



## CorpsPath

### New course teaches Corps workers the 'Big Picture'

By Becki Dobyns  
Headquarters

In a 1998 Corps-wide survey, many employees said they don't know how their work fits into the big picture of the U.S. Army Corps of Engineers, and their managers don't discuss it. Are you one of those people? If so, CorpsPath, a new training program to be launched this fall, will give you that big-picture view.

In a way, CorpsPath is the "new-employee orientation" none of us had. It's Corps 101, only there's no classroom, no tests, no hotel, no airline food.

That's because the classroom is *virtual*. The CorpsPath learning program is primarily self-driven. Fit it in when it works best for you. You'll go through CD-ROM-based modules along with Web-based training and self-assessments. When everyone in your workgroup has completed a module, you'll gather to discuss the material.

The program's intent is to give everyone in the organization a corporate understanding of the Corps' missions and values, history, business processes, and customer-service practices.

"This is an initiative which invests in people," said Dr. Susan Duncan, Deputy Chief of Staff for Human Resources. "It's a way to help people understand how they fit into the overall organization, to help them develop a common language, and to give them an improved sense of community through workplace discussions about our values, goals, and approach to work."

In the spring, three Corps districts beta-tested the program and offered suggestions for improvement. The program was modified and improved over the summer and, this fall, commanders will distribute the CorpsPath CDs throughout the work force.

On the CD, you will find three introductory modules and five focus areas. The three introductory modules, which are like watching a movie on your computer, include a basic introduction, a history of the Corps, and an overview of missions and vision. The five focus areas, each with their own individual modules, are centered on the concepts of:

- A capable workforce.
- Knowledge management.
- Business practices.
- Corporate outreach.
- Army support.

People will work CorpsPath a chunk at a time. Generally, they will complete a module, then gather with their work groups for follow-on discussions. While the total time to do CorpsPath will take about 25 hours, that time will be spread out over weeks and months. People have up to two years to complete the total program.

"I liked the ability to use CorpsPath at my own desk, during my own available time, at a pace I was comfortable with," said one of the program's beta-testers.

Commanders will provide some direction in implementing the program, and workgroups should decide on a general schedule for completion, including when to do their follow-on discussions.

"Although it's high-tech, it's incredibly easy to use,"



said Jerry Liebes, the CorpsPath project manager. "Throughout the beta-testing, we got a lot of feedback telling us that not only is CorpsPath informative, even for long-time employees, but it's also surprisingly fun and interactive." A favorite feature for Liebes is the built-in notepad, where people can record issues they would like to discuss later in their workgroups.

"The workgroup discussions, if conducted openly and sincerely, should give people the opportunity to talk about what they are doing well and not-so-well.

It should give them a way to make positive changes," said Liebes. "Ultimately, these discussions should support cooperation and teamwork, as well as a broader understanding of the Corps."

CorpsPath will be successful, Liebes said, if people gain a greater awareness of the entire organization and their place in it. But success will require commitment on many levels. Commanders must set direction and expectations. Supervisors must manage a completion schedule, ensure that the individuals in their

workgroups are doing the modules before discussions and, most importantly, they must conduct the follow-on discussions and act on them. Everyone must work to fit CorpsPath into their work schedules, complete the modules, and bring their own thoughts and questions to the discussion.

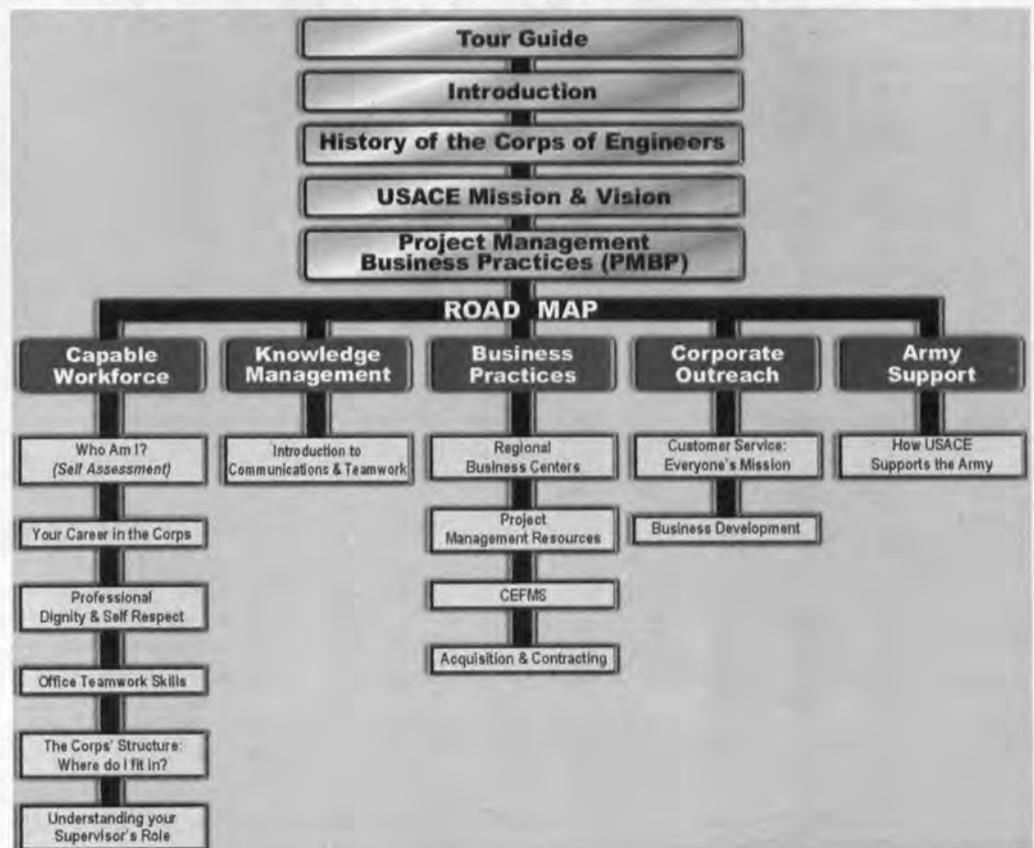
"CorpsPath is a tool to attack cynicism and move beyond it by doing something positive and constructive," Liebes said.

But CorpsPath itself hasn't gotten all rave reviews. In developing and discussing the program with many groups, Liebes has seen his share of cynicism. The primary objections to CorpsPath are time and money. "As a supervisor, I dread having this responsibility added to my list of things to do," said one of the beta-testers. The other main objection is charging CorpsPath time to overhead.

Liebes responds the same way to both objections. "Anything worthwhile takes some commitment, but we're trying to lessen the impact by spreading out the load," he said. "Even if your office is extremely busy, you could fit in one module every six weeks. Though the time to complete a module varies, the most one should take is two hours. So two hours in six weeks shouldn't be an undue strain.

"It's easy to get caught up in the minutiae of our jobs," Liebes added. "That's why CorpsPath is so important. It gives the little things meaning within a broader context. It reminds us of what's really important. So I say, let's get out of the weeds, and onto the Path."

One beta-tester summed up the same view: "CorpsPath reminds me of why I've spent 29 years in the Corps, and why I want to spend another 10 or 15 years in the Corps. This will help us focus on why we're here."



Insights

# Corps work ethic is impressive

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

I hope everyone had a safe, enjoyable Labor Day, but let's remember that Labor Day is more than an excuse to take a day off work. It is a time to honor all those who worked so hard to make our country what it is today.

Remember when our nation used to take pride in its work? When "Made in America" meant something? I'm sure many of you have wondered what happened to that pride, and have many stories to tell about being disappointed with the products and service that you have received lately.

Well, I have a story. While visiting Albuquerque District in July, I had the privilege of flying to Los Alamos, N.M., and seeing the U.S. Army Corps of Engineers at work. I saw the damage caused by the recent forest fire, and I learned about the potential consequences of a heavy rain now that the land has been stripped of its natural vegetation. I was briefed on how the Corps was trying to counter the potential flood damage, and I was able to see several of the projects in various stages of completion.

I was impressed!

I was impressed with the projects and the technology used to accomplish the missions. I was impressed by the difficulty caused by the rugged terrain at some project sites and how ingenuity was used to overcome nature's obstacles.

But what impressed me the most were not the projects, it was the people — dedicated, hard-working Corps professionals. Those people at Los Alamos



had been working 14-plus hours a day for about a month. Yet they were enthused, up-beat, and challenged by their mission. They communicated a sense of urgency as they rushed to finish the projects before the first heavy rain. When they encountered an ob-

stacle, they put their heads together, came up a solution, and pushed ahead. It was obvious that they took pride in their work — and they should!

However, the project site is not the only place I saw the esprit de corps (to borrow a phrase from my former life

as a Marine). I saw it almost everywhere I looked. I saw it in the Emergency Operations Center, in the cubical where time cards were processed, where contracts were being drawn up and let, and a hundred other places that I didn't even know existed.

All the people I met were doing their jobs and doing so with a super attitude. They seemed to know that without them, the people on the project sites would be ineffective. They seemed to know that even though the spotlight was not on them, they were a part of the team, an important part of a great team called the Corps of Engineers.

Before you think I have my head in the clouds and that I own only rose-colored glasses, let me say I *know* the Corps is *not* perfect. People have talked to me. But they have not let problems interfere with the mission or keep them from doing their job. The mark of a professional is not in the *absence* of problems, but in accomplishing the mission *in spite of* problems.

Let's go back to the opening paragraph. What happened to the pride in our work? I *found* it, right here in the good ol' Corps of Engineers. Even though I have been with the Corps for only a couple months, I am proud to be associated with such an outstanding organization.

So I close by saying, "Way to go, Corps! Keep up the good work. I hope you had a great Labor Day! It's your day — and you deserve it!"

*(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.)*

## Mitigation banking applied to streams

Phil Brown  
St. Louis District

Mitigation banks have been used in recent years to compensate for wetlands impacts. Now St. Louis District is applying the concept to restoring streams.

The concept of mitigation banking is fairly easy to understand. It is a tool used by the U.S. Army Corps of Engineers' regulatory program to restore, create, enhance, and preserve wetlands for authorized construction activities. Typically, mitigation banks are set up as large blocks of wetlands.

Sometimes, in the course of a construction project, wetlands must be destroyed. But our nation has a policy of no net loss of wetlands. So, when anyone fills or destroys a wetland during a construction project, a Section 404 permit under the Clean Water Act must first be obtained from the Corps. When the wetland permit is granted, the developer affecting the wetland is generally required to replace it "in kind," which is called compensatory mitigation. This implies that the developer buys "credits" from the miti-

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Mitigation banking will help restore all of Fox Creek to its natural state. (Photo courtesy of St. Louis District)





Corps' Headquarters relocated to the General Accounting Office Building at 441 G St., N.W., in Washington D.C. Headquarters occupies the entire third floor of a building that spans a city block.



Three veteran Corps employees cut the ribbon in front of the Headquarters Executive Office during a ceremony on Aug. 15. Left to right are James Ballif, Jane Schroth, and Bill Vogel.

# Headquarters moves to new home

Article by Bernard Tate  
Photos by F.T. Eyre  
Headquarters

For the fifth time since World War II, the Headquarters of the U.S. Army Corps of Engineers has moved to a new location in Washington, D.C. During August Headquarters moved from the Casimir Pulaski Building at 20 Massachusetts Ave., N.W., to the third floor of the General Accounting Office (GAO) Building at 441 G St., N.W.

The move gives Headquarters less expensive space to meet its long-term needs. The building at 441 G St. was built in 1951 and is on the National Registry of Historic Buildings. The third floor covers about 194,029 square feet; Baltimore District renovated the area to provide working space for Headquarters' 900 employees.

On Aug. 15, with the move about 70 percent complete, a ribbon-cutting ceremony at the Executive Offices officially opened the new Headquarters.

"When I became the chief executive officer of the GAO and the chief accountability officer of the U.S., I didn't realize I'd have certain other responsibilities, one of which is being your landlord," said David Walker, the Comptroller General of the United States.

"But I can assure you that I'll try to be a reasonable and fair landlord, and I think we're off to a pretty good start."

"As you walk into this building, take a look at the words above the entrance — accountability, integrity, reliability," said Maj. Gen. Russell Fuhrman, Acting Commander of the Corps of Engineers. "Sound familiar? They're values for GAO, but they are also values of the Corps. So this is a true match for both organizations."

Three long-time Corps employees cut the ribbon; their collective memory reaches from the Pulaski Building back to the Corps' earlier home in the Forrestal Building, and even back to T-7, a two-story World War II temporary building.

"T-7 was okay," said Jane Schroth, Staff Action Control Officer in the Office of Chief Counsel. She has been with the Corps since 1961. "It had a cafeteria, it had parking, but it didn't have much around it except National Airport."

"The Forrestal Building was nicer, but it was a real open area," Schroth continued. "After a while they remodeled inside to make it into small separate offices. It was close to a lot of museums and other places that you could go out to during lunch."

The move from the Pulaski Building to 441 G St.

"went much quicker," said Bill Vogel, Deputy Chief of Environmental Division. Vogel has been with the Corps since 1959, and started out in the Forrestal Building. "I was in Military Programs at the time, and it took us almost two years. I got here in May of 1978. I was told we were moving in September of '78, but we didn't get into the Pulaski Building until June of '80."

"There were several reasons for that," Vogel continued. Headquarters was switching buildings with the Department of Energy (DoE). "Part of it was renovation of the facilities. Part of it had to do with load tests on the third floor for the library. And I think part of it was DoE just dragging their feet."

"This move was much, much better," agreed James Ballif, Chief of Environmental Support Branch. Ballif has been with the Corps since 1962, and also started out in the Forrestal Building. "Everything was organized, the office space was set up, the phones worked, my computer worked, I didn't have anything missing. The move planners did a superb job."

"I thought this would be a disaster when I heard there would be 900 of us on this floor," Ballif continued. "I thought we'd be jammed in here, but we're not. I'm pleasantly surprised with the quality of the building, and we've got a pretty good location."

## Stream

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gation bank equal to or greater than the wetlands they are permitted to destroy. The developer's money pays for creating or improving the wetlands in the "credited" section.

However, the Corps not only regulates impacts to wetlands; it also regulates impacts to ponds, lakes, and streams. Sometimes streams must be destroyed during a development project, and these impacts also require mitigation. This is where the concept of mitigation banking can also excel.

### Bank lands

Directed by federal guidance released in 1995, the Corps coordinates with developers to "bank lands" for aquatic resources impacts. Not only does banking compensate for aquatic resource losses, but also provides developers an

efficient method to mitigate for small wetland impacts.

### Difficulties

Though sometimes burdensome, compensating for wetland impacts is relatively straightforward. But compensating for stream impacts is more difficult to address. For the most part, creating a new stream to replace an impacted or lost stream is not a viable option. Therefore, the only option to mitigate the permitted impacts is to take an existing stream that is degraded, and restore or enhance it. However, this can be difficult. So, St. Louis District has worked to create a stream mitigation bank project.

At the national level, there are more than 150 existing wetland mitigation banks, but no stream mitigation banks. Although stream restoration projects

have been conducted across the country, none were executed under the guidance of mitigation banking. So in a partnering effort with federal and state agencies, the Fox Creek Stream Mitigation Bank in St. Louis District has been approved, making it the first stream mitigation bank in the U.S.

### Restoration

The stream bank is on the border of St. Louis and Franklin counties. Even though the Missouri Department of Conservation lists Fox Creek as high-quality urban stream, the portion of the creek enrolled under this banking initiative is severely degraded.

The stream mitigation bank is about three miles of Fox Creek from Interstate 44 to its confluence with the Meramec River. Developmental encroachment at this portion of Fox Creek

could compromise the integrity of the entire stream.

The stream mitigation bank restoration will consist of a minimum 100-foot-wide corridor of trees replaced along both banks, with some portions of the corridor extending 400 feet wide. There will also be in-stream structures for stabilization, and upland waterway enhancement by revegetation of both warm and cool season grasses.

### Credits

The stream mitigation bank will work about the same way as a wetland mitigation bank. Developers who are permitted to impact a stream will pay for "credits" on a section of Fox Creek equal to or greater than the length of stream they had to destroy. The developer's money will be used to improve that section.



Adrian Devillasee, an AMIE intern, discusses contract submittals with Yi, Won-son of Quality Assurance Branch. (Photo courtesy of Far East District)

## Far East District gives students work experience

By Gloria Stanley  
Far East District

For the first time, Far East District (FED) participated in the Advancing Minorities' Interest in Engineering (AMIE) program, by sponsoring four engineering college students as interns this summer. The AMIE program provides students attending historically black colleges and universities an opportunity to experience working in the engineering profession, and also eased the workload of some district team members.

(Historically black colleges and universities graduate nearly 30 per cent of all African-American engineers in the U.S.)

AMIE is a non-profit organization that seeks to expand corporate/academic alliances, and implement and support programs to attract, educate, graduate, and place minority students in engineering careers. Student internships, faculty fellowships, scholarship programs, and campus relations are a few ways AMIE participants work with American institutions and industries. The U.S. Army Corps of Engineers and AMIE became partners in 1996.

Martin Cruise, Adrian Devillasee, Kennan Haywood, and Gary Washington are the four students who gained valuable working experience with Far East District this summer.

Cruise is a student at Morgan State University (MSU) in Baltimore majoring in civil engineering. He worked in the Design Branch of Engineering Division and got hands-on experience in design, cost engineering, and training in scheduling. Among other projects, he helped design an Air Force administration building and a barracks upgrade at Yongsan Garrison. He traveled to Osan Air Base to work with Lynn Ray to get scheduling training. What Cruise liked best was seeing a lot of aspects of engineering together in the same building. He said that one thing that surprised him was that civil and structural engineering were separate at FED.

Cruise said that the purpose of internships for him

is to help him to determine which area of engineering he wants to specialize in. "I haven't decided yet, but I'm leaning toward structural engineering," Cruise said. "I did a geotech internship last year with the Maryland State Highway Administration and spent a lot of time in the field, learned a lot and started from the bottom, got dirty. This year I got to work on design and saw the project on paper."

Devillasee, who is also studying civil engineering at MSU, spent his internship working in Quality Assurance Branch of Construction Division. Unlike Cruise, the Corps is not new to Devillasee; this is his third Corps internship. He worked in Europe District 1998, and in Japan Engineering District last year.

Devillasee reviewed contract submittals to make sure everything submitted is within U.S. government regulations. With all three internships, he found the people he worked with willing to help and mentor interns. Devillasee said FED was his busiest internship.

"The internships have helped me become a more well-rounded person because of the exposure to different cultures," Devillasee said. "It's been a good experience and I've turned a lot of people on to the AMIE program."

Outside of work, one of the biggest challenges for Devillasee during his internships has been the language barrier in the three countries, but that didn't deter him. In Korea he has been to the Demilitarized Zone and done lots of shopping.

Keenan Haywood from Hampton, Va., is majoring in electrical engineering at Hampton University. He interned at the Seoul Project Office where he got field experience accompanying engineers and construction representatives to projects, plus office experience. Haywood was also interviewed by an American Forces Korea Network television crew for the nightly news.

Gary Washington, from Tuskegee, Ala., is a student at Tuskegee University also majoring in electrical engineering. He interned in Construction Division's Central Resident Office in Osan.

## Far East takes part in evac drill

By Gloria Stanley  
Far East District

In Korea, Courageous Channel, a three-day noncombatant evacuation operation (NEO) military exercise, is held twice a year. During these three days, all noncombatants who would evacuate if there were an emergency report to one of the evacuation sites in their area with their NEO packets. The packets are checked for documentation and other items noncombatants would need for a real evacuation. The purpose of the exercise is to improve the process so an evacuation can be executed effectively in the event a natural disaster or hostilities.

Far East District (FED), along with the other units in the Republic of Korea, has selected NEO wardens responsible for making sure noncombatants in their unit and their families have complete NEO packets and kits. The packets include all necessary documentation such as passports, household goods inventories, powers of attorney, home strip maps, and so on. The kits have personal necessities like toiletries, water, and canned goods.

Mitchel Glenn, Chief of the Emergency Management Office, is FED's NEO Officer and organizes the district's implementation and participation in NEO. Maj. Debbie Mallgren, an Individual Mobilization Augmentee assigned to the district, is the NEO Coordinator and throughout the year submits monthly reports to the area coordinators where FED personnel live. The district has personnel in all six areas on the peninsula.

Each NEO warden in FED submits monthly e-mail updates to Mallgren, who lives in the U.S., so she can consolidate the information into the reports and format necessary for submission to the six area coordinators. For her three weeks of annual training this year, Mallgren came to the district just before Courageous Channel 00-1 in March, so she could work with the new NEO wardens to make sure they were aware of the recent changes and the monthly reporting requirements.

Besides maintaining and updating a NEO book, the wardens' responsibilities include attending monthly meetings, manning stations at the NEO centers during Courageous Channel exercises, and inspecting NEO packets throughout the year.

Mallgren also participated in Courageous Channel 00-1 by manning one of the stations at the Hannam Village NEO Center in Seoul, along with the three emergency management personnel on eight hour shifts, and nine of the district's NEO wardens who rotated two-hour-forty-five minute shifts during the exercise. More than 1,500 noncombatants and their families processed through the Hannam Village NEO center.

In the event of a real world NEO, the 28 district NEO wardens and three NEO representatives, who are all emergency-essential civilians (EEC), would be temporarily assigned full-time to support the NEO. This means that 31 out of 96 total EEC personnel in FED are dedicated to the NEO operations until the NEO wardens and representatives are released back to their units.



An old aerial photo shows how the former Fitzsimons Army Medical Center looked in one of its earlier versions. (Photo courtesy of Omaha District)



The soda fountain was a favorite gathering place for the Fitzsimons staff in the early days of the hospital. (Photo courtesy of Omaha District)

# Fitzsimons Hospital begins new life

By Liam Anselm Bickford  
Omaha District

Omaha District played a key role in the successful closure and realignment of Fitzsimons Army Medical Center two years ahead of schedule. After years of negotiations by Corps team members, Fitzsimons will now become a community asset as a new university campus and bioscience research park operated by the University of Colorado Health Sciences Center (UCHSC).

Col. Martin Fisher, Fitzsimons' former garrison commander, said the Corps' efforts have not gone unnoticed. "Due to the hard work of the Omaha District team, Fitzsimons is recognized at both Department of the Army and Department of Defense levels as the nation's model closure site," Fisher said.

## A part of history

U.S. Army General Hospital No. 21 was built in Aurora, Colo., in 1918. By 1920, it became known as Fitzsimons General Hospital, and remained so until 1950, when the name changed to Fitzsimons Army Hospital. Ten years later, it was again called Fitzsimons General Hospital. Today most know it as Fitzsimons Army Medical Center, as it was called from 1974 to 1996, the year it became a garrison.

"And so it comes to this final salute," said Helen Littlejohn, a retired Army nurse who once worked at Fitzsimons. "We can't begin to estimate the number of people who've come through the gates every day starting back in 1918. The soldiers, the sailors, the airmen, and the Marines, and their families."

All had one thing in common — taking care of the wounded. During the years, the mission expanded. "We taught. We conducted research. We trained. We went to war," said Littlejohn. "And through it all, we took care of patients. Every minute of every hour; every hour of every day, for 78 years."

On June 30, 1996, the U.S. Army Garrison, Fitzsimons closed under the Defense Base Realignment and Closure (BRAC) Act of 1990.

Remembering that day, Brig. Gen. John Parker, the last commander of Fitzsimons said, "My eyes were clouded and my heart was full. It seemed that at the last minute this great institution made a penultimate cry that it could not be closed or forgotten. Fitzsimons would not be entombed cold and alone."

## Disposal

"The Fitzsimons disposal project has been and continues to be difficult," said Jeffrey Harp, senior realty specialist who led the base closure team. "But it's considered a real success story within the Army and among the nation's local redevelopment authorities."



The former Fitzsimons Army Medical Center was rebuilt to prepare for its new post-military life. (Photo courtesy of Omaha district)

Harp says the installation closed fully two years ahead of schedule and several firsts were produced for the Army — the first Lease in Furtherance of Conveyance, the first Lease in Furtherance of Public Benefit Conveyance (PBC), and the first PBC on behalf of the Justice Department.

"The accomplishments to date are a direct result of cooperation and a really good working relationship between the Army, the federally-recognized Fitzsimons Redevelopment Authority (FRA), the UCHSC, along with other private and governmental entities," said Harp.

Fitzsimons covered about 577 acres at the time of closure. All of it was to close under BRAC except 22 acres of an Army Reserve enclave. The General Services Administration delegated its authority to the Army to dispose of the real estate. FRA worked with local government entities (state, county, and city) to come up with an overall reuse plan where the installation would be used primarily by the UCHSC for a new, expanded campus, and by the FRA to develop a university-related bioscience park.

## Teamwork above all

Harp said the negotiation team made the difference. "The entire team worked great together," said Harp. "They were with me all the way and made a difficult situation actually enjoyable."

"The Pentagon gave us specific criteria to meet or

beat, and our job was to come to agreeable terms with the FRA." Harp continued. He explained that, normally, competing market forces dictate that the property goes to the highest bidder. "In this case, we had to negotiate the best deal we could for the government. At times I felt like David facing Goliath. We faced off with some really heavy-hitters, but everyone pulled together to get this tough job done."

Partnering with local officials also had considerable impact on the successful Fitzsimons transfer. Harp said Aurora Mayor Paul Tauer ensured re-use of site by getting the university to consider relocating from Denver to Fitzsimons. Bioscience re-use by FRA moved forward and became a reality because of the natural fit with the UCHSC campus.

## Dedicated effort

The team's efforts began to show results in 1996 when the determination of surplus was signed and, by 1997, the redevelopment plan was prepared and adopted, and the BRAC interim lease granted. In 1998, the Economic Development Conveyance application was submitted to the Army by FRA and the PBC granted five parcels of land (88 acres) to the University of Colorado, along with the lease in furtherance.

In 1999, the Army used a Quit Claim Deed (QCD) to convey to the Fitzsimons Federal Credit Union two acres of land that were formerly leased to the credit union. Last year also saw the completed memorandum of agreement for purchase; the lease to the FRA of 14.3 acres and 30.9 acres by QCD; gas and electric utilities easements granted to FRA and bills of sale executed; transfer of 6.3 acres to Aurora; a change of the Army Reserve post location on the site; telephone, fire alarm, and cable TV bills of sale and easements granted; and the final closure of Fitzsimons.

## New beginning

Lt. Gen. Alcide Lanoue said, "Fitzsimons' inactivation closed one chapter of the facility's history as an Army medical center, but I'm convinced that it's not the end of story of this prestigious institution. Perhaps a new, improved, facility will emerge from the process like the legendary phoenix."

Parker says Fitzsimons was originally established by the hard work and determination of the Denver civic community, which raised money for the land for the hospital in an incredible four-day fund-raising drive.

"The same civic determination that opened the hospital in 1918 is still alive today, and that is perhaps the most dramatic testimony to the love and respect that Fitzsimons has earned over its lifetime of caring," said Parker.

# Quality management

## *New business practice reg focuses on needs of client*

By Bernard Tate  
Headquarters

Few concepts are more difficult to define than quality. To rephrase an old saying, we can't define quality, but we know it when we see it. And we darn well know when it's absent.

But those days are over. From now on, everyone in the U.S. Army Corps of Engineers will know what quality is and how to provide it, whether it's a five-minute request over the phone, or a multi-million-dollar construction project spanning decades.

Just to get it up front, the Corps now defines quality as products and services that meet or exceed clients' stated and implied expectations. The quality management philosophy is to do the right things, the right way, for the right reasons, and to constantly strive for improvement.

Behind that simple statement is a team of people who were determined "to do the right things, the right way, for the right reasons," even if it meant doing them differently.

### New definitions

"The new quality management team was chartered last September," said Cynthia Nielsen, USACE Project Manager. "Corps policy is usually developed within individual stovepipes at the Headquarters, with little or no field involvement. We have numerous regulations related to quality, but nothing that transcends stovepipes and aligns with our business process."

To remedy this, USACE leaders sought to develop a new approach to quality that would apply to all work in the Corps. "They pulled together a small team of respected field practitioners, mostly chiefs of engineering and construction divisions from throughout the Corps, who all had a passion for quality. I was the only Headquarters person on the team."

The team came up with a definition of quality that was radically different for the Corps.

"Traditionally, the Corps has defined quality from a functional, technical point of view," Nielsen said. But the Corps' leadership believed we need a broader approach. As Steve Browning, Chief of Programs Management Division in Military Programs, said, "We needed an overarching philosophy on quality that would cover *everything* the Corps does, an umbrella that all our other policy and guidance would fall under."

And they wanted a definition that would align with and support USACE's primary business process, the Project Management Business Process (PMBP). "Quality, defined as meeting or exceeding our clients' expectations, is the primary objective of the PMBP, and the PMBP is the key process for attaining that quality," said Browning.

### New quality regulation

So a team was chartered to create a new quality management regulation.

"We read a lot of other people's stuff," Nielsen said. "If you look at the International Organization for Standardization, or the Army Performance Improvement Criteria and Malcolm Baldrige criteria, they all talk about focusing on the *client* and what the client needs. Meeting or exceeding client expectations is the prevailing cutting-edge thinking about quality. So that's what we put into our draft regulation. It's a pretty radical departure from the idea that quality is something you can touch."

This new concept of quality supports the PMBP's

client-focused teamwork goal.

"Our approach to quality management is teamwork centered around the PMBP," said Dwight Beranek, Chief of Engineering and Construction Division at Headquarters. "Each team member has capabilities that add to the quality of USACE products and services. In the past, we benchmarked and evaluated those capabilities strictly within a functional context, not within a project delivery team context. By changing the paradigm from a *functional* assessment of quality to a *customer* assessment of quality we can provide meaningful purpose to our QM strategy and use QM to help reshape our culture to be team-driven."

Fred Caver, Chief of Programs Management Division in Civil Works, notes that focusing on meeting clients' expectations doesn't relieve us of attending to national interests. "We still have that national taxpayer representation role, in addition to meeting the more immediate client (i.e., the local sponsor) expectations," said Caver. "The draft regu-

lation states 'We employ a balanced approach to quality.' We balance the needs and expectations of clients and stakeholders, considering available resources and life-cycle requirements. As stewards of the public trust, there are certain minimum professional standards we will not compromise. This baseline level includes legal, environmental, and life safety requirements."

### Review process

Nielsen's team also took a radical approach to reviewing their draft regulation.

"Normally, copies of a draft regulation are sent out to the division offices via a given stovepipe, then it trickles down to the districts and, hopefully, eventually most people in that stovepipe see it. Someone at the district filters and consolidates the comments, then they are filtered and consolidated at the division, and the results are probably screened again before being presented at Headquarters.

"So a person commenting on a regulation never knew what happened to his or her comment, or if it even made it out of their office," Nielsen said. "We wanted to change that. We felt every voice in USACE should be heard equally. Not only that, we wanted the review process to be more of a dialogue, with everyone able to see the comments other people made.

"So we developed a way to review the document over the Internet," Nielsen said. "If you were reviewing a paragraph of the draft regulation, you could jump off to a comment page and see all the comments everyone in USACE had submitted. Then you could add your own with no screening or censorship. It was wide open.

"And the team responded to every single comment received," Nielsen added. "Every comment got a response, which was also posted on the website. So if you made a comment, you not only knew that the team got it, we told you whether or not we incorporated it, and why. That was pretty radical as well."

### Rewriting regulations

Throughout the process, Nielsen said that she and her team felt like they were rewriting ER 5-1-11, *Program and Project Management*.

"It was curious how often we referred to ER 5-1-11, and felt like we were clarifying parts of it," she said. "We felt like quality management was a missing piece of the project management business process."

The instincts of Nielsen and her team were right on the money.

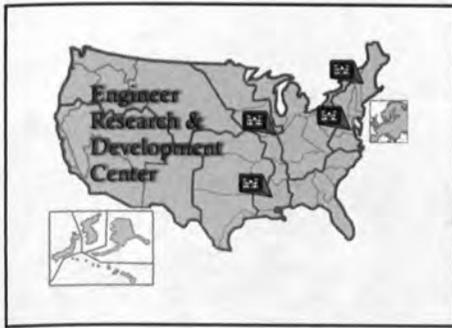
"We cleaned up our draft after the review and felt pretty comfortable with it, and we were looking forward to seeing it published," Nielsen said. "I was invited to speak on this topic at ENFORCE. The Chief of Engineers introduced this topic, and after I spoke he said, 'We're not going to make this a separate regulation. We're going to roll this into ER 5-1-11. Quality is an integral part of our business process, and it should not be addressed separately.'

"So that's where we are now," said Nielsen. "The Chief was so pleased with the concepts in our draft that he issued it as interim guidance while ER 5-1-11 is rewritten and re-issued to include these concepts. Another team will rewrite ER 5-1-11 and develop an implementation strategy. That team will include members from my quality management team, as well as members of the PMBP reassessment team that was led by Bill Sorrentino from Norfolk District. So these two efforts will come together in this rewrite, and I look forward to seeing their draft soon."

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***"The U.S. Army  
Corps of Engineers  
defines quality  
products and  
services as those  
that meet or  
exceed clients'  
stated and implied  
expectations...  
The...quality  
management  
philosophy is to  
do the right things,  
the right way, for  
the right reasons,  
and to constantly  
strive for  
improvement."***

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## Focus on the Laboratories

Vicksburg, Miss.; Champaign, Ill.; Alexandria, Va.; Hanover, N.H.

# Powerful R&D center serves USACE, Army, and the nation

The U.S. Army Corps of Engineers has been streamlining its business practices to provide better service for its customers. One major success story is the consolidation of the research laboratories into the U.S. Army Engineer Research and Development Center (ERDC).

Reorganization began in October 1998. What looked like a daunting task became a reality on Oct. 1, 1999, when the eight individual research and development (R&D) labs officially became ERDC.

By consolidating the labs into one R&D organization, ERDC offers its customers one door to diverse initiatives and capabilities. Integrated teams of engineers and scientists across ERDC can address a broad range of science and technology issues, from Arctic temperatures to vehicle mobility in desert sands; from protecting a wetland to protecting U.S. troops around the globe; from pinpointing the exact location of an artillery round to predicting the extended habitat range of an endangered species.

Two success stories of ERDC's research philosophy are the Emergency Response Operations Center (EROC) and the TeleEngineering Operations Center (TEOC).

EROC provides a single focal point in ERDC for crisis operations. For example, ERDC provided a biologist from its Environmental Laboratory and a cost estimator from the Construction Engineering Research Laboratory to support the wildfires in New Mexico. It has provided technical support in Albania from the Geotechnical and Structures Laboratories, and sent a hydraulic engineer from the Coastal and Hydraulics Laboratory to provide technical support during the Mozambique floods.

TEOC gives deployed forces direct access to Corps experts to solve engineering challenges that are beyond in-theater capability. TEOC has been involved in many warfighter exercises and real-world contingencies. The advantage of TEOC's support is that multiple ERDC labs can conduct rapid analyses on a myriad of military and engineering problems.

EROC and TEOC have also combined efforts so that ERDC can provide appropriate personnel to support an operation. The deployed team can then



The shake table at the Construction Engineering Research Laboratory is the most powerful earthquake simulator in the nation. (Photo courtesy of the Champaign-Urbana News-Gazette)

contact TEOC to access the required experts in ERDC. This one team concept improves support, because the deployed team has an intimate understanding of the data required to conduct a proper analysis. This saves the customer valuable time, money, and personnel required to complete a mission.

A good example of a combined laboratory effort would be a dam breach analysis. ERDC's Topographic Engineering Center would provide image and elevation data to form the foundation of the analysis. This would be followed by snowmelt and run-off analysis conducted by the Cold Regions Research and Engineering Laboratory. Dam breach and the resulting flood wave damage would be analyzed by the Coastal and Hydraulics Laboratory, and potential mud slide, military load

classification of bridges, and vehicle mobility analysis conducted by the Geotechnical and Structures laboratories. The combination of these multi-lab analyses would provide the engineer, commander, or soldier in the field with an overall perspective on how the dam breach will impact their mission.

ERDC is the largest civil engineering and environmental R&D complex in the U.S. Its staff numbers more than 2,000 engineers, scientists, and support personnel with an annual budget of more than \$430 million, and more than \$1.3 billion in unique facilities and equipment.

ERDC is headquartered at the Waterways Experiment Station (WES) in Vicksburg, Miss. ERDC's labs include the Construction Engineering Research Laboratory in Champaign, Ill., the Topographic Engineering Center in

Alexandria, Va., and the Cold Regions Research and Engineering Laboratory in Hanover, N.H. There are five labs in Vicksburg—Coastal and Hydraulics, Environmental, Information Technology, Geotechnical, and Structures lab. The last two will soon combine into one.

Each lab has a world-class reputation for engineering and scientific excellence, and unique research capabilities.

### Coastal and Hydraulics Laboratory (CHL)

For more than 70 years, CHL has provided quality solutions to its customers. CHL research covers the spectrum of challenges in groundwater, watersheds, rivers, reservoirs, estuaries,

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## Focus on the Laboratories

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harbors, coastal areas, and wetlands. The research provides the basis for managing and restoring upland, riverine, estuarine, and coastal ecosystems.

CHL uses physical and numerical modeling to simulate the movement of water, sediment, and other materials. Field investigations gather data on waterway conditions and ship/tow behavior. These research tools enable CHL to support the design, operation, and maintenance of navigation channels, locks and dams, inlets and shorelines, dredging projects, and the disposal of dredged material in a safe, efficient, and environmentally responsible manner.

For example, flood control model studies for the Los Angeles County Drainage Area saved \$300 million in construction costs. The CHL-developed Groundwater Modeling System site simulations saved \$10 million in groundwater remediation for Schofield Army Barracks, Hawaii. Numerical modeling of Shinnecock Inlet, N.Y., reduced dredging, maximized dredged material placement, and reduced erosion on beaches for an annual savings of \$500,000.

Physical models of McNary Dam on the Columbia River in Oregon and Washington were used to develop a design to increase the number of juvenile salmon passing through the dam from 50 percent to 85 percent, with 99 percent survival.

CHL supports warfighters by providing precipitation sensing, model predictions for battlefield flooding, dam break analysis, and water location in dry and semi-arid regions.

Another warfighter initiative, Logistics-Over-the-Shore, is crucial for force projection. CHL developed the Rapidly Installed Breakwater (RIB) system, a vee-shaped floating breakwater, to deflect waves and allow off-loading of vehicles and equipment. Lab and field tests show that the RIB system can reduce wave conditions from Sea State 3 (five-foot-waves, considered a war-stopper) to Sea State 2 (waves up to two feet), which will allow off-loading to proceed.

### Environmental Laboratory (EL)

All civil works and many military missions have environmental quality components. One ERDC stra-



Teleengineering equipment can be transported to the field to provide communications between deployed personnel and the Teleengineering Operations Center. (Photo courtesy of ERDC)

tegic focus is Ecosystem Management and Restoration. EL contributes research in estuarine, marine and freshwater areas; natural and cultural resource management; water quality; managing aquatic nuisance species; the environmental impact of dredging and dredged material disposal; wetlands; protection and enhancement of threatened and endangered species; and environmental cleanup and restoration.

EL has two state-of-the-art facilities. The Environmental Chemistry Center was completed in 1998. The center researches methods of chemical analysis for environmental contaminants, and quality assurance testing and commercial chemistry inspections for hazardous, toxic and radioactive waste, and chemistry and water quality analysis for military and civil works projects.

The Hazardous Waste Research Center develops technologies to clean up contaminants in soil, sediment, water and groundwater in the most cost-effective, efficient manner possible. This center has the lead in developing systems to treat explosives, heavy metals, and selected organic compounds to support

the DoD Installation Restoration, Formerly Used Defense Sites, and Base Realignment and Closure programs. Technologies developed in the center can be transferred to Superfund cleanup, and to environmental enhancement for civil works projects.

### Geotechnical Laboratory (GL)

GL began in 1932 as a small soils research group. Today, GL continues research into the physical processes associated with soil, rock, and groundwater. This research is relevant to many Corps areas including dam and levee construction, military vehicle mobility, pavements, earthquake engineering, and groundwater protection and contaminant abatement.

GL is also the lead DoD lab for airfields and pavements research and sustainment engineering. This research provides improved pavement technology with reduced costs for the life of the pavement, plus technology for rapidly building pavements and air-

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ERDC laboratories worked in unison to provide accurate river forecasts of the Sava River. This helped combat engineers bridge the river, allowing heavy equipment to move into Bosnia. (Photo courtesy of ERDC)



A team of Corps experts deployed to study dams after spring flooding in Mozambique. Data collected at dam sites, such as Cahora Bassa Dam, went to ERDC via teleengineering for analysis. (Photo courtesy of ERDC)

## Focus on the Laboratories

Continued from previous page

fields for the armed forces when deployed around the world.

