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# Engineer Update

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## \$5.1 billion budgeted for USACE civil works

The president's budget for fiscal 2010 includes \$5.125 billion in federal funding for the civil works program of the U.S. Army Corps of Engineers.

Terrence Salt, acting Assistant Secretary of the Army for Civil Works, said, "The budget funds the planning, design, and construction of projects for the Corps' three main water resources mission areas, which are commercial navigation, flood and coastal storm damage reduction, and aquatic ecosystem restoration.

"The administration has made rebuilding America's infrastructure a priority," Salt added. "Through the resources provided for the civil works program in the budget, the Corps can help achieve this objective."

In addition, the budget funds the USACE regulatory program, which contributes to the protection of the nation's waters and wetlands, emergency preparedness for natural disasters, and the restoration of sites contaminated as a result of the nation's early atomic weapons development.

**Distribution --** The new federal funding will be distributed as follows among the appropriation accounts:

- \$2.504 billion for operation and maintenance
- \$1.718 billion for construction
- \$248 million for flood control, Mississippi River and tributaries
- \$190 million for the regulatory program
- \$184 million for expenses
- \$134 million for the Formerly Utilized Sites Remedial Action Program
- \$100 million for investigations
- \$41 million for flood control and coastal emergencies (FCCE)
- \$6 million for the Office of the Assistant Secretary of the Army for Civil Works

**O&M --** The total funding for the operation and maintenance program is \$2.663 billion, consisting of \$2.504 billion in the operations and maintenance account, and \$159 million in the flood control, Mississippi River and tributaries account.

The budget for this program emphasizes performance of existing projects by focusing on the maintenance of key commercial navigation, flood and storm damage reduction, and other facilities.

For example, the budget gives priority to the maintenance of harbors and waterway segments that support high volumes of commercial traffic, such as the three most heavily-used inland waterways – the Ohio River, the Mississippi River, and the Illinois Waterway.

The budget also funds harbors that support significant commercial fishing, subsistence, or public transportation benefits.

**Construction --** The total funding for the construction program is \$1.805 billion, consisting of \$1.718 billion in the construction account, and \$87 million in the flood control, Mississippi River and tributaries account. The construction program uses

objective, performance-based guidelines to guide the allocation of funding to projects with the highest performance. Flood and storm damage reduction, commercial navigation, and hydropower projects are ranked primarily by their benefit-to-cost ratios.

The performance guidelines also give priority to projects that address a significant risk to human safety, and to work needed to address a dam safety, seepage control, or static instability problem.

The fiscal 2010 construction program includes funding for high-performing new construction starts. The fiscal 2010 budget also includes funding both for construction of coastal projects to reduce storm damage and for periodic renourishment of such projects.

**Regulatory --** The fiscal 2010 regulatory program is funded at \$190 million. With these funds, USACE will continue to protect the nation's water and wetlands, including improved compliance and enforcement of wetlands regulations and improved permitting processes.

**Investigations --** The fiscal 2010 investigations account is funded at \$100 million, including \$2 million for the water resources priorities study – a high-priority evaluation of the nation's vulnerability to flooding.

**FCCE --** The fiscal 2010 flood control and coastal emergencies account is funded at \$41 million to prepare for flood and coastal emergencies, and other natural disasters.

**Recreation --** Recreation activities are provided a total of \$283 million in fiscal 2010 from the operations and maintenance and flood control, Mississippi River and tributaries accounts.

**Other funds --** The budget also proposes enactment of legislation to authorize a lock usage fee, which would over time replace the diesel fuel tax now paid by most commercial users of the inland and intracoastal waterways.

This proposal addresses the declining balance in the inland waterways trust fund, which affects the government's ability to finance capital investments in these waterways.

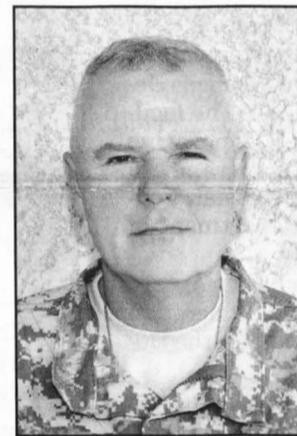
This proposal will also improve economic efficiency compared to the existing fuel tax, by more closely aligning the costs that commercial users pay with the cost of these capital investments.

The fiscal 2010 budget also includes funding to address a number of program-wide concerns, including an initiative to assess broadly how and where climate change may affect the management of USACE projects.

**More Information --** The fiscal 2010 Army civil works budget press book, including a state-by-state breakdown of projects, is available at [www.usace.army.mil/CECW/PID/Pages/cecwm\\_progdev.aspx](http://www.usace.army.mil/CECW/PID/Pages/cecwm_progdev.aspx).

## USACE mourns 1st losses in Iraq

Two members of the U.S. Army Corps of Engineers were among those killed and injured May 25 when an improvised explosive device exploded under their vehicle. Cmdr. Duane Wolfe was the officer in charge of the Al-Anbar Area Office of the Gulf Region South



Cmdr. Duane Wolfe

District, and Dr. Maged Hussein was the senior consultant and director of the Office of Water Resources, Public Works, and the Environment at the U.S. Embassy in Baghdad.

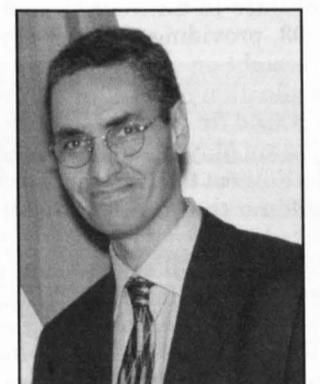
They were in a convoy visiting construction sites in Iraq's western Anbar Province near Fallujah when the attack

occurred. Terry Barnich, deputy director of the U.S. State Department's Iraq Transition Assistance Office, was also killed in the attack. Two Aegis Security team members were wounded and medically evacuated for treatment.

Wolfe and Hussein are the first USACE members killed in Iraq. Since Operation Iraqi Freedom began in 2003, there have been more than 7,000 USACE civilian deployments in Iraq and Afghanistan, with many civilians deploying two or more times.

Wolfe was an activated Naval Reserve officer from Los Osos, Calif. His home unit is the Navy Operational Support Center in Port Hueneme, Calif. In his civilian work, Wolfe was the deputy commander of the 30th Space Wing Mission Support Group at Vandenberg Air Force Base, Calif.

Wolfe led a team of 59 people, including U.S.



Dr. Maged Hussein

Continued on page three

## Insights

# Great missions require selfless service

By Col. Hanson Boney  
Chaplain, U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers is a distinctive Army organization. In war, its mission is to support the lethal application of combat power to eliminate a threat to our nation or its allies. But when the warfighting ceases, USACE becomes a vital part of establishing stability and supporting reconstruction efforts in that once-hostile nation.

USACE is also a vital force in applying engineering to protect life and property before and during disasters. Before disasters, we build and secure levees, bridges, and operate locks and dams to maintain and preserve the welfare of our nation and its natural resources. And our role after disasters has been part of the epic story in the recovery after Hurricane Katrina.

And USACE is one of our nation's chief responders in world affairs, training other nations to respond to their own special needs in civil works projects and construction efforts.

All of that and more is the reason that Objective 1

of the Campaign Plan is vitally important to our overall mission. Objective 1 states:

"Deliver USACE support to combat, stability, and disaster operations through forward deployed and reachback capabilities."

Each member of the USACE team must be ready to respond to a host of different scenarios, often with extremely short notice. Our employees must know their jobs well because their contribution to the overall effort ensures the success of the mission and the longevity of the product.

As leaders and co-workers, we should be able to look one another in the eye and be assured that we are giving our best on every occasion — delivering high performance, all-hazard, contingency mission execution. At times, this may cause us to make extreme sacrifices, but what we do may make a difference in the lives of millions of people.

Many centuries ago, Jesus taught his disciples that self-denial was a key principle if they hope to participate in building the Kingdom of God. He instructed them to deny themselves, take up their cross (what-

ever work God had given them to do), and follow him.

Jesus often emphasized the difficulty one would experience in attempting to break through the callous hearts of people. He likened it to a king waging war. He said, "What king going to make war against another king does not sit down first with his advisors to see if he is able with 10,000 soldiers to wage war against a king with 20,000 soldiers?"

Jesus was talking about counting the cost.

If USACE is to go from good to great, each of us must count the cost in our own areas to see if we are up to the challenge. Is your productivity lagging? Are you truly ready to move forward with vigor and vitality? Jesus admonished his followers that the harvest would be plentiful but the laborers would be few. Be one of the few. Our country and the world are counting on you. Give them your best.

*(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.)*

## Chem demil plant completed in Russia

The Russian Federation hosted an opening ceremony May 29 in Shchuch'ye to recognize the start-up and operation of the Chemical Weapons Destruction Facility (CWDF). The facility, built through the Cooperative Threat Reduction (CTR) program, is a joint effort between the Russian Federation and the U.S. Department of Defense.

The Defense Threat Reduction Agency (DTRA) implements the Cooperative Threat Reduction Program for the Defense Department.

The U.S. Army Corps of Engineers, the functional expert in facility design, construction, and contracting worked with DTRA on the project. The U.S. Army Engineering and Support Center, Huntsville provided a project manager who served as the chief of the Chemical Weapons Destruction Support Office in Moscow during various times throughout the 12-year relationship.

Huntsville Center established on-site presence in Shchuch'ye in November 2003, providing contract support and oversight on construction, safety, and verification of work performed by the U.S. and Russian subcontractors.

"As of May 21, all buildings are complete except the U.S.-funded production building that is scheduled to be completed in December," said Greg Havo, one of Huntsville Center's project managers for the facility. "Efficiencies in the trilateral contracting approach have saved about \$40 million, which will be applied toward completion of the facility and extended vendor support."

Construction of the facility was accomplished with more than 10 million man-hours worked without a lost-time



The Chemical Weapons Destruction Facility in Shchuch'ye opened May 29. It was a joint venture between the U.S. Department of Defense and the Russian Federation. (Huntsville Center photo)

accident, Havo said.

"There was exceptional cooperation between the Russian Federation and U.S. government in the construction and start up of the facility," Havo said. "We generated a large amount of savings due to cooperation between the governments and thinking 'out of the box.'"

The facility reached a significant milestone March 5, when the first chemical munitions were destroyed. This highlights a successful partnership between the U.S. and Russian Federation toward the goal of eliminating weapons of mass destruction.

The U.S. committed more than \$1 billion to the creation of the CWDF, which is designed to destroy nearly two million chemical shells/warheads stored at the nearby Planovy military base, and the 5,440 metric tons of nerve agent the munitions contain.

The Shchuch'ye CWDF project supports the Russian Federation's treaty commitment under the Chemical Weapons Convention to eliminate its stockpile of nearly 40,000 metric tons of chemical agent, which includes 32,500

metric tons of nerve agent.

In 1991, with the Nunn-Lugar Act, Congress created the Cooperative Threat Reduction Program in the Department of Defense to assist countries of the former Soviet Union with the elimination or securing of nuclear, chemical, and biological weapons of mass destruction.

The U.S. has been working jointly with the Russian Federation since 1992 to establish the CWDF by funding the facility/process designs, site preparation, equipment procurement/installation, and actual facility construction.

In May 2007, the partnership transitioned to a joint acquisition strategy known as the Trilateral Arrangement to complete the facility. This innovative approach leveraged the best of both U.S. and Russian business practices. It transferred to Russia the responsibility for awarding and managing the contracts to complete construction of the facility, while the U.S. verifies and pays for completed work.

The Russian Federation funded construction of one of the two main pro-

cessing buildings at the site, and the necessary social infrastructure (housing, schools and medical resources) to support CWDF operations. With the assistance of other donor nations including the United Kingdom and Canada, Russia is also providing essential utilities (power, transportation) and destruction process equipment. In addition, Russia has trained the personnel who operate the facility and is responsible for its safe and secure operation.

The Shchuch'ye CWDF, designed and built by Russian subcontractors, is an automated state-of-the-art destruction facility using the two-stage chemical agent destruction process developed by the U.S. and Russian Federation team.

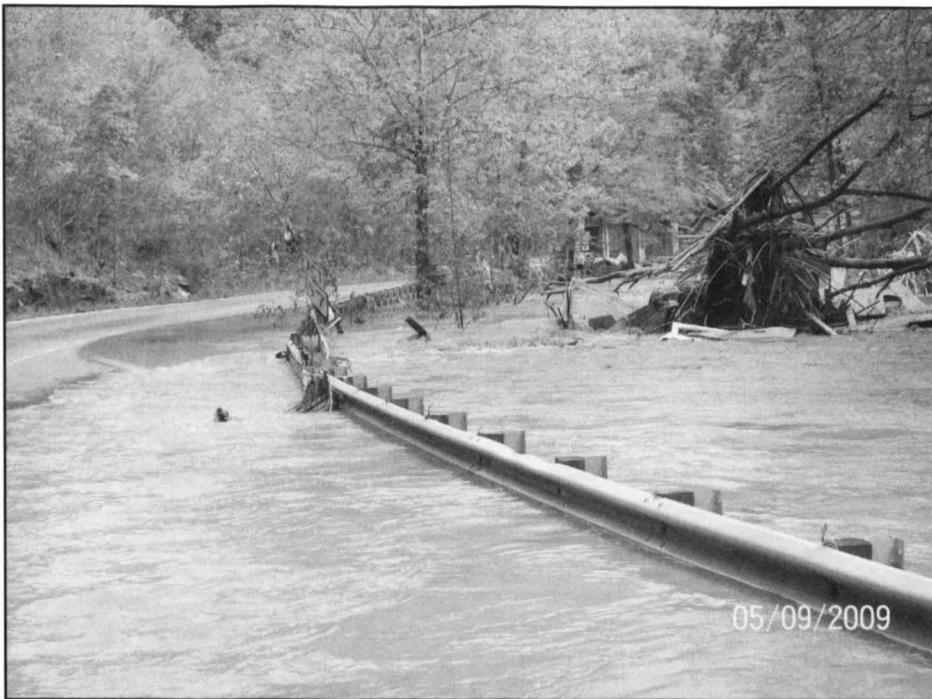
During the first stage of this process, the nerve agent is chemically neutralized by adding an organic chemical reagent. Stage two of the process is called "bituminization," where the neutralized agent is mixed with hot petroleum asphalt and solidified into a form suitable for long-term storage.

When the Russians achieve full operational capacity later this year, the Shchuch'ye CWDF will be capable of processing the entire Planovy stockpile of chemical agent-filled small- and medium-sized rocket and tube artillery, and large rocket and missile warheads.

The U.S. remains committed to assisting the Russian Federation complete the Shchuch'ye CWDF and bring it into full operation under the Department of Defense CTR program.

*(Defense Threat Reduction Agency press release. Debra Valine of the U.S. Army Engineering and Support Center, Huntsville also contributed to this article.)*





Recent flash-floods caused damage in southern West Virginia and eastern Kentucky. (Photos courtesy of Huntington District)

# Corps projects reduce flood damage

By Mandy Lester  
Huntington District

In the early morning of May 9, streams turned into raging floods in southern West Virginia and eastern Kentucky. Homes were pushed from foundations, bridges that once spanned the swollen streams were washed away, and mobile homes were literally dragged into the roadway.

The small town of Gilbert, in Mingo County, W.Va., was especially hard hit, with hundreds of structures either damaged or destroyed.

## Insurance policy

However, the town had an insurance policy — R. D. Bailey Lake.

Located just a handful of miles from Gilbert, R. D. Bailey Lake has prevented about \$190 million in flood damages since its completion in 1980.

On May 8, the dam was releasing about 5,000 cubic feet of water per second. By 3 a.m. the next morning, the situation was dire — the Gilbert area had been pelted with more than four inches of rain, which caused headwater flash-flooding.

Aca Ramey, a park ranger who lives in a government dwelling at the project, was the first Huntington District employee to fight the flood. Due to the rising streams, roads had been blocked or washed away and no other employee could safely get to the lake.

Ramey closed the lake's outflow gates, while employees in the Water Resources Branch tracked the lake's levels and precipitation in the area.

As water steadily rose behind the dam, R. D. Bailey Lake reached alert pool (1,085 feet) by Saturday afternoon. District employees arrived at the lake and began working with rangers and maintenance staff to monitor the lake's levels and functions. When the lake crested on May 12 at 1,109 feet, it was 74 feet above summer pool and just two feet away from pool of record.

The pool of record was set exactly 25 years earlier — May 9, 1984.

Even though the flood levels did not reach record heights, the damages were awesome. A staggering portion of Gilbert and its neighboring community of Hanover in Wyoming County, just upstream of R.D. Bailey Lake, had been nearly destroyed. Both Mingo and Wyoming counties have been declared federal disaster areas by President Obama.

Because this flash-flood originated in headwaters that lead into the Guyandotte River, R.D. Bailey Lake

could not have prevented this disaster. But by all accounts, even from those directly affected by the flooding, if it hadn't been for the dam the damage would have been much greater. R.D. Bailey Lake reduced the river elevation in the nearby towns of Man and Logan by 8.6 feet and 11.5 feet respectively.

"Our dams are designed to hold back water to reduce flooding, and they operated exactly as designed," said Col. Dana Hurst, Huntington District commander. "More importantly, we are postured for future rain events."

## Kentucky

It was a similar scene in eastern Kentucky, with the Floyd County town of Martin sustaining significant damage after nearly five feet of water tore through on the morning of May 9. As in Gilbert, many homes and businesses incurred extensive structural damage. Thomasine Robinson, the mayor of Martin, owns a flower shop in town, and district employees measured an 18-inch watermark at her shop.

Another common element for both areas was memories of another disaster more than 30 years before. In 1977, the flood of record ripped through, but in its wake came new legislation that enabled

## USACE losses

Continued from page one

military, government civilians, and Iraqis who work at the area office and three geographically dispersed subordinate resident offices. They oversee nearly \$300 million in construction projects that provide essential services to the Iraqi people.

"Commander Wolfe represented the very best of our American military forces," said Maj. Gen. Michael Eyre, Gulf Region Division's commanding general. He spoke during a memorial service May 28 in the Dust Off Dining Facility on Freedom Compound in Baghdad's International Zone.

"He was a Naval Reserve officer who loved his country and knew that the work he and his team at the Al-Anbar Area Office were accomplishing made a difference for the citizens of Iraq," Eyre said. "His death is a tremendous loss not only for us, but also for the people he was so determined to assist."

Hussein was employed by Jacksonville District. In his role with the Office of Water Resources, he managed the U.S.-funded reconstruction program in the water sector, working closely with high level officials within the Iraqi government, including the

Huntington District to provide protection against future natural disasters — Section 202 of the Energy and Water Resources Development Act of 1981.

Through Section 202, the district has built structural flood walls and levees, as well as developed more innovative flood reduction measures throughout southern West Virginia and eastern Kentucky. For example, in the town of Martin a three-phase flood proofing approach is underway and is expected to be complete by 2019.

## Floodproofing

As a result, Huntington District is a recognized leader in non-structural floodproofing that will continue to provide a level of protection for citizens in future high water events.

Huntington District has flood-proofed more than 130 structures in Pike County, Ky., which was also hard-hit by the flood. However, one bit of good news is that of the 132 flood-proofed structures the district checked, none sustained flood damages.

In spite of the destruction, no lives were lost. The people of southern West Virginia and eastern Kentucky have proven their resilience, and are now beginning the clean-up process.



Gulf Region Division personnel gather in the Dust Off Dining Facility at Freedom Compound for a memorial service for Cmdr. Duane Wolfe. (Photo by F.T. Eyre, Gulf Region Division)

ministers of water resources, public works, environment, the mayor of Baghdad, as well as advising U.S. Embassy officials on reconstruction.

"Jacksonville District has suffered a great loss," said Col. Paul Grosskruger, district commander. "Dr. Hussein was admired by all who had the good fortune to work with him, and he will be sorely missed."

