



Corps helps Iraq resume oil exports

Article and Photo
By Steve Wright
Camp Doha, Kuwait

The first crude oil exports in Iraq's post-Saddam era began at the end of June about 100 days after the beginning of the Second Gulf War. This event occurred after extensive repairs to the oil infrastructure, and the lifting of Iraq's oil export restrictions by the United Nations Security Council.

Task Force RIO (Restore Iraqi Oil), a team of military and civilians from Southwestern Division, is playing a central role in this history-making event. The mission to assist the restoration of Iraq's pre-war oil production capacity was a tasking from the Department of Defense to the Army, which then gave the mission to the U.S. Army Corps of Engineers.

During his trip to the Middle East in late June, Lt. Gen. Robert Flowers, the Chief of Engineers, said the Team RIO oil mission is critical to Iraq's future.

"This project is so very important to the reconstruction of Iraq," said Flowers. "The oil production drives the economy. We have a chance to help establish a functional democracy in this country, which will raise the bar for other nations in the area and you can tell your children and grandchildren that you were here to help make it happen."

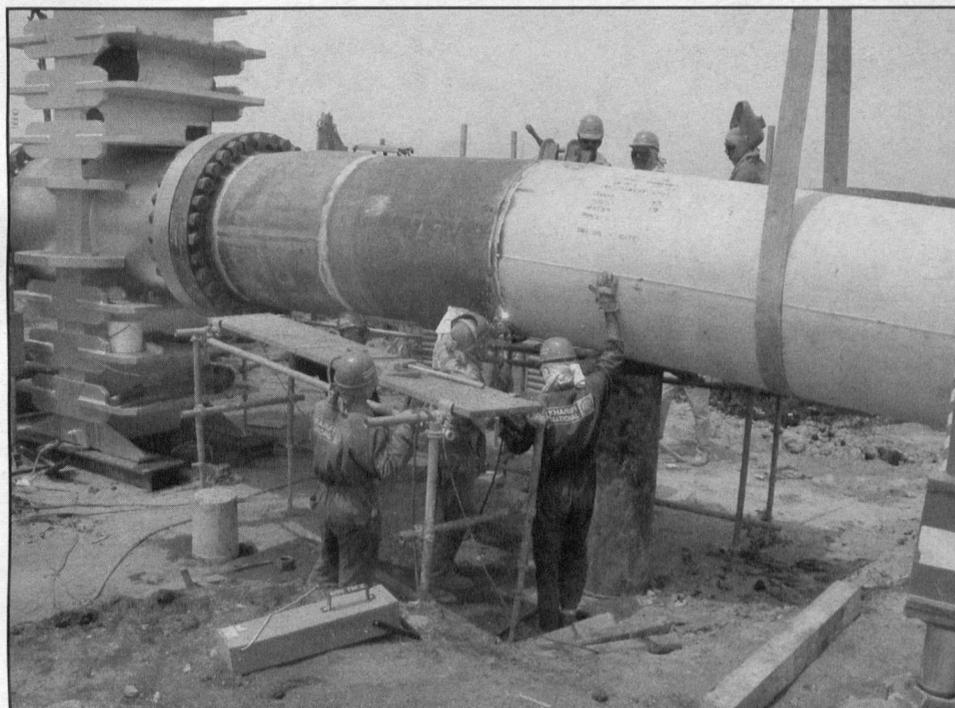
This team, commanded by Brig. Gen. Robert Crear, Southwestern Division Commander, has been in Kuwait and Iraq since Feb. 17, but began planning for the mission last December.

Iraqi oil. Exporting oil is the latest key milestone that Task Force RIO has helped the Iraqis accomplish. Working together in partnership with the South and North Oil Companies and the Ministry of Oil, Team RIO and their contractor, Kellogg, Brown, and Root (KBR), has moved swiftly to get the infrastructure operating at a level that will allow Iraq to rejoin the oil-producing nations as one of the export leaders.

Iraq can be reinstated as a leading oil producer due to its unique oil resource. It has the world's second largest known oil reserves, with large areas of the country not yet explored for oil production, but with a huge potential for future production.

Unlike most oil wells in the U.S., oil wells in Iraq do not require artificial lift such as pump jacks, the rocking arm of the oil well so common in U.S. oil fields. Instead, Iraqi oil wells operate much like artesian water wells — nature provides pressure, in some cases up to 1,500 pounds per square inch at the wellhead, to bring the oil to the surface.

The first step in Iraq's oil production system is to transport crude oil in flow lines from the wells to Gas Oil Separation Plants (GOSPs). Ronn Brock, a petroleum engineer from Corps Headquarters, said the



Workers from Kharafi International, an Iraqi subcontractor for Kellogg, Brown, and Root, finish welding a 48-inch pipeline. This section of pipeline at Ham Dan Junction near Basrah was the last infrastructure obstacle to exporting oil from southern Iraq's Rumaylah Oil Fields through the Al-Faw Peninsula.

pressure on the crude oil is reduced in several stages at the GOSPs, which allows petroleum gases dissolved in the oil to separate.

"The process is just like cola fizzing," Brock said. "When the top is popped, pressure is lowered and gas is released."

About 80 percent of Iraq's oil production is exported. Pre-war production for the last five years averaged 2.5 million barrels of oil per day. Domestic needs required about 500,000 barrels per day. Since natural gas is produced from crude oil, the more crude produced, the more natural gas is produced.

Acute shortage. There are two pipelines that leave the GOSPs, one with mixed petroleum gases and another with crude oil. From the heavier gases, propane and butane are converted to liquefied petroleum gas (LPG) while the natural gas methane component is used to fuel power plants, and the crude oil will go to the refinery, power plants, or for export.

Since the war, Iraq domestic shortages of gasoline and LPG have been acute. Since natural gas is obtained from the crude oil in the GOSP and under normal circumstances 80 percent of the oil produced is exported, lack of export production results in lack of natural gas. LPG is produced from petroleum gases in LPG plants by first compressing the natural gas obtained from the GOSPs. After compression and cooling, the desirable propane and butane becomes liquid, leaving primarily methane gas, which is valued as a clean-burning power fuel, according to Brock.

Export oil coming from the Rumaylah fields in southern Iraq is carried in a 48-inch pipeline to the tip of the Al-Faw Peninsula, then undersea to Mina Al-Bakr, a platform terminal in the Persian Gulf.

Super tankers will be guided into Mina Al-Bakr and loaded with two to three million barrels of Iraqi crude oil. They will then depart for destinations worldwide.

This same scenario will be repeated in Ceyhan, Turkey, a port on the Mediterranean, which is the end point of the Iraq-to-Turkey pipeline. Here, an Iraqi oil loading facility has storage tanks with eight million barrels. These tanks are full of prewar oil and will become the new Iraq's first sale of export oil.

A common key to exporting crude oil from Mina Al-Bakr in the Persian Gulf or Ceyhan on the Mediterranean Sea is the pipelines that carry crude oil to the export terminal.

Repairs. In Iraq most pipelines are above ground. Being above ground means that leaks are obvious and repairs are easy. However, aboveground pipelines are far more vulnerable to sabotage and are available to thieves (known locally as "Ali Babbas"). Recently, four Iraqis died when they unsuccessfully tried to tap into a natural gas pipeline to steal gas.

Since export oil travels by pipeline, the ability to export meant that repairs had to be made to damaged export pipelines. One important pipeline repair is at Ham Dan Junction just north of Basrah. This is the pipeline in southern Iraq that carries crude oil to Mina Al-Bakr Terminal in the Per-

sian Gulf. Coalition forces hit this 48-inch pipeline while shelling Iraqi forces during the conflict. The Corps put out this fire in the early days of the war, and repaired the pipeline in time to meet the export deadline.

Coalition forces also damaged the Al Fatah Bridge between Kirkuk and Baghdad in the northern oil fields. A bomb took out one span of this bridge that crosses the Tigris River and severed a segment of the pipeline, according to Ron Timmermans, Chief of Engineering and Construction for Team RIO from the Fort Worth District.

"Embedded in the bridge span were a number of pipelines that included a 40-inch line carrying crude oil to Ceyhan from the northern Kirkuk Oil Fields," Timmermans said. "When the coalition bombed the bridge, the section of the bridge dropped into the Tigris River and completely severed the pipelines."

This span has not yet been repaired, but the Corps project office in Kirkuk was able to work with the Northern Iraqi Oil Company, and together they executed a plan to reroute export oil through a pipeline running under the river.

