

# ENGINEER UPDATE

U.S. ARMY CORPS OF ENGINEERS

Vol. 34 No. 12 December 2010

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## Flood control project to begin in Washington, D.C.

*By Tina Carlsen*  
*Baltimore District*

The National Mall of Washington, D.C., was originally built on low-lying swampy land that flooded when the Potomac River rose. Years of work have built up the area so that it no longer floods regularly, but some of the capital city's downtown still lies in a 100-year flood plain.

On Nov. 15, representatives from the federal government and the District of Columbia gathered at the Washington Monument to officially announce improvements to the Potomac Park levee system in Washington, D.C. The existing levee has been in place since the 1930s. It extends from near 23rd Street, runs parallel to the Lincoln Memorial Reflecting Pool, and ends on the grounds of the Washington Monument east of 17th Street.

Under the 1930s plan, during a major flood the National Park Service is responsible for providing temporary closure

at 17th Street near the Washington Monument. The closure would be a combination of sandbags, Jersey barriers, and soil excavated from the grounds of the Washington Monument. But this system is cumbersome and time consuming to build, and the new project will replace it with a more reliable post-and-panel closure system.

### Post and panel

The closure at 17th Street is a critical choke point for flood water, and it is imperative that a reliable closure be built there to prevent flood waters from flowing into the Federal Triangle and downtown of Washington, D.C. The new post-and-panel closure will be connected to permanent masonry walls and earthen berms designed to seamlessly blend with the National Mall.

The design calls for a number of caissons to be set into

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Artwork courtesy of Baltimore District

This artist's concept drawing shows the flood gate's location on the National Mall. The Washington Monument is at lower right; the World War II Memorial at lower left. The flood gate is the semi-circular construction that straddles the vertical street at upper left.

*Insights*

# Faith, action make a solid foundation

**By Col. Gary Sexton***Chaplain, U.S. Army Corps of Engineers**(This is another in a series about spiritual discipline.)*

With a degree of trepidation, I step into the world of the structural engineer with this article. I'm not an engineer, but I have a son who is a senior at Virginia Military Institute majoring in civil engineering, and who has been selected for commissioning in the Engineer Branch.

My son tries to explain many of the concepts he has learned, despite the fact that I flunked calculus in college. But it is exciting to see him enthusiastic about his future as a young lieutenant and leader in the U.S. Army. He is confident in the foundation that has been laid in his studies, and by participating in the U.S. Army Reserve Officer Training Program. He speaks of having a solid footing for his service to the nation.

His words set me to thinking that architecture has often been used as a symbol for spiritual and emotional strength and stability. In modern times, America has watched the construction of the Freedom Tower at Ground Zero in New York City. The tower will be 1,776 feet tall, rests on a foundation 200 feet wide on each side, and includes a 186-foot-tall windowless wall of concrete designed to withstand blasts from car and truck bombs.

The purpose of the Freedom Tower is to memorialize those who were lost in the attack on Sept. 11, 2001, and to show America's resilience as we continue to build a bright future of liberty and opportunity, symbolizing that faith in the American dream is alive and well.

In the New Testament, Jesus offers a vivid illustration of how the foundation of a person's life is established by faith in action. This simple parable is a profound reminder of the need for a firm faith foundation.

Jesus said in closing his Sermon on the Mount, "Therefore, everyone who hears these words of mine and puts them into practice is like a wise man who built his house on the rock. The rain came down, the streams rose, and the winds blew and beat against that house; yet it did not fall because it had its foundation on the rock.

"But everyone who hears these words of mine and does not put them into practice is like a foolish man who built his house on sand. The rain came down, the streams rose, and the winds blew and beat against the house and it fell with a great crash." (Matthew 7:24-27)

Note Jesus' double emphasis on hearing and doing. James, the brother of Jesus, wrote in a letter concerning the relationship between faith and deeds. "What good is it, my brothers, if a man claims to have faith, but has no deeds? Can such faith save him?"

"Suppose a brother or sister is without clothes and

daily food. If one of you says to him, 'Go, I wish you well; keep warm and well fed,' but does nothing about his physical needs, what good is it? In the same way, faith by itself, if it is not accompanied by action, is dead." (James 2: 14-17)

Faith and action may be compared to two of the major ingredients in a well-built concrete foundation – cement and aggregate. Without cement, the aggregate is just a pile of loose rubble, while the aggregate gives the cement greater strength and bulk.

In the same way, faith and action builds a solid foundation upon which we may build our lives, anchor our hopes and dreams, and leave a legacy of spiritual greatness.

The writer to Hebrews offers us insight into the nature of this foundational faith. "Now faith is the substance of things hoped for and the evidence of things not seen... And without faith it is impossible to please God, because anyone who comes to him must believe that he exists and that he rewards those who earnestly seek him." (Hebrews 11:1, 6)

Have you storm-proofed your life?

*(The opinions expressed in this article are those of the writer and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)*

## Flood control project

**Continued from page 1**

17th Street and the shoulders beside the road. During a major flood, steel columns would be set into the caissons to support the aluminum panels that will form the temporary closure. When set in place, the closure will measure 9 feet high by 140 feet long.

When not in use, the caissons will be covered, and the posts and panels will be stored on two flatbed trailers at the National Park Service maintenance facility on New York Avenue.

### ARRA

On Sept. 16, Baltimore District awarded a \$4.6 million construction contract to Hirani Engineering & Land Surveying, P.C. Work on the new closure is scheduled to begin this month and be complete by next summer. The project is funded by the American Recovery and Reinvestment Act (ARRA).

The contract award followed an unprecedented collaboration among agencies, including the U.S. Army Corps of Engineers, National Park Service, National Capital Planning Commission, District Department of the Environment, U.S. Commission of Fine Arts,

Federal Emergency Management Agency and other District of Columbia agencies.

"Baltimore District is proud to be part of this important project," said Col. Dave Anderson, district commander. "It will benefit the citizens of Washington, D.C., and the millions of annual visitors to the National Mall. We're eager to get started."

### Cooperation

The National Capital Planning Commission took the lead in coordinating the various agencies:

- The National Park Service contributed funding to complete the NEPA and NHPA compliance and initiate the project design, and will provide an additional \$1 million for finishes, surface treatments and landscaping to complete the project.
- The District of Columbia government managed the design process and provided the funding for the design phase of the project.
- USACE provided technical guidance and secured ARRA funding to complete the design and fund the construction of the project.
- The U.S. Commission of Fine Arts, the D.C. His-

toric Preservation Office and FEMA provided technical guidance vital to the success of the project.

### America's front yard

Compounding the complexity of this project is the levee's location on the National Mall, sometimes called "America's front yard." The structures at risk are historically significant, as is the landscape into which a new flood control structure must be inserted.

"The levee's location on the National Mall required extensive review and collaboration among partnering stakeholders to be sure the design meets both engineering requirements and is appropriate for one of the nation's most important historic landscapes," said Harriet Tregoning, director of the DC Office of Planning. "At the same time, this structure provides essential flood protection to local property owners and iconic federal buildings and institutions. This is a great example of local and federal cooperation."

The curvilinear design of the levee and the reconfiguration of what were once diagonal walkways on the west side of 17th Street will better integrate the levee into the existing topography.

**ENGINEER UPDATE** is an unofficial publication under the provisions of AR 360-1. It is published monthly by offset for the Headquarters, U.S. Army Corps of Engineers.

Editorial views and opinions expressed are not necessarily those of the Corps of Engineers or the Department of the Army. Letters to the editor are encouraged.

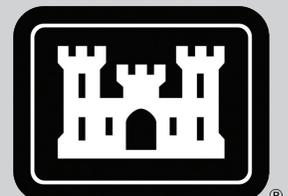
Deadline for submitting articles is the 15th of the month preceding publication. Subscriptions are available free of charge but must be requested in writing. Circulation: 35,000.

Address mail to: EDITOR, ENGINEER UPDATE, CEPA-C, Washington, D.C. 20314-1000.

Telephone (202) 761-4285. Photographs are U.S. Army photos unless otherwise credited. Available on the internet at

[www.usace.army.mil](http://www.usace.army.mil).

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# Prime Power School moves to Missouri

By Amy Phillips and Diana McCoy  
Kansas City District

Kansas City District completed a \$30 million state-of-the-art school and handed it over to the 249th Engineer Battalion (Prime Power) in a ribbon-cutting ceremony at Fort Leonard Wood, Mo., on Nov. 22. The facility houses the U.S. Army Prime Power School, which moved from Fort Belvoir, Va., under the 2005 Base Realignment and Closure program.

The building is a unique school for a unique unit. The 249th Engineer Battalion is the only prime power production unit in the U.S. Army, and the only active-duty unit assigned to the U.S. Army Corps of Engineers. Their Soldiers generate commercial-grade electricity from 600 volts up to 69,000 volts at up to 3.2 megawatts. They provide the electricity to military installations and federal relief organizations during any kind of operation ranging from training to disasters to war.

The battalion's Soldiers hold the 12P military occupation specialty (12 for the engineer branch, P for prime power), and the Prime Power School is the only school that trains this MOS.

The 77,000-square-foot facility replaces a World War II-era warehouse at Fort Belvoir that had been converted for the Prime Power School. The new school houses administrative offices, conference rooms, classrooms, instruction laboratories, an auditorium, equipment training areas and outdoor equipment testing for the 12P Soldiers.

Administrative staff has already begun



Photo by Robert Tobias, Kansas City District

**The new U.S. Army Prime Power School, built by Kansas City District, relocated from Fort Belvoir, Va., to Fort Leonard Wood, Mo. The new 77,000-square-foot facility is on track for LEED Gold certification.**

to occupy the building, and the first class in the new facility will begin in January.

"Since the Engineer School is already at Fort Leonard Wood, it only makes sense to bring the Prime Power School here," said Command Sgt. Maj. Micheal Buxbaum, command sergeant major of the U.S. Army Corps of Engineers. "It's part of the natural progression."

Mark French, Kansas City District's project engineer, said he was honored to build for the Corps.

"It's unusual to build for ourselves," French said. "We're proud to turn it over to Fort Leonard Wood and the 249th Engineer Battalion."

The district used the early contractor involvement (ECI) delivery method with this project due to tight budget constraints. The district has been a champion

of the ECI method because it provides flexibility and allows incorporation of lessons learned throughout the project.

"Initially, we didn't have the money to fund the project," said Travis Lynch, one of the district's resident engineers at Fort Leonard Wood. "Thanks to ECI, we were able to make changes in the design to get the project under budget."

The project began construction in February 2009. French said the contractor, JE Dunn, did an outstanding job performing under tight constrictions and keeping the project on schedule. "Their quality of work on the project was first-class," French said.

The U.S. Green Building Council (USGBC) gave the Prime Power School a LEED (Leadership in Energy and Environmental Design) Silver certification. The facil-

ity uses a number of high-tech systems to conserve energy: it has highly reflective roofing material that minimizes heat infiltration; sensors in the rooms detect motion and natural light, and conserve energy by automatically adjusting the amount of artificial light depending on whether the room is occupied and how much natural light is present; and 92 percent of the construction waste was recycled.

Lynch says even though the facility is certified LEED Silver, initial feedback from the USGBC indicates that it should be LEED Gold.

"This training facility has set a new standard for environmental stewardship, and is on track to be the first certified LEED Gold facility ever built at Fort Leonard Wood," said Maj. Gen. Merdith "Bo" Temple, deputy commander of USACE.

"It's been very satisfying to complete a large project like this," Lynch said. "It was a very positive project throughout, and everyone on the team focused on the end goal."

Maj. Gen. David Quantock, commanding general for the Maneuver Support Center of Excellence and Fort Leonard Wood, officially accepted the new Prime Power School.

"I can't tell you how excited we are to have this great facility and this great team at Fort Leonard Wood," Quantock said. "Just a few days ago we cut the ribbon on one of our star bases, and today we cut the ribbon of a state-of-the-art prime power facility. It seems like every week the skyline is changing here, and we're very proud to be part of this rapid change."

## ERDC receives new Cray supercomputer

By Megan Holland  
Engineer Research & Development Center

The Department of Defense Supercomputing Resource Center at the U.S. Army Engineer Research and Development Center (ERDC) in Vicksburg, Miss., recently received a new Cray XE6 supercomputer, which enables ERDC to be a leader in providing computational capabilities and expertise for DoD users worldwide.

"This represents a huge boost in our ability to solve the most complex science and engineering problems for the Army and DoD," said Dr. Reed Mosher, director of the ERDC Information Technology Laboratory, where the Supercomputing Center is located. "These systems form the computational backbone of the support we provide to the defense mission."

With 20,224 AMD processors, the XE6 operates at 194 trillion calculations per second, and is now in operation. It brings the computational capacity at ERDC to 437 trillion calculations per second. An SGI Altix ICE 8200 and a Cray XT4 are already operating at the facility, making



Photo courtesy of ERDC

**The new Cray XE6 supercomputer is decorated with the logo of the Defense Supercomputing Resource Center.**

the ERDC Supercomputing Center one of the most powerful unclassified computing centers in the world.

"ERDC supercomputers are used to tackle some of the

most complex and challenging national security problems, ranging from the potential impact of terrorist attacks to the coastal storm surge of hurricane systems in the Gulf of Mexico," said Dr. Robert Maier, director of the Defense Supercomputing Resource Center. "This increase in computing capability comes with no net increase in our maintenance budget. We're capitalizing on Moore's Law and industry trends to deliver greater engineering design capability with increased operational efficiency."

(Moore's Law states that computational power will double about every two years. It was first stated by Gordon Moore, co-founder of Intel.)

The ERDC Supercomputing Center serves more than 1,000 science and engineering users as part of the DoD High Performance Computing Modernization Program.

ERDC is the premier research and development facility for USACE, with more than 2,500 employees, \$1.2 billion in facilities and an annual research program exceeding \$1.2 billion. It conducts research in both military and civil works mission areas for the Department of Defense and the nation.

# New USACE CoP

## Capacity development builds host nation capability

By Sheryl Lewis  
Headquarters

President Obama recently signed a Presidential Directive on Global Development that recognizes that development within other nations is vital to U.S. national security. This directive, the first of its kind, provides guidance to all U.S. government agencies through a set of core objectives, an operational model and a modern architecture to implement the policy.

The policy encompasses the broad areas of economic growth, democratic governance, game-changing innovations, security, and emergence from conflict, poverty, hunger and disease. Sustainable development involves a coordinated approach by foreign and domestic stakeholders that leverages resources across U.S. government agencies, other governments, international organizations and non-governmental organizations.

The U.S. Army Corps of Engineers has an important role in obtaining sustainable development objectives, because the work USACE performs internationally helps lay the foundations on which foreign nations can build for the future.

USACE has established a capacity development business practice for international programs and projects. The Corps' approach to capacity development was designed to be compatible with the processes of other organizations involved in capacity development world-wide. This includes a three-level framework:

**Level 1 – Enabling Environment:** Conditions and guidelines are set for conducting all work to be performed. It includes national policy, legal systems, regulations, political institutions and market economy considerations. USACE does not typically have direct authority to influence the enabling environment within a host nation, and therefore must recognize the limitations and opportunities presented by the existing environment.

**Level 2 – Organizational:** This level consists of leadership, administrative structure (e.g., payroll system, human resources system, training systems and methods and decision-making processes), and the culture required to achieve external and internal goals.

**Level 3 – Individual:** This pertains to the knowledge or skill of an individual who conducts a particular work scope. It includes the motivation and ability to set

objectives and to achieve those objectives using that knowledge and skill set. The enhancement of technical competencies is a fundamental goal of the Corps' mission in providing capacity development.

### Who benefits?

Capacity development is important to USACE and to other parties involved because it increases the likelihood that the program or project will be sustained and that intended impacts will be realized. This has the following benefits:

- Conditions are improved for people in the host nation.
- The host nation is better able to manage its affairs without relying on other countries.
- The program or project is more likely to succeed in the long-term, so the investment made by the U.S. government is better protected.

There are many complex issues that can affect program or project outcomes, and capacity development helps influence the outcome by focusing on areas where USACE has a degree of control. The literature in this area is rich with examples of how forethought, planning and coordination can effectively achieve objectives and sustainable results.

Capacity development solutions range from simple to complex, short duration to long duration, and from insignificant cost to highly expensive. Responsible planning for each program or project requires that we consider how to best increase the odds of long-term success in the environment where we must operate.

### Is capacity development new?

USACE has employed aspects of capacity development for decades, often as common-sense methods of project management or best engineering practices. USACE has used various training, teaching and mentoring programs aimed at strengthening public and private sector management, engineering and technical capabilities to support self-reliance in host nations.

USACE also conducts activities such as technology transfer, where the direct mission is to develop capacity and capability.

But in the past, the extent to which capacity development needs have been addressed in has largely been a function of

the knowledge, experience and foresight of the program or project manager.

Today, capacity development is a structured process and a required aspect of program and project management. The process, described below, requires program and project managers to become capacity development advocates, and to always consider the extent to which capacity development may be applicable or necessary, beginning with the initial planning phase.

### Capacity development process

The formal capacity development process is intended to drive consideration of capacity development needs at the program and project levels. It does not mean that "one size fits all." The process must be flexible and tailored to fit planning and implementation needs of each program and project.

Capacity development may be implemented to some degree throughout the spectrum of conflict, from peace to war. The extent of involvement and the types of activities that can be conducted are obviously more restricted during war, so opportunities to increase host nation capacity in this type of environment must be carefully considered.

Options for capacity development are obviously greatest during periods of peace and stability operations.

The five steps of the capacity development process are:

- Determine the capacity development applicability to a given situation.
- Develop and design capacity development requirements.
- Implement capacity development.
- Assess the results.
- Get feedback on the results and gather lessons-learned.

These five steps align well with the Corps' project life-cycle phases. Detailed instructions for each step are found in Engineer Pamphlet (EP) 5-1-1.

### Keys to success

One key to effective capacity development is integrating these five steps with the program or project baseline cost and schedule. This alignment ensures that capacity development mitigation actions are well-planned, assigned to appropriate stakeholders for implementation, funded and carried out on schedule.

Experience teaches that consideration of capacity development must occur in the initial planning stages. Otherwise, mitigation actions designed during implementation may be viewed as unfunded add-ons that may interfere with the schedule for completion.

A second key for success is the absolute need for a sense of ownership on the part of the host nation. This is achieved by an upfront commitment during the formative stages of the program or project, and is confirmed through meaningful engagement and participation of the host nation in the capacity development planning and implementation. Experience by organizations worldwide shows that the host nation must always be a committed stakeholder and must actively support the mitigation actions.

### Business practice

USACE senior leadership approved the formation of the capacity development business practice in 2008. The practice resides in Interagency and International Services (IIS) in the Directorate of Military Programs. Capacity development was also integrated into the USACE Campaign Plan as Goal 1d in 2008.

An Engineer Regulation (ER 5-1-16), accompanied by EP 5-1-1, was developed in 2009 and an operations order was issued in January requiring USACE managers to consider using capacity development on international programs and projects and specifying the training needs for specific job categories. Web-based training sessions were developed and are now available to USACE staff.

### Community of practice

The capacity development sub-community of practice (CoP), which functions within the IIS CoP, was established in 2008 and has helped shape the business practice.

Additional information on the sub-CoP, including current information, downloads of relevant documents and links to on-line training sessions, can be found on the Engineering Knowledge Online website at <https://eko.usace.army.mil/usacecop/iis/capdev/index.cfm>.

Questions or comments about the USACE capacity development business practice should be addressed to (202) 761-5750

# Park rangers train with verbal judo

By Lisa Coghlan  
Mobile District

Chris Arthur uses Verbal Judo every day to gain voluntary compliance from visitors at Lake Sidney Lanier in Buford, Ga. "It's not enough to be good," said Arthur, chief park ranger at Lake Lanier. "You've got to look good and sound good or it's no good."

We all use language to communicate, express ourselves, get our ideas across, and connect with the person to whom we are speaking. When a relationship is working, communication is relatively effortless. But when a relationship is deteriorating, communication can be frustrating, and may turn ugly and even dangerous.

"The Verbal Judo concept was integrated into our program in the late 1990s, from Dr. George Thompson's program," Arthur said.

Thompson is the author of *Verbal Judo*, which advanced the field of verbal self defense by teaching police officers how to apply the techniques for de-escalating and defusing hostile situations. Thompson is a leading expert in verbal self defense, and still trains law enforcement officers.

Verbal Judo is a tactical communication tool that teaches public officers, including park rangers in the U.S. Army Corps of Engineers, how to respond to deteriorating communication situations by using verbal, non-verbal and personal protection techniques.

Verbal techniques are how you speak to the visitor -- tone and delivery are what the visitors hear. But according to Thompson, non-verbal communication is the single most powerful form of communication. More than voice or even words, nonverbal communication cues you to what is in another person's mind. Nonverbal communication ranges from facial expression to body language. Gestures and use of space are also important in nonverbal communication.

Personal protection techniques are also important. According to Thompson, confidence in your ability to protect yourself may save your life. The rangers practice basic self-defense techniques to deflect grabs and break holds



Photo courtesy of Mobile District

**Chris Arthur, park ranger, talks to a visitor at Lake Lanier. Arthur teaches the Verbal Judo course to USACE rangers.**

until they are confident in their ability to protect themselves from a violent visitor. Personal protection training also includes learning to use pepper spray.

The course has been beneficial to the rangers, Arthur said. He stresses to young rangers that Verbal Judo is one of the most important training courses they will ever take, and they must practice the techniques daily. It must become a way of life, so there is an annual refresher course.

Since 1993, Arthur has been an instructor for the Visitor Assistance Course, which all new USACE rangers are required to take. Arthur teaches the Verbal Judo, tactical self defense and pepper spray training portions of the course.

"Our goal as park rangers is to generate voluntary compliance whether someone has parked on the grass, or they have a dog off of a leash, or the presence of alcohol," Arthur said. "Verbal Judo helps us to facilitate a discussion with the visitor and gain compliance by getting them to do what we want them to do when they don't want to do it."

For the rangers, Verbal Judo is a six-hour training session. "Then it takes a lifetime of practice, because there are so many skills and concepts of the training that can be applied in the field," Arthur said. "The course is good

for anyone who works or has to deal with the public. It was initially created for law enforcement officers, and more than 800,000 officers have been trained in the U.S. USACE came on board with the program, and it really benefits us because we often have the same types of interactions with the public, even though we're not law enforcement officers.

"Verbal Judo teaches that there are hundreds of cultures in the U.S., but there are only three types of people that you will deal with," Arthur continued. "The nice person who will do what you ask the first time, the difficult person who won't comply even when asked several times, and the sneaky person who agrees to comply, but once you leave they go back to doing what they were doing."

"There are eight tactical steps you use on every approach -- greeting, identify yourself, the organization, reason for the stop, the reason for the infraction, identification, forecast and close," Arthur said. "These answer all the, who, what, where and why questions right off the bat."

"When you meet resistance, then we go to the five-step hard style," Arthur continued. "Ask them to do something, such as move your car. Then you tell them why they need to comply -- it tears up the lawn, etc. Present the options -- your car will be towed or a citation could be written. Confirm with them -- is there anything I can say to gain your cooperation? The final step is to act by towing the car, writing a citation or calling local law enforcement."

"Ninety-eight percent of the time people will comply with your request," Arthur said. "Verbal Judo makes it possible to deal with the two percent that won't. We even use Verbal Judo in court and it works extremely well."

So, as the name implies, Verbal Judo can be considered a form of martial art that uses your speech and demeanor to gain compliance.

"Verbal Judo teaches you not to take things personally," Arthur said. "People get up in our faces yelling and screaming. They're mad about the policy or regulation, not necessarily at you. Empathy is important to the public, and your tone and facial expressions must reflect that."

# Special 'bus' built for dam inspections

By Joe Barison  
San Francisco District

Among the U.S. Army Corps of Engineers' unique tools is now a one-of-a-kind vehicle -- a "bus" designed to be driven inside an operating dam.

At least once a year, San Francisco District's two dams must be given a safety inspection. Traditionally, an Operations and Readiness (O&R) Division team, working with a Sacramento District safety engineer, would turn off the dam's water flow so that a half dozen USACE inspectors could walk the length of the pitch-dark outlet tunnel, which is about 14 feet high and 3,000 feet long. Flashlights in hand, these experts would look for cracks, deformations and any other sign of a potential safety problem.

But turning off the water through the outlet tunnel also meant cutting off the stream, killing or endangering fish and other species. In addition, even with the best-gripping shoes, inspectors slipped and fell and sometimes got injured as they walked along the wet tunnel.

A few years ago, Mike Dillabough, chief of O&R Division, decided that the right motorized vehicle could carry the inspection team through the tunnel, making the inspection safer and eliminating the need to turn off the water. But no such vehicle existed anywhere.

So Dillabough started a design competition. He named two teams, engineers and mechanics, and told each to come up with a vehicle design. The two groups, each with its own insights, headed in the same direction until Dillabough combined the people into one working group.

The result: the Motorized Outlet Tunnel Inspection Vehicle (MOTIV), a sturdy inspection platform atop a stable wheeled chassis driven by electric motors. High-intensity electric lights complete an unusual vehicle uniquely designed to safely enter a dark tunnel and wade through running water. According to Dillabough, MOTIV is the only such vehicle in the nation, and perhaps in the world.

The vehicle was used for an inspection the first time at Warm Springs Dam on Sept. 22. It will also be used to inspect Coyote Valley Dam.



Photo courtesy of San Francisco District

**San Francisco District dam inspectors onboard MOTIV begin their journey up the Warm Springs Dam spillway.**

# Bowling at the White House

## *Everglades team tours, bowls at White House*

By **Steven Kopecky**  
Jacksonville District

It's not unusual to hear of someone receiving an award at the White House or touring the White House. But it is unusual to hear of people invited to go bowling at the White House.

On Oct. 22, the White House Council for Environmental Quality (CEQ) sponsored several members of the U.S. Army Corps of Engineers' Everglades team for an event at the Truman Bowling Alley in the Executive Office Building, including a tour of the West Wing in the White House.

The event recognized the achievements in the Everglades Restoration Program in the past 18 months. The ERP is the largest environmental restoration project ever undertaken, and has posed years of unique, complex challenges for planners and engineers. But the program has now turned a corner and has begun implementation.

Thanks to the American Reinvestment and Recovery Act, the ERP has broken ground on five high-profile construction projects since August 2009 -- three by USACE, and two by the Corps' main partner, the South Florida Water Management District (SFWMD).

USACE has begun construction of the Tamiami Trail Bridge, the Picayune Strand Restoration Project, and has awarded construction contracts for the Site 1 Impoundment and Melaluca Eradication Bio-control Facility.

SFWMD, as part of the expedited projects program, has begun construction of the Biscayne Bay Coastal Wetland Project and the C-111 Spreader Canal project.

Additional partnership agreements have been signed for the L-31 Seepage Pilot and the Indian River Lagoon-South Project. In addition, Chief's Reports have been or are being prepared for four additional projects.

Together, these projects represent more than a billion dollars in planned and on-going construction. The Picayune Strand Project alone will rehydrate 55,000 acres of Everglades habitat, and restore a vital area of endangered Florida panther habitat.

The momentum of Everglades' restoration has been noticed by the administration, the National Academy of Science, and the environmental community. In recognition, CEQ and the Assistant Secretary of the Army for Civil Works (ASA(CW)) hosted a recognition event for some of the key USACE team members.

The event recognized as many ERP team members as possible, but the small space severely limited the number of people able to attend.

"My only concern was that there are so many worthy team members, and room to take only a few representatives," said Stacey Brown in Headquarters.

Twenty-four team members were invited to the CEQ office in Washington, D.C., for an extensive briefing with JoEllen Darcy, the ASA(CW). The briefing covered the highlights of the past few years, as well as the challenges associated with keeping up the restoration momentum.

Following the briefing, the team was invited to use the Truman Bowling Alley in the Executive Office Building (EOB) next door to the White House.

The Truman Bowling Alley is in the tunnels beneath



Photos courtesy of Jacksonville District

**The USACE Everglades team (left) got a chance to tour the White House and go bowling at the Harry S. Truman Bowling Alley in the Executive Office Building next door to the White House.**

the EOB. It was built for President Harry Truman, and moved to the EOB in 1955. The bowling alley was also frequently used by President Richard Nixon, and by Lady Bird Johnson, wife of President Lyndon Johnson.

The Truman Bowling Alley is small, with only two lanes, a row of seats and a small snack area. There are no fancy electronic scoring systems, just a pencil and paper. The bowling alley can be reserved for White House staffers, and is often used for events. The Everglades team members were paired with staff from the ASA(CW) office and CEQ for two hours of bowling.

Following a break for dinner at Café Soleil, a restaurant about two blocks from the White House, the CEQ staff conducted tours of the West Wing. Tours can only be taken after-hours and must be led by White House staff.

The West Wing houses the working offices of the White House, including the Oval Office, the Cabinet Room, the Roosevelt Room and the Situation Room. Only the most senior staff have offices in the West Wing, including the vice president and White House chief of staff.

The West Wing has been featured in so many movies and TV shows that most Americans probably think they know it like their own kitchen. But the USACE team members were surprised to see how small the office space is. Apart from the famous conference rooms and the Oval Office, most West Wing offices are small and cramped, often crammed between more formal hallways and offices.

"Seeing the Oval Office was a once-in-a-lifetime opportunity, and I was thankful to be part of it," said Jason Harrah, a project manager from the Jacksonville District.

### *JR Corner*

## Sick leave to count toward retirement

Have you checked your sick leave balance lately? If you are covered by the Civil Service Retirement System (CSRS), your answer is likely, "Yes, I check it often." But if you are under the Federal Employees Retirement System (FERS), your answer is apt to be, "No. Why bother?"

The difference? Since 1969, CSRS employees have received credit toward retirement for unused sick leave, but this incentive was not part of the of FERS program.

That is no longer true! The National Defense Authorization Act (HR2647) was signed by the president on Oct. 28, allowing FERS employees to receive retirement credit for unused sick leave.

Not surprisingly, studies on sick leave use by the Office of Personnel Management, Congressional Research Service and others in recent years reveal significant differences in usage patterns between the two federal retirement systems. It is not uncommon for CSRS employees to retire with a year (2,087 hours) or more of accrued sick leave. Conversely, FERS employees tend to use high rates of sick leave in the years leading up to retirement and end their careers with far lower (or zero) sick leave balances.

Thus, the new sick leave credit will enhance the FERS program and should encourage employees to build a balance that will be a great value to them at retirement.

Under the new provision, FERS employees will receive an additional one percent of their high-three average salary for every 2,087 hours of sick leave they have on the books at retirement.

Be aware that the law prescribes a phase-in feature that provides only 50 percent credit for unused sick leave to those who retire before Jan. 1, 2014. FERS employees who retire on or after Jan. 1, 2014, will receive 100 percent credit for unused sick leave.

FERS employees are encouraged to review their leave and earnings statements for current sick leave balances. More information about the sick leave credit is available online, as are tools to convert hourly balances to month/day equivalents, and to estimate the increase in retirement annuity with sick leave credit.

The sick leave hourly conversion chart is at <http://federalretirement.net/sickleave.htm>. The annuity calculator is at [www.fedbens.us](http://www.fedbens.us)

# AROUND THE CORPS

## Toddler saved

A team of Hop Brook Lake park rangers in New England District prevented a family outing from turning tragic when they saved the life of a toddler.

The day started as a typical busy summer day at the NED project when park ranger Laszlo Lazar and summer park rangers Brian Hornbecker and Emily Brown were suddenly called to aid three-year-old Deshani Harris, who was unconscious on the sand after her uncle pulled her from the water.

While Hornbecker ran to retrieve a medical kit and Brown called 911, Lazar, a CPR-certified first responder, immediately administered rescue breaths and dislodged solids from the child's airway. Soon, to the relief of everyone, the little girl began breathing. She regained consciousness and later was able to sit up on her own.

Once sitting, the park ranger wrapped her in a towel to prevent shock.

"Park ranger Lazar explained the risks of silent/secondary drowning to the child's father, and directed him to wait for the medical response team," said Diana Errico-Topolski, Hop Brook Lake project manager. "Silent/secondary drowning occurs when water caught in the lungs spreads out when the victim lays down, and can result in death by drowning. This is why it is important for resuscitated drowning victims to be seen by advanced medical personnel even if they're walking and talking after the incident.

As Lazar attended the little girl, Hornbecker comforted her distraught mother, and then performed crowd control. Brown remained on the phone with 911 during the rescue, providing the dispatcher with critical information, and then directed rescue and police personnel to the scene once they arrived.

The Middlebury Police Chief later informed Hop Brook Lake personnel that the little girl was fine, thanks to their quick action.

## M1A1 fielding site

Gulf Region District is overseeing the construction of Iraq's M1A1 Abrams main battle tank fielding and training facilities at the Besmaya Range Complex. The facility has two separate buildings, one for storage and the other for fielding. It is being built to maintain M1A1 tanks purchased by the Government of Iraq (GoI) from the U.S. as part of the Foreign Military Sales program.

The GoI purchased 140 M1A1 tanks and eight M88 heavy tracked recovery vehicles. The GoI has also purchased contractor logistic support, special M1A1 tools and equipment, and training as part of a complete tank package.

The \$12.6 million contract to build the two facilities will include force protection improvements, guard shacks, ready rooms and towers, a headquarters building, motor pool, workshops, training buildings, warehouse, vehicle storage and maintenance bay and an M88 recovery vehicle storage and maintenance bay.

GRD is also building a life support area (LSA) on Besmaya. The LSA will provide Iraqi soldiers with modern living quarters while they train on the range. The \$7

million compound will include a headquarters building, classrooms, office quarters, non-commissioned officer quarters, three enlisted barracks, three enlisted shower units, power generators and sewer and water infrastructure.

The contractor for all three facilities is Almco Limited Company. Work on the LSA and M1A1 facilities is expected to be complete in 2011.



**Staff Sgt. Nick Fuents competes in the 27th Annual International Lineman's Rodeo.**

## Black Lions take first place

Soldiers of the 249th Engineer Battalion (Prime Power) competed with more than 3,000 linemen in the 27th Annual International Lineman's Rodeo on Oct. 16.

Teams of linemen from the battalion's Bravo and Delta companies competed in the military category, and the Bravo Company team took first place.

The lineman's rodeo is held in Bonner Springs, Kan. It attracts the best linemen from around the world to compete in four timed events based on traditional linemen tasks and skills. More than 200 lineman teams competed this year.

"The International Lineman's Rodeo is a terrific opportunity for our Army linemen from the 249th Engineer Battalion to truly test their technical competencies," said Lt. Col. Matthew Tyler, 249th commander. "It gives them an opportunity to show the civilian electrical power industry how serious the military is about this career field, and the training we conduct."

## Everglades project

Nearly 30 years ago, a native New Yorker led Florida residents to fight a landfill next to the Arthur R. Marshall Loxahatchee National Wildlife Refuge in Palm Beach County.

Today, USACE is building the Site 1 Impoundment Project on land now called the Fran Reich Preserve to

provide water storage essential to restoring the Everglades' historic health. Jacksonville District and its partners hosted Fran Reich's family at a groundbreaking celebration on Oct. 29. The project will increase water storage capacity and water management flexibility in the area.

Fran Reich passed away five years ago, but County Commissioner Burt Aaronson remembered her as a pit-bull in her determination to overturn the landfill issue. She established the West Boca Community Council, which she led as president for eight years, and fought for quality of life issues.

The project is part of the Comprehensive Everglades Restoration Plan, the 1,800-acre project south and east of the Loxahatchee National Wildlife Refuge.

"The project benefits the Loxahatchee Refuge, county residents and local wildlife," said Jason Harrah, project manager. "The impoundment will capture and store excess water so it's available when it's needed. It'll reduce wasteful discharges as well as water supply demands on Lake Okeechobee and the Loxahatchee Wildlife Refuge."

Other potential benefits include flood mitigation, water quality improvements and reduced saltwater intrusion.

USACE awarded a \$44 million contract in August for phase one construction of the project, funded by the American Recovery and Reinvestment Act. USACE anticipates the completion of the first phase in the fall 2012. Phase one includes modifications to an existing levee, and construction of a 5.5-acre wildlife wetland area.

## Bridge recon training

Moving a column of heavy vehicles over an unfamiliar bridge could be tragic if the bridge cannot sustain the weight. The Engineer Research and Development Center conducted Bridge Reconnaissance and Military Load Classification training Oct. 21-22 for the Second Infantry Division in Korea.

Soldiers from the 2nd ID and participants from other elements stationed in Korea, including civilian employees from Far East District, attended the course.

Gerardo Velazquez, instructor and bridge expert from ERDC, taught the participants what data to collect during bridge reconnaissance to estimate the load capacity of a bridge.

The course was divided into one day of classroom instruction, and a second day of on-site evaluations of real bridges. Velazquez is familiar with USAG-Casey used the bridges on the installation as examples to test troops' skills in evaluating a bridge.

## Geology community of practice

The USACE Geology Community of Practice held its first meeting in Omaha, Neb. This was the inaugural meeting for the Geology CoP. It is a sub-CoP grouped with the Geotechnical CoP; together they form the Geotechnical and Materials (Geology) CoP within the larger Engineering and Construction CoP.

The new Geology CoP offers the geology staff an opportunity for networking with other geologists and provides a venue for exchange of knowledge and experience that otherwise would not be readily available.



Photos courtesy of Middle East District

The King Abdullah II Special Operations Training Center has buildings that simulate almost any kind of urban neighborhood.

## Great Wonders of USACE

# Special ops center in Jordan is major weapon in war on terrorism

**Julie Shoemaker**  
Middle East District

The Kingdom of Jordan is a leader in the fight against terrorism, and an important partner for peace in the region. The kingdom is also home to the King Abdullah II Special Operations Training Center (KASOTC), and the U.S. Army Corps of Engineers was involved in making the facility a reality.

His Majesty King Abdullah II, committed to building broad partnerships and collaborative relationships in fighting terrorism throughout the world, first envisioned the facility in 1998. The Jordanian government then chose the location and began planning the facility.

In May 2005, Congress provided the Department of Defense \$99 million to establish the special operations center through the Foreign Military Sales program, the U.S. government's program for transferring defense articles, services and training to other nations and international organizations.

Transatlantic Programs Center (TAC, renamed the Middle East District in October 2009 and now part of the new Transatlantic Division), managed the design and construction of the training center as part of a joint, multi-national delivery team. Stakeholders included the Jordanian Ministry of Defense and its King Abdullah II Design and Development Bureau; U.S. Special Operations Command Central; U.S. Army Program Executive Office for Simulation, Training and Instrumentation; design contractor Stanley Consultants and primary construction contractor American International Contractors Inc./Syska/Archirodon.

The team met a fast-paced schedule required by the Jordanian Ministry of Defense. Received in late 2005, TAC awarded a contract to a local Jordanian firm to begin initial site work, fencing and construction of offices for the on-site team. In August 2006, a \$70 million construction contract was awarded. Project management, contracting

and construction operations team members collaborated with Jordanian and U.S. partners to ensure contracts met all needs and considered the targets and high-tech instrumentation to be installed following construction completion.

The Jordanian Ministry of Defense was anxious to use the training center and began promoting its features and benefits with regional allies in 2008. The Jordanian/U.S. collaboration resulted in KASOTC becoming the most-visited project site in TAC's history. The project had the attention of many world and military leaders who were anxious for a venue for specialized training not available at a single location anywhere else in the world.

On-site engineers guided nearly 200 tours for Jordanian, U.S. and regional dignitaries, military officers and diplomatic delegations, including His Majesty King Abdullah II.

Jordan ceremoniously opened KASOTC May 19, 2009. High-ranking officials and military representatives from around the world attended the ceremony, including Gen. David Petraeus, commander of U.S. Central Command.

"This one-of-a-kind training center will serve as a catalyst for bringing countries together to address common challenges," Petraeus said in a May 25, 2009 Defense News article. "It will be a center of excellence not only for doctrinal development and refinement of TTPs (technology, tactics, and procedures), but for strengthening the regional security network emerging in this area."

The 25-square-kilometer facility in Amman is a state-of-the-art training center with venues for counterterrorism, special operations and law enforcement training. It includes 146 buildings; multiple pistol and rifle ranges including 50-, 100-, 300-, and 500-meter ranges, and a 1,300 meter sniper range (a meter is a little more than a yard); a grenade range; obstacle course; assault and demolition facilities; urban and village settings; aircraft training facilities; and roads and infrastructure.

"KASOTC enables training on everything from a single

room to a multi-story hotel, an embassy mock-up, and things as varied as a gas station and warehouses, all enabling training officers to set up scenarios based on things that have happened in the past, and others that we think are highly probable to happen in the future," according to the KASOTC website. "Facilities also allow training on a state-of-the-art aircraft mock-up of an Airbus 300, allowing complete simulations training and rescuers to enter the aircraft via helicopter, working inside and outside the aircraft."

The training center provides special operators from Jordan, the Middle East region, and the U.S. with realistic settings using the sights, sounds and smells of the battlefield while firing live ammunition. The facility is outfitted with the latest technologies in targets, range equipment, 350 day/night cameras, and automation and battle simulation scenarios.

Facilities are arranged so that trainers can run multiple scenarios concurrently and even suddenly change them as could happen in the real world. Every level of training can be documented, reviewed in after-action analyses and conducted again until the soldiers can execute them flawlessly.

"The compliments and recognition that KASOTC has received from various visitors and top VIPs who participated in the grand opening, representing more than 60 nations, gave me an enormous feeling of pride and satisfaction that all the hard work that has gone into this project was well worth it," said Salem Fares, Jordan resident engineer.

"Being involved with the development and construction of the KASOTC leaves a sense of pride, knowing that I have helped build a facility and training area that is being used to develop and train personnel from nations around the world, that will have a positive impact in making our world a safer place for our children and generations to come," said Roger Thomas, chief of Construction Operations Division, Middle East District.