# The job that makes headlines

## Disaster response is a visible, vital mission

*(Editor's note: The 2009 hurricane season begins June 1. In light of the critical role the U.S. Army Corps of Engineers plays with such storms and other disasters, we wanted to give readers an overview of the organization's broad-ranging emergency response capabilities.)*

Each year the U.S. Army Corps of Engineers prepares rigorously for a variety of potential natural and man-made disasters that require the full use of its expertise in military programs and civil works.

Under the Readiness XXI initiative and the organizational umbrella of the Contingency Operations Directorate, USACE is engaged in many activities associated with the Flood Control and Coastal Emergencies Act (see sidebar article) and missions stemming from activation of the National Response Framework.

### Readiness XXI

In 2008, Readiness XXI established the provisional Contingency Operations Directorate by integrating elements of military programs' G-3 and civil works' Homeland Security Office into a single organization responsible for worldwide USACE missions in response to disasters or military contingencies.

Readiness XXI is an initiative to prepare for and respond to all civil disasters and military contingencies. It combines the planning, training, reach back, preparedness, exercises and tools/equipment that were developed separately for the Field Force Engineering (FFE) and Readiness 2000 during the past 10 years.

FFE and Readiness 2000 created high performance response systems and capabilities that yielded exceptional results in support of such organizations as combatant commands, the Department of Homeland Security (DHS), and the Federal Emergency Management Agency (FEMA).

By joining these two groups, USACE provides unmatched engineering and public works capabilities to the Army and the nation. USACE can place high performance teams and resources on the ground quickly. During hurricane response missions in 2005 and 2008, USACE demonstrated how FFE capabilities effectively accomplished USACE disaster missions.

### Emergency Support Function #3

DHS, primarily through FEMA, is the lead federal agency to prepare for and respond to disasters and emergencies. USACE is one of many federal partners that support the DHS mission under the National Response Framework — a guide that defines principles, roles, and structures for effective response in the event of disaster to ensure cooperation at all levels of government.

USACE stands ready in any disaster to execute a broad portfolio of missions to sustain lives, support critical infrastructure needs, and set conditions for recovery as part of the federal government's unified national response to disasters and emergencies.

USACE assists FEMA by coordinating and organizing public works and engineering-related support as the designated coordinator for Emergency Support Function (ESF) #3.

Whenever and wherever disaster strikes, many federal, state, and local agencies rely upon more than 40 specially-trained response teams in USACE to provide an extensive range of public works and engineering expertise:

- Engineering and construction support
- Debris management
- Critical infrastructure assessment



Flood fighting is one of the Corps' missions under the Flood Control and Coastal Emergencies Act. For example, a Portadam (above) and a HESCO barrier (right) were installed during spring floods on the Red River of the North. (USACE photos)

- Temporary repairs
- Temporary housing or facilities installation
- Commodities (typically ice and water), and associated distribution assistance.

Typical ESF#3 assistance provided by USACE includes:

**Needs assessments** — Participation in damage/needs assessments.

**Geographic information systems** — Provide direct support with mission status mapping and other cartographic and analysis products.

**Mission modeling** — With geospatial tools, USACE provides estimates of debris volumes, for water and ice requirements, number of people and households within the hurricane path, and possible temporary roofing and temporary housing needs. These estimates can begin as early as three days before a forecasted hurricane landfall.

**Temporary power** — Providing emergency power to public facilities.

**Ice and water** — Management and emergency contracting to support public health and safety, such as providing potable water and ice.

**Debris management** — Emergency debris clearance and removal and disposal management of debris from public property.

**Urban search and rescue** — Physical and technical support in structural and construction engineering.

**Temporary roofing** — Missions range from providing technical assistance to managing and contracting the installation of blue plastic sheeting onto the roofs of damaged homes or public structures.

**Housing** — USACE provides support through three distinct missions:

- "Haul and install" to private, commercial, or public travel trailer sites or mobile home parks.
- Technical assistance for FEMA's individual assistance-technical assistance contractor (IA-TAC) to



perform the full mission.

• USACE employees serve as contracting officer technical representatives or technical monitors to execute FEMA's IA-TAC contract.

**Emergency infrastructure assessments** — Assessments of damaged streets, bridges, ports, waterways, airfields, and other facilities necessary for emergency access to disaster victims.

**Critical public facility restoration** — Emergency restoration of critical public facilities, including temporary restoration of water supplies and wastewater treatment systems.

**Demolition/structural stabilization** — Emergency demolition or stabilization of damaged structures and facilities.

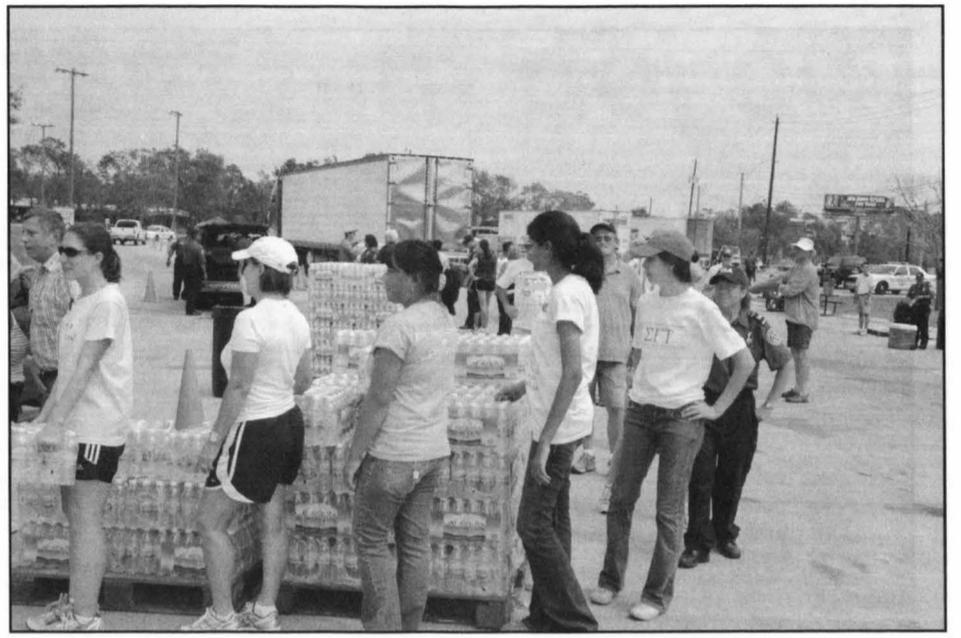
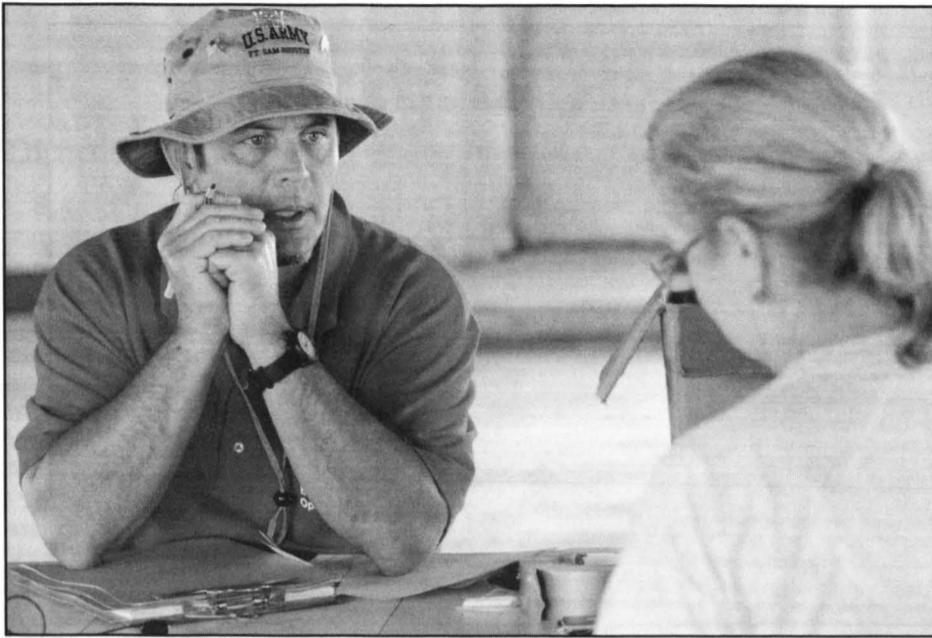
**Technical assistance** — Technical assistance including inspection of private residential structures and commercial structures.

**Support other ESFs** — USACE also supports other ESFs. For example, USACE can be tasked to provide temporary housing and temporary roofing support to ESF#6 (mass care, housing, and human services).

### Teams and tools

To accomplish these missions, USACE organizes and manages resources through a national strategy that aligns the readiness community into a national team that shares planning responsibilities and response capabilities.

A number of teams and resources are available



The human touch is an important part of the Corps' disaster response mission. At left, Tim Stirling of Philadelphia District signs up a resident of Galveston, Texas, for temporary roof repair. At right, people line up for distribution of water and ice in Galveston. (Left photo by Sean McCann, Pittsburgh District. USACE photo at right)

under this strategy to assist in executing National Response Framework missions under ESF #3:

**Planning and response teams**— Central to the national strategy for ESF#3 support are the planning and response teams (PRTs). Each of the 41 districts has a PRT dedicated to one of seven emergency response tasks USACE is responsible for:

- Ice
- Water
- Emergency power
- Debris removal
- Temporary housing
- Temporary roofing
- Structural safety assessment

With several teams available for each task, USACE can tailor its response to the specific emergency.

**Advanced contracting initiative (ACI)**— ACI provides added depth to the Corps' ability to respond quickly and effectively. With ACI, USACE contracts in advance for major missions, such as bottled water, debris, and temporary roofing.

**Deployable Tactical Operating System (DTOS)**— DTOS is a fleet of 20 state-of-the-art mobile command/control/communications units strategically located around the nation. It provides the platform for operations and communications in the disaster environment. DTOS mobile units are self-sustaining, generator-powered vehicles and trailers positioned to deploy within 18 hours to most areas of the country.

**Field and mission guides**— USACE has developed an ESF#3 field guide and mission guides for each of the major ESF#3 missions. These guides assist USACE teams in executing ESF#3 missions, and are provided to the wider intergovernmental community to build state and local capabilities for disaster management.

**Readiness Support Center**— The Readiness Support Center develops and oversees training, exercises, and workshops, oversees the evaluation and corrective action program, and maintains and improves ENGLink (the USACE automated information system for disaster management).

**ESF#3 people**— USACE maintains a credentialed cadre of team leaders, assistant team leaders, and subject matter experts that are trained and ready to deploy to facilitate ESF#3 support to DHS and FEMA.

**Pre-scripted mission assignments (PSMA)**— USACE, DHS, and FEMA have agreed on a set of PSMA that can be modified to fit each unique disaster situation. These PSMA allow for the rapid deployment of teams and resources and save time during disaster operations.

## Navigation

One of the Corps' primary missions any day of the year is to ensure that traffic on our nation's water-

ways moves safely, reliably, and efficiently with minimal impact on the environment, thus sustaining a vital component of the economy.

In the aftermath of a disaster, USACE conducts several key response actions to keep thousands of vessels moving people, commodities, and products via the nation's waterways:

- Channel surveys in conjunction with the navigation industry and the National Oceanic and Atmospheric Administration
- Dredging and dredged material disposal
- Lock and dam repairs
- Wreck removal from federal channels or channels immediately adjacent to them.

# Flood control act governs USACE disaster response

The U.S. Army Corps of Engineers provides assistance to communities to reduce risk to the public, property, or the environment, with the emphasis on public safety under the Flood Control and Coastal Emergency Act (FCCE), often called Public Law 84-99.

The law gives USACE authority to provide a range of assistance — technical assistance, supplies and equipment, emergency contracting, strengthening flood control works, creating temporary levees, channel clearance, dam failure relief, levee rehabilitation, and participation in an intergovernmental levee task force.

This assistance falls under the following categories:

## Preparedness

The FCCE establishes an emergency fund for:

- Natural disaster response preparedness
- Flood fighting and rescue operations
- Flood control and hurricane protection structure rehabilitation

Disaster preparedness activities include coordination, planning, training, and conducting response exercises with local, state, and federal agencies.

## Response activities

As authorized by PL 84-99, USACE can supplement local and state flood fighting in urban and other non-agricultural areas. The law also permits advance measures assistance that can prevent or reduce flood damage conditions under an imminent threat of unusual flooding.

## People ensure mission success

Every year USACE sends out hundreds of people to respond to disasters around the globe. Already this year hundreds have responded to one or more of 17 major disasters as a result of floods and severe winter storms from Hawaii to Maine, North Dakota to Mississippi, and many other states between. Last year nearly 900 USACE employees were engaged in hurricane emergency support missions.

All of the planning and equipment and programs are vital, but it is the competent, disciplined, and resilient people who successfully accomplish the Corps disaster response missions.

## Rehabilitation

When an eligible flood protection system is damaged by a flood, PL 84-99 provides for restoration of the system to its pre-disaster status. USACE coordinates with appropriate local, state, and federal agencies to repair flood damage control projects that are damaged by a natural disaster.

## Collaboration

Working with the Federal Emergency Management Agency and other federal, state, and local agencies, USACE leads the collaborative regional approach to restoring flood management systems damaged in the June 2008 Midwest floods.

The Regional Interagency Levee Task Force is an umbrella organization designed to look at floodplain management at a regional level. Interagency levee work groups were established in each affected state at the joint field offices to review assistance requests from local entities, evaluate possible non-structural alternatives (creating expanded floodways and ecosystems), and to participate in levee restoration.

One benefit of having the work groups at the joint field offices was the creation of a coordinated "one-stop shop" for applicants seeking federal assistance for levee restoration, repair, and other assistance.

The task force has met since August 2008. It has enhanced communication and coordination among federal, state, and local agencies; employed collaborative problem-solving when issues overlap various agency authorities; and worked to fashion best-business practices for the future.



## Rolling Thunder

Riders from the U.S. Army Corps of Engineers took part in Rolling Thunder in Washington, D.C., on Memorial Day weekend. (Left photo, left to right) John Einbinder, an electrical engineer in the Government Accountability Office building; Donald Buxbaum, father of Command Sgt. Maj. Micheal Buxbaum; Buxbaum, the USACE command sergeant major; John Hoffman, a visual information specialist for ACE-IT. (Right photo) Buxbaum's and Hoffman's motorcycles both flew USACE flags. (Photos by John Hoffman)

# Fort Worth District heroes awarded

By Melanie Ellis  
Fort Worth District

Humble. Reserved. Selfless.

These are just a few words used to describe nine Fort Worth District employees who received the 2008 Castle Hero Award at the Commander's Field Conference in Killeen, Texas on Feb. 10.

The Castle Hero Award is a new district-level award created at the direction of Col. Christopher Martin, Fort Worth District commander, to recognize lifesaving actions taken by team members in the course of their duties.

According to incident records from the past 22 years, more than 30 park visitors were in life-threatening situations, and could have lost their lives had it not been for the direct actions of the district's lake staff.

"There may have been even more lives saved that we don't know about," said Charles Burger, the chief of Operations Division, at the conference. "Most of our rangers are the modest type and tend to take the 'It's just part of the job' attitude."

In 2008, six visitors needed the training, responses and actions of district team members to save their lives. After reviewing all incident reports from last year, nine individuals were selected to receive the Castle Hero Award. Their stories are all different, but the results are undeniable — without their response, six families could have lost loved ones.

**Rescue breathing.** Marcus Schimank, site manager at Granger Lake, was on duty when he was approached by a man carrying a limp 20-month-old toddler. Schimank determined that the child was not breathing, administered rescue breathing, and successfully got the child breathing again.

Doctors determined that the toddler had experienced a heat-related emergency that caused respiratory arrest, but he is expected to make a full recovery.

"I've always felt like you need to be ready to respond to the unexpected things that life throws your way," Schimank said. "When you're around a lake that has public visitation, you can assume that you will need to be prepared to respond to an emergency."

**Lake rescue.** Steven Ridlehuber and Tommy Clark, both park rangers at Bardwell Lake, were on duty when Ridlehuber noticed an inflatable lounge raft



(Left to right) Frank Carter, John Nikodem, and Claude Spanhanks received their Castle Hero Awards for aiding a co-worker who collapsed at Sam Rayburn Lake. (Photo courtesy of Fort Worth District)

drifting offshore in high winds. He contacted Clark, and they launched their patrol boat and drove to the area where the raft was last seen.

A man on a personal water craft retrieved the raft, so the rangers searched to mid-lake and found two persons in the water calling for help. They rescued the two individuals and their two dogs.

The victims said they had fallen asleep in the raft and while trying to get back to shore when they became separated from it. They reported they could not have stayed afloat much longer and would have drowned had the rangers not rescued them.

**Stranded boaters.** Matt Seavey, a forester at Wright Patman Lake, and Brad Arldt, a park ranger at the lake, were contacted by the Cass County Sheriff's Office with a report of four boaters stranded on the lake in high winds.

Seavey and Arldt reported to the scene and were met by the deputy sheriff who had rescued two children from the lake in his personal boat, but did not have room for the two adults. Seavey and Arldt launched their patrol boat and located the two remaining victims despite high winds, waves, and complete darkness.

Neither victim had a functional life jacket, and one of their flatboats had already been capsized by the waves. They were in the early stages of hypothermia, but Seavey and Arldt were able to get them into patrol boat and safely back to shore.

**Boater in distress.** Matt Falkner, Lavon Lake park ranger, was contacted at home to respond to a boater-in-distress call that a local fire department could not take because of high winds. Falkner recruited a USACE volunteer, Christopher Paul, to help him launch the patrol vessel.

The lake manager maintained phone contact with the endangered boater who reported he was mid-lake with no working motor or life jacket and in a flat-bottomed boat that was taking water.

Falkner and Paul, in total darkness and high winds and waves, located the boater several miles from his initial location. Falkner rescued the man, towed his boat to a nearby ramp, and cited him for operating a vessel without the required safety equipment.

**Collapse.** Frank Carter, a powerhouse operator at Sam Rayburn Lake, John Nikodem, senior electrician, and Claude Spanhanks, senior mechanic, responded when a friend and co-worker collapsed unconscious in the control room.

Nikodem immediately recognized the seriousness of the situation, retrieved the automatic electronic defibrillator (AED), and assembled it. Then Nikodem and Carter attached the electrodes to their co-worker.

The AED indicated that a shock was needed, and Carter applied the shock. Then the AED indicated that cardiopulmonary resuscitation (CPR) was needed, and Carter began chest compressions while Spanhanks gave rescue breaths.

Their friend's color returned shortly after CPR began and he became responsive.

Other team members continued to care for their co-worker, carrying him through the powerhouse to the ambulance and downloading the recorded data from the AED for use by the attending cardiologist. Their co-worker was treated and released from the hospital.

**Preparation.** "We hope that our visitors do not put themselves in dangerous situations, and we also hope that our own team members are not stricken with injuries or medical emergencies," Burger said during the awards presentations. "But we *do* know that either situation could happen at any time. We have to keep our people well trained, well equipped, and available to respond to ensure that their courage and abilities enable them to do what is needed during an emergency."

# Around the Corps

## Director of Human Resources

Sue Engelhardt is the new director of Human Resources at Headquarters. She is a member of the Senior Executive Service with more than 25 years of experience in federal human resources, and joined USACE May 3.

In her previous position, Engelhardt was an executive at the Federal Aviation Administration (FAA), and from 2004 served as the executive director for Human Resource Management Programs and Policies.



Sue Engelhardt

## SAME award

Brian Giacomozzi of Fort Worth District received the Wheeler Medal from the Society of American Military Engineers May 13. The award was presented at SAME's 2009 Joint Engineering Training Conference & Expo in Salt Lake City.

The Wheeler Medal is given for outstanding contributions to military engineering by a civilian or uniformed member of the U.S. Army.

Giacomozzi is the chief of Engineering and Construction Division in Fort Worth District. He received the award for his leadership in the successful construction of border protection measures valued at \$1 billion on the U.S.-Mexico border in support of the Department of Homeland Security. He was also instrumental in direct support to the Army through the innovative use of product-line delivery for large-scale construction on military installations in support of Army Transformation.

about the importance and proper use of life jackets.

The first day of VestFest gave personal attention to the youth of Fort Smith, and about 1,200 students from 19 schools in the Fort Smith Public School District attended. The second day was open to the entire community.

"It was inspiring to watch Corps rangers and safety officers mesh from all over Southwestern Division and Vicksburg District," said Allison Smedley, a park ranger from Little Rock District's Russellville Lake. "They all gave 100 percent to the children and teachers. You would have thought our team worked together daily, but many folks had met only one day before!"

The weather didn't cooperate the second day as well as it did the first, but in the end the water safety team handed out more than 1,500 T-shirts promoting water safety and life jacket use.

"The students and teachers gave us a grade of 100," said Chris Smith, Little Rock District's outdoor recreation planner.

Station topics at the event included:

- The dangers of alcohol and boating
- Think fast or sink fast – you have to wear a life jacket for it to save your life
- Cold water danger
- How to rescue a drowning person
- The danger of overloading a boat

## State commission chairman

Gov. Christine Gregoire recently appointed Seattle District's Oscar Eason Jr. as the chairman of the Washington State Commission on African-American Affairs. This is Eason's second consecutive appointment to this post.

The commission was created in 1992 and resides in the executive branch of state government, reporting directly to the governor. It defines issues and makes recommendations to the governor and state agencies for changes in programs and laws. It also advises the governor and state agencies on policies, plans, and programs that relate to the special needs of African-Americans, and establishes relationships with state agencies, local governments, and private sector that promote equal opportunity and benefits for African-Americans.

## Executive award

Rhonda Johanson, chief of Contracting in Rock Island District, received the Coach/Manager/Executive of the Year for 2008-2009 Award from the Quad City Chapter of the Federal Executive Association at a luncheon hosted by the Joint Manufacturing and Technology Center at Rock Island Arsenal May 19.

Johanson was selected for her sustained superior performance during her 22 years with Rock Island District. Her contracting background, leadership, material management, and comprehensive knowledge contributed directly to the 2008 Midwest flood-fighting mission.

## Votech center

The renovated \$5.4 million Iskandariyah Vocational Technology (Votech) Center reopened April 22.

The center, 25 miles south of Baghdad, was once the industrial jewel of north Babil Province, boasting such facilities as the State Company for Automotive Industries (SCAD), the State Company for Mechanical Industries (SCMI) and Hateen munitions.

In April 2003 all these facilities were ransacked and torched by looters, leaving burned-out shells of what had been home to 25,000 employees.

To revitalize that area, Iraqi officials, the Provincial Reconstruction Team (PRT), and U.S. Forces combined efforts. USACE oversaw the upgrade. The three-phase project included renovating seven dorms, a class-

room building, an auditorium and mechanical shop.

The Iraqi crew hired by USACE, 200 local contractors, finished the project three months early. Of those workers, 50 were recent graduates of the center.

When the Votech renovations began in 2007, the school offered a limited curriculum for 30 students. This year the center is expected to train and house 4,000 students in a variety of occupational specialties including hair dressing, sewing, administration, clerical, computer maintenance, masonry, electrical, carpentry, welding, computers, and auto mechanics.

## IWR senior team lead

Dr. Kathleen White, an engineer with the Cold Regions Research & Engineering Laboratory, has been selected as the senior team lead for Water Resources Systems and Global Change in the Institute for Water Resources.

White's position with IWR will include a new national initiative on adapting management to climate change, including a national assessment of how climate change will affect water resource planning, and managing existing USACE water resources infrastructure in the future, including its effects on coastal resources.

"I'm very interested in water resources and climate change research and related future changes in policy and planning," White said. "Climate change is one of many dynamic changes that impacts water resources management. Since USACE is the largest water resources management agency in the U.S., there are many challenges and opportunities facing us. I'm glad to be part of the decision-making process."



Dr. Kathleen White

## Workplace excellence award

Sacramento District was named first runner-up in the Sacramento Area Human Resources Association's (SAHRA) seventh-annual Sacramento Workplace Excellence Leader (SWEL) Awards April 30. The district was nominated in the large government category.

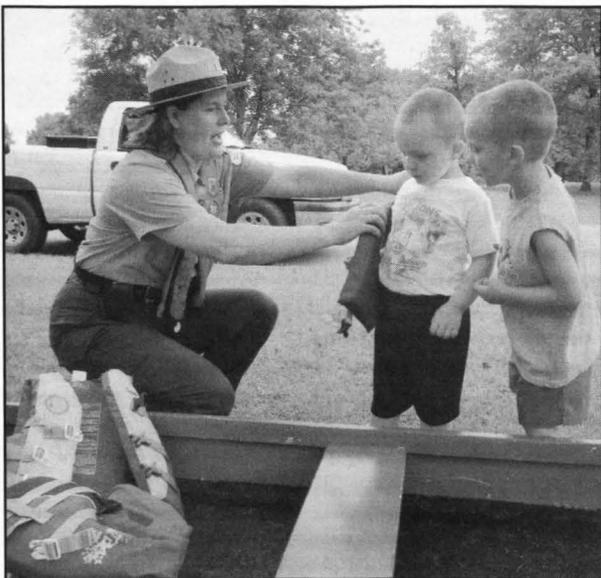
"It's an honor to be recognized in the place so many of us call home," said Col. Tom Chapman, Sacramento District commander. "To be nominated by our own employees means even more. We work hard to recruit and retain the best workforce to keep the people of this district safe. We're doing something right, and having a workplace that people feel so confident in makes me proud to be the commanding officer."

More than 95 employers were nominated by their employees for providing exceptional benefits, training, and fostering a safe, healthy, and diverse workplace. Honoring that commitment to workplace excellence is what the awards are all about, said SAHRA Executive Director Debbe Dreher.

"The purpose of the SWEL awards is to recognize those companies in Sacramento that go above and beyond," Dreher said. "In these difficult economic times, it's refreshing to honor employers offering such strong benefits to their employees. Our winners, runners-up, and nominees should all be praised for providing that leadership."

Chapman said he is proud of the district's first runner-up finish, and pledged to be a strong competitor for next year's awards.

"We were in good company, and we congratulate this year's winners," Chapman said. "More than one of our employees said that next year we're going to win. I share their enthusiasm for showing the district to be the best place to work in Sacramento."



Park ranger Lisa Owens helps two VestFest visitors try on a life jacket.

## VestFest 2009

Life jackets in boats and seat belts in cars have two things in common. First, they both help save lives and prevent serious injuries in the event of an accident. Second, neither works unless worn properly by the occupants.

That was the message at VestFest 2009 in Fort Smith, Ark. Four other USACE districts joined Little Rock District and other community safety representatives to educate school children and the community

# New chamber dedicated at McAlpine

By John Neville  
Louisville District

On May 27, the U.S. Army Corps of Engineers made history again along the Falls of the Ohio River. USACE commanders and civilian employees, public officials, and industry representatives met to dedicate the new 1,200-foot lock at McAlpine Locks and Dam.