A second segment of the pipeline was fixed using a 30-inch bypass around a damaged section of the 40-inch export pipeline. These two repairs paved the way to send oil from Kirkuk to Ceyhan.

Most recently, saboteurs damaged the Iraq-to-Turkey pipeline by using munitions to break holes in the pipeline and set it on fire. Again, aboveground pipelines are vulnerable targets for those who want to see oil export efforts fail.

Mixing oil, water. Another project on the oil export's critical path has been to provide water for oil production. Water is used for two processes in the oil field — washing the salt from the oil in the GOSPs, and injecting water in the oil field to help maintain producing wellhead pressure and increase overall oil recovery from the field.

"Oil washing is necessary because of the salt in Iraqi oil," said Brock. "If salt isn't removed before it is refined or used in the power plants, it will corrode the equipment. High salt content would also reduce the price that export oil would bring on the world market."

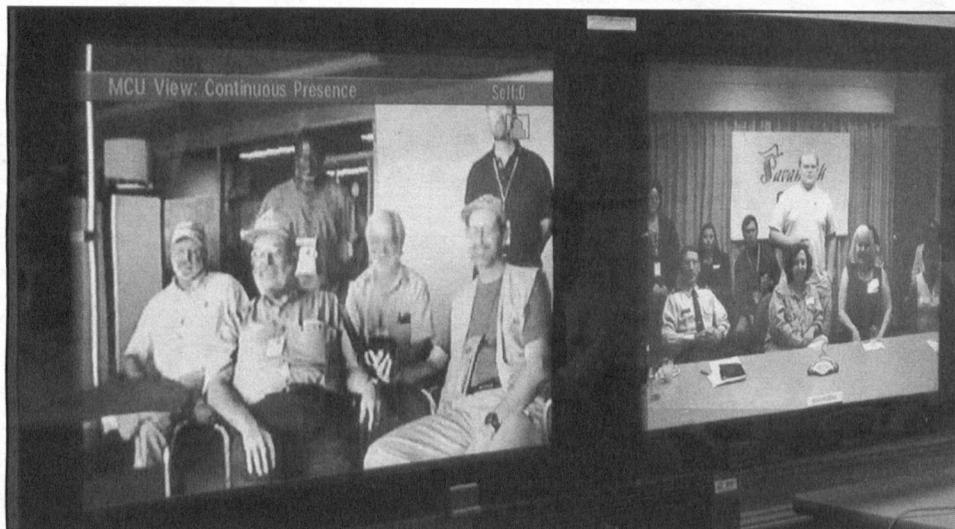
The washing process is to inject water into crude oil at the GOSP. Water and oil are thoroughly mixed, and salt prefers to dissolve into water rather than oil. Salt-free oil is then separated from the salty water.

Water injection into the Rumaylah oil fields both maintains pressure to prevent all of the gas from fizzing out at once, sweeps oil in front of the "wall" of water, and helps provide the energy that keeps the oil wells flowing. The water is injected

'Hey, Daddy!'

Video conference unites Savannah people with loved ones in Iraq

Article by Verdelle Lambert
Photos by Jonas Jordan
Savannah District



Side-by-side screens show the crew in Baghdad and in Savannah District.

It was a love-fest...and a hoot!
That's the only way to describe the video teleconference (VTC) Savannah District held on June 9 so that team members deployed in Baghdad and Kuwait City could see and talk to their families back home. There were frame delays in the video transmission from Baghdad, and sometimes the audio broke up. *But it didn't matter!*

"Pappy, are you wearing sun block every day?" asked Britta, Franz Froelicher's 24-year-old daughter.

"Am I what?"
"Pappy—?"
"You're coming in broken up, but anyway, I'm with the Iraqi Jets..."

"Are you wearing sun block every day!?"
"Never. Never touch the stuff. We're not allowed any alcohol."

"Sunscreen. *Sunscreen!*"
"We have to get permission from the three-star general to do that."

The dialog produced a laugh track worthy of *Everybody Loves Raymond*, but those who know Froelicher suspected that there was some leg-pulling going on.

The VTC began at 9:30 a.m. in Savannah, (4:30 p.m. Baghdad time). The Baghdad crew kept getting a "satellite busy" signal and technicians were not able to bring them online for some 20 minutes. *But it didn't matter.*

Maj. Timothy Mark Cauley, online from Kuwait City, was well-armed with information and repartee. (The major is responsible for receiving and moving people forward to their assigned locations and for facilitating their re-deployment back to the States.)

"All of your families are doing great," he said. "I think they're starting to itch to come home, though. I know Rob (Callahan) is; Jack (Cox) just got here. Franz is now basically the garbage meister of Baghdad. He's taken over debris removal, and everyone calls him *Sir...*"

At the district office were Froelicher's wife Margarete, his son, Niels, Britta, and a family friend; Callahan's wife Lisa, and a neighbor; Cox's wife Cynthia; and Tony Sawyer's 18-year-old daughter, Mary. Nick Mosher's wife, Margaret, joined the group from Athens, Ga., via speakerphone. Cauley's wife, Heather, and their three children arrived later.

Although in contact via e-mail and telephone, most had not seen their loved ones for almost three months. With everyone full of anticipation, the refreshments went practically untouched. Snippets of conversation flickered about the room. Laughter would erupt and then fade sud-

denly. Or waves of laughter would flood the room.

When Savannah District Commander Col. Roger Gerber weighed in, the conversation turned to business. Cauley informed the group that:

- Of the 17 who deployed, five have already returned home; one or two may extend their tours; all of the others are scheduled to leave around the middle or end of July.

- Mississippi Valley Division will deploy replacements for the Forward Engineer Support Team (FEST). That deployment is scheduled for July 22.

- Right now, South Atlantic Division team members are arrayed as four-to-five-man teams pretty much north to south throughout Iraq. "We're trying to migrate everyone in the FEST into the efforts to stand up the IRO (Iraqi Reconstruction Office)," Cauley said. IRO is basically the USACE component for the quality surveillance of Bechtel under the U.S. Agency for International Development contract.

"We're taking a different route to the TEOC (Tele-Engineering Operations Center) and bridge in that way," I.W. Harper tells the colonel. Within five minutes, Baghdad is online.

"It's voice activated, so we'll get the major back on screen if he talks," Harper reminds everyone.

"I can't keep a job over here, sir," quipped David Schmidt, Chief of Planning Division. "I think I'm on my eighth or ninth different chore." One of those chores included training Iraqi engineers to be FEST engineers. Now he's involved with the Bechtel oversight contract.

Froelicher and his wife hold a conversation in German. Someone stage-whispered a translation of the first sentence — "*She wants to know if he's lost any weight.*"

"Y'all know this is the government and we'll have this code broken in no time," quipped Nancy Mitchell of the Civilian



Heather Cauley, flanked by 4-year-old Ella and 2-year-old Annie Laura, shows her husband how much baby Molly has grown since he deployed.

Personnel Advisory Center (CPAC) after the Froelichers finished. It was Mitchell who introduced family members as they arrived and pretty much kept the comfort level high with her repartee.

All of the team members got a chance to talk to their loved ones and, although it was in a public setting two TV cameras and other folks listening, *it didn't matter.*

"They didn't mind saying, 'I love you and I miss you,'" said CPAC's Angie Yuschishin afterward.

Someone asked, "The civilian team members volunteered to deploy to Iraq, but are they making a difference?"

"Yes, we are," said Sawyer. "We're putting out some good work, taking care of these people as best we can. There are some people here who don't like us, but there are many more people here who *do* like us, and I think that when this whole thing is over, say in another five years, your grandchildren will be coming over here for vacations."

Then Sawyer joked that he wasn't coming back.

"Yes, you are," his daughter said, softly. "Dad, don't extend."

Cauley's wife, children, and sister-in-law arrived. The youngest, Molly Erin, was not quite two weeks old when he deployed.

"Major, are you still there?" Harper

asked, then to Cauley's wife. "All right, start talking."

"Can you see this?" asked Heather, holding up the baby's thigh. "Ain't that 'purdy?'" The baby was quite agreeable, no matter which way she was shown off. Heather was relaxed, unperturbed, and engaging. She told Mitchell later that she got up early to get the three children ready and drive the 60 miles to the district office. "You have to plan in advance around the baby's feeding so that she's in a content period during the time that you need her to be content."

While Molly was cooperating, the other two children (Ella, 4, and Annie Laura, 2) were not. Heather couldn't get them to talk to their daddy.

"They were so excited when we turned off Highway 16," said Heather. "They said, 'Oh, we're going to daddy's office,' but they thought you would be here... Can you say 'Hi' to dad?"

