

ENGINEER UPDATE

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IN THIS ISSUE

Page 2
Insights
'Solutioneers' must
also be 'wisdomeers'

Page 3
Flood season is challenging this year

Page 4
Dam vital to Kandahar
Province

Page 5
Kenya army engineers
learn USACE way of
civil operations

Page 6
New lock gate is
ARRA success

HR Corner 'USA Staffing' is new hiring tool

Military HR Corner

Page 7
Around the Corps

Building Strong People 'We're here for a good reason.'

Page 8
'He's never stopped helping me...'

Floodway blasted open

By Stephen Rochette Philadelphia District

In an effort to relieve pressure in the lower Mississippi River watershed from record flooding, the U.S. Army Corps of Engineers operated the Birds Point New Madrid Floodway near Cairo, Ill., for the first time since 1937 by breaching three levee sections.

The Mississippi River Commission, led by Maj. Gen. Michael Walsh, Mississippi Valley Division commander, announced the decision at a May 2 news conference at the Birds Point levee area. "This is the flood that engineers envisioned following the 1927 flood," Walsh said at the news conference. "It is testing the system like never before, and now is the right time to activate the floodway."

Walsh directed Col. Vernie Reichling, Memphis District commander, and crews



Photo courtesy of the Joint Information Center

The May 2 explosion that opened the Birds Point New Madrid Floodway lit up the night.

to load an explosive slurry material into pipes and detonate three different sections of the levee, allowing water to inundate the floodway area, which is enclosed by other setback levees. Experts in explosive technology from the Engineering Research and Development Center assisted Memphis District with blasting the inflow and outflow levee sections.

Continued on page 2

LTG Van Antwerp honored

on page 3

By Bernard Tate Headquarters

A retirement ceremony on May 3 honored Lt. Gen. Robert Van Antwerp, chief of engineers and commander of the U.S. Army Corps of Engineers (USACE). The ceremony took place on the Fort Lesley

J. McNair Parade Field in

Washington, D.C.

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See photos

President Barack Obama has nominated Lt. Gen. Thomas Bostick, deputy chief of staff G-1 (Army per-

sonnel and administration), to be the next chief of engineers, pending Senate confirmation. If necessary, Maj. Gen. Merdith "Bo" Temple, deputy commander of USACE, will be acting chief of engineers and acting USACE commander.

Gen. Martin Dempsey, U.S. Army chief of staff, hosted the ceremony. He presented several awards to Van Antwerp, including the Distinguished Service Medal.

In addition, Dempsey presented the Army Superior Unit Award to USACE. The award was given for "the execution of \$26 million of Base Realignment and Clo-

sure...and American Recovery and Reinvestment Act construction requirements during fiscal years 2006-2010," read the citation. USACE "exceeded Army and Department of Defense metrics for execution of funding and implemented innovative business processes and strategies to enable timely delivery of facilities within

budget."

The award included presentation of a special streamer, and Van Antwerp and USACE Command Sgt.

Maj. Micheal Buxbaum fas-

tened the streamer to the USACE flag. All subordinate commands of USACE are now authorized to carry that streamer on their USACE flag.

"Van commanded the largest public engineering organization in the world, \$45 billion, which would rank about 50th on the Fortune 100 list," Dempsey said during his remarks. "During his tenure USACE aided the planning and construction of thousands of reconstruction projects in Iraq; invested billions of dollars in Afghanistan; managed the largest Army military construction effort since

World War II; and supported recovery operations after numerous domestic and international emergencies including the Midwest flood fights, Gulf Coast oil spill, the earthquake in Haiti and the recent tsunami in Japan.

"Van, your career reflects success after success, but more important is the way you've done it," Dempsey said. "You've done it with class, with dignity, you're a role model, you're a Christian gentleman and you have a wonderful family. You are someone we all should emulate."

During his speech, Van Antwerp said, "In the Corps, I have learned that this great organization at its heart has a cadre of co-leaders. They are key players who do the work, even if they receive little glory. They are selfless, tireless, creative teammates. They have families, and they are warriors, too

"So to my teammates in the Corps of Engineers, thank you so much for your incredible service," Van Antwerp concluded. "It has been a joy beyond comprehension for Paula and me. God bless you, and God bless America. It has been an incredible honor to serve."

'Solutioneers' must also be 'wisdomeers'

By Col. Gary SextonChaplain, U.S. Army Corps of Engineers

Even after 10 months of serving on the U.S. Army Corps of Engineers team, I'm still amazed by the high-octane brain trust that characterizes this organization. It is impressive to witness the creativity, innovation, technical expertise and good old-fashioned experience – smarts that are brought to bear on tough problems and the challenges we face domestically and internationally.

Much of what I see happening across USACE has a biblical rationale. In the opening pages of the Old Testament, we find the account of the creation and the making of man and woman in God's image. God places them in a beautiful garden, giving them dominion over creation.

Part of this dominion was to study the creatures and name them according to their characteristics and nature. God commanded the man and the woman to be fruitful and multiply and to tend the creation so that its fruitfulness could bring glory to God.

"Cultural Mandate" is the theological term for this stewardship of creation. It is from this divine design for the created order that we derive science and technology, engineering and invention, art, music and literature and all the other creative expressions of mankind.

The Cultural Mandate takes on greater significance when we realize that God's creation is now broken. Paul

describes this brokenness in Romans 8:22, "We know that the whole creation has been groaning as in the pains of childbirth right up to the present time." Ask the people of Sendai, Japan, who struggle to rebuild their livelihoods after the earthquake and tsunami.

