

Flowers: Leaders take blame, share credit

By Becki Dobyns
Headquarters

"You know, people find this hard to believe, but I'm an introvert," said Lt. Gen. Robert Flowers, Commander of the U.S. Army Corps of Engineers. "Really, I have to work at getting out there to talk to people."

Corps employees probably find it hard to believe because Flowers is almost *always* out talking to people. He picks up the phone and calls Corps people at random. He drops into cubicles for a chat. He holds frequent video-conferences (VTCs) to converse with people far away.

If you want to know why, ask him about his leadership philosophy.

"When things get tough, I pick up the phone and call someone," said Flowers. "It reminds me that we've got top-quality people in this organization. It recharges my batteries."

Flowers advises emerging leaders, and others who want to improve their leadership capabilities, to work on gaining empathy. "Ask people, 'How's it going with you? How can I help?'"

Learning from example

Flowers said the leadership example of two people, his father and Robert E. Lee, have influenced and inspired him the most. Flowers' father, also an Army officer, had a way with people.

"I watched his approach," said the Chief of Engineers. "He was respectful in dealing with others, always had a joke at the ready. He made people feel comfortable. I've tried to learn from that and emulate him."

Flowers became intrigued with Robert E. Lee as a child. His parents gave him a book about Lee, which seeded his fascination. The Chief says what particularly interested him was Lee's presence around soldiers, which drew their unwavering devotion.

"He captured the spirits and hearts of people," said Flowers. "Wherever he went, wherever he was posted, he made a difference. And every unit was better off for his service."

Flowers said one attribute that set Lee apart was that he always assumed full responsibility when things went poorly, and praised others when things went well. Flowers regards this as a quality of truly great leadership.

But Flowers doesn't think you have to be around great leaders to learn about leadership; he said those around him have been an influence. Whether he felt they were good leaders or not, they still provided an example to learn from. Some people showed him what to do, and others showed him what *not* to do.

"I think everyone around me is delivering a message," said Flowers. "I look at other people as mirrors, and I ask myself if the other person is reflecting back to me my own thoughts and attitudes."

Nor does Flowers think good examples have to come from superiors.

"Some of the best leaders I've known are subordinates who help other people to learn and do better," Flowers said. He recalled a soldier who was always helping others in his squad. "He was always positive; he spent time and helped others. And that's the kind of



Lt. Gen. Robert Flowers (left), Chief of Engineers, briefs the Hon. Thomas White (center), Secretary of the Army, and Dominic Izzo, Principal Deputy Secretary of the Army, at Ground Zero in New York City. (Photo by F.T. Eyre, HECSA)

person I like to promote."

Portrait of a leader

Flowers said he thinks good leaders, like Robert E. Lee, accept responsibility for failure and pass on success. They create opportunities for contact with the people they lead. That's why he travels a lot and does so many VTCs. His says he disciplines himself to reach out to someone in a positive way every day. "You have to schedule time for that." As Commandant of the Engineer School, he met with every class of lieutenants, captains, and NCOs.

Flowers said his leadership philosophy has remained consistent during the years, but he has had to adapt his style to the size of the organization. As a platoon leader years ago, his goal was contact with each soldier every day. He obviously can't do that in USACE, but reaches out to as many people as he can.

The Chief said an article last year in the *Harvard Business Review* strongly paralleled his own views on the traits of good leaders. *Level 5 Leadership: the Triumph of Humility and Fierce Resolve*, by Jim Collins, sets forth the conclusions of a five-year research project aimed at identifying the traits of "the most powerfully



The Hon. Les Brownlee, the Under Secretary of the Army, is the Acting Assistant Secretary of the Army (Civil Works). (U.S. Army Photo)

Brownlee is acting ASA(CW)

The Hon. Les Brownlee is the acting Assistant Secretary of the Army (Civil Works) (ASA(CW)) following the March 6 resignation of Mike Parker.

"I regret that Mike has resigned," said Lt. Gen. Robert B. Flowers, Chief of Engineers, in a video message to the U.S. Army Corps of Engineers. "He and I have been colleagues for a long time. I appreciate the efforts he made during his tenure with the Department of the Army to keep the importance of water resources infrastructure to the nation's economy at the forefront. During his time with us, Mike wholeheartedly supported the Corps and our efforts to serve the American people. We wish him well in the future."

"In the interim, the Hon. Les Brownlee, Under Secretary of the Army, will be the acting ASA(CW)," Flowers added. "We look forward to working with him as we serve the Army and the nation."

Brownlee became the 27th Under Secretary of the Army Nov. 14 after his nomination by President George W. Bush and confirmation by the U.S. Senate. As Under Secretary, Brownlee assists the Secretary in recruiting, organizing, supplying, equipping, training, and mobilizing the Army, and managing its \$80 billion annual budget and more than 1.3 million active duty, National Guard, Reserve, and civilian personnel.

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Insights

Happiness is a new RV! Or is it?

By Col. Lowell Moore
Chaplain, U. S. Army Corps of Engineers

OK...How many of you are considering retirement? Since I'm completing 30 years of military service this summer, my wife, Betty, and I are giving retirement more thought than usual. The activity that has risen to the top of our list of possible retirement pastimes is getting a recreational vehicle (RV), adopt a gypsy lifestyle, throw our cares to the wind, and camp our way around America.

RV dreams

Motivated by this dream, Betty and I are now visiting all the RV shows and dealers we can find, and we're trying to decide what type of RV we should get. Our heads are spinning as we consider the advantages and disadvantages of the many options on the market and trying to squeeze them into our budget. Should we get a travel trailer, a class C motorhome, a fifth-wheel, a pop-up, a class A motorhome, etc., etc., etc?

Which one will work best for us? Should we go new or used? Which one will make us happy?

Corps campgrounds

This dream has intensified as I travel around the Corps and see many of the great campgrounds and recreational facilities at our Corps projects. I've become very proud of the many wonderful, dedicated professionals who operate and maintain these world-class facilities, making some of America's most beautiful lakes and rivers accessible to the public.

These super men and women deserve a real "Attaboy" for the wonderful job they are doing. They meet thousands of Americans every year and do it in a way that makes us all look good. They're probably the best ambassadors for the Corps that we have.



They've done such a great job that I've already bought the book, *Camping with the Corps of Engineers* by Spurgeon Hinkle, and I can hardly wait to start hitting those Corps campgrounds.

Little dog, big personality

One day I was absentmindedly playing tug-of-war with our dog, Sport, over his favorite chew toy while all these thoughts about RVs and retirement were ricocheting around in my head. I was about to succeed in wrenching the toy from Sport's jaws when I thought how happy Sport is going to be when we retire, get an RV, and start enjoying all those wonderful Corps campgrounds.

Sport is a small schnauzer, about 20 pounds, but he

doesn't know he's small. He always lives life in a big way. His tail always stands straight up, there's a prance in every step, and his every movement lets you know he's completely happy and enjoying life to the fullest. I smiled to myself as I thought about how much Sport will love chasing the Corps squirrels, smelling the Corps garbage cans, splashing around in the Corps lakes, and visiting the Corps rangers.

Then it hit me. Sport's happiness has *nothing* to do with what kind of RV we decide to get. He would be just as happy in a used pop-up as he would be in a brand-new, 40-foot, class A motorhome with a \$200,000 price tag.

Happiness from within

As I thought about this, I realized there really wasn't much difference between Sport and myself. If I'm not happy now, I won't be happy with a new RV once the newness wears off. However, if I *am* happy now, I'll continue to be happy and the RV won't affect that.

Happiness isn't the result of *things*. Happiness doesn't come from the outside. Happiness comes from within. This is a lesson one of my favorite authors, Saint Paul, learned years ago (Philippians 4:11), and now I see that Sport has a better grasp of this truth than many people - myself included.

Well, I'm not going to wait until I get a RV to be happy. And I'm not going to wait until I retire to be happy. I'm going to start being happy today!

Thanks, Sport, for the lesson on happiness.

(A note to our Corps rangers: Don't worry, Sport and I always pick up after ourselves.)

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

Letters to the Editor



Clarke survivor

I just read the March 2002 edition of *Engineer Update* that published the sad news of the death of retired Lt. Gen. Frederick Clarke, a former Chief of Engineers.

I think it would have been newsworthy, and fitting, to have mentioned among the survivors that Clarke's son-in-law is Maj. Gen. (ret.) Pat Stevens IV, who served in many Corps positions, including commander of the former North Pacific Division, and who retired as Deputy Chief of Engineers.

Both Clarke and Stevens were admirable officers of the Corps of Engineers. Stevens now serves as the Executive Director of the Society of American Military Engineers.

Our sympathies go out to all of Clarke's family in their loss of a great military leader.

John Killoran
Alaska District

Dear fellow human beings:

Through certain creative measures, I'm composing this correspondence to each of you from the confines of my mother's womb. I'm currently safe, but nonetheless concerned about the world into which I will soon be born.

You may not know that unborn children can hear, and can be quite aware of the world outside. It has come to my attention (and I might add to the attention of other small human beings) that terrorism and violence have taken a stranglehold on the so-called civilized world. I recently lost my father, Daniel, due to this world phenomenon. His untimely death was senseless and further exacerbates my concern.

I'll soon enter this world devoid of any prejudice or hatred. It is my sincerest desire that you leave me that way. I won't know what it's like to hate another human being merely because of the color of their skin or their

religious persuasion, unless you educate me that way.

Please don't!

I withdraw permission for you to fill my head (or the minds of other children, for that matter) with slanderous or discriminatory teachings that at some point may cause us to pick up a weapon and end an innocent life. I'm sick and tired of feeling scared because of senseless acts of barbarism you continue to perpetuate on one another in the name of religion! It has become an unwanted burden for me and for all the children of the world.

I implore every adult to wake up and stop the madness! Cease the killing immediately and embrace reconciliation! Espouse peace between nations at all costs because, you know what? If you don't, if you persist on killing one another, all prospects for any meaningful future are gone, completely gone. There will nothing left worth fighting over. Nothing.

Hell-o, is anyone out there listening? *Hell-ooo!*

Sincerely,
Baby Pearl

(Editor's note: Sunday Pearson, Sacramento District, was inspired to write this letter after learning that Mariane Pearl, wife of Daniel Pearl, the "Wall Street Journal" reporter abducted in Pakistan and executed by religious extremists, is pregnant with their first child.)





Lt. Gen. Flowers, Chief of Engineers, briefs a Headquarters town hall meeting about the Corps Vision. (Photo by Marti Hendrix, HECSA)

Leadership

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transformative executives.”

According to the study, these leaders combined bulldog resolve with personal humility.

Flowers thinks the humility part has a lot to do with compassion and empathy towards others. “When you’re in a position of leadership, with people looking up to you, you can’t get too caught up with yourself.”

The resolve part has a lot to do with vision and direction – insisting on the change you know needs to happen, like moving fully to the Project Management Business Process (PMBP).

The Chief also believes in moving out to fix problems. For example, he agrees with many others who have noted an absence of organizational leadership regarding the nation’s water resources infrastructure. That’s a problem, Flowers said, and the Corps is stepping forward to provide leadership. He noted that next September the Corps is assisting the American Water Resources Association, (a non-profit organization which aims to increase awareness of all sides of important water policy issues in the U.S.), with a national debate on water and water policy.

“We also want to carry forward the message on the state of the nation’s infrastructure,” said Flowers. “That’s why I often highlight the American Society of Civil Engineer’s report card,” adding that sometimes you have to take the leadership role to raise awareness.

Fruits of experience

Flowers says, half joking, that his greatest leadership accomplishment is still being around after 33 years in the military. When he gets serious, he refers to two situations he still feels good about. The first is his experience in Desert Shield/Desert Storm, where he commanded the 20th Engineer Brigade.

“The biggest challenge for a leader is leading people in combat,” Flowers said. “You’ve got a critical mission, and you’ve got to keep people trained, keep them motivated, keep their heads in the game.” He is still pleased that the brigade was successful in Desert Storm. “That wasn’t singularly because of my leadership,” but he is glad of the result.

He counts another leadership accomplishment when he took command of the Lower Mississippi Valley Division (now Mississippi Valley Division). The division had been without a commander for several months be-

fore Flowers arrived. Having just suffered a huge reduction, the division’s people were concerned that their mission would go away.

“I was taken aback at how down they all seemed,” Flowers said. “And I realized that I had an opportunity to make them feel special and important, and I in turn felt good about how they responded. We worked to improve external relationships, too.”

Flowers’ most difficult leadership lesson centered on trust.

“I’ve always tried to trust subordinates,” he said. “But sometimes, you sense that you have someone who doesn’t have best interests of the command at heart.”

Flowers described a subordinate leader who was not diligent and careful, and this caused the death of a few soldiers. “I asked myself, what should I have done,” said Flowers. “How could I have made him pay more attention to what was happening? And I vowed not to let that happen again.”

It takes work

Flowers says his toughest leadership decisions, *al-*ways, are deciding on promotions for subordinates — picking the right people for the right positions.

“It’s not easy, but I think you have to talk to people about their strengths and weaknesses,” Flowers said. “You have to look people in the eye and tell them why

ASA(CW)

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Brownlee served on the Republican staff of the Senate Armed Services Committee beginning in January 1987, under both Sen. Strom Thurmond and Sen. John Warner. From 1987 to 1996, he was the Principal Senate Armed Services Committee Professional Staff Member responsible for Army and Marine Corps programs, special operations forces, and drug interdiction policy and support. In addition, as Deputy Staff Director, he was deeply involved in policies and programs relating to ballistic missile defense, strategic deterrence, and naval strategy, shipbuilding, and weapons programs.

In March 1996, Brownlee was designated Staff Director of the Senate Committee on Armed Services by then-Chairman Thurmond. In January 1999, he was designated Staff Director for then-Chairman Warner, serving

you’re not picking them for the job.”

“Leadership is an acquired skill that takes work,” Flowers added. He thinks leaders are made, not simply born of natural talent. This idea, however, is not incongruent with the Gallup interviews, which seek to weed out people according to their leadership ability.

“If you’re selecting someone for leadership, you’re looking for certain traits,” Flowers said. “And you can always keep learning leadership traits; keep working on them.” Gallup may simply point out how ready you are and the ways in which you have yet to develop, he said.

“I recommend that people always have two things they’re reading. One should be something you like, such as fiction,” said the Chief, whose favorites include Tom Clancy and John Grisham. “And the other one should be for professional development. I do this, and it brings me back to center in terms of what’s important.”

There are lots of ways to educate yourself, Flowers said, but he recommends self-study. It’s cheap and you can do it on your own.

Making a difference wherever you are

“I think the Corps of Engineers is a good place for leaders,” Flowers said. He agrees that in the Army, the military has better leadership training, and that leadership training for civilians needs to improve. “That’s why the Corps’ emerging leader program is important.”

But leadership need not be positional. “We have leaders at all levels,” Flowers said. “You can always help other people grow, no matter what your position.”

Flowers says it doesn’t matter if you’re in the military or a civilian, if you’re a wage grade employee or in the Senior Executive Service, you always have the opportunity to help others grow and see themselves in a positive way.

When talking to people one-on-one, he often asks people about their jobs and how their jobs have an impact. “So if I’m talking to a park ranger, I ask about the job and how it’s going. And I want the park rangers to understand how important they are to the nation. Especially now, with the nation facing difficult times and confronting the war on terrorism, people need to get away and relax and feel better. Park rangers’ jobs mean something to the morale and well-being of the nation.”

He thinks leaders need to help people see how they’re important, and that’s not hard in the Army Corps of Engineers. “We in the Corps serve the nation and the armed forces, and so we should all see and remember how our jobs contribute to that. Those are very worthwhile missions with *lots* of room for leadership.”

Finally, Flowers says he believes in always asking three questions to keep people, and organizations, on track:

- *Where are we?* (Situational awareness – in battle this is literally geographic location.)
- *What are we doing?* (Jobs, mission.)
- *Why are we doing it?* (Most important.)

“When everyone in an organization can answer those things, magic happens,” Flowers concluded.

(Editor’s note: This article was originally published in “The Leading Light,” a newsletter for emerging leaders in Southwestern Division.)

through the recent change in control of the Senate.

Brownlee is a retired Army colonel. He was commissioned in 1962 as a lieutenant in the infantry through the ROTC program at the University of Wyoming. He is a distinguished honor graduate of the Army Ranger Course, an honor graduate of both the Infantry Officer Advanced Course and Command and General Staff College, and a graduate of the Army airborne course as well as the U.S. Army War College.

Brownlee served two tours in Vietnam. Before retiring in 1984, he was Military Executive to Under Secretary of the Army James Ambrose. His military decorations include the Silver Star with Oak Leaf Cluster, the Bronze Star with two Oak Leaf Clusters, and the Purple Heart. He holds a master’s degree in business administration from the University of Alabama.



Clif Warren and Andrew McVeigh analyze terrain data. (Photo courtesy of Tulsa District)



Maj. Bob Cabel is a liaison officer to the 101st Airborne Division in Afghanistan. He is shown with the Teleengineering Communication-Deployable kit at Kandahar International Airport. (Photo courtesy of Southwestern Division)

Warfighters get engineer team support

By Lt. Col. Bill Jameson
Southwestern Division

Each year, major Army commands conduct Warfighter exercises to test their command-and-control procedures for fighting a major battle. These exercises normally do not include any direct U.S. Army Corps of Engineers participation. But since the advent of the USACE Field Force Engineering (FFE) concept a year ago, USACE divisions have created teams that can deploy to the field to provide engineering forward support to warfighting units.

Two of Southwestern Division's (SWD) FEST-A (Forward Engineer Support Team - Augmentation) teams recently participated in Warfighter exercises. In January, Fort Worth District's primary FEST-A team went to Fort Stewart, Ga., to work with the XVIII Airborne Corps during their Warfighter exercise. In February, Tulsa District's primary FEST-A team participated in a similar exercise with III Corps at Fort Hood, Texas.

FEST-A

A FEST-A deploys to augment a unit's engineer staff, either as a stand-alone unit in the field, or as a forward element working with a larger deployed team called a FEST-M. The FEST-A team has a military officer (captain or major) plus four-to-six civilian engineers of varying specialties. The team can expand or reduce to meet specific requirements.

The team can also reach back with tele-communications to the non-deployable FFE teams in the division, and to other USACE resources worldwide.

In the field, FEST-A teams are equipped to do limited design work and engineering analyses on their own to support warfighting units.

From the supported unit, the FEST-A team gathers requirements and accepts missions for execution. The team works directly for the supported unit, rather than just in a limited liaison role. The team's value is more than just additional engineer staff. Their real value is to open a direct link from the supported unit to the entire range of expertise that USACE offers its customers.

Fort Stewart

That link is both functional and technical. FEST-A teams deploy with the latest Teleengineering Communications - Deployable kits (TCE(D)), provided by the Teleengineering Operations Center at the Engineer Research and Development Center at the Engineer Research and Development Center in Vicksburg, Miss. The kits allow for voice, video, and data uplink from field sites through satellite communications directly back to SWD and other USACE offices.

In late January, Maj. Brad Westergren deployed his FEST-A team to the XVIII Airborne Corps Warfighter



Fort Worth District's primary FEST-A team are (left to right) Efen Martinez, Tom Armstrong, Daren Brown, Maj. Brad Westergren, Ted Nicolson, Francisco Gomez, and Mark Valentino. (Photo courtesy of Fort Worth District)

exercise at Fort Stewart, Ga. While there, they co-located and worked with the 20th Engineer Brigade.

Missions for the team included designing a 5,000 person prisoner of war camp, and a displaced persons facility. Westergren reports that the exercise was the "best learning opportunity to date! The interaction with a real customer, in a tactical setting supporting a much larger exercise, set and maintained a sharp focus. The customer appeared to be delighted with the additional assets."

The exercise generated a considerable number of practical and doctrinal FFE issues for review and possible implementation in future FEST-A deployments.

Fort Hood

Another opportunity for fielding a FEST-A team came in late February during the III Corps Warfighter exercise at Fort Hood. Maj. Dan Snead from Tulsa District deployed with his team to participate. The team co-located and worked with the 420th Engineer Brigade.

According to Snead, the experience was unlike what the Corps has accomplished in the past with FFE. He said, "our team provided quick, responsive products like construction designs, terrain analysis, and main supply route degradation analysis. The support we provided was a little different than what we've modeled our team from, which was the Corps' FFE support in Bosnia. It was a great opportunity to train our team."

Other SWD assets downrange

Like the Fort Stewart exercise, this one also generated issues for review.

It is important to point out that while none of the SWD FEST-A teams are deployed overseas (as of mid-March),



Tulsa District's primary FEST-A team are (left to right) Maj. Dan Snead, Patrick Beard, Andrew McVeigh, Capt. Bob Corrales, Craig Wells, and Clif Warren. (Photo courtesy of Tulsa District)

the division currently has several liaison officers (LNOs) and real estate specialists currently in Afghanistan and the U.S. Central Command (CENTCOM) area of operations. The LNOs provide reachback capability on the ground with the 101st Airborne Division and the 10th Mountain Division, as well as with non-combat units such as the Combined Joint Civil Military Operations Task Force.

Missions include runway repair analysis, structural evaluations, airfield lighting design, and base camp design. The LNO's deploy with TCE(D) gear, and this equipment allows real-time video conferencing with the supported units, and live feedback and review of runway repair missions. The advantage of this equipment is that it keeps the downrange footprint (staff size) small, while still providing a high level of service to the customer. Both timeliness and cost are positively affected by using this technology.

The real estate team has been deployed since last December and has executed leases at various locations in the area, including Kuwait, Kabul, Uzbekistan, and Kyrgyzstan. Vern Lawless of South Atlantic Division, on loan to SWD, led the first deployment downrange and provided a great service with this team to CENTCOM and to the U.S. Army Central Command.

Conclusion

According to Col. Bill Tonsing, the SWD Deputy Chief of Staff for Operations, "The participation of two FEST-A teams in the Warfighter exercises has given the warfighting commands another resource they can use to accomplish their mission. For USACE, this means we're able to more effectively use our resources to perform our primary mission of supporting the Army and the nation."

L.A. now has more flood protection

By Mike Tharp
Los Angeles District

Los Angeles now has greater flood protection, at lower cost and in less time, thanks to the U.S. Army Corps of Engineers. On Feb. 6, the Corps and the County of Los Angeles Department of Public Works dedicated the Los Angeles County Drainage Area (LACDA) project. LACDA will protect hundreds of thousands of residents and save millions of dollars, and it was completed five years ahead of schedule and tens of millions of dollars under budget. The dedication took place at the Ralph C. Dills Park in Paramount, Calif.

"I'm proud to be here for a truly historic occasion that signifies a huge payoff for a half million Angelenos, provides security from potentially devastating floods, and marks an end to FEMA-mandated flood insurance," said Mike Parker, Assistant Secretary of the Army (Civil Works), keynote speaker at the ceremony.

"The bottom line is that residents in the affected areas are unlikely to be victimized by a 100-year flood," said Donald Knabe, Los Angeles County Supervisor. "Now, 500,000 residents in 14 communities will no longer purchase flood insurance, and we brought that change about five years early and \$150 million under budget."

LACDA includes the lower Los Angeles River, the Rio Hondo River, and Compton Creek. The project addresses flooding problems that have resulted from the rapid urbanization in the county since the drainage system was built in the 1930s and '40s. Although the system provided



Pier nose extensions, like these on the Somerset Boulevard Bridge, helped complete the L.A. County Drainage Area project years ahead of schedule and millions of dollars under budget. (Photo courtesy of Los Angeles District)

adequate protection for more than 40 years, increases in population and industry had diminished its effectiveness in the river basin.

A flood that has a one-percent chance of occurring in any one year (technically called a 100-year flood) would have inundated an 82-square-mile area that has a population of about a half million people in 14 communities. Such a flood would have caused about \$2.3 billion in damage.