By this time Annie Laura had slithered down her chair and under the table. *But it didn't matter.*

"She was also under the pew at church yesterday," Heather told her husband.

"Well, at least she's not naked," said the major.

"She tried to get that way in the car," Heather continued. "I'm sorry; I guess I should have prepared them a little more, but I was afraid they would freak out. I didn't tell them too much about it."

"The play between Maj. Cauley and his wife was interesting," said Jonas Jordan of the Public Affairs Office, who had a camera's eye-view. "It was like no one else was in the room when they were talking. It was just them, even though the room was crowded."

"The day-to-day affairs get easier with time, with the girls and with family chores, but we just miss him really bad; that never gets easier," Heather told WTOC-TV in an interview later.

"Mark, I really appreciate your leadership over there with the team and the difference that you're making," said Gerber as things began to wind down. "Gen. Flowers was just delighted with the support that USACE is providing."

"We've got some exciting things here, David, so get wrapped up over there with what you're doing and come on home," Gerber continued. "The rest of you, your replacements have stepped in, but we need you, so thanks again for all you've done over there and the sacrifices that you've made. And to the families, thanks so much."

Then came a flurry of goodbyes...

... "Bye!"
... "Bye, baby!"
... "I love you!"
... "Bye!"

"Hey, Daddy!" came a high-pitched little voice from under the table.



Commentary

Hard work, luck saved her suggestion

Article by Debra Halmon
Photo by F.T. Eyre
Headquarters

On March 11, 1994, I turned in a suggestion that I thought would change the way the U.S. Army Corps of Engineers does business. Precious man-hours used to be regularly wasted looking for documents that got lost enroute from one office to another. That occurred at least three times a week.

I suggested using an Electronic Suspense Tracking System, and designed one using LotusNotes. I believed it would help the U.S. Army Corps of Engineers become more efficient and productive, and eliminate the use of paper.

The late Tom Wash, my supervisor, and Cary Jones, former Chief of Environmental Division in Military Programs, blessed my suggestion before it went forward to the suggestion office. I was so happy that someone believed in me!

But as my suggestion went through the processing stages, it was kicked back several times. At first I did not know what to think. I just knew that I believed in myself and so did my supervisor, the division chief, and my co-workers.

It came to me that maybe they did not understand my suggestion. I asked Susan Odom, management analyst, and she said that Information Management (IM) would be the office making the decision.

So I went and talk to Len Calabor, information specialist, and talked him for two hours in hopes that he would believe in my suggestion, and that IM would take the necessary steps to send my idea forward.

After several rejections, I went back to the suggestion book, wondering what I could do to make the process smoother. I made up my mind that I was going to see this



Debra Halmon receives an award and \$2,500 from Maj. Gen. Pat Stevens IV, Deputy Chief of Engineers, now retired.

project through. I had been told that the Corps already had what I had designed, but that didn't seem right, because only certain ones could communicate from the top in reference to suspenses.

On several occasions, I even tried to get an appointment with Maj. Gen. Pat Stevens IV, Deputy Chief of Engineers (now retired), to discuss my suggestion. But I could not get past his secretary without giving the subject title, how long it would take, etc, etc....

Then on June 10, 1994, I received my 10-year service pin. I received it from Stevens, and while I shook his hand I realized this was my chance to get his attention.

So when the general went to release my hand, I hung on.

"What's wrong," he asked as we continued to shake hands.

"I need help," I said, and kept shaking his hand. "I put in a suggestion and nobody will listen to me."

"After the ceremony I'll get you all the help you

need," Stevens answered, and finally got his hand back.

With the assistance of Jones and the Deputy Chief of Engineers, I received a \$2,500 cash award for my suggestion! It is now part of PC DOCS being implemented throughout the Corps.

I thanked Stevens for his assistance in giving me the opportunity to make a difference in the workplace. Some time later, when Stevens saw me in the hallway, he stopped and saluted me as if I were a five-star general! That was so cool! It was **awesome!**

Being saluted by a general is cool, and getting a nice chunk of change from Uncle Sam is even cooler, but I learned several lessons from that experience that I would like to pass along...

Write a suggestion. If you have an idea that you think will make a difference in the workplace, write up a suggestion and send it out. You never know; it might be accepted.

Be willing to revise. My suggestion got kicked back several times for revision before it was accepted.

Be patient. The federal system can sometimes grind along very slowly, so be prepared for the process to take some time.

Be willing to fight for it. If your suggestion is being rejected for reasons that don't make sense, don't be afraid to go to those in charge and ask questions.

Take advantage of opportunities. If I hadn't grabbed (*literally!*) the brief opportunity to talk with the Deputy Chief of Engineers when I got it, my suggestion might still be sitting in somebody's in-box instead of in use throughout the Corps.

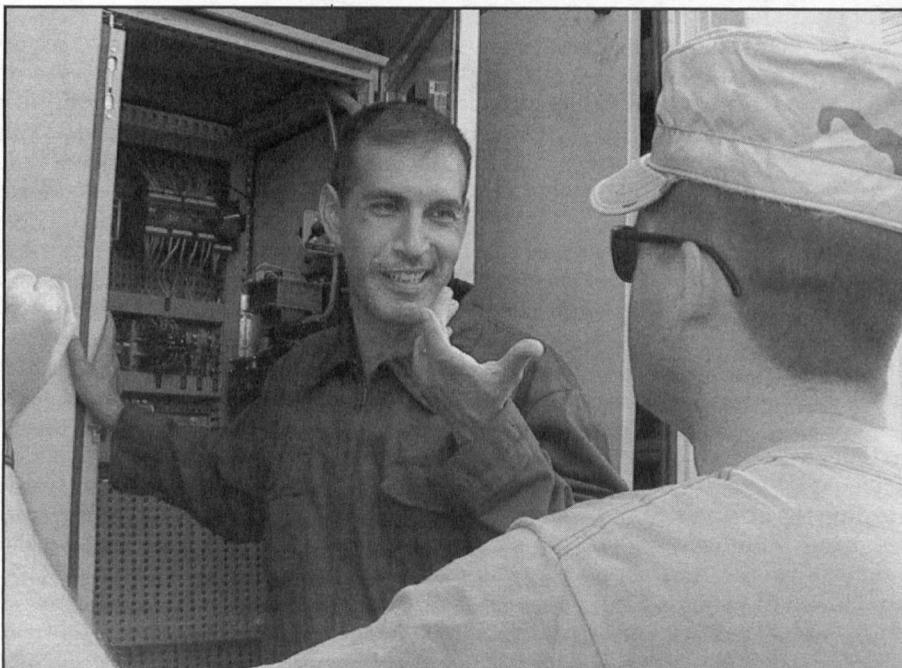
(The opinions in this article are those of the writer and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)

249th works hard, plays hard in Iraq

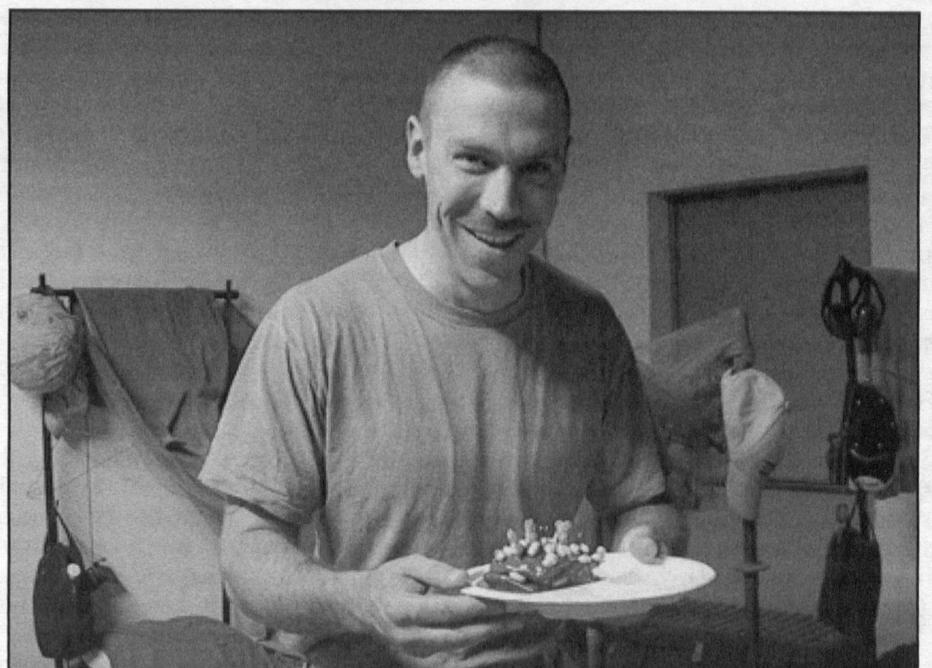
Photos by Karen Harvey
Headquarters



Soldiers of the 249th relax with "dirtball."



Staff Sgt. Thane Tolbert works with a local Iraqi engineer as they restore power to Baghdad.



Staff Sgt. Brian Schraven celebrates his son's sixth birthday with a cake made from MREs (Meals, Ready to Eat).

'Combat hydrologist'

Alaska' District team gets front-line view of Operation Iraqi Freedom

By Maj. Troy Stephenson
Alaska District

In early February, Alaska District's Forward Engineer Support Team (FEST-A) received word to depart for Kuwait and support the 1st Marine Expeditionary Force (1 MEF). After deploying via Fort Benning, Ga., and Camp Doha, Kuwait, we linked up with our Marine counterparts for combat and humanitarian planning.

Our story is a good news/bad news scenario. The *bad* news is that we were not that busy. The *good* news is... we were not that busy! Actually, that is *great* news because it is a testament to how well the fight went. Nevertheless, we made our mark in many areas.

The Marines were impressed with how well we prepared to support ourselves so that we did not burden their supplies. Our goal was to join the 1 MEF with only a few requests — a little food, a bit of gas, and lots of missions. Lt. Col. Pete Ramey, the 1 MEF Engineer Officer, said, "Alaska District's FEST-A will be my example of how a unit should come as an attachment."

We secured four vehicles through the Gulf Regional Engineer of Transatlantic Programs Center, and received a large mobile tent to work in. We could then generate our electricity, haul our water, and put our people in tents. We printed our own maps, plans, and displays.

Another great asset was Class A Agent authority, secured by Ann Volz, our real estate specialist. This let us purchase material from the local economy.

Scud bunker shuffle

We found ourselves under constant nerve-racking missile attacks as soon as the war started. By then the team had split in two, a forward element at the 1 MEF's Tactical Operations Center (TOC) at Nazarea, and a rear element at Camp Doha to match the Marines' command-and-control structure. On the first day of the war a Scud-sucker missile hit just outside the Marines' front gate at Nazarea, giving Greg Hegge, our environmental engineer, and Dave Franzen, our structural engineer, a wake-up call that this mission just got *serious!*

Meanwhile, at Camp Doha, the rear element was in gas masks and chemical suits scrambling in and out of bunkers. On one attack, our folks saw the Patriot missile crews destroy an incoming Iraqi missile. We found out later that our guardian angels had shot down a Scud.

Clarke Hemphill, our engineer, started keeping track of the trips to the bunkers and the missile attacks. I think he counted 32 before he lost count. The attacks often occurred at night and really disturbed any rest. But the team kept their humor and soon the trips to the bunkers became known as the "Scud bunker shuffle."

The missions continued, and the FEST-A accomplished many requests for information (RFI), mostly dealing with technical engineering. We dug up information on everything from bridge data and water treatment plant output to the long-term effects of chemical weapons on crops.

Into the desert

Soon, the fighting progressed far enough that it was time to move the FEST-A Forward close to the fight and co-locate with the 1 MEF TOC. FEST-A Rear continued to support the 1 MEF Main. Staff planning and mission analysis dictated that Hegge and I should become FEST-A Forward to provide the engineer staff planning, mobility, and hydrology expertise in the fight.

The 1 MEF TOC was southeast of An Nasiriyah, a battlefield that took a toll on the Marines and the Army while they secured key bridges and routes through the area. From our position there, FEST-A Forward assisted in planning and tracking information, like keeping track of bridges for repair when the 1 MEF air wing blasted them, or they were damaged by tanks crossing.



Capt. Dave Bragg meets friendly Iraqis while assessing bridge damage near Al Hillah and Babylon. (Photo courtesy of Alaska District)

Our biggest mission was to continuously watch the hydrology situation to inform the Marines if the Iraqis tried to flood our maneuver areas. We understood the hydrology nodes so that if the enemy attempted to flood the Marines, we could capture key structures and channel water away from our maneuver area and bridging sites, and protect the local Shiite Muslims.

Our environment was austere and harsh. Occasional vicious sandstorms pounded our camp. We slept in two-man tents. Chow was MREs (Meal, Ready to Eat), and our latrines were initially wherever you dug one outside the perimeter.

The occasional clear night brought lightshows as aircraft pored Iraqi units into bite-size chunks for the Marines, and Iraqi anti-aircraft fire arced up to fend off the Marine aircraft. Hegge and I would take a break from the TOC, go out to the machine-gun positions, say "Hi" to the men manning the weapons, and watch Patriot and Iraqi missiles doing their violent dance in the sky.

The Marines maintained constant vigilance on the perimeter berms. Occasionally, we got reports of possible attacks, and we all manned the berms with weapons drawn. One day, we manned the berm to thwart a suspected company-size attack that turned out to be about 100 camels moving in our direction.

Meanwhile, the Marines at An Nasiriyah engaged Iraqi regular forces, suicide bombers, and Ba'athists in ruthless fighting. Once that fight was over, 1 MEF attacked Al Kut across the Tigris, destroyed the Republican Guard divisions in our way, and turned toward Baghdad.

Al Kut

At Al Kut, a few Republican Guard divisions stood in our way. The Marine attack would be on two axis of advance to the east. Plans regarding the enemy situation, terrain, and condition of the canals, channels, and Tigris River were updated. There was concern that as we attacked east a Republican Guard division near Baghdad could attack our northern flank. The engineer intelligence officer placed a RFI with the FEST-A on whether we thought this division had the mobility to attack our flank, and how concerned 1 MEF should be. 1 MEF also wanted to know how our mobility would be affected.



Ann Volz poses with her military deployment gear at a sandbag bunker in Camp Doha, Kuwait. (Photo courtesy of Alaska District)

The FEST-A prepared an initial engineer assessment after studying the various terrain products, water studies, and bridge information, and recommended to take the risk. Any enemy who tried to traverse the flat farmland and irrigation canals would be at great risk to air attacks and artillery while negotiating difficult terrain, poor soil, and lots of canals. Simultaneously, the FEST-A passed the RFI to the Tele-Engineering Operations Center in Vicksburg, Miss., for more study.

Armed with an initial staff estimate, completed RFI, and an assessment from the Marine intelligence officer, the 1 MEF attacked and overwhelmed the enemy. They rapidly crossed the Tigris River, defeating all forces in its way, and turned north to Baghdad.

It was a great couple of days of action that the FEST-A contributed to using its internal talent, plus talents reached across the U.S. Army Corps of Engineers via tele-engineering.

War and environment

During the war, the Iraqis destroyed the environment to impede our progress, including destroying oil wells to plug rivers with oil and clog the desalination plants.

But the Marines did their best to *take care* of the environment, minimize their impact, and make sure that Marines, sailors, and soldiers were protected from environmental hazards. Brock and Hegge did yeoman's work in this area. The FEST-A inspected detention and prisoner of war camps to ensure no environmental hazards would harm the prisoners. We did environmental baseline assessments for numerous sites to facilitate efforts in restoring the areas to normal, once it was time to close our camps.

I was impressed with how the Marines took care of their areas. Every inspection showed young Marines doing the right thing. Whether it was storing solvents, handling petroleum products, or burning medical waste, they did their best under current conditions.

One joint environmental and real estate mission that the FEST-A Rear team executed reminded us that the situation is not as safe as one would like. Just as the team crossed into Iraq from Kuwait, they passed a British convoy with most of its windows shot out. The British

Continued on next page

Corps teams support Iraqi school

Article by Steve Wright
Photos by Nola Conway
Camp Doha, Kuwait

Ayoub Nasser is an elementary school principal of a small school in the Southern Iraq desert. The school's 570 elementary students are children of the oil workers who operate a nearby gas oil separation plant and associated pump station. His counterpart, Ahmed Mustafa, is the secondary principal for 350 students. Together they share the school facilities — elementary school children in the morning and secondary school children in the afternoon.

The walled school is clean, but austere. Classrooms are open door — actually, rooms *without* doors. The one- or two-window rooms have ceiling fans to move the heat-soaked air that can reach more than 120 degrees in Iraq's summer season.

The school is rich in children with megawatt smiles and teachers committed to education. But the school is *missing* geography, social studies, and history books that need replacement. These books contained Saddam Hussein's unique view of the world, a perspective that will no longer be part of the curriculum.