Much of human endeavor is focused on problem solving -- finding ways to mitigate suffering and brokenness through the intelligent use of resources, research, and developing models that demonstrate how everything works together in an interdependent way.

Annually the Nobel Prize awards are bestowed on individuals who excel in fields such as science, technology, medicine, literature and peace-making. These recipients have our respect because of their achievements and their smarts. We would consider them intelligent people.

But we intuitively recognize a fundamental difference between intelligence and wisdom. There are different kinds of intelligence. For example, we know those who are street-smart; knowing how to survive on dangerous city streets. Others may be remarkably talented in musical composition or theater. In this age of technology, we certainly admire those who know how to apply cyber-knowledge to various challenges.

Wisdom builds on intelligence, but it also has a spiritual and moral aspect. I like the simple saying, "Wisdom is seeing life from God's point of view." This suggests that the source of wisdom is not inherently man's invention, but that it comes from an external source and is

ultimately internalized by those who are wise.

Solomon is considered one of the wisest persons in the Bible. On the threshold of his reign over Israel, his primary prayer was for wisdom. God honored his request and today we have the book of Proverbs to instruct us in how to see life from God's point of view. Solomon's words in Proverbs 4:3-9 extol the importance of wisdom.

"When I was a boy in my father's house...he taught me and said, 'Lay hold of my words with all of your heart; keep my commands and you will live. Get wisdom, get understanding; do not forget my words or swerve from them. Do not forsake wisdom, and she will protect you; love her, and she will watch over you.

"'Wisdom is supreme; therefore get wisdom. Though it cost you all you have, get understanding. Esteem her, and she will exalt you; embrace her; and she will honor you. She will set a garland of grace on your head and present you with a crown of splendor."

Embedded in our USACE organizational culture is the concept of a team of solutioneers committed to taking on the engineering challenges of our nation. My prayer is that we will also be known as "wisdomeers," seeking to grow in our faith and to offer our work for God's glory and for the good of our neighbors around the world.

(The opinions in this article are those of the author 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.)

Floodway

Continued from previous page

The decision, Walsh said, involved looking at the entire system, which encompasses both the Mississippi and Ohio rivers, and evaluating conditions at every stage.

"Making this decision is not easy or hard; it's simply grave," Walsh said. "The decision leads to loss of property and livelihood, either in a floodway or in an area that was not designed to flood."

The watersheds of the Mississippi and Ohio rivers are experiencing historic flooding. Along portions of the Ohio River, more than 25 inches of rain during April contributed significantly to record levels, putting pressure on the entire watershed and flood risk reduction system. The Mississippi and Ohio watersheds have experienced precipitation 125 to 150 percent above normal.

Walsh said that operation of the Birds Point New Madrid Floodway is not about a single town or place. This is a complex system of waterways, rivers and lakes that USACE engineers must consider as a whole as actions are taken to combat flooding stemming from historic levels on the Mississippi and Ohio rivers.

After blasting the levee, river gauges indicated significant decreases in the water levels in Illinois, Tennessee and



Photo courtesy of the Joint Information Center

Water flows through one of the three breaches in the Birds Point New Madrid Floodway.

Kentucky. At Cairo, the gauge read a record 61.72 feet before the event and decreased to 60.15 feet only 14 hours later.

USACE models and National Weather Service forecasts projected three-foot decreases at Cairo and Paducah, Ky. It was expected, however, that levels would rise again within several days after opening the floodway as water was released from reservoirs along the Ohio River that have stored additional water to keep levees from overtopping along the Mississippi.

Memphis District crews made the final preparations during inclement weather, including 50 mile per hour winds and heavy rain.

"Our engineers overcame many challenges from wind, weather and fatigue," Reichling said. "Many worked 24-36 straight hours to accomplish the mission. I'm proud of their efforts."

Walsh emphasized that the step to operate the floodway would not be the end of the flood fight and the Mississippi Valley Division would continue its efforts as crests move south to the Gulf of Mexico. "We're looking at this flood fight as a systems approach, and we'll continue to use every resource available."

The Birds Point New Madrid Floodway was authorized as part of the Mississippi River & Tributaries project in 1928 following devastating floods a year earlier, and completed in 1937. It is designed to divert about 550,000 cubic feet per second of water from the main channel of the Mississippi River just below Cairo. USACE hydrologists estimate it will take 45-60 days for water to recede from the floodway area, and another 21-30 days for the land to dry out.

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Flood season is challenging this year

St. Paul District

This spring, St. Paul District faced potentially recordsetting flooding and activated its flood response team for the third consecutive year. But this year was different because the district faced flooding in four of its five major river basins – the Minnesota River, the Upper Mississippi River, the Red River of the North and the Souris River.

At the peak of the flood response in mid-April, more than 85 U.S. Army Corps of Engineers personnel were deployed, and emergency responders were building temporary levees in Iowa along the Mississippi River, in Minnesota along the Red River, and in North Dakota along the Red and the Souris rivers.

In the Fargo, N.D./Moorhead, Minn., metropolitan area, the Red River crested at its fourth highest flood of record, making it the third year in a row this area faced potentially catastrophic flooding.

The flood season also lasted longer than usual this year. Not only did the National Weather Service (NWS) predict significant flooding for the Upper Midwest in December, a month earlier than the agency usually does, the rivers also failed to crest until mid-April, a month later than the previous two years.

