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Corps team repairs oil pipeline in Iraq

Repairs give people of Basra first full-time electric power since 1991

Article and Photos
By Steve Wright
Camp Doha, Kuwait

The 155mm (six-inch) artillery rounds arced toward their target during Operation Iraqi Freedom. Just before impact, a charge inside blew off the shells' back plates and expelled 88 M-42 mini-grenades. Armed by a ribbon trailing each one, the mini-grenades (also called submunitions) stitched across the target area and exploded on impact.

But *not* all of them exploded. Seventy-two M-42s landed in soft earth and sand along a series of parallel pipelines laid across the desert floor. There the mini-grenades rested, still armed to explode.

One of the empty 155mm shell casings struck the soft earth and punched a hole through the seam of a 26-inch pipeline. It lay unnoticed inside the unused oil pipeline for weeks after hostilities ended.

Damage

The hole wasn't discovered until crude oil was pumped from one of Iraq's Rumaila Field Gas/Oil Separation Plants (GOSP) destined for the Az Zubayr Pump Station. Then, under pipeline pressure of 700 pounds per square inch, Iraqi crude shot skyward from the hole punched by the shell casing.

Pressure testing the pipeline normally would have revealed the damage. But the equipment and gauges that would reveal problems with the line were missing. They may have been looted, or the Iraqis may have never invested in them.

Oil gushing from the pipeline flowed like a stream along an adjacent road and ponded behind a series of dams hastily designed and built by the U.S. Army Corps of Engineers' contractor Kellogg, Brown, and Root. The excess oil flowed into pits excavated to impound previous oil spills along the pipeline.

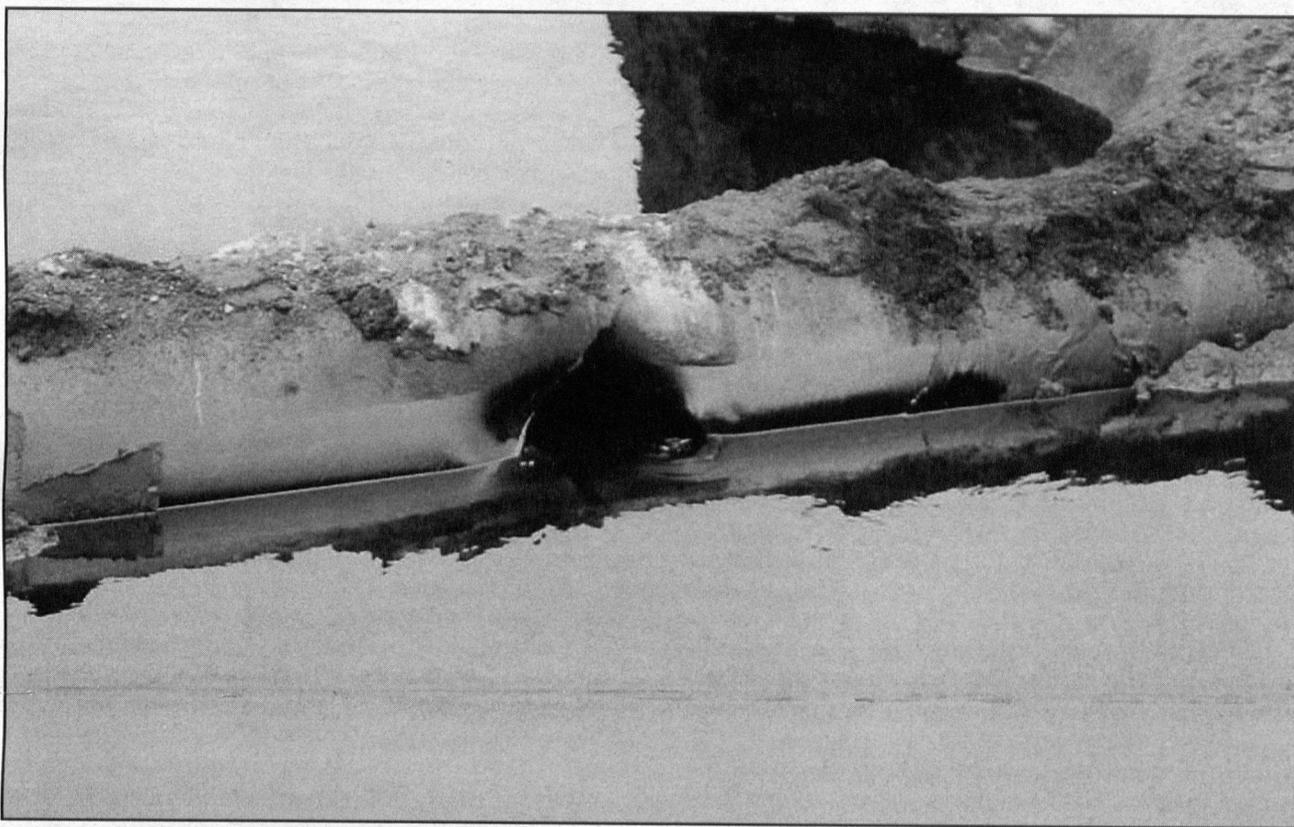
Repairs

"We're capturing the oil at this low spot in these pits that have been used before," said Brett Cowan, a Tulsa District civil engineer, providing quality assurance oversight of the cleanup. "It's being suctioned from the holding areas to the 5,000-gallon tanker truck, then taken to storage tanks. We've removed 28 trucks like this one, and we'll work until we get all the oil. From there it will go to storage tanks, and can go back into the system to be refined."

Unexploded ordnance. Cowan was at the low end of the spill. Several miles up the road Jim Walker, Huntsville Center safety specialist, oversaw the identification of ordnance surrounding the pipeline. A 15-foot wide path free of ordnance had been identified and flagged from the road to the damaged pipeline. On either side of the path, Ron Madden, a Corps contractor, pointed to mini-grenades that had been spray-painted orange along with the surrounding soil.

Madden is an unexploded ordnance supervisor working for EODT from Oak Ridge, Tenn., and familiar with the sensitivity of the M-42 submunitions.

Destroy in place. "We're going to detonate



The damage to this Iraqi pipeline was caused by an artillery shell casing. The pipeline was repaired and the oil cleaned up by KBR, contractor for the Corps' Team RIO (Restore Iraqi Oil).

these munitions by placing a small charge right beside them, and they'll explode when we detonate this charge," Madden said. "We don't move them. They're too dangerous for that."

About 10 percent of the munitions, nested like teacups inside the 155mm shell, do not explode and remain a dangerous war remnant.

"To leave this many small munitions, there were more than a few shells fired," Walker said. "We have to be careful here because of the pool of oil surrounding the pipe. We want to make sure we don't have a problem with any M-42s submerged in the oil."

Unusual. Walker said the penetration of the pipeline by the 155mm shell casing was unusual.

"It had to land in the right spot to do the damage it did," Walker said. "It just happened to hit the pipeline at the seam three feet underground. It's not likely, but these shells have to fall *somewhere* on the battlefield."

Painstaking. Helping restore Iraq's oil infrastructure is a painstaking process. The pipeline and the oil spill were temporary setbacks. Working together, the Corps and Southern Oil Company workers fixed the pipe.

Madden and team members then walked the length of the pipeline from the GOSP to the pump station 40 kilometers (about 25 miles) away. After the section of the pipeline was repaired, no other problems were found, and the first oil produced in Iraq after the hostilities flowed through this connector from the oil wells to the refinery, and from there to Basra's electrical power plants.

Success can be measured in several ways. Under Cowan's watchful eye, the oil spill was cleaned up and the pipeline repaired. Next, the unexploded ordnance team working with Walker exploded the M-42s in place, mak-



Demolition specialist Ron Madden checks out an unexploded M-42 submunition from a 155mm artillery round. The submunitions were marked with orange spray paint and detonated in place.

ing the area along the pipeline safe.

Electricity

Most important is the victory of helping the people living in Basrah, who experienced their first full 24-hour period of electricity since 1991. The resumption of oil delivery gave the Basra area powerplants enough crude oil to generate electricity, and turn on the lights.

(Steve Wright is the Public Affairs Officer of Huntington District. He is currently working in Operation Restore Iraqi Oil (RIO) with the Forward Engineer Support Team Main (FEST-M) at Camp Doha, Kuwait.)

Insights

The 'Politically Correct Way' vs. the 'Army Way'

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

The Good Book says there is a time and place for everything. Well, the time has come for me to leave the U.S. Army Corps of Engineers, and the place for me to go is Fort Carson, Colo. By the time you read this, I'll probably be on the road heading west.

I must say that being the chaplain for the Corps has been a wonderful experience. I'm proud to have been a part of this great organization, to associate with so many wonderful professionals, and to learn a little bit about the many great things that our Corps is doing for the Army and our nation.

As I go, I leave you in the capable hands of Chaplain (Col.) Mark Fentress. Mark is an old friend, and I know he will serve you well.

During my three years as your chaplain, I've been able to visit about 90 percent of the Corps, and I've talked to thousands of our Corps family. During my visits, I've been asked many questions, but one question is by far most frequently asked. Since this is the last "Insights" I will contribute to the *Engineer Update*, I thought it would be appropriate to address that question in this column.

The question is, "How can you be the chaplain for an organization as religiously diverse as the Corps of Engineers?"

The answer is, Army chaplains have been ministering to multiple faith groups for more than 227 years and, since I'm an Army Chaplain, I do it the way I've been taught — **The Army Way.**

To minister to people of other faiths, one has to be ecumenical. As I see it, there are two basic approaches to being ecumenical. I'll call them the "Politically Correct Way" and "The Army Way."

With the Politically Correct Way, we look for the things

that all religions have in common and throw everything else away. Then, in an effort to not offend *anyone*, we limit people of all faiths to the free exercise of what is left.

The trouble with this approach is that it's *impossible*. Even if it *were* possible, no one would want what was left because it would not satisfy anyone.

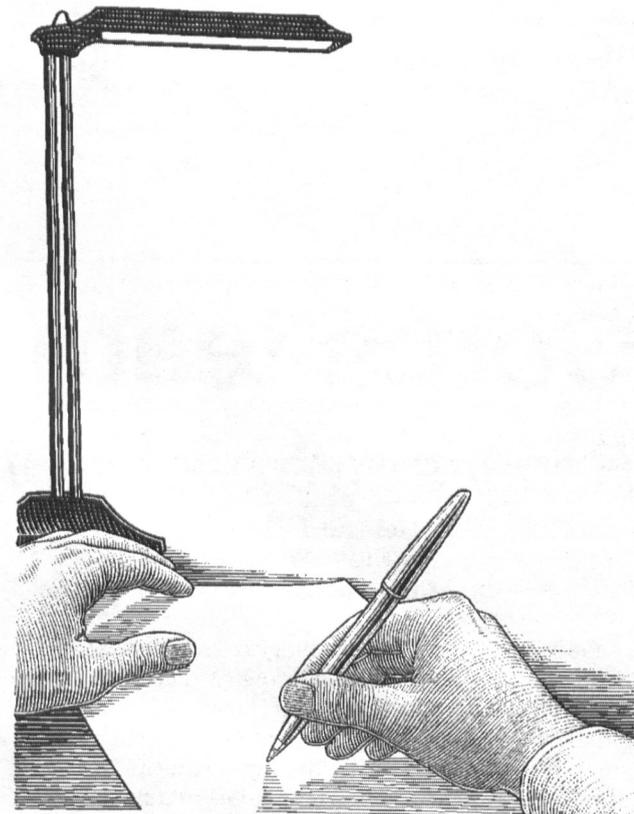
With The Army Way, we accept the fact that there are differences in our beliefs. We not only *accept* the people with a different belief system, we *encourage* everyone to wholeheartedly embrace their faith, and to be what they are without apology.