"UNICEF has written a letter to get us new textbooks and exchange them for the books that praise Saddam," Nasser said.

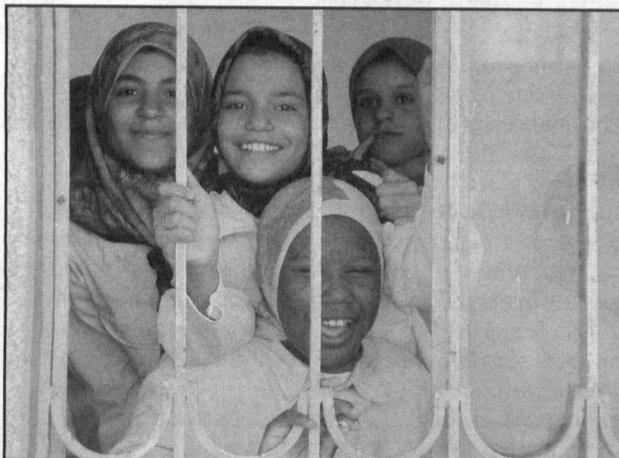
Also missing are spiral notebooks, pens, pencils, soccer balls, blackboards, chalk... most things that we just take for granted in a school.

But that was about to change...

For three days, the school was closed. Actually, it was rented to the U.S. Army Corps of Engineers for three days to process identification badges for Southern Oil Company workers ready to return to their jobs. Tom Logsdon, Team Restore Iraqi Oil (RIO) Deputy for Project Management, said the rent paid for these three days was important to the school.

"We rented this facility for three days for \$1,000," said Logsdon, from Tulsa District. "This is enough money to pay the school's 44 teachers, two principals, janitor, and security guard for a month."

After visiting the school and speaking to the principals, I went back to ask them if they would consider an Adopt-A-School program. Assisted by the Corps' interpreter, Jonas Elia, I explained how the program works in the U.S. Both principals were very formal until they began to understand the concept. Then they both smiled



Al Rumayla High School students gather at a classroom window to watch Corps people delivering school supplies.

and became animated. Yes, they were willing to participate in the Adopt-A-School idea.

The first hurdle cleared, I moved on to find out what Brig. Gen. Robert Crear, Team RIO's Commanding General, thought of the idea. Easy question and quick answer — "Sure," Crear said. He knew the school I was talking about. He was there earlier when the first oil workers received identification cards.

Later in the evening, the idea was briefed to the Team RIO members during the staff huddle. In less than five minutes, a flurry of bills in various denominations netted \$373, and the Adopt-A-School was approved, funded, and ready for implementation.

Either luck or divine intervention introduced Lt. Col. Ricky Nichols into the Adopt-A-School program. Nichols is an Army Reservist from Moulton, Ala. In civilian life, he is the high-energy principal of Lawrence County High School. Nichols was near the end of his tour active duty tour at Camp Doha with extra time on his hands.

With the advice of Nichols and money from Team RIO, we began to provide items the school needed. We gathered 600 notebooks, 600 pencils, five soccer balls, five volleyballs, four ping-pong paddles, nets, and balls. Nichols also collected five boxes of care packages that had been sent to soldiers and civilians from home.

But, he wasn't done yet.

"I told my teachers and students back home about the



Team RIO joins the staff and children of Al Rumayla High School for a group photo after delivering supplies to the school.

school, and they began raising money and donating things for the Adopt-A-School," Nichols said. "We now have 21 boxes of donated school supplies in the mail to Team RIO."

Nichols also visited Camp Doha's Defense Reutilization and Management Office (known less formally as the disposal office), and asked for excess computers to give to the school.

"I was *this close* to getting my hands on the computers, and then the final approval guy needed one more form," Nichols said. That form is now filled out, and Team RIO's Larry Gill, a logistician from Pittsburgh District, will accept the computers on behalf of the Corps to be given to the schools.

Again, the special capabilities of the Corps and Team RIO merged for success. Dr. Ghassam Al-Chaar, a native-born Syrian and structural engineer from the Construction Engineering Research Laboratory in Champaign, Ill., was willing to help out.

"Reaching out to the young children is really the right thing to do. How can I help?" Al-Chaar asked. "We have an Arabic Microsoft program here, so I'll send Microsoft an e-mail and ask them if they will help us."

Also on the Team RIO staff is Naiam Rizk, an Egyptian-born engineer and computer specialist from New Jersey. Rizk and Al-Chaar will help train the school's teachers in how to use computers and software.

Army Reservist Lt. Col. Kathy Coury wanted to help the school, too. Coury, a Girl Scout leader in New Jersey, contacted Scout leaders and Girl Scouts in three New Jersey counties, and they have made the Adopt-A-School program their service project.

The final good news to date came from Cathy Gist and Melissa Norcross of Kellogg, Brown, and Root (KBR). KBR is Team RIO's contractor in Iraq. Gist and Norcross, based in Houston, came to Kuwait and Iraq with a *New York Times* reporter and had the chance to visit the school with me.

During another visit, Gist and Norcross announced that Halliburton would like to help the Adopt-A-School program and sponsor *five* schools in southern Iraq.

"Steve, that really made your eyes light up," Gist said. "We have a corporate policy to help the communities that we work in, and this is a good opportunity to contribute to Iraqi school children. So please find us four more schools."

Public affairs specialist Nola Conway has helped with this community relations project.

"This is a great opportunity to interact with the Iraqi people," said Conway. "What Operation Iraqi Freedom is all about is the children and their future. Supporting education is the real future, and it can be seen in the smiles of children. These are beautiful children."

(Steve Wright is the Public Affairs Officer of Huntington District. Nola Conway is a public affairs specialist in the Public Affairs Office of Walla Walla District. Both are currently with Operation Restore Iraqi Oil (RIO) in the Forward Engineer Support Team Main (FEST-M) at Camp Doha, Kuwait.)

Combat

Continued from previous page

soldiers were taking cover and maneuvering to gain position on their assailants. The FEST Rear sped through the area to Basra to complete their mission. They had missed an ambush by minutes.

Combat hydrologist

One evening, some Marines inquired about why the Army wears a unit patch on the right sleeve, and we told them that it means the individual served in combat with that unit. The Marines asked if we would wear a 1 MEF patch instead of an Army patch, and they were happy to hear that FEST-A would be proud to wear the 1 MEF patch on our right sleeves.

Days later, the FEST-A and Marine security went to the Nahr Diyalya River to take water measurements and calculate flow. This area was heavily fought over, with destroyed bridges, pockmarked concrete, and shrapnel. We made numerous depth and velocity measurements and checked other bridge sites for river condition.

We drove home in two vehicles with security. A vehicle passed and suddenly shots were fired. It sounded as if they came from the passing vehicle, but our corporal, who had the only rifle, returned fire to a building, while I and the Marine major with us trained our pistols on the vehicle.

The corporal explained that the shots came from the building and not the other vehicle, that he could see muzzle flashes and hear bullets whiz by his head. Our rear vehicle confirmed that the shots were from the building and not the other vehicle.

Our trip home was uneventful after that. Once we got back, we decided that instead of 1 MEF combat patches we needed combat hydrology patches — maybe a patch with a weir and a flood gate, or some kind of hydrograph.

The rest of the story

I'm back home in Alaska District now, and the combat is over in Iraq, but there are still dangers there, as we can all see on the evening news.

The FEST-A operational tempo increases every day, and the complete team is now consolidated just south of Baghdad. Their focus is assisting and executing the humanitarian missions that will stabilize the peace and help the Iraqi people.

If you meet 1,000 Iraqis, 900 will give you a wave and a smile, 80 will seem oblivious, and 20 will not care for you. With continued progress and smart engagements using our engineering talent, the FEST-A team can give the Iraqis more freedom and improve their lives.

(Maj. Troy Stephenson is the Deputy Area Engineer for the Northern Alaska Area Office of Alaska District.)

Corps learning to be a Learning Org.

By Patricia Graesser
Seattle District

The U.S. Army Corps of Engineers is determined to become a Learning Organization. But how? How does a 227-year-old federal agency make sure that every lesson is retained, and passed on to the future?

"It's not the written lessons that's most important," said Craig Forget, Buffalo District project manager. "The name of a person who has been through it is most important."

Understanding and documenting what went right and wrong with a project is important, and this "lessons learned" process is a critical part of the Project Management Business Process (PMBP).

But an important goal of a Learning Organization is to move beyond documenting to ensuring that one team's lessons get applied to the next team's project.

