions on critical data information, IT systems, technology and infrastructure supporting DLA Energy. To explore industry capability to respond to these solicitations, Mandziara visited vendor exhibit booths and discussed vendor capabilities, which may be offered in response to solicitation for solutions and improvements to Energy information systems.

“By engaging in this open forum and sharing our needs with private industry, I met and exceeded my goals,” Mandziara said. “The WWEC clearly demonstrated that commercial industry is capable of responding to DLA solicitations with technically acceptable applications.”

The WWEC’s primary objective is to provide a forum for energy industry leaders in the private and public sectors to engage in dialogue about issues critical to both industry and consumers. According to post-conference surveys and testimonies, the 2017 WWEC was a success.

“Our attendance was better than expected,” said WWEC conference organizer Bruce Blank, director of the Procurement Process Support Directorate. “We had a good mix of Energy and external speakers. The trade show was sold out and we had good coverage of all aspects of DLA Energy’s business.”

A highlight of the WWEC was the exchange of ideas and the impromptu meetings held outside of the scheduled sessions. Conference objectives were so successful that attendees recommended adding an extra day and offering more “white space” for networking and idea sharing, Blank added.

Martha Gray is the DLA Energy Utility Services director. Her division supports military service partners by offering specialized contracting and technical expertise for utility services concerns. She and her staff made valuable business contacts during the conference.

“A real and positive outcome for us was the Natural Gas Industry session, where we talked with current and potential natural gas distribution system providers about our request for proposals and processes,” Gray said. “We learned about the challenges that prevent them from offering on our solicitations. It was eye-opening for us, our military service partners and our utility service providers.”

Opportunities to network and exchange information on an array of energy topics resonated with conference attendees.

“Service program managers and representatives from the Office of the Secretary of Defense commented that they found this to be one of the best utility process offerings at a conference in a long time,” Gray said. “Since the conference, we have seen a marked increase in the number of offerors interested in our solicitations seeking to privatize service-owned natural gas systems.”

More than 100 workshops were offered, covering topics across DLA Energy’s worldwide business including petroleum supply and distribution, supply chain services, aerospace energy, installation energy and alternative fuels. Many DLA Energy business units invited suppliers and industry experts to the workshops to learn about new business and solicitation processes.

Doug Smith, DLA Energy Aerospace Energy Supplier Division director, said he found the WWEC to be an ideal opportunity to meet face-to-face with industry representatives in a centralized environment over a multiple-day timeframe.

“During the WWEC, Aerospace Energy provided training and open discussions on various changes to ordering procedures, delivery processes and invoicing processes and procedures,” Smith said. “Having multiple vendors in the same place at the same time produces a positive impact.”

According to Smith, a successful networking opportunity occurred...
between him and a potential supplier of a kerosene-based rocket propellant. The vendor was attending the conference as a member of the petroleum industry but received information on the kerosene-based RP-1 rocket propellant. This led to a phone call to Smith and discussion of becoming a potential supplier of the rocket propellant. The vendor currently supplies DLA Energy with other products and has provided evidence to Aerospace Energy that it can meet the rocket fuel’s military specification.

The WWEC is responsible for increasing competition on an emerging supply chain, Smith said. “With this potential supplier, Aerospace Energy is expecting competition on the upcoming follow-on rocket propellant contract for the first time ever,” Smith said. “Because of the WWEC, my organization is poised and ready to support the new rocket engine whether it is the Department of Defense’s decision to use liquid methane or RP-1/2 as fuel for the new space launch engine.”

The many DLA Energy employees who volunteered to help plan and work the conference were key to its success. “Getting volunteers was easy,” Blank said. “In an effort to reduce the budget, we asked the workforce to volunteer as registrants and we had a terrific turnout. It cut costs for the contractor, which allowed money to be spent in other areas. Our employees were courteous, professional and are willing to volunteer again.”

Many DLA Energy employees attended the WWEC for the first time and they found it fun, as well as informative. “This was an amazing event that showcased what DLA Energy is all about,” said Damon Moore, DLA Energy Aerospace Energy Supplier Operations deputy director. Other Energy employees shared similar impressions. “This was a great learning opportunity,” an employee expressed in the survey. “The DLA Energy WWEC 2017 allowed participants the opportunity to build professional relationships among different staffs, suppliers, service components, service control points and industry to ensure the joint petroleum community works towards common goals and objectives relevant to our organization’s missions.”

“I really enjoyed the conference and learned a lot from the presentations and vendors,” another Energy employee commented. “Meeting vendors and talking with them about their projects is useful market research so contracting personnel know a point of contact to add to distribution lists when synthesizing on (the Federal Business Opportunities) website.”

Conference feedback from industry was also positive. “I’m very pleased DLA (Energy) made the decision to begin hosting this conference again,” said Tim Ramsay, Information Security World Fuel Services vice president. “The learning and networking opportunities were more than I expected.”

Chevron Dubai representative Masooma Sayyed wrote, “It was a very worthwhile event to attend. The entire process, from the user-friendly online navigation tools and registration process, to the venue itself and the seamless way in which the numerous agenda items where handled with the hundreds of visitors, was noteworthy. I plan to attend the next one for sure!”

The event proved to be a great experience for attendees as evidenced by more than 90 percent of respondents to the post-conference survey indicating they would attend the 2019 conference.

Blank and his team have already started planning for the 2019 DLA Energy WWEC. “I am looking forward to the next worldwide conference that will be held May 20-23, 2019, at the Gaylord National Resort and Conference Center in Oxon Hill, Maryland,” Blank said. “The recommendations we received at (this year’s) conference and through surveys will help us plan a bigger and better event.”
By Elizabeth Stoeckmann

Editor's note: In support of this issue of Energy Source’s “Smart Energy Solutions” theme, we’ll highlight three significant energy projects that DLA Energy has been a key part of this year: the largest Energy Savings Performance Contract in U.S. Air Force history (Oklahoma City Air Logistics Complex), the construction of two new wastewater treatment plants (Fort Polk, Louisiana) and the first large-scale hybrid solar and wind renewable energy project (Fort Hood, Kentucky).

DLA Energy awarded the Air Force’s largest energy savings performance contract for the Oklahoma City Air Logistics Complex, Tinker Air Force Base, Oklahoma, in March 2017. Contract work will modernize 60 buildings and reduce energy usage at the complex by 35 percent while supporting the Air Force’s new Energy Flight Plan, a long-term vision to enhance mission assurance through energy assurance.

The $243 million facility modernization project will save at least $20 million annually in energy and operational costs over the 25-year life of the contract. This includes energy conservation measures such as boiler and chiller optimization, lighting retrofits, building and development upgrades, infrared heating, water and sewer conservation.

“When you have a 35 percent savings over 10 million square feet, that is a real, tangible difference,” said DLA Energy Commander Air Force Brig. Gen. Martin Chapin. “The money that is saved in the Department of Defense now goes to do something else we need to do. We can spend it on readiness or whatever else it is we feel the need to do at the time.”

The project addresses the manufacturing processes with conservation measures in the paint booths, thermal spray booths, plating shops, industrial waste water treatment plant, chemical cleaning shops and compressed air retrofits.

“This project covers it all,” said DLA Energy Contracting Officer Cynthia Obermeyer. “It achieves energy conservation, cost savings and improves mission reliability through installation of new equipment and infrastructure.”

PROJECTED EFFICIENCY

After completion of a 42-month construction effort included as part of the 25-year performance period, total annual energy savings are projected to be 665 billion British thermal units per year, equivalent to the average annual
energy consumption of more than 8,300 homes. In addition to a projected 35 percent reduction in Tinker OC-ALC energy usage, this project provides water efficiencies, with OC-ALC water usage projected to reduce by nine percent.

The ESPC was executed within 20 months as a result of proactive planning and execution efforts with stakeholders.

“When I read that this happened within about a 20-month period of time ... for those who may not be used to government contracting cycles, you may think ‘Wow, that seems like a long time,’” Chapin said. “However, I’ve been around enough government contracts to know that’s actually a very short period of time ... and for something of this size to come together in a 20-month period of time, is absolutely phenomenal and it’s a testament to the teamwork.”

“This could not have been accomplished without the collaborative effort of the Tinker OC-ALC, the Air Force Civil Engineering Center, DLA Energy and the contractor,” Obermeyer said. “The contractor was very supporting and collaborative. The contractor brought in their best (personnel), who were very cooperative. We all agreed up front that we would make this happen and we all worked around the clock until we did!”

PROJECTED GOAL AND BEYOND

The Air Force exceeded its commitment toward the $4 billion Presidential Performance Contracting Challenge goal with the Tinker OC-ALC ESPC project. Under the challenge, each federal agency was charged with optimizing its energy footprint through the use of third party performance contracts.

“Contracting support obtained from the installation contracting offices has many different types of contracting venues and they do a great job executing the operation and maintenance dollars for the installation, but energy is a beast all unto itself. Our expertise and services are provided to the DOD with a committed workforce focused on the energy industry,” Obermeyer said.

DLA Energy is currently working on eight Air Force ESPC projects for award this calendar year. Nine more are due to be awarded next year and new requirements are in the pipeline coming from the Air Force Civil Engineering Center.
Utility Services contracts wastewater treatment plants at Fort Polk

By Irene Smith

A ribbon-cutting ceremony celebrating the opening of two new and improved wastewater treatment plants built to meet the growing needs of Army Garrison Fort Polk, Louisiana, was held on the installation May 24.

Defense Logistics Agency Energy Utility Services provided specialized contracting and technical expertise for the two newly-constructed wastewater treatment plants. “Utilities privatization (UP) enables military installations to obtain safe, reliable, technologically current and environmentally sound utility systems at a relatively lower cost than they would under continued government ownership,” said DLA Energy Utility Services Director Martha Gray. “In the privatization process, military installations shift from the role of owner operators to that of smart utility service customers.”

Wastewater treatment plants remove contaminants from wastewater, primarily household sewage. Physical, chemical and biological processes are used to remove these contaminants and produce environmentally safer, treated wastewater, also known as treated effluent. A byproduct of sewage treatment is usually a semi-solid waste that has to undergo further treatment before being suitable for disposal. The contaminated water from the plants is converted to safe water that meets public health standards through the treatment process.

“The two wastewater treatment plants were authorized under the existing 50-year utility services contract for a total cost of $87,418,821.82,” said DLA Energy Utilities Service Contracting Officer Farheena Khan. “The work began in 2013 and included demolishing the existing dilapidated plants, built in the 1940s, and constructing two new efficient WWTPs equipped with modern technology.”

Khan was instrumental in awarding the contract. DLA Energy Contracting Officer Kenneth Richardson and Contract Specialist Jonathan Willsher worked with Khan to provide contract administrative details from start to finish.

DLA Energy Utility Services supports the military services’ UP programs to build energy security and resiliency by improving utility systems at military installations across the U.S. “It was an honor for my team to ceremoniously acknowledge all the hard work that went into this massive project and the beginning of two brand-new WWTPs provided to Fort Polk for more than 50 years to come,” Khan said.

Khan worked with the system owner, American Water Operations and Maintenance, whose team created the design for the new wastewater plants and performed the work that included demolishing the outdated plants and constructing the two new wastewater treatment plants. “This project will improve Fort Polk’s mission assurance and have a positive environmental impact for the next 50 years,” Khan said. “It will fulfill all current wastewater treatment requirements on post and it has the potential to increase the overall treatment capacity to accommodate future projected growth.”

The new WWTPs will function 24 hours a day, seven days a week. The new North Fort Plant is capable of treating 1.8 million gallons of wastewater per day and the South Fort Plant is capable of treating 4.6 million gallons of wastewater per day. Additionally, the local environment and the waters receiving flow from these new plants will reap the benefits of improved treatment and higher quality effluent, Khan explained.

Joint Readiness Training Center and Fort Polk Commanding General Army Brig. Gen. Gary Brito said the new wastewater treatments plants have long-term benefits for Fort Polk. “Every soldier and family member wants to know they have clean water,” Brito said. “The intellectual investment of making this decision a couple years ago is going to last many years, providing quality of life to our soldiers and families.”
Defense Logistics Agency Energy Commander Air Force Brig. Gen. Martin Chapin (third from left) and stakeholders participate in a ribbon-cutting ceremony with other senior officials for the large-scale renewable energy solar project at Fort Hood, Texas, June 2. Photo by DLA Energy Installation

Energy Director Pam Griffith

DLA Energy brings large-scale solar, wind renewable project to Fort Hood

By Elizabeth Stoeckmann

Defense Logistics Agency Energy Commander Air Force Brig. Gen. Martin Chapin attended a ribbon-cutting ceremony with other senior officials for the first large-scale renewable energy solar and wind project at Fort Hood, Texas, June 2.

The construction of more than 60,000 solar panels and 21 wind turbines will provide Fort Hood with 65 megawatts of alternating current, with the on-site solar system providing 15 megawatts of energy and the remaining energy coming from a 50 megawatt off-site wind facility.

“DLA Energy is a proud team partner with the Army in this large-scale renewable energy project, providing clean and reliable energy from solar, wind and conventional resources to ensure Fort Hood’s energy demands are satisfied for decades to come,” Chapin said.

The firm-fixed price contract for renewable energy is lower than the projected prices for conventional energy and will provide Fort Hood with greater budgetary stability for electricity over the 28-year delivery period.

“If you’re pro-defense you should like this project, if you’re pro-renewable energy you should like this project and if you like jobs you should like this project,” said Richard Kidd, deputy assistant Secretary of the Army for Strategic Integration.

Because of the micro-grid capable system, future enhancements will enable securing and sustaining critical missions. If the wind facility goes offline, the post will continue to receive power from the solar array and conventional energy from the grid to ensure all power requirements are satisfied.

“When we encounter a rare opportunity like we have here to find a resilient, effective and efficient solution, that’s a win-win, and those are opportunities we want to make sure we exploit all the time,” Chapin said.

The 130-acre solar farm at Fort Hood was made possible through a contract awarded by DLA Energy in January 2016, to support the Army’s strategic objective for resilient and assured access to energy supplies for critical installation operations.

Since DLA Energy executed the contract award for Fort Hood, contract specialists will continue to monitor performance and provide contract administrative support to the Army and Fort Hood for the next 28 years.

“This project provides reliable energy from a large-scale on-site renewable resource and supports both the Army and Department of Defense strategy for greater energy security at fixed installations,” said DLA Energy Installation Energy Director Pam Griffith.

DLA Energy procures over $400 million annually in electricity and renewable energy in support of DOD installations. This is DLA Energy’s first contract including provisioning and purchasing electricity from newly constructed on- and off-site generation assets using two different renewable energy technologies.

Since solar and wind are intermittent resources, the contract also includes the purchase of electricity from conventional resources to supplement the renewable energy and ensure Fort Hood’s full electricity demand is satisfied, Griffith said.

“This is the largest Army warfighting platform, so the fact that this creates an opportunity to make sure this installation always has energy is absolutely the single most important thing in my mind,” Chapin said.

The Fort Hood solar project is the result of a collaborative partnership between the Army Office of Energy Initiatives, Fort Hood, DLA Energy, APEX Clean Energy and the Army Corps of Engineers. “If we’re not making sure the energy is getting down to the warfighter, then we’ve completely missed the boat,” Chapin said.
Twenty Defense Logistics Agency women attended Federally Employed Women’s National Training Program in New Orleans, Louisiana, July 17-21.

FEW is a private, non-profit organization working to end sex and gender discrimination and support the advancement of women in the federal service. This was DLA Energy’s first time participating in the program.

Darrell Bogan is the DLA Energy Equal Opportunity and Diversity director. He explained the importance of diversity workshops.

“When I arrived at DLA Energy, there was no knowledge of any affinity groups, such as Blacks in Government, Federal Employees with Disabilities, Lesbian, Gay, Bisexual and Transgender Employees, FEW and others,” Bogan said. “Acting DLA Energy Deputy Commander Gabby Earhardt and DLA Energy Chief of Staff Army Col. Doug Henry supported and encouraged me to send a group of Energy employees.”

Affinity groups fall under the National Coalition for Equity in Public Service that was established in 1994 and includes seven national organizations, Bogan explained. Their organizations help promote the participation and advancement of minority and women managers and employees in the federal government.

Training is FEW’s main objective. For 48 years, FEW has been training federal workers for personal and professional career growth. This year’s theme is “Investing In Our Future.” The four-day conference offered more than 100 courses, workshops and networking opportunities with subject matter experts in a number of career fields. A newcomers’ reception took place the day before training commenced to introduce new conference attendees to the FEW board of directors. Brandi Carpenter, a contract specialist in DLA Energy Direct Delivery Fuels, found the classes interesting.

“I took the Thrift Savings Plan overview for early to mid-career employees,” she said. “The instructor gave a great
Researching to see if she should start a Roth IRA at this point in her career and reviewing her TSP account so she can further diversify her contributions.

Carpenter said she plans on really pushing for conference attendance since it helps energize to start their own FEW chapter.

FEW maps every training session to the guidelines of the Office of Personnel Management’s Senior Executive Service’s executive core qualifications and the fundamental core competencies.

LaToya Clayton-Bullock, a senior procurement analyst within the DLA Energy Procurement Process Support Directorate, took a class on writing executive core qualifications for an SES position. “I took the class because I want to become an SES and better myself as a leader and mentor,” Clayton-Bullock said. “I learned how to craft my resume and write executive core competencies, (of) which I had no knowledge or background.”

Clayton-Bullock is a member of FEW. She joined in 2015 while employed at the Justice Department and reached out to the regional director of the Washington, D.C., metro region to start a FEW chapter at DLA Energy. “I believe the Department of Defense to be the pioneer for setting standards and becoming trailblazers for various initiatives,” she said. “In order to continue this movement, DLA Energy is taking the lead to continue this trailblazing momentum and increase the awareness of the ideologies that FEW was founded on. We are working on gathering the requirements to start a new chapter for DLA Energy and will hold a meeting in the near future.”

Bogan was pleased to provide funding for nine DLA Energy employees to attend the training. “When people attend conferences it arms them with the tools to promote work-life balance.” Bogan said. “I am really pushing for conference attendance since it helps with retention and recruitments.”

Energy participants universally agreed that the conference was educational and beneficial to their career development and investment in DLA Energy’s future. Several came back energized to start their own FEW chapter.

“I thought the 2017 Federally Employed Women National Training Program was an informative event that provided us with useful knowledge for personal and career development,” said DLA Energy Business Process Analyst Toka Trau-Massey. “The experience is key in investing in DLA Energy’s future by enabling growth among its employees. By obtaining the training, DLA Energy personnel can be more effective in supporting DLA Energy’s missions and improving customer service.”

FEW’s National Training Program is open to all employees from military, private and public sector organizations wanting to climb the ladder to the next step in their career. With more than 100 chapters spread across the U.S., the organization offers more than 140 workshops attended by more than 2,000 women and men each year.

“For me, the conference’s highlight was to see women uplifting, networking (with) and supporting each other,” Clayton-Bullock said. “I was even more surprised and impressed to see that in each of the classes I attended, men were present and were active members. I am still in awe that I was able to witness such an event.”

For more information about joining the DLA Energy FEW chapter, please contact Clayton-Bullock at LaToya.Clayton-Bullock@DLA.MIL or Trau-Massey at 703- 617-1634.
CONDUCTING CONFINED SPACE TRAINING

By Elizabeth Stoeckmann

A Los Angeles Fire Department crew member descends into Defense Fuel Support Point San Pedro's Tank 15 during confined space and rescue training. Photo courtesy of contractor
First responder teams practiced confined space rescue training at the Defense Logistics Agency Energy Defense Fuel Support Point San Pedro, California, April 12-14. The Los Angeles Fire Department’s Urban Search and Rescue team (Task Force 85), DLA Energy DFSP San Pedro’s site manager and the contractor performed mock rescue entry drills into Valve Pit 106 and Tank 15. The hands-on urban search and rescue training provided 38 response personnel with the opportunity to learn and practice techniques to perform rescues in a confined space.

“Performing these drills allows responders to know, based on site maps, what type of structure they will be dealing with and additionally, what equipment will be required in the event of an incident,” said Doug Childers, construction manager for the contractor closing the DFSP San Pedro underground storage tanks. A confined space has limited or restricted means of entry or exit, according to the Occupational Safety and Health Administration. Confined space includes, but is not limited to: tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes, tunnels, equipment housings, ductwork and pipelines.

“Gaining access to real confined spaces to train in is difficult,” said Capt. Tim Werle, LAFD Station 85. The LAFD uses a custom-made technical rescue vehicle to enable access to confined spaces. The self-sufficient vehicle has the ability to power equipment and lighting; provide air and hydraulic supply for lifting, cutting and breaking tools and equipment; and carry items such as fiber optic search devices for state-of-the-art searching.

“The ability to have a controlled environment for training helps us to work on theories we have about better rescue operations,” Werle said. “The tanks at the fuel depot presented us (with) challenges we were able to work through.”

Three shifts from LAFD Fire Station 85 conducted the one day CSRT scenarios. These included:

Day 1: Location – Valve Pit 106. Call received of person down in the bottom of a valve pit, technical rescue. Injured person (IP) condition and status unknown. Individual entry of rescue personnel to locate IP and perform extraction. Entry confined to only one rescue individual entry to assess IP status.

Day 2/3: Location – Tank 15. Call received of person down in the bottom of fuel tank, technical rescue. IP condition and status unknown. Team entry of rescue personnel to locate IP, assess status and perform extraction.

“The teaming of TF 85, the local contractor and DLA Energy allowed for a familiarization of personnel and open communication between the entities,” Childers said.

The drill lessons learned by rescue teams set the foundation for future missions including tethering versus non-tethering entries, as well as search patterns and rapid extraction of rescue personnel. “These techniques allow the entry teams to perform their duties with greater efficiency knowing the layout of the structures involved,” Childers said.

Todd Williams, DLA Energy Installation Support for Energy facility manager and on-site project manager at DFSP San Pedro, explained that sufficient radio equipment is vital for communication between first responders and the command and control cadre during the rescue. “This will most likely be the first and last time for this type of rescue training since we are permanently closing DFSP San Pedro and all underground storage tanks and valve pits are being filled with foamcrete, negating any need for confined spaces,” Williams said.

“DLA and the Navy had unique facilities that were in the process of being closed and the local fire department was looking for an opportunity to conduct confined space training on such facilities,” said DLA Installation Support for Energy Installation Manager John Cummings.

“The training was successful and a good news story for all parties involved,” he said. 📝
By Elizabeth Stoeckmann


The DFSP at San Pedro is closing after 37 years to reduce government-owned and government-operated infrastructure and costs for the Department of Defense. “We’re doing the right thing since commercial partners store bulk fuel and there’s no need to maintain a government-owned facility,” said John Cummings, chief of energy engineering for DLA Energy Installation Support for Energy. “Also, a previous DLA director [Navy Vice Adm. Mark Harnitchek] made a commitment to the Navy for a smooth transition, and the last director [Air Force Lt. Gen. Andy Busch] agreed.”

Over 70 years ago, DFSP San Pedro was established after the attack on Pearl Harbor, Hawaii, because of its proximity to the Port of Los Angeles and to oil refineries.

The facility consists of storage tanks, pipelines, pump houses, loading racks and other infrastructure. Its mission was to receive, store and distribute fuel in support of the Navy, Air Force, Army, Marine Corps and Air National Guard. It operated under the authority of the Navy until 1980, when operations were transferred to DLA Energy Installation Support for Energy.

Officials decided the DOD could save operating and maintenance costs by closing the facility, resulting in its temporary closure in 2014. In 2015, the DOD decided to continue the closure of the 27 underground tanks to help mitigate any infrastructure and environmental harm. The USTs will be filled in with a concrete material and returned to the Navy.

Initial closing began in February 2016 for 20 concrete 500,000-barrel underground storage tanks built in 1941 and 1942; six steel 500,000 barrel underground storage tanks built in the 1950s; and one steel 250,000-barrel underground storage tank built in the 1950s. The project also includes the closure of valve pits, pump houses and pipelines. “We have a very aggressive schedule as a cost avoidance...
in keeping the site open any longer than we have to,” Cummings said.

The contract was awarded ahead of schedule, within four months of the request for proposal.

Contractors started preparing to close tanks and pipelines in November 2016.

“In January 2017, they started with Tank 51, an aboveground tank that sits by itself,” Cummings said.

It takes about 10 days to pump a tank with “foamcrete,” a concrete containing a foaming agent in place of traditional aggregates, making the material lighter and stronger than traditional concrete, he explained. Tank 17 was the last tank to be filled with foamcrete on July 20, marking the milestone closure of 27 underground tanks.

Todd Williams is the on-site project manager at DFSP San Pedro. “We have had an unusually rainy season here in southern California, and we have faced challenges of landslides and shutdowns due to the rainy season,” Williams said.

The schedule has slipped due to rain and water supply issues and although the project has a three-year term, the contractor is working toward an aggressive six-month completion schedule, he said.

Williams said there are a number of engineering challenges. Making the regulators happy with the tank closure is a top concern, he said. This includes the State Water Resource Board and the Certified Unified Program Agencies, which fall under the administration of the Los Angeles Fire Department. These entities regulate the underground storage tanks to preserve, enhance and restore the quality of California’s water resources and drinking water for the protection of the environment and public health.

Other difficulties include water supply due to the aged main infrastructure. Mixing the foamcrete requires a lot of water, which DLA must be able to supply. Shift work also presents its own set of challenges because the terminal operations contract workers are on a 24/7 operational rotation, he said.

Cummings added that another issue is protecting the endangered species — specifically, the Palos Verdes blue butterfly and the California gnatcatcher.

“It’s really important not to affect their natural habitat and breeding season, so we can’t just run across with bulldozers; we have to be very sensitive,” he said.

“Everything is coordinated with environmental groups at Seal Beach and our DLA Energy environmental remediation team, so contractors know where they can and cannot go.”

DLA conducted an assessment of the potential
“There are two reasons we’re doing this: to promote the cleanup of the site and to facilitate return of the property back to the Navy.”

— Carol Heeney

DLA Energy Installation Support project manager

Although DLA Disposition Services is normally not involved in the disposition of real estate or storage tanks, it continues to be a key player in the cleanup of DFSP San Pedro.

“We have prepared a memorandum of understanding between DFSP San Pedro and DLA Disposition Services Camp Pendleton for the receipt in place of property that is deemed as scrap,” said Barry Thompson, a DLA Disposition Services property disposal specialist. “On our initial visit, we inspected the property and verified which items will be considered scrap and which items will be considered usable.”

The usable property is delivered to DLA Disposition Services for the possibility of reutilization, transfer, or donation, a program that offers usable assets to other DOD, federal and state agencies. DLA Energy provides turn-in documents that indicate scrap items while they remain at the DLA Energy location to avoid transportation costs.

There is no cost to either entity of DLA for the removal of the scrap, Thompson said. In fact, DLA receives a percentage of what the scrap is sold for.

DLA Energy Installation Support for Energy provides the overall management of the $15 million closure effort. Completion will result in environmental compliance and successful transfer to the Navy, Cummings added.

Turning Up the Heat on Contaminants

Following the closure, DLA Energy Installation Support for Energy project managers will oversee the testing of two aggressive technologies, to clean the soil and groundwater at two tanks at DFSP San Pedro: using electrical resistance heating and steam injection.

ERH is an aggressive remediation technology developed for the Department of Energy in the early 1990s. It delivers an underground current to an array of metal rods. The heat converts groundwater into steam so contaminants can be removed more easily. This technology will be used at the site’s Tank 3, buried in fine-grained soils and clays, which prevent the current from traveling outside the area.

This technique can simultaneously treat the petroleum in saturated and unsaturated soil, as well as groundwater. ERH is often used to clean sites where other technologies have had limited success, and to remediate quickly and completely.

The second technology uses steam injection coupled with a multiphase extraction of soil vapor and groundwater. By introducing heat below ground around the contamination plume, the fuel contamination is displaced and broken up, so it can be more easily extracted. Steam injection is a very effective removal technique well suited for large sites, like Tank 20, with petroleum releases in sandy soils and moderate permeability because the heat is well controlled by the lateral distribution of steam in the treatment area.

Selecting the most appropriate heating technology is influenced by the specific site’s subsurface permeability, as well as the properties and distribution of the contaminants. This pilot study will determine how to best implement
proven technologies at other tanks in the fuel facility to meet the aggressive schedule at DFSP San Pedro.

“There are two reasons we’re doing this: to promote the cleanup of the site and to facilitate return of the property back to the Navy,” said Carol Heeney, DLA Energy Installation Support project manager.

Both technologies are cost-effective and efficient, and the test will provide the site-specific data necessary to implement them, Heeney explained.

**Cleaner, Faster, Cheaper**

Laura Fleming, environmental division chief of Installation Support for Energy, explained that the new technologies will take less than two years to remediate the World War II-era site with an overall cost savings of up to $20 million, compared with standard commercial technologies that would take up to 40 years.

“It’s not intrusive, and there should be minimal or no disturbance to the habitat. But we will need to evaluate this before we initiate the pilot test,” Fleming said.

“Basically, probes are put in the ground and they are injected with either steam or electricity that ‘cooks’ the soil. The fuel vapors are collected using a vacuum technology to avoid emissions into the air.”

“DLA is completing a large and very complicated remediation at a heavily regulated site,” Heeney said. “All the while, great care is taken to prevent and minimize impacts to the sensitive ecological habitat at DFSP San Pedro.” She noted that because DLA chose to test two tanks in areas with differing geology and physical composition, “The testing will tell us how to apply these two technologies for other tanks in the area.”

Once the contract award is complete, the pilot testing is expected to take less than 10 months, which includes equipment installation and the remedial operation.

“We are excited to get the pilot test started so we can meet leadership’s goals and reduce liability to the government,” Heeney said.

Following successful pilot testing, DLA Energy Installation Energy plans to roll out similar cleanup technologies at other tanks in fiscal years 2018 and 2019 based on funding availability.

“We continue to see success in transitioning San Pedro,” said DLA Energy Commander Air Force Brig. Gen. Martin Chapin. “We are on schedule for all closure and turnover activities.”

Closure contractors remove a 14-inch double block and bleed valve from the Valve Pit 2 fill line for Tank 45 at DFSP San Pedro. Photo by Carl Lind
MISSION COMPLETE:
DFSP San Pedro closes last tank

By Elizabeth Stoeckmann

Tank 17, the last tank to be filled with foamcrete and solidify, marks the milestone closure of 27 underground tanks at the U.S. Navy-owned Defense Fuel Support Point in San Pedro, California, July 20.

The closure finished one week ahead of schedule with all fuel tanks complete and civil work procedures ongoing. The next phase will focus on environmental restoration to remove all contaminants from the property before returning it back to the Navy.

“The project was very demanding and required out-of-the-box thinking to get it moving,” said DLA Energy Installation Support for Energy Facility Manager Todd Williams.

The DLA-funded Naval Facilities Engineering Command project consisted of filling 12 miles of pipelines ranging from six to 18 inches in diameter and 26, 2.1-million gallon tanks and one 500,000-gallon tank with foamcrete.

“When the project first kicked off we had several delays due to the lack of water supply for the foamcrete batch plants,” he said. “I had to come up with a plan to install 1,400 feet of temporary water pipeline to provide enough water for the batch plants to produce the required foamcrete.”

It’s a timely process; each tank has to set for a day between pours for the foamcrete to completely harden, Williams explained.

Due to the nature of the project there were problems and challenges; however, getting support from DLA Energy Contracting was the most important resource that allowed funding and contract vehicles so it could stay on schedule, he said.

“Having the support from DLA Energy Installation Support for Energy Director DJ Junio, DLA Energy Engineering Division Chief John Cummings and DLA Energy Logistics Management Specialist Stephen Hill from the Facilities Management Branch allowed me to get this task done,” Williams added.

Even more, the engagement with the local community and environmental agencies ensured all stakeholders agreed to the closure strategy, he said.

“This effort demonstrates how DLA Energy and its joint partners adapt to mission needs while being good stewards of the environment,” Junio said.

Williams said the contractor did a magnificent job and their teamwork was highly apparent.

“They all showed a ‘can-do’ attitude when working along with the DFSP San Pedro personnel,” he said.

Williams will support the DLA Audit of Real Property at other bases in California as well as completing other smaller projects to ready the turnover of DFSP San Pedro to the Navy in September 2019.
A Conversation with ... Maria Spicer

Director, Internal Review

Editor’s note: Maria Spicer was selected as the Internal Review director in January 2017. She is the only GS-13 DLA Energy director, responsible for four employees and a $520,000 budget.

Describe your position and responsibilities:

As the Defense Logistics Agency Energy Internal Review Office director, I view my responsibilities through two lenses, professional and personal.

Professionally, I am the principal liaison for hotline investigations, internal audits and external audits, responsible for ensuring transparency of processes and procedures for DLA Energy. I support DLA Energy by providing non-partisan, value-added reviews and assessments that improve the stewardship of resources and promote the effectiveness and efficiency of local programs and operations.

Personally, I take responsibility for mentoring, encouraging, and representing a workforce demographic not commonly seen within federal service (a minority woman in a leadership position). I help change the narrative of how minority women are viewed, and help others achieve a similar plateau of success.

How long have you worked at DLA Energy?

Since 2011, I have always been committed to the idea of service to our nation. I was a member of the U.S. Air Force Reserve Officers’ Training Corps while attending Fayetteville State University from 1992-1996.

After four years in the program, I became a single mother and had to adapt my concept of service very quickly. Thanks in part to my lifelong friend, who was also in the ROTC program, I expanded the baseline of what it means to serve—this best friend would later become my husband of more than 25 years.

As a military spouse, my number one priority was to ensure the stability of our children. Deployments and permanent change of station moves made it difficult to establish a career path and find purpose and/or identity. This is a struggle far too many military spouses deal with on a recurring basis.

In 2005, I pursued an opportunity to work with the Department of the Army while stationed at Supreme Headquarters Allied Powers Europe in Belgium as a GS-5 Administrator. In 2007, I was promoted to GS-7. I followed my passion to advance my government career and sought opportunities as a GS-9 internal review evaluator with DLA Energy in 2011.

In December 2016, my supervisor retired and the director’s position was advertised. I applied for the position, and almost dropped out of the interview because I allowed my fear and anxiety to cause me to doubt my abilities. At about the same time, George Atwood, former DLA Energy deputy commander, put out a farewell email and wrote, “Never hesitate or be afraid to step out of your comfort zone and take on new challenges.” That email message and support from my husband and friends encouraged me to go forward with the interview.

What is your biggest accomplishment to date?

Volunteering to deploy to Kuwait as a member of DLA’s Central Command Support Team from April to November 2016 as a Support Operations Officer, something I had no experience in. It was important to me to support DLA and stretch my abilities. I was blessed with this terrific opportunity to serve during my civilian career, and I could not think of a better way of serving. I recommend this to everyone.

What does being a leader mean to you?

I am amazed to be considered a leader. Having overcome so many obstacles and negative typecasting as a naturalized citizen (Filipino/African-American), young single mother and a military spouse, I’m humbled to be in this position.

Leadership is about investing in people, being a visionary for the organization and having the confidence to know that you were destined to positively affect some of the most negative situations in people’s professional and personal lives.

How do you make a difference?

Having trust and being transparent is a great place to start. I believe building trust into Internal Review’s values and promoting trust within DLA Energy helps to create strong working relationships. To trust makes it easy to be transparent with others. Transparency is accomplished by communicating effectively with employees and senior leaders in an open and beneficial way. I believe transparency is a powerful element in building a positive relationship between Internal Review and our customers.

Maria Spicer

DLA Energy Internal Review Director Maria Spicer. Photo by Ronald Inman

Energy Source I SUMMER 2017 23
DLA Energy, University of Arkansas partnership creates fuel supply network simulation, software

By Tanekwa Bournes

New, state-of-the-art supply network capability simulation and modeling software technology will help Defense Logistics Agency Energy conduct world-class assessment of global fuel supply networks capacity to meet warfighter surge requirements and replace legacy manual spreadsheet-driven processes.

“Leveraging commercial best business simulation and modeling practices will enable timely and objective analysis to shape optimal resource decisions by managers and senior leaders,” said DLA Energy Supply Chain Integration Logistics Management Specialist David Ray.

DLA Operations Research and Resource Analysis is funding the University of Arkansas’s Center for Excellence in Logistics and Distribution to develop a fuel supply network simulation and modeling software concept.

“CELDi encompasses several universities that research and develop innovative tools for partnership organizations and allows students to participate in these projects to gain valuable experience resolving unique logistics and distribution challenges,” said Andre Hinson, DLA Energy planner for the U.S. European and Africa commands.

Hinson is one of several DLA Energy personnel providing guidance to the CELDi research project. The project lead is DORRA’s team with DLA Energy providing a supporting role.

“The 2016 European Logistics War Game showed that the current tools were not giving the organization a full operating picture to meet the needs of the warfighter,” Hinson said. “The CELDi research project uses a simulation model to analyze DLA’s fuel supply chain to better assess DLA Energy’s supply network capacity.”

In previous war games, DORRA used spreadsheets and charts to track capabilities. Labor intensive and less accurate, the tools did not include real-world equipment failure or supply shortages that might affect the mission.

The newly developed model will display how fuel flows to stations in the continental U.S. and abroad.

“This will assist in determining possible ‘choke points’ by allowing us to just hit a button to simulate where fuel would max out or be delayed in distribution,” Hinson said. “The system will work similar to one used by U.S. Transportation Command but our system will focus on the flow of Class III bulk fuel.”

TRANSCOM uses the Joint Flow and Analysis System for Transportation that determines transportation requirements for equipment from origin to final destination by using maps, animations and other information, Hinson added.

The CELDi model focuses on fuel gaps and can be used for day-to-day planning, to identify capacity gaps and improve usage of the agency’s fuel reserves and capacity resources.

The team is currently developing a simulation demonstration for a section of the Colonial Pipeline, a 5,000 mile pipeline stretching from Houston to New Jersey, for its simulation model testing.

The Colonial Pipeline is used because it relies on all modes of transportation – rail, trucks and air – to move fuel to its final destination, Ray added.

“The pipeline is complex and relies on several moving parts to get fuel where it needs to go,” he said.

Within the CELDi model, planners will input data to query or simulate moving fuel to end users, Hinson explained. We look at our supply chain networks and perform analysis for operations improvements and work with our partners for new opportunities to accomplish this.
goal, he added.

“Since the Worldwide Energy Conference was held, several people in the energy world have come forward with forecasting systems that we can pull ideas from, but we still need a system that is user friendly and approved by the Communications directorate [J-6],” Hinson said.

The team conducts weekly conferences calls and attends conferences to share insights and suggestions to enhance the system and learn what other universities are working on for other organizations.

In the first phase of the project, the team mapped out the process, identified key data elements and sources and developed the initial simulation.

“The system will work with the Enterprise Business System in order to look at capacity, fill in gaps and perform test runs,” Hinson said. “We will work with DLA Operations [J-3] as well as TRANSCOM to embed this into its system. Ultimately, we want to have something that can be used as a stand-alone system.”

“Within EBS, customers are able to input sales projections for the next 12 months based on forecasts projected by DLA Energy demand planners,” said Steve Williams, Demand Planning lead project manager and one of the subject matter experts providing information during the developmental phase of the project.

Once complete, the model will use information created in the bulk-petroleum contingency report (REPOL). REPOL is a daily fuel report governed by the Joint Publication 4-03, Joint Bulk Petroleum and Water Doctrine, which falls under the direction of the Chairman of the Joint Chiefs of Staff.

“REPOL provides us and the services with summary information on bulk petroleum inventories and infrastructure information to bases we support for planning purposes,” Hinson explained. “It also contains historical fuel consumption data.”

During the testing phase, SMEs from various DLA Energy divisions will use the system and evaluate how well it predicts changes and provide improvements to the system.

“We know certain data points but we’re working with the DORRA team to ensure that the language we put in the application is correct,” said CELDi Director Dr. Manuel Rossetti. “We are still working on the prototype models but once that part is complete, we will place it in a more stable system.”

In the end, DLA Energy hopes the system will be able to help identify supply network choke points and inform resource decisions to ensure uninterrupted contingency support to the warfighter helping to avoid early surge sustainment crisis, Ray added. “Bottom line, it falls on our ability to support the warfighter in the most effective and efficient way possible,” he said.

“We see this simulation model going beyond the Department of Defense. The commercial sector also has the need to understand capacity within their supply chains, especially when trying to plan against supply chain disruption and measure the resilience of their networks,” Rossetti said. 

Rossetti discusses the supply network simulation and modeling software project with Defense Logistics Agency Energy Commander Air Force Brig. Gen. Martin Chapin during the April 2017 DLA Energy Worldwide Energy Conference April 11 at the National Harbor in Oxon Hill, Maryland. Photo by Tanekwa Bournes
REFINERY to FLIGHT
The journey of a barrel of jet fuel

By Ronald Inman

Like blood moving through the body, jet fuel flows through the Defense Logistics Agency Energy’s supply chains around the world to keep warfighters in flight.

Crude oil is converted to many products at a refinery. This transformation of crude oil into many products leads to DLA Energy purchasing fuel from the refinery. These products, like jet fuel, then begin the journey through the DLA Energy distribution supply chain.

DLA Energy Americas is one of the four DLA Energy regional offices responsible for ensuring a barrel of oil that completes its transformation into jet fuel is tested, received, stored, transported, accounted for and distributed to the warfighter.

Randy Cottrell is the DLA Energy Americas East at Houston supply operations manager. He and his 34-member team, including 15 fuel supply planners, ensure fuel moves in a timely manner to support five combatant commands, seven major pipeline distribution systems and 300 military bases across three time zones.

Cottrell and his team track 5,000 fuel movements per month and move 1.2 billion gallons of bulk petroleum products each year.

“The transportation of fuel is not as easy as it might appear on the surface,” Cottrell said. “DLA Energy does an excellent job of supporting the military services and federal agencies, making a complicated fuels distribution system seem easy when fuel appears at their front door, on time and meeting quality specifications.”

DLA Energy transported more than 130 million barrels of fuel worldwide in 2016, according to the 2016 DLA Energy Fact Book. Over 80 million of those were moved within the continental United States. One barrel holds 42 gallons of fuel.

At home and overseas, a transportation network spans thousands of miles and uses roads, rail, pipeline and waterways to bring the fuel to those who need it, when they need it.

The Air Force is DLA Energy Americas East at Houston’s biggest fuel customer. In 2016, 830 million gallons of fuel were distributed to Air Force bases in the DLA Energy
Americas area of responsibility.

Joint Base Andrews, home to the Air Force District of Washington’s 11th Wing, is an important DLA Energy customer. The wing supports contingency operations and provides security on the world’s highest-visibility flight line for presidential aircraft Air Force One and more than a dozen types of aircraft.

Making sure JBA has the right fuel at the right time to fly its missions is a supply planner’s job.

“The supply planner is basically a scheduler of fuel, getting fuel from the refinery to the customer,” Cottrell said.

JBA, located in Prince George’s County, Maryland, is supplied by a DLA Energy contract for 24 million gallons of F-24 jet fuel to support Air Force missions. F-24 is a commercial Jet A fuel containing specialty additives to keep it fit for use in demanding conditions.

Larry Lewis is a DLA Energy Americas East at Houston supply planner who works with JBA’s fuel services contractor. As JBA’s supply planner, Lewis monitors and analyzes the base’s daily fuel inventory through reports from DLA Energy and Fuels Manager Defense software. He ensures the base is above its control limit – the operational amount of fuel the base is required to maintain, which is established by DLA Energy’s Bulk Petroleum Inventory Management Plan.

Each month he creates stock transfer orders to let vendors and suppliers know what quantity of fuel is needed at a particular location.

“The most important aspect of my job is making sure my customers’ needs are met so they can complete their mission,” Lewis said. “We track consumption projections to suppliers as far out as 90 days prior to the movement of the fuel.”

The transformation

The journey of a barrel of jet fuel to JBA begins in the heart of the U.S. petroleum industry: Houston, Texas. F-24 begins as Jet A commercial jet fuel, which is refined from crude oil. One of multiple suppliers is notified of the amount of product required by the supply planner.

Phillip Chang, a chemist for DLA Energy’s Quality Technical Support Directorate, explained crude oil’s transformation to fuel.

“Crude oil is a mixture of thousands of compounds in liquid state found naturally in the earth. The refinery buys or draws from inventory the crude oil that’s best-suited to their refinery to produce the most products and profit,” Chang said.

“Next, the crude oil goes through many physical separations [distillation] and chemical changes to become refined final products like gasoline, jet fuel, diesel, fuel oil and others,” he said. “The final product is tested at the lab to make sure it meets the specifications for the intended product such as [jet fuels] Jet A and JP-8 or diesel, and is then stored in tanks until delivery.”

The journey begins

The journey of a barrel of jet fuel to JBA starts months prior to delivery, Cottrell said. Ordering and transporting fuel requires coordination, and there can be consequences if it is not properly planned and executed in advance.

“Pipelines are especially busy and often reach full volume allocations during peak periods,” Cottrell said. “Peak periods occur when several pipeline customers want to ship fuel at the same time. This mostly happens in the winter when the pipelines are shipping heating fuel, but can also occur during peak summer months when airports have heavy fuel consumption due to increased air travelers going on vacation.”

Most DLA Energy Americas-supplied fuel travels by pipeline.

“Regulation requires the regional supply planner to send the supplier the fuel order at least 15 days before the fuel is to be transported,” Cottrell said. After the supplier provides the product, the jet fuel is shipped either directly from the refinery into the Colonial Pipeline (a 5,000 mile pipeline stretching from Houston to New Jersey) or from the refinery into Defense Fuel Support Point Houston, a commercially-owned and contractor-operated terminal, and then to the Colonial Pipeline.

“It takes a minimum of 20 days for fuel in the Colonial Pipeline to travel north to DFSP Baltimore,” Cottrell said.

At DFSP Baltimore, an Energy quality assurance representative ensures three liquid additives are added to the fuel as it’s loaded onto the barge, transforming it into jet fuel with military additives – F-24.
Additizing it all up

“The use of additives is required to meet the unique requirements and specifications of military aircraft,” said Richard Knapp, DLA Energy Quality Technical Support Quality Operations division chief.

“Fuel system icing inhibitor is required to prevent the water from forming ice crystals that could block fuel lines,” Knapp said.

Another additive prevents the buildup of static electricity while the fuel is moved.

“Static can lead to high-energy sparks in an explosive environment,” Knapp explained. “Static dissipater additives reduce this hazard by increasing the electrical conductivity of the fuel, which promotes a rapid relaxation of any static charge.”

Joining the static preventer is an additive to prevent corrosion and allow the fuel to keep parts lubricated.

“The fuels have been through severe processing at the refinery,” Knapp said. “By introducing the corrosion inhibitor, parts can keep a thin layer of fuel between them. The additive prevents corrosion of the metal parts caused by oxidation and lubricates surfaces to limit wear.”

“The QAR only accepts discharge of the fuel as F-24 when the additization is complete,” Cottrell said.

Keeping an eye on quality

“Once the Jet A is in DFSP Baltimore’s storage tanks, the regional supply planner schedules a barge carrier contracted by DLA Energy to move the fuel,” Cottrell said. “Regional QARs monitor barge loading and ensure product purity.”

Next, the barge travels to DFSP Anacostia, Washington, D.C., and discharges the fuel into a pipeline that runs to tanks on JBA. Specialists monitor the fuel to make sure none has been lost or diverted. If they find excessive gains or losses, the specialists start an investigation. They also ensure fuel transactions are processed promptly using Fuels Manager Defense software to ensure auditable accountability along the journey.