The project was originally estimated to cost \$364 million. The final cost is likely to be around \$216 million.

FEMA removed the requirement for owners to purchase flood insurance on federally guaranteed mortgages in three phases, contemporaneous with the completion of improvements along the flood control channel. As a result of the project's final phase completion, an additional 65,830 policy holders in the most recently affected communities will no longer have to pay an estimated \$23 million annually for those policies. Throughout the entire LACDA

project area, homeowners have been relieved of up to \$33 million in annual flood insurance costs.

Parker said the project's completion "was in no small part due to highly effective partnerships among agencies and individuals involved."

The Engineering Research and Design Center (ERDC) played a major role in the project's success. Initial plans to update the flood control project called for engineers to raise dozens of bridges across channels. Removing and replacing the bridges would have increased project costs significantly, lengthened the schedule, and created untold traffic problems.

But by investing about \$3 million in a design effort conducted at ERDC, Los Angeles District shaved almost \$150 million from the project's overall cost. The result was the design for structural attachments called "pier nose extensions" to the upstream side of bridge supports.

"Corps experts 'tricked' the water by modifying pier noses on bridges to acceler-

ate flow, causing the water to duck under certain bridges," said Parker. "That single innovation significantly reduced cost of project, reduced construction time by several years, and eliminated major disruptions to lives of people in area."

Construction of the original flood control project began in the 1940s. By 1980, however, because of the influx of residents and businesses, the area had outgrown the project's ability to protect it from a major flood. To alleviate the problem, Congress in 1990 authorized \$374 million for improvements to the flood protection system. In 1995, the Corps reached an agreement with the County of Los Angeles to improve flood protection for the area, with the federal government paying 75 percent of construction costs and local interests providing the remaining 25 percent.

Ultimately, 500,000 people, 177,000 structures and 82 square miles of urban area stretching across parts of six congressional districts would be affected. Work included building walls on top of 21 miles of existing levees, widening parts of channel, armoring the backside of some levees, raising a few railroad bridges, landscaping, and improving bike trails and rest stops.

Thompson added that the project "provides a tremendous benefit to a large area of Los Angeles County. It also shows that government agencies can accomplish a lot when they plan well and work as a team."

Parker concluded, "LACDA can be known as a partnership project that became a win-win for all involved."

(Mike Tharp is a contract writer for Los Angeles District.)

Box to link present with Lewis & Clark

By Shannon Bauer
St. Paul District

The Lewis and Clark expedition to explore the West was the space program of its day – fascinating, expensive, and filled with possibilities, danger, and adventure.

Much has survived of that expedition – notes, maps, samples, drawings, and journals – but little is available for viewing. This relegates an expedition that captured the imagination of its time to dry pages in the history books.

The U.S. Army Corps of Engineers' solution – create a Discovery Box filled with items and replicas to touch and ponder, to give park visitors contact with that time.

Ray Nelson, a park ranger at Cross Lake, Minn., is one of the team members working on this project. He has spent much of his free time in the past two-and-a-half years submerged in history for USACE.

Corps officials handpicked Nelson and five others from different districts to develop the Discovery Box. USACE intends to mass-produce the discovery box and deliver it to Corps recreation sites across the nation for use in interpretive programs.

USACE manages more Lewis and Clark trail miles than any other government or private entity (around 70 percent). Corps leadership decided an educational Discovery Box would be a way to spread the message about the Army's role in the Lewis and Clark expedition, and to make sure that Corps park rangers spread an accurate message.

Jean Nauss, USACE Lewis and Clark national coordinator, asked for volunteers for a taskforce to develop such a box.

"I applied because I've been interested in this area of history for around 27 years or so," said Nelson. "I did some graduate study work in human relations, focusing somewhat on the Indian/white contact during the fur trade



Cross Lake Park Manager Ray Nelson gives a history lecture to visitors. (Photo courtesy of St. Paul District)

time period. I've studied and accumulated a useful library of primary sources relating to that time period in history."

Nelson said the group was charged with developing a focus for the box, as well as to decide what to put in it. "We researched other agency groups who designed similar boxes, and we found that no one had previously focused on the military aspects of the journey," he said. "We had a lot of research to do."

Their group read several journals written by Lewis and Clark and the people who traveled with them, and noticed that Army values appeared in many entries. The values (duty, loyalty, personal courage, selfless service, respect, honor, and integrity) were things everybody could relate to. The group decided to focus on these values, and assigned each task force member a value to research.

Nelson took respect, honor, and integrity. He centered his research on Lewis and Clark's interaction with the tribes they met, and how the exploring party related to each other

by showing mutual respect, displaying integrity, and honoring each other with gifts. Some of the items Nelson selected included military medals, beads, a beaver pelt, and a 15-star American flag.

"We wanted to make sure the items in the box were durable and could be handled by lots of kids," said Nelson.

For example, the Lewis and Clark expedition carried an air rifle. It was advanced technology for its day, the closest thing to an automatic firearm. The Indians had been very impressed with the weapon, and Nelson wanted to incorporate an air rifle into the Discovery Box.

But that obviously could not be brought into schools. Instead, Nelson designed a poster for the box to show people how innovative the air rifle was.

The Discovery Box will also include a guidebook with background materials and project ideas for each of the values. Nelson explained, "Its purpose is to give the park rangers somewhere to start in setting up their displays and developing their programs."

The project has expanded since its conception, however. According to Nelson, USACE now has a list of several non-Corps organizations that also want copies of the Discovery Box. "Several people have contacted me, and I tell them to please be patient," he said. "It's not done yet."

In the meantime, several groups, such as local schools, have asked Nelson to lecture about Lewis and Clark. "They then find out I work for the Corps, and I usually also end up arranging a tour and speaking about the dam, recreation, and operations," he said.

Nelson started working for the Corps 25 years ago, serving as a park ranger for 13 years and a park manager the last 12. He said he's done a lot of interpretive programming throughout the years, but he learned a lot working on this Discovery Box, and gained personal satisfaction.

"I learned how much I didn't know," he said.

Kansas City District gets the lead out

By Larry Crump
Kansas City District

Once again, a Kansas City District project has impacted dramatically and favorably on the community it serves. In this instance, it is the removal of lead-contaminated soil from residential yards in Jasper County, Mo., and replacing the contaminated soil with clean soil.

According to a Feb. 8 article in the *Globe* newspaper of Joplin, Mo., state and local health officials said that removing contaminated soil, plus an aggressive public education campaign, have reduced blood-lead levels in Joplin area children by as much as 40 percent.

The area had been designated a Superfund site by the Environmental Protection Agency (EPA). The cleanup was accomplished by a district team that began work in 1995 to remove and restore soils at some 2,500 residential properties.

In the 1940s, Joplin was the lead-producing capitol of the world. Residential yards in the area were contaminated by fallout from the smelters, and the use of mine waste in residential construction.

Exposure to lead shortly after birth is associated with impaired mental health between the ages of two and four. Such children also face the possibility of abnormal ner-



An excavator backfills lead-free soil at a residence in Joplin, Mo. (Photo courtesy of Kansas City District)

vous system development and irregular physical growth.

Based on what had been learned about lead and the dangers it poses, the EPA placed the entire city of Joplin on the National Priorities List and began cleanup. The EPA completed 300 properties before asking the Corps to clean up the remainder.

According to the *Globe* article, the results of a study

conducted in 2000 were compared with those from a 1991 study, done before the soil was cleaned. The 1991 study showed 14 percent of 250 children involved had elevated blood-lead levels. In the 2000 follow-up study, which involved 287 children, the blood-lead levels dropped to two percent.

Kansas City District's work in Jasper County earned EPA's Bronze Medal for Commendable Service in 2000, and the Greater Kansas City Federal Executive Board's Distinguished Team Award in 2001.

Beth Buckrucker, the district's project manager, was pleased. "We've learned an enormous amount during the life of this project, and it truly took numerous quality team members to make it happen," she said. "We've pleased our customer and they're now looking to us for future work, which speaks highly of what this team accomplished."

Not only was EPA happy with how the project was handled, but now the tests prove that the work is serving its purpose and that untold numbers of children and their families will be spared the terrible consequences of lead contamination.

Dan Ahern served as the district's on-site construction representative, and Bob Weiser was the district's field engineer. The project was completed last September.

Support team is the one to call in SPD

By Edward Sing
South Pacific Division

Let's say you're on a project delivery team in a district in South Pacific Division. You're working with a sponsor on a Project Cooperation Agreement, and you're unsure of the process for approval.

Who ya gonna call?

No, not "Ghostbusters." You call the District Support Team (DST) at South Pacific Division (SPD)!

The DSTs were established in SPD Headquarters to help districts with all phases of the project delivery process. There are six DSTs in the division — one civil works-oriented DST for each of SPD's four districts (Albuquerque, Los Angeles, Sacramento, and San Francisco), plus an Environmental/Support for Others DST, and an Military/Installation Support Office DST covering all four districts.

The DSTs are the initiative of Brig. Gen. Peter Madsen, former SPD commander; Steve Stockton, Director of Civil Works and Management; and Rusty Postlewait, former Director of Military and Technical Services.

PMBP connection. Stockton says, "The District Support Team involvement in the project delivery process is a natural extension of the division office's role in the Project Management Business Process (PMBP)."

The DSTs were formed in 1999 in support of the Corps moving away from "stovepipes" to a team environment. The DSTs:

- Provide a programmatic overview of various programs and authorities.
- Assist the districts on project specific actions and problems.
- Facilitate moving district projects efficiently through approval at the division, HQUSACE, and Assistant Secretary of the Army (Civil Works) (ASA(CW)) levels.
- Keep the division commander and SPD staff informed of district, DST, and higher authority actions.
- Serve as the district "champion" at the division and with HQUSACE in the district project delivery process.

Each DST has six primary representatives from the technical areas of Engineering and Construction, Office of Counsel, Operations, Planning and Policy, Program Development and Management, and Real Estate. Each primary representative (and an alternate) is designated by their functional area chief. In addition, all members of the division office are considered part of the DST, since members with special expertise may be drawn into a DST action

when his or her expertise is needed.

Each DST operates under a charter developed and approved by the team and tailored to the unique characteristics of the district's programs, as well as under a set of principles and guidelines developed and agreed to by all DST members (see www.spd.usace.army.mil/supportteams/).

Beginnings. The DSTs began with a message from the division commander to all SPD employees explaining the DST concept, a letter from the division commander to all DSTs empowering their members (including authority to sign "For The Commander"), and a letter from the division commander to the district commanders detailing the DST concept.

After about eight months of operation, the division commander requested that the DSTs assess the progress made in helping the districts. This assessment included three workshops — the first with representatives from the four districts, the second with representatives from HQUSACE, and the third with all DST members. These workshops resulted in developing a set of principles and guidelines that serves as a program management plan for all DSTs.

In addition, the workshops clarified the DSTs' roles and responsibilities. Districts expect DSTs to participate in their district's project delivery process; provide expertise through guidance, tools and training; and champion the district's projects. HQUSACE expects DSTs to perform quality assurance and policy review, make tough decisions and exercise delegated authorities, and act as a liaison with HQUSACE. SPD expects DSTs to assess quality management and PMBP in our district's project delivery process, help districts resolve issues in a timely manner, and keep SPD management informed through the functional chains and at Project Review Boards.

The DSTs themselves share lessons-learned regularly, and during semi-annual offsite meetings.

Hamilton Army Airfield. A recent example of DSTs working successfully with a district on a complex project took place in San Francisco District. The Hamilton Airfield Wetlands Restoration Project in Marin County is 700 acres on a former military airfield four miles east of Novato. The project will use material from San Francisco Bay dredging projects to develop and restore tidal wetlands at the old airfield.

The challenges include using Base Realignment and Closure and Formerly Used Defense Site authorities for environmental cleanup of the project site integrated with civil

works authorities for wetlands restoration, multiple sponsors, multiple regulatory agencies with conflicting viewpoints, and constrained schedules and budgets.