"It just lasted so long," said Tim Bertschi, flood engineer in the Red River of the North area. "The early preparation we did made a significant flood event seem almost routine at times."

The NWS's early warning gave the district extra time to prepare. Col. Michael Price, the St. Paul District commander, declared a local flood emergency Jan. 28, allowing the district's Emergency Operations Center to go into high gear early in the year by prepositioning supplies, training its flood responders and making flood-fighting plans with the affected states. The district's flood engineers met with more than 80 communities well ahead of rising waters.

In addition, with the extra warning time, the district put more responsibility on the local communities to prepare for and respond to the flooding. That was well received, according to Bertschi. In the Red River area, he said, "the machine from top to bottom knows how to respond to a flood very well."

A number of communities in each river basin, including Fargo and Moorhead, prepared millions of sandbags well ahead of the flooding. Fargo also built a number of emergency levees on its own this year. Under its advanced measures authority, USACE built levees early in both Moorhead and Oakport, Minn., a township just north of Moorhead.

In early April, when the district moved into emergency operations mode, flood responders began building emergency levees in the Iowa communities of Marquette and McGreggor; the Minnesota communities of Breckenridge, Georgetown, Hendrum, Moorhead, Oakport, Oslo, Perley and St. Vincent; and the North Dakota communities of Davenport, Drayton, Dwight, Fargo, Fort Ransom, Great Bend, Harwood, Kindred, Lisbon, Oxbow, Sawyer and Valley City. Flood responders also provided technical assistance to many more communities in all four basins.

This year's challenges included changing weather on the Mississippi River and the Sheyenne River, a tributary of the Red River. On the Upper Mississippi, just as the river began to crest at Hastings, Minn., cold temperatures set in, slowing both the melt and the rise, which resulted in a second crest several weeks later.

"The colder temperatures separated the flooding," said Liz Nelsen, a hydrologist with St. Paul District's Water Control Office. "The driving force of the high stages on the Mississippi River was to be the runoff from the Minnesota River basin, plus the flow from the Mississippi Headwaters basin. The Mississippi River basin above Hastings melted in two phases, which created two crests down the Mississippi River. If it had been one crest, it would have been much higher."

On the Sheyenne River, changing forecasts for the amount of water flowing into the district's Baldhill Dam resulted in USACE raising levees in Valley City three times. The town lies just downstream of the dam. "It's a pretty dynamic basin," said Rich Schueneman, sub-area flood engineer. "We really didn't have a good idea of what was coming at us."

Between the second and third levee raise, the district had already begun sending home its quality assurance inspectors, and USACE contractors had begun releasing some of their equipment. Then NWS raised the forecast again. Schueneman said, "We need to get together with the NWS and the U.S. Geological Survey and look at ways to do a better analysis on what's coming down on us during future events."

As of press time, a number of communities still face high water against their temporary levees, including Valley City and Lisbon. To date, no community has received significant damage, although a number of rural homes and homes along river banks outside of the emergency protection areas have been lost.

Overall, preparedness and collaboration were the keys to this year's successful flood response," said Teri Alberico, St. Paul District's chief of Emergency Operations. "All levels - community, county, state and federal - worked together from the initial flood forecast announcement. At the request of the states, USACE provided contingency planning support to communities. The communities stepped up to the plate to prepare for flooding by buying sandbags, renting pumps and making contingency plans for levees. Everything went smoothly, considering the forecast we faced this year."

Ceremonial honors



Gen. Martin Dempsey, Army chief of staff, awards the Distinguished Service Medal to Lt. Gen. Robert Van Antwerp, chief of engineers, as Paula, Van Antwerp's wife, looks on.



Maj. Micheal Buxbaum, USACE command sergeant major, fasten the Army Superior Unit Award streamer to the USACE flag.

Lt. Gen. Robert Van Antwerp, chief of engineers, helps Command Sgt.

Dam vital to Kandahar Province

By Joan KiblerAfghanistan Engineer District South

The phrase "international cooperation" is read and spoken a lot during operations in Afghanistan, but it takes a project like Dahla Dam to show what that really means. The Afghan national and local governments, ISAF Regional Command South, the Canadians, Afghanistan Engineer District, Omaha District and civilian contractors are all working together to refurbish the 59-year-old dam.

Water equals life for 80 percent of the population of the arid Kandahar Province where agriculture is the primary industry. Most of that population lives along the Arghandab River and its irrigation system, which starts at Dahla Dam 21 miles northeast of Kandahar City.

Thirty years of war and resulting neglect have destroyed agriculture areas in a region that was once known as the breadbasket of Afghanistan. In a valley once lush with crops and orchards, farmers wait for a reliable water supply that will feed their families and bring income.

Accordingly, the Afghanistan National and Kandahar Provincial governments have identified the Arghandab Irrigation Rehabilitation Project, including Dahla Dam, as a key priority for national reconstruction. That's because it is both the largest dam and the largest irrigation system in Kandahar Province.

With sufficient water supply, the Arghandab Valley can once again produce wheat, corn, melon and other crops, as well as pomegranates, grapes and apricots.

The project has two main goals to improve water distribution and control. The first is repairs to Dahla Dam and its reservoir pool, which has lost about 30 percent of its capacity due to accumulated sediment. The second is repairs to the downstream irrigation network, which was losing up to 60 percent of the water flow because of deficiencies in the existing infrastructure.

The Canadian government has invested \$50 million for three years to repair the irrigation network, according to its website. The Canadians have been replacing generators and repairing water valves to improve water flow from Dahla Dam, fixing the gates that control water flow from the Arghandab River into the canal system, repairing the canals, and working with Afghans to improve water management and crop production.

As the Canadian government completes its work on the irrigation network, ISAF Regional Command South asked Afghanistan Engineer District South to study the



Photo by Steve Bredthauer

The outlet tunnel experiences leakage through worn valves. The Canadian government is expected to repair this structure.

first component of the Arghandab Irrigation Project – how to increase the capacity of Dahla Dam.

"This is a collaborative effort with the Corps Stateside to complete this study quickly," said Annette Evans, AED-South Water and Infrastructure program manager. "We have agencies across the globe focused on how we can increase water storage at Dahla Dam."

Steve Bredthauer, AED-South project manager, said that the Canadian government identified three options to increase the water reservoir capacity of Dahla Dam:

- Increase the height of Dahla Dam to compensate for capacity lost to accumulating sediment.
- Build a new dam upstream to provide additional water storage.
- Remove sediment from Dahla Dam by dredging, and provide upstream sediment control.

Building a new dam upstream is a viable option, Bredthauer said. "However, it would take longer to get to construction since little field data is available at identified sites. Studies for a new upstream dam are continuing, but it is not considered an immediate construction option."

Dredging the existing reservoir was eliminated because it was too costly and time consuming, Evans said.

So the third option, increasing the height of Dahla Dam, became the primary consideration.

At the same time, AED-South was completing a master plan for delivering potable water to Kandahar City. "We concluded that Dahla Dam can supply potable wa-

ter to the city as well as be used for irrigation purposes," Evans said. "But the dam would have to be raised to increase the volume to sufficiently meet both purposes."

Bredthauer said that Omaha District will complete a study for raising the water storage capacity of Dahla Dam.

"Omaha District is on the fast track to complete this study by September," Bredthauer said. "By January 2012, Omaha will provide a contract package for the dam raise, which will take place in two separate phases beginning in fiscal 2012.

"This theater has a sense of urgency to get things done, as the U.S. government prepares for a major transition in 2014," said Col. Anthony Funkhouser, AED-South commander. He told the Omaha team to "look at what can be done immediately. Look at phasing the work so that we achieve momentum. This dam is now used for irrigation, but it can have other purposes."

Dahla Dam, originally named Arghandab Dam, was built by the U.S. Agency for International Development and completed in 1952. It was originally built to provide flood control, irrigation water and hydroelectric power, but equipment for power production was never installed.

According to reports, the original design did not include any sediment control measures, and none were incorporated in the following years.

"About 30 percent of the original storage capacity in the reservoir has been filled with sediment," said Josh Melliger, Omaha District hydraulic engineer.

The area, because of its arid climate and

erosive soils, is already susceptible to sedimentation, but it has been complicated by other factors, Melliger said.

"As a result of the war, Afghanistan has suffered extensive deforestation," he said. "The land previously supported grazing by the nomadic tribes. But with restrictions in movement due to war, the land is now overgrazed.

"So the sedimentation problem is widespread," Melliger continued. "As part of our study, we will attempt to identify areas with high sediment loads and determine if smaller dams or rings of rock can be used to trap the sediment to keep it from reaching Dahla Dam."

The team will also look at use of revegetation to prevent erosion. "Our environmental mitigation plan will consider whether selective revegetation in areas of high erosion is a viable option for reducing the sediment load to the reservoir," Fassero said

Most of the flow for the Arghandab River comes from melting snow in the high Hindu Kush Mountains.

"Dahla Dam collects most of its water in February through April," Melliger said. "Then the irrigation demands hit in May through August. We will study the best methods to store water and release it when it's needed."

With the study due by September, Fassero said they will have to fast-track their work and reach out to other USACE districts with water resources expertise.

"We must complete this project on a much tighter schedule than a typical civil works project in the U.S.," Fassero said.

"I was impressed with the level of concern about the irrigation system expressed by the Dahla Dam manager from the Afghanistan Ministry of Energy and Water (MEW) with whom we met," Fassero said. "As an Afghan citizen, he expressed a strong willingness on the part of MEW to work with the U.S. to improve Dahla Dam.

"I was impressed with the skill of the Soldiers at FOB (forward operating base) Frontenac, who provided transportation and security for our site visit to the dam," Fassero continued. "It was interesting to hear their perspective on the importance of working directly with the local citizens near the dam and to watch as they addressed several questions from people at the dam site.

"I was impressed with what Corps of Engineers people have to understand about Afghanistan to operate effectively here," Fassero said. "The complexities of working here became much more evident in the political, cultural and social context."

Kenya army engineers learn USACE way of civil operations

By Tiffany HillUSACE Headquarters

Kenya has a different attitude about its military than America does. Although the armed forces are a respected profession in Kenya, there is more of a cultural distance between them and the civilian population. It is rare to see Kenyan soldiers assisting civilians as seen during Hurricane Katrina, or to see soldiers and civilians routinely working side-by-side in their daily jobs as seen in the U.S. Army Corps of Engineers and elsewhere in the Department of Defense.

But a training program recently created by a team from USACE Headquarters is bridging this cultural distance. The program trains soldiers in the Kenya Army Corps of Engineers (KACE) to work with civilians in much the same way that USACE Soldiers do.

The spark for this program began in 2007 when Kenya experienced extensive civil unrest following disputed presidential elections. Violence throughout the country caused more than 1,000 deaths and displaced more than 300,000 people.

The Kenya military was effective in helping with some reconstruction efforts and handling the mass needs of civilians, but the need was greater than any group could manage.