Earthquake engineering is another ERDC strategic thrust, and GL operates the world's most powerful centrifuge. It can replicate blast, flow, earthquake, waves, and ice and ground failure. For example, there are currently 200 dams in seismic zones. The cost of upgrading them to assure safety and adequate performance during an earthquake and other forces of nature is \$20 billion.

By using centrifuge technology, it is estimated that the Corps can save \$200 million in upgrading each dam.

### Information Technology Laboratory (ITL)

ITL advances the Army's ability to use advanced information technology to address a wide range of engineering and scientific challenges. The lab operates one of four DoD High Performance Computing (HPC) Centers, and is home to five supercomputers (an IBM Power3 SMP, a SGI Origin 2000, two IBM SPs and a SGI Cray T3E).

Besides high performance computing, ITL also works in computer-aided and interdisciplinary engineering, computer science, information technology, and instrumentation. This includes computer-aided design and drafting (CADD), geographic information systems (GIS), visual production, and a research library.

ITL manages and operates four national centers for DoD, the Tri-Services and the Corps — the DoD HPC Major Shared Resource Center; the CADD/GIS Technology Center for Facilities, Infrastructure and Environment; the Corps' Automation Plan Central Processing Center; and the Corps' Software Technology Center.

ITL will remain at the forefront of information technology when a research project to test an advanced shared-memory computing technology begins this fall. The project will begin when a unique partnership of academic, government, and industry collaborators installs a new 512-processor supercomputer.



Structure Lab's Mobile Ballistic Research System fires high-velocity penetrators at hard-target military assets buried in rock. The tests are carried out in remote areas. (Photo courtesy of ERDC)

### Structures Laboratory (SL)

In the early 1940s, the Central Concrete Laboratory at the U.S. Military Academy moved to WES and became what is now known as SL. Today, the lab has the lead for the armed services in Survivability and Protective Structures. SL conducts research to make concrete and other construction materials more durable and less expensive, studies the

application of explosives to combat engineering, and investigates the behavior of earth and structures systems subjected to blasts and projectiles. Along with GL, it also studies better ways to repair and maintain hundreds of aging civil hydraulics structures, and improving technology for new construction.

Under the Survivability and Protective Structures program, SL's goal is to enhance protection for everything from foxholes to fixed facilities. The program has three focus areas — force protection against terrorist threats, force protection on the battlefield, and force protection against advanced conventional weapons.

Unique research facilities include the Geodynamics and Projectile Penetration Research Facility. Its 83mm solid propellant launcher can fire projectiles up to six pounds at velocities to 6,000 feet per second; and projectiles of 25 pounds or more at velocities of 3,000 feet per second. Targets are placed in an adjoining target room. The projectile's impact on its target is recorded by high-speed video, flash X-rays, breakscreens, a 100-million frame per second digital camera, and instrumentation inside the projectile.

The Mobile Ballistic Research System is a self-contained, truck-mounted unit to conduct projectile penetration experiments at remote sites. It determines the effects of high-velocity penetrators against hard-target military assets buried in rock at remote locations.

SL has developed many products used by the armed forces and other federal agencies, such as Anti-Terrorism Planner software, high-performance materials and systems, and guidelines for repair, evaluation, maintenance and rehabilitation of structures.

### Cold Regions Research and Engineering Laboratory (CRREL)

CRREL in Hanover, N.H., has a diverse research program on how cold, snow, ice, and frozen ground affect environment, transportation, military operations, and construction.

CRREL hosts a multitude of science and engineering experts in highly specialized, low-temperature facilities in New Hampshire, and a field station in Fairbanks, Alaska. These facilities are designed to study ice, snow, and frozen ground. They include a chemistry suite, a cold room complex, a Frost Effects Research Facility, a Remote Sensing/Geographic Information Systems (RS/GIS) Center, an Ice Engineering Research Facility, a Geophysical Research Facility, and a Cold Regions Science and Technology Information Analysis Center.

The RS/GIS Center is important to both ERDC and the Corps. This facility is the Corps' center of expertise for the RS/GIS Emergency Management Support Program. It draws on the resources of Corps labs, districts, and divisions, plus other government agencies, universities, and the private sector to provide RS/GIS technologies to assist emergency managers. Aerial and satellite photography and imagery, and digital spatial data are acquired, analyzed, and provided to assist in decision-making. The 14,400-square-foot, three-story facility includes training rooms for RS/GIS instruction; a GIS laboratory and RS/image processing laboratory; and a modeling laboratory to develop spatial models.



The Cold Regions Research and Engineering Laboratory supports military and civil works operations and projects in cold climates, such as bridging operations in freezing or thawing rivers. (Photo courtesy of ERDC)

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The Cold Regions Engineering Research Program conducts applied research to solve cold-related engineering problems, particularly in navigation, flood control, emergency response, and water supply.

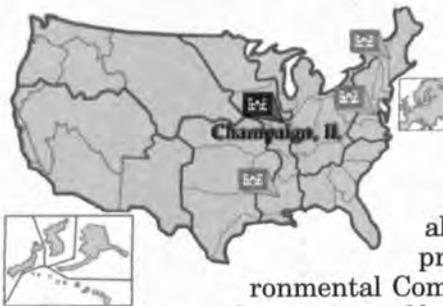
In its Battlespace Environments research, CRREL focuses on minimizing or eliminating the effects of weather and the environment on Army operations. Tools such as physics-based models, simulations, and mission planning/rehearsal factors accurately predict ground state, atmospheric conditions, and system performance in complex environments.

Complex battlespace environments (urban, forest, mountains) challenge the performance of weapon systems, target identification and acquisition sensors, equipment, and personnel. Weather effects and changing surface conditions alter acoustic and seismic energy, and infrared and millimeter wave (IR/MMW) signatures. To understand terrain effects on weapon systems and sensors, CRREL and Topographic Engineering Center scientists are evaluating the 3D Dynamic Multi-Spectral Synthetic Scene Visualization program. This provides a common view of battlefield conditions that represent a key element in future battle dynamics. Its IR/MMW, image intensifier, and seismic/acoustic capabilities advance visualization of the battlespace and will represent more realistic simulations of the environment and its impact on warfighters.

### Construction Engineering Research Laboratory (CERL)

CERL develops and tests technologies for sustainable military installations. This mission involves infrastructure and environmental R&D to provide quality, pollution-free facilities, realistic training lands, and regulatory compliance.

CERL research has produced many technologies vital to sustaining Army installations, which are often adopted by the public sector. The Engineered Management System revolutionized how public works managers schedule and budget for maintenance and repair. The Pavement Maintenance Management system is now used worldwide. Military engineers benefit from CERL's Theater Construction Management System which helps plan troop construction for the battlefield or contingency opera-



tions. The Corps' military construction program saves money and moves faster thanks to products such as the Design Review and Checking System. CERL's environmental R&D program has been critical in providing installations with tools to meet challenges in this area. The Integrated Training Area Management (ITAM) is mandated at all Army installations, and CERL continues to develop products to support ITAM implementation. A technology that grew out of the ITAM R&D was GRASS (Geographic Resources Analysis Support System), which lets land managers model training impacts and other activities. GRASS also introduced public-domain tools that boosted the geographic information system industry. Range control offices today have automated training area scheduling via CERL's Range Facility Scheduling Management Scheduling System.

Compliance R&D also provided essential products. The Environmental Compliance Assessment System is used by DoD and other government agencies. CERL's Environmental Technical Information System was the predecessor for many tools, such as the Economic Impact Forecast System and the Defense Environmental Network and Information Exchange.



Numerical modeling in the ship and tow simulator provides data in support of the design, operation, and maintenance of navigation channels and structures. (Photo courtesy of ERDC)

Today CERL leads a major effort, along with other ERDC team members and numerous stakeholders, to develop the Land Management System. This suite of tools will be the standard for managing all military lands and civil works facilities in the Army.

Ongoing research at the CERL Triaxial Earthquake and Shock Simulator provides critical knowledge about how structures behave in earthquakes. The result will be facilities designed or retrofitted to enhance seismic safety.

### Topographic Engineering Center (TEC)

TEC's primary missions are to give the warfighter superior knowledge of the battlefield, and to support civil and environmental initiatives through R&D and application of the topographic and related sciences. TEC is the Army's center of expertise for topography R&D.

TEC's mission extends from basic and applied research to systems development and operational support to soldiers in the field. Research areas include generating and managing geospatial information, information analysis and visualization, battlefield

and terrain-related simulation and modeling, imagery exploitation, spectral signature analysis, and precision surveying and mapping.



TEC's operational mission includes creating specialized terrain analyses and water resources products for Army customers, and supporting military and civil crises like natural disasters. Its Digital Topographic Support System is fielded to all Army topographic field units and gives field commanders essential information about the battlespace through automated terrain analysis, visualization, and graphics reproduction.

Digital Topographic Support System is fielded to all Army topographic field units and gives field commanders essential information about the battlespace through automated terrain analysis, visualization, and graphics reproduction.

### Conclusion

Each lab in ERDC brings a reputation for excellence in providing engineering and scientific solutions to customers. As a consolidated R&D organization, ERDC will continue to support the Corps' vision — an organization "trained and ready to provide support, anytime, anyplace."

For more information on ERDC and its missions, visit their web site at [www.erd.usace.army.mil](http://www.erd.usace.army.mil).

(Deborah Quimby of WES, Dana Finney of CERL, Marie Darling of CRREL, and Jackie Bryant of TEC all contributed to this article.)

## Focus on the Laboratories

Vicksburg, Miss.; Champaign, Ill.; Alexandria, Va.; Hanover, N.H.



# Congress has 'one door to Corps'

Article by Georganne Reynolds  
Photo by F.T. Eyre  
Headquarters

Early during his tenure as Chief of Engineers, Lt. Gen. Joe Ballard felt he needed an office to communicate with Congress, reporting critical issues directly to him and his executive staff.

The Office of Congressional Affairs (OCA) was established in January 1998 to serve as Congress' single point of contact with the Chief, and to assist the Chief in maintaining cordial relationships with Members of both the Senate and the House of Representatives. OCA has several functions — some involve the Chief directly, and others affect the entire U.S. Army Corps of Engineers' command.

"Before creation of the office, congressional interests often didn't know who to deal with in the Corps, or how to 'gain proper entry' into our organization," said Jim Rausch, Chief of OCA. "OCA was designed to fill this need."

## Inquiries

Congressional offices now write or telephone OCA with inquiries of every nature, including those involving water resources, military construction, and support for others. The office then coordinates with the appropriate directorate to answer the inquiry, or to coordinate a meeting or briefing with Members of Congress or their staffs. OCA then ensures the loop is closed with the Member.

## Relationships

OCA also identifies potential areas of conflict with Congress to the Corps' senior leadership, allowing time for those issues to be addressed before they reach crisis level.

One reason OCA was founded was to increase the Chief's interaction with Capitol Hill. OCA schedules the Chief's courtesy calls and visits to the Hill and prepares background materials (briefings, issue papers, talking points) for him and his staff when meeting with a Member of Congress. Preparing background materials requires close coordination with congressional staff, Headquarters Department of the Army staff, and the field to identify issues in a Member's district or state that are important at the time of the meeting.

Sometimes, a meeting is scheduled at the Corps' request, and other times at the request of the Member of Congress. When a meeting or telephone call is scheduled at the Member's request, OCA identifies the issue the Member wants to address, and identifies the appropriate Corps staff to accompany the Chief or participate in the teleconference.

## Testimony

OCA also plays a vital role in preparing the Chief to testify before Congress. He usually testifies in the spring on the annual civil works budget be-



The Office of Congressional Affairs is Congress' single point of contact with the Chief of Engineers. From left to right are Jim Rausch, Georganne Reynolds, Dale Jones, and Jude Breitwieser.

fore the Senate and House Appropriations Subcommittees on Energy and Water Development. OCA works closely with the Civil Works Programs Management Division and the Public Affairs Office during this period to develop testimony, prepare briefing books, and obtain the most up-to-date project and issue information to properly prepare the Chief to testify.

On other occasions, the Chief may be asked to testify on a Corps organizational matter. OCA works closely with appropriate Corps and Department of the Army elements to prepare the Chief for these hearings as well.

## Liaison

Perhaps OCA's most critical function is to serve a liaison role between the Corps and Congress. While OCA maintains a cordial working relationship with our traditional authorizing committees (the Senate Environment and Public Works Committee, and the House Transportation and Infrastructure Committee), it has also established relationships with other committees and with Members not on the Corps' traditional authorizing or appropriat-

ing committees.

Fostering good relationships with these committees is a challenge because the Members are not as familiar with our programs as are the public works authorizing committees or appropriations subcommittees.

As a result of these efforts, the Corps participates more often in various congressional meetings spanning a wide range of issues under Corps jurisdiction. This increased visibility is mutually beneficial — it introduces Congress to the Corps and the Corps to Congress.

## Pentagon contacts

Besides liaison work with Congress, OCA maintains an ongoing relationship with the Army's Office of the Chief of Legislative Liaison (OCLL) at the Pentagon. OCLL and OCA routinely exchange information on military construction issues so the Army and the Corps can present these issues accurately to Congress.

OCA and OCLL work together when an official is nominated for a senior-level position in the Department of Army.

During election years, OCA also works with OCLL to coordinate Army briefings to newly elected Members of Congress by the senior Army officer in or near that Member's district or state. In many cases, that senior Army officer is a Corps officer.

## Information gathering

Beyond its important liaison functions, OCA synthesizes and provides congressional information to the command by collecting data from the field, analysis of congressional issues and legislation affecting the Corps, and reporting on congressional contacts.

OCA maintains the Congressional Contacts Database (CCDB) which has input from the field on upcoming contacts with Congress by Corps field operating agencies as well as Headquarters. Created in 1998, the database now has almost 3,000 entries regarding face-to-face meetings, phone calls, and letters between the field and Congress.

Importantly, the database lets the command know what issues Members are raising. About 100 Corps officials nationwide have the responsibility to input contacts regularly.

Each week, a list of upcoming congressional visits by Corps commands and senior staff, plus a list of issues, is electronically sent to OCLL as part of our coordination. If OCLL is aware of a particular issue that a Corps representative may face during his or her meeting with the Member of Congress, OCLL informs us at once.

The office writes a Congressional Activities Report every week while Congress is in session. The report summarizes relevant events on the Hill such as information on pertinent legislation, congressional agendas and schedules, changes in committee makeup, and issues involving Members.

Accompanying the report is a list of scheduled congressional hearings that involve either a Corps or Army witness, or other hearings that are of interest to the command.

## Results

Besides Rausch, there are three Congressional Affairs Officers. Jude Breitwieser, Dale Jones, and Georganne Reynolds cover congressional issues for the East, Midwest, and West, respectively.

While only in its third year, OCA has proven to be a valuable asset to the Chief and to the command through its fostering of mutual understanding among the Corps, the Army, and Congress. Expectations for OCA have been met and exceeded.

"We need this organization to track and coordinate our actions with Congress," Ballard said during a town hall meeting. "The Office of Congressional Affairs has been active on Capitol Hill, and they've already shown their effectiveness with their great work."

(Jim Rausch also contributed to this article.)



Pelicans by the thousands are flocking to the Baptiste Collette Bird Islands in Louisiana, which are landforms made from dredged material.

# Louisiana state bird recovering with help from Corps artificial islands

Article by John Hall  
Photo by Doug Spinks  
New Orleans District

Pelicans nesting.  
Pelicans flying.  
Pelicans swimming.  
Pelicans by the *thousands!*

And not just any pelicans. These teeming birds are the state bird of Louisiana, the endangered brown pelican.

The scene is the Baptiste Collette Bird Islands, landforms created by the U.S. Army Corps of Engineers near the mouth of the Mississippi River. On one 24-acre island, *Pelecanus occidentalis* is staging a comeback this year from the ravages of Hurricane Georges in 1998.

"We estimate the number of breeding pairs of brown pelicans to be in the realm of 11,000 (on Plover Island)," said Sam Hamilton, Atlanta-based Southeast Regional Director of the U.S. Fish and Wildlife Service (USF&WS). "I doubt there's a greater concentration of pelicans anywhere along the Gulf of Mexico."

**Dredged material.** The six Bird Islands exist thanks to the Corps' program of "beneficial use of dredged material." It helps the environment by creating wetlands or wildlife habitat, using material dredged up to keep navigation channels open.

"This island is an excellent example of beneficial use of dredged material," Hamilton said. "Eggs were hatching while we were there, and young pelicans were in the nest."

The Corps' navigation dredging averages 83 million cubic yards a year in south Louisiana, the territory of New Orleans District. This volume is one third of Corps' dredging nationwide.

A growing proportion of this dredged material is put to beneficial use. The Corps estimates that beneficial use has grown to an average of about 20 million cubic yards a year or roughly 25 percent of the material.

"In addition to beneficial use, which derives from the maintenance of navigation channels, the Corps has a growing number of programs devoted entirely

to environmental purposes," said Col. Thomas Julich, New Orleans District Commander. "All of these activities, and those of other federal and state agencies, are vital to the future of Louisiana, which has 40 percent of U.S. coastal marshes and 80 percent of the loss. The area has prolific fisheries."

New Orleans District dredges more than any other district because of how important navigation is to the region, which includes the largest port complex in America, and five of the top 11 U.S. ports on the lower Mississippi and Calcasieu rivers, and other navigation channels.

**Baptiste Collette Bayou.** The dredged material that built the six Bird Islands was pumped through a pipeline from Baptiste Collette Bayou, a 10-mile channel 85 river miles below New Orleans. This waterway connects the Mississippi River eastward with Breton Sound and the Gulf of Mexico. The Bird Islands form a chain about 2.5 miles long that parallels the seaward end of the Baptiste Collette Bayou channel.

The bayou is dredged annually, and beneficial use of the dredged material began in 1977, said Dr. Linda Mathies, a district biologist. "Overall, the Corps' maintenance dredging program has created more than 7,000 acres of wetlands since 1985, in Atchafalaya Bay, Southwest Pass at the main steamship mouth of the Mississippi River, Baptiste Collette, and other areas," Mathies said.

Baptiste Collette Bayou is opposite Venice, an offshore oil and fishing port whose vessels use the waterway. Other users include hunters and the nation's largest offshore sulfur mine. In addition, Baptiste Collette is sometimes crucial to inland barges and towboats during closures of the Industrial Canal Lock at New Orleans, which links the Mississippi River with the eastbound Gulf Intracoastal Waterway.

**Hurricane Georges.** "Although brown pelicans routinely use the Baptiste Collette Bird Islands for resting habitat, before this year they weren't known to nest on any of the Bird Islands," said Edward Creef, a district biologist. But Hurricane Georges in September 1998 virtually obliterated

the pelicans' nearby home, Grand Gosier Island. This barrier island has long been a major nesting ground.

Robbed of their usual nesting grounds, the pelicans moved to the nearby Baptiste Collette Bird Islands, and are thriving there.

Meanwhile, the district is planning a project to restore Grand Gosier Island under the Coastal Wetlands Planning, Protection and Restoration Act. This project would also use Corps-dredged material from a navigation channel. It is hoped that both Grand Gosier and Plover islands will be primary nesting areas for brown pelicans in the future.

**Recovery.** But hurricanes are not the only threat the pelicans have faced. Back in the 1960s, brown pelicans were wiped out in coastal Louisiana by chlorinated hydrocarbon pesticides such as DDT, said Lafayette-based David Frugé, the Louisiana chief of Ecological Services for the USF&WS. "Improved pesticide regulation, as well as protection and restocking efforts, have been the key to the continuing recovery of this species," Fruge said. "The brown pelican has been removed from the endangered species list in Florida and Alabama, but is still listed as endangered in the remainder of the Gulf region as well as in California."

**Flying fishing boat.** The brown pelican is one of seven pelican species. It is the smallest of the family, 42 to 54 inches long, 8 to 10 pounds, with a 6.5 to 7.5 foot wingspread.

The pelican is a flying fishing boat with a built-in dip net. As limericist Dixon Lanier Merritt wrote: "A wonderful bird is the pelican.

His bill can hold more than his bellican.  
But I don't see how the hellican"

The pelican is also a biological example of a wing-in-ground effect (WIG) aircraft. By flying within less than one wingspan above the water, pelicans and WIGs stay aloft using about half of the energy required at higher altitudes.

Finally, the brown pelican is Louisiana's state bird. It loves seafood, consuming up to four pounds of fish a day including sheepshead, mullet, menhaden and, on occasion, shrimp.

# Nuclear materials buried in Russia

By Zenovia Wilcox  
Transatlantic Programs Center

In 1991 the disintegrating Soviet Union faced dramatic changes, and the resulting instability led to fears that its huge arsenal of nuclear weapons would fall into the wrong hands. Responding to the worldwide safety and security concerns, Congress championed the Cooperative Threat Reduction (CTR) program in 1993 under Defense Department auspices. CTR is aimed at destroying weapons of mass destruction and establishing safeguards against the spread of those weapons.

A major project within the CTR program is the Russian fissile material storage facility. Its objective is to facilitate the safe, secure, and ecologically sound storage of fissile materials derived from dismantling nuclear weapons in the Russian Federation.

The Defense Threat Reduction Agency (DTRA), executive agent for the CTR program, asked Transatlantic Programs Center (TAC) to manage the team effort to complete this enormous design and construction project.

Each team member has a unique role in the design, construction, and operation processes. DTRA, as overall program manager, consolidates and streamlines all aspects of management and implementation of the CTR program. TAC oversees Bechtel National, Inc., which has contracted to provide integrated design, equipment, and construction services.

TAC also coordinates with other U.S. organizations (such as the Department of Energy, Los Alamos National Laboratory, and Omaha District) that are involved to assure the safety and security of the facility.

The Russian Federation has primary responsibility for the facility's design and operation. Its team includes the Mayak Production Association, part of the Russian Ministry of Atomic Energy; VNIPIET, the agency that leads the design efforts; and the South Urals Management Company, the Russian construction contractor.

Successfully integrating all team members will provide a completely usable facility that will safely perform all intended functions. The storage facility's primary functions are to receive pre-packed fissile material containers; perform security, accountability and nondestructive assay checks; and load the material into long-term storage. These primary functions are performed by advanced computer systems and other equipment. The equipment's degree of complexity varies from off-the-shelf units to items specifically designed, developed, and fabricated for their intended purposes.

Let's examine the incoming flow process of fissile material containers, along with some of the advanced equipment used. Once a shipment of fissile material containers arrives, it is pulled into the entry vestibule secured at each end by large blast doors. Then the shipment is checked for radiation and potential intrusion devices, the interior



These are just a few of the reinforced concrete nests that hold fissile material taken from decommissioned Russian nuclear weapons. (Photo courtesy of Transatlantic Programs Center)

blast doors are opened, and the shipment proceeds into the unloading area. The fissile material containers are moved throughout the process by a series of one-ton and five-ton overhead cranes. The cranes have been designed and manufactured to stringent standards for nuclear material handling and lifting devices.

Two intensive software control packages have been developed to handle processing the fissile material and controlling building systems. The first is the material control and accountability (MC&A) system. The MC&A system integrates computer hardware and software and radiation detection equipment designed to verify that received fissile material matches what was shipped. The system determines the ultimate storage location of each container, performs re-verification, and ensures that all fissile material is properly accounted for. The MC&A system is the data entry and retrieval brain of the storage facility.

The second system, the integrated control system (ICS), integrates a series of computers that monitor various subsystems such as emergency containment, ventilation and air conditioning, and physical protection. Nine subsystems provide continuous monitoring and status information to the ICS system control room.

Many steps occur before the fissile material containers ultimately arrive at their final storage destination. The final destination for this weighed, bar-coded, and logged material is the long-term storage area, which is a large reinforced concrete nest resembling a honeycomb. The storage nest has the capacity to store 25,000 containers for 100 years. The containers are loaded into the nest by a specially designed and fabricated piece of equipment called the reloading machine.



Both U.S. and Russian expertise is used to build the facilities for the nuclear material storage facility. (Photo courtesy of Transatlantic Programs Center)

The reloading machine has a large bridge rail upon which the transfer unit travels. The transfer unit is a crane with a shell designed to house a complete shroud. (A shroud consists of four fissile material containers, each in its own wire frame basket).

To that unit is attached an operator control unit equipped with a closed circuit television camera (mounted on the telescoping hoisting device used for precision placement) and a complete control system.

The control system has both manual and semi-automatic operations that control speed, positioning, crane, and telescoping device end positions.

The reloading machine is also equipped with a separate detection sys-

tem for complete radiation monitoring of the shroud during loading and unloading. It is currently in the design phase of development.

This equipment is only a small portion of the technical innovation used on this project.

The nuclear storage facility is well on its way to completion, as are a host of ancillary buildings such as administration, entry control, diesel generation and fire station. U.S. funding for the project has been incremental and will total about \$400 million.

The U.S./Russian team continues to marry their methods of design and construction to obtain a safe, secure, and operational facility. The project is scheduled for completion in 2002.

# Circuit rider on the trail in L.A. District

Article by Tom Kirkpatrick  
Photo by Kathy Kirkpatrick  
Los Angeles District

## Circuit rider.

A Bible-toting preacher roaming the countryside spreading the gospel to frontier settlements is probably the most common image those words bring to mind. Others might think of judges traveling the Old West on horseback to dispense hard justice to rowdy cow-towns.

Whatever image from the past comes to mind, the concept of the circuit rider has survived and is alive and well. Their missions are similar to the old days, too — spread the word, educate and help the flock (or field), and implement change for the better.

True, the modern circuit rider travels by car or jet airliner and not horseback, sleeps in a hotel and not under the stars, and eats restaurant food and not beef jerky and jackrabbit. But there's still a lot of traveling, and there's no shortage of challenges on the road.

A little more than 10 years ago, the idea of a contracting circuit rider came to some leaders in Los Angeles District and South Pacific Division. At the time, a lot of sweeping changes were happening in the federal procurement system, including implementation of the Defense Acquisition Workforce Improvement Act (DAWIA) and the emergence of the Army Acquisition Corps in 1989.

With this came a need to transition from the traditional Corps system of maintaining warranted Resident Contracting Officers (RCO) in the field to the Federal Acquisition Regulation (FAR) system that used Administrative Contracting Officers (ACO). It wasn't just a name change, either. Not only would monetary authority of the RCO double, but everyone with a contracting warrant had to take a series of lower and upper division acquisition courses taught by the Defense Acquisition University.

As if this were not enough, the position of contracting officer, traditionally a role of military commanders and deputy commanders in the Corps, was due to shift to civilian contracting personnel.

Big changes were happening fast. Some of the old procurement processes were going out the window and there was a lot of head-scratching about where it would all lead. The old saying, "Before you can walk, you have to crawl" wasn't going to cut it; contracting people had to hit the pavement running.

The circuit rider program blended and unified the disciplines of contracting and construction by putting someone with contracting expertise on the road to work directly with the construction folks. The circuit riders' missions would be to provide advice, assistance, policy guidance, contracting oversight, and training to field offices responsible for administering the district's contracts. The circuit rider needed a



Although Tom Kilpatrick does not ride a horse in his line of work, he posed with his friend Waylon to pay tribute to the circuit riders of long ago.

strong background in both construction and the federal acquisition system, and had to be part of the contracting career program and work for Contracting Division.

The program designers realized there would probably be initial resistance to a contracting representative traveling in the field with genuine contractual authority outside the traditional construction supervisory chain of command. But it was in the district's long-term interest to forge ahead with the program. After all, it offered the district a unique system of checks and balances and a working field contract administrator all rolled into one.

South Pacific Division authorized circuit rider slots for contracting divisions in Los Angeles and Sacramento districts and, in March 1989, Los Angeles District hired the first circuit rider. Despite any initial doubts, it has worked out very well. The program and the original circuit rider, Tom Kirkpatrick, are still around 10 years later, and so are the resident engineers with their ACO warrants.

Here are a few tales from the past 10 years of circuit riding for Los Angeles District.

The first real circuit ride was part of the district's emergency response to the 1989 Loma Prieta earthquake. With one of the district's first laptop computers, Kirkpatrick provided on-site contracting assistance to the Santa Cruz Emergency Resident Office to get disaster response and reconstruction contracts in place. For several weeks, he provided contracting assistance and technical support for the Santa Cruz and Watsonville area levee repairs.

Since then, the circuit rider has been an integral part of the district's Emergency Response Team for flood response, whether it be on site, on call, or as contracting officer and field contracting support.

"No train, no gain" was an idea

implemented by the circuit rider early in the program to provide fast-track instruction for ACOs. DAWIA mandated that a series of college-level contracting courses be successfully completed to maintain ACO appointments. So the district developed a seminar to furnish contract administrators a structured review of federal and DoD acquisition regulations. For three days, resident engineers and other key contract administration personnel engaged in an intensive survey and overview of the federal acquisition system, with the goal of taking an equivalency examination instead of attending the four-week basic contracting course. The idea was not to teach the actual regulations but to re-acquaint experi-

enced personnel with the structure, layout, and content of the FAR and DFARS in the same way a person in the private sector would prepare for an examination in the Uniform Building Code.

Engineers and bean counters got together on a remarkable approach to pricing changes at the Seven Oaks Dam project. Team building initiated by the circuit rider with the Defense Contract Audit Agency (DCAA) brought the district an on-site direct-funded auditor. Despite any initial doubts, the program has developed into cooperative partnership saving millions on the project.

The new millennium is bringing new challenges for the circuit rider program. Customer care has always been a priority throughout the Corps. Now the emphasis includes customer outreach. The contracting tool bag is expanding to serve a broader customer base with a variety of contract types and provide the services that are in demand.

In the new millennium, the circuit rider credo is to support expanding missions through a program of on-site training, assistance, and policy guidance. This will continue to include contracting support for all contracts administered in the field, and providing specialized reviews and assistance on negotiated actions via e-mail or fax.

The circuit rider also continues to administer service and other specialty contracts in concert with field offices, and works to promote programs for the development of locally sustainable expertise using the latest acquisition advances.

For more information about L.A. District's circuit rider program, e-mail circuit rider Tom Kirkpatrick at [tkirkpatrick@spl.usace.army.mil](mailto:tkirkpatrick@spl.usace.army.mil)



## Gridley honored

Col. Brian Ostendorf, New England District Engineer, and the NED Ranger Color Guard salutes Col. Richard Gridley, first Commander of the Corps of Engineers. Ostendorf laid a wreath at Gridley's grave in the Canton Corner Cemetery in Canton, Mass., to mark the Corps' 225th birthday. (Photo by C.J. Allen)

# Around the Corps

## Outstanding Public Service

The Chief of Engineers' Award for Outstanding Public Service was presented to Lt. Gen. (ret.) Ernest Graves Jr. The award is given to recognize retired engineer officers who never served as Chief of Engineers, but who made outstanding contributions to national defense or world affairs. It is given only by unanimous vote of the current and retired Chiefs of Engineers, and only nine awards have been given since its inception in 1970.

While with the Corps, Graves served as Commander of the former North Central Division, Director of Civil Works, and Deputy Chief of Engineers. During his career, he was Director of Military Application at the U.S. Atomic Energy Commission, and Director of the Defense Security Assistance Agency.

Graves retired from the Army in 1981. As a fellow and senior advisor at the Georgetown University Center for Strategic International Studies, he contributed to foreign assistance policy discussions, particularly in military and economic aid to Africa.

## Kissimmee River work

With the thunder of explosives, the 35-foot S-65B water control structure on the Kissimmee River came tumbling down. The first blast occurred June 19, allowing heavy equipment to bury it and the area to become part of the floodplain. The final blast took place June 21.

"Restoring the Kissimmee River floodplain will help restore the wetlands of the river basin," said Frank Finch, Executive Director of the South Florida Water Management District (SFWMD). "Razing the S-65B structure and lock means we are well on our way toward completing the first phase of this unprecedented ecosystem restoration project."

The first reach of the project, a joint effort between the Corps and SFWMD, began June 10, 1999 with backfilling 7.5 miles of the C-38 canal to restore flow to 14 miles of the river's channel and reestablish thousands of acres of wetlands. When all four phases (or reaches) are complete, the project will backfill 22 miles of canal, restoring flow to 43 miles of channel.



Explosives destroy structure S-65B on the Kissimmee River in Florida. (Photo courtesy of Jacksonville District)

## New air control tower

Massachusetts Congressmen John Olver and Richard Neal joined Col. Brian Osterndorf, New England District Engineer, and Col. Martin Mazick, Wing Commander at Westover Air Reserve Base, in a groundbreaking on June 19 to kick off building a new air control tower.

Work on the new 123-foot high air control tower began immediately after the ceremony. The \$4 million project is scheduled to be completed in January 2002.

The existing tower was built in 1962. The 105-foot tall structure is deteriorated, has limited equipment space, lacks training space and administrative and management functions, has substandard mechanical systems, and is inadequate to meet the current mission.

There are three phases to the project. Phase one

will be to build the new control tower ready for use within 425 calendar days. Phase two will allocate time for Westover personnel to install new equipment and relocate some equipment from the old tower to the new. This phase is scheduled to take 90 days. The final phase will be demolition and removal of the existing tower, which should take about 115 days. The contractor is Westcott Construction Corporation.

## Water work honor

An Honorary Membership, one of the highest honors awarded by the American Water Works Association (AWWA), has been conferred on Dr. Emilio Colon, Project Manager of the Antilles Office of Jacksonville District. The award was presented at the opening general session of the AWWA annual convention in Denver.

"Emilio Colon belongs to a select category of professionals whose knowledge and accomplishments in water supply entitle him to receive this recognition," said Steve Gordon, AWWA President.

AWWA is the largest nonprofit international organization of water supply professionals dedicated to improving drinking water quality and supply. Honorary Members are selected by the Board of Directors who consider the qualifications, achievements, and contributions of individuals in the water profession in the U.S., Canada, and Mexico.

## NSPE Federal Engineer of Year

The National Society of Professional Engineers (NSPE) has named Dennis Norris, Chief of River Operations Branch in Vicksburg District, as their Federal Engineer of the Year. Norris competed against 10 other engineers from 35 federal agencies.



Dennis Norris

As Chief of River Operations, Norris manages channel improvement, dredging, levee repairs and navigation on the lower Mississippi, Red, Ouachita/Black and Pearl rivers. He is also responsible for the bank re-vegetation operation on the Mississippi and Atchafalaya rivers.

Norris manages 113 pieces of floating equipment and an annual budget of \$55 million.

## Gold medal

Kansas City District has done it again! It took the gold medal in Division C of the Kansas City Corporate Challenge (KCCC). This marks the third time in the past four years the district has come out on top in the competition. It has placed first or second in the KCCC every year during the past six years. It also won the Spirit Award this year.

The district team competed against 20 other companies in Division C, earning 665.5 points against its nearest competitor's 619.5 points. One hundred fifty-one district members participated.

## IMPAC tip

For four years, Los Angeles District did not have real-time visibility of their International Merchant Purchase Authorization Card (IMPAC) Program approving official (AO) accounts. This led to numerous interest penalties. So the district developed a query using the Customer Automation and Reporting Environment System (CARE) Internet site.

The report provides daily balances for all of the district's Level 4 AO accounts. The IMPAC Organization Program Coordinator e-mails the report to AOs weekly as feedback for how well the district is paying its IMPAC bills. After instituting this process in March, by May L.A. District had gone from 12 of its 49 AO accounts with past dues balances totaling more than \$80,000 to three AO accounts with past due balances totaling less than \$15,000.

If you want to develop your own report for tracking your AO accounts at the 1, 2, 3, and 4 levels, please visit the L.A. District website at [www.spl.usace.army.mil/ct/ct.html](http://www.spl.usace.army.mil/ct/ct.html). There you will find a link to a list of instructions entitled CARE report instructions.

## Big green crime-fighter

The Engineer Research and Development Center (ERDC) recently assisted law enforcement officers in Vicksburg, Miss., in their Night Out Crime Watch program. The Geotechnical Laboratory loaned a Bradley infantry fighting vehicle to the Vicksburg Police Department to promote the program, which is designed to raise crime awareness.

The police parked the armored vehicle at one of the busiest intersections in Vicksburg where about 25,000 vehicles pass daily. During the week-long program, Officer Doug Arp lived in the Bradley and was available to talk about crime prevention.

## 225 years

# 'That regiment can do anything!'

*(This is another in a continuing series of true stories from the history of the U.S. Army Corps of Engineers to commemorate the Corps' 225<sup>th</sup> year. All material is from the History Office publication, "Historical Vignettes - Volume 2," EP 870-1-1, available on-line under USACE Publications, Engineer Pamphlets, Historical.)*

During World War I, the 2<sup>nd</sup> Engineer Regiment of the 2<sup>nd</sup> Infantry Division was considered one of the best regiments in the American Expeditionary Force (AEF) in France. Because of its bloody engagements in Belleau Woods, Chateau Thierry, Soissons, and Meuse-Argonne, the division's infantry units sustained the highest percentage of major casualties among AEF units — 30.08 percent.

The 2<sup>nd</sup> Engineers, moreover, stood 15<sup>th</sup> on the list of casualties with 12.73 percent, by far the highest of any engineer unit.

The reasons were simple — the trench war was preeminently an engineer's war. Cutting barbed wire entanglements, putting them up, digging bunkers, machine gun positions, and trenches, and often fighting as infantry.

Throughout its time in combat, the regiment maintained high morale and unexcelled performance in all its assignments. An unnamed American general said that "the 2<sup>nd</sup> Engineers is the best regiment I ever saw...The regiment has assisted the artillery, has helped the tanks, built railroads, manned machine guns and fought time-after-time as infantry. That regiment can do anything!"

One reason for its excellent performance was the high standards its officers and men required of themselves and each other. These standards applied throughout the regiment and were vigorously enforced.



## Lt. Gen. Joe Ballard retires

Lt. Gen. Joe Ballard, the 49th Chief of Engineers, retired on Aug. 2 in a special retirement review ceremony in Comny Hall at Fort Myer, Va. (Left) Ballard and Col. Thomas Jordan, commander of the 3rd U.S. Infantry (The Old Guard) review the troops. (Right) Ballard and his wife Tess salute the flag during the playing of the National Anthem. In the background stands the Continental Color Guard of the 3rd U.S. Infantry. (Photos by F.T. Eyre)

# Park rangers take Spanish classes

By Melanie Dickens  
Little Rock District

America is an English-speaking country, but our traditional welcome of immigrants has made language barriers a fact of life in our nation.

Little Rock District recreation projects in southwest Arkansas are welcoming an increasing number of Hispanic visitors. The projects' proximity to Texas and job opportunities for workers in the area have contributed to rapid population growth. The growing number of Hispanic visitors has prompted the need for Corps personnel to prepare to communicate better, especially in the event of an emergency.

This communication problem became clear a few years ago, when two Hispanic men were reported shooting at each other at the swimming area of a park. Millwood ranger Robin Grooms said that by the time rangers were called in, the dispute had moved to the park entrance.

"Our rangers walked right into the middle of it," Grooms said.

The language barrier made it a difficult situation even harder to control, but Grooms said that the rangers did their best until county deputies arrived.

"Luckily the situation did not get as serious as it could have, but we want to be more prepared," she said.

To get prepared, Grooms called Cossatot Technical College. The college staff not only helped develop a program for the rangers' needs, they also found an instructor. Curtis Black, a teacher and coach at Horatio High School, visits the Millwood office one or two times each week to hold class.

"Coach Black is very patient with us," said Fredalyn Hubbard, support services assistant at Millwood. "Some of the students have not spoken Spanish before and have a difficult time with pronunciation. He makes it interesting by having team contests, pop quizzes, and handouts."

After only four classes, the students have learned much more than they expected. Besides teaching basics, much of the lessons are catered especially to the needs of the rangers and other personnel.

"We started with numbers, colors, and basic vocabulary and phrases," Black said. "Now they can ask questions like 'What is your address' or 'How old are you?'"

Black says he thinks that they have a good learn-



Steve Spicer, lake manager, sticks a label on Roy Burk, forester, who is helping his class by having his body parts labeled with Spanish names. (Photo courtesy of Little Rock District)

ing program, and that with the growing population, everyone could benefit from learning some conversational Spanish.

"I've had instances where I couldn't get a visitor to comply with my request to stop unsafe actions because I couldn't speak Spanish. That was kind of embarrassing," said ranger Titus Hardiman. "The course we're taking will help me to communicate



Ranger Caleb Brunsen talks to two Hispanic visitors at Millwood Lake. (Photo courtesy of Little Rock District)

with visitors who can't speak English."

Along with developing skills to communicate better with the growing Hispanic population, the class is also helping Millwood personnel understand cultural differences.

"The Hispanic population has a different culture and ways of doing things that we don't understand sometimes," said park ranger Jamie Camp. "This class will help us understand and communicate with them a little better."

All cultures have slang words that they use. Usually, those words aren't taught in formal Spanish classes, but Black has a friend who knows "Tex-Mex," a slang version of Spanish. Often students raise questions about "Tex-Mex" words or phrases, and Black consults his friend and get the correct translation.

While the Corps students are mostly park rangers, there also are facility maintenance inspectors, a forester, a construction inspector, park managers and administrative personnel taking the class to hone their Spanish-speaking skills.