"This project is for America," said Lt. Gen. Robert Van Antwerp, chief of engineers. "We have achieved a great thing for this country's families and businesses. Our engineers, contractors, and their employees work hard to deliver these quality navigation projects. But I want us to recognize the challenge that there is still more work to do, and why it is so important. Americans count on us for a cost efficient mechanism to get goods from point A to point B."

The lock, the centerpiece of a \$430 million project, is located along the banks of the Ohio River in Portland, Ky., about a mile from downtown Louisville. Half the cost of the McAlpine project was covered by federal money, and half by money from the Inland Waterway Trust Fund, which comes from fuel taxes paid by commercial river haulers.

**"A horrid fury"** -- The project took more than three million man-hours to complete. Louisville District began working on the new chamber more than 10 years ago, but the Corps' historic mission of ensuring that the Falls remain navigable for industry goes back more than 200 years.

"When the first federal appropriation for improvements on the Ohio and Mississippi rivers was made in 1824, the mission was assigned to USACE, which were the only professional engineers in the U.S. at the time," said Charles Parrish, a USACE historian for more than three decades. "They wanted it done right, and it's been our job ever since."

Before navigation improvements, the Falls of the Ohio was a two-mile stretch of river filled with large rocks, small islands, sand bars, and narrow channels. There was also a 26-foot drop in elevation from the beginning of the Falls to the end.

The area was nearly impassable during low water. At high water, the Falls were a perilous two-mile trek that shredded boats and claimed lives.

"Boaters in the early 1800s used such words as 'awe and terror,' 'a horrid fury,' 'sublime horror,' 'an awful scene,' 'the turbulence of roaring water,' when describing descending the Falls," Parrish said.

To avoid the danger, transport boats unloaded their cargo onto wagons above the Falls. The wagons moved the goods around past the Falls to another boat waiting downriver. This costly, time-consuming process needed a solution.

**First locks** -- In 1825, the Louisville and Portland Canal Company (L&PCC), with federal assistance, built the first canal and lock system. The lock system raised a vessel so that it could pass the Falls going upriver, or lowered it so that it could proceed downriver. The locks, slightly wider than a vessel, were built into the canal. The gates closed and the lock either filled up with water or released it, depending on which direction the vessel was headed. The principles of operation remain essentially the same today.

The original locks eventually became obsolete as boats grew larger. In the 1860s, the L&PCC widened the original canal to build a larger lock system, but the company experienced financial problems during construction. The project was eventually finished with the help of USACE in 1872.

Then, in 1874, Congress granted navigational jurisdiction over the Falls to USACE. Since then the Corps, at the request of Congress, has expanded the capacity of the locks as older structures wear out and as the tows that pass through them increase in size and loading capacity.



The towboat *Mary Ann* pushes a 15-barge tow through the new 1,300-foot chamber at McAlpine Lock & Dam. (Photo courtesy of Louisville District)

**"Mr. Mac"** -- The lock celebrated May 27 wasn't the first 1,200-foot lock at the McAlpine site. Construction on the first began in 1958, back when the existing 600-foot lock-and-wicket dam site was simply known as Number 41. In 1960, one year before the lock was completed, the project was named for William McAlpine, the only civilian to serve as the Louisville District engineer.

"William McAlpine served as district engineer during World War I because of a shortage of uniformed officers who were needed in the war," Parrish said. "That was not 'Mr. Mac's' only claim to fame. He later became chief engineer for navigation improvements on the upper Mississippi River in the 1930s-'40s. He later became chief navigation advisor to the Chief of Engineers for national navigation projects."

Today, Col. Keith Landry commands Louisville District.

"It is an honor and a privilege to command this great district," Landry said. "The completion of this 1,200-foot lock represents our commitment to the Corps' mission of sustaining the efficient navigation of our nation's inland waterways."

**McAlpine capability** -- In the Ohio River basin, USACE and industry reached a critical milestone with the new 1,200-foot lock chamber. At this time, only McAlpine and Smithland Locks, on the lower Ohio River, have twin 1,200-foot lock chambers.

The new 1,200-foot lock has been operational since April 8, replacing an old 600-foot facility. The new chamber can lock through a 15-barge tow as one unit, and to prove it the *Mary Ann*, a vessel operated by the American Commercial Line, pushed a 15-barge tow through the lock at the end of the ceremony.

"A full tow with the towboat and 15 barges is about 1,180 feet long," said David Klintstiver, the project's former resident engineer. "So if you only have a 600-foot chamber, you have to tie up half the tow."

Klintstiver said that a full tow takes just 40 minutes to get through the locks, and nearly three hours if it is split. So the 1,200-foot chamber means shorter waits on the river for barges, and major cost savings.

"The new McAlpine lock project increases the capacity and efficiency of the locks and ensures continued and uninterrupted transportation of coal, aggregates, and metals with significant cost savings to tax-

payers," Landry said. "A 15-barge tow carries the equivalent of 1,050 tractor-trailers. This keeps traffic off interstate highways and the public safer. About 54 million tons of goods estimated at \$11.6 billion pass through the McAlpine locks annually."

And the locks' customers are pleased.

"Marathon and its predecessors have moved petroleum feedstocks and refined products through McAlpine Lock for more than 50 years," said Lisa Brown, a spokeswoman from Marathon Oil. "Our business depends on having a reliable river highway. Completion of the new 1,200-foot lock chamber at McAlpine will enable us to continue to meet customer expectations in a timely and reliable manner."

**Safety operations** -- USACE employees operate the 20 locks and dams systems along the Ohio River 24 hours a day, 365 days per year. Rain, ice, heat, flooding, and other weather pose problems for the men and women who work the locks.

Concrete walkways surround the McAlpine locks, and they can get icy, said Gene Dowell, the district's lock and dam operations manager. Lock operators are required to keep them clear of slippery conditions. Sometimes, though, mechanical issues require visual inspections of places that are difficult to reach.

"But those are more the exceptions than the norm," Dowell said. "For us to have a breakdown during an ice storm would be the most hazardous. But any time you're working around industrial machinery and you have water all around you, things can happen."

Darkness is also a challenge, according to Sally Waterbury, McAlpine head lock operator.

"Once it gets dark, everything looks different," she said. "There are a lot of lights out here, but your eyesight is different, and the way you see things through the cameras is different. The tows take it slower because they're working with spotlights and the light they get from the lock."

And that's why safety is such big deal on the river. "The work is not inherently dangerous if we follow safety rules," said Robert Azinger, McAlpine head lock operator. "There is a small risk of falling into the river during boat ops and miter gate ops, but if we follow our guidelines of activity hazard analysis, safety harness, and wear life jackets, these dangers are significantly mitigated."