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Campaign plan is road map to Corps' future

By Bernard Tate
Headquarters

If you are going somewhere important, it is wise to have a road map. This summer, the U.S. Army Corps of Engineers will release its new campaign plan, the road map that will take the Corps from good to great in the near future.

"But why do we need a new campaign plan," long-time USACE employees might ask. "Don't we already have one?"

"At last year's Senior Leaders Conference, Lt. Gen. Robert Van Antwerp, the chief of engineers, laid out what he wanted to accomplish during his tenure, in the context of *Good to Great* by Jim Collins," said Marc Kodack with the Strategy and Integration Directorate. "As part of that, the campaign plan is the fundamental, core document for what we want to do during the next several years.

"We already have a campaign plan," Kodack continued. "It was issued in June 2005. Lt. Gen. Van Antwerp said it looked good to him, but it needed to be tweaked to integrate the good to great framework that he talked about."

'Refreshed' campaign plan

Late last August, the Strategy and Integration Directorate formed a project delivery team (PDT) with representatives from Headquarters and the Corps'

major subordinate commands. Throughout the rest of 2007, the PDT held a series of workshops focused on reviewing the existing goals and objectives and revising them as needed.

"There are three goals in the existing campaign plan," Kodack said. "So we looked at those. There are also multiple objectives. We brought in subject matter experts, and consulted with the goal and objective champions to provide the team with their thoughts and comments on what we needed to change based on the good to great concepts presented by the chief of engineers."

According to Kodack, the old campaign plan was not replaced. He said it was "refreshed" — brought up-to-date to set the tone for the Corps' strategic direction during the next several years.

Goals & objectives

The refreshed campaign plan has four major goals, and four objectives under each goal.

Goal 1: *Deliver USACE support to combat, stability, and disaster operations through forward deployed and reachback capabilities.*

Objective 1a: USACE is ready, responsive, and reliable in delivering high performance, all hazard, contingency mission execution in a worldwide theater of operations.

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Web site to get new look

By Bernard Tate
Headquarters

First impressions are vital. In this era when the World Wide Web is as much a part of commerce as brick-and-mortar buildings, a Web site is often a corporation's first impression to both customers and casual visitors. If that Web site doesn't work well or look good, it can turn off a customer as quickly as a shabby showroom or a rude, inefficient staff.

That is part of the reason that the U.S. Army Corps of Engineers is rolling out a new Web site this summer.

Number one communication tool. "The Headquarters USACE Web site hosts more than 200,000 visits per day," said Tesia Williams of the Public Affairs Office, project manager for the USACE Web site refresh. "As our number one communication tool, it should show that we're a competent, professional organization. But our current Web site is not providing information that's easily accessible. Users find it difficult to navigate the site, or find the information old and outdated. In addition, the quality does not reflect the quality and performance of what the Corps provides.

"So, with all the forces aligning (the new Web 2.0 tools, a chief of engineers who is interested in updating our communication tools, ACE-IT coming onboard) it seemed like the right time to revise the Web site to make it more user friendly and provide what the customer needs, when he needs it," Williams said.

Eyes of the user. The refreshed Web site will incorporate media tools like RSS (Really Simple Syndication), video, and cascading menus that are common in current commercial sites.

"When we were redoing the Web site, instead of looking at it through the eyes of a USACE employee, we looked through the eyes of the customer," Williams said. "So there is little use of acronyms, and the information is categorized so that visitors can find information they need without knowing our business lines.

"Therefore, if I'm a member of the public and I want to know how to safeguard my home, I don't need to know all about civil works and military programs or anything like that. I can just look up flood information," Williams said. "That's how we approached this project."

Standard brand. All Corps Web sites will have

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Command Sgt. Major Micheal Buxbaum is the Corps' new command sergeant major. (Photo by F.T. Eyre, ACE-IT)

USACE has new command sgt. maj.

By Bernard Tate
Headquarters

"My charge from the commanding general is to take care of our Soldiers, civilians, and families. That's nothing new for me; that's what I've always done."

With these words Command Sgt. Maj. Micheal Buxbaum became the 10th command sergeant major of the U.S. Army Corps of Engineers. Lt. Gen. Robert Van Antwerp, the chief of engineers, hosted an assumption of responsibility ceremony at USACE Headquarters on May 13.

Buxbaum's last assignment was the com-

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Chief's blog

"Corps e-spondence," the Chief of Engineers' blog, can be seen on the USACE Web site at www.usace.army.mil.

Recent postings include:

- Building the bench
- Take me out to the ballgame
- Rebuilding trust in New Orleans

Now is the best time to transform USACE

By Lt. Gen. Robert Van Antwerp
Chief of Engineers

When do you transform the Army? *When you are at war and have the resources and real-world classrooms to test things.*

When do you build the bench and needed competencies in the U.S. Army Corps of Engineers? *When you have the largest workload since World War II (maybe in our history), and the resources and real-world classrooms to train the next generation and test things.*

To move from good to great (delivering superior performance in all missions; setting the standards for our profession; having a unique, positive impact on our nation and other nations; and building a Corps to last), we need Level 5 leaders (those who put the organization's success above their personal success) and the right people, disciplined people, on the Corps' bus and in the right seat on the bus.

We need to be "Army Strong" at all levels, from entry level to the most experienced, with a good balance of diversity — age, ethnicity, gender, and education. We need leaders in their field, certified as professional engineers and project management professionals, and licensed to professionally practice their craft.

Here is the context in which we work:

- Largest workload
- Aging infrastructure
- Aging workforce with thousands of baby boomers eligible to retire in the coming years
- A shortage of college graduates with degrees in science, technology, engineering, and math
- Other countries like China and India are graduating *three-to-five* times as many engineers per capita as we are in the U.S.

Many of you have probably heard me talk about the walnuts and rice jar, walnuts being the big priorities. Well, improving our technical competency is a walnut. Our increased workload gives us a limited window of time, three to four years, to turn the trends around and build the force — "Built to Last,"

another book by Jim Collins.

We have already begun a number of initiatives. We recently held a National Technical Competency Workshop at Headquarters, in which representatives from academia, private industry, contract partners, customers, and professional societies, as well as teammates from each division and Headquarters senior leaders tackled the major challenges we face on this issue. It was also a major focus at this year's ENFORCE at Fort Leonard Wood, Mo.

Some of the initiatives we're considering address training and equipping our current workforce, recruiting at the national, regional, and local level, and motivating students to study math and science.

Regarding the current workforce, we want to ensure USACE employees are challenged and growing the skills they have by giving them the right amount of technical work.

We also want to help our teammates achieve technical certification in their field. We'll be considering a "beefed-up" training with industry program, and looking for opportunities to bring the trainers into USACE. That may include more frequent use of virtual training programs, where appropriate.

We could use a more structured mentoring plan to make sure our employees get the guidance, support, and training they need throughout their career lifecycle. I hope to foster an environment where the staff is part of a lifetime of learning and teaching.

And we need to be diligent with exit interviews, when our teammates leave the organization, to gather that anecdotal information about how to better retain our quality staff members.

Looking to the future, we have to become the employer of choice for new graduates, or even for established professionals who are looking for that mid-term career change. We have to make sure people know what we do and what opportunities exist within the Corps.

New Orleans District is leading the way and setting a high bar in this arena. In fact, last month's *Engineer Update* spelled out some of the innovative ways they are building the bench in the "Big Easy,"



Lt. Gen. Robert Van Antwerp is the chief of engineers and commander of the U.S. Army Corps of Engineers. (U.S. Army Photo)

such as networking and building relationships with faculty at universities, deans of engineering schools, and professors who are tapped into the skills and strengths of particular students.

Of course, this will supplement, not replace our traditional recruiting at career fairs and other direct-to-student efforts.

We are going to target our recruiting more appropriately to the specific competencies we will need in the future, as a result of our "gap" analysis. So, we'll seek out specific skills, such as geotechnical or GIS, and reach out to students and institutions with those strengths. To be "Built to Last," we have to have people who are masters in their trade, as well as all-round skilled "pentathletes."

This is the beginning of getting the Good to Great "flywheel" in motion. We are just getting it started and, as we continue to focus on improving our technical competency and building a bench of disciplined people, we will gain momentum.

Thanks for joining in this critical "walnut." When we look back four or five years from now and see a Corps "Built to Last," you will have left an indelible print on our profession and our nation!

Oldest employee has seen much history

Article and Photo
By Martie Cencki
Galveston District

Typhoons and sea mines...

Nagasaki still smoldering after the atomic bomb...

Sniper fire from the Viet Cong, decades before the Vietnam War...

The Apollo 11 moon rocket...

A conversation with Jack Otis is loaded with these and other intersections with history. Otis, 85, is the oldest member of the U.S. Army Corps of Engineers. He is a project manager in Galveston District's Programs and Project Management Division, and he has plenty of stories to tell.

Otis fought hard to get into the Navy after the attack on Pearl Harbor. He was motivated by his father and uncle who had both served in the Navy dur-

ing World War I. His college studies in engineering, and his dean's insistence that he complete those studies, kept him on student deferment until graduation.

But after graduation, he soon found himself in the Navy, trained as an electronics technician's mate in the Pacific theater. He served on the LST 620. (An LST was a landing ship, tank, a large amphibious assault vessel, the smallest ship in World War II capable of crossing the ocean.) His duties included maintaining radio and radar, standing a radar operator's watch, manning ship-to-ship radio communications, plotting navigation courses for the officer-of-the-deck and "any other duties as assigned," he said.

That job description does not convey the amazing, and sometimes terrible, events that tied Otis' life with a history that we associate mostly with movies and books.

Take, for example, the B-29 Superfortress. Some

may have seen a B-29 in a museum or even in an air show. But during World War II, the B-29 was America's premier heavy bomber in the Pacific, and Otis saw them in action.

"The B-29s did their job," Otis said. "They were the best things we had near the end of the war. They flew out of Tinian Island and firebombed Japan, and then of course they dropped the atomic bombs on Hiroshima and Nagasaki."

While the great loss of life from those two bombings stunned the world, Otis said that he believed the atomic bomb shortened the war.

"It probably also saved my life, because we had orders to invade Japan in October of 1945," he said.

Otis also has his own searing recollection of that atomic attack.

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Chaplain is 5th generation Soldier

Col. Hanson Boney will assume duties as the U.S. Army Corps of Engineers chaplain on July 7. He replaces Col. Sherrill Munn, who retires this summer.

Boney (pronounced *bow-nay*) and his wife are both from Virginia. "My wife was especially excited because we met in Washington, D.C., a long time ago," Boney said. "I'm excited because I'm going to finally meet the people whose identity is written on thousands of bridges and public works projects."

He is the fifth generation of his family to serve in the military. "My great-grandfather served with the U.S. Colored Troops during the Civil War and was wounded at Petersburg, Va. He received a pension, and with that he purchased land on the Eastern Shore of Virginia that our family still owns.

"None of my family is adept at farming except me, and I despised it when I was growing up," Boney said. "It seemed like something grew every month of the year. I couldn't wait to graduate from high school."

Upon graduating from high school in 1971, Boney received a scholarship to Bowie State University in Maryland where he studied history and politics. After college, Boney worked for Mobil Corporation as a

manager to earn money for graduate school.

"But by then, I knew that God wanted me to be a pastor," he said. "After 18 months with Mobil, I resigned to go to seminary and graduated from the Wesley Theological Seminary at American University in Washington, D.C. in 1979."

While in seminary, Boney was selected to be the pastor of the Rock Hall-Fairlee Parish in Chestertown, Md.

"This became my basic training in ministry. I served there for four years before agreeing to serve one tour in the military chaplaincy."

Boney's first assignment was with the 11th Air Defense Brigade at Fort Bliss, Texas. "It was a great assignment, he said. "The training was rigorous because we were training for war with Iran over the



Col. Hanson Boney

Oldest employee

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"When we went into Sasebo, the Japanese naval base, we saw that the B-29s had sunk several carriers and warships right in place," he said. "As we came up the harbor we could see all this, and that they had destroyed the infrastructure. I took a jeep ride with the communications officer, and we went up a wide shelf, and then took a road up to the top of a cliff. Suddenly there were military police blocking off the road. Off in the distance was Nagasaki, and we could see smoke still rising from the rubble."

This was in October, 1945. The atomic bomb had been dropped on Nagasaki two months earlier, on Aug. 9, 1945.

Also in August 1945, Otis remembers a great typhoon off Okinawa. LST 620 and many Navy ships were pounded by 40-foot waves that sank some of the fleet. Otis was ordered to restore radio communications after the antenna blew off the main mast. He crawled along the bridge with the antenna tied to his waist and fastened it to the mast, restoring the ship's communications.

Otis also spotted a large Japanese mine close to the LST's port side. He shouted a warning to the executive officer, who ordered flank speed to pull the ship a safe distance away. The executive officer then ordered the gunners to destroy the mine, which exploded with a great geyser of water.

Otis remembers the kamikazes, the young Japanese pilots who flew their aircraft, often laden with explosives, bombs, torpedoes, and full fuel tanks into Allied ships.

After the war ended, Otis took a trip to French Indochina, now Vietnam, as part of a mission to pick up Nationalist Chinese troops and take them to Manchuria and Korea. As the lead ship sailing to Haiphong Harbor, LST 620 encountered heavy fire.

"We took heavy machine gun and small arms fire," he said. "Everyone hit the deck, and I said to the French pilot, 'I thought all the Japanese had surrendered.'"

The pilot responded, "Those are not Japanese. They are Viet Cong."

After the war, Otis wanted to get a graduate degree, and he had the GI Bill to help him.

"I didn't know exactly what I wanted a degree in, but Syracuse University was looking for graduate assistants in chemistry," he said. "So I thought maybe I would get a master's degree in chemistry. I decided on that road, and was teaching freshmen half the time and taking graduate courses the other half. But then



Jack Otis, 85, the oldest employee in USACE, shows a Japanese rifle to Capt. David Bryant. Otis collected the rifle from the beach on Okinawa during World War II.

I found out that most of the freshmen students were taking the course only because they had to."

He decided he didn't want to make a career out of it, underwent career testing, and learned he would be better off as a manager dealing with people rather than nuts and bolts. So he transferred over to the business graduate school and got a master's in business administration.

He started to work on a doctorate, but, because the GI Bill wasn't sufficient to take care of his expenses, he took a job with General Motors in 1951 and moved to Alabama and the world of aerospace.

In Alabama, Otis was part of the Boeing team that designed and tested the booster rocket for the Apollo missions, including the rocket for Apollo 11, the first moon landing. And it was in Alabama that he joined the USACE family.

"I started with the Corps in Mobile District in July 1971, and came to Galveston District in May 1974," Otis said.

He worked in regulatory (permits) for three years, and then planning for five years. After that, Otis transferred to engineering, in part because there was an emphasis on military work and he had spent time in the military. He was assigned team leader for mobilization master planning and military design projects.

Most men who are 85 years old have long since retired, but not Otis.

"I enjoy staying involved professionally, and being part of a great organization like the Corps of Engineers," he said.

hostage crisis at the American embassy in Tehran. The situation was resolved without conflict, but I'll never forget how honored I felt to be a Soldier.

"I didn't plan to stay in the Army beyond three years, but God had other ideas," Boney said. "I went to Korea with only 10 months left in the Army, with a follow-on assignment to the Chaplain Officer Advanced Course."

"In my 28 years of service, I've seen the footprints of God in my life and ministry," he said. "I'm blessed to be used as His instrument to bring healing and wholeness to Soldiers, DoD civilians, and families. I've not taken that obligation lightly because it is sacred. My life has been transformed, and I'm assured that I will see God's miracles every day in every one of you."

"I look forward to working with the USACE family," Boney added. "One of my favorite verses is Philippians 1:6, 'Being confident of this very thing, that He who has begun a good work in you will complete it until the day of Jesus Christ.'"

Boney and his wife have three children — Ashley, a senior at the University of Virginia; Brendon, a Coast Guardsman; and Adrianna, who is still in elementary school.

Otis says that often the best job is the one a person has "right now," and he was recently promoted and works on the Matagorda Ship Channel (MSC) deepening project, the MSC jetty rehabilitation, coastal surge modeling for the Federal Emergency Management Agency, Cedar Bayou, and Greens Bayou, among other projects.

But the project he liked best (so far, anyway) was being part of the team that drew up the master plan for Fort Sam Houston in San Antonio.

"It was fantastic," he said. "We worked out the details to get the funding and plan for the facilities — dormitories, roads, buildings, hospital, everything."

"Fort Sam is very historical," Otis said. "We drew resources from engineering or planning or wherever necessary, and of course worked closely with the post itself. It was such a worthwhile project. The Brooke Army Medical Center was part of the plan, and of course has since been built and now provides great medical support for our military men and women."

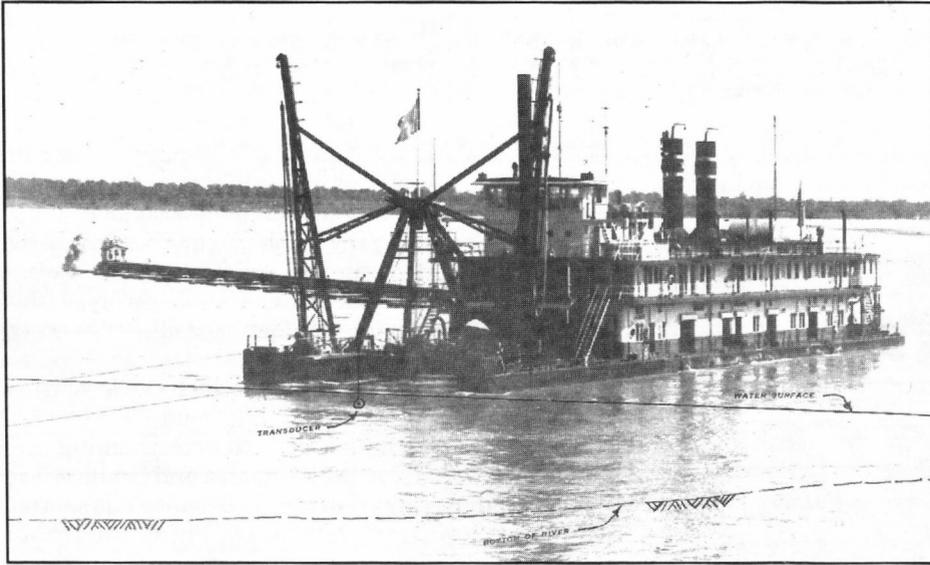
Another important project for him was the Defense Environmental Restoration Program, which focused in its early years on the identification, investigation, and cleanup of land impacted by decades of military operations and training activities.

"It was right up my alley," he said. "With my military background and my degree in chemical engineering, all the remediation efforts were something I really understood."

For about 15 years, Otis developed and wrote reports for 105 former military sites. Galveston District was funded to remediate about 21 and develop plans and specifications. The military sites were from Vietnam, Korea, World War II, and even earlier.

"The oldest site was Fort Brown in Brownsville, and that was ancient history," he said. "Then in the Rio Grande Valley at the airport in Harlingen. That was Harlingen Air Force Base in World War II. There was a Naval Inactive Ship Storage Facility where the ships were decommissioned in Orange. In the Galveston area, Scholes Field was an Army Air Corps base in World War II, and there were fuel storage tank spills and contamination that we investigated and remediated."

Jack Otis is a member of what is now called the Greatest Generation, and he is surely one of the few who is still working in full-time government service. He fought in World War II, and he is still serving today by helping keep America's ports and waterways open for navigation, which contributes to the nation's defense and economic well-being.



The dredge *Jadwin* working in shallow water in the 1940s, left, and today, right. (Photos courtesy of Vicksburg District)

Jadwin's career spans 75 years

By David Longmire
Vicksburg District

The dredge *Jadwin* turns 75 years old this year, and thanks to the determined efforts of her crew, chief engineer, and captain, she has never looked better.

One of the last two steam powered dredges built by the Mississippi River Commission, the *Jadwin* and her sister dredge, the *Burgess*, were designed by Memphis District specifically for dredging on the Mississippi River. Of the two, only the *Jadwin* remains with the U.S. Army Corps of Engineers. She was converted from steam to diesel electric in 1985, and the *Burgess* retired in the late 1980s.

In honor of the *Jadwin's* 75 years of maintaining the Mississippi River's navigation channels, Vicksburg District held a ceremony on board the vessel recently.

Since the end of the 2007 dredging season, which ran from May until November, the crew has been busy preparing the *Jadwin* by chipping and painting from bow to stern. They have also worked to complete remodeling projects including the pilot house, the galley, and part of the crew quarters.

"We have a great crew that has enormous pride in this vessel," said the *Jadwin's* captain, Randy Stockton. "All the remodeling and painting that has ever been done on here has been done by the boat's crew. We're getting her spruced up and she's going to be looking really good," he said. Stockton, who has worked every job on the *Jadwin*, including first mate, became captain of the dredge in Oct. 2007, after the retirement of Captain Samuel Lewis, who had been the *Jadwin's* captain for 10 years.

The *Jadwin* was built at the Marietta Manufacturing Co., in Point Pleasant, W.Va., on the Ohio River. She was launched on Oct. 30, 1933, and transferred from Memphis District to Vicksburg District in the early 1950s.

The *Jadwin* is 244 feet long, with a beam of 54 feet, and displaces 1,666 tons. She is named for Lt. Gen. Edgar Jadwin, chief of engineers at the time of the 1927 flood. He later developed the plan for controlling the Mississippi River, and that plan is basically still used today.

The plan was formalized in the 1928 Flood Control Act, later known as the Mississippi River and Tributaries project. An important part of this plan included improvement in the channel by dredging.

"The old timers said that if you put this dredge in premium dredging, which would be 80 percent soil, and put the pipeline in the middle of a football field, it would pump that field 60 feet deep in 24 hours," Stockton said. "That's about 4,000 cubic yards per hour."

"The importance of dredging is to maintain a navigable channel for commercial navigation to go unimpeded on the nation's waterways," said Patrick Chambers, chief of the Navigation Section in the district's River Operations Branch. "Specifically, the dredge

Jadwin is capable of dredging shallow-draft channels, like here in Vicksburg District, and also dredging in shipping channels, like in New Orleans District below the Baton Rouge Bridge."