The San Francisco Civil Works and Environmental/Support for Others DSTs assisted the vertical networking of the project delivery team (including civil works expertise from San Francisco District, plus environmental project management and environmental engineering expertise from Sacramento District) and HQUSACE. The DST helped focus the overall regional effort in the project formulation and design as well as processing of a Project Cooperation Agreement (PCA).

It took a lot of meetings, coordination, and communication up to the ASA (CW) level to get a PCA that will be executed this month.

Success. The DSTs participate throughout the project delivery process, from project planning through design, construction, and operation and maintenance. They participate in their district's monthly project review boards to help resolve issues raised at these meetings. The DSTs also participate in project delivery team meetings and telephone conference calls with HQUSACE on project-related issues.

Lt. Col. Timothy O'Rourke, San Francisco District commander, said "The DST's provide a vertical partnership that shortens the time for plans to become actions by incorporating policy early and anticipating problems. The enhanced process not only provides quicker results, but it also adds to the district's and Corps' creditability with local customers since we provide better service without the start-and-stop impact normally associated with multi-layered bureaucracies."

Cynthia Nielsen, Chief of Programs and Project Management Division for San Francisco District, adds, "I've worked in districts in four Corps divisions, and this is by far the most effective process I've seen for vertical teamwork. Frankly, in other places, we tried to *avoid* involving division in our projects. But the DST concept is definitely value added, and the folks in my district appreciate our DST. We're more successful and effective thanks to their support."

Lt. Col. Ray Midkiff, Albuquerque District commander, said, "Our DST continues to provide invaluable service to Albuquerque District on a wide variety of issues. These include endangered species litigation, water operations, civil works programs and policy, legal, and real estate. Without their support, many critical projects and initiatives would be stuck in neutral."

The Chief of Engineers Design and Environmental awards Program entries were judged Feb. 27-28 at the U.S. Army Corps of Engineers Headquarters.

"This year, for the first time, we handled this program entirely on the Web at the urging of Frank Norcross," said Larry Delaney, Chief Architect. "And it's well that we did, because of the mail problems caused by the anthrax attacks. I'm still getting Christmas cards and invitations. If we hadn't done it on the Web, we couldn't have done it."

Thirty-six projects and professional works were presented for this biannual awards program, and 11 were selected for awards.

In addition, the Design Team of the Year has been selected. The award goes to the Corps in-house design team which won the highest ranking award in the Chief of Engineers Design and Environmental Awards Program. This year the award is shared by the design teams of Seven Oaks Dam, Highland, Calif.; Owasco Outlet East and West Pier Rehabilitation, Auburn, N.Y.; and Dry Bayou/Thompson Bend Riparian Corridor, Scott and Mississippi counties, Mo.

The program is organized with two categories of competition, Military Programs and Design, and Civil Works and Environmental Design. Projects in the two categories were judged independently by interdisciplinary juries. The Design Jury judged military construction projects and works, while the Environmental Jury judged the civil works and environmental restoration projects.

The Chief of Engineers Design and Environmental Awards presents 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 one for an entry in the Environmental cat-

egory. This award can only be given by unanimous decision of the jury for an entry that truly exhibits excellence in all major professional design disciplines.

Chief of Engineers Special Recognition Awards – For the first time, in the 2002 program, the juries had the option of selecting two additional special recognition awards. The juries may jointly select a project for special recognition in environmental preservation, and one in professional work.

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 Awards – Merit Awards are given for 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 jurors offer dissenting votes.

The Chief of Engineers Design and Environmental Awards Program 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 400 awards in the 27 years of its existence.

Military Programs and Design Jury

Larry Barr, AIA
Principal, Quinn Evans/Architects
Edward Feiner, FAIA

Chief Architect,
Public Buildings Service
U.S. General Services Administration
Paul Morris, FASLA
Senior Supervising
Landscape Architect
Parsons Brinckerhoff Quade
& Douglas, Inc.
J. Michael Weise,
ASHRAE, AEE, SBIC
The Trane Company
George Konstantopoulos, P.E.
President, Advanced Consulting Engineering Ltd.

Mary Elizabeth Boyd, ASID
Interior Designer
Dept. of Veterans Affairs
Kimberly Fortenberry, NCIDQ
USACE Interior Designer
of the Year-2001
Mobile District

Civil Works and Environmental Design Jury

Paul Morris, FASLA
Senior Supervising
Landscape Architect
Parsons Brinckerhoff Quade
& Douglas, Inc.
Carmelo Senatra, AIA
USACE Architect of the Year-2001
Rock Island District
Dr. Chung C. Fu, P.E.
Director and Associate Professor
Bridge/Building Engineering Software
& Technology Center
Department of Civil and Environmental Engineering
University of Maryland
Dr. Oliver Hao, P.E., D.D.E.
Department of Civil and Environmental Engineering
University of Maryland
Dr. Faysal Bekdash, AACEI
Senior Environmental Engineer
Science Applications International Corporation

Military Programs winners

Award of Excellence: *National Ground Intelligence Center, Charlottesville, Va.*

Design Agency: *Norfolk District*
The National Ground Intelligence Center (NGIC) is a major subordinate command of the U.S. Army Intelligence and Security Command that produces scientific and technical intelligence. The Nicholson Building houses more than 750 NGIC employees who were previously in four different locations.

The building covers 257,800 square feet. Fifty percent is allotted to offices, and the rest is divided between special spaces including laboratories, automated data processing, Information Resource Center, and teleconferencing.

The plan organized the space to segregate secure and non-secure functions. Clearly defined zones for open plan, enclosed office, and special spaces optimized flexibility and efficiency. This clear interior organization resulted in easy circulation of people throughout the building and facilitated interaction between the analysts.

The project contract was awarded for \$41.03 million, and completed on time



The National Ground Intelligence Center combines both secure and non-secure areas in a pleasing design. The center provides scientific and technical intelligence to the U.S. Army Intelligence and Security Command.

2001 Chief of Engineers Design and Environmental Awards





Soldiers receive realistic training in city fighting at the Zussman Mounted Urban Combat Training Site at Fort Knox, Ky. Above, a squad attacks a "damaged" building.



State-of-the-art special effects including controlled flames, realistic sound effects, and even realistic smells make Zussman Mounted Urban Combat Training Site the best training area of its kind in the world.

and under budget.

Jury comments: From site planning to the smallest detail, the design concept holds true. This building creates a work environment that will leverage productivity and facilitate retention of a professional and innovative staff. This project illustrates excellent indirect lighting design.

Designers have taken a complex site and minimized earth moving and site disturbance to integrate the outdoors with the interior environment. The color pallet creates movement within the facility without overpowering the design integration with the outdoor environment. The narrative documents significant increases in productivity, and meets the design objective of being a world-class facility.

Special Recognition Award: Zussman Urban Combat Training Area, Fort Knox, Ky.

Design agency: Louisville District

The goal was to break the molds for Mounted Urban Combat Training Site (MUCTS) construction. The mock city had to be large enough to host a company or battalion task force with helicopters, armor, infantry, and Bradley Fighting Vehicles, and versatile enough to pose as a town virtually anywhere in the world.

Zussman MUCTS is situated on 26 acres at Fort Knox. The \$13 million project gives soldiers the dramatic, hands-on experience needed to fight and win on an urban battlefield.

Hollywood special effects are used to subject troops to the stress of urban conflict, including sound effects simulating riot, fire, uprisings, screams, and voices in various languages. They encounter a burning gas station, a falling utility pole that blocks the road, 900 feet of 48-inch sewer pipe, an exploding, collapsing bridge, hand grenades that shoot out of a hidden passage and drop at their feet, 22 different locations that can suddenly ignite into flames, and a massive automobile explosion.

Jury comments: This project has a unique program. It was designed to integrate design and architecture with multimedia to successfully emulate a real-war environment. This is the first year this award has been given, and this was by far the most innovative project submitted.

Merit Award: Guest House, Fort Buchanan, Bayamon, Puerto Rico.

Design agency: Jacksonville District

Last year, U.S. Army Lodging recognized this facility as the "2001 Lodging Operation of the Year" due to the high level of design quality, outstanding facility operation, customer service, and infrastructure.

The project required design and construction of a 75-room lodging facility including 45 efficiency units with kitchenettes, and 30 standard units. The administration space provides check-in reception, offices, break area,

restrooms, employee dressing and showers, commercial and resident-use laundry, office for resident use, conference/multipurpose room, housekeeping support, and an elevator.

One challenging feature was to accommodate families for up to three months. At the same time, the facility had to provide short-term accommodations. In addition, the facility had to accommodate those who were required to work at night and rest during the day.

Psychological and physical privacy became a primary design issue, and the design process resulted in a campus concept. Three clusters of three buildings each were placed away from the main building, which is a tradi-

tional hotel structure. The parking was separated from the buildings throughout the site to allow for additional privacy, and created the opportunity for the tropical landscaping to play a major role in the final design.

Jury comments: The presence of the building on the site expresses its regionality. The landscape is integrated with the architecture. It creates an image of hospitality consistent with the private sector. Designers took what would have otherwise been an institutional project and created a welcoming environment. The handling of parking facilitates sustainable design. The lighting, while subtle, provides a feeling of security and reinforces the building design and landscape design.



The Army selected the Guest House at Fort Buchanan, Puerto Rico, as the 2001 Lodging Operation of the Year.

Civil Works and Environmental

Award of Excellence: Indianapolis Waterfront Upper Canal Revitalization, Indianapolis, Ind.

Design agency: Louisville District

The goal of this project was to open up the underutilized urban land in rundown neighborhoods and along the historic old canal for development and civic use. Employing a practical design approach, sensible scale, creative thinking, and a sustainable philosophy, a wonderful civic open space was created. The new canal will spur development along its banks, and meet community recreation needs for generations to come.

The new upper canal terminates at the new Admiral Raymond A. Spruance Basin between the 10th St. Bridge and the 11th St. Bridge. The semi-round basin, about 160x200 feet, is accented by walkways, walls, lighting, and plantings, creating an appropriate civic space for multi-purpose use. The basin's edges accommodate boat launch and landing.

Fifteen-foot-wide walkways along both sides of the canal create a special urban setting to accommodate the recreational needs of the neighborhoods. Better connection between the neighborhoods was established by replacing two old bridges.

The new open space is used by joggers, strollers, and others during the day. On weekends, various events enrich the cosmopolitan lifestyle of Indianapolis. A safe night environment is created with specialty lights, which also play a significant role in making the downtown vibrant and exciting to visit.

The project dramatically increased the value of commercial, residential, and recreational city assets. The planning, design, and construction of the new public spaces spurred new residential developments along the canal.

Jury comments: *This project has transformed a depressed urban area into a focused area for recreation and community. It combines an aesthetic and elegantly simple solution for a both public and private experience. This project balances historic preservation with urban revitalization goals. The public truly enjoys this project.*

Special Recognition Award — Environmental Remediation: Tranguch Remediation System, Hazleton, Penn.

Design agency: Philadelphia District

Several gas stations in the Laurel Gardens neighborhood leaked large quantities of gasoline from their underground storage tanks. The gasoline entered the groundwater and several homes were evacuated, including one where pure gasoline flowed into the basement.

Benzene vapor (a carcinogen) was found in more than 100 homes in the neighborhood. Several residents were diagnosed with cancer that many attribute to benzene exposure. This site became the top priority for the Environmental Protection Agency (EPA) Region III.

EPA tasked Philadelphia District to design and build a remedial system. The district quickly developed a design to excavate and remove the deteriorated sewer system where it was in contact with contaminated groundwater, and replace it with a combined remedial/sewer system. The heart of the system is the trench and gravel bed containing the sewer and remedial system piping.

The gravel bed, under a busy street, is both the bedding material for the sewer and collection pipes, and the porous media that allows collection of soil vapors and groundwater from the area.

The gravel bed is overlaid by an impermeable plastic liner that prevents escape of gasoline vapors, and prevents clean air from entering the collection pipes. The original clay sewer pipes were replaced with impermeable plastic pipe.

The design used three separate systems (sewer, groundwater collection, soil vapor extraction) that all operate in one trench. The trench was more than 800 feet long and divided into four segments that could operate independently.

Final cost was \$5 million. The system is removing contaminated groundwater and soil vapor from the contaminant plume, and protects homes from benzene vapors en-



The Indianapolis Waterfront Upper Canal Revitalization project adds important recreational and cultural opportunities to the downtown area.

tering via the sewers. Contaminated groundwater is treated by EPA's mobile groundwater treatment system, which will be replaced by a permanent facility. Contaminated vapor is treated by a system designed by IT Corp and built by the Omaha Rapid Response Team. Omaha was also involved in building the new remediation system.

Jury comments: *This project is an excellent and innovative solution to a difficult environmental problem. It is a truly collaborative effort that demonstrates the synergy that can be developed between the government and private companies.*

Special Recognition Award — Environmental Preservation: Biological Field Truthing at Winklepeck Burning Ground, Ravenna, Ohio.

Design agency: Louisville District

For more than 20 years, environmental decision-making at remediation sites has been hampered by the lack of a method to validate or refute mathematically predicted hazards. This pioneering biological field-truthing method provides a long-needed solution. The efficient, inexpensive, and technically sound field method has the potential to save \$6 million at RVAAP, and may become the standard for problem resolution elsewhere.

The method compares the health of two ecological receptors (vegetation and small mammals) at the most contaminated burning pads with those at matched reference sites.

A study costing \$594,000 (about 30 percent of what a full field assessment would have cost) has the potential for cost-avoiding millions of dollars in future ecological risk studies at RVAAP.

Robert Whelove, Jr., the oversight manager for Operations Support Command for RVAAP Cleanup, said, "Working in partnership, the RVAAP Team thought out of the box to develop a cost-effective field-truthing method that will cost-avoid \$6 million at Ravenna."

The innovative field-truthing method for validating suspected hazards to terrestrial ecological receptors at the Winklepeck Burning Grounds (WBG) yields sound, defensible data while eliminating the weaknesses of the two traditional methods — the imprecision and repetitive calculations of the HQ method, and the excessive time and costs of the full field assessment.

An added value is the potential to extrapolate methods and findings of the WBG study to other RVAAP sites and other military installations, avoiding millions of dollars in ecological risk studies.

Jury comments: *This project has the potential to be a groundbreaking advancement in the methodology of biological assessment. This pilot project has potential for broad application.*

Honor Award: Seven Oaks Dam, Highland, Calif.

Design agency: Los Angeles District

Seven Oaks Dam is part of the \$1.4 billion Santa Ana River Mainstem Flood Control Project. The project has removed the most massive flooding problem west of the Mississippi River, eliminating a floodplain previously threatening more than three million people.

As the upstream component, Seven Oaks Dam protects the floodplain starting at the dam and extending 60 miles downstream to the Pacific Ocean. The project's three local sponsors (Orange, Riverside, and San Bernardino counties) are satisfied with the project for the benefits they ensure for flood protection, environmental preservation, and aesthetics.

The dam is located on the San Andreas Fault and must withstand four feet of movement in any direction. The dam includes eight major zones to accommodate the seismic design, uses high-strength concrete of 8,000 pounds per square inch, and the gate chamber is located in the best rock with the best chance for survivability and access in an earthquake.

The Corps preserved and enhanced 735 acres of habitat in the watershed, purchased 764 acres downstream to preserve an endangered plant, and developed a mitigation plan to allow kangaroo rats to use their borrow site with little impact to construction.

The Corps preserved important cultural resources when it relocated an early gravesite outside of the reservoir area, and archived and relocated historical hydropower equipment owned and operated by Southern California.

The Corps also ensured the dam would be aesthetically compatible with its surroundings. It moved the dam up the canyon to minimize the visual impact of the high embankment to the valley below, stained exposed rocks on the downstream face of the embankment to blend with the soil, designed access roads to fit the terrain, and hydroseeded exposed scarps with native vegetation.

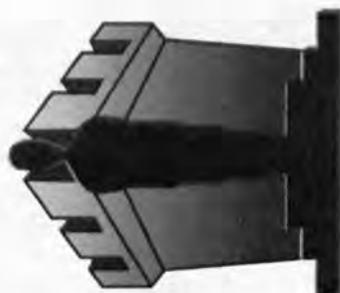
The new dam cost \$270 million, \$15.5 million less than the estimate presented in 1992.

Jury comments: *This is a remarkable engineering project that blends flood control protecting three million*



2001 Chief of Engineers

Design and Environmental Awards



The Seven Oaks Dam is designed to blend in with its natural surroundings.

people, with seismic concerns along the San Andreas fault, while minimizing environmental impact. This 550-foot-high structure blends seamlessly with its natural setting. It protects endangered species and preserves the historic works on the site.

Honor Award: Owasco Outlet East and West Pier Rehabilitation, Auburn, N.Y.

Design agency: Buffalo District

The east and west piers at the Owasco Lake Outlet were originally built of timber and stone in the mid-1800s to discharge water from the lake. In the early 1900s, the piers were rebuilt by the New York State Department of Public Works using cut stone blocks. In 1962, the Corps completed a flood control project by enlarging and deepening the lake outlet channel for 1.8 miles downstream from the outlet structures. By the 1990s, deterioration of the cut stone blocks was causing the piers to fall into the channel.

The Corps' appropriations of \$245,000 and contributions of \$81,000 from Cayuga County supplied the funds to complete the design, plans, and specifications. The construction cost estimate of \$5,365,000 was close to the actual cost of \$5,563,000.

The rehabilitation assures that the Owasco Outlet East and West Piers will continue to maintain the hydraulic conveyance of the outlet, protect the water pump station for the City of Auburn, and form a keystone in the redevelopment of the Victorian park at the shore.

Jury comments: This project sustainably utilizes existing structures and shows an excellent choice of high quality and aesthetically pleasing local materials for construction. Project enhancements were provided from cost savings.

Honor Award: Dry Bayou/Thompson Bend Riparian Corridor, Scott and Mississippi Counties, Mo.

Design agency: St. Louis District

In this reach of the Mississippi River, a large meander created an agriculturally rich 10,000-acre peninsula-like land mass called Dry-Bayou/Thompson Bend. Over time, the bend experienced such severe erosion that the river began to cut a new chan-

nel across the peninsula. If left alone, navigation would become impossible along this reach of the river.

The plan developed by the Corps and local landowners created a non-structural, environmentally beneficial solution to minimize erosion and repair existing damage to the environment. The project includes cottonwood clones and other hardwoods specifically bred for their hardy root systems, dutch elm disease-resistant elm trees, strategic placement of various forms of vegetation, and management plans to selectively harvest trees so they do not shade out and prevent undergrowth.

The riparian corridors have become home to countless deer, turkey, birds, and other wildlife. The corridors provide food, shade, and shelter for this wildlife. The project is now used as a prototype throughout the entire Mississippi River Valley as a viable alternative to structural solutions, and St. Louis District continues to receive inquiries from other Corps districts, federal agencies, and foreign governments about the project.

Jury comments: This is an outstanding application of a non-structural solution that inherently benefits wildlife and should improve as it matures. Developed at one-third the cost of a structural solution, the project provides a seamless solution that is invisible to the observer, as it should be.

Merit Award: Devils Lake Levees, Devils Lake, N.D.

Design agency: St. Paul District

Under emergency conditions, a permanent levee project was designed in record time and under budget to combat flooding at Devils Lake, N.D. Without the levee, Devils Lake and its 8,000 residents would continue to be threatened by the rising waters of Devils Lake.

The project is unique. While levees typically hold back high water for short periods, the Devils Lake levees were designed as a dam more than seven miles long and up to 30 feet in height. As a dam, the project must provide permanent protection and sustain the wear-and-tear of nonstop wave action and hydrostatic pressure for many years.

The levees were built in stages in response to rising lake levels. In the mid-1980s, two small levee sections were built to 1,445 feet above sea level. In 1996, Devils Lake requested emergency assistance from the Corps to raise the city's protection five more feet, and construction began in the fall of 1996. In 1997, after devastating spring flooding, the city requested assistance in raising the levees to 1,457 feet above sea level. At 1,457 feet, the levees provide protection to a lake level of 1,451 feet. The additional six feet is a safety margin to prevent waves or ice from splashing over the levees. The levees and pump stations were essentially complete and operational in the spring of 2000.

Jury comments: This project provides the best engineering solution available for this difficult problem. The jury was impressed with the high quality of execution, given the emergency conditions under which it was designed and constructed.

Merit Award: Devonian Fossil Gorge Visitor Facility, Johnson County, Iowa.

Design agency: Rock Island District

During the flood of 1993, the emergency spillway at Coralville Lake experienced high velocity flows which eroded rock and soil to depths of up to fifteen feet, exposing a world-class geological formation of Devonian Age rock and fossils. Within three years, about 750,000 visitors, many from other countries, came to Iowa to see what had once been the floor of a shallow tropical sea.

The visitors enjoyed their experience, but they lacked the information and guidance to interpret, understand, and fully appreciate the significance of what they saw.

The construction of a facility including a parking lot, entry plaza, walkways, biostrome plaza, bronze markers, and overlook plaza enhances the visitors' experience, and preserves an invaluable glimpse into Earth's ancient history.

Jury comments: This project has turned a scoured flood spillway into a learning asset. This grassroots community initiative and funding effort resulted in an excellent interpretive design at minimal cost and environmental impact.

Westover Air Base gets three projects

By Ann Marie Harvie
New England District

New England District's Westover Resident Office has kept busy in past years with projects at Westover Air Reserve Base in Chicopee, Mass. Currently, three projects are ongoing at the base.

Air Traffic Control Tower

The new air control tower will replace the existing tower built in 1962. The 105-foot tall structure is deteriorated and in need of replacement. The old tower has limited equipment space, lacks training space, and lacks administrative and management functions. The tower also has substandard mechanical systems, and on top of everything else, it's too short.

"At its current height, view of all aircraft on the east ramp is not possible over the large C-5A aircraft," said Jeff Perchak, project engineer.

The project, which will cost a little over \$4 million, began in May 2000 and will be completed in three phases. The first phase, building the new 123-foot-high tower, is near completion.

Phase two will allocate time for Westover personnel to install new equipment, and to move some of the old equipment from the existing tower to the new.

The final phase will be demolishing and removing the existing tower. Phase two and phase three of the project should be completed this May. Randy Sujat of New England District is the construction representative. Eastern General of Springfield, Mass., is the current contractor.

MEPS Building

Westover Resident Office is currently building a 23,120-square-foot Military Entrance Processing Station (MEPS) on the base to move the facility from down-



The new 123-foot-tall air traffic control tower is nearly complete. (Photo courtesy of New England District)

town Springfield, Mass.

"Young people will in-process here from all branches of service," said Raymond Goff, Westover resident engineer. "This facility will be much improved over the current one."

"Right now, employees are paying about \$90 per month to park near the facility in Springfield," said Perchak. "When the MEPS building is complete and they move here, they won't have to pay for parking."

Work on the \$4.3 million single-story structure began in November 2000. The project includes the headquarters, testing, medical, liaisons, music and paging systems, operations, and reception and orientation area.

Supporting facilities will include electric services, fire protection and alarm systems, paving, walks, curbs, and gutters, parking, storm drainage, and information systems.

Work is expected to be complete in July. The construction representative is Scott Leonard. The contrac-

tor is Atlas Construction of Brooklyn, N.Y.

Repair airman quarters

Work on this \$6.7 million project will renovate two existing visiting airman lodging facilities having 71 rooms each. Existing central latrines in each facility will be abandoned and airman rooms renovated to provide private bathrooms. Renovations include repairs and remodeling of all rooms, lounges, hallways, HVAC, and covered exits. "Essentially, we're gutting the inside and rebuilding each room from scratch," said Perchak.

All necessary architectural, mechanical, and electrical work will be included. New elevators will be installed in accordance with the Americans with Disabilities Act. Work began last September 2001, and is expected to be complete next December.

"Currently, the contractor, TLT Construction of Wakefield, Mass., is four weeks ahead of schedule," said Goff. The construction representative for this project is John Sujat of New England District.

The final project ongoing at Westover Air Reserve Base is the Willimansett Brook Streambank stabilization. This \$438,349 project consists of installing gabion baskets (rock-filled wire-mesh containers) along the stream banks. The project began in February and should be complete in April. The contractor of this project is Hilltop Construction of Springfield, Mass. The project engineer is Darrell Moore of New England District.

The Westover Resident Office has been onsite for about two decades. Past projects that the district has performed for Westover Air Reserve Base include building a new firehouse, a pullout hangar, and a new weapons storage vault; remodeling a double cantilever pull-through hangar, the open mess, the base gym, and Hangar #7, which included providing an x-ray machine; upgrading taxiways; rebuilding the ends of the runway; and capping a landfill.

Guests like new North Country Lodge

By Maggie Oldham
Omaha District

Guests arriving at the Air Force Reserve Station at the Minneapolis-St. Paul International Airport are pleasantly surprised when they see where they're staying.

"The customer comment cards are like you wouldn't believe," said Tamara Davis, general manager of the North Country Lodge. "For example, 'You're better than the Hyatt.'"

It's about to get even better. Phase III of the planned four-part project to expand the lodging facility is up for bid. "We're advertising it right now," said Vincent Turner, Omaha District project manager. "Hopefully we'll start construction in April."

The total project is estimated to cost \$25 million. The new consolidated lodging facility is only halfway complete, but Phases I and II have already received a Merit Award for concept design under the U.S. Air Force's Design Awards Program in 2001.

The facility provides combined enlisted and officer on-base facilities to replace the existing sub-standard lodging. Previous on-base lodging was built in 1943 as two open dormitories with open latrines. Several previous renovation projects attempted to keep the facility up-to-date. "We had heating, air, and plumbing problems all the time," said Davis. "There's no comparison. It's absolutely beautiful and wonderful. We're in a hotel now."



The architecture of the new guest house blends in with the rest of the buildings on base. (Photo courtesy of Omaha District)

The new facility opened for business last summer.

One former building is no longer in use; the other will continue to be used until all phases of the facility are complete.

The reserve station, home to the 934th Airlift Wing, receives visitors from almost all branches of service, civilian and military personnel. "We're full here all the time," says Davis. "We have nine units (Air Force, Air National Guard, Navy, Marine and Army) that stay here every single weekend of the month. It's meant for them."

Davis said she enjoyed being involved in the project by providing input for interior color schemes and materials. The North Country Lodge features dark earth tones and mahogany accents. "Everyone says it's not decorated like the other reserve

facilities," she said. In addition, the lodge has elevators, an atrium, and a fireplace in the common area, as well as handicapped-accessible rooms.

When completed, the lodging facility will encompass 144,000 square feet and provide 307 guestrooms (including nine suites) for both enlisted personnel and officers. The two former facilities had a total of 188 rooms. Increased capacity at the new completed facility will save money for units who must budget for contracted hotel rates of \$67, compared to the \$28-30 rate at the lodge.

"Our needs for off-base lodging will greatly decrease," Davis said. "It's a huge cost savings."

Architectural Alliance from Minneapolis designed Phases I and II, with Omaha District reviewing the design plans. The

exterior blends in with the architectural context of surrounding buildings. For example, the curved roof is similar to other typical airport structures.

The project delivery team for Phases I and II included members from Omaha District, St. Paul District, Air Force Reserve Command, Architectural Alliance, and construction contractors.

The project encountered a few unanticipated snags along the way, but everything was handled without unnecessary delay. The soil on the site had low-level diesel contamination. The added cost and potential delays to haul away the soil and replace it with fresh fill were managed through good communication between the project team, said Turner. "We worked it all out."

Turner praises the Badger Area Office for administering the contract. "There was good teamwork between the Badger Area Office and the contractors," he said.

One unique aspect of the project was the ability of the Phase I contractor, a small business, to work with the Phase II contractor, a large business, on a contiguous site with no separating boundaries. "Construction went pretty well. We never stopped the project," said Turner.

More important, the project was completed on schedule without any accidents.

Davis said the pleasant ambiance of the hotel has changed the behavior of staff and guests. "There's a great deal of pride and care. Any manager would love this experience, and the customers feel it."

Lake critical to S. Florida ecosystem restoration

By Christina Swanson
Jacksonville District

When Florida marina operators Ann and Edward Olesky took a pontoon boat out on Lake Trafford in the Big Cypress Watershed in 1996, they were startled by the number of dead fish they saw, and knew they had to do something.

Everyone Ann talked to gave the same advice...

"Tell them and they will listen."

"Telling them" began with Ann writing more than 400 letters. When Vice President Al Gore said she first needed local representation, the Oleskys and Fred Thomas Jr., who heads the local housing authority, got Collier County Commission's endorsement, and began rallying the community toward rescuing the lake.

As a result, the humming, gurgling noises of a dredging project managed by the U.S. Army Corps of Engineers will soon accompany nature's squawking, chirping, and splashing in and around Lake Trafford.

The anticipated dredging is one of only nine Critical Restoration Projects in the South Florida Ecosystem Restoration.

Although sometimes called Okeechobee's little sister, Lake Trafford is the only major lake in southwest Florida, and plays a huge role in the area ecosystem. The lake is in the range of such endangered or threatened species as the Florida panther, wood stork, and bald eagle, so the health of the lake is especially critical. Its surface area of 1,500 acres provides sheet flow for important estuaries and wetland resources that are targeted for protection.

Lake Trafford is also the headwaters for the Corkscrew Swamp Sanctuary, the Camp Keais Strand, and the Fakahatchee Strand system, which includes the Florida Panther National Wildlife Refuge, and several bird rookeries (roosting areas).

In the summer of 1996, residents became alarmed when more and more fish were found dead in the lake, and less

and less wildlife were seen around the area.

And that's why Olesky and others spread the word to save the lake. With the Collier County Commission's endorsement (along with all the letter writing), the Lake Trafford Task Force formed to study the lake and come up with a solution. They raised \$35,000 with bluegrass music concerts and elementary school cookbook sales, and they solicited state and federal agency help.

The Lake Trafford Task Force found that decaying organic material blanketing the lake bottom was depleting oxygen and producing ammonia levels toxic to fish. They recommended removing eight to ten million cubic yards of muck, enough to fill the Orange Bowl 16 times.

Then Olesky and other task force representatives were asked to tell their story to such groups as the Governor's Commission for a Sustainable South Florida, and the South Florida Ecosystem Restoration Working Group, at the same time that the Critical Projects Program was implemented.

(Congress authorized the Critical Projects Program in 1996 to jump-start the South Florida restoration. Critical projects must provide immediate, independent, and substantial restoration benefits, have a local sponsor, cost less than \$50 million, and are not components of the Central and Southern Florida Project.)

The task force pled their case well. About 100 projects were considered, but Lake Trafford was selected as one of just nine projects in the Critical Projects Program.

Since 1998, the Corps (working with Big Cypress Basin of the South Florida Water Management District) designed the project and anticipates it being awarded next month, with dredging to start soon after.

"Saving this lake is an important part of the restoration effort in South Florida because Lake Trafford services many important estuaries, especially during the dry season," said Carl Overstreet, the Corps' project manager. "If the lake dies, it'll have a devastating domino effect throughout the area."



Elementary school children from the Lake Trafford area, who helped raise money to save the lake, perform at the groundbreaking ceremony. (Photo courtesy of Jacksonville District)

The Corps will oversee the dredging operation. The muck will be piped to a disposal and reclaimed as an upland wildlife habitat after it dries. Local schools will use the lake as a science-teaching laboratory, coordinating with Florida Gulf Coast University and the Southwest Florida Research and Education Center of the University of Florida in Immokalee. And Collier County will continue to monitor the health of the lake.

"What's made me feel really good about this whole process of telling the lake's story is learning first-hand that big government *does* work with the common guy," said Ann. "We can work hand-in-hand with nature. Helping Lake Trafford benefits all of us, no matter what walk of life you're in."

Old airfield transforming into wetlands

By Donna Shepard
San Francisco District

Looking across the salt marsh that separates the former Hamilton Army Airfield from San Pablo Bay provides a glimpse of the future when more than 1,000 acres of deserted runways and taxiways are transformed into wetlands teeming with wildlife.

The U.S. Army Corps of Engineers and the California State Coastal Conservancy are working with a number of other federal, state, and local agencies, as well as environmental interests, to design a wetlands restoration project that makes efficient use of the millions of cubic yards of material that must be dredged from shipping channels in the San Francisco Bay Area each year to keep them safe for navigation.

The Hamilton Wetlands Restoration Project is a significant effort to restore tidal and seasonal wetland habitat for native endangered species in the San Francisco Bay estuary. It is also one of the largest restoration efforts of its kind in the nation.

In January, the project took a giant step forward with the installation of the first 1,700 feet of pipeline that will eventually stretch some 34,000 feet and carry more than 10 million cubic yards of dredged material to various locations at the wetlands restoration site.

About 2.5 million cubic yards of material needed for the wetlands will come from the Oakland Harbor Fifty Foot Deepening project. The remaining eight million cubic yards will come, primarily, from other local federal operation and maintenance projects. Some private

dredging projects may also be permitted to provide material.

"This is a win-win scenario for the Bay Area economy and for environmental interests," said Scott Nicholson, program manager for the Hamilton Wetlands Restoration Project. "It provides for the restoration of wetlands, and supports our regional long-term management strategy for beneficial reuse of dredged material rather than in-bay or ocean disposal."

(Editor's note: Nicholson is currently in Washington, D.C., for a temporary Congressional assignment with the House Committee on Transportation and Infrastructure Subcommittee on Water Resources and Environment. He is working with other committee staff to develop and pass a Water Resources Development Act.)

The \$1.2 million pipeline contract was awarded to a local contractor, Cerrudo Services of Novato, Calif., on Dec. 10 with a required completion date of Jan. 31. It was an ambitious schedule, but they did it. The Cerrudo crew braved the December storms, cold January temperatures, and high tides, often working 12-hour shifts to complete the work before the Jan. 31 deadline.

"We had to get it done before the environmental window closed on Feb. 1," said Karen Cerrudo, president and owner of Cerrudo Services. "The pipeline passed the required pressure test with flying colors. I've lived in this area all my life, and I care what happens at Hamilton. This is an exciting project and I'm happy to be part of it."

Although actually pumping material to the site from a



About 34,000 feet of pipeline will pump dredged material to the old Hamilton Army Airfield to create wetlands. (Photo by Air Flair)

Continued on next page

Principles guide environmental work

By Candice Walters
Headquarters

Lt. Gen. Robert Flowers, Commander of the U.S. Army Corps of Engineers, introduced the Corps' Environmental Operating Principles on March 26 during a dedication ceremony for the Davis Pond Freshwater Diversion Project in St. Charles Parish, La.

The seven Environmental Operating Principles symbolize the Corps' deep commitment to environmental sustainability.

Although designed before development of the Environmental Operating Principles, the \$119 million Davis Pond project exemplifies several principles. The diversion is expected to save 33,000 acres of wetlands and improve 777,000 acres of marsh and bay habitat for fish and wildlife during the next 50 years.

Earlier in the month, Flowers began a chain-of-command teaching program, beginning with his division commanders, to ensure that all Corps employees understand the Environmental Operating Principles and their supporting doctrine. Employees then must begin applying the principles to all decision-making and programs.

All training is to be completed by Earth Day, April 22. Several permanent training courses (for example, the planning curriculum) are being modified to include the Environmental Operating Principles and how they are to be applied in various program areas.

According to Flowers, the principles foster unity of purpose on environmental issues, reflect a new tone and direction for dialogue on environmental matters, and ensure that employees consider conservation, environmental preservation and restoration in all activities.

They also make clear the connection between water resources, protection of environmental health, and the security of our country.

In a speech to the National Oceanic and Atmospheric Administration on Feb. 14, President George W. Bush noted that "America and the world share this common goal — we must foster economic growth in ways that protect our environment..."

These principles embrace Bush's goal, Flowers said, adding that they "represent the Corps as one of the leaders in seeking synergy between the environment and economics."

"We're on a common journey shared by many people and organizations in our country, and around the world," Flowers added. "It's a journey in which we're transitioning toward environmentally sustainable development, defined for the Corps' programs as meeting the



The Corps' seven Environmental Operating Principles will preserve scenes like this sunset at Lake Trafford, Fla. (Photo courtesy of Jacksonville District)

needs of the present without compromising the ability of future generations to meet their own needs."

Flowers went on to say that environmental sustainability can only be achieved by the combined efforts of federal agencies, tribal, state, and local governments, and the private sector, each doing their part, backed by the citizens throughout the world. Flowers added that the principles help the Corps define its role in that endeavor.

The seven Environmental Operating Principles are:

- Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse and sustainable condition is necessary to support life.
- Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of Corps programs and act accordingly in all appropriate circumstances.
- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.

- Continue to accept corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.

- Seeks ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.

- Build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work.

- Respect the views of individuals and groups interested in Corps activities, listen to them actively, and learn from their perspective in the search to find innovative win-win solutions to the nation's problems that also protect and enhance the environment.

The principles are rooted in the various environmental laws, statutes, and regulations, as well as the Army's four pillars of compliance, restoration, prevention, and conservation, which all govern Corps activities when it comes to the environment. "We're using them as a base and building up from them," Flowers said.

The principles are being integrated into the Corps' Project Management Business Process.

A year ago at the USACE Environmental Development Workshop in Portland, Ore., Flowers called for a dialogue on developing environmental operating principles for the Corps.

"My intent is to develop doctrine that will encompass all USACE environmental operations, both civil works and military programs," he said at that workshop. "Because we have not had a unified environmental strategy, I believe that we may have missed opportunities that we could have capitalized on. Now we will apply synergy at all levels of the Corps and develop a corporate strategy for the environment in all program areas."

A multi-functional Headquarters-level strategy team developed the principles and supporting doctrine, under the guidance of Robert Andersen, USACE Chief Counsel; Patricia Rivers, head of the Military Programs Environmental Division; and Dwight Beranek, chief of the Civil Works Engineering and Construction Division.

The principles and doctrine have been worked within the Corps with field input from both senior civilian leaders and general officers, and with key stakeholders outside the Corps, for many months. The Chief's Environmental Advisory Board of leading academicians and other environmental leaders also has critically reviewed the principles.

The principles are available online at www.usace.army.mil.

Airfield

Continued from previous page

yet-to-be-built offshore pumping station may be a year away, the Hamilton project management and design team wanted this part of the marshland work done before the start of the California clapper rail's breeding and nesting season, which begins Feb. 1 and runs through Aug. 31.

The California clapper rail is one of two endangered bird species that inhabit the marsh. The marsh is also home to the endangered salt marsh harvest mouse, the salt marsh common yellow throat bird, a species of concern, and a variety of other waterfowl and wildlife.

"This is a critical piece of the project that runs through its most environmentally sensitive area," said Nicholson. "We had to time it right and do it right."

The marsh-crossing pipeline will remain in place about 10 years, the anticipated time needed to build the wetlands with dredged material. During this time, the pipeline will operate intermittently, as material becomes available for wetlands placement.

The pipeline location, as well as its design and construction, were the result of careful planning and best engineering practices. According to Nicholson, the location selected (an existing roadway formerly used by the airfield) proved to be the least disruptive to the environment and provided the best access to the pipeline for construction, operation, and maintenance.



The dredged material for the wetlands will come from the Oakland Harbor Fifty-Foot Deepening Project. (Photo by Above & Below H2O)

struction, operation, and maintenance.

"The pipeline extends 300 feet beyond the clapper rail habitat on both sides of the marsh, to limit the need for access to this environmentally sensitive area during the clapper rails' breeding and nesting season," Nicholson said.

Several alternatives for the marsh-crossing pipeline configuration and composition were considered. After careful analysis, a welded steel construction was selected. Each welded section of the 5/8-inch-thick pipe is 40 feet long and 30 inches in diameter. Many engineering factors pointed to this as the optimal configuration, including the service life of the pipeline, corrosion rates in the marine environment, and dredge material pumping requirements.

The desire to minimize disruption to wildlife pointed to the need for an elevated pipeline. In its final configuration, the pipeline sits at least 12 inches above the ground on concrete supports and is designed to withstand extreme high tides and storms.

The next phase of the wetlands project will include removal of derelict buildings, and site preparation to receive dredged material. The marsh-crossing pipeline will then be extended about 26,000 feet into San Pablo Bay where a hydraulic off-loader will be built. The off-loader will pump dredged material that will arrive on barges from bay dredging projects to the restoration site. The Corps hosted a pre-bidding meeting in February to give prospective contractors an overview of the project, and plans under development for this particular phase of the project.

Congressional staff learns 'Corps 101'

Article by Georgeanne Reynolds
Photos by F.T. Eyre
Headquarters

On Jan. 25 and Feb. 1, Headquarters took the U.S. Army Corps of Engineers message to Capitol Hill. During the years, the Corps has dealt with Congress on scores of issues. So some congressional staffers know our missions well, but others do not. For example, our authorizing committees, and the Senate public works committee, and the energy and water development subcommittees, know us well, but other committees do not.

Corps 101. With this in mind, Jim Rausch, Dale Jones, and myself, all of the Office of Congressional Affairs, invited each congressman's office and all committee offices to send staffers to our Corps 101 workshops. With a 12-member HQUSACE planning team and a host of helpers, we mapped a strategy for the workshops.

On Jan. 25, the first workshop took place "on the House side," in the Transportation and Infrastructure Committee's large hearing room. On Feb. 1, the "Senate side" took place in Environment and Public Works Committee hearing room. About 120 people attended on the Jan. 25, and about 70 on Feb. 1.

Overview. Lt. Gen. Robert Flowers, Chief of Engineers, opened the Jan. 25 program with an overview of the Corps' major programs. Maj. Gen. Hans Van Winkle, Deputy Chief of Engineers, opened on Feb. 1.

Immediately afterwards, Mike Parker, Assistant Secretary of the Army (Civil Works) and Mario Fiori, Assistant Secretary of the Army (Installations and Environment) described the relationships between their offices and the Corps. On both days, Flowers, Van Winkle, Parker, and Fiori drew large crowds, and questions from the audience.

Brig. Gen. Carl Strock, Director of Military Programs, led the morning session on Military Programs, which also included Pat Rivers of the Environmental Division, and Don Kisicki of International and Interagency Services.

In the afternoon, Maj. Gen. Robert Griffin, Director of Civil Works, kicked off the Civil Works session. Presentations were given by Fred Caver, Deputy Director of Civil Works, Kirk Stark of the Regulatory Program, and Charlie Hess and Ed Hecker of Emergency Management.

Sandwiched between these two major directorates



Lt. Gen. Robert Flowers, Chief of Engineers, briefs congressional staffers.

were important contributions by Linda Garvin and Liz Fagot of the Real Estate Directorate; Dwight Beranek of Engineering and Construction Division (who spoke about the Corps' relationship with the private sector), Dr. Ed Link, Director of Research and Development, and Bunny Greenhouse of Contracting.

Toward the end of each day, Col. Mark Tillotson of Military Programs, and Col. Mike Walsh of Civil Works, talked about getting work done at the local level, based on their experiences as district engineers.

Col. Bob Crear, Chief of Staff, hosted the workshops and kept all the presenters on track.

Feedback. After a brief wrap up, a reception followed where Congressional staffers and Corps officials mingled, and many questions not asked during the sessions were asked in this informal setting.

Judging from the evaluations received, most of the Congressional staffers learned a great deal from the Corps' programs. They were already generally familiar with Civil Works, but not with many aspects of Military Programs. Some remarked that they didn't know the Corps was involved in international programs or environmental remediation, for example.



Col. Mike Walsh of the Directorate of Civil Works tells the congressional staffers about his experiences as a district engineer.

HR Corner

PMBP curriculum training has begun

By Karen Northup
Headquarters

PMBP
Culture
Teams
Public service
Customers
Matrix
Quality
Business processes
P2
Capabilities
Learning
Success

A corporate word search game? Not exactly. Those just are a few of the key topics addressed in the Project Management Business Process (PMBP) curriculum that you are starting to receive in your organization. The curriculum, developed by a Corps-wide team, is designed to help create the environment for PMBP suc-

cess — an environment in which we work in teams to deliver quality projects to our customers, both internal and external.

The target audience for the curriculum is every one of us in the U.S. Army Corps of Engineers, whether we work at a district, division, Headquarters, a lab, or a center. Expect to see the curriculum Introduction and Course 1 ("Why PMBP?") in April.

The curriculum uses the learning methods of self-study with compact discs and Web content, small group discussion involving trained in-house facilitators, and coaching and mentoring to support the application of what is learned.

Additionally, a reference for formal classroom training is provided for each course.

Starting with a March kick-off event with the Chief of Engineers and major subordinate command commanders, the current course delivery schedule is:

- **Kick-off event** — March 22.
- **Introduction/Why PMBP?** — April.
- **Teams and Me** — Third quarter FY02.

- **Public Service & Me** — Third quarter FY02.
- **Organization, Teams & Me** — Fourth quarter FY02.
- **Quality & the Project Delivery Team (PDT)** — Fourth quarter FY02.
- **Working in the PDT** — First quarter FY03.
- **Success, the PDT & Me** — Second quarter FY03.
- **The Call to Action** — Second quarter FY03.

Accompanying the courses will be a deployment kit to provide recommended approaches and helpful hints for implementing the curriculum at your organization, and a facilitators' guide for leading the small group discussions.

Regional workshops are being planned for the third quarter of FY02 to train in-house facilitators. On-line mentoring training will also be provided.

For additional information on the PMBP curriculum, visit the PMBP program Website at www.hq.usace.army.mil/pmbp2/index.htm, and/or contact Karen Northup, the PMBP Curriculum Project Manager at karen.s.northup@usace.army.mil.

Around the Corps

Boating safety

At the 88th annual meeting of the U.S. Power Squadrons (USPS) Jan. 2-6, the Corps received one of the prestigious USPS/U.S. Coast Guard Charles F. Chapman Boating Safety Awards. The awards are presented annually to individuals, organizations, and associations that make a significant contribution to boating safety.

USPS Chief Commander Lance Jensen, and Capt. Scott Evans, Chief, Office of Boating Safety, presented the awards for the Coast Guard. The three organizations selected for their outstanding contributions to boating safety were the Corps, The National Association of State Boating Law Administrators, and U.S. Sailing.

The Corps received the award for their 227 years of service to the nation, and their management of more than 2,000 separate recreation areas at 463 water resource development projects in 41 states. Lynda Nutt, manager of the National Operation Center, Water Safety Program, accepted the award for the Corps.

Wildlife Federation award

Suzanne Hawes of New Orleans District was honored March 2 with the Louisiana Wildlife Federation's Governor's Award. The award is presented annually to people or organizations that make outstanding contributions toward the protection and wise use of the state's natural resources.

The selection for this and eight other awards was made by a panel of independent judges with expertise in a wide range of conservation fields.

Hawes received the award, a statue of a bald eagle, at the 38th Conservation Achievement Recognition Banquet. She was cited for coordinating the state/federal effort to understand and remedy the marsh dieback along the Louisiana coast, and for bringing a conservation ethic to the Corps.

During her 30-year Corps career, Hawes has become the environmental conscience of New Orleans District. She has been the bridge between the conservation community and the Corps, and the bridge between each district change-of-command, which is critical to the momentum of long-term efforts like coastal restoration, and the conservation and recreation program for the Atchafalaya Basin.

Correction

Dr. Richard Margolies is a psychologist and strategic consultant to the USACE Advisory Board, not a contract writer as reported in "Corps becomes a learning organization" on page nine of the February issue.

DREDGENET

DREDGENET was one of the first newsgroups developed in the 1980s to join the experience of veteran staff with the enthusiasm of the newly initiated.

With the advent of Intranet, the Corps-wide newsgroup became available to a wider audience. The benefits are:

- Internal system to network individuals and districts.
- Provide consistency between districts if appropriate.
- Harmless forum to raise a question.
- Swap information.

Access is only via the Intranet, or to those with access to Corps servers. You can sign on via MSInternet Explorer or Netscape, as long as you have password access to the Corps system.

Currently, if you sign on, you access our informal database back to 1999. You can browse to see topics, read discussions, and reply. All that's needed to sign on is your name, e-mail address, and name of our newsgroup server, "NNTP." Then you scroll to the bottom of some 4,000 newsgroups listed and find "usace.dredging," and subscribe.

Gateway team

The Corps' Natural Resources Management (NRM) Gateway Team received the 2001 William Penn Mott, Jr. Agency Award for Excellence from the National Society

for Park Resources (NSPR).

The NRM Gateway Website was launched last April to support the NRM mission to manage and conserve natural resources at Corps civil works projects, consistent with ecosystem management principles, while providing high-quality public outdoor recreation experiences to present and future generations.

"The NRM Gateway is an excellent example of how a public agency or professional organization's Website should be developed," read the NSPE citation. "This Website reflects well on the professionalism of the team, and on the vision of the Corps leadership in recognizing the need for such a site."

The NRM Gateway is located at <http://CorpsLakes.usace.army.mil>.

India Point Railroad Bridge

New England District recently demolished and removed the India Point Railroad Bridge in Providence, R.I. The \$1.4 million project included demolishing and removing the steel superstructure of the swing-type center span of the railroad bridge, the supporting center pier, and the protective wooden fender system.

A sunken tugboat was also removed. The *Gaspee* lodged in the bridge's fenders during the 1938 hurricane.

The India Point Railroad Bridge was built in 1902. It is a long out-of-service swing span railroad bridge owned by Providence that crosses the Seekonk River. The Coast Guard declared the bridge a hazard to navigation and the city subject to fine if the bridge were not removed. Authorization for New England District to demolish and remove the center span was contained in the Water Resources Development Act of 1986, and re-authorized in WRDA 1996.

The non-federal sponsor, Providence, must share 50 percent of the cost.

The contractor for New England District was Great Northern Site Corporation of Everett, Mass. Construction management services were provided by the New Bedford Resident Office.



The Owasco Outlet East and West Pier Rehabilitation Project conceals modern design behind Victorian elegance. (Photo courtesy of Buffalo District)

Owasco Lake project

The Owasco Outlet East and West Pier Rehabilitation Project in Cayuga County, N.Y. received the American Public Works Association's Central New York Branch Environmental Award. The project was a partnership between Buffalo District, Cayuga County, O'Brien and Gere Engineers, and M.A. Bongiovanni as the contractor. It was completed last December.

The project also recently received an Honor Award in the Chief of Engineers Design and Environmental Awards competition. (See special insert in this issue.)

The East and West Piers at the Owasco Lake Outlet were built from timber and stone in the mid-1800s to discharge water from the lake. In the early 1900s, the piers

were reconstructed by the New York State Department of Public Works using cut stone blocks so the outlet could become part of the feeder system to the former Erie Canal.

By the 1990s, the stone blocks had deteriorated, causing the piers to fall into the channel. A grant from the U.S. Department of Housing and Urban Development, plus Cayuga County funds and an appropriation from the Corps, supplied the money for design, completion of plans and specifications, and construction.

The project is the keystone in redeveloping Victorian Park, established in 1889, at the shore. The design included beautiful paving, and Victorian-style railings and lamp-posts to create a safe, fully-accessible, year-round facility.



Joyce Rudy assists high school students with computer exercises during National Engineers Week at the Transatlantic Programs Center. (Photo courtesy of TAD)

TAD hosts students

Transatlantic Programs Center (TAC) marked National Engineers Week by hosting 30 high school students. "These students are our future," said Chris Hinton-Lee, TAC's director of Engineering and Construction Technical and one of the key planners. "It's important that we show them what engineers and architects really do. They'll fill our shoes one day."

The day's agenda was called A Day with an Engineer. Thirty high school junior and senior students, teachers, and counselors from six area high schools spent the day at TAC headquarters. The agenda highlighted engineering disciplines, introduced the Corps and TAC, and provided hands-on experiences and one-on-one interaction with engineering professionals.

The day began with a special command overview. The presentation provided general information about the missions and functions of TAC and USACE, and also detailed the Corps' response to the Sept. 11 terrorist attacks.

Several Technical Directorate professionals then spoke with the students, giving information about careers, education, certification exams, and specific work requirements. They learned about civil, mechanical, electrical, structural, cost and geotechnical engineering, and architecture. Each presenter explained how his or her portion fit into the execution of a project.

At midday the students attended a luncheon with guest speaker Dr. Daman Walia, the founder, president, and chief executive officer of ARCTECH, Inc., a corporation working with energy, environment, and agriculture. The company creates new ways to use resources, including recycling explosives into fertilizer.

The afternoon's agenda was dedicated to group sessions led by Technical Directorate's Joyce Rudy and Piggott, and Information Management's Barbara Hake. It included hands-on computer-aided drafting and design demonstrations, a tour of TAC headquarters' technological center, and a detailed display of rock formations. The students also saw videos featuring engineering careers at work.

TAC has organized and sponsored similar events during Engineer Week for the past several years as a means of promoting understanding of the profession. Local high school counselors now anticipate an invitation to the event, which is becoming a tradition.

Five divisions meet in conference

By Clare Perry
Northwestern Division

Unlike most visitors to Las Vegas in early March, everyone left the Western Military Partnering Conference feeling like a winner.

The biennial event has morphed from a one-division show to a five-division, 250-person showstopper this year as Great Lakes and Ohio River, South Pacific, Pacific Ocean, and Southwestern divisions joined Northwestern Division for more than two days of frank dialogue and relationship-building.

Honest talk

Air Force and Army major command customers let the chips fall where they may as they told Corps military program managers what works and what doesn't.

Customers praised the Corps project manager-forward concept, and 1391 teams (teams that assess project scope and cost) and processes. They asked for better project programming through master planning, planning charettes, and project cost estimates matching the desired scope of work, and the funding to go with them.

Increased use of project-specific project management

plans, and a commitment to use customer metrics throughout the entire spectrum of a project (design, award, construction, and closeout) also featured prominently in customer comments.

MSC panel

The Major Subordinate Command panel, chaired by Brig. Gen. David Fastabend, commander of Northwestern Division, framed the Corps' response to that conversation.

Fully integrated relations, commitment, and understanding must be present to find solutions, said Col. Robert Stockbower, commander of Louisville District, emphasizing that synergy between relationships and performance was critical. Stockbower spoke of the need for collocation on projects, providing construction management services at remote locations, building quality processes into the PMBP, and the need to pull together information and put it on one platform.

Stating that "our greatest success has been our failures," Pacific Ocean Division's commander, Brig. Gen. Ron Johnson, maintained that failures offer a chance to stand behind products and services. That philosophy serves (POD) well as they provide design and construction ex-

pertise to the Army in Alaska and Hawaii to stand up two brigades.

"We're buying a lot of services from NWD because of lessons learned from standing up the Initial Brigade Combat Teams (IBCT) at Fort Lewis," Johnson said. He believes that every division will eventually provide mission support to training facilities as the Army moves from IBCTs to Executive Brigade Combat Teams. "The future of the Army is to put the smallest footprint (group) forward and reach back for those capabilities we don't have in-theater."

Ed Shuford, an SES from Southwestern Division, suggested establishing a 1391 national team, and possible short-term staff swapping between districts and Directorate of Public Works shops to optimize resources and information. He said they would look at benchmarking more closely, using the Navy's much-praised benchmark program at Keesler Air Force Base as a model for customer support.

Brig. Gen. Larry Davis, commander of South Pacific Division, wrapped up the panel by challenging participants to "share good ideas freely, and steal them shamelessly." Go back to your organization, he advised, and share the lessons learned at the conference so that it is an investment, rather than an expense.

Aunt cheers on her niece, Miss USA

By Joan Kibler
Transatlantic Programs Center

When Miss USA was crowned in Gary, Ind., on March 1, one member of the U.S. Army Corps of Engineers could be seen during the live telecast, enthusiastically cheering for her niece, the winner, Shauntay Hinton.

"When Shauntay was crowned Miss USA, the moment was electrifying. Words fail me. My heart stopped beating," said Chris Hinton-Lee, director of Engineering and Construction Technical for the Transatlantic Programs Center in Winchester, Va.

Shauntay Hinton is the daughter of Hinton-Lee's brother, William.

"Until the 12 finalists were named, I had viewed Shauntay's participation in this pageant, as well as the Miss District of Columbia pageant, as a wonderful opportunity for her to meet people and make contacts that would help her achieve her personal and career ambitions," Hinton-Lee said. "I believed she had already won, in so many ways, before the Miss USA pageant got underway."

Excitement

"When Shauntay was named in the top 12 finalists, I became nervous," Hinton-Lee continued. "When she was included in the top five, I was trembling. When it came down to Shauntay and Miss Kansas, the whole family was clutching each other and screaming our heads off."

"Afterwards, we were immediately bombarded by the press," Hinton-Lee said. "Because Shauntay resembles me, many of the reporters thought that I was her mother. I was tempted to take credit but, invariably, I'd introduce Ella, Shauntay's mother, for the interviews."

Hinton-Lee said that most of the family was in the audience that night.

"It was almost like divine intervention," she said. "All my mother's brothers and sisters, their children, and grandchildren, live in Gary and could attend the pageant."

Family trait

Hinton-Lee said that the Hinton family had migrated from Mississippi to Indiana, but that her mother and father had returned to Mississippi. There they raised Chris and her siblings, instilling in them the drive to excel and



Chris Hinton-Lee congratulates her niece, Shauntay Hinton, for winning the Miss USA pageant. (Photo courtesy of TAD)

be self-sufficient. Shauntay grew up in that environment.

"This drive is pervasive to our family," Hinton-Lee said. "It emanated from my parents, both of whom returned to college in their 70s, after their children were educated. My parents were wonderful role models for their children and grandchildren. They created an environment where everything was possible. Shauntay has had close relationships with many of her family members, especially her grandmother. She also had many cheerleaders during the competitions, especially her brother Solomon and her sister Kenyetta. Shauntay has been influenced by many positive role models in our family."

Firsts

That family atmosphere also helped Hinton-Lee achieve her own "firsts." Among them are being the first African-American female architecture graduate of the

University of Arkansas in 1975, and the first African-American woman to pass the Maryland state board exam and be licensed to practice architecture there. In her current position, Hinton-Lee is not only the first African-American woman, but the first architect, selected for this position in the Corps.

Shauntay, from Starkville, Miss., is a senior at Howard University in Washington, D.C., majoring in broadcast communications. She competed in her first pageant last November to become Miss District of Columbia.

Causes

"Even when Shauntay was a child she was a presence," Hinton-Lee said. "She was always a good student, and I always knew she'd choose a path that was public. She is a focused young woman who wants to be in the news business, and be an entrepreneur in the health and fitness area. She is also a compassionate person; her platform is volunteerism and active citizenship."

Shauntay advocates issues and causes associated with homelessness. She works with groups like the Fannie Mae Foundation's Help the Homeless Walkathon and other charitable causes that give alternatives to homeless people or those with mental illness.

Work and prizes

While serving as Miss USA, Shauntay will put her education on hold. She is under contract to work for the Miss Universe Organization, a partnership of Donald J. Trump and CBS. Shauntay serves as a representative of the company, traveling throughout the world to participate in charitable and social events. The Miss Universe Organization advocates ovarian and breast cancer awareness and research.

Shauntay's prize package also includes a year's salary, a luxury apartment in New York, a sports car, a \$45,000 Film and Television School scholarship, a \$20,000 wardrobe, \$5,000 in cash prizes from sponsors, a \$5,700 jeweled watch, a \$3,200 crystal trophy, a crown valued at \$650, and a year's supply of cosmetics and personal services valued at \$27,500 for her year's reign.

Shauntay will compete in the Miss Universe competition in Puerto Rico in May, where delegates from about 80 countries will vie for the title.

"You can bet I'll be there, along with our whole family," Hinton-Lee said.