Five steps. Districts have applied different tactics to ensure that lessons learned are shared district- or Corps-wide. A team from the Great Lakes and Ohio River Division developed a guide for a system centered on after action reviews.

The document *Techniques for Learning* in the LRDRBC describes the system in five steps:

Learn Before — Before we start a new project or major phase of a project, we ask ourselves who has done it before, and what can we learn from them. We identify in our project management plans (PMP) and quality control plans (QCP) a person to seek this information.

Learn During — At intervals during the project we pause and ask, "What have we learned?"

Learn After — At the end of the project (and at the conclusion of the planning, design, and construction phases), we stop and capture our lessons learned and present them in a way that a future user could find and re-use them. We schedule time for these events in our PMPs and QCPs.

Create Specific Recommendations — When we find problems, we also find and implement solutions to prevent the problem in the future.

Use a Knowledge Bank — All lessons learned and specific actionable recommendations from Buffalo are entered in the Design Quality Lessons Learned (DLL) module on the ProjNet website maintained by the Construction Engineering Research Laboratory (CERL).

Buffalo District. To incorporate this process into daily work, Buffalo District has expanded the use of the Design Quality Lessons Learned module to serve as a district-wide lessons learned system. Every person in the district is registered to use the system. To make it easier, the district intranet has a "how to" presentation with sample screens from the lessons learned module. It is available at <https://lrbintra.lrb.usace.army.mil/pages/p3m/ProjectMgt/AAR/AAR.htm>.

"The key is talking to people," said Forget. The lessons learned module provides an electronic database, and the names of people with experience. Forget said the value comes from talking before a project starts with a person who has been through a similar experience, and using those lessons to avoid mistakes and apply best practices.

Huntington District. At Huntington District, the Quality Management Section works to ensure that information entered into the Design Quality lessons learned module are truly valuable lessons learned, according to Bill Miller, chief of the section. All lessons are routed to one person in the section, who evaluates them and places those of value into the system.

Anyone can query the system when initiating a project, but that wasn't routinely happening at Huntington. Miller's office now works to ensure that lessons learned serve as useful background for project delivery teams.

In monthly meetings, Miller's office tries to note any new projects being initiated and queries the lessons learned system for any lessons learned during past similar projects. They then supply those specific lessons learned to the lead engineer on the project delivery team.

Huntington is an ISO 9000 certified district. It reviews its processes at least annually, including the process of using lessons learned for new projects. An annual external audit ensures documented procedures match real actions.

"ISO requires that you look at procedures to determine if you're really following them," said Miller. "If not, then you can either change the procedure, or management can reemphasize the procedure's importance."

Keep talking. "You've got to keep talking," said Jack Rintoul, Buffalo's chief of PPPMD. "We talk about it in the Project Review Board (PRB) meetings, and in an After Action Review after the PRB. You walk around and ask what people found. The commander at PRBs might ask a PM what he or she found from past lessons learned."

The expectation is that as the project management plan is drafted, lessons learned are either addressed up-front in the document, or a team member is selected to be responsible for finding corporate lessons learned for the team.

The Design Quality module of DrChecks captures lessons learned during existing processes. Employees conduct business using the usual automated programs, except a feature lets them identify repeated deficiencies, critical problems, and innovative ways to do their work. This feature is a Yes/No button for the user to submit the lesson to a web-based repository.

Experts evaluate submittals and either approve or reject them for use in the repository. Persons submitting items receive automatic e-mail with status updates.

Saves money. Besides improving business processes, DLL saves money by avoiding errors. When DLL

has been used with DrChecks, an independent study showed conservative savings of \$32,000 in construction costs per project by identifying lessons that caught mistakes during design review.

While this number was based on a limited study, taken Corps-wide and across multiple business processes, the savings can be substantial, according to CERL.

DLL use. Use of the Design Quality module began in 1997 with Seattle District. By 2002 more than a dozen districts were using the Design Quality Lessons Learned module. Several districts have procedures to encourage project delivery teams to take the time at the initiation of a project to search relevant lessons learned and best practices. Two organizations show how this can be done.

Alternatives. Pacific Ocean Division (POD) and Louisville District use commercial off-the-shelf software.

"We, too, have found that we can incorporate lessons learned into our daily work as we develop and document our processes," said Frank Oliva, Civil Works and Technical Director for POD. "We've found that for our needs, the web-based SharePoint system is simpler and more useable for other than technical comments."

"The problems related to lessons learned are how to capture the lessons, how to get them out to the people, and how to get them used," said Robert Curnyn, POD proponent for PMBP certification using the ISO 9000 process.

Louisville District has found that the web-based QualTrax program provides them with the tool they sought to both manage their PMBP Manual and immediately integrate lessons learned into those processes, according to PMBP manager Carolyn Deane.

The ISO 9000 certification requires that the district demonstrate continual improvement. QualTrax allows any employee to submit lessons learned, opportunities for improvement, or non-conformances. This information goes to the PMBP management team for review and analysis. When they find systemic issues, the team reviews procedures, revises them where necessary or provides training to the workforce.

"You don't just collect data, you fix the problem," said Deane. "AARs address both what went right and what did not go right. We're trying to capture the spectrum of project issues so we can keep, discard, and change processes. The emphasis is on continual improvement."

The Louisville District PMBP manual is available at <http://www.pmbpmanual.lrl.usace.army.mil/qualtrax/quality/asp/Default.asp>, and it will soon be available on the Corps' PMBP portal.

While these systems are not yet accessible Corps-wide, Louisville and POD have both expressed satisfaction with how their systems are working.

(The Command Council Liaison Team provided valuable help with this article.)

HR Corner

PDSC offers wealth of instruction

The U.S. Army Corps of Engineers Professional Development Support Center (PDSC) in Huntsville, Ala., provides instruction on everything from construction safety to restoration of historic structures, and the operating environment in between.

"We're in the midst of a knowledge explosion, where the rate of knowledge creation in our society is 200,000 times faster than the growth of the human population," said Gary Andrew, Chief of the PDSC. "Today's economy suggests that if an organization is to remain competitive, it must position itself on the leading edge of change, look to new ways of improving its posture in the market place, and become more sensitive to customer needs."

Under the supervision of the Headquarters Directorate of Human Resources, the center provides instruction to students from all federal agencies that either own or man-

age real property and real estate, including Native American Tribes.

Proponent Sponsored Engineer Corps Training (PROSPECT) courses are delivered in a variety of ways, including traditional classroom in the center, at the customers' location, or at a regional location convenient to our primary customers.

Technology is employed to deliver popular courses to the workstation via the Internet, CD-ROM, and in hybrid formats involving the best of both modes. The center employs a state-of-the-art video teleconferencing system to deliver high-priority perishable training and other command emphasis programs to customers.

"Rapid dissemination of information and training is the key to an organization's ability to cope with change and remain competitive," said Andrew.

The PDSC provides these services for the entire USACE workforce.

A team of managers, leaders, course managers, training technicians, facility schedulers, contract support team, and administrative support personnel are the heart of the Corps' Proponent Sponsored Training Program.

Highly dedicated instructors, who excel in their areas of expertise, are selected from Headquarters, divisions, districts, laboratories, the PDSC, or from universities and private firms to design and teach the courses.

The course catalog for the program, known as the Purple Book, currently lists more than 200 courses covering a wide variety of topics.

For more information about the PDSC, or to register for PROSPECT courses, check out the website at <http://pdsc.usace.army.mil>

Around the Corps

Outdoor recreation legends

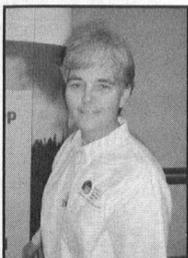
Two Corps people were recognized as Outdoor Recreation Legends by the American Recreation Coalition.

Joe Woods is the Chief of the Project Resources Management Branch in the Operations Division of Vicksburg District. Throughout his nearly 40 years of service, Woods has been a moving force in raising the Corps's commitment to providing top-quality recreation facilities, services, and programs on 500,000 acres of public land in Arkansas, Mississippi, and Louisiana.



Joe Woods.

The Corps and the Forest Service have collaborated on the National Recreation Reservation Service (NRRS) since 1997. The NRRS provides recreation reservation services to the public for Forest Service, Corps campgrounds, cabins, and Boundary Waters Canoe Area permits. **Lynne Beeson** of Savannah District was honored for her partnership with Carol Holtz of the Forest Service. Beeson is an outdoor recreation planner and was part of the team that developed specifications for a "One Stop" federal recreation reservation service. In 2001, she became the Interagency Program Manager for NRRS.



Lynne Beeson.