While the Politically Correct Way says "Don't offend me" (and some are easily offended), The Army Way says, "Be who you are, and I won't be offended by our differences." The Politically Correct Way is restrictive and exclusive, while The Army Way is accepting and inclusive.

Therefore, as an Army Chaplain, I encourage my people to "Be All They Can Be." Be more than just a Baptist, be a *good* Baptist. Don't just be a Jew, be a *dedicated* Jew. Don't be just a Hindu, be the *best* Hindu you can be. Etc. etc.

Further, as an Army chaplain, I am mandated by Congress to ensure the free exercise of religion for everyone in my area of responsibility. For example, I made sure that the Muslim members of our Corps family here in Headquarters have a prayer rug in our Prayer and Meditation Room, even though I don't personally need one.

Also, in the effort to be ecumenical, Army chaplains often use the phrase, "Perform or Provide." This means if I can't perform a service, I will *provide* it. For example, if you're Catholic and want to have your child baptized, then you need a service that I can't perform. But I can provide it. Give me time and I'll provide the service by finding you a priest and helping you find a



location. This system has worked for 227 years, and continues to do so.

So, in keeping with the spirit of the Army Chaplaincy, I conclude my tenure with the United States Army Corps of Engineers by encouraging everyone, regardless of your faith, to be *strong* in your faith, and to let your neighbor do the same.

(Editor's note -- During his tenure as the Corps chaplain, Col. Moore has written an "Insights" column each month for the "Engineer Update." His columns garnered an overwhelmingly positive response — and some controversy — and have been a bright spot in each issue.

Writing a regular column is a grueling task, and Col. Moore has done it faithfully and well. Thank you, Col. Moore, for a job well done.)

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

Armed Forces Network gets new home

Article by Brian Temple

Europe District

Photos by Susanne Bledsoe

Baltimore District

Don't touch that dial...!

...the American Forces Network Europe will be right back...!

In May, the AFN Europe staff and equipment began a phased move from Frankfurt, AFN's home since 1966, into a renovated barracks at Mannheim's Coleman Barracks. The audience probably won't even notice the move in the fall of 2003, since it will take place with uninterrupted radio and television service.

Customer involvement

Construction managed directly by Europe District is moving quickly, and the building will soon be equipped with high-tech television and radio studios, as well as new offices.

The customer is itching to move in.

AFN Europe Commander, Lt. Col Michael Edrington, said his staff has been involved in the building's design, ensuring the facility will be state-of-the-art.

"Right now, in Frankfurt, we're installing a lot of systems, kind of ad hoc, into an old facility," Edrington said. He said the Mannheim facility is more innovative, featuring a back-up power generator and high-vacuum ventilation and cooling systems designed specifically for broadcasting.

Edrington said working with Klebl GmbH, the primary contractor, and Europe District throughout design has enabled AFN to get exactly what they need. The facility itself is not the move's only plus, said Edrington. "The other benefit is being on a military base where we're back with the family, so to speak," he said.

Although AFN has enjoyed many years

Continued on next page



Europe District turned Bldg. 23 at Coleman Barracks in Mannheim, Germany, over to American Forces Network Europe in May. The former barracks building will become AFN Europe's new studios and office space.

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Cartoon carries water safety message

By Dorothy Seals
Little Rock District

Park rangers, safety officials, and public affairs specialists typically spread the water safety message for the U.S. Army Corps of Engineers. But three employees from different Corps districts, none with "public safety" in their job descriptions, have joined forces to produce an award-winning tool for the National Water Safety Program.

Bobber the Water Safety Dog is an animated cartoon created by Toby Isbell, a visual information specialist for Little Rock District, and Michael Jordan, a civil works program manager for Southwest Division (SWD) in Dallas. Don Harris, Chief of Management Support Branch in Fort Worth District, supplies the voices.

Programs in water safety education are needed, especially for inexperienced and younger lake patrons.

"I've worked with the Corps for 24 years and enjoy visiting different projects," Jordan said. "But I always cringe when I hear of drownings, especially children. This is something that I want to do something about."

The idea to use Macromedia Flash Animation Software as a tool to spread the water safety message came after Jordan viewed some of the work Isbell sent to Paris Embree, a mutual friend and former Little Rock District employee who currently works at SWD with Jordan.

Impressed with what he saw, Jordan went to work.

"I contacted Lynda Nutt, manager of the National Operations Center for Water Safety in Walla Walla District, to see if she would help us with," Jordan said.

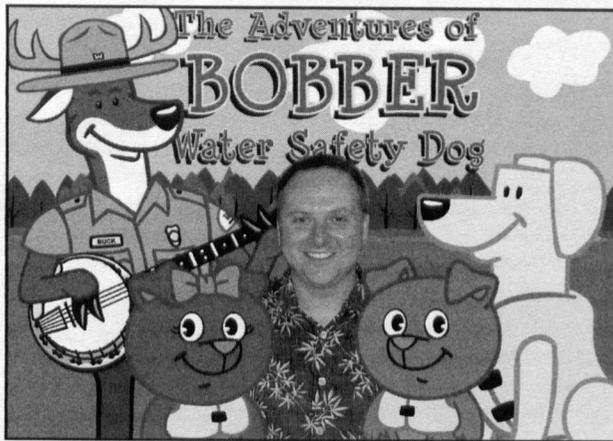
Using animation to reinforce water safety is a creative way to get across an important message. Nutt said she loved the idea because of the "edutainment" value.

"As a former interpretive ranger, I've learned that you have to entertain your audience before you can educate them," Nutt said. "This is fun and entertaining, so it will be watched."

With support from Nutt and their respective supervisors, Isbell and Jordan ran with the idea, and within six months Bobber emerged.

"The mood is fun and lively, just like when you visit one of our projects," Jordan said. "It has a happy feeling with the positive characters. There's always a happy ending."

Isbell said the cartoons consist of different characters getting into trouble while boating and swimming, but "Bobber the Water Safety Dog is always around to rescue them and encourage them to be safe."



Toby Isbell with his water safety friends Ranger Buck, Corkey, Sinker, and Bobber. (Graphic by Toby Isbell)

Two puppies, Corkey and Sinker, and an old, grumpy bulldog named Tackle are Isbell's star performers. The puppies demonstrate swimming safety lessons.

"Corkey sets the good example, while Sinker, as his name implies, has a tendency to sink and has to be rescued by Bobber," Isbell said.

Tackle, a retired football mascot who lives in a doghouse boat and fishes for catfish, demonstrates boating safety, or lack thereof.

"Tackle doesn't wear a life jacket while he's fishing, but he has one in the boat," said Isbell. "It's not against Arkansas law to fish without wearing a life jacket, so a lot of fishermen don't. But by Tackle not wearing one and getting into trouble, he shows how important it is to actually wear it and not just have it with you."

Ranger Buck is a park ranger deer who articulates the water safety message.

As the graphic artist and designer, Isbell said that he is excited about the project.

"We're taking advantage of new technologies to put a fresh spin on the basic water safety message," Isbell said. "This helps keep people interested and aware."

The first Bobber episode featuring Corkey and Sinker shows the importance of wearing a life jacket in open waters. Nutt said, however, there are other important messages within this section.

"Other subliminal messages are built in nicely," Nutt said, for example, knowing your limits and the importance

of parental supervision.

Isbell said that he expects this first episode to be finished in time for this swimming season. Two other episodes are being developed as well.

"After the first one is finished, production of others will move faster because the characters have already been drawn," Isbell said. "It's not like traditional cartooning where everything is redrawn over and over. These characters are like puppets, so I can move them around without having to redraw them."

Both Isbell and Jordan said the biggest problem in creating the Bobber cartoons is working from different zip codes.

If overcoming the distance between Little Rock and Dallas wasn't enough, Isbell and Jordan must also coordinate with Harris, the voice of Ranger Buck.

"Don is such an important part of this cartoon," Isbell said. "His participation is necessary because he defines the voice of Ranger Buck. He's the only character who talks in every episode."

"We're truly a virtual team," Harris said. "We've had conference calls to work out details of how the total project should look and feel. We don't have to be together to get the work done, but we *do* have to be in agreement on the process and concept."

Jordan added that the common goal of water safety makes it all much easier and worthwhile.

"Everyone working with us has strong feelings because we are dealing with life and death when it comes to water safety," Jordan said. "We can make an impact by educating people on the importance of learning to swim and wearing life jackets."

Distribution plans for the Bobber cartoons include a website where Corps districts nationwide, as well as other organizations spreading the water safety message, could link from their respective homepages.

Isbell said he hopes the cartoons will encourage more positive interactions between park rangers and children.

Isbell and Jordan received the Lifeline Award on April 14 for the project during the International Boating and Water Safety Summit in Las Vegas. This award is given annually by Corps headquarters for significant contributions to the National Water Safety Program.

"It is great to have received this award so early in the project's development," Isbell said. "Hopefully, this will draw more attention to it and help spread the message."

(Editor's note - See Bobber and his friends at www.swl.usace.army.mil/bobber)

AFN Europe

Continued from previous page

in Frankfurt, local support for soldiers and employees has vanished since the U.S. military community closed there.

Needs a new home

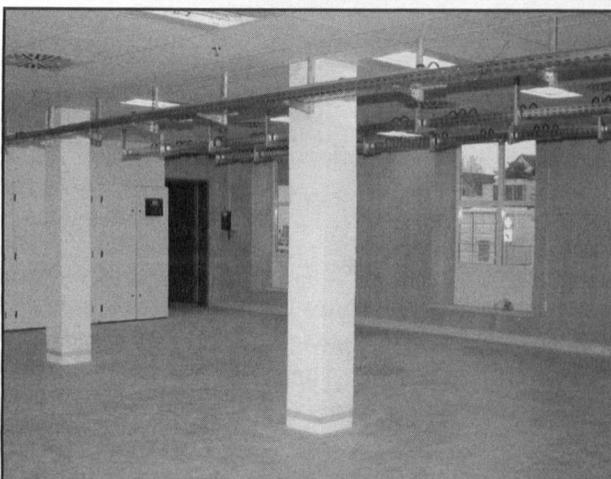
"The doctors are far away, the gyms are far away, as are the other facilities," Edrington said. "We're looking forward to moving in but, more than anything...it gives us an opportunity to move closer to the community we serve."

And service and innovation have been a greater part of this \$6.1 million project, said Lalit Wadhwa, Europe District project manager. The design team used an innovative technique that yielded quick, quality service to the customer.

Expedite

"It was an expeditious design process, and this [project] was the very first one," said Wadhwa. "We thought out of the box. It's a very different way of doing business."