Afterwards, as the Kenyan government and international authorities studied lessons-learned, the U.S. Embassy in Nairobi recommended that the Kenya military train their soldiers in civil affairs to work more effectively with civilians, and train KACE soldiers in the community assistance skills that are common in USACE.

The U.S. Department of State approached USACE in 2009 to determine if a training program could be developed to meet both of those needs. A USACE team from the International Emergency Management and Interagency and International Services offices in Headquarters believed that the Corps' civil works and disaster response experience could be used to develop this program.

The team worked with civil affairs contractors to develop an appropriate training curriculum. It was based on the U.S. Civil Affairs Generalist Course taught by the JFK Special Warfare Center and School, augmented with lessons-learned from the Corps' Civil Military Emergency Preparedness program.

Since the training in Kenya would be the first of its kind, and the longest training of its kind, these two primary sources were complemented by other expertise. The program idea was initiated by the Kenya U.S. Liaison Office (KUSLO) and U.S. Embassy Nairobi. As the program developed, USACE project managers tapped the U.S. Army's Africa Command, the U.S. Agency for International Development (USAID), Combined Joint Task Force Horn of Africa (CJTF HOA), the United Nation's Office for the Coordination of Humanitarian Affairs, the Kenya Red Cross and key Kenyan government ministries.

The USACE training and management team made several assessment and planning visits to Kenya, and com-



Photo by Tiffany Hill

Brigadier A. Mohammed oversees soldiers during their first week of instruction.

pleted the basic curriculum for a nine-week classroom training course. The course began Nov. 1, 2010, but it was not set in concrete at the start. The training team stayed flexible with classroom lessons, and changed material as the course progressed to ensure comprehension by the Kenyan soldiers.

This was new territory for the soldiers. The lessons included cultural sensitivity, working with women and children, the responsibilities of nongovernment organizations and international organizations, disaster response considerations, community health concerns and handling the news media. The objective was to cover all of the situations that Kenyan soldiers would encounter when interacting with civilians during community development or disaster response.

In the initial five-week first phase, the objectives were taught using classroom lessons and practical team exercises where officers and enlisted personnel learned to work together. This was another cultural shift for the soldiers because the Kenyan army is based on the British model where officers and enlisted men usually have little or no interaction.

After a break for the Christmas holidays, the second phase spanned four weeks with a classroom recap and project executions. Thirty-six soldiers participated in both phases and graduated on March 25.

"Kenyans vote with their feet, and to have all 36 soldiers participate in both phases of the training really shows the support we are receiving from KMoD (Kenya Ministry of Defense)," said Lt. Col. Matthew Battiston, the KUSLO deputy and the point of contact for the Corps for this project.

Besides KUSLO, many other groups supported the

training. Lee Brudvig, the deputy chief of mission at the U.S. Embassy Nairobi, opened and closed the program. Personnel from CJTF HOA helped the USACE team with stakeholder meetings and knowledge of regional programs during program assessments and development stages.

USAID's Office of Foreign Disaster Assistance, the Kenya Red Cross, the Kenya National Disaster Operations Center and the Kenya Medical Research Institute all helped develop the training, and sent subject matter experts to give presentations to the class.

But the real success came from the Kenya Army Engineer Command that selected high-caliber soldiers for the training. In addition, the USACE team received full support from the KACE command staff. Assistance and program ideas came from the staff of Brigadier A. Mohammed, engineer commander, and after a change of command from his successor, Brigadier G. R. A. Owino.

"The civil affairs course really helped in terms of knowledge and skills," said Alvin Magige, the KMoD public affairs officer. Magige helped teach the news media portion of the course. "The newly trained engineers are now eager to begin working alongside civilian organizations on community projects, and to be considered a resource during disaster response."

Since this program has been so well received, the KACE and USACE team hope to see the program expand in the future.

"Learning is a continuous profession," said CW2 Charles Micheni, a Kenya Army Corps of Engineers warrant officer. "A brotherhood has been established between soldiers during the training, and I hope that this program will continue to include more of my fellow soldiers in the future.

New lock gate is ARRA success

By Terri Rorke Walla Walla District

After a winter-long navigation outage, river traffic is again passing through a new downstream gate at Lower Monumental Lock and Dam in Kahlotus, Wash. The four-month project to replace three navigational lock gates in the Columbia and Snake rivers navigation system is a success story of the American Recovery and Reinvestment Act (ARRA).

The 42-year-old lift gate has experienced more than 50,000 lockages since the dam went into service in 1969. The fatigue and stress from these lockages led to cracks and fractures that were first noticed in the late 1990s.

After performing numerous repairs on the gate that resulted in only short-term solutions, experts in Walla Walla District determined that a planned outage to replace the entire gate would be the most economical way to maintain navigation service for the Columbia-Snake rivers transportation system.

In 2002, key district personnel began developing a plan to provide long-term solutions to the problems seen in the navigation lock components. Margie McGill, project manager, led in formulating a plan to address the rehabilitation needs of the navigation lock, with emphasis on the downstream lift gate. Her efforts resulted in an approved rehabilitation plan in 2006.

The only thing lacking was funds. In 2009, President Barack Obama signed ARRA, which provided the funds. Walla Walla District now had the challenge of completing the lift gate replacement in 18 months when it would have normally taken three years.

"The purpose of stimulus funding was to get America back to work through shovel-ready projects," McGill said.



Photo courtesy of Walla Walla Distric

The new downstream gate is installed at Lower Monumental Lock and Dam.

"This project needed a bit of work before we could call it shovel-ready. With strong leads from engineering, contracting and construction, we put together a successful contract for the fabrication and installation of the gate, which was awarded within a four-month period."

McGill and other U.S. Army Corps of Engineers per-

sonnel worked closely with key regional collaborators, especially the Pacific Northwest Waterways Association (PNWA), which advocated funding this project.

"Walla Walla District has done an outstanding job of coordinating with stakeholders in the months leading up to this unprecedented closure, and during the installation of the new lock gate," said Glenn Vanselow, executive director of PNWA. "This advance planning allowed growers, shippers and overseas buyers of Northwest products to plan in advance to minimize economic impacts."

One of the last phases of the gate replacement project took place last October when the project management "baton" passed to Steve Hartman to manage the onsite construction work. Hartman has more than 20 years of construction management experience.

The normal two- to three-week outage extended from December 2010 through March 2011 so that USACE could replace Walla Walla District's Lower Monumental Lock and Dam (\$13.6 million), Portland District's John Day Lock and Dam (\$15.6 million) and The Dalles Lock and Dam (\$15.7 million).

The Columbia and Snake rivers system is the numberone U.S. wheat and barley export gateway, number one West Coast paper and forest products gateway, number one West Coast mineral bulk exporter, and number one West Coast auto imports gateway.

Lt. Col. David Caldwell, Walla Walla District commander said, "The Corps understands the impact this outage had on navigation stakeholders. We coordinated the outage schedule with shippers and their customers well in advance, so they could develop alternative transportation plans. The alternative to this planned, coordinated outage was an unplanned emergency outage that might shut down the navigation locks for a year or more."

#R Corner 'USA Staffing' is new hiring tool

Since March 2010, the Department of the Army has tested a new automated applicant tool called USA Staffing. It is a human resources tool used to gather applicants' resumes and refer best-qualified candidates to selecting officials. DA will deploy USA Staffing during fiscal years 2011 and 2012.

Army's transition to USA Staffing supports the Office of Personnel Management's (OPM) end-to-end hiring model and the Presidential Hiring Reform initiatives. During the next two years, the Civilian Personnel Advisory Centers (CPAC) will continue to transition from the current RESUMIX recruitment tool to USA Staffing.

Until now, RESUMIX has been the single staffing system used by the Army. Efforts to be more competitive, improve recruitment efforts, and attract the best talent spurred DA's initiative to provide applicants and CPACs with a more efficient recruitment tool. Switching to USA Staffing will improve the application process for USACE positions, and the process to staff vacancies.

OPM developed USA Staffing, and it is quickly becoming the standard employee application and referral tool in the government. It is the most cost-effective means of getting the best-qualified candidates.

The complex staffing process often seen in the public sector is simplified with this user-friendly, web-enabled

software that automates recruitment, assessment, referral and notification. Applicants will be able to assess the skills, job-related knowledge and experience they will be evaluated against, and respond to job-related questions addressing and highlighting their skills.

USA Staffing will:

- Display vacancy announcements
- Post vacancy announcements on USAJOBS and www.armycivilianservice.com
- Accept applications via Internet or fax
- Analyze applicant competencies and qualifications
- Rate and rank job applicants
- Cover all available hiring flexibilities
- Produce and update referral lists
- Notify applicants of change in status
- Manage applicant records and CPAC case files

Military Personnel Corner

DA released the fiscal 2012 colonel and lieutenant colonel command slate on April 12. The following officers were selected to command USACE districts in fiscal 2012:

Colonel: Joel Cross, Mark Deschenes, Alan Dodd, Joseph Jordan, Charles Klinge, Christopher Lestochi, Paul Olsen and Paul Owen.

Lieutenant colonel: Tom Asbery, John Baker, John Becking, Antoinette Gant and Andrew Kelly.

Changes now allow Soldiers to conduct a permanent change of station (PCS) and use their government travel credit card (GTCC) for travel and transportation. The card may only be used to procure the most cost-effective travel arrangements between old and new permanent duty stations. In addition, GTCC can only be used to purchase official travel and not routings for personal convenience, such as travel to a leave site or circuitous (non-direct) routings.

All PCS travelers are authorized two pieces of checkedin baggage with the GTCC, not to exceed 50 pounds each. This allowance is in addition to any free check baggage allowance that the carrier provides. Travelers are advised to check with their air carrier to determine their free checked baggage allowance.

The cost of shipping this baggage is a reimbursable expense that may be charged to the Soldier's GTCC. The Soldier must request and retain receipts for the shipment of the baggage. These receipts must be provided when submitting the final travel voucher.

Specific information concerning these changes is in Military Personnel Message 11-101. Please contact at (202)761-1798 for more information.

AROUND THE CORPS

LEED gold rating

A small business earned a gold rating through the Leadership in Energy and Environmental Design (LEED) program for a construction project on Fort Lee, Va. It's a first for Fort Lee and the company, Leebocor Services, LLC.

"A gold LEED rating can't happen without contractor involvement because we can't set standards above silver," said Mike Roach, USACE resident engineer at Fort Lee. "It's up to the contractor to go above and beyond. A lot of them are becoming more environmentally conscious, and going green is important in their construction."

According to the U.S. Green Building Council website, LEED is a program that encourages companies to adopt environmentally friendly building practices through a suite of rating systems that recognize projects that implement strategies for better environmental and health performance. LEED award levels are silver, gold and platinum

The Air Force/Navy Dining Facility on B Avenue on Fort Lee garnered the award for design features and functions that achieved high LEED scores for energy savings, water efficiency, CO2 emission reductions, stewardship of resources and more.

The \$6.7 million facility opened in June 2010 and features energy-efficient lighting, low-flow water and other energy-saving appliances. At every stage of the design and construction process, the contractor recycled as much waste as possible and used resources from distributors close to Fort Lee to reduce the project's carbon footprint.

School outreach

Far East District's Good Neighbor Program hosted two Kids in Hard Hats events in April. Students from Songwha Elementary School and Buyong Elementary School in Pyongtaek near U.S. Army Garrison Humphreys learned about the huge construction and expansion project.

Col. Gordon Trounson, deputy director of the Korea Relocation Programs Office, represented the district at Songwha Elementary School April 6. Songwha is one of the largest elementary schools near USAG Humphreys with more than 650 students and 50 teachers. He gave the students a briefing about the construction, which included a fly-over video.

Trounson also took the students to an overlook on base to see the progress firsthand.

"The size of the expanding land amazed me," said Seo Hyang-yeol, Songwha principal. "I really appreciate Far East District giving my students this valuable opportunity to go on post and see the construction."

Trounson presented 800 English books to the school on behalf of the district. They had been trying to establish an English section in their library for a long time.

The "Kids in Hard Hats" program also let the students have fun. They scaled the climbing wall at the Zoeckler Station Gym and enjoyed lunch at the Red Dragon Inn dining facility.

Trounson is leaving Korea soon, and WO1 Susan Bostick took over the Kids in Hard Hats program. A week later she represented the district during the next event with Buyong Elementary School.

"Thanks to FED's hard work my students and the school staff had a wonderful time," said Seo Hyeong-seok, an English teacher at Buyong. "We are taking a valuable experience and memories back with us. This visit helped us understand what's going on inside the base in our neighborhood."

The students and faculty of Buyong also received 800 English books.

"The books presented today will be a great asset to the school and will help my students a lot when they study English," Seo said. "I really appreciate all of you who donated books and welcomed us so warmheartedly."

Rio Grande fish project

If you build it, will they come? That is the question asked by USACE and other organizations of the Middle Rio Grande Endangered Species Collaborative Program. If suitable habitat is built in the Middle Rio Grande, and river flows are adjusted to mimic natural flows, will the endangered Rio Grande silvery minnow become abundant once again?

The silvery minnow is a three-inch-long fish with a tiny mouth and eyes. In the early 20th century, it was common along the Rio Grande. But by 1994 the minnow was present in only 5 percent of its former range and it was officially listed as an endangered species. Biologists were unsure what could be done to save it from extinc-

tion. One idea was that damming and channelization had eliminated shallow channel and overbank habitats.

To test this idea, USACE joined with other members of the Collaborative Program, including the New Mexico Interstate Stream Commission, the U.S. Fish and Wildlife Service, the Albuquerque-Bernalillo County Water Utility Authority, the U.S. Bureau of Reclamation, the New Mexico Department of Game and Fish and the Middle Rio Grande Conservancy District.

They built a series of high- and low-flow channels cutting across islands and river banks to restore a dynamic, complex floodway in the Middle Rio Grande. The floodway has a diversity of channel habitats and flows for silvery minnow reproduction and early life stages.

USACE also experimented with artificially longer spring high flows, and re-introduced native floodplain vegetation.

In spring 2010, the Collaborative Program members wanted to see if the silvery minnow population had increased. But unavoidable problems meant a contractor could not be hired in time. So they fielded a multi-agency team of biologists, hydrologists and geomorphologists to assess whether minnows are living in their new habitat.

What they learned is encouraging. More than 1,600 minnows and countless minnow eggs were identified at the 20 restoration sites. The low-intensity monitoring effort was so successful that the Collaborative Program has decided to keep it in house.

Building Strong People

'We're here for a good reason.'

By John Prettyman Sacramento District

Heather Wright has been working as a park ranger for Sacramento District for the past six years, ensuring that visitors to Stanislaus River Parks have a safe and enjoyable experience.

"Many people don't know that there are rangers for the U.S. Army Corps of Engineers, but we're here for a good reason," Wright said. "One of them is to be good stewards of our natural resources on our project lands. The other is for public safety."

The parks' river, recreational opportunities and annual events like the Civil War Days and the Gold Country Peddler's Fair bring in thousands of visitors each year. Park rangers like Wright have the crucial role of ensuring the parks are maintained and accessible to all visitors.

"To be a park ranger it takes a genuine love for people and natural resources," said Wright. "It's really our job to have the parks open, ready and available for people to come out and enjoy recreation."

Stanislaus River Parks is one of 10 parks that Sacramento District operates in Northern California. Nationwide, USACE is the number-one federal provider of outdoor recreation, hosting more than 350 million visitors annually at more than 4,200 recreation sites at 423 lakes and river projects.

(To see the "Building Strong People" video series, go to www.army.mil/usace.)



Photo courtesy of Sacramento Distric

Park ranger Heather Wright prepares for kayak patrol along the Stanislaus River. Stanislaus River Parks is just one of 423 lakes and river projects managed by USACE nationwide.

'He's never stopped helping me...'

By Kerry Solan Norfolk District

Jack Beecher is a man of his word.

His office proves that with rows of neatly arranged awards and shiny plaques that praise his work with small businesses in tall, etched letters. Another decoration for his efforts, a ceremonial sword, guards the front of Beecher's desk. On a table he keeps three smooth black stones that say "Respect," "Trust" and "Integrity" the basic tenets of how Beecher does business.

The World Wide Web will tell you that Beecher's expert testimony was shared with Congress, and that he has spoken at or attended more small business conferences than a contractor could shake a stick at.

As the chief of the Small Business Program Office, is Beecher the best at what he does? Kaney O'Neill thinks so. O'Neill was a Navy airman apprentice when she fell and became a quadriplegic more than a decade ago. As a service-disabled veteran, she owns a general contracting company in Washington State, and she met Beecher at a small business conference. Since then, Beecher has become an advocate for her, like he is for all service-disabled veteran-owned small businesses.

"When you're in a business like mine, it's difficult," O'Neill said. "Jack has been somebody who actively supports my business, and done everything in his power to help make me and my business successful."

Beecher is the man of opportunity for small businesses. At Norfolk District, his small business section connects work opportunities, mostly contracting, with small women-owned businesses, small disadvantaged businesses, and small businesses in historically underutilized zones, among others.

From beaches to business

Fresh out of the jungles of Vietnam, Beecher joined Norfolk District in 1970 as a surveying aide. Four years later he became a general clerk in the contracting division, and since then he has worked his way through the ranks.

Beecher himself said he's come a long way.

A beach-bum at heart, the young Beecher was content to surf the Atlantic waves when he wasn't stocking shelves, sacking groceries or crashing at his parents' home in Portsmouth, Va. He was doing just that when an official letter arrived in 1968 with the words that changed so many young lives forever -- "You are hereby ordered to report for and submit to induction into the Armed Forces of the United States ..."

"To be honest with you, at the time, I didn't care to be in the Army," Beecher said.

But he now uses the connection he feels from his two years in the Army to help service-disabled veterans. Beecher is also an SDV, something he found after his prostate cancer was linked to his exposure to the Agent Orange defoliate in Vietnam.

"As a service-disabled veteran, I have a personal perspective on trying to help those companies," he said. "Not a day goes by that I'm not dealing with a SDV."

Small business, big success

Beecher became Norfolk District's small business chief in 1998, and the program manager for the service-dis-



hoto courtesy of Norfolk District

Jack Beecher talks with a visitor to the USACE display at a small business conference.

abled veteran-owned small businesses (SDVOSB) category about four years ago. As program manager, he said he had a valuable tool at his fingertips -- an executive order directing federal agencies to award 3 percent of their contract budget to SDVOSB.

"The order was a really great incubator for vets who were interested in starting small businesses and working with the federal government," said David Spanka, president of the Service-Disabled Veteran-Owned Small Business Council. But Spanka said this order was weakened by its wording.

"The order simply established an agency goal," Spanka said. "A lot of government agencies don't meet that goal, but pat themselves on the back when they achieve 1 per-

Spanka said agencies like the Veteran's Administration and Norfolk District have done well in meeting or exceeding the 3 percent mark. The district lands that recognition in part to the small business section's efforts. During Beecher's first year as program manager, the district increased its SDV awards from \$217 million to \$543 million as the Small Business Program Office put SDVOSBs in front of contract officers and decision makers at Norfolk District.

Beecher says the successes are a reflection of USACE employees and leadership, and each played a role in ensuring that Norfolk District has exceeded the 3 percent goal every fiscal year since 2008. In fiscal 2010, 15 percent of the contracting budget went to SDVOSBs.

Some SDVOSBs come to Beecher, others he finds. He looks for SDVOSB construction companies, and helps them navigate the federal marketplace as they seek opportunities to do business with Uncle Sam. He's found dozens of companies at conferences, in meetings, through databases, and he has watched the businesses ride their success to become something larger.

"I've actually seen some small businesses go from having companies that do \$100,000 a year to well above \$4 or \$5 million a year," Beecher said.

John Karafa's construction business was one such com-

pany. The company's maiden project was the dining facility at Fort Lee, Va., in 2008. It was also the seed project for the fledgling company, Leebcor.

"We had a lot to lose or a lot to gain," Karafa said. "They say you're only as good as your last project, so we wanted to put our best foot forward, and this wasn't an easy building."

The dining facility was a \$6.8 million contract. In 2010, it earned a Leadership in Energy and Environmental Design (LEED) Gold rating. LEED is the U.S. Green Building Council's certification program, the nationally accepted benchmark for the design, construction and operation of high-performance green buildings.

"That project enabled us to launch a credible, quality-focused business," Karafa said. "I wouldn't be here if it wasn't for the small business program. I had this opportunity because of Jack."

Norfolk District has since awarded Karafa's company with a handful of multi-million dollar projects under the SDV set-aside.

The small business section also helped Jim Hart's construction business, Arriba Corporation, become another company that handles million-dollar contracts. Arriba started in 1998 with two employees and one contract. But that was before Jack Beecher and a contract for a job at Fort Eustis, Va.

"Jack provided a lot of support," Hart said. "He's incredibly committed to small businesses."

Hart credits Beecher with strengthening SDVOSBs by advocating for them and getting companies in front of decision-makers.

"His voice was pretty loud," Hart said. "He rallied a lot of people to say, 'Look, this makes sense."

In the meantime, Beecher continues to support SD-VOSB, finding new businesses and keeping in touch with companies, like Kaney O'Neill's, that he's helped along the way.

"He's never stopped helping me," O'Neill said. "It says a lot about what kind of man Jack is and about his work ethic. It's a beautiful thing."