61st birthday

To celebrate New England District turning 61, Col. **Thomas Koning**, District Engineer, threw a birthday party. Held in the cafeteria on May 1, NED employees crowded into the Concord Park cafeteria during break time to join Koning, who treated them to a piece of cake.

Koning said that NED has evolved in 61 years. "We've experienced many changes, including going from a division to a district and adding a military mission. But the basic function as an organization has remained relatively constant. We have enough challenges in the work we do that celebrating the good things cannot be underdone."



The *Irvington* is Mobile District's new survey boat. The 45-foot catamaran is capable of speeds in excess of 30 knots.

New survey boat

A new 54-foot catamaran, the *Irvington*, is Mobile District's new survey boat. Kvichak Marine Industries, Inc., in Seattle built the boat, which is moored in Arlington, Ala., near Brookley Field. The *Irvington* cruises at 27 knots (31 miles per hour), but can reach speeds of up to 33.5 knots (38.5 mph). It is 54 feet long and 20 feet wide and is partially supported by two hydrofoils, one fixed amidships and a steerable one near the transom.

The \$2.4 million boat is equipped with forward-looking sonar and a multi-beam survey system. The sonar searches a portion of the water in front of the boat 120 degrees wide

from the surface down to an angle of five degrees, and presents the results as images of bottom features. The multi-beam survey system's transducer lowers between the hulls for survey work, but can be raised above the deck for maintenance while the *Irvington* is underway.

The *Irvington* replaces the *Gatlin*, which served Mobile District for 30 years. The *Gatlin* is now with the Naval Surface Warfare Center in Dahlgren, Va.

City of Hope

The City of Hope Medical Center honored the family of Terri Kaplan, L.A. District's Real Estate Division Chief, at a special luncheon in Beverly Hills, Calif., on May 21.

Traditionally, the Sportsmen's Club/Diamond Circle 55th Annual Spring Luncheon and Fashion Show recognizes individuals who demonstrate extraordinary commitment to the center's research and clinical care. This year, for the first time, an entire family received the award.

A message from the event's co-chairs explains, "The Kaplans, Rosalie, Steven, and Barbara Kaplan, Michael and Terri Kaplan, Bonnie Kaplan Fein, and Ronnie Fein, along with their children and grandchildren, represent the epitome of dedication City of Hope volunteers. Each has made supporting the City of Hope not only a priority, but also a family tradition for decades. It is fitting that the entire family receive The Spirit of Life Award... since the figure symbolizes City of Hope's belief in the fundamental role of the family in fostering health and well-being."

Forest growth

Personnel from St. Paul District's Natural Resources Project Office in La Crescent, Minn., partnered with St. Louis and Rock Island districts to decide how to establish permanent forest monitoring plots on Corps lands in the three districts.

The objectives of the monitoring are to document long-term trends in forest growth and health, and changes from site elevation, soil structure, and disturbances such as floods or wind damage.

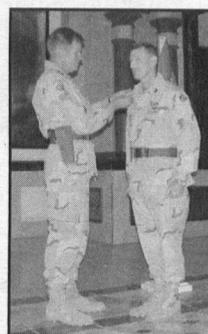
The group visited islands in pools 22 and 24 on the Mississippi River and established two plots. All plant species in the plots were identified, trees heights and diameters were measured, and elevations were surveyed. The sites were marked with metal posts and by blazing (cutting the bark) in trees surrounding the posts, then painting the blazes.

Team members want to establish 100 plots in each district in three years. Plans are to revisit the plots every five-to-10 years.

Frocked in Iraq

On May 30, Lt. Col. Mark Held, commander of the USACE Iraqi Reconstruction Office, became the first Army officer frocked as a colonel in an Iraqi presidential palace. Maj. Gen. Carl Strock, the interim Baghdad city administrator and Director of Military Programs at USACE Headquarters, pinned the eagles on Held.

"What could be better than to be promoted in the former home of the Republican Guard," Held said. "It's my personal strike against terrorism."



Lt. Col. Mark Held is frocked as a colonel.

Photo contest winners

Mike Watkins, Kansas City District, captured both first and second place in the Spring/Summer Visitors Category in the 2002-2003 Water Safety Photo Contest, and a second place Scenic category on his way to his second sweepstakes title. He also took the sweepstakes award in the 2001-2002 contest.

Park ranger Sondra Hafling, Nashville District, earned first place in the Fall/Winter Recreation Category with an

image of her niece and sister-in-law searching for eagles during Eagle Watch 2002 at Dale Hollow Lake. James Johnson, an electrician at Wolf Creek powerplant in Nashville District, captured first place in the Scenic Category with a photo of Wolf Creek Dam.

Dredging project

The removal of six million tons of debris in the Providence River and Harbor in Rhode Island started quietly on April 12 when dredges lifted the first of many cubic yards of material from the silted-in federal navigation channel.

The project involves dredging the federal navigation channel in the Providence River. Shoaling has reduced channel depths by more than eight feet in places, creating draft restrictions and significant time delays for deep-draft vessels. The project involves dredging more than six million cubic yards of material to return a seven-mile stretch of the federal navigation channel to full authorized dimensions — 40 feet deep and 600 feet wide.

Work will take 18 months. The \$43 million contract was awarded to Great Lakes Dredge and Dock Co. last December. The state's cost share is about \$7.4 million.

About 1.5 million cubic yards will be placed in confined aquatic disposal (CAD) cells. The remainder of the maintenance material and suitable CAD cell material will be placed at an offshore disposal site in Rhode Island Sound.

Wheeler Medal

Dr. Larry Lynch, a research engineer with the Engineer Research and Development Center (ERDC), received the 2002 Wheeler Medal from the Society of American Military Engineers (SAME). The medal is awarded to a military or civilian member of the Army for an outstanding contribution to military engineering in design, construction, administration, research, or development.

Lynch was recognized for his leadership in Tele-Engineering, which allows personnel deployed worldwide to talk with experts in the U.S. He has led the development of Tele-Engineering since its beginning in 1997. He also helped develop and field the Tele-Engineering Communications Equipment. The current deployable system is one small box, a laptop computer, and a satellite telephone. This system is one of the main components of Tele-Engineering, and is currently deployed with military units in Afghanistan and Iraq.

New positions

Headquarters has established two new positions, a GS-15 Chief Environmental Planner and a GS-15 Chief Economist, and these positions are now in recruitment. These actions are essential toward ensuring strong environmental and economic technical leadership in the Corps.

While the recruiting process is underway, Forester Einarsen will temporarily fill the Chief Environmental Planner position in addition to his existing duties, and Harry Shoudy will fill the Chief Economist position in addition to his existing duties. These assignments will continue until the permanent positions are filled.

In addition, the duties of Chief Plan Formulator have been added to the existing duties of the Chief of Guidance Development Branch. Harry Kitch will permanently "dual-hat" as branch chief and chief plan formulator.

Railroad bridge rehab

The Corps is completing a \$25.5 million rehabilitation of the Cape Cod Canal's Vertical Lift Railroad Bridge. Built in 1935 and owned by the Corps, this is The Railroad Bridge's first major renovation.

The two-phase Railroad Bridge Rehabilitation Project began in spring of 2001. In Phase I, steel members were replaced, and the bridge was sandblasted and repainted.

Phase II began March 2. It includes replacing the entire operating and electrical system, the counterweight cables, the tracks and railroad ties, and the bearings and shafts on the sheaves. Estimated completion is Oct. 30.

Theft of identity is a major problem

Article by Mike Tharp
Los Angeles District
Artwork by Jan Fitzgerald
HECSA

"O Romeo, Romeo! Wherefore art thou Romeo?" asks Juliet in the famous balcony scene. She comments later, "...a rose by any other name would smell as sweet."

Unfortunately for victims of identity theft, your name *does* matter, and with mounting assaults from those who would steal it and use it for ill-gotten gain, you should take common-sense steps to safeguard its security.

Los Angeles District team members know this too well. About 170 fell victim to an identity theft ring three years ago. More than \$1 million was charged to their credit cards and other parts of their portfolio by a former employee who sold ID data to a Los Angeles street gang. Home addresses, social security numbers, dates of birth, and other identifying info were pilfered from intramural files, given to the former employee's boyfriend, who shopped them to the East Side Hustler Crips.

Their hustle landed them in jail. Five people were convicted on federal charges and sentenced to prison in 2001.

"It hasn't been nearly the same problem since," said Burke Large, Assistant District Counsel and procurement fraud adviser. "But people need to be reminded to remain vigilant, especially those who were working here when their personal identities were compromised."

Big problem. Last year congressional investigators estimated that costs tied to identify theft soared past \$1 billion annually. The Federal Trade Commission said in 2002 that 162,000 cases of identity theft topped its list of consumer fraud complaints — 43 percent of all such gripes.

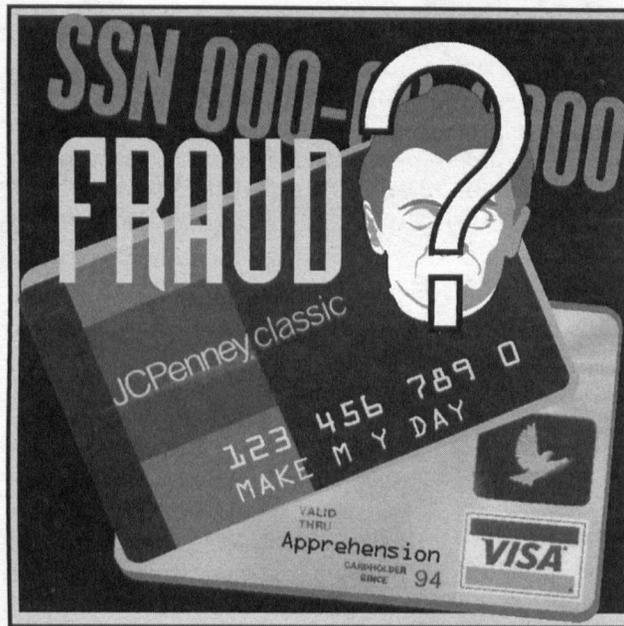
CNET News columnist Johnathan Rusch cites a projection by Meridian Research that by 2006 the financial sector alone will lose \$8 billion to identify theft, and he estimates that 500,000 to 700,000 people a year will become ID theft victims.

So far this year, the L.A. County Sheriff's Dept. says it has gotten some 6,000 identity theft complaints.

"Identity theft is, perhaps, the signature crime of the new economy," said Sen. Diane Feinstein at a 2000 hearing in Los Angeles about the problem. "Modern technology has made vast amounts of personal information obtainable at the click of a keyboard, leaving our personal information vulnerable to interception and misuse."

This crime is a paraphrase of Supreme Court Justice Potter Stewart's famous definition of obscenity... You'll know it when you see it, but by then it's too late.

In the L.A. District case, for example, the perpetrators, equipped with stolen names, addresses, and social security numbers, simply substituted new addresses where bills should be sent. That ensured the legit cardholders didn't



find out for months that their cards had been maxed-out at Home Depot or the liquor store.

Only when their overdue accounts were turned over to collection agencies, which dunned them for purchases they'd never made, did some district employees realize they'd been had.

L.A. District cases. That's what happened to Programs and Project Management Division project manager Howard Thio. Stunned when collection agencies began hounding him for charges he never made, Thio discovered the ID thieves had used his stolen social security number to obtain a new Sak's 5th Avenue credit card with a different name and address.

"I've never gone to your store," Thio told Sak's officials. "I don't even know where your store is. What the hell's going on?"

Only after the Army's Criminal Investigation Division provided documentation did Sak's head office finally back off. Thio says the whole process took nearly four years.

Construction Operations electrical engineer Nick Golshani believes he may have sustained the largest losses — between \$50,000 and \$60,000 were billed to his credit cards, including one for almost \$10,000 to Home Depot.

When he found out, Golshani disputed the bill; Home Depot told him his address on the card was in Inglewood, Calif. "I've never been there in my life," he said. He cancelled the card, but his credit rating had been damaged. To refinance his home, he had to pay 1 percent more in interest rates. "I think I was hit the worst," he said.

Something similar happened to another district team member, who asked not to be identified. "They (ID thieves)

changed my address and then called the creditors (Sears, J.C. Penney, and Montgomery Ward) and told them I'd gotten married so my last name had changed," she recalls. "Luckily, my credit cards were all maxed-out so they didn't get me for any merchandise purchases."

This woman didn't find out about the scam till she stopped getting statements. When she called the stores and learned what happened, she provided them with backup for her real identity and discovered the address where her bills were going. "I was going to go over there myself, and next thing you know, the FBI was already on the case," she said.

Some \$26,000 was billed to bogus credit cards for one 20-year district veteran, who also asked not to be identified. Charges were made at Home Depot, Saks, Sears, and a Las Vegas home entertainment store, and it took dozens of hours to ensure that he didn't have to pay them.

This team member recommends "no changes can be made on your address without some form of real proof, not over the phone." He notes, "People hired to take that information aren't security cops, they're more like telemarketers. They're not going to be watching out for you, so you have to watch out for yourself."

How it's done. Stealing your identity can take as many forms as old-fashioned robbery. ID thieves rummage through trash bins for discarded receipts. They rip off personal data from unsecured websites. They pose as landlords and employers to access confidential details. One New York busboy duped credit companies into giving him celebrities' credit histories by forging document requests on the purloined stationery of major investment banks. Two cyber cons in Florida pickpocketed the social security numbers of deceased persons from the Internet.

James Huse Jr., Inspector General for Social Security, calls identity theft an "enabling" crime that lets criminals commit other crimes ranging from passing bad checks and defrauding credit card companies to terrorism.

Self-defense. So how to outfox the financial ferrets? Preventive tactics include:

- Release your social security number only when necessary (taxes, job records, etc.).
- Don't give any personal information over the phone, unless you know and trust the person or firm.
- Get a copy of your credit report at least once a year.
- Don't use your home mailbox to send sensitive financial records. Deposit them in a federal mailbox.
- Shred personal info before discarding it.
- Never leave receipts at ATMs, gas stations, etc., and save credit card receipts to match against monthly bills.

If you've been victimized by identity thieves:

- Report the crime to the Federal Trade Commission's toll-free number (1-877-ID-THEFT).
- Contact the fraud departments of the three major credit bureaus (Equifax 1-200-525-6285; Experian 1-888-397-3742; TransUnion 1-800-680-7289) and tell them to flag your file with a "fraud alert tag" and "victim's statement."

But Golshani says he had a tough time reaching a human being at the bureaus. "I don't want my worst enemy to try to contact those bastards," he said. He advises ID theft victims to create a secret password to protect private data.

- Call the Social Security Fraud Hotline 1-800-269-0271, if you suspect fraud. To verify the accuracy of your Social Security information, call 1-800-772-1213.

• Close any financial accounts that may have been tampered with, and insist on password access for new ones.

- Contact your creditors for any accounts you think may have been misused or fraudulently opened.
- File a police report where the crime occurred.

Several Web sites offer help: www.consumer.gov/idtheft, www.ssa.gov, and www.identitytheft.org

As identify theft spreads throughout American society, many otherwise sophisticated people have been stunned to discover that in these cases, "the victim often has to prove his or her innocence," according to the identity-theft website. "This shocks most new identity-theft victims. They naturally expect the police, the credit grantors, the credit-reporting agencies and others in high places to help them. Maybe it should be that way...but often it isn't."

Iraqi oil

Continued from page one

into the field through oil wells that are no longer producing. It is filtered and free from particles that might clog the sands or rock formations and could also foul the reservoir producing "sour" gas, according to Stan Reese, a chemical engineer from Huntsville Center and a former oil company engineer.

"Oil is forced out when water is pumped in," Reese said. "If you allow pressure to diminish in the oil reservoir underground, gases separate from the crude oil, which reduces the future capability of the reservoir. Water also has to be treated to remove oxygen and eliminate biological activity that would degrade the sub-surface oil and damage the rock and sand structures' production capability. It's not much different that treating your swimming pool for algae."

For water for injection and oil washing, the Rumaylah Oil Fields relied on the Quarmet Ali Water Plant near Basrah. This water plant was a target of sabotage and looting after the Gulf War began. As

a result, the source of water for both oil washing and injection in the southern oil fields was destroyed.

Back to life. But Quarmet Ali Water Plant is being brought back to life. Working 24/7, Team RIO and KBR have reestablished limited water filtration and pump capacity to meet the oil washing needs.

Increasing pump capacity to provide both additional water for injection into the reservoir and to increase pressure sufficient for reservoir injection will be accomplished within a month.

In late June, Iraq rejoined the oil-exporting nations. This is an accomplishment that was not easily reached. The partnership of Iraqi Oil Ministry and its employees, the Corps represented by Task Force RIO, and KBR has been challenged to develop a working relationship and level of trust that led to overcoming many hurdles to get to this historic point of exporting oil.

This accomplishment is an important milestone on the restoration of Iraq's oil production capability.