Wadhwa said the design team had about 120 days to design and award the contract. Requests for Proposals for specific disciplines such as architectural, electrical, and mechanical were released in stages to expedite the construction bidding process. This allowed work to be-



Raised floors and a new ventilation system are key elements in transforming the old barracks into state-of-the-art studios.

gin while another proposal went out.

"We gained time by doing that," Wadhwa said. "We didn't have to wait for everything to be finished before we sent out for proposals. We accomplished the design within the suspense dates and awarded the contact and were within budget."

The first of the project's two phases has been completed

within budget, on time, and without modifications. AFN personnel and the contractor were involved from the start, especially because heavy structural design was needed to alter the barracks into a major broadcast operation.

"We designed it and the AFN team worked with us," Wadhwa said. "We reviewed the contractor's construction submittals on a regular basis and worked as a team so there wouldn't be modifications in the first place. The first phase is the major and critical phase of construction. I'm very proud of the design team. This is one of the best teams I've ever come across in all the years I've been with the Corps."

Once in a lifetime

Wadhwa said a project such as the AFN headquarters is a once-in-a-lifetime opportunity. Michael Greeb, a liaison with Klebl's project office for construction, agrees.

"I've never built a TV studio or a radio studio before. It's been interesting," Greeb said. "We've all worked together as a team because otherwise this wouldn't have worked. Getting together as a team and working smoothly is not necessarily normal. Strong partnerships are not found everywhere. It depends on the people."

Wadhwa said that by June the Corps should be finished with the second and final phase and prepared to turn the building over to AFN.



The family housing units at Fort Belvoir have the latest modern appliances.



This new housing area at Fort Detrick will accommodate families.

New housing built for soldiers, families

Article by Chanel Weaver
Photos by Susanne Bledsoe
Baltimore District

Today, a stroll through almost any U.S. town reveals a renewed sense of pride and support for American soldiers. Whether it is by displaying an American flag, purchasing a patriotic bumper sticker, or wearing a patriotic T-shirt, Americans are eager to show their pride in the defenders of their freedom.

The U.S. Army Corps of Engineers, too, prides itself on being one of the most diligent supporters of the U.S. armed forces. Since its inception more than 200 years ago, the Corps has always followed the mission of serving the nation's soldiers in peace and war. While the Corps displays American flags and supports soldiers in other ways, it goes a step further by building quality housing for U.S. soldiers and their families.

Three Baltimore District projects (renovating housing at Fort Belvoir, Va., and Fort Detrick, Md., and building new barracks at Fort Meade, Md.) prove that the Corps is committed to providing American soldiers with quality family housing.

Fort Belvoir

In July 2001, the U.S. Army Corps of Engineers, in partnership with Harkins Builders, a construction company in Marriottsville, Md., began the revitalization of 148 family housing units at Fort Belvoir. Glenn Morsey, assistant area engineer at Fort Belvoir, said the original housing at the installation was in poor condition.

"There was termite damage in some of the houses, and many of them were old and worn out," said Morsey.

But, today, the housing units have been completely renovated to include new ceilings, floors, electrical systems, and other amenities.

Morsey said the partnership between the Corps and Harkins resulted in a great project for the soldiers.

"Throughout the project, the soldiers continuously provided positive feedback about our work," said Morsey. "They're very happy with their new living quarters."

Fort Detrick

But Fort Belvoir is not the only place where the Corps has taken on the responsibility of improving soldiers' quality of life. Last spring, the Corps again partnered with Harkins to complete a \$6 million project to renovate 36 family housing units at Fort Detrick.

Dan Durski, acting resident engineer at Fort Detrick, said there was an immediate need for renovated housing there. "It's pretty expensive to rent a house here in Frederick, Md., so many of the soldiers try to live in the housing on post," said Durski.



The new barracks for soldiers at Fort Meade were completed five months ahead of schedule. The project cost \$25 million.

Frederick, the second largest city in Maryland, is an ever-expanding area whose real-estate market is growing daily. Durski said the Corps wanted to provide American soldiers with competitive housing at affordable costs.

Today, that dream is a reality. Last month, Harkins Builders finished the renovation of the 36 single-family housing units. Each of these three-bedroom townhouses has enhanced living features including a second-floor laundry room, an outdoor patio, and remodeled kitchens and bathrooms.

Two of the houses are also handicapped accessible. Eric Widerman, a Corps construction representative, said these handicapped units have many special features.

"We've built driveways for the handicapped residential units, and provided these units with extra space," said Widerman.

To further create a sense of community, all of the townhouses are in a cluster surrounding a community parking lot. There are also many recreational facilities nearby.

According to Durski, the Army is pleased with the renovation, and soldiers are already putting in their bid to move into the improved housing.

Durski said that he, too, is proud of the completed project. "Here at Fort Detrick, we proved that the Corps of Engineers could build quality family housing units for our soldiers at competitive costs."

Fort Meade

Not only has the Corps partnered with Harkins to remodel housing, but the two agencies are also working together to build new barracks at Fort Meade. Daria VanLiew, resident engineer at Meade, said that the older barracks are becoming unsuitable for the residents.

"The older barracks were built in the '60s, and many of the soldiers are suffering from poor heating and lack

of air-conditioning," said VanLiew.

To improve the quality of life for these soldiers, the Corps awarded Harkins a contract last spring to build 288 residential units at Fort Meade. The \$25 million project was completed five months ahead of schedule.

The project includes eight barracks buildings arranged in an arch, and a soldier community center. The older barracks complex at Fort Meade can only hold 288 soldiers, but the new barracks will hold up to 576.

Tim Mathews, a U.S. Army Corps of Engineers project engineer at Fort Meade, said the housing will meet the Army's "one-plus-one" standard, which calls for junior soldiers to be paired in two-bedroom suites, with a bathroom in between.

The new Fort Meade barracks will have another quality that distinguishes them.

"The new residences at Fort Meade will be the first wood-frame barracks that the military has ever built," Mathews said.

Credit

Although the Corps and Harkins Builders played an equal part in restoring the quality of family housing at these three military installations, each group credits the other with the overall success of the projects.

Corps representatives said that they are consistently impressed with Harkins because they produce high quality products ahead of schedule and below budget costs.

"Harkins Builders is a great contractor to work with," said Morsey. "They're very customer-oriented, and I think they've done an excellent job."

Col. Charles Fiala, Jr., Baltimore District Engineer, credits Harkins for the success of the Fort Belvoir project because the contractor moved the soldiers into the new houses 16 months ahead of schedule. Fiala also gave a special reward to Harkins for completing the project with no safety accidents.

But Harkins Builders credits the Corps for the successful completion of the three projects. Mike Ebrahimi, a Harkins project executive at Fort Meade, said that the success of the projects would not have been possible without the help of the Corps.

"The military is one of our best customers," said Ebrahimi. "We received unbelievable support from the Corps. They are fair, reasonable, and easy to work with."

Though both agencies admit that they have a mutual respect for each other, they said that their love of country is what closely unites them.

"At this time in our nation's history, we're pleased that we can do something to improve the lives of our soldiers who put their lives on the line every day," said John Wildrick, vice president of the construction division of Harkins Builders. "We're just doing our little part in helping the troops."

Engineers in Southwest Asia

USACE people make a difference
to soldiers and other nations

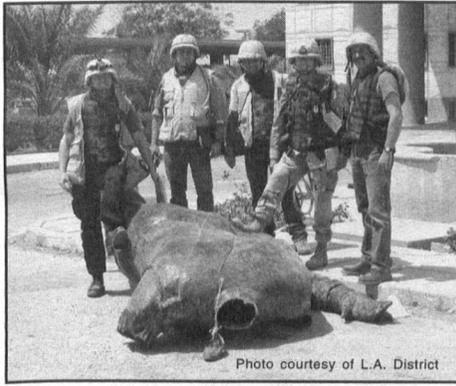


Photo courtesy of L.A. District

New army helps stabilize Afghanistan

By Staff Sgt. Amy Forsythe
Coalition Joint Civil-Military Operations
Task Force

The U.S. Army Corps of Engineers (USACE) is contributing to the goals of securing the future and stability of Afghanistan by building permanent barracks, recreational facilities, and basic infrastructure for soldiers of the newly created Afghanistan National Army (ANA).

In the last 18 months, the U.S. has led a 22-nation coalition in rebuilding facilities and infrastructure in Afghanistan, and increasing the central government's stability. One of the most important elements was creating the ANA. Since its inception last year, the ANA has steadily increased in size, reaching nearly 4,000 troops to date. The Afghan, U.S., and coalition forces' goal is to produce a stable, professional army of 70,000 Afghan soldiers.

"The sense of urgency associated with building the ANA soldier barracks is incredible," said Col. Robert Derrick, Transatlantic Programs Center (TAC) commander. "Every 35 days we've needed to open living quarters for a 600-man battalion."

U.S. and French special operations forces trained the initial eight battalions, then turned over that responsibility to the ANA leadership.

Importance. The importance of training a professional Afghan Army, and giving them facilities to live and work in, should not be underestimated.

The U.S. and French trained the ANA to provide stability to help prevent the reemergence of terrorism. The ANA will provide a safe, secure, and stable environment where government, economic, and civil institutions may develop and become self-sufficient.

Providing good facilities will encourage the newly trained Afghan soldiers to remain in the ANA.

Derrick and his 30-person team, stationed in TAC's Afghanistan Area Office (AAO), coordinate daily with representatives from the U.S. Embassy's Office of Military Cooperation (OMC), U.S. Central Command, Combined Joint Task Force-180, national ministry officials, local contractors, and ANA commanders to ensure project specifications are outlined and met.

Rebuilding. The AAO, located in Kabul, in Afghanistan's capital city, is expected to grow to a staff of nearly 65 people by summer to keep up with the increasing demands of creating five base camps for training and sustainment.

The goal is to build structures to Afghan supportable standards. USACE is supervising the reconstruction of buildings at the Kabul Military Training Center and the Pol-e-Charki soldier barracks. These old buildings were once used by the Soviets, then used and destroyed by the Taliban.

Besides rebuilding destroyed or bombed buildings, USACE is creating an entirely new infrastructure with electricity, water, and a sewage system to support the largest of the five base camps near the Pol-e-Charki village, just 10 kilometers (6.2 miles) northeast of Kabul.

The Pol-e-Charki site is the home for the of ANA's "Central Corps" headquarters. The land sprawls over 272 acres on which the AAO engineers and construction representatives supervise contractors who are renovating or building several barracks, headquarters buildings, motor pools,



Afghanistan National Army soldiers march in formation during brigade activation at the Pol-e-Charki parade grounds. (Photo courtesy of Transatlantic Programs Center)



Afghanistan National Army soldiers the newly rebuilt barracks at the Pol-e-Charki base camp. USACE is building the infrastructure to support the ANA's Central Corps, about 9,000 soldiers. (Photo courtesy of Transatlantic Programs Center)

medical clinics, dining and recreational facilities. The facilities will eventually billet three brigades totaling about 9,000 soldiers.

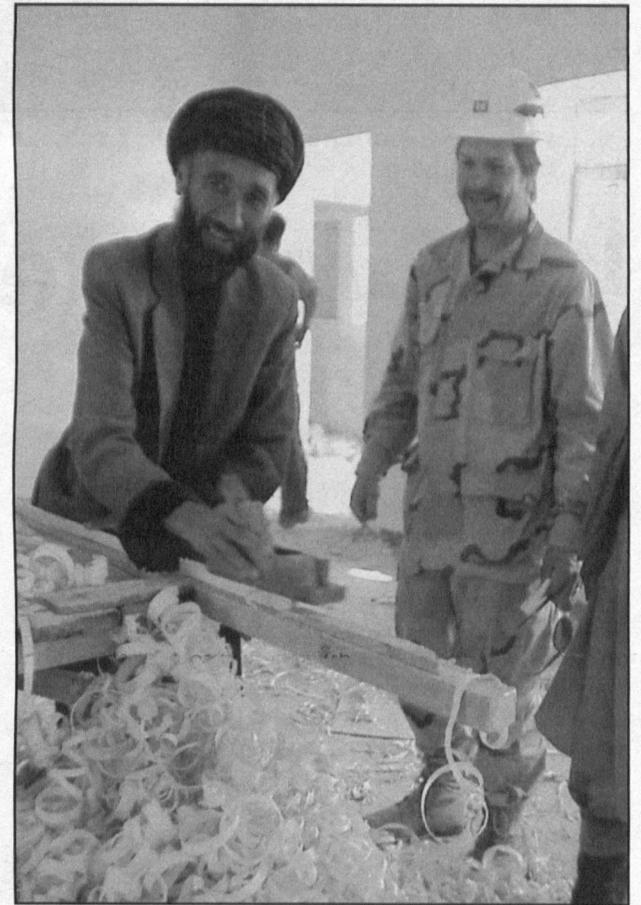
The AAO staff is an all-volunteer force split evenly between military and civilian personnel pooled from across the Corps. For civilians assigned to the AAO, it's an unfamiliar environment working in a combat zone, said resident civil engineer Sam Stacy, from Vicksburg District.

"It's the first time I've worked so closely with soldiers, and there's so much structure in the day," Stacy said. "It reminds me of college. It's definitely been career and life enhancing to directly support Operation Enduring Freedom. My family misses me, but they're proud of me."

Afghan workers. The engineers conduct daily quality assurance and quality control visits to every site ensuring the work remains on track for time and budget. USACE has awarded two prime construction contracts, which have sub-contractors employing up to 1,000 local Afghan workers everyday.

"Almost all of the work on the site is done by local skilled and general laborers," Derrick said. "The opportunity to employ this many local Afghans is an incredible boost to the local economy."

The entire budget for building ANA's Central Corps' base camps is about \$220 million, with funding from several sources. The Defense Department's foreign military



Sam Stacy, a USACE civil engineer from Vicksburg, Miss., watches an Afghan worker who is rebuilding the barracks at Pol-e-Charki village. Most of the raw materials are prepared without power tools, using traditional Afghan methods. (Photo courtesy of Transatlantic Programs Center)

financing program funds the bulk of the improvements.

USACE sets forth construction standards for the ANA project that call for maximizing use of local materials, methods, and labor to provide basic standards for safety, sanitation, and seismic conditions.

Tradition. Many of the construction methods such as mixing cement, installing windows, or crafting door frames are passed down from generation to generation. The local workers haven't been introduced to mechanized or electronic tools, so their work is done by hand and without electricity. "The resources are limited here, but the workers build solid structures," Derrick said.

The USACE engineers have seen construction techniques here that they've never seen before, and they're impressed with the on-the-spot craftsmanship of Afghan laborers. "They can do so much with so little," Derrick said.

As newly trained Afghan soldiers move into their new billeting, the goal of building a professional army to help stabilize the Afghan government is being met.

"The construction of ANA facilities will continue at record pace as long as there are soldiers to live in them," Derrick said.

(Staff Sgt. Amy Forsythe is a Marine Corps journalist working with the Coalition Joint Civil-Military Operations Task Force in Kabul, Afghanistan.)



FEST volunteers learn how to position a satellite telephone dish as part of their initial training.



Army Reserve Capt. Sandy Roth, 76th Legal Support Organization, helps Susan Tiana of Los Angeles District prepare a will.

Iraq volunteers have many reasons

Article by Mike Tharp
Photos by Dr. Fred-Otto Egeler
Los Angeles District

...One volunteered because she wants to give back.
...Another wants to apply 10 years of military duty and her recent experience.
...A Vietnam vet wants to be part of something different from that war.
...One stepped up because he's single and doesn't have any kids.

Whatever the motive, the Los Angeles District team members who chose to go to Iraq believe in the mission, and in themselves.

"We add a lot of value to the reconstruction," said Maj. Kimberly Colloton, a district area commander, and this project's manager. "We'll kind of be in the spotlight to show what the U.S. Army Corps of Engineers can do. It'll be an adventure."

Volunteers

Colloton, Emergency Operations Branch chief Ed Andrews, and Robert Conley, chief of the district's Cost and Structural Engineering Section, formed the vanguard of the California team heading for Southwest Asia. They are part of a FEST (Forward Engineering Support Team) composed entirely of volunteers.

Seven other L.A. District people volunteered for the FEST. They and dozens of others from around the Corps answered a call from Lt. Gen. Bob Flowers, the Chief of Engineers, to help U.S. Central Command with Operation Enduring Freedom in Afghanistan, and with Operation Iraq Freedom in Iraq.

"We're positioned to have a tremendous impact on the nation and the armed forces," Flowers said. "Today, the Corps is in 91 countries around the world."

In one sense, the FEST folks are simply carrying on the Army engineer's centuries-long mission of working behind the scenes to accomplish tasks that are the backbone of U.S. policy. From directing the fortifications at the Battle of Bunker Hill through five more wars in the 19th and 20th centuries, the Corps has buttressed U.S. military operations with its design, construction, and engineering expertise.

Because the Corps has more than 35,000 civilian employees, it's sometimes easy to forget the agency's military ties. Moreover, in recent months, some have questioned the relevance of the Corps, particularly the role of its civil works in the overall mission of fighting and winning wars.

"It is during times like these that we demonstrate how we can tap into the technical expertise of our organiza-



Ed Andrews (front), Dick Aldrich, and Dan Hanas purchase items for deployment.

tion to deliver engineer support to the battlefield," said Col. Richard Thompson, L.A. District Engineer. "We're indebted to these folks for volunteering for this mission, and we'll be looking for more volunteers in the future."

Training

For two intense weeks in March and April, team members gathered in Los Angeles and Sacramento for training. Those sessions provide a insight into how a 228-year-old organization adapts itself to 21st century mission needs.

Two days were spent hunched over laptops in a stuffy conference room learning the intricacies of the Theatre Construction Management System (TCMS). That is a high-speed/low-drag software that lets engineers, contractors, and other specialists game-plan some of the real-world problems they'll encounter on the ground. One morning, for example, they designed, costed, and ordered materials for a 1,000-soldier encampment. They did the same for a refugee camp, logistical base, inter-



Andrea Duff-Arnold of Detroit District picks out a new wardrobe for Baghdad.

diction camp, and an aircraft runway.

"TCMS shows the impact on your organization's resources well in advance of actually striking construction," said instructor Fred Steinman.

Preparations, questions

Next day the group deployed to the Joint Forces Training Base's military clothing store at Los Alamitos. There they tried on fatigues, boots, caps, and other gear where, under the watchful eye of Colloton, they struggled into the unfamiliar clothing. They weren't unfamiliar to Aldrich, the Arizona-based contract specialist, who served as a tank gunner in Vietnam. "It's a little different from the way we did it the first time," he recalled. "I just want to be a part of something different."

A somber note was struck that afternoon when they visited the 72nd Judge Advocate's General Detachment to write or revise wills, powers of attorney, and other legal documents for the families they'd leave behind.

Continued on next page

Special teams, technology in States support Corps engineers in the field

A critical support element of Operation Iraqi Freedom is maintained in downtown Mobile, Ala. The U.S. Army Corps of Engineers has quietly supported the operations through reach-back engineering, and by creating two special teams.

The reach-back support for deployed engineers is done with secure video teleconferences. This means that experts in the continental U.S. can advise engineers on the ground in Iraq as they restart power plants, reconnect water systems, and develop base camps. Mobile District and South Atlantic Division (SAD) also coordinate the efforts of other Corps districts from throughout the country.

The Corps created two types of teams to fill this need—an infrastructure assessment team (IAT), and base development team (BDT). The BDT consists of six full-strength base development teams.

Mobile District hosts the IAT and one BDT. Both teams operate out of Mobile District offices in downtown Mobile.

Lt. Col. Joseph Corrigan, Deputy District Engineer, is the team leader. His teams have proven the value of reach-back engineering, and the agility of the Corps' workforce. Corrigan describes the IAT as sort of an S-3, a military operations center, that "answers questions, passes them off to the BDTs for action," said Corrigan. "The BDTs are full service engineering organization that produce solutions for the people on the ground." Each BDT provides a unique engineering specialty.

The eight-hour time difference between Mobile and the engineers in Iraq means the IAT and BDT are on-call 24 hours a day.

This system helps hold the operating



Lt. Gen. Robert Flowers, Chief of Engineers, meets with Field Engineering Support Team in a Baghdad palace. The Chief's message to the FEST... "You're doing a great job, I appreciate your work, stay safe, and watch out of each other." (Photo courtesy of FEST)

cost down while providing full service to the deployed engineers. And it prevents overloading the support teams.

The personnel on the teams are not the only district employees supporting the effort. The IAT taps other district support resources when a subject matter expert is needed.

Before the war started, the SAD IAT led an effort to assess the condition and probable reconstruction cost for the infrastructure of Iraq. Planners used this information to ensure that the military target list did not include infrastructure criti-

cal to the reconstruction of the country. DoD and the Department of State are using the information to develop the reconstruction cost estimates for Iraq.

Here are just two examples of IAT-BDT support.

After an airfield was bombed, the IAT-BDT tailored a site plan for repairing the damaged pavement within 24 hours of the request. The repair plan was in the hands of the deployed engineers before coalition forces had captured the airfield.

The team turned to technology and job experience to develop the repair plan. The

in-house experts used imagery to look at the airfield, then turned to computer simulations to determine the effect various weapons would have on the pavement. The information was evaluated and used to develop a recommendation to repair specific airfield damage, to estimate accurately the amount of damage and amount of material required to repair the damage, and to recommend the specific type of engineer unit required to make the repair.

This was a team effort from across the Corps. The Baltimore BDT worked with the Engineer Research and Development Center weapons experts in Vicksburg, Miss., and the Omaha District Transportation Systems Mandatory Center for Expertise.

The Corps has also tapped its civil works employees across the U.S. to support the war.

"For the last few weeks we've assisted Army and now Iraqi engineers as they bring hydropower electric generation back on line," Corrigan said. "This support has included everything from advising on how to restart a plant, to determining how much water to pass through the gates to control the lake level without affecting either military operations or the people of Iraq."

The support started within hours of coalition forces capturing the facility and while fighting was still going on in the area around the powerhouse. The Corps expects to continue to provide support at some level until the Iraqi people once again can run their own facilities.

(Lt. Col. Joe Corrigan, Marilyn Phipps, and Janet Shelby contributed to this article.)

Volunteers

Continued from previous page

The following morning found the FEST-ers in the District Emergency Operations Center. Through the magic of videoconferencing, they watched and listened to their colleagues in Afghanistan who had embarked on a similar mission last year. After a briefing from a time zone 10 hours ahead of them, the California team asked their questions:

Are you using TCSM software? "Roger."

How are your living conditions? "Better than I thought. My laundry is done for me, and I don't have to cook or clean."

How important are you CADD (computer-aided drafting and design) skills? "It's important to prevent anybody from walking into the minefields."

How's your duty day? "It's important that everybody understands what the work climate will be like, what the day will be like. It won't be like back at the office."

Do contractors to the work or your engineering units? "We're doing both."

How's the nightlife? "You're kinda hamstrung on using the Internet."

Are you guys having any fun? "I buy rugs and swords and we play tag football on Saturdays. There's a bazaar, movie nights, a raffle. We keep ourselves entertained."

While the dialogue pixeled across 7,700 miles, a big-screen TV in the Ops Room was tuned to CNN. The headline—"Coalition Forces Near Baghdad from South-

east, Southwest."

That afternoon the team traveled to the Federal Building in Westwood, Calif., for passports and other document formalities. Colloton capitalized on the huge parking lot by having Maj. Jeff Hoover conduct a class in how to set up and use a Tele-Engineering Operations Center. He unloaded three suitcases holding global positioning equipment and other gear onto the parking lot and had team members erect antennas to connect to satellites 22,000 miles up in orbit.

While they practiced, curious FBI and Federal Protective Service officers, and private security guards investigated the team. Colloton assured them that everybody was on the same side.

Several days of sessions in Sacramento included smallpox and other vaccinations, getting two sets of desert camo uniforms, running an exercise in their team roles, learning how to react to an ambush, taking a short Arabic language course, and ending the week with a classified briefing.

Reasons

"We're getting an opportunity to show the world the capability we have in the Corps of Engineers," said Colloton after the training.

During a break in the training, Susan Tianen, the safety officer, volunteered why she volunteered. Years ago, just after her first son was born, he got sick from an immune deficiency and his medical costs approached

\$10,000 a month. Tianen had to go on welfare and food stamps until the Department of Defense offered her an internship and then a job.

"My kids are now happy and independent, and now I've giving it back," she said. Then she grinned. "Plus I'm in heaven—I'm getting all the attention I want from my husband."

Kimberli Gray, the contract specialist, was formerly married to a military man and spent 12 years in Germany before joining the Corps in June 2002. "They put me through a lot of training, and I love it," she said. "I don't believe America is the policeman of the world, but I just feel this is the right thing to do." Then she also grinned. "I live in an area of L.A. where there are a lot of crimes on the street. Over there, there'll be 300,000 troops. I think I'll be safer over there."

Conley, the structural engineer, was almost nonchalant talking about the assignment of a lifetime. "Why am I going," he asked. "I don't have any kids and I'm single. I'm just going to do a job. Didn't seem that big a risk."

Possible missions

Details of the deployment remain classified for security reasons, but such missions typically last six months. Corps teams in Afghanistan have designed master plans for military bases, refugee camps and other facilities, and helped set up such infrastructure as roads, water distribution, and sewage systems.

CENTCOM gets theater support center

By Maj. Jeffrey Dennis
Gulf Regional Engineer Office
and Spec. Robert Miller
19th Public Affairs Detachment

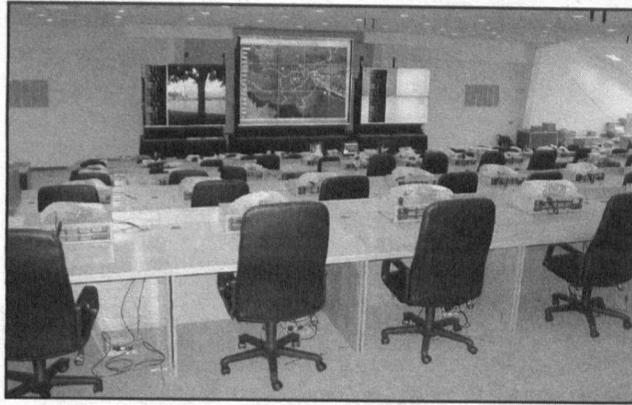
The Gulf Regional Engineer office recently completed a \$4.5 million Theater Support Command Center (TSCC) for the U.S. Army Forces Central Command at Camp Arifjan, Kuwait. The Gulf Regional Engineer office is a subordinate element of Transatlantic Programs Center.

The TSCC officially opened Jan. 15. It will assist in war-fighting by placing the latest battlefield information at the fingertips of decision makers. The TSCC has several command and control auditoriums, supporting offices, conference rooms, and control rooms with back-up power, air conditioning, fire protection, security, soundproofing, and all associated utilities. Seating capacity of the facility is 300 personnel.

The command center, in the center of the facility, incorporates the latest flat plasma screen displays, and seats 120 personnel on eight different levels. The command center alone cost more than \$3 million.

The project took 90 days and 148,600 man-hours to complete. Al Hamra, a Kuwait firm, built the facility.

The fast-paced project at Camp Arifjan began with just a warehouse. "It's a converted warehouse with a command and control facility for all of the theater support logistics commands," said Col. Michael Ulekowski, TAC's Deputy Gulf Regional Engineer. "It's a cutting-edge facility. The first TSCC was built at Camp Doha, and the customer



The Theater Support Command Center is a state-of-the-art facility. (Photo courtesy of Transatlantic Programs Center)

asked us to build a duplicate at Arifjan."

According to Ulekowski, Camp Arifjan has been in construction since 1998 by the Kuwait government, and the Army expects to complete it by 2005. TAC has assisted the Kuwait government and the Army with the design of Camp Arifjan, and provided quality assurance during the various phases of construction. Upon completion, Camp Arifjan is expected replace Camp Doha.

Because of the global war on terrorism, the Army has accelerated the schedule by placing troops on portions of the base. Ulekowski said that leaders have a place at the command center.

"All the core and rear boundary staff will have positions

here," he said. "The Deputy Commanding General for Support (DCGS) will be able to perform all of his logistics functions in this facility with everybody together, working together, at the same stations."

"When the DCGS looks to his left and to his right, he will see 300 of his closest staff officers," said Capt. Torrey DiCiro, project engineer.

Col. Albert Bleakley, the Gulf Regional Engineer, said that rather than being in separate areas, the staff will now be in close proximity.

"The general idea is that you have the theater support command staff and the Coalition Forces Land Component Command, and in this area you would have elements of both staffs," said Bleakley. "They're close together to coordinate with each other, to have access to all the different staff elements, and to be able to view all the information displays at the same time."

Bleakley added there is also an intercom system that, with a headset, gives the ability to talk across the room.

DiCiro said the building houses 900 multipurpose workstations. "Every workstation has six data or voice drops. Look up and you will see these 900 modules in the ceiling where anybody can hook up to. As commanders change, they can move and shift cubicles as much as they like.

"This is very open and flexible, and that's the great thing about these TSCCs," DiCiro said. "It's plug and play."

"The contributions that this command center and the one at Camp Doha will make to the stability of this region are awesome," said Stratman. "You will read about it, and your grandchildren will benefit from it, for years to come."

Families left behind need support, too

By Amy Clement
Transatlantic Programs Center

When the new family assistance coordinator reported at the Transatlantic Programs Center (TAC) in March, she immediately decided that the Family Readiness Group (FRG) would include family members of all U.S. Army Corps of Engineers employees deployed to the U.S. Central Command area of operations, and not just those people who support TAC operations.

All supported

"Some Corps organizations form their own family readiness groups to support their deployed people, but we decided to open our group to include the family members of any Corps member who deploys to serve in that part of the world," said Staff Sgt. Sheliene Blombach, the Family Assistance Coordinator. "We wanted to give family members another avenue to keep in touch with their loved ones. We have about 200 people on our FRG roster right now."

Before employees and service members can deploy, they must go through predeployment training at one of the

Army's Continental U.S. Replacement Centers (CRC). That's where they hear about the FRG and are given a chance to sign their family members up to take part.

TAC also adapted a Family Assistance Handbook to help service members, civilians, and their family members prepare for deployments because of the difficult challenges faced when loved ones deploy. The handbook includes information from getting paperwork and finances organized before deployment, to communicating with children while a parent is deployed, to adjusting to relationship changes after they come home.

Solutions

"Individuals on our family readiness group roster come from a broad spectrum of organizations and backgrounds, and we don't limit our support to only those who are part of the Corps," said Blombach. "For instance, one of our employees had a relative who is a service member. This deployed soldier, with a wife and five small children, was dropped from his finance department. He hadn't been paid in almost two months. He tried getting help through



Staff Sgt. Sheliene Blombach, checks a donation box that will go to Corps people deployed overseas. (Photo courtesy of Transatlantic Programs Center)

his own unit, but kept running into roadblocks. I was able to make the right contacts and, within five days, the soldier received his first check.

"Another spouse was upset about her husband's deployment," Blombach continued. "She quit her job, school, everything that helped keep her mind off the deployment. Through several phone conversations with her, we enabled her to get involved in redecorating her house and doing positive things. The thought process on decorating the house was that she would be doing something for her husband's return. The last time I talked to her, she sounded happy."

The FRG has also collected several boxes of donated items to send deployed service members and civilians. Blombach e-mails those deployed for lists of items they need to make their accommodations more bearable.

Communication, growth

Much of Blombach's contact with family members is through e-mail, phone calls, and the FRG monthly newsletter. The first FRG meeting was held in late April.

"Our hopes are that each month it will continue to grow so we can continue to provide information and offer support to family members," Blombach said.



Photo courtesy of L.A. District

Engineers in Southwest Asia

USACE people make a difference
to soldiers and other nations

Corps team solves stinkin' problem

How do you keep a billion gallons of flood and sewer water from smelling up the neighborhood? That is the question facing Chicago District as they plan a large-scale floodwater control project in Chicago.

The Chicago Underflow Plan (also referred to as the Tunnel and Reservoir Plan) is a metropolitan flood control plan that will result in the containment of combined sewer overflow (a mixture of floodwater and sewer water), preventing local flooding problems and also eliminating the environmental impacts caused by sewer overflow discharges.

The plan relies on deep tunnels built in limestone bedrock and several large surface reservoirs to store combined sewer overflow. The surface reservoirs are the focus of the odor question.

Team-up

Scientists recommend aeration to control the anaerobic bacteria that would cause the stench. But hard data for designing an aeration system for a 250-foot-deep floodwater reservoir is non-existent. So Chicago District turned to Walla Walla District for help.

Walla Walla District is home to five multi-purpose dams that provide electrical power and navigation services to the Northwest. Their navigation locks are 86 feet wide, 675 feet long and up to 115 feet deep — a perfect test-bed for deep-water aeration experiments.