The *Jadwin's* actual Oct. 30 "birthday" is also the birthday of her chief engineer, Perry Huskey. He was born in 1956, and has served onboard the *Jadwin* for more than 28 years. "I love what I do, and so does this crew," Huskey said. "And in the end it all just comes down to how well the crew takes care of her."

This attention to proper maintenance by the crew has kept the *Jadwin* in outstanding shape. "This dredge is definitely not new, but the crew has a lot of pride in running her," Huskey said. "If you went to build a new one at today's prices it would cost you about \$80 million. Her hull is just as solid as it ever was, and the power plants are as good now as they ever were. We recently added new wheels, rudders, and a new stern. We're remodeling the galley and repainting the entire vessel. We also put new bulwarks on the first deck so we can go out farther toward the Gulf of Mexico and get more work in the Mississippi River shipping channels. The bulwarks will keep the crew a lot safer."

Dustpan dredges are unique to the Mississippi River. The dredge has a suction head that is about as wide as the hull. This suction head is lowered into the silt and sand that fill the channel, and high velocity water jets loosen the material, which forms slurry. The slurry is pumped through a floating pipeline depositing it outside the channel near the riverbank.

Huskey said that a new dredge pipeline is in the works and that the district recently purchased a new anchor barge and a new tender boat. The *Jadwin* uses two 6,000 pound crossed anchors that are placed upriver so that the dredge can pull against them and work its way upriver.

"We're a working dredge; we normally cover about 500 river miles from Memphis down to the Gulf," Stockton said. "There is nothing really flamboyant about it. We dredge wherever we're told we're needed, and not a lot out of the ordinary happens."

Both Stockton and Huskey agreed that Hurricane Katrina was the most out-of-the-ordinary event to happen in their 28 years on the *Jadwin*.

"We were at Greenville when the hurricane hit, and we received the call to go south," Huskey said. "We loaded up with groceries and headed to the Southwest Pass. We were one of the first vessels to pass under the New Orleans Bridge after the storm."

The *Jadwin's* emergency mission was to dredge Baptiste Collette Bayou so that river traffic that usually went through the Intercoastal Canal through New Orleans could use Baptiste Collette Bayou to get through to Biloxi, Miss.

Once this was completed, the *Jadwin* tied up in Venice, La., for 40 days as a floating Corps disaster relief office, complete with galley and bunks.

Low water dredging can also be a harrowing experience. "Back in 1988 during a low water year we had an average of 35 to 40 southbound and 25 or so northbound tows held up at Greenville, Miss., while we were dredging during the day," Stockton said. "When you dredge in the daytime you can pass a three or four barge tow alongside you, but the nighttime can get a little hairy. So we usually dredge in the daytime and move out of the way so the vessels can pass at night."

The *Jadwin* has seen a lot of changes during her 75 years. In 1966 her bow was extended to 275 feet and modified to double her dredging depth to 60 feet.

Huskey worked as a steam engineer from 1982 to 1985 and was onboard when the *Jadwin* converted to diesel electric. He said they used Bunker C, a kind of thick fuel oil "almost like tar" to fuel the steam boilers. The diesel electric conversion decreased fuel consumption considerably and maintenance downtime decreased dramatically.

"Everything on here was run by steam at one time," Huskey said. "We had two boilers out there making the steam. We had a steam turbine that was 2,100 horsepower, and we operated an 84-inch pump, 38-inch suction, and a 32-inch discharge."

During the steam days the pilot had to be strong because the rudder was hooked to the bridge by metal steering rods that ran down the side of the vessel. Now, the *Jadwin* has electronic steering and the pilot can steer the boat with one finger.

Huskey can remember it like it was yesterday. "The captain would be upstairs at the helm and he would ring it up like you saw in the movie *Titanic*," he said. "As soon as I answered it I would ring him back. Every time he moved you had to move, and stand right there to answer every bell." Now the captain controls the throttle from the bridge.

Stockton said the number of crew required to operate the *Jadwin* has decreased from about 70 during the steam days to 46 crew members today.

"We're all one big family," Stockton said. "We're out here 24 hours a day during the dredging season, and the rest of the year we work eight hours a day together. Everybody on here feels the same way."

"Just after Katrina, my wife was in a car wreck and she was in the hospital for eight months," Stockton added. "This crew and others at Vicksburg District donated leave so that I could stay with my wife and family. It's sure good to work for folks like that, for people who really care about you. The support this crew gave me during all this was really something. I'm truly honored to be their captain."

Both Stockton and Huskey have no doubts that the dredge *Jadwin* will still be working on the Mississippi River when she turns 100.

"We probably won't see the 100th birthday, but I'm sure the boat will make it to 100," Stockton said. "Right now we're remodeling her to last at least another 30 or more years."

The Chief of Engineers Design and Environmental Awards Program entries were recently selected at the U.S. Army Corps of Engineers Headquarters in Washington, D.C.

Twenty-five projects and professional works were submitted and 11 were selected for these biennial awards.

In addition to the Design and Environmental Awards, two Design Teams of the Year were recognized. These awards go to the best USACE in-house design teams in the design and environmental categories.

The Environmental Design Team of the Year award went to the team that designed Water Level Management for Ecosystem Restoration in Pool 5 in Minnesota and Wisconsin. A St. Paul District team designed this project.

The Design Team of the Year Award went to the Omaha District team that designed the Jackson Avenue 300 person Barracks at Fort Lewis, Wash.

The awards program is organized into two categories of competition — design and environmental design. Projects in both categories were judged independently by an interdisciplinary jury. Design projects include primarily military construction projects and works, while the environmental design includes both civil works and environmental restoration projects.

The Chief of Engineers Design and Environmental Awards juries may

award four types of honors:

Chief of Engineers Award of Excellence — Only one Chief of Engineers Award of Excellence may be given for an entry in the design category, and only one for an entry in the environmental category. This award is given only by unanimous decision of the jury for an entry that truly exhibits excellence in all design disciplines.

Chief of Engineers Special Recognition Awards — The jury may select a project and/or professional work for special recognition in environmental preservation. This was done to place special emphasis on the USACE Environmental Operating Principles.

Honor Awards — Honor Awards are given in both the Design and Environmental categories to entries that demonstrate or stimulate excellence in each of the design disciplines. An Honor Award can only be given to an entry based on a majority decision of the jury, if no juror casts a dissenting vote.

Merit Award — Merit Awards are given to projects in both the Design and Environmental categories. Merit awards are either related to individual disciplines (e.g., a Merit Award in architecture, landscape architecture, interior design, engineering, environmental design, planning, energy conservation), or for excellence in multiple disciplines. A Merit Award can be given to an entry based on the recommendation of a single juror, if no ju-

rors offer dissenting votes.

The Chief of Engineers Design and Environmental Awards began in 1965 to recognize and promote excellence in design and environmental achievement by the U.S. Army Corps of Engineers and its professional contractors. The program has presented a total of 494 awards in the 31 times the program has been judged.

Jury members

Richard L. Hayes, PH.D., AIA, CAE — *Managing Director of Knowledge Resources for the American Institute of Architects in Washington D.C.*

Frank A. Norcross IIDA, AIA — *President of the Mid-Atlantic Chapter of the International Interior Design Association.*

Christian Holmes — *Senior Vice President for Program Development at the Global Environment & Technology Foundation.*

Angela D. Dye, RIA, ASLA, APA — *President (elect) of the American Society of Landscape Architects.*

Jane Ann Carter, LID — *USACE Interior Designer of the Year for 2006-2007.*

Kevin S. Holden, RLA, ASLA — *USACE Landscape Architect of the Year for 2006-2007.*

Bruce D. Hale, AIA — *USACE Architect of the Year for 2006-2007.*

Design Winners

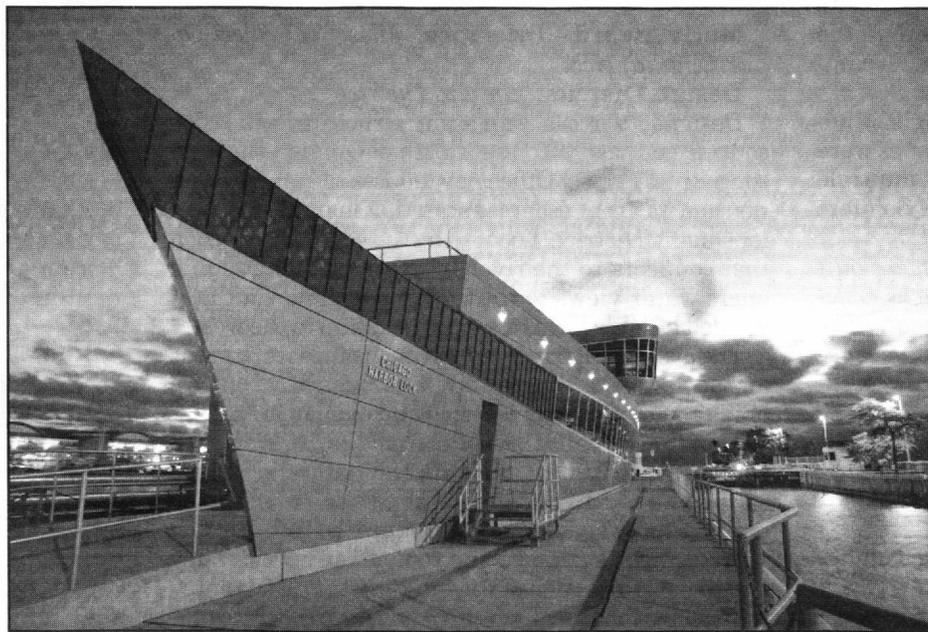
Honor Award: *Chicago Lock Control House, Chicago*

Design District: *Chicago District*
Safety and functionality were the primary goals in rebuilding the control house for the Chicago lock, a heavily-trafficked navigational gateway on Chicago's lakeshore that passes more than 50,000 boats and 900,000 passengers each year. The new control house significantly improves safe, reliable use of the lock while dramatically improving the visual appeal and workplace environment of the facility.

Because the lock is in downtown Chicago beside the Navy Pier, one of the city's premiere tourist attractions, visual aesthetics were a high priority in its design and construction. The building's curved footprint, tiled walls, zinc cladding, and choice of exterior all reflect its marine setting, while softening the overall appearance.

Improving the lock operator's ability to see and control the entire lock chamber during operation, a key design requirement, was accomplished by re-locating the lock chamber to the center of the lock wall and elevating the control room some 40 feet above the water. Supporting this structure without impacting the integrity of the lock wall was an additional challenge.

By using small diameter, drilled-in-place battered micropiles as foundation and locating them in the open cells of the lock walls, designers anchored the new structure deep in the bedrock, while minimizing disturbances to the lock.



The new control house at Chicago Lock honors its maritime heritage and highly visible location near the Navy Pier while significantly improving safe, reliable use of the lock.

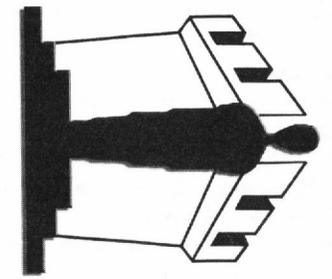
The 5,800-square-foot lock house was designed to allow a single operator to perform all lock operations from one work station. Together, these improvements add to both the visual aesthetic of the facility, and safer operation of the lock.

Jury Comments: *This new lock control house, in a highly visible location on the Chicago waterfront, is a visually stunning design. It respects its context, using a ship metaphor for the base and high rise detailing for the upper control room.*

Honor Award: *Arvin Cadet Physical Development Center, United States Military Academy, West Point, N.Y.*

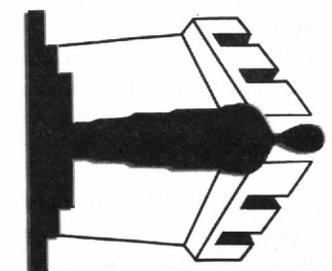
Design District: *New York District*

Operating in a confined site with unique challenges, and charged to maintain a historic designation, the repair and reconstruction of the Arvin Cadet Physical Development Center (CPDC) at the U.S. Military Academy is a model of up-to-date design and engineering working together with a sincere respect for the facility's mission.



Design and Environmental Awards

2007 Chief of Engineers



After undergoing renovation and new construction, the CPDC now totals 450,000 square feet, and features multiple pools, gymnasiums, basketball and racquetball courts, combative sports rooms, a climbing wall, sports medicine suite, and support offices.

Unique design elements were incorporated to salvage historic features of the original architecture, such as arts and crafts lanterns and decorative iron grills within the building entrance, to honor West Point's classification as a national historic landmark.

Jury Comments: *The Arvin Cadet Physical Development Center takes the historic physical education building into the 21st century by dramatically expanding the facilities while maintaining the historic context. The jury particularly liked the unifying effect of the atrium grand stairway to bring together the five levels of the building and bring light into the center of the facility. Interiors are elegant and durable while incorporating historic elements.*

Honor Award & USACE Design Team of the Year Award: *Jackson Avenue 300 Person Barracks, Fort Lewis, Wash.*

Design District: *Omaha District*

Enhancing Soldier quality of life was the objective for the Jackson Avenue Barracks Complex renewal at Fort Lewis. The challenge lay in maximizing the privacy, security, and comfort of the living spaces, while maintaining the construction economy and ease of maintenance typical of on-post housing.

Their choice of a garden apartment configuration allowed the design team to capture living room from space that would ordinarily be used for building circulation, thereby creating living conditions similar to private, off-post apartments.

Once complete, the 300-person barracks represented several "firsts" for an in-house team of Corps designers. It was the first wood-framed, Type V construction designed by the Corps to meet anti-terrorist/force protection criteria, and the first designed with 3D building information modeling software.

It was the first "Northwest Contemporary" building at Fort Lewis, a post known for Neo-Georgian concrete and steel structures. Located in a wooded site with an informal, perimeter street grid system, the barracks are built on a human scale to create a campus-like feel among the trees.

Rather than housing all Soldiers in a single building, with a double-loaded corridor, the barracks were divided into four buildings, each served by multiple stairway modules, so a maximum of only 24 Soldiers need share any communal stair.

Jury Comments: *This project serves as an outstanding interpretation of standard barracks criteria while respecting the natural environment. The design solution is simple, but allows for a solid sense of place. It acknowledges the significance of providing quality housing for Soldiers.*

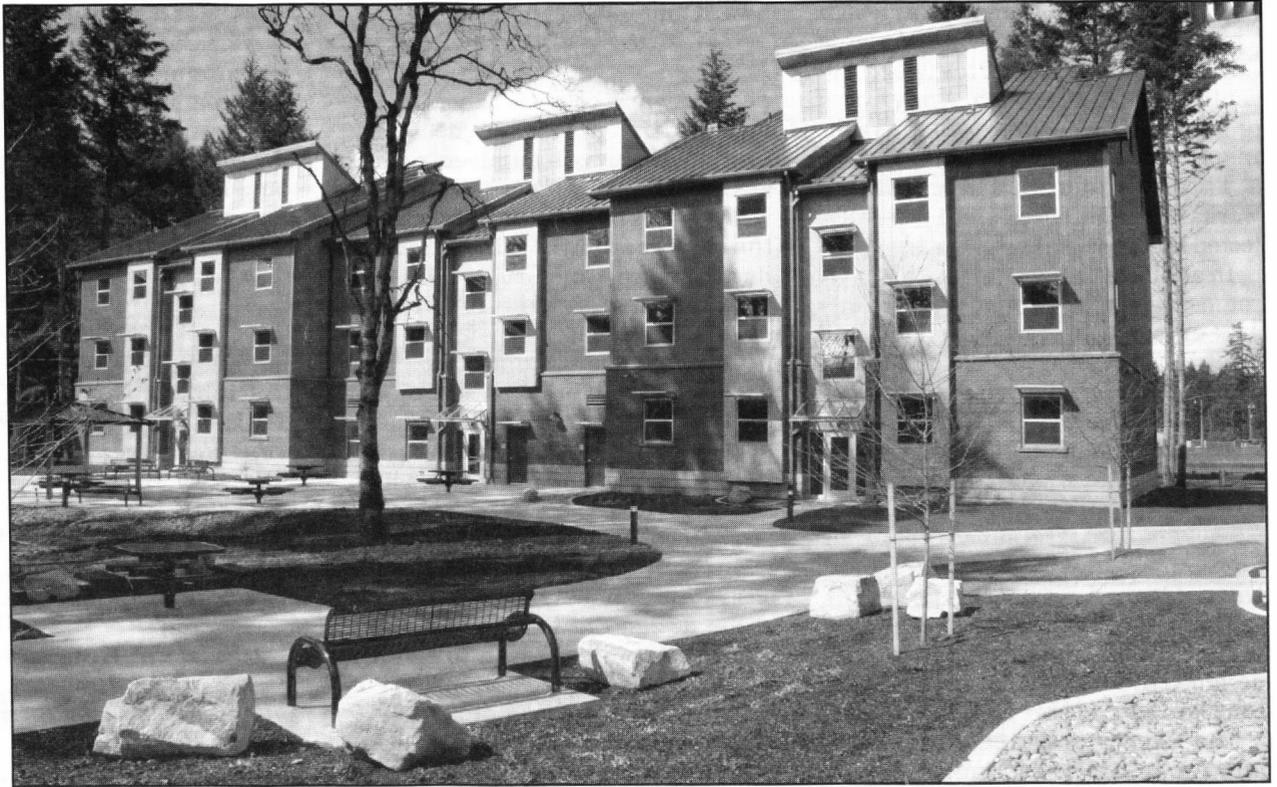
Merit Award - Design: *Lewis and Clark Center, Fort Leavenworth, Kan.*

Design District: *Omaha District*

Arguably the most technologically advanced higher education facility in the U.S., the Lewis and Clark Center at Fort Leavenworth represents a leap forward in classroom functionality and the innovative use of technology to support education. In addition to 96 networked classrooms equipped for video teleconference, the center contains specialized computer and language labs, 2,000-seat and 750-seat auditoriums, a briefing room, smaller meeting areas, plus 400 staff and faculty offices, student lounges, book store, barber/beauty shop, and food service court.

A major focus was seamless digital and audio-visual connectivity between instructor and student, among classrooms, and among classrooms and the outside world. Touch-screen instructor modules and advanced video and network systems permit student-to-instructor links that are critical for improved man-in-the-loop battle command and control systems.

Located in the historic section of Fort Leavenworth, the Lewis and Clark Center features a durable brick-and-stone façade that evokes the permanence and elegance of the post, while the interior architecture cre-



The Jackson Avenue 300 Person Barracks at Fort Lewis, Wash., enhances the quality of life for Soldiers while solving challenges of privacy, security, comfort, construction economy, and ease of maintenance.

ates an open, airy, sophisticated space that respects the history of the Command & General Staff College. Much historic memorabilia has been relocated to the new facility, including refurbished stained-glass windows. In this way, both tradition and innovation are integrated in the center's unique design.

Jury Comments: *The Lewis and Clark Center is commended for its aesthetic expression of the Command and General Staff College. The entry impresses one with the historic role of command through the organization of historic elements in the atrium. Classrooms provide state of the art training in an executive command environment.*

Merit Award - Interiors: *Missouri Project Office, Omaha, Neb.*

Design District: *Omaha District*

Designed to replace an aging structure at the Missouri River Boatyard just north of Omaha, the Missouri River Project Office now houses the administration and natural resources staff that manage the river for Omaha District. Located by the edge of the lagoon that connects to the river by an inlet, the building offers water views to the north, east, and south. A wooded hillside forms a green backdrop to the west.

The design criteria included open office work areas for the natural resource staff, administrative offices, break room, plus a conference and display area.

That functionality is visible from the exterior, with administrative staff at the north end, natural resources staff at the south end, and in the center a high-roofed entry, display space, and conference facility.

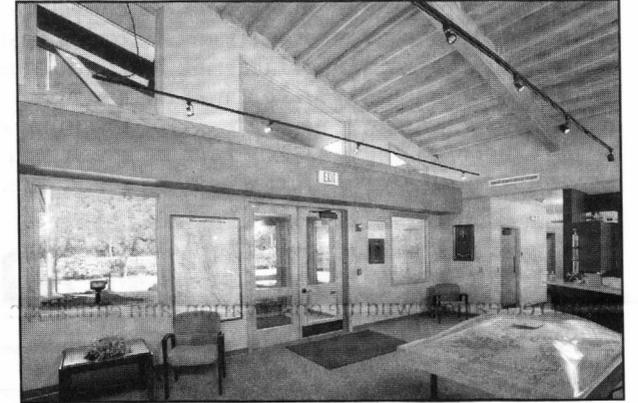
Wood beams support the roof at the entry. They and the north portion of the building beside the entry are clad with natural-looking, split-face concrete masonry in a pattern resembling natural stone. Asphalt shingles are a weathered wood color.

At the middle of the building, interior spaces are lofty, with clerestory glass allowing light to pass from room to room. Natural wood roof framing is exposed and serves as the interior finish. Details such as using thinner walls in exterior windows, monolithic joining of exterior wall panels using special trim, and the rhythmic use of batten strips on the exterior contribute to the building's tailored appearance.

Jury Comments: *This project provides a pleasant space for its occupants on a limited budget. The use of clerestory windows and exposed natural wood roof framing results in a spacious environment.*

Merit Award - Interiors: *First Lt. Joseph Terry CBRN Responder Training Facility, Fort Leonard Wood, Mo.*

Design District: *Kansas City District*



The Missouri River Project Office uses clerestory windows, exposed natural wood, and views of nature to give occupants a pleasant work environment on a limited budget.

In times of external threat, responders need the best tools and training. The First Lt. Joseph Terry Chemical, Biological, Radiological, and Nuclear Responder Training Facility is a state-of-the-art resource to train men and women in that critical task. More than 35,000 Department of Defense and civilian first responders will build their skill in the facility's virtual reality training simulator bays and classrooms, and on urban exercise training grounds located in the complex.

Room locations were chosen based on traffic and energy use, with more heavily occupied rooms located on the cooler north side of the building where less air conditioning is required. In addition, natural light is used throughout the building, with sensors automatically maintaining constant illumination in response to ambient light. Interior finishes provide high durability, low maintenance, and aesthetics, reflecting a combination of the building's industrial, institutional and administrative functions.

Through its innovative design, the facility is a striking, yet fully compatible addition to the fort. Nestled in the hilly terrain of the Ozarks, the structure screens the training areas beyond with a contemporary façade, incorporating the traditional finishes of brick and standing seam metal found throughout the post with more modern forms and technologies. The linear layout of the building reflects its focus on functionality, while the gabled roof above the primary entrance communicates a sense of movement within the structure.

Jury Comments: *The exterior of this facility is simple in its use of materials and composition, and the interior's pallet of materials is varied and rich. The exposed ceilings provide height, interest in form, and natural light.*

Environmental Design Winners

Chief of Engineers Award of Excellence: *Rio Salado Environmental Restoration Project, Phoenix*

Design District: *Los Angeles District*

Little more than a dream for 40 years, the Phoenix Reach of the Rio Salado Environmental Restoration Project is now the standard for habitat restoration in the heavily-stressed Sonoran Desert. Thanks to the combined efforts of Phoenix, the Corps, and a wide range of supporters, trash-strewn landscape is now a beautiful, self-sustaining natural habitat that provides both recreation for residents and a home for desert animals.

One of the first restorations of its kind attempted in the desert Southwest, the project faced daunting obstacles, with more than 90 percent of the original habitat destroyed and replaced with hundreds of tons of debris, old tires, and other pollutants that had to be removed before construction could begin.

The debris removal, including 600 tons of old tires, was a substantial task. Along with planting the restored habitat with drought-resistant native plants, the project team also needed to provide a self-sustainable supply of water for those plants, using existing sources like dry weather flows and captured storm water, while protecting against groundwater contamination.

The native vegetation has withstood both drought and high-flow floods. In addition, the plants now naturally regenerate and no longer require new plantings. Just as important, the project succeeded in its flood-protection goals, effectively carrying storm releases of up to 12,200 cubic feet per second along five miles of the river.

The restored river habitat now provides Phoenix with recreation, wildlife observation, and education. The city and school district use the gateway staging area and outdoor classrooms for school programs and community activities. Recycled concrete rubble, rock, and other debris now serve as benches, shade structures, and slope protection. The project includes recreation trails, picnic areas, and outdoor classrooms,



The Phoenix Reach of the Rio Salado was once contaminated and trash strewn. Today it is a self-sustaining natural habitat that provides recreation for residents and a home for desert animals.

with disability accessible pathways.

Located in the middle of a densely populated urban area, the new habitat offers the public opportunities to view wildlife and birds, exercise, and escape the confines of the city, bringing revitalization to these economically depressed areas of South Phoenix.

Jury Comments: *This project serves as a model for environmental restoration and sets a standard for urban sustainability, benefiting both humans and wildlife while serving as a catalyst for community revitalization. With cultural references to native populations, dramatic gateway architecture that landmarks the river, and partnerships that brought together diverse agencies and interest, the river environment is now a place to learn about desert riparian spaces.*

Honor Award: *The Big Dam Bridge, Pulaski County, Ark.*

Design District: *Little Rock District*

Gracefully spanning the Arkansas River, the Big Dam Bridge is specifically built for pedestrians and bicyclists. Built atop Murray Lock and Dam, it links two major bike trails on either side of the river, combining beauty and functionality in an innovative design that draws thousands of users and visitors daily.

Disturbing the environment as little as possible, the bridge blends in with the existing structures and gives the impression of being designed and built as part of the lock and dam. At 72 feet above the river, it provides awesome views.

With no pedestrian bridge of this size as a model, the design team worked with recreation, bicycle, and hiking organizations to design curvature and railing features, and choose decking and surfacing materials.

The decision to build the Big Dam Bridge on top of the existing dam saved an estimated \$10 million in construction costs, and resulted in no adverse impact on the environment. To prove the success of the project, one need only see the many parents with strollers, bicyclists, runners, pet walkers, and disabled citizens who enjoy it daily. The bridge and its trails connect more than 7,000 acres of city, county,

state, and federal park land, and city park officials on both sides of the river report increased park use since the bridge opening.

Jury Comments: *By answering a community need for connection and recreation, the bridge overlays the lock with a culturally sensitive structure that has become a regional icon where recreation programs and an appreciation of the river can be celebrated.*

Honor Award: *Flood Damage Reduction Project, East Grand Forks, Minn., and Grand Forks, N.D.*

Design District: *St. Paul District*

In 1997, snowmelt combined with a late blizzard caused a massive flood on Nebraska's Red River, devastating Grand Forks and East Grand Forks, forcing evacuation of 52,000 citizens and causing more than \$1 billion in damage.

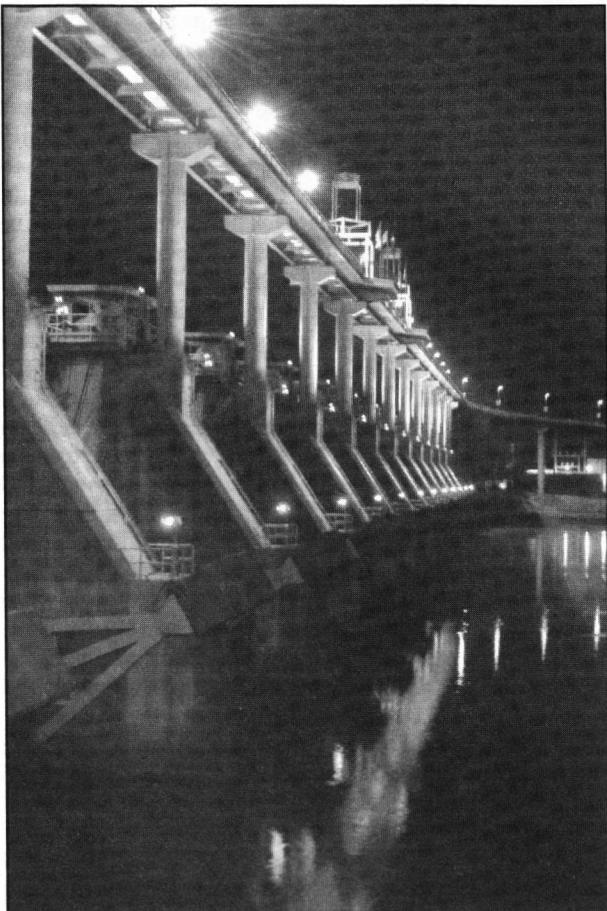
Today both cities are thriving thanks to the Grand Forks and East Grand Forks Flood Damage Reduction Project and its Greenway – an unobstructed 2,200 acre floodway, which with other state-of-the-art flood abatement, now safeguards the cities at a certified 100-year flood protection level.

Both cities and the Corps moved quickly after the 1997 flood to establish a new line of protection on higher ground away from the river. The planning involved numerous community meetings and difficult decisions to remove entire neighborhoods.

Besides creating the greenway, the flood protection measures also include 17,000 linear feet of flood-wall and 28 miles of levees, plus 22 railroad and road closures and 23 pumping stations.

Some of the challenges included the unique clay soils common to the Red River basin, which required building a cylinder pile wall of 95-foot-long, six-foot-diameter reinforced concrete shafts, closely drilled to retain active landslides. This allowed building floodwalls closer to the river, saving numerous historic properties.

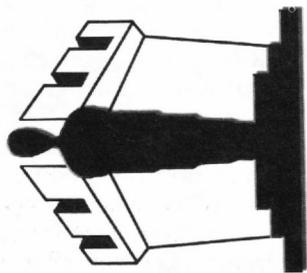
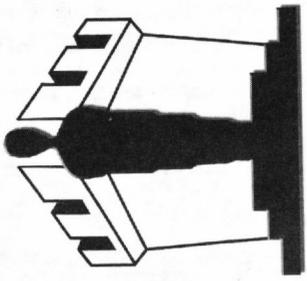
Thanks to the greenway, the citizens of both cities now benefit from an environmentally pristine recreation area that boasts 20 miles of paved multi-use trail, eight trailheads and 33 access points, all disability-accessible.



The Big Dam Bridge across the Arkansas River is specifically built for use by pedestrians and bicyclists.

2007 Chief of Engineers

Design and Environmental Awards



Part of the Grand Forks and East Grand Forks Flood Damage Reduction Project is an unobstructed 2,200 acre greenway that has 20 miles of of paved multi-use trails, eight trailheads, and 33 access points, all disability-accessible.

Jury Comments: *Healing two damaged communities, this project is a model for flood damage reduction projects. It restores floodplain, provides community greenspace, and presents functional infrastructure as civic amenity.*

Honor Award and USACE Design Team of the Year Award: *Water Level Management for Ecosystem Restoration in Pool 5, Upper Mississippi River System, States of Minnesota and Wisconsin*

Design District: *St. Paul District*
Since construction of the lock and dam navigation system on the Upper Mississippi River System (UMRS), there has been a gradual decline in the diversity and functionality of the river ecosystem. Because of impoundment, river regulation, sedimentation, and degraded water quality, Pool 5, as many UMRS pools, has lost aquatic vegetation, fish, and wildlife. The scientific consensus suggests this ecosystem will continue to decline if the existing water level operating regime remains in place.

Drawdowns of entire navigation pools have recently been pursued to improve aquatic vegetation growth and restore degraded habitat by allowing lower water levels during the summer growing season.

Lessons from previous drawdowns were incorporated into the planning. Variables such as the depth and rate of drawdown, start and end date, location of advance dredging, vegetation types targeted for restoration, projected

acres exposed at various depths, and impact on sensitive species such as freshwater mussels were evaluated.

The results of the Pool 5 drawdown were impressive. It experienced growth of new aquatic vegetation on about 2,000 acres, arising from seeds that had lain dormant in the river sediments for more than 70 years. The vigorous vegetation response resulted in increased populations of shorebirds, water fowl, and other wildlife, which has increased opportunities for hunting, fishing, and bird watching.

Jury Comments: *The restoration of Pool 5 has significantly nurtured wildlife and enhanced opportunities for recreation. Research into the ecology of Pool 5 has expanded knowledge of the vegetative impact of dormant seeds, now actively producing a wide variety of new growth, and the surprisingly large expansion of the mussel population, which is critical to the overall food chain.*

Merit Award - Research & Development: *McNary Temporary Spillway Weir, Umatilla, Ore.*

Design District: *Walla Walla District*

The goal of maximizing survival of salmon migrating through the Snake and mid-Columbia River systems, while minimizing loss of potential hydroelectric power during mandatory spill conditions, is now within reach thanks to the Temporary Spillway Weir (TSW) at McNary Dam. The TSW is an innovative, efficient, reliable, and relatively low-cost alterna-

tive to building permanent surface passage systems, which can take years to build and cost millions of dollars.

The relatively small and mobile TSW can be fabricated in a few months and installed in less than a day with minimal manpower, using existing spillway gate bulkhead slots.

The structure, built at just five percent of the cost of a more permanent surface passage system, can be easily moved to alternate spillway bays to optimize downstream migration and upstream attraction, while maintaining required flow conditions.

In addition, the TSW is a powerful tool for engineers and biologists to study fish behavior under different conditions to determine the best configuration for safely passing juvenile fish at dams. Even after installation, the shape of the structure's crest can be modified in place to reduce fish injury.

The TSW is unique, using only the existing infrastructure and requiring no permanent changes to the dam. Tucked beneath the spillway deck and veiled by a waterfall, the TSW eliminates the need for equipment in the forebay or on the upstream face of the dam. The TSW will reduce the potential energy loss during high power demand, while improving the number of fish passing over the spillway instead of through the generator intakes.

Jury Comments: *This project addresses a critical environmental issue in the Pacific Northwest — the future sustainability of the salmon runs. The results of this testing should serve as a model for future spillway designs.*

Two dredges to get new power plants

By Jennifer Sowell
Portland District

A behemoth creeps slowly through the dark reaches of the ship's hull. It peeks through a gaping hole in the steel bulkhead as a dozen crew members join in the struggle.

No, they are not filming a remake of "Alien." They are carefully and precisely placing a new engine as part of the massive repowering of the dredge *Essayons*.

Portland District's dredges *Essayons* and *Yaquina* work from March to November to maintain navigation channels in the Northwest and West Coast ports from Grays Harbor, Wash. to San Diego, Calif. They are also at the ready to quickly mobilize anywhere to assist in emergencies.

Updating. Since the dredges are such a far-reaching local asset, it is important that they are kept in good condition, relevant with industry, environmentally compliant, and at the peak of efficiency. They were built in the early 1980s, and now, well into their mid-life, they need some updating to ensure they continue to serve the Corps for many more years.

To accomplish this, both dredges are slated for extensive repowering in the next three fiscal years at a combined cost of more than \$50 million. The work focuses on updating each dredge's propulsion systems and improving power generation. The work is spread over several fiscal years to minimize impacts to the dredges' normal schedules.

This fiscal year, the bulk of the work is focused on the *Essayons*. The dredge has been in dry dock since December 1 for the most intensive portion of its repowering, which will keep it out of commission through early July. This eats into the dredging season, so a regional contract has been advertised for commercial dredges to take care of the work the *Essayons* would normally do this year.

Complexity. During the annual off-season, the dredges typically have eight weeks of routine maintenance. The current phase of the repowering on the *Essayons* requires more than triple that time because of the magnitude and complexity of the work.

Mac Robison, chief of the Plant Maintenance Section at the U.S. Moorings described this phase as, "a collection of completely interrelated actions that all depend upon one another for the whole thing to work. The irreducible complexity of the job requires the time necessary to get it all done, so we had to go beyond our normal November to March repair availability."

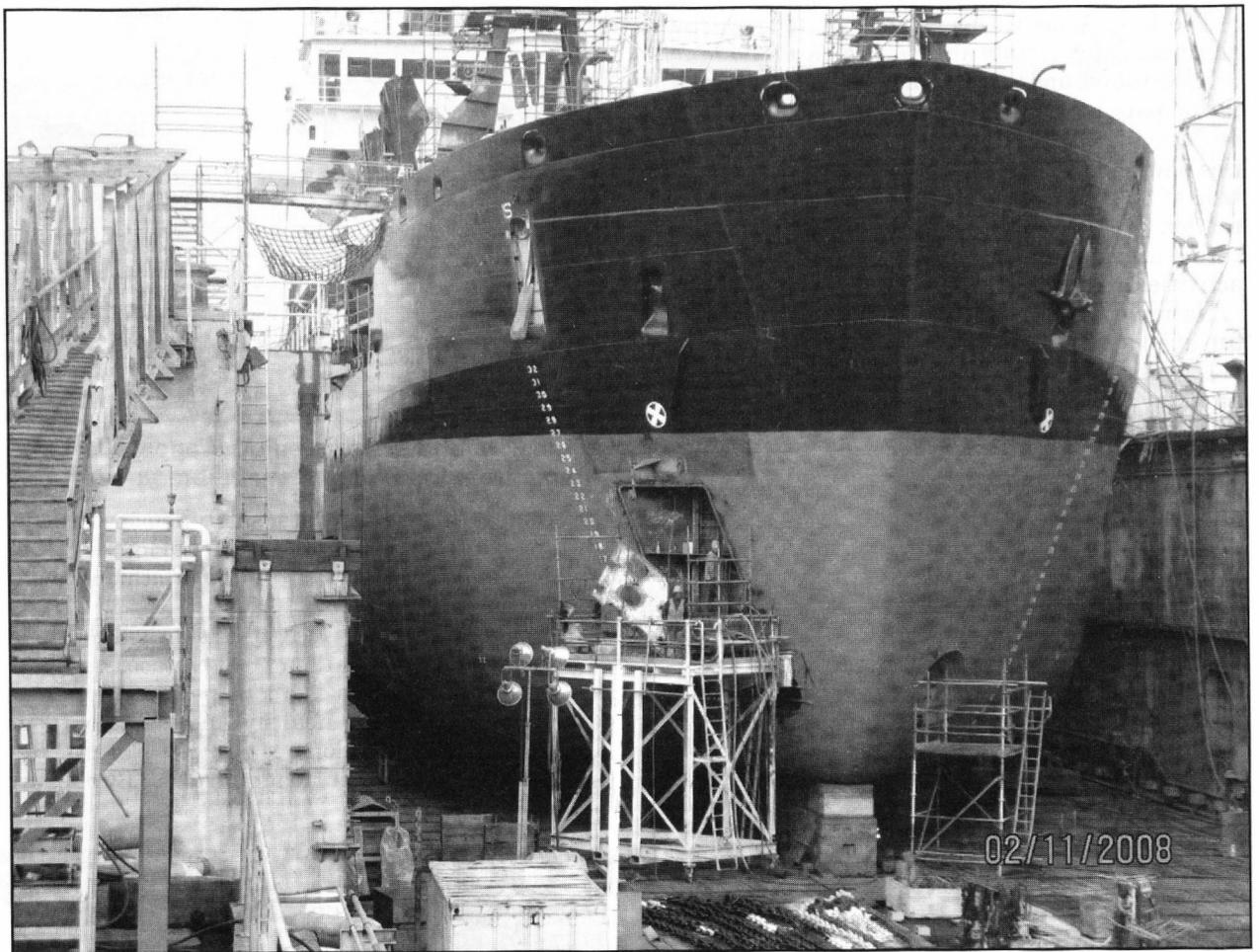
The *Yaquina's* repowering is on a smaller scale and not nearly as complex, so it will be ready at the beginning of each dredging season.

Planning the dredges' repowering began in the late 1990s as they were entering mid-life and newer technology upped the ante in the industry. Robison started consulting with the dredge crews on what needed to be replaced and with the Marine Design Center (MDC) about options for making that a reality.

MDC. The MDC is the U.S. Army Corps of Engineers' center of expertise and experience for naval architecture and marine engineering. It managed the contract when the *Essayons* was built, and is now handling the repowering of both dredges.

While MDC is overseeing the contract and handling any design issues and quality assurance onsite, the equipment removals and installations are being handled by a crew with Cascade General Shipyard. The crew at Cascade General has also held the annual maintenance contract for the *Essayons* for the past 10 years, so they are familiar with the vessel.

"We're taking care of the routine maintenance concurrently with the comprehensive repower," said Adam Beck, Cascade General project manager. "The propulsion and power management systems are extremely technically complex. It's a big job, and it's



The *Essayons* in drydock at the Cascade General Shipyard. Crews cut several access holes in the hull to remove old equipment and install new. (Photo courtesy of Portland District)

been a challenge."

Beck oversees a crew of 140 Cascade General employees to achieve the monumental task.

Megawatts. "A large amount of work, about 85 percent, is in the engine and generator rooms," said Beck. "We're adding several megawatts of power generation and several thousand horsepower. It's a significant change."

When the work is complete, the *Essayons* will be capable of generating 10 megawatts of power and will increase its propulsion by 2,000 horsepower.

All that added power is actually more environmentally-friendly than the equipment it is replacing. This is important because, in California, where both dredges maintain several coastal ports, emission standards are more restrictive and due to get even tighter.

The eight new tier 2 engines that were recently installed on the *Essayons* will greatly reduce nitrogen oxides and allow for the use of low sulfur oxide diesel fuel, resulting in a reduction of sulfur oxides. New electronic governors will reduce the amount of visible particulate matter released into the atmosphere while making more efficient use of fuel.

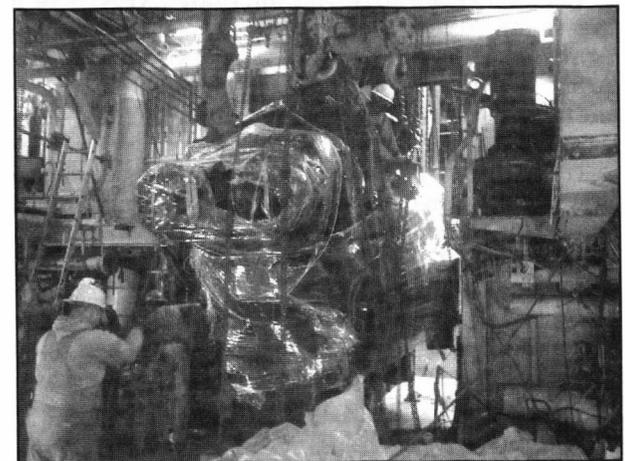
"They raised restrictions on what you can put out the stack, so it's a good thing we're doing this now," said Robison.

Yaquina will get seven tier 2 engines in 2010. Until then, it needs a waiver to work in California waters.

Besides staying ahead of the environmental curve, the repowering will translate into increased efficiency and cost savings. In the next two years, the *Essayons* will be outfitted with excavator dragheads, hopper distribution system improvements, and a bulbous bow.

"The total package will have lower emissions and more efficient hopper loading," said Robison.

New draghead & bow. The new, more efficient excavator draghead setup combined with a new hopper distribution system designed to speed up the settling rate of sediment in the hopper are expected to yield an increase of 10 to 15 percent more than the seven million cubic yards the *Essayons* usually dredges



The first heavily-wrapped Caterpillar C-280 engine is carefully rigged into the *Essayons's* engine room. (Photo courtesy of Portland District)

during a typical season.

In addition, the bulbous bow design reduces the friction of the hull, allowing the dredge to slide through the water with better speed and fuel efficiency.

Benefits. These improvements, combined with the increased horsepower and fuel savings of the new engines, will allow for faster mobilization of the dredge at less expense, and for the capability to dredge more material in less time. These are welcome benefits in the face of narrowing in-water work windows imposed by state and federal environmental agencies.

"All our customers love the *Essayons* because it produces so much, so fast," said Robison. "The improvements from the repowering will make it a go-to dredge on the West Coast."

Undertaking the repowering of two dredges over several years is a daunting task, full of logistical hurdles and requiring a great deal of time, effort, and expense. But the payoff is worth it.

"These modernizations will improve dredges' efficiency and minimize their environmental footprint," said Robison. "Not to mention doubling their lives."

Get outdoors at Corps projects

The U.S. Army Corps of Engineers, in partnership with federal, state and local agencies; non-profit organizations; and recreation industry partners, will participate in the first National Get Outdoors Day on June 14. On this day, hundreds of outdoor activities planned by more than 75 organizations will be held at 39 government and privately-managed recreation sites across the country. Each event will feature a mixture of information centers and outdoor activities geared toward both adults and children.

National Get Outdoors Day, which promotes the fun and value of time outdoors, is a signature event of "Great Outdoors Month," the designation given annually to June by the White House and governors across the nation.

Six Corps project sites were selected by event organizers to be featured nationally. The selected sites are:

- Rivers Project (National Great Rivers Museum) West Alton, Mo.
- Lake Oahe in Pierre, S.D.
- Melvern Lake in Melvern, Kan.
- Pomona Lake in Vassar, Kan.
- Clinton Lake in Lawrence, Kan.
- Wappapello Lake in Wappapello, Mo.

The outdoor recreation opportunities at these sites will include geocaching, hiking, bicycling, photogra-



Swimmers and boaters enjoy Wappapello Lake. (Photo from the Digital Visual Library)

phy contests, scuba and water safety demonstrations, dutch oven cooking, disc golf demonstration, children's fishing derby, ironman triathlon, and a virtual fishing simulator.

Dozens of other Corps recreation sites will also hold events in support of National Get Outdoors Day.

"This national event is about people of all ages, especially kids, living healthy and active outdoor lives," said Mary Coulombe, Chief of Natural Resources Management at Headquarters. "By offering

traditional and non-traditional types of outdoor activities, the event will attract many first-time users to public lands and waters, strengthen Corps and community relationships, and increase the visibility of the Corps' recreation opportunities."

"Each National Get Outdoors Day event will have feature activities where guests, and especially kids, can use a fishing pole, go geocaching, help pitch a tent and more," said Derrick Crandall, president of the American Recreation Coalition (ARC) and chair of the National Get Outdoors Day coordinating council. "Each event will be unique, but they will all share a common mission to connect people to the outdoors."

In the past two decades, visits to national parks and most other public recreation sites have declined, according to research prepared by ARC, a Washington-based non-profit organization that works to enhance and protect outdoor recreation. The research also shows that while outdoor physical activity has decreased, obesity among all age groups has increased rapidly. The results are significant health consequences, including projections of life expectancy declines of two-to-five years for today's youth.

To learn more about National Get Outdoors Day, please visit <http://www.getoutdoorsusa.org/> and <http://www.nationalgetoutdoorsday.org/locations/>

Army family program helps everyone

By Jeannie Davis
Headquarters

The Army Family Action Plan (AFAP) is a grassroots process identifying issues of concern to the Army family. The program gives everyone in the Army — Soldiers, civilians, and family members — the opportunity to influence quality of life and standards of living.

Through this process, issues requiring action are prioritized, given measurable objectives for acceptable change, and assigned to a lead agency for work.

In the late 1970s, Army spouses wanted to improve on the standard of living for their families. They realized they had to get organized to accomplish this. They brought problems to light, suggested ways to resolve them, and then volunteered their efforts to fix them.

These community-minded spouses, and their commitment to a good standard of living within the Army, formed the beginning of AFAP. AFAP was formally adopted at the first Headquarters Department of the Army planning conference in July 1983, and the Army Family Action Plan was published in 1984.

Issues that affect everyone at the local activity or the global Army are good AFAP issues, whether they interest Soldiers, families, or civilians. The focus should be on improving facilities, changing policy or regulation, and just making things work better for everyone.

Issues may be on pay and allowance, readiness, retention and training, single Soldier issues, PCS moves, medical, dental, schools, childcare, Army & Air Force Exchange Service, morale/welfare/recreation activities, and volunteers.

Remember — issues should focus on improving the quality of life for everyone, not just one person's "pet rock."

Examples of past AFAP successes are:

- Increased dental benefits for both the active and Reserve components, and expanded dental insurance for reservists. Effective February 2001, reservists may enroll in the TRICARE Dental Plan.

- Thrift Savings Plan for Soldiers.
- Stabilization for Soldiers with family members who are high school students.

The Corps' recent emphasis on family programs resulted in our commitment to be more engaged in AFAP. Watch the *Engineer Update* and other publications for future news about AFAP, and begin thinking about family-related issues you want to submit to your local AFAP representatives.

HR Corner

USACE beefs up deployment bennies

Throughout history, the U.S. Army Corps of Engineers' civilian workforce has done an outstanding job of volunteering for assignments in response to disasters, the Global War on Terror, and other contingency operations.

The USACE workforce has supported the spectrum of operations from peace to war. Supervisors and co-workers are commended for supporting individuals who have deployed, especially when it impacts day-to-day operations at the home station. This is continued proof that we have an excellent team here at the Corps.

Our exceptional team has done so much in Iraq and Afghanistan. New construction and operations are occurring every day. Some of the great work includes building medical and military facilities, and developing water and electrical systems.

Although we have made tremendous contributions, our need for volunteers is more crucial than ever. There are still many challenges that require the expertise of our talented workforce. We have been asked to take on additional work, both in the Gulf Region

Division and in the Afghanistan Engineer District. This additional load increases our civilian requirements by about 20 percent.

One of the major issues we face in supporting these extraordinary efforts is recruiting and retaining individuals with the appropriate knowledge, skills, and abilities to support mission critical requirements needed in remote locations. Success can only be obtained with your support.

To lessen family worries for deployed individuals, the Corps is actively developing family support programs. We are hiring 10 community support coordinators in our division offices to build support networks for the families of our deployed teammates.

You are encouraged to inquire and consider many of the tangible benefits and incentives that may be offered to those who deploy. Effective May 1, we now pay a relocation incentive of 15 percent of the base salary to employees who volunteer for temporary duty assignments of six months (either TDY or temporary change of station). Maximum for a full year remains at 25 percent because of regulatory limits.

Some intangible benefits include the personal fulfillment of knowing that you helped others and had a positive impact on someone's life. You may want to speak to fellow Corps employees who have deployed and learn about their personal experiences and hear firsthand how they assisted others and the major role they played in supporting Corp operations.

Many of these individuals return for a second tour because they truly believe they added value to our mission and received a level of satisfaction that's hard to match.

You are urged to speak with your supervisor and human resources specialist regarding deployment opportunities and incentives associated with deployment. Deployment job opportunities are available at <http://cpolwapp.belvoir.army.mil/coe-gwot/index.html>.

If you are interested in discussing a possible assignment in either Afghanistan or Iraq, send an e-mail with any questions and your skills, areas of interest, and length of possible deployment to send.me@usace.army.mil.

Around the Corps

Burma relief

The Topographic Engineering Center (TEC) has prepared a Web page <http://www.tec.army.mil/Burma/index.html> to support Navy/Marine/Department of State relief efforts in Burma.

This is not the first disaster relief that TEC has supported. The center provided data, mapping, and imagery support to U.S. military efforts in 2006 after a landslide in the Philippines.

TEC has also provided support for the humanitarian relief efforts after the earthquake near Yogyakarta, Indonesia, and the tsunami in December 2004.

(Editor's note: The U.S. government still uses the name Burma, not Myanmar, according to the U.S. Board on Geographic Names.)

Emerging Leaders Conference

The 21st Emerging Leaders Conference (ELC) will be held with the USACE Senior Leaders Conference (SLC) Aug. 1-7. Eligible candidates to attend are Corps members at the GS9-12 or NSPS equivalent, WG-09 and above, and military company-grade officer level.

The objective of the ELC is to allow participants to identify and develop their strengths. This is accomplished in a two-and-a-half-day intense, rigorous leadership development workshop. As part of the ELC experience, participants will also closely interact with a senior leader sponsor during the SLC.

For more information, especially nominating attendees, please contact Joanne Eisenberg at joann.b.beisenberg@usace.army.mil or (202) 761-1999.

Book award

The Office of History's book *The U.S. Army Corps of Engineers: A History* received an Award of Excellence from the National Association of Government Communicators during the Blue Pencil and Golden Screen Awards competition. The Office of History also received a Blue Pencil Award for its book *Capital Engineers: The U.S. Army Corps of Engineers in the*



Contractor remembered

James Lockard, a contractor who worked for USACE in Iraq, was killed on May 2 when insurgents attacked his convoy on his way to a Corps project. Lockard is a former member of Louisville District, and since 2004 had worked for Berger in Gulf Region North and South districts as a project manager for primary healthcare centers and pipeline exclusion zone projects. He was honored by Corps personnel in a memorial service on May 8 at COB Speicher in Tikrit. (Photo courtesy of Gulf Region Division)

Development of Washington, DC, 1790-2004. This book is so popular that it is in its second printing.

Small business awards

The Small Business Administration selected New Orleans District for two national awards, the Frances Perkins Vanguard Award and the Gold Star Award.

The Frances Perkins Vanguard Award is presented for using women-owned small businesses as prime contractors and subcontractors. The Gold Star Award is given to recognize federal agencies that exhibit exemplary performance in pursuit of aggressive goals and strategic initiatives that ensure increased small business participation in the federal marketplace.

The Army's goal for small business use was 23 percent during 2007, but the Corps' goal was 44.8 percent. New Orleans District met or exceeded both goals.

Ninewa Operations Center

The Ninewa Operations Center, a 4,000 square foot operations center for Iraqi Security Forces (ISF), has been turned over to the Ministry of Defense.

The operations center is part of Phase I of the Ninewa Operations Command (NOC) project, funded through the Iraqi Security Force Fund. The \$1.8 million project is vital to the ISF's interdiction of insurgent activity.

"The building is a former Kellogg, Brown, and Root training site that was only a shell," said Alda Ottley, project engineer in the Mosul Resident Office. "We used that shell and built the office facilities."

The core of the operations center is its amphitheater-style operations room with multiple computer stations. Refurbishing a second building beside the operations center, the NOC headquarters, is scheduled to be finished in July.

"We're completing life-support work on the two-story headquarters building," Ottley said. "We're upgrading the electrical, water supply, waste water, and climate control systems; renovating bathrooms; installing a small kitchen; and completing basic interior and exterior cosmetic repairs. The Iraqis prefer to live where they work, so we'll also install partitions in their offices to give them sleeping privacy."

Phase II of the NOC project is still in the planning stages, and will include billeting and dining facilities.

Correction

The Olmsted Lock & Dam (April *Engineer Update*, page eight) in Louisville District is under construction, and will not lock boats through until 2012.

Orphanage and senior center

"In the U.S., we're starting to see day-care centers on assisted-living properties because seniors and kids get along well," said Gary York, area engineer in the Erbil Resident Office in Iraq.

