



## Bombing memorial dedicated in OK City

Article and Photo  
By Dave Cash  
Memphis District

*(Editor's note: Five years ago, Dave Cash, Chief of Construction-Operations Division in Memphis District, responded to the bombing of the Alfred P. Murrah Federal Building in Oklahoma City, Okla. Last April 19 he went back for the dedication of the memorial, and wrote this article about the experience.)*

They came from all over the U.S. — California, Arizona, Washington, Florida, Virginia — but mostly from Oklahoma. They came as they had five years earlier. This time, however, they came with mixed emotions of sadness and joy, unlike the previous ones of anger, sorrow, and questioning.

All of these thousands of people, like me, were joining in Oklahoma City to dedicate the newest national memorial to forever remember the bombing of the Alfred P. Murrah Federal Building. All of us — families, survivors, rescuers, and others — were there to honor the 168 people who died on that horrible spring day of April 19, 1995.

I began this trip with some trepidation, as I had not returned to this site since working on the recovery of the bodies five years earlier. I did not know how I would feel about revisiting a place of such strong emotions and experiences. Etched in my memory was a totally devastated nine-story building where more than 160 bodies had been extracted from a mountain of concrete and tangled steel.

The return was a very moving experience. The place I returned to was totally unlike the disaster I left five years earlier. The beautiful memorial erected to remember the event and the victims is magnificent. I feel this memorial is very fitting and achieves the intended purpose.

Three elements have been combined to form the memorial. These are an Outdoor Symbolic Memorial, a Memorial Center Museum, and the Oklahoma City National Memorial Institute for the Prevention of Terrorism. The final two parts are still under construction, but should be open by November. I was invited to attend the dedication of the Outdoor Symbolic Memorial, now a national park operated by the National Park Service.

The early ceremony on April 19 was more of a private ceremony for victims'



The reflecting pool of the Outdoor Symbolic Memorial covers the exact site of the explosion.

families, survivors, and rescuers. The ceremony began with the reading of the mission statement, etched on the memorial's east entrance gate:

*"We come here to remember those who were killed, those who survived, and those changed forever. May all who leave here know the impact of violence. May this memorial offer comfort, strength, peace, hope, and serenity."*

Clergy consoled, choirs sang, and at precisely 9:02 a.m. (the time of the bombing five years earlier) bells pealed and jets screamed overhead in tribute. Speakers choked with emotion as they read the names of the 168 dead, especially the 19 children killed in the attack. Breaths grew harder to draw as 168 seconds of silence passed.

The memorial then opened, first to the victims' families, then to survivors and rescuers. It was a profoundly emotional sight, from the four-story bronze east and west gates to the 168 bronze and glass chairs on the spots where the victims perished.

A reflecting pool between the two gates stretches along the former street for one block. It covers the exact location of the explosion site. The designers incorporated a portion of a Murrah Federal Building wall into the memorial. Its exposed concrete and steel conveys a sense of the magnitude and destructive force of the explosion. This wall holds salvaged granite panels with inscriptions of those who survived.

In a former parking lot, immediately north of the destroyed building, stands a lone tree that survived the explosion. Known as the "survivor tree," it symbolizes the resilience of the community. An orchard of fruit trees is planted around the survivor tree, representing the thousands of rescue workers who poured into Oklahoma City to help in the recovery.

A second public ceremony at 5 p.m. officially opened the memorial to the public. Again, there were speeches, songs, and 168 seconds of silence. President Clinton presented the keynote address.

"... as we continue our journey toward understanding, one truth is clear; what was meant to break (us) has made you stronger," Clinton said. He stated that this site, like others, now defines our heritage. "There are places in our national landscape so scarred by freedom's sacrifice that they shape forever the soul of America. This site is such a sacred ground." He praised the gathering for how they reacted to this atrocity. "You chose hope and love over despair and hatred. It was a wise but hard choice."

Following his speech, the President, along with others, cut the ribbon to officially open the national memorial. If you are ever in Oklahoma City, I strongly encourage you to take the time and visit this memorial. I feel you will find it to be very worthwhile as you walk on such "sacred ground."

## Flowers nominated for Chief

On July 26, