

# Falls City Engineer

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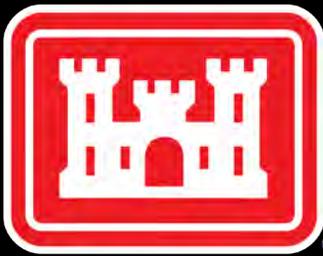
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U.S. ARMY CORPS OF ENGINEERS  
LOUISVILLE DISTRICT



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first in Corps to receive  
OSHA award**  
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visits Louisville,  
promotes STEM**  
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## Falls City Engineer

Vol. 6, Issue 2

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**On the cover:** ROTC Cardinal Battalion members work through an Army battle scenario training exercise in the woods at Cherokee Park, Louisville, as Lt. Gen. Bostick (second from right) observes.



**Please conserve:  
Think before you print.**

# Commander's Comments

Team,

In early March, I travelled to Washington, DC, and visited with members of Congress who represent areas within the Louisville District. It was a great opportunity to build relationships as well as to answer many of their questions. The members I spoke to were thankful for what we do, happy that there is no government shutdown on the horizon, and optimistic that they might get a Water Resources Development Act passed into law.

The members of Congress were enthusiastic about a new tool we've developed in the Louisville District, which allows them to learn about our projects that are ongoing within their Congressional Districts. You can view the same documents I used to brief them by clicking here.

The Chief of Engineers, Lt. Gen. Thomas Bostick, was recently here in the Louisville District to talk about the importance of education in science, technology, engineering, and math (STEM). Gen. Bostick spoke at a University of Louisville ROTC training session, visited with our LDPII members, and observed classroom STEM activities at Scott Middle School on Fort Knox. STEM plays a critical role in ensuring the U.S. remains strong and secure in the future. Gen. Bostick is deeply committed to the effort, and Marilyn Lewis is on his planning committee which developed the partnership agreement between DoD Schools and the Corps. The Chief also got a tour of Engineering Divi-



**Col. Luke T. Leonard**  
**Commander and District Engineer**  
**Louisville District**  
**U.S. Army Corps of Engineers**

sion where he got some exposure to our masterplanning and Building Information Modeling (BIM) tools.

Finally, with the weather beginning to warm, I would be remiss if I did not stress safety. Don't let a nice day on your boat or your motorcycle turn tragic. Act responsibly, be smart and stay safe.

Building Strong!

Luke

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## Corps chief visits Louisville, promotes STEM



Lt. Gen. Bostick addresses more than 70 members of the UofL Army ROTC Cardinal Battalion April 9 at the Cherokee Park pavilion before observing the battalion Army exercises.

Todd Hornback, public affairs

Lt. Gen. Thomas Bostick, U.S. Army Corps of Engineers commander and the 53rd chief of engineers, visited the Louisville District headquarters and intertwined meetings with the University of Louisville president, students and the ROTC unit before engaging Fort Knox, Ky., Scott Middle School students and presenting Louisville District employees with a team award.

Bostick's visit focused on STEM—Science, Technology, Engineering and Mathematics—and its importance to the Corps of Engineers and the nation.

The non-stop tour April 9 and 10 included a meet-and-greet with UofL President Dr. James Ramsey to discuss the importance of students following STEM programs. Although STEM occupations will only be five percent of all jobs in the U.S. economy by 2018, they are critical to the nation's continued economic competitiveness because of their direct ties to innovation, economic growth, and productivity. The shortage of college graduates in STEM is a concern for the Corps and other federal agencies. The U.S. is currently relying on foreign-born workers to plug the gaps in our STEM workforce, which is normally not an option for the Department of Defense because of citizenship and security clearance requirements.

The U.S. expects 2.4 million STEM job openings by 2018 based on growth and retirements. This fast-growing occupa-

tional cluster is second in the U.S. only to the healthcare industry. The nation will need to increase the number of college graduates by approximately one million more STEM professionals to fulfill this requirement.

In an address to approximately 25 UofL students at the J.P. Speed School of Engineering, Bostick stressed the importance of engineering degrees and how these degrees can be used to support the nation and the Army.

Under their slogan, "Battle On!," more than 70 members of the UofL Army ROTC Cardinal Battalion listened to Bostick's lessons and experiences under the Cherokee Park pavilion where the battalion holds training exercises.

In his address, Bostick gave advice for their success as future Army officers.

"Every day you can walk out in front of your platoon and you can start waxing eloquently and they can't just about face and leave. You have a captive audience and you ought to take advantage of that opportunity each and every day," Bostick said. "Think about what you want to say. What are your messages, what do you think they need to hear, and how do you practice that and develop? You have to communicate so people understand what you are communicating about and what your message is. You'll see when you're in the Army you're going to do that all the time. So, the best time to practice is soon as you hit the ground. Work on your skills

in communication and becoming a leader."

When asked about the future of the Army, Bostick responded, "...That strategy is predominantly we can probably fight about one major contingency...but we can't execute in Iraq and Afghanistan simultaneously in the structure we have. That's going to drive our structure. The most important thing is to make sure that your organization is trained and ready to do what it needs to do."

In a word of encouragement to the ROTC troops, Bostick stressed what each of them can bring to the future Army from their current training from leaders and books, "You bring that training and it's fresh—those ideas—and it's accurate. You hold the standard of what should happen... you make that difference."

Bostick presented three recognitions during a luncheon question and answer session with the Louisville District Leadership Development Program II Class.

Bostick recognized Adam Taylor, Rough River Lake ranger, with the 2013 Hiram M. Chittenden Award for his untiring efforts and contagious enthusiasm in greatly expanding the lake's volunteer and outreach program. The award recognizes outstanding contributions in interpretation and environmental education by USACE employees in a district or field office.

He presented a coin to Crystal May for her work as a key player in establishing and implementing the Great Lakes and Ohio River Division Centralized Business Oversight Branch in Louisville District. Her work has included developing flow charts and standard operating procedures for the fifteen Regional BOB functions and migrating the SOPs into the Quality Management System.

Matt Lowe, received a commander's coin, for accepting a six-month resident engineer assignment in Afghanistan that will begin in May.



Bostick presented Rough River Lake Park Ranger Adam D. Taylor with the Hiram M. Chittenden Award for Interpretive Excellence.

Debra Hunter

# STEM ED program builds skills for the nation

Todd Hornback, public affairs

Louisville District employees joined Lt. Gen. Thomas Bostick, Chief of Engineers, U.S. Army Corps of Engineers (USACE), at Scott Middle School, Fort Knox, Ky., April 10 as part of the Science, Technology, Engineering and Mathematics Education outreach to students.

STEM ED is a partnership between Department of Defense Education Activities schools and USACE to leverage the strengths of both organizations.

“In March, we kicked off the USACE-DoDEA STEM ED Program with 25 Louisville District engineering professionals interacting with and inspiring 7th and 8th grade science students in 13 classrooms at Scott Middle School on Fort Knox,” said Marilyn Lewis, chief of the Louisville District Engineering Division and district’s STEM ED program liaison. “The Scott Middle School program consists of five sessions and is one of seven schools in the STEM ED pilot program for the 2013/2014 school year.”

The work with Fort Knox schools shows the commitment to teaming with others to strengthen STEM-related programs that inspire current and future generations of young people to pursue careers in STEM fields. The effort to recruit highly capable, dedicated and skilled STEM professionals is a national issue—not just a DoD or USACE challenge. Interacting with young people and getting them passionate about STEM early on is a symbiotic relationship.



Debra Hunter

Louisville District structural engineer Mercedes Hughes (left) and USACE Commander Lt. Gen. Thomas Bostick, visits students at Scott Middle School, Fort Knox, Ky., as part of the Science, Technology, Engineering and Mathematics Education outreach to students.

“We had a wonderful engagement at Fort Knox. Louisville District volunteers made a huge impact and were much appreciated by the students, faculty and DoDEA. Great team effort,” said Bostick after his visit to the schools.

STEM ED program is part of a national pilot program which kicked off at seven Department of Defense Dependents Schools co-located with USACE districts. The program is different from other programs because it is embedded in the classroom and tied to the curriculum. Conceptual understanding is built in and the

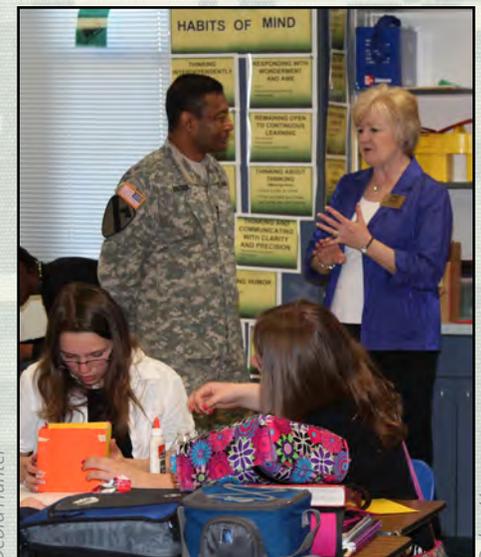
program provides face-to-face, hands-on, and long-term interaction with teachers and students.

The students at Scott Middle worked with the same concept as the national program: building strong structures that withstand the forces of nature. The program requires a minimum of two USACE volunteers to include military, civilian engineers and scientists at each of the pilot schools.



Debra Hunter

Students at Scott Middle School, Fort Knox, Ky., use engineering skills to build structures that will be tested in a wind tunnel. By seeing how differently shaped structures react to strong winds, students learn how forces of nature affect building design.



Debra Hunter

Lt. Gen. Bostick converses with Louisville District Engineering Division chief Marilyn Lewis at Scott Middle School, Fort Knox, Ky.

## District employees honored for water safety contributions

The National Water Safety Congress honored the following Louisville District individuals and teams at the 18th Annual International Boating and Water Safety Summit, Nashville, Tenn., Apr. 17.

### Region 1

**Regional Award** - Jim O'Boyle, Park Manager, William H. Harsha Lake, Batavia, Ohio, was awarded the Regional Award for his contributions to the local, regional and national Corps of Engineers Water Safety Campaign. He completed four years as a representative to the Corps National Water Safety Team, developing themes, products and a campaign used nationally to promote safe water recreation.

O'Boyle demonstrated the highest standards and quality in customer service while working to reduce water-related fatalities and promote water safety through education, publicity, on-the-water outreach, in innovative and creative ways.

**Letter of Commendation** - The Miami River Area staff received a Letter of Commendation for its water safety education efforts at Caesar Creek Lake, C. J. Brown Dam & Reservoir, West Fork Lake and William H. Harsha Lake in southwest Ohio, and Brookville Lake in southeast Indiana, reaching an estimated 85,965 persons attending interpretive programs and events at the lakes and at off-site events. This is an increase of more than 5,000 contacts from last year.



Maggie Kubina, award of merit recipient, teaches water safety at an Outdoor Education Camp, Mississinewa Lake, Peru, Ind.

Miami River Area rangers supported Division Water Safety initiatives and the Wear It program at multiple community events such as the Bass Pro Go Outdoors Event during National Safe Boating Week, a Wilderness Inquiry canoe float, and the first-ever Take a Warrior Fishing event in the Louisville District. On occasion, the staff partnered with agencies such as Ohio DNR and the Coast Guard Auxiliary to jointly promote water safety.

Miami River personnel promoted water safety for visitors and boaters at each lake

in a variety of ways, including boat patrols at the lakes, assisting distressed boaters, installing banners, life rings and signs in recreation areas.

### Region 2

**Award of Merit** - Maggie Kubina, Student Intern Park Ranger, received an award of merit for her contributions to water safety at Mississinewa Lake, Peru, Ind. Upon Kubina's arrival at Mississinewa

*Continued on page 4*



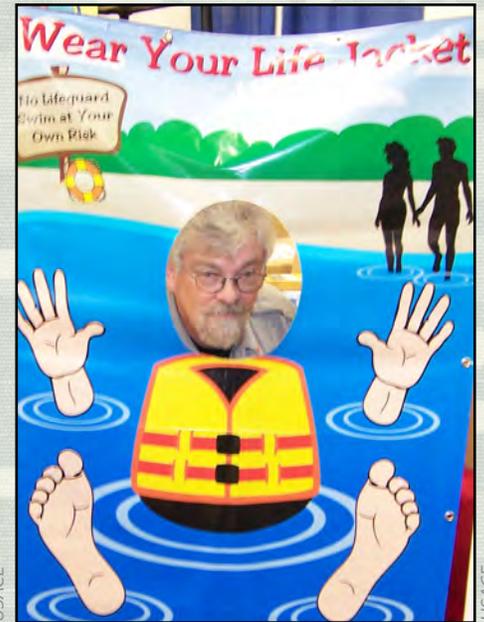
Jim O'Boyle, park manager, William H. Harsha Lake, Batavia, Ohio, was awarded the Regional Award for his contributions to the Corps of Engineers Water Safety Campaign.



The Miami River Area staff received a Letter of Commendation for its water safety education efforts.



Ryan Poland (above), and David Cable (right), recipients of a National Water Safety Congress letter of commendation, spread the water safety message at the USACE Water Safety Booth at the 2014 Indianapolis Boat & Travel Show.



*Continued from page 3*

ewa Lake she immediately brought new and creative water safety efforts to the table. During the 2013 season her efforts reached 16,312 persons and increased interpretive contacts by a conservative 652 percent.

**Letter of Commendation** - Park Ranger Ryan Poland, and Operations Manager David Cable, Monroe Lake, Bloomington, Ind., received a letter of commendation for their assistance to a person in distress. During a routine afternoon boat patrol, Cable and Poland noticed a person hanging onto a line at

the stern of a vessel. When he began to swim away toward another vessel, Cable and Poland followed him because he appeared “out of it” and did not respond to verbal commands. Bringing their vessel alongside the swimmer, they threw him a life ring as he began to sink under water. Poland and Cable brought him onboard, likely preventing a drowning.

**Region 3**

**Regional Award** – The Buckhorn Lake and Carr Creek Lake Natural Resources Management Staff received a regional

award for their involvement in events to share the water safety message with the public, promoting water safety for not only children but also young adults.

Rangers with the help of other personnel staffed water safety booths at community events, giving instruction on safe boat operation and proper life jacket wear. Working together, personnel from both lakes were able to make 7,900 direct water safety contacts in Perry and Knott counties.



Buckhorn Lake Park Ranger Billy Griffin and Maintenance Mechanic Nate Hoskins staff a Corps water safety booth.



The Natural Resources Management staff at Carr Creek Lake received a NWSC regional award for their efforts in water safety.

## Columbus Project Office first in Corps to receive OSHA safety award

Carol Labashosky, public affairs

The U.S. Army Corps of Engineers (USACE) Louisville District, Columbus, Ohio, office is the first in USACE to receive the prestigious Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP) certification. The Columbus field office is one of 62 sites across the Department of Defense to earn the designation.

On the sprawling 300-acre Defense Supply Center at Columbus, Ohio (DSCC), in a small double-wide trailer tucked at the back of the complex, a remarkable Corps pinnacle was reached where superb safety practices were saluted. A national award in the form of a ceremonial recognition occurred in the modest building on the campus. A plaque was presented and a large VPP flag—designating Star certification—held by attendees waved proudly outside. The award ceremony was held March 11 at the Corps's Columbus Office. It was widely attended by Corps District leadership, OSHA area office leaders and staff, and Chief of Safety and Occupational Health Richard Wright, USACE Headquarters, Washington, D.C.

The VPP promotes effective worksite-based safety and health. In the VPP, management, labor and OSHA establish cooperative relationships at workplaces which have implemented a comprehensive safety and health management system. OSHA's Voluntary Protection Programs promote effective worksite-based safety and health. The VPP was created in 1982.

Five members of the field staff of the Columbus Office to include regional Louisville District Corps members, had steadfastly ensured that on-the-job safety remained paramount throughout its many construction projects, and that, coupled with their consummate driver safety program, earned them the OSHA distinction. The team enjoyed excellent safety and health records and no injuries on the job. The application for OSHA's VPP began in 2008. USACE Louisville District Safety Officer Matt Burg spearheaded the award process documenting and coordinating through echelons of OSHA management.



(Left to right) Kevin Kunke, Columbus construction control representative; Richard Wright, chief of safety, USACE Headquarters; Maj. Edward Allen, deputy commander, USACE Louisville District; John Hearn, supervisor construction management specialist, WPAFB; Matt Burg, USACE Louisville safety chief; Charles Campbell, Columbus project engineer; Jeremy Cobb, WPAFB resident engineer; Kirk Dailey, USACE Louisville construction chief; Kevin Jefferson, WPAFB area engineer.

Supervisor Construction Management Specialist John Hearn, who is stationed at USACE Wright-Patterson Air Force Base (WPAFB), Dayton, Ohio, area office, which oversees the Columbus office, took the torch from Burg and pressed forward. Thus, the Columbus office jumped ahead of other projects.

Hearn kept his eye on the big picture and pointed out that the future will provide new opportunities for excellence. "It is not a destination but a journey. Just because we got here, does not mean we are going to quit. We must reevaluate and send reports to OSHA annually.

"We are not going to stop, we are going to continue exceeding the guidance OSHA set forth to keep our certification. It's all about employees protecting and watching out for each other," said Hearn. "Safety culture is incorporated into the office to include everybody. This also feeds into the staff of contractors."

"Our safety program, how we keep safe on the job site, is what earned our office the certification," said Charles Campbell, project engineer and current Collateral Duty Safety Officer.

USACE Louisville District Chief of Construction Division Kirk Dailey said, "We can at least take the lessons learned and take the safety culture to our other projects."

Deborah Zubaty, Columbus Area Director, U.S. Department of Labor, OSHA, presented a plaque in recognition of the honor to USACE Louisville District Deputy Commander Maj. Edward Allen. "The Columbus office is the first and the perfect role model," said Zubaty. "It is great opportunity for the Corps to go to others to help them in the VPP process."

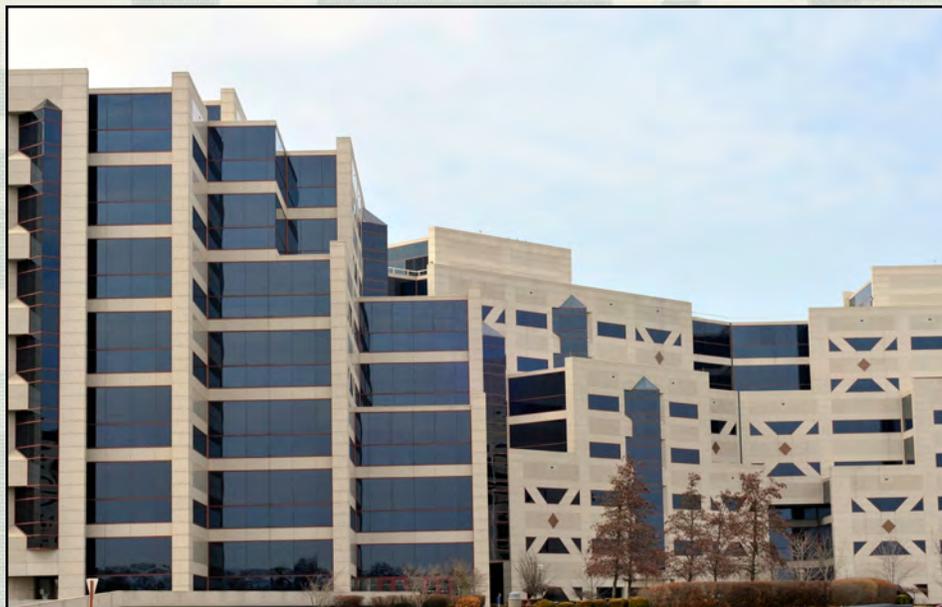
Hearn pointed out that safety practices feed down into the contractors. The process implements controls to protect Corps employees. He said that the WPAFB office is in process to be certified. "We have one site, and we are working on the second one."

Wright made it a point to thank the team on behalf of the entire Army Corps of Engineers Headquarters, "You are the perfect role model."

The Department of the Army is looking to create their own certification system.

Carol Labashosky

# Corps projects abound at Columbus Defense Supply Center



The Army Corps of Engineers built the DFAS in 1999. Its structure and layout is unique, built in a semi-circle with glass and granite panels.

Carol Labashosky, public affairs

A child development center, police station and large-scale 15-acre new gate entrance to the Defense Supply Center (DSCC), Columbus, Ohio are only a few of many Army Corps of Engineers Columbus field office construction projects undertaken on the 300-acre site. The projects serve Department of Defense service members and civilians.

The Center was originally constructed around 1919 and has seen many improvements, which are chronicled on the field office's walls in old black and white photographs. During World War II, the Center was the largest military supply installation worldwide. Service members' missions varied over the years with logistics and huge warehouses supporting the military. Even old, faded khaki-colored jeeps are stockpiled off to the side of newer buildings. The Whitehall area of Columbus sprung up around the Center. Soldiers' quarters did exist on the Center at one time but are now across the street separated with a large security fence. Each one is a stamp of the other which citizens own.

The Corps built the Defense Finance and Accounting Service, two large, tall and imposing red marble-type buildings in the 1990s. The Corps Columbus field office is now renovating the entrance revolving doors to this building.

While the Corps field office has many maintenance duties on the large base—such as replacing interior lighting in buildings and an on-going contract for DFAS maintenance—their meat and potatoes have been erecting and updating commonly-used facilities. The Whitehall Armed Force Center for reservists and national guard members was built in 2008.

A new public safety building now serves as headquarters for the campus police with a green roof, and the old police building was demolished. There is a new child care center.

“We have done a lot of work here and there on the base,” said Charles Campbell, project engineer and current Collateral Duty Safety Officer. A staff of four work at the Columbus field office. They are Campbell; Brad Ryczko, engineering technician; Kevin Kunke, construction control representative; and Randy Randolph, construction control representative.

A current large-scale Corps' construction project is the security and new gate entrance to the installation. As of March 2014, the project is 70 percent complete and work is occurring on different parts simultaneously. The big focus of the project is for state-of-the-art security measures. This activity is coordinated with the Omaha District Center of Expertise. Approximately 8,000 people come and go through security gates so the new gate entrance will be upgraded for total of five lanes with a larger check point and visitor center for in-processing right on the spot. What's most interesting about the vehicle

Continued on page 8



The child development center was another Army Corps of Engineers project built on DSCC. The Child Development Center was expanded in 2011.

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check point is the “under vehicle” security inspection system or UVIS. Because the lanes have not been laid over yet, one can now see many rows of tube-like circular units that will house the electrical and lights which will make inspecting the undercarriage of vehicles state-of-the-art and modernized. This provides for enhanced public safety and security.

The new visitor center is going up quickly adjacent to the gate structure and checkpoint. Many moving parts are being executed, all under the watchful eye of safety officer Campbell and his workmates at the Columbus Project Office. Drywall is being hung, a roof nearly complete, break room, and processing bays for Common Access Cards and visitor IDs. The building is handicap accessible and built to withstand tornadoes. The gate house also has a structure to house communications and an electric system to power the units which are geothermal.

Providing for every possible security breach, the Corps is having the prime contractor Pinnacle, construct active vehicle barriers as part of the project. The active vehicle barriers would rise by DSCC police activating the system to prevent unauthorized access. A detention basin—already built—rounds out this project that will attract water fowl and enhance the environment.



Carol Labashosky

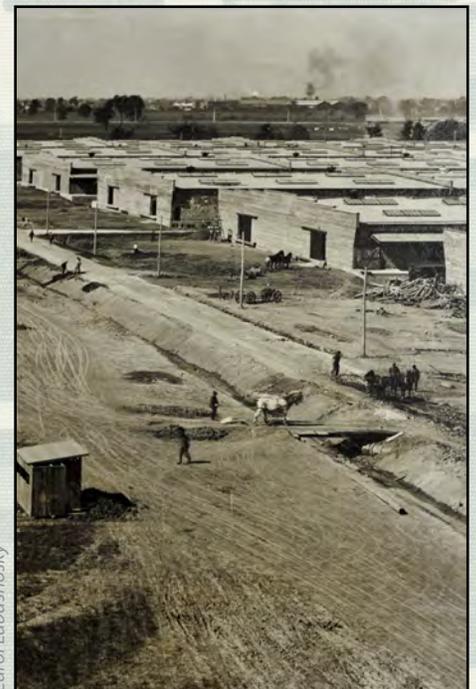
The Under Vehicle Security Inspection System “cylinders” contain components that enhance vehicle security at the Center’s checkpoint.

Just a few more details that Tony Zimmerman, project manager and quality control manager, would like to contribute to illustrate the construction: more than 8,500 tons of asphalt base will ultimately be placed. Already, more than 4,700 tons have been placed. To support power, communication and security needs, the underground duct banks have a whopping 17 miles of conduit protected by 1,300 cubic yards of concrete.

“Our office has enjoyed the projects at DSCC and is appreciative of the opportunity to continue working on our ongoing projects,” said Campbell.



Randy Randolph and Charles Campbell stand on the active vehicle barriers of the security and new gate entrance. The active vehicle barriers would rise by DSCC police activating the system to prevent unauthorized access.



USACE

This historical photo is from 1911 during the construction of warehouses 1 through 7 at DSCC.

# Webelos visit construction project at Fort Campbell



Bill Cottle, Balfour Beatty project manager, shows a troop of Webelos an aerial view artist rendition of the completed EAB Barracks Facility at Fort Campbell.

Sarah Mattingly, public affairs

To earn their Engineering badges, Webelos I Den, Pack 412, at Heritage Christian Academy in Hopkinsville, Ky., visited the Design Build Echelon Above Brigade (EAB) Barracks Facility at Fort Campbell in March. The Scouts

viewed architectural, mechanical and electrical plans for the nearly complete project and were briefed at the job site by Bill Cottle, project manager for contractor Balfour Beatty, and Craig Carder, superintendent for Balfour Beatty. During a tour of the project, Scouts witnessed various

types and stages of construction such as civil work, a large mechanical room complete with geothermal HVAC equipment, a barracks common area and a soldiers suite.

“There were lots of good questions asked and answered,” said John Reed, senior project engineer at Fort Campbell’s north resident office. “Overall it was a good educational experience for these Webelos to earn their Engineering badges, and an opportunity for us to show their leaders how their tax dollars support our troops.”

When completed, the project will include two four-story barracks (204,638 square feet) housing 528 soldiers in 264 living units. Building grounds include covered pavilions, courtyard, soccer field, two softball fields, volley ball courts and horseshoe pits. The design includes sustainable energy features such as high-efficiency material choices and geothermal HVAC units for heating and cooling, which will assist in making the project USGBC LEED “Silver” certified.

John Reed

## Reserve

# NY Reserve Center will be completed soon

Carol Labashosky, public affairs

The Army Corps of Engineers Louisville District is constructing an Army Reserve Center (ARC) at Binghamton, N.Y.

Primary facilities include land acquisition and construction of an ARC training building, Organizational Maintenance Shop, unheated storage building, and organizational parking. Buildings will be constructed with reinforced concrete foundations, concrete floor slabs, structural steel frames, masonry veneer walls, standing seam metal roof, Heating, Ventilation, and Air Conditioning (HVAC), plumbing, mechanical systems, security systems and electrical systems. Also included in the project are land clearing, paving, fencing, general site improvements and extension of utilities to serve the project.

Accessibility for the disabled will be provided to support the wounded warrior program. Physical security measures are incorporated into design including maximum standoff distance from roads, parking



Edward Borden

areas, and vehicle unloading areas. Berms, heavy landscaping, and bollards— short posts set at intervals to delimit an area— will be used to prevent unauthorized access. Sustainable Design and Development (SDD) and Energy Policy Act of 2005 (EPA05) features are also incorporated.

The project started in Sept. 2012, and it is scheduled for completion in April 2014 and is currently 86 percent complete.

The contractor is J. Kokolakakis Inc., a general contracting firm out of Long Island, N.Y.

## Military Munitions Response Program

### Rock Island Arsenal achieves response complete at former test range

Todd Hornback, public affairs, and  
Nora Hawk, environmental support

The Environmental Protection Agency and the Garrison Commander signed the Final Revised Action Memorandum Feb. 18, 2014, noting the U.S. Army Corps of Engineers (USACE), Louisville District, completion of the response actions under the Military Munitions Response Program at the Rock Island Arsenal former test range in Illinois.

“This project substantially reversed 100 years of environmental impact associated with weapons testing on Rock Island Arsenal,” said Mark Jacobson, construction manager, USACE, Louisville District Arsenal Field Office.

The Former Test Range is a five-acre site used between 1904 and 1995 to test various weapons. The Army constructed two concrete and armor-plate bunkers in 1944 to capture projectiles fired from test tanks and artillery components. The bunkers were also reportedly used for explosive ordnance disposal when responding to unexploded ordnance incidents.

The Corps, in support of the Rock Island Arsenal Directorate of Public Works and Army Environmental Command, conducted the environmental restoration on the former test range—the arsenal’s only MMRP site.



Environmental Quality Management, Inc.

The Corps environmental restoration left this bunker building in place to preserve the integrity of the arsenal’s flood wall.

The multi-year action to remove munitions and explosives of concern was completed in 2012 and included:

- 1) Removal, demilitarization and recycling of 66,000 pounds of munitions debris
- 2) Removal and disposal of more than 2,000 tons of bunker sand and soil as a non-hazardous waste
- 3) Removal and disposal of more than 19 tons of construction debris and

organic material

- 4) Cleaning and sealing of the two former bunker buildings. The buildings were left in place rather than being demolished to maintain the integrity of the arsenal’s flood wall.

“The project delivery team persevered in achieving concurrence from all government agencies and proper regulatory closure to this project despite delays associated with federal funding during the budget crisis,” Jacobson said.

Overall, approximately \$1.1 million was spent on the investigation and response action at the site. Only long-term management activities are now needed at this site, which include an annual inspection of the former Test Range site by the Arsenal’s Directorate of Public Works and to ensure that established land-use control requirements are maintained at the site.

The Louisville District will also support Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Five-Year Reviews at the installation.



Environmental Quality Management, Inc.

The environmental restoration work in 2011 shows munitions debris to be recycled or removed and the clearing of a bunker building.

## Base Realignment And Closure (BRAC) Program

# Remedy In Place (RIP) for Former TNT Washout Plant

Todd Hornback, public affairs, and  
Nora Hawk, environmental support

A determination of Remedy in Place, known as RIP, by the U.S. Environmental Protection Agency, marked a critical milestone for the Former Savanna Army Depot, Ill., allowing innovative methods to substantially complete work at four of five sites.

After the treatment of groundwater at the fifth site is complete, long-term monitoring of groundwater will continue for approximately 30 years at all the sites to ensure that groundwater quality remains protective of human health and the environment.

“We evaluate the contaminant levels each month during the summer. At the end of the year we will see if we need to continue,” said Todd Knuth, Louisville District project engineer. The frozen ground deters monitoring during winter months.

Recently, the 11-acre Former 1934 Outdoor Washout Plant (Site 111), used between 1933 and 1936 to wash out ammunition, achieved RIP due to the successful construction and operation of an on-site soil flushing and groundwater treatment system.

Since 2011, the soil flushing process has been used onsite to remove contaminants from the soil and water—specifically trinitrotoluene, known as TNT.

“We have extraction wells downstream of the groundwater flow. From these wells, we pump it through a carbon filter system,” said Knuth. “We reapply the groundwater upstream or on top of the areas where we believe the contamination is located. The water goes through sand within the soil and helps flush the TNT into the groundwater. Sampling is done on a monthly basis. The data is plotted to assure the TNT levels are dropping.”

The U.S. Army Corps of Engineers, Louisville has worked at the site, a 13,062-acre inactive Army Installation in Savanna, to conduct Base Realignment and Closure environmental response activities since the mid 1990s.

“Before we began our flushing system, we dumped lime on the soil and tilled it in with an oversized rotor tiller,” Knuth said. “That treatment knocked the TNT levels down within a month.”

To date, soils at the site have been successfully treated and the TNT concen-



At a typical treatment area, piping distributes extracted water that has been filtered through carbon vessels back to the soil to create a continuous flow of water through the soil to the groundwater.

tration detected at 1.8 parts per million, which is well below the protective standard of 50 ppm. Groundwater concentrations have been reduced to a point where only one of three extraction wells requires operation. Soil flushing at this area will continue until groundwater concentrations at this location fall and remain below 14 parts per billion.

The depot was placed on the Comprehensive Environmental Response and Compensation Act National Priorities List as a “Superfund Site” in 1989, prior to its 1995 Base Realignment and Closure designation. Army operations at the Depot began in 1917 and included the intermittent handling, processing, and storage of munitions, explosives, and industrial chemicals over an eight-decade time span. As part of BRAC, the Corps conducted an installation-wide Environmental Baseline Survey that identified areas where storage, release, or disposal of hazardous substances or petroleum products or their derivatives may have occurred. This survey identified areas that required further evaluation and the Louisville District has been working since that time to assess and remediate those impacted sites.

Between 1995 and 2009, investigative and response activities at Site 111 identified elevated soil and groundwater concentrations of residual explosive compounds. These compounds posed a risk to human health and the environment. The predomi-

nant contaminant, 2,4,6- TNT, was present in soil at 3,750 ppm and in groundwater at 640 ppb.

How successful has the environmental restoration worked? According to Knuth, “Out of the five treatment areas, four were down below remedial goals within a year. The only thing left in those four areas is to remove the flushing equipment. The natural vegetation is coming back.”

The project’s success has also left the BRAC office giving top five-star designations to the Savannah project delivery team.



Shown here are the carbon vessels (blue tanks) that filter the water and the control center (trailer) that monitors the ground water extraction and rate of water application to the treatment areas.

## How well do you know your partners?

### Long-serving team members share closer look at lives of distinction



Courtesy Glenn Johansen

The bridegroom Tom Duffy (left) and his best man Glenn Johansen in England.

Jon Fleshman, Olmsted Division

**Glenn Johansen's** burly frame fits his latest job title on the Olmsted Dam construction project: heavy lift superintendent. Along with his team he's responsible for operating and maintaining the giant gantry crane and catamaran barge that transport the 3,500-ton concrete and steel dam shells from the casting yard to the Ohio River.

His first job out of high school, recalls the Louisiana-born, Mississippi-raised Johansen, was in the oil field industry on tug supply boats. He came to Olmsted more than six years ago as a pile-driving supervisor after 20 years in the north eastern U.S. as a bridge rigger and structural engineer. He also set grout mats at Olmsted before he became the heavy lift super in 2009. Now he's in charge of assembling the lift frames on the dam shells, testing and assembling the flat jacks, lifting the shells onto the cradle for their ride down the skid way, lifting them onto the catamaran barge and then lowering them into the river as components of the dam.

"My proudest achievement here is the team we've assembled in the heavy lift section," Johansen beams. "When we first started they couldn't even spell strand

jack."

The strand jacks are the hydraulically operated lifting devices each capable of lifting 1,100 tons that are mounted on the gantry crane and cat barge. Johansen and his team are also responsible for their maintenance and operation. His work with the strand jacks was how he met Tom Duffy, the Dohrman-Long strand-jack consultant out of the United Kingdom who flies in during low-water season when the monoliths are on the move.

"I met Glenn four years ago when I first came to the Olmsted project," recalls Duffy in his distinctive Scottish accent. "Traveling from project to project may sound glamorous...but it can be a very solitary, soul-destroying existence – no real roots, so to say. Glenn and Christie made it feel like home away from home, and when I brought my future bride, Aimee, with me, we all became great friends."

The Johansen's hospitality and Glen's friendship made such an impact that Duffy had no difficulty selecting his best man when the time came. A kilt and sporran were optional dress, but Johansen was game.

"My family tartan is Macfie, the Gaelic for Duffy, but I chose to wear my

*Continued on page 8*

Jon Fleshman, Olmsted Division

For **Tim Swisse**, sitting still to recall things he did over a span of 46 years does not come naturally, not while he's the Olmsted Dam project general superintendent, having to constantly coordinate with cost accounting managers, project's directors, the environmental section and the unions representing crafts at the work face.

"Tim's experience and ability to communicate with the craft personnel make him a valued member of the Operation Dam Excellence team," says his boss Jim Beckerle, Olmsted deputy project manager for the joint venture.

In between Swisse's phone calls and pop-up hallway meetings, we were able to establish that the Wyoming native transferred to Olmsted in 2005 from Rocky Flats, near Denver, Colo., where he had worked remedial action projects for the Department of Energy for 21 years. His first construction job, however, goes back to 1967 and the building of the Libby Dam

on the Kootenai River in Montana.

"I started at 18, right out of high school," says Swisse. "We poured four million cubic yards of concrete to build the dam more than 400 feet tall. I started as a laborer placing concrete, then to foreman and gradually worked my way up. In 1978 I moved to salary and my first job (in that position) was in Iran. I saw my first computer on the project about 1996 and by 1999 we were more involved (with them) and trained on site. And I'm still learning."

The Paducah, Ky., resident estimates he's worked in 30 states as well as two countries in southwest Asia. He worked on the Corps of Engineers' project building King Khalid Military City in Saudi Arabia – a complex that housed thousands of service members during the first Gulf War. Swisse was in Iran for a highway construction project when the Ayatollah Khomeini returned from exile. The project was never built and he had to be evacuated before the political situation deteriorated.

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Olmsted dam general superintendent Tim Swisse

Jon Fleshman

mother's side of the family – a Galloway dress tartan for the wedding with a Macfie sporran," Duffy explains. "He wore it very well, I may add."

Duffy says when he told his friends Glenn and Christie were "coming over the pond" to his wedding, one of his less well-

traveled friends remarked: "What? A real live Yank is coming?" The Paducah couple was very well-received and, according to Duffy, they will have a place to sleep in Scotland, Wales and England upon their return.

Duffy's admiration for the unassuming American kilt wearer also extends to the

work site. "Working with Glenn and the Olmsted heavy lift team I can say with my hand on my heart they're the safest, most professional, conscientious group of men and women I have ever encountered in all my years of working in the heavy lift industry."

Swisse - Continued from page 7

For Swisse, some of the best moments on the Olmsted project have been placing the first dam shells in the Ohio River and "seeing the lower pier shells turning into upper piers coming out of the river."

When it comes to partnering to improve delivery of the Olmsted Dam, Swisse emphasizes open and honest communication between the customer and the contractor, a high level of integrity, and

understanding and respecting the customer. "As contractors we're obligated to protect the customer," he says.

The Swisse children are proof the family has engineering in its DNA. His two daughters, a freshman and a junior, are studying chemical engineering at the University of Kentucky, College of Engineering, Paducah Campus. His oldest son works at Smithland Locks and Dam, 47 miles upriver from Olmsted, and is work-

ing on a degree in mechanical engineering. His youngest son works at Kentucky Dam on the Tennessee River.

Though he and his wife Marcy have put a lot of effort into improving their home and its surrounding 19 acres in Paducah, Swisse says they will probably move back to Colorado one of these years. When? "I'd like to make it to the 50-year mark," he replies with a smile.

# Spotlight

## Staff at Harsha Lake finds low-cost solution to safety hazard

Sarah Mattingly, public affairs

While preparing to begin extended work inside the conduit and control tower at Harsha Lake, Batavia, Ohio, the maintenance staff discovered that the lock out/tag out procedure (the process of cutting off all power to machinery or equipment, thereby preventing the release of hazardous energy while employees perform servicing and maintenance activities) in the dam control tower left room for potential danger.

Often, work in the conduit is done below the water level, so lockout/tagout ensures there is no inadvertent movement of gates or water that could endanger employees. The old lockout/tagout procedure involved turning off the electricity and removing handles from the hydraulic control valves. The Harsha Lake staff discovered that even with those safety measures in place, the hydraulic pressure within the valves could still be released, lowering the gates.

"We had been working in the control tower a lot getting ready for our periodic inspection in fiscal year 2015," said Keith Chaney, maintenance chief. "As a team with my Maintenance Mechanic Todd Hansen and Maintenance Worker Brian Wilson, we would throw ideas back and forth to each other while we were working in the tower. Finally, we came up with the design that we thought would work."



Keith Chaney, maintenance chief; Todd Hansen, maintenance mechanic; and Brian Wilson, maintenance worker; show off the new lockout/tagout boxes in the control room.

The team worked with a local welder to create lockable boxes that would completely cover the valves, preventing any accidental release of energy—a simple but elegant solution to the existing hazard.

"When you identify a hazard, it is your responsibility to eliminate or reduce the hazard down to an acceptable level before moving forward with the task. These guys did just that," said Mark Ostbloom, Louisville District safety specialist.

"The initiative these Corps employees took on their own, with support from their

Park Manger, Jim O'Boyle, illustrates their commitment to safety and protecting their fellow employees," he added.

"Safety is something our maintenance staff takes seriously," said Jim O'Boyle, Harsha Lake park manager. "One way we improve safety is to look at ways we can engineer safety measures to counter the human error factor that so often is the root cause of safety mishaps. Our Maintenance Chief, Keith Chaney, is very proactive in making safety improvements and this lockout/tagout system is a good example."