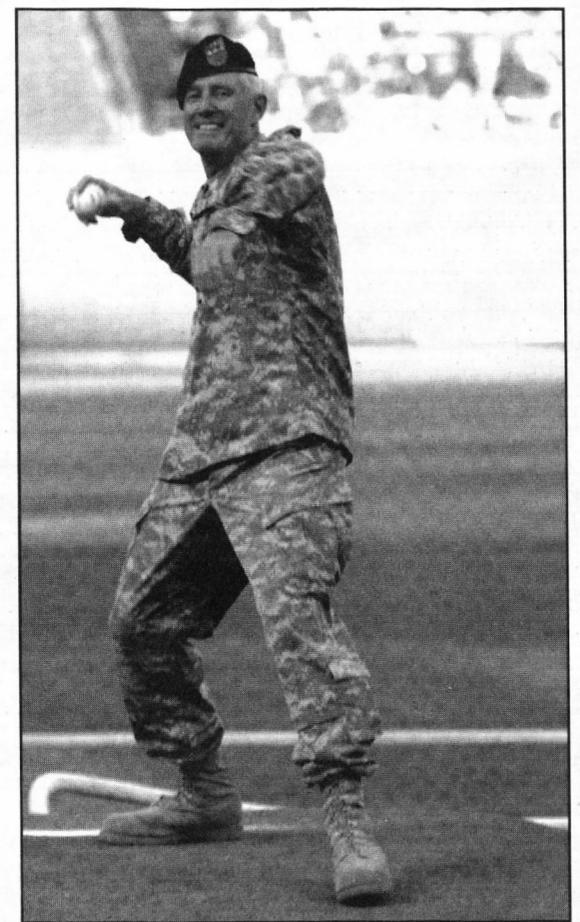
Erbil's Governor Nawzad Hadi liked that idea and today the Erbil Orphanage and Senior Center is 30 percent complete. It will be home for 165 boys and 180 girls up to 18 years old, and 60 senior citizens.

"The orphanage is the first of its kind that the Corps has managed in Iraq, as far as I know, and we decided to combine it with a senior center, since seniors and small children like each other," York said.

At the heart of the property is a large multi-purpose hall, encircled by six three-story residential houses and a play yard. "We changed the site orientation a couple of times so that the children's playground is in front of the seniors' home," York said.

The hall features music rooms and computer labs, while the seniors' home has an elevator, wider doors, and disability-accessible tubs and showers.

York said another feature unique to this project is a pressurized water system instead of the rooftop tanks normally seen in Iraq. "We went a different way be-



First pitch

Lt. Gen. Robert Van Antwerp, the chief of engineers, and John Paul Woodley Jr., the assistant secretary of the Army (civil works), threw out the first pitch of the Cardinal-Cubs game in St. Louis on May 4. Both were in Missouri for the ENFORCE conference at Fort Leonard Wood. (Photo by Alan Dooley, St. Louis District)

cause rooftop water tanks eventually cause structural damage if they're not meticulously maintained.

North Babil projects

Two key projects in North Babil Province, rehabilitating a vocational-technical school and building a maternity hospital, are making significant gains.

The second phase of a three-pronged effort at the Iskandariyah Vo-Tech was just completed and a third phase will start soon. It is funded with the 3rd Infantry Division Commander's Emergency Response Program funds, and is managed by USACE.

The completed phase refurbished the floors and electrical service in several classrooms so that new precision machinery can be installed.

Bids are being filed for the next phase – another classroom building, an auditorium, and refurbishing seven dormitories. This phase is estimated to cost about \$5 million and will provide accommodations and additional training capacity for more than 1,000 students from outside the North Babil area.

Nearly 1,500 students attend classes on subjects including computer repair and operation, sewing, hair styling, welding, carpentry, residential electrician, and auto mechanics. Future classes will include machine shop operations and heavy equipment operation and repair. Currently, 38 percent of students are female.

The other project, the maternity and pediatrics hospital in Mussayyib, will provide a 50-bed hospital, including a surgery wing, outpatient care, a premature infant nursery, and other maternity and pediatric care. It will replace a deteriorating hospital in Mussayyib.

Campaign plan

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Objective 1b: Prepare theater engineer commands to support combatant commanders throughout the spectrum of conflict.

Objective 1c: Establish human resources and family support programs that promote readiness and quality of life.

Objective 1d: Institutionalize USACE capabilities in interagency policy and doctrine.

Goal 2: Deliver enduring and essential water resource solutions through collaboration with partners and stakeholders.

Objective 2a: Deliver integrated, sustainable water resources solutions.

Objective 2b: Implement collaborative approaches to effectively solve water resources problems.

Objective 2c: Implement streamlined and transparent regulatory processes to sustain aquatic resources.

Objective 2d: Enable Gulf Coast recovery.

Goal 3: Deliver innovative, resilient, sustainable solutions to the armed forces of the nation.

Objective 3a: Deliver sustainable infrastructure via consistent and effective military construction and real estate support to customers.

Objective 3b: Improve resilient life cycle investment on critical infrastructure.

Objective 3c: Deliver reliable infrastructure using a risk-informed asset management strategy.

Objective 3d: Develop and apply innovative approaches to delivering quality infrastructure.

Goal 4: Build and cultivate a competent, disciplined, and resilient team equipped to deliver high quality solutions.

Objective 4a: Identify, develop, maintain, and strengthen technical competencies.

Objective 4b: Communicate strategically and transparently.

Objective 4c: Standardize business processes.

Objective 4d: Establish tools and systems to get the right people in the right jobs, then develop and retain this highly skilled work force.

Important differences

There are similarities between the refreshed campaign plan and the previous one. However, there are also some important differences.

"For example, Lt. Gen. Van Antwerp is particularly interested in family readiness," Kodack said. "While there are some individual family readiness programs throughout the Corps, there isn't a national program. When we deploy people, whether it's to the Gulf Coast or over to Iraq or Afghanistan, we haven't done a good job of making sure their families, especially civilian families, have the support they need before their family member leaves, while they're gone, or when they return. The military has a well-developed system, but there isn't a parallel system for civilians. So that's something we don't do organizationally that we'll do in the future."

"That's one significant change," Kodack continued. "Another is, we have a Corps-wide team looking at the technical competencies that USACE needs to be successful in the future. What kind of disciplines do we need? How many people do we need in those disciplines? That's something we've elevated to be in the campaign plan, because it will shape the future of the Corps of Engineers."

"Two other things are changing," Kodack continued. "One is to be more explicit about how we are integrated into the Army. Obviously, the Corps has been an Army organization since we were created, but that connection hasn't always been explicit. So what we've tried to do in this campaign plan is to draw explicit links with the Army's campaign plan."

The Army is trying to accomplish certain things in the next several years, so how are we going to support that? That shaped how we've reworded some objectives in our campaign plan.

"The other thing that this chief of engineers is trying to achieve is make the organization not just better, but one of the premier public engineering organizations in the world," Kodack said. "He's looking closely at the technical competency study. It will determine what our work will be in the future, and the workforce that we will need to accomplish it. We've never really done an explicit study like that."

"So those are two fundamentally different things," Kodack said. "One is organizational, trying to link ourselves more closely to the Army. The other is a self-assessment of what we need to be in the future, and how do we get there?"

Timeline

Having a campaign plan implies that there is a campaign. When will all of these changes happen?

"The timeline of when all this will happen varies depending on the objective," Kodack said. "For example, objective 2d is 'Enable Gulf Coast Recovery.' But that probably won't be complete for another 10 years, if not longer. So there will be a series of incremental milestones that we'll reach, and it will be up to the goal champions in coordination with many other parties to decide what those are. But it's not something that we'll finish this year, or next. It will be years before we get there."

"There are others that will be shorter, like the Theater Engineer Command, which is a new organization that we'll stand up soon," Kodack said. "That may happen in the next year. So the timelines vary depending on which objective you're talking about."

Command sergeant major

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mand sergeant major of the 18th Engineer Brigade in Germany. He replaces Command Sgt. Maj. Robert Winzenreid, who is now the command sergeant major of the United Nations Command/Combined Forces Command/U.S. Forces Korea/Eighth U.S. Army in Korea.

Character. "When you select for this position, the highest NCO in the Corps, what do you look for," Van Antwerp asked during the ceremony. "I always start with character, because great organizations are built on the character of their people — people who do the right thing, people who put discipline into what they do. For this selection, I called nine other command sergeants major, and the feedback I got was overwhelming."

Unique mission. Any command sergeant major serves as the eyes and ears of the commander, and watches over the welfare of all Soldiers in the command, especially the enlisted troops.

But the USACE command sergeant major has a unique challenge. He is the sergeant major of a command whose workforce is mostly *civilian*, so he is charged with the responsibility to be the champion of the wage-grade work force.

"One of Mike's important roles is to look after our work force and to represent the safety and care for all of us," Van Antwerp said. "He actually came here on April 28, and I said 'Go to work. We'll find time for the ceremony later.'"

"You notice where his office is...right next door to mine," Van Antwerp added. "Those two doors will be open and there will be a lot of interchange. So when you talk to the sergeant major, you talk to me. If it's something you want him to share with me, I guarantee I will hear it."

Sergeant major's ring. During the ceremony, Van Antwerp presented Buxbaum with the command sergeant major's ring, the enlisted equivalent of the MacArthur castles that are traditionally worn by the chief of engineers. The ring was crafted during World War II by Master Sgt. Robert Dutton with scrap steel from a bridge built during combat in New Guinea. Dutton's daughter found the ring among his personal effects in 1999, and contacted Gulf Region Division (GRD) to find an NCO who would wear the ring in combat. Command Sgt. Maj. Bill McDaniel, GRD's command sergeant major,

wore the ring in Iraq, and then passed it on to Winzenreid.

Van Antwerp also presented Buxbaum a Corps flag that will fly at his quarters at Fort Belvoir, Va.

'My door is always open...' "I'm your sergeant major; I'm here for you," Buxbaum said during the ceremony. "I don't care what color uniform you wear; if you work for the Corps I'm here to help. My door is always open. It's never been closed since I got here, and it will stay open the entire time. And I look forward to getting out to see all of you."

Web site

Continued from page one

the same general look, whether a visitor goes to the USACE home page, or to the Web site of a district or lab. The refreshed Web sites will be part of the USACE "brand," and templates will be sent to all Corps major subordinate commands. Although these templates will provide a uniform look, they can still be tailored to local needs.

All Corps Web sites will have the same banner, and a standard navigation bar. All sites will have a common menu on the left that can be tailored to local information. On the right side will be important USACE headlines that can be updated instantly via RSS.

The middle third of each Web site is blank and can be tailored to the needs and content of the individual field offices.

"We're trying to communicate that the U.S. Army Corps of Engineers is a quality, professional, reliable organization," Williams said. "The best way to tell our stakeholders that we provide quality products and services, and that we're a reliable, profes-

sional organization, is to demonstrate that with the most forward-facing communication tool that the Corps has...our Web site."

Phased introduction. The Corps' new Web site will go live this summer, but it will be done in phases, according to Williams.

In phase I, the index page of the USACE home page will have the new look with the new banner and navigation bar, plus the top 200 pages that are visited by users.

The Corps Headquarters currently has more than 30,000 pages of material in cyberspace, and they are being reviewed for frequency of use.

Phase two will migrate the next-most-popular 200 pages from the old site to the new, and phase III will migrate the next 200 pages.

Other pages will be migrated according to their value, with many pages eliminated entirely because they are out of date or never used.

The entire Web site refresh project will be completed by December.