On mission

Finally, jet fuel is scheduled for delivery from DFSP Anacostia storage tanks to JBA, where contracted personnel load Air Force R-11 fuel trucks and deliver the fuel to base aircraft.

“The delivery of F-24 to JBA is just one of DLA’s Energy’s four major bulk-purchase programs for fuel,” Cottrell noted. JBA falls under the Inland East Gulf Coast program, and the other domestic program is Rocky Mountain West. Internationally, the WestPac program covers the Western Pacific and Middle East, while the Atlantic/European/Mediterranean program covers those areas.

The journey from refinery to flight is just one segment of DLA Energy’s larger process of providing fuel. Before contracts are even awarded, DLA Energy’s Supply Planning and Acquisition Bulk Fuel Contracting branch puts in significant time and effort.

“Most DLA Energy customers have no idea what work is involved in ensuring a location has fuel to meet the warfighter mission. All they know is that the product is ready when they open the valve,” Cottrell said.
FROM CRUDE OIL...

It can take up to 48 days for a gallon of crude oil to be transformed through a three-step process before it reaches its final stage as F-24 military jet fuel and can be used to refuel an F-16 on the flight line.

STEP 1 The refinery buys or draws crude oil from inventory that’s best-suited to their refinery to produce the most products and profit, according to DLA Energy’s Quality/Technical Support Division. Raw crude oil starts out as a complex mixture of thousands of compounds that are mostly hydrocarbons (compounds with mainly carbon and hydrogen with traces of other compounds such as sulfur, nitrogen, oxygen and metals).

STEP 2 The crude oil goes through many physical separations (distillation) and chemical changes to become refined final products like gasoline, jet fuel, diesel, fuel oil and others. The final product is tested at the lab to make sure it meets the specifications for the intended product such as Jet A and JP-8 (jet fuels) or diesel, and then stored in tanks until delivery.

STEP 3 Three liquid additives are added to the fuel to complete the Jet A fuel’s transformation to jet fuel with military additives – F-24. Their use is required due to the unique needs and specifications of military aircraft.

...TO JET FUEL

Sources: DLA Energy Americas East at Houston Supplier Operations; DLA Energy Quality/Technical Support Division
A Conversation with ...  

Greg Thevenin  

Director, Office of Small Business Programs

*Editor’s note: DLA Energy Office of Small Business Programs Director Greg Thevenin is one of two GS-14 directors within DLA Energy.*

Describe your position and responsibilities:

I am in a unique position, I am one of only two GS-14 directors within DLA Energy (Darrell Bogan, the Equal Opportunity director, is the other). There are numerous challenges because of my grade, but my role as the director of the OSBP is to lead the charge and institutionalize the use of fuel/energy-producing small businesses and integrate them into the DLA Energy’s competitive base of contractors.

Congress created the U.S. Small Business Administration (SBA) in 1953 to aid, counsel, assist and protect the interests of small business concerns. To be a small business, you must adhere to industry size standards established by the SBA. There are five socio-economic groups of small business established by the SBA: Veteran-owned small business, service-disabled veteran-owned small business, small historically underutilized business, small disadvantaged business and women-owned small business concerns.

Small businesses are an important part of the American economy. They employ 54.4 million people and more than half of the private workforce. According to the SBA, small businesses are responsible for more than half of innovations developed during the 20th century, including the zipper, the helicopter, the personal computer and important advances in the medical world such as insulin, the artificial heart valve and the pacemaker. Apple, Whole Foods, Starbucks, Coors and Mattel all started out as small businesses.

DLA Energy’s OSBP is made up of six SB professionals, a combination of procurement and management analysts, who are the cogs in DLA Energy’s OSBP machine. I advocate for small businesses and promote and recommend Small Business participation wherever possible. I support internal agency customers (providing guidance to acquisition professionals as it relates to SB) and external small businesses (counseling to SB) through outreach, document reviews, education, training, forecasting and counseling. Additionally, DLA Energy’s OBSP is responsible for oversight of DLA Energy’s subcontracting management program (the only DLA primary field level activity tasked with managing such a program). In essence, I ensure the integrity of the contracting process as it relates to small business.

How long have you worked at DLA Energy?

I’ve worked at DLA Energy for eight years as a small business specialist, and as the director of DLA Energy’s OSBP for five years. This is my third job within the DLA enterprise.
“I believe a leader is someone who empowers people. I recognize the importance of stakeholders as they are the reason behind my success, and the success of the program I manage.”

— Greg Thevenin
Director, Office of Small Business Programs

What is your biggest accomplishment to date?

Professionally, my biggest accomplishment has been changing the structure of the OSPB. Previously, the office consisted of a GS-14 director, five GS-12 procurement analysts and one GS-12 management analyst. This structure was not optimal. The structure impacted me personally as I was a GS-12 in OSBP. In 2007, I left Energy for a promotion at the Federal Emergency Management Agency. In 2016, we were able to add a GS-13 lead analyst position, which created a bridge to the Small Business director’s position. My professional goal is to upgrade the additional members of OBSP’s team to GS-13s.

Thanks to Energy’s acquisition professionals and senior leaders, DLA Energy has met or exceeded our assigned small business goal for the past four fiscal years, which is unprecedented.

What does being a leader mean to you?

My favorite quote is by John C Maxwell. “Leaders must be close enough to relate to others, but far enough ahead to motivate them.” I believe a leader is someone who empowers people. I recognize the importance of stakeholders as they are the reason behind my success, and the success of the program I manage. Stakeholders are the acquisition professional at Energy. Members of my team, Energy leadership, as well as headquarters leaders. I have a good group of talented individuals working with me. I say “with me” because they don’t work for me, we all work for DLA Energy. Another important asset is that I have the support of Energy’s senior leaders.

How do you make a difference?

I make a difference by educating DLA Energy stakeholders through specialized training. We offer a small business course, and we offer a refresher course on specific aspects of the program. The Department of Defense accounts for the majority of small business procurement. Last year, DLA Energy awarded $1 billion in contracts to small business for the purchase of fuel and services. Small businesses are the backbone of America. According to the SBA, small businesses accounted for 64 percent of the new jobs created between 1993 and 2011 (11.8 million new jobs).

What are some challenges you face as a director?

As the director of the OBSP, my ultimate responsibility is to ensure DLA Energy is making a “good faith” effort in complying with statutory and regulatory mandates to provide maximum opportunity for small businesses to partner as both prime and subcontractors in carrying out our mission. There was a time when this did not seem to be a priority, but over the last four years the attitude and command culture has improved.

I’m a staunch advocate of recognizing accomplishments. DLA Energy has made a concerted effort in improving its workforce diversity by recruiting more minorities to support the acquisition career field; this has led to a noticeable growth in GS 11-12 employees. However, there is still room for growth in the upper echelon GS-15. One notable fact: there have been only three African-Americans to hold the grade of GS-15 since 1964, and now there is only one.

Greg’s favorite quote on leadership:

“Leaders must be close enough to relate to others, but far enough ahead to motivate them.”

- John C. Maxwell (pastor, speaker and best-selling author on leadership)