In January 2002, Heather Henneman, a Chicago District hydraulic engineer, contacted Walla Walla's Operations Division to see if one of the lower Snake River locks could be used for deep-water aeration experiments. The experiments would investigate gas transfer and turbulence resulting from coarse bubble diffusers, an aeration system alternative.

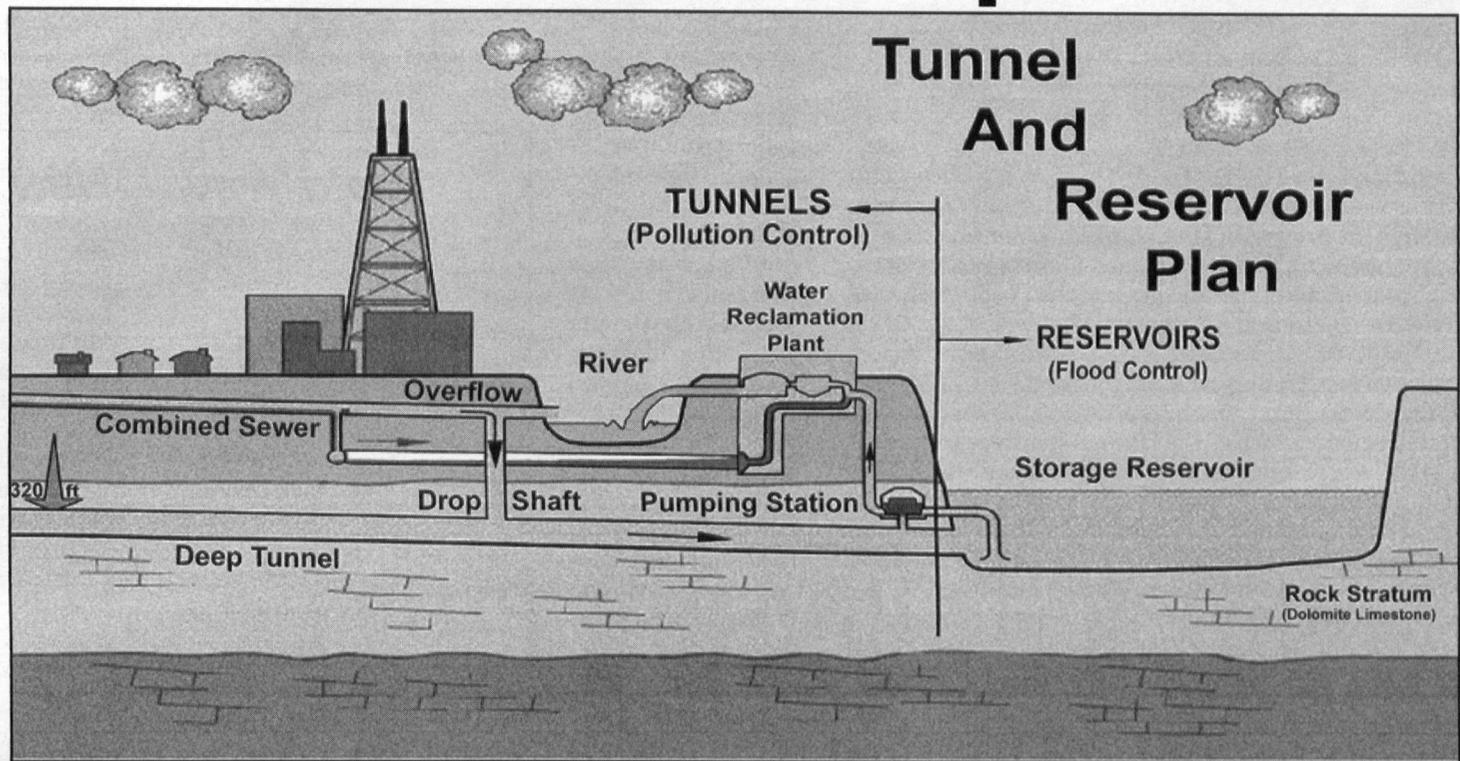
Walla Walla District Operations personnel were eager to help a fellow district, but there were some hurdles to overcome.

"The experiment they initially proposed would have super-saturated the lock water above acceptable limits for protected fish species," said Wayne John, Operations Division chief. "The Engineer Research and Development Center staff was able to revise the experiment to meet environmental requirements. Walla Walla and Chicago are sensitive to the environmental impacts and really worked hard to meet the experimental and regulatory requirements."

Window

Ben Tice and Russ Heaton of Planning Division worked with Chicago District staff to get the necessary permits for this work. Operations Division members checked the calendar and planned for the best time frame to conduct the testing.

Each year, Walla Walla District takes their locks out of service for two weeks to make needed repairs, inspections, and maintenance. Lower Granite Lock and Dam had extensive work done to its lock in the past few months. That meant that the anticipated workload at Lower Granite during the lock outage would be less



This is a schematic of the Chicago Tunnel and Reservoir Plan. (Graphic courtesy of Chicago District)

than normal, giving time for the Chicago District team to install their equipment and perform their experiment during the outage window.

The team coordinated with Lower Granite's Chief of Operations Dick Hammer to plan this experiment around Lower Granite's annual navigation lock maintenance needs.

Virtual teamwork

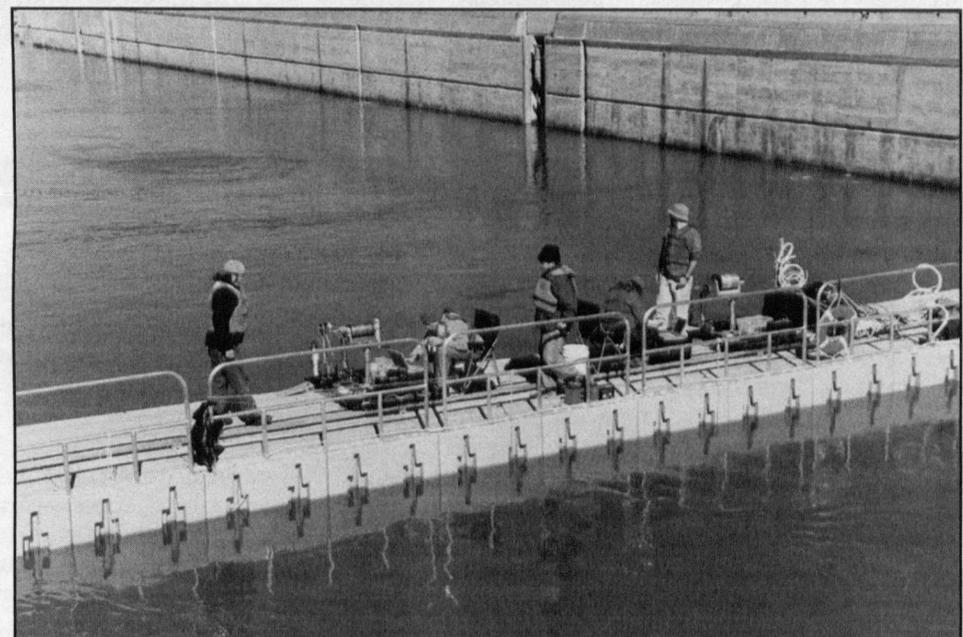
"Because our district offices are separated by nearly 2,000 miles, we used telephone conferencing and e-mail to coordinate the deep-water research," said Henneman, who led the coordination effort. "Prior to executing the experiments, I met Dick Hammer in person only twice. With 17 deep-water researchers, numerous Walla Walla District personnel, and various equipment suppliers, all located around the country, it was a true example of virtual teamwork."

The experiment required time to set up the aerators while the navigation lock was dry March 10-14, then filling the lock to perform the in-water tests the following week. Mechanics, electricians and other maintenance personnel at Lower Granite helped U.S. Geological Survey (USGS) personnel lower their equipment into the navigation lock for testing.

Experiments

Several other Lower Granite personnel assisted USGS, ERDC, students, and professors from the University of Illinois, the University of Minnesota, and Chicago District team members during the experiment's in-water testing phase. Throughout the test, operators raised and lowered the water level in the lock to meet experiment requirements.

"From time to time, project folks were asked to provide material and hardware to repair some of their sophisticated test equipment," said Hammer. "We also helped with equipment transport on the dam and safety training."



Little Goose Lock and Dam personnel installed a temporary floating dock spanning the width of the navigation lock, giving researchers better access to gather test data and water samples. (Photo by Chris Koch, Walla Walla District)

Fish safety was of concern during the experiment. Members of both districts coordinated the design and execution of the experiment to ensure water quality stayed within required levels.

Coordination

"We made sure that all the environmental laws and regulations that applied to the proposed project were properly addressed," said Ben Tice, Walla Walla District biologist. "Before the tests ever started, we coordinated with the Washington State Department of Ecology on water quality issues, the Washington State Historic Preservation Office for cultural resource issues, and the National Marine Fisheries Service to address Endangered Species Act issues."

Success

"The deep-water experiments were a

success," Henneman said. "The research team could not have done it without the outstanding support of Walla Walla District. It was a pleasure working across district and division boundaries with another Corps district."

Essential

Walla Walla District's support to the Chicago Underflow Plan project was essential for Chicago District to gather the test data needed to continue their work.

Once the 250-foot deep overflow reservoir is built, the data gathered at Lower Granite will help Chicago District engineers determine the rate of air flow required to keep sewage-contaminated flood water from stagnating and developing potentially harmful (and extremely smelly) bacteria.

(Carl Knaak of Walla Walla District, and Heather Henneman of Chicago District collaborated on this article.)

Committee looks out for Corps future

By Brett Call
Rock Island District
and Cheryl Fromme
Norfolk District

In March, the USACE People Committee held its quarterly meeting in Washington, D.C. The committee consists of U.S. Army Corps of Engineers senior leaders, plus a few emerging leaders, who meet four times a year to address the objectives and goals of the People section of the USACE Vision and Campaign Plan.

This was the first meeting the two of us had attended, and we weren't quite sure what to expect.

Our first meeting was interesting. A number of topics were discussed, such as the Human Resource Initiatives and USACE Human Capital Plan, Command Staff Inspections (CSI), the *Love 'Em or Lose 'Em* Philosophy, and the Ideal Workforce, just to name a few. The People Committee also had a guest speaker, Chris Mihm, Director of Strategic Issues for the General Accounting Office (GAO), who discussed GAO Human Capital Strategic Issues.

All of the items generated great discussion between committee members and emerging leaders present. The emerging leaders provided a different perspective to many of the discussions, especially when it came to what supervisors can do to help recruit and retain employees.

The People Committee members are advocates of a learning organization, evident during the discussion on the

CSIs. Members from divisions that had already participated in the CSI shared their experiences with the committee, offered ways to improve the inspections, and ways to better prepare the divisions that had not gone through a CSI.

Everybody talks about changing the culture, but what does that really mean? At the March People Committee meeting, we discussed the ideal future workforce, the behaviors and attributes that will be needed to transform the Corps into a Learning Organization that uses the Project Management Business Principles.

To assist the USACE workforce in this cultural transformation, the committee developed the graphic that accompanies this article.

It's amazing how much is going on in the Corps to assist and keep the Corps family alive and thriving. We are im-

pressed at the devotion the committee members have to the employees. They are working hard for all of us.

The question has been asked, "Is this committee worthwhile?" The answer is "Yes." The committee is dynamic in its nature. This is a group of extremely intelligent, dedicated people with a bright outlook on the Corps future. They are senior leaders with a variety of experiences and have been selected because of the assets they bring to the group.

We look forward to serving on the People Committee and doing our part to ensure the Corps stays a viable world-class workforce that supports the efforts of its employees.

(Brett Call is from Rock Island District; Cheryl Fromme is from Norfolk District)

Old Way

Knowledge is power
Training
Leadership by position
One skill set
Directed workforce
Covering up mistakes
Management directs
Individual job focus
All in one room
My turf
Slow deliberate progression
Went to class
Local focus

New Way

Sharing knowledge is power
Lifelong learning
Leadership at all levels
Multiple skill sets
Empowered workforce
Learning from mistakes
Leadership inspires
Team focus
Virtual team
Our success
Rapid and flexible progression
Learned from my desk
Global focus

HR Corner

Leader interview is valid selection tool

(Editor's note: This is the second installment of a two-part article about the Leadership Strengths Interview (LSI). The first part was published in the May issue of "Engineer Update." This installment discusses the revalidation of the LSI.)

The U.S. Army Corps of Engineers began to research its leaders in 1988 by building a baseline measure and developing a common language to describe successful USACE leaders and their strengths. The study was followed by the development of the first USACE Leadership Strengths Interview (LSI), at that time called the Leadership Competency Interview. In 1998 this interview was successfully validated. The Merit Systems Protection Board approved the validation process, and the interview was added to the Corps' corporate selection process for Senior Executive Service and GS-14/15 supervisory positions.

Since 1998, many changes in the Corps have caused us to reflect on what is the most effective leadership for our organization. In doing so, we also asked whether the 1998 interview could still effectively help us select leaders who could best move us into the future. To address this issue, the interview was revalidated in 2000. The revalidation was part of our effort to insure that the LSI measures what it is supposed to measure, while at the same time restructuring it (when appropriate) to meet our changing needs.

The result is a more focused interview that better describes leader effectiveness, shows a significant relationship between leader effectiveness and the interview results, and reveals no significant differences in results between comparable groups with regard to gender and race.

The Corps' character

We learned a great deal from years of studying our leadership. These are the qualities that reveal a consistent Corps character...

- The capacity for building positive, mutually beneficial relationships.
- The capacity for facilitating team participations and

getting people to consistently contribute the best of what they have to give.

- The desire to make a significant difference via performance and achievement.

Issues

As we use the LSI, several issues recur. One is the question of whether we are simply replicating our current leaders, and whether an instrument based on study of current leaders will ensure that we select those in the future who have the strengths we will need then.

To address this issue we added a Strategic Dimension to the LSI that measures leader qualities linked to the strengths needed in a learning organization. We are researching this dimension in our current selections. The research includes questions added to the current LSI that tap into the Strategic Dimension.

While the results of these added questions are not part of LSI scoring or feedback to candidates, strengths evidenced in this dimension will be integrated into the feedback given to the panel.

These are the five dimensions measured in the LSI:
Direction – A purposeful and focused visionary who provides motivation and unity through vision.

Drive to execute – A positive force that continually influences others and is eager to fulfill missions and overcome challenges.

Relationship – Understands and engages people as a catalyst of team development.

Management – Perceptive decision-maker who plans effectively and uses resources optimally.

Strategic – Uses foresight to create focus from chaos, integrating all organizational activities, and motivates to implement strategies.

The LSI presents an objective, broader, and more holistic picture of leadership that enables selecting panels to consider five dimensions of leadership, in addition to more familiar and comfortable areas in which they may have the most strength.

For example, since we are an organization strong in relationships, without other information selecting pan-

els may place too much emphasis on the relationships they have formed with the candidates or heard about from others.

Some candidates are concerned that if they do not perform well on the LSI, they will not be considered for management positions. Our guidelines regarding use of the LSI dictate that it is *just one* of several factors considered in the selection process, and should never be used as the sole factor in making selection decisions.

Improvements

One area we can improve is how well we use the LSI information, whether we get the most for our investment. A recent survey of division commanders indicated that use of LSI data varied widely, and sometimes panels do not understand its validity or what it measures. To counter these problems, the Chief of Engineers has issued guidance regarding making the most of LSI results. He has also directed commanders to be interviewed and receive feedback so they may better understand the process.

Additionally, the Directorate of Human Resources is developing learning forums for both candidates and selecting panels to increase utility and understanding of what is measured, the validity of the LSI, how to best use it in selection, and to make results meaningful. Look for information regarding these learning forums on our web site below. They will be announced as they become available.

Recently, the Merit System Protection Board issued a report, *The Federal Selection Interview: Unrealized Potential* that was critical of most selection processes in the federal government because they were not validated and often relied on personal perceptions. The Corps can take pride in implementing a *valid* selection tool that addresses leadership attributes and qualities that are difficult to measure by other methods.

Additional information regarding LSI procedures and behavioral indicators of leadership strengths may be found at the Directorate of Human Resources web page at www.hq.usace.army.mil/cehr/MAINHR.HTM.

Around the Corps

Ballona Wetlands

As a great blue heron stabbed a fish in a marsh, and jets lumbered skyward from Los Angeles International Airport, the decade-long Ballona Wetlands tidegate project was dedicated on April 22.

Some 50 residents, stakeholders, and project participants gathered atop a dike housing new environmentally conscious gates. The aluminum gates, made by Waterman Industries and installed by MarCon Contractors, act as a giant restorative bidet. Attached to a culvert leading from one of the inland reaches of Ballona Creek, the gates allow a two-way flow of water in and out of the wetlands.

The gates are self-regulating — they let water from a rising tide into the wetlands up to a certain level, then shut to limit the amount of saltwater in those bogs and marshes.

When shut, the gates also prevent urban runoff and polluted storm water from sluicing into the wetlands.

Ecologists consider this “flushing” phenomenon crucial to preserving the wetlands and the plants and wildlife living on them. In one of the most populated and urbanized places in America, 192 acres of undeveloped habitat now have a chance to renew their vibrancy.

Architect awards

The Corps has selected its Architect, Interior Designer, and Landscape Architect of the Year. The winners are selected annually from nominations submitted by district commanders. Winners are selected for their excellence in design, mentoring fellow professionals, and for service to their professions and communities.

The winners were:

• **Architect of the Year** — Jeffrey Hooghouse, Headquarters.

• **Interior Designer of the Year** — Peggy Roberson, Savannah District.

• **Landscape Architect of the Year** — Henry Pope III, Mobile District.



A water garden graces the Lt. Gen. Frederick J. Clark Environmental Laboratory Complex. The building in the rear is the Environmental Chemistry Laboratory.

Lab complex

On April 1, the Environmental Laboratory dedicated a three-building laboratory and office complex in Vicksburg, Miss. It is named in honor of the late Lt. Gen. Frederick Clarke, former Chief of Engineers, noted for his commitment to the environment.

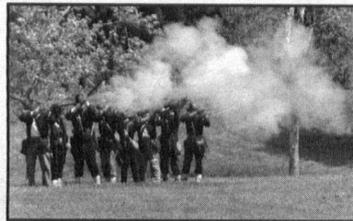
The complex includes the Hazardous Waste Research Center, recognized by the Environmental Protection Agency as the best for treating contaminated groundwater, soils, sediments, and sludge; the Environmental Chemistry Laboratory, which supports the Engineer Research and Development Center's environmental programs with state-of-the-art analysis in water quality, environmental restoration, and contaminated sediment and dredged material management; and a new headquarters building for laboratory employees.

Civil War reenactment

Gunshots and heavy artillery reverberated at San Francisco District's Lake Sonoma as soldiers fought for control of the lawn below Warm Springs Dam April 26-27. Mixed with the weapons fire were the cries of wounded and dying soldiers.

Not to worry... It was a Civil War reenactment by the American Civil War Association (ACWA). The reenactment has taken place at Lake Sonoma for the past six years. This year, about 100 ACWA members participated, with about 250 spectators.

During these living history events, members of the ACWA wear authentic uniforms, use real muskets (firing blanks), sleep in canvas tents, and live as soldiers might have lived in the field during the Civil War. The public is encouraged to view the battles, walk through the encampments, and talk to soldiers and civilians to gain an understanding of the Civil War.



Civil War reenactors fire a volley at Lake Sonoma.

Correction

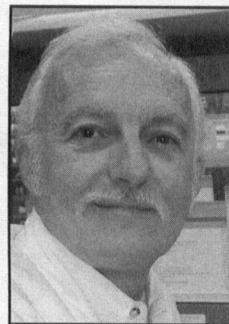
The Leadership Strengths Interview (Gallup interview) became mandatory in the Corps in May 1998, not 1994 as reported in the May issue of *Engineer Update*.

Architect award

The Minnesota Chapter of the American Society of Landscape Architects presented its annual Public Service Award to St. Paul District landscape architect John Fisher.

Fisher received the award for his work on the Grand Forks/East Grand Forks flood control project in the Red River Valley of North Dakota and Minnesota.

Tom Whitlock, MASLA president-elect, said, “Fisher has worked with Grand Forks and East Grand Forks during the past five years in rebuilding of their cities, and has been a strong advocate of the greenway concept that will knit these communities together and provide a long-term vision for the future.”



John Fisher.

Generals honor fallen soldiers

B Company of the 11th Engineer Battalion experienced hard fighting during Gulf War II and lost several soldiers. General officers of the Corps of Engineers presented the U.S. flag to family members at these funerals:

• Lt. Gen. Robert Flowers, Chief of Engineers, attended the funeral of Sgt. 1st Class Paul Smith on April 11 in Hinesville, Ga.

• Brig. Gen. Don Riley, Commander of Mississippi Valley Division, attended the funeral of Staff Sgt. Lincoln Hollinsaid on April 26 at Rock Island National Cemetery.

• Maj. Gen. Robert Griffin, Director of Civil Works, attended the funeral of Pvt. 1st Class Jason Myers on April 21 at Arlington National Cemetery.

• Brig. Gen. Bo Temple, Commander of North Atlantic Division, attended the funeral of Pvt. 1st Class Gregory Huxley April 23 in New York.

Hanscom Air Force Base

Officials from Hanscom Air Force Base and the Corps visited Building 1614 to witness a process that will transform a former commissary into modern office space.

Lt. Gen. Robert Flowers, Chief of Engineers; Col. Thomas Koning, New England District Engineer; Maj. Gen. Craig Weston, Vice Commander, Electronics Systems Command; and Col. Darrell Jones, Commander 66th Air Base Wing, toured the NED project.

The 1,000-foot-long building once housed the base commissary, thrift store, and warehouse. The Corps will renovate the building to relocate personnel located in rental space off base.

The work will be performed in three phases. Phase I is currently underway and will be completed in September. Once the \$12.1 million Phase I is complete, it will allow the Air Force to relocate 535 personnel back onto the base.

Phase II and III will be performed concurrently. When completed, the Air Force expects to relocate about 516 employees back to Hanscom. Phases II (\$10.6 million) and III (\$7.4 million) are at the 60 percent design level.

The Corps is also working on a \$7.7 million two-phase design and build contract for a new gym at Hanscom.

Agreement

Huntsville Center recently helped to forge an agreement to improve safety and streamline handling processes for identifying, removing, safeguarding, certifying, and recycling military range munitions scrap.

The agreement between Hawthorne Army Depot (HWAD) and the Corps, signed April 16, established the Hawthorne facility as a centralized recycling center for processing and recycling inert ordnance and related range materials in the continental U.S.

HWAD is about 140 miles southeast of Reno, Nev.

Under the agreement, the Corps and its contractors will remove and process Department of Defense range residue/scrap for recycling at HWAD. Range residue/scrap includes targets and expended munitions.

Earth Day award

The Kentucky Environmental Commission honored Dr. Mike Turner, Chief of Economics and Environmental Resources in Louisville District, and Dr. Richie Kessler, Green River Bioreserve Director of The Nature Conservancy (TNC) with a 2003 Earth Day Award.

The two led a cooperative effort between TNC and Louisville District to modify water releases from Green River Lake to more closely mimic natural stream flows, while retaining full flood control benefits.



Safety Day

CynDee Oleyte practices putting out a fire during Far East District's annual Safety Day on May 15. Instructors from the Yongsan Fire Department taught the fire extinguisher training class. Other events included free blood pressure, cholesterol, and diabetes screenings; briefings about nutrition, healthy lifestyle, and office ergonomics/safety; plus the Safety Game, similar to the “Who Wants to Be a Millionaire?” format. (Photo by Julie Park, Far East District)

June 15 is Father's Day

Daughter donates kidney to father

Article and Photo
By Larry Reilly
Detroit District

For months, April Champion, a Detroit District employee, watched as her father, Webster Greene, underwent kidney dialysis after both his kidneys failed due to high blood pressure complications.

It was hard enough to watch her father have his entire blood supply cleansed through a hemodialysis process for more than four straight hours three times per week. But then the catheter, a small tube placed into a large vein in Greene's chest, could no longer produce the needed blood flow. The doctors had to use the fistula method, where a vein and a major artery in Greene's right arm were fused together to produce a stronger blood flow.

Things started getting difficult for Greene. During the six months after he started dialysis, the 52-year-old Greene lost nearly 75 pounds, and the chances of him receiving a kidney from an organ donor were slim.

But the last straw for Champion came when she saw the golf-ball-size lumps that developed on her father's right arm after his visits to the dialysis center. She knew there was only one thing a daughter could do, and that was to donate one of her own kidneys.

Champion soon found that donating a kidney was not as simple as sticking out her arm and donating blood.

Decision. "I always knew that if my father couldn't get a kidney from a cadaver, I'd donate one of my kidneys," said Champion, who works in Detroit District's Regulatory Branch. "But when I saw the pain he was going through using the fistula method of blood dialysis, I decided I wasn't going to wait for someone else to help my father if I could. I realized there would be a lot of things involved in such a complex operation but, after researching the procedure, I became confident in the process, the hospital, and the doctors performing the operation. What I was not prepared for was everything leading up to and after the operation."

That included three months where Champion underwent extensive tests, many visits to the Harper University Hospital at Detroit Medical Center/Wayne State University, and many discussions with doctors and counselors.

"The doctors were up-front about the operation and discussed the risks as well as the rewards for both the donor and the recipient," said Champion. "The conversations and sessions I had with the counselors were detailed and at times unusual. They not only wanted to know my medical history, they also inquired about my mental health and financial status, which didn't make sense at first."

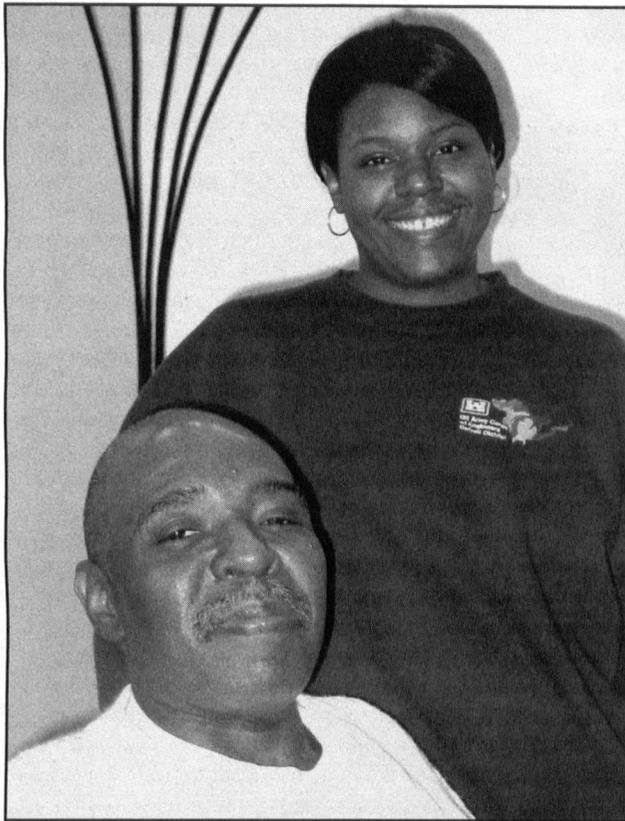
Analysis. "Donating a vital organ is a serious and personal decision, and before we allow someone to go through the entire process, we check three areas of their lives — their physical health, their mental health, and their financial status," said Andrea Spraggins, a social worker at the hospital's Transplant Surgery Center. "Of course the donor's physical health is important, but their mental health is just as important. We really want the donor to understand what they're doing, and make sure they're doing it for the right reason. The donor should not be pressured into the situation for any reason."

The financial status of the donor is important.

"This operation requires the donor to be off their feet for six to eight weeks and, for some people, they may not be able to afford taking that time off," said Spraggins. "It may seem strange that we inquire into people's financial status, but we try to cover all the bases with donors because we want them to know everything up-front."

Champion was covered under the Army's Medical Donor Program and received 30 days paid time off.

"It was very helpful to receive the 30 days leave as it took me six weeks to recuperate from the operation," Champion said. The time off from work is the only real expense a donor may incur, since all costs for tests, operation, and recovery is charged to the recipient's health insurance plan.



April Champion and her father, Webster Greene.

The process. During the three-month process, Champion visited the Transplant Surgery Center nine times before the actual surgery. "During the first couple of visits, they drew blood and did a cross match with my father to find out if we were compatible," Champion said. "I talked with the social worker on the third visit, and talked with the doctor on the fourth visit."

It is on the fourth visit when the doctor, social worker, and donor decide who will be the donor. "At this stage, we need to know who will be the donor, if there is more than one possible donor, since future tests become very expensive," said Spraggins.

In this case, there was never a doubt, said Champion.

"Although there were a number of my father's siblings, as well as my siblings who could have donated a kidney, I didn't hesitate to step forward," she said.

During the final five visits, Champion endured blood tests, urine tests, EKG tests, PAP smears and mammograms, spiral CT of kidneys, and a couple final cross matches to ensure that her chemistry and her father's chemistry had not changed since the original cross matches.

Champion's dad went through an even more complicated procedure, which also included his physical and mental health and financial status.

"The recipient's physical health is important, especially if they're older," Spraggins said. "How they have taken care of their bodies plays a big part in whether they will be strong enough to handle such an operation. We've had 70-year-olds who could handle such an operation, and 30-year-olds who could not. It's clear that patients, no matter what their age, need to physically take care of themselves."

"As far as the mental health of a recipient, we're more concerned when the donor is a family member, since this can lead to stress on both sides," Spraggins added.

"At first, I was excited to know that April was going to donate a kidney, because I always knew she would be there for me," said Greene. "But I would have stayed on the dialysis machine if I thought April would be hurt during the operation or suffer long-term problems."

As the operating date approached, father and daughter talked more about the operation to ensure each other they were doing the right thing. They were also talking to others in the family to ease any ill feelings.

"My husband, Mark, wasn't keen on the idea because he didn't have much faith in doctors," said Champion said. "But I told him I had done a lot of research on the operation and was confident everything would be fine. I also

told him that I wanted to do this for my dad. As far as trusting the doctors, we just had to put our faith in God and let Him handle the doctors."

The operation. There was no lack of support for Champion and Greene at the hospital.

"We had the entire family there," said Sharon Greene, the wife and mother in this drama. "April and Webster were able to talk to each other while they were being prepped for their operations. They were then taken to two separate operating rooms and the family waited in a room between them. The operations started about 9 a.m. and we were all nervous until we saw them at 3 p.m."

Greene was the first to be operated on. The doctors wanted to ensure he was still capable of handling the operation before they started operating on Champion. Once the doctors gave the okay to proceed, it was Champion whose surgery was more state-of-the-art.

"My surgery was performed by laparoscopy," said Champion. "I was positioned similar to the fetal position, lying on the right lower portion of my back, allowing the doctor better access to my left kidney. A laparoscopic nephrectomy requires four small incisions in the operating area of the abdomen for small operating instruments and a microscope."

"The doctor had to cut through the skin, muscle, and fat layer to reach the kidney before he could disconnect the kidney from its artery and vein," Champion continued. "Those blood vessels were then closed with a staple gun. A pelvic area incision, about four inches long, was also made to allow the doctor to retrieve the donated kidney. Each layer cut through required stitches, totaling more than 100 stitches. However, the skin layer shows only four small scars."

Champion's father was positioned flat on his back for his surgery, which required an incision 8-10 inches long to allow ample operating room for the doctor. His incision required numerous stitches and staples.

"My operation took nearly six hours and my father's four hours," said Champion. "The doctor said the biggest risk I faced was if the staples closing my arteries misfired, it could cause internal bleeding. Of course, the risk my father faced was that his body would reject my kidney."

"When I opened my eyes, I immediately asked about April, then I thanked God I was alive," said Greene. "Not only did my body accept April's kidney, the doctor said it started pumping once the arteries were connected. It was great seeing my family after the operation. I was blessed to have such great children, but God sent me an angel when April arrived. It was proven with her act of love."

Recuperation. "I was pretty sore when I got home," said Champion. "My husband and two children really helped out during the recuperation. What made me feel good about what I had done was when my husband said he was proud of me, and said I had done the right thing. I was bed-ridden for nearly six weeks, but I feel fine now. My body has adjusted to having only one kidney."

Greene's recuperation period was similar to Champion's, but the amount of medicine was more than he expected.

"I had to take more than 20 pills per day after the operation, and visit the doctor's office a couple times per week," said Greene. "I had to take so much medicine, it started making everything I eat taste bland. But my body made the adjustment and I don't have to take as much medicine."

"As I said before, I have a new lease on life and have to make some changes to my lifestyle, but this act of love won't be forgotten," Greene added. "April has given me a part of her and if she asked, I'd give her anything — a foot, a hand, just name it. I'm that thankful."

For months, Champion watched her father undergo dialysis three times per week. But because she took action, the only thing she has to watch now is the smile of gratitude on her father's face every time she sees him.

"I don't regret what I did," Champion said. "Even if my father's body had rejected my kidney, I would still believe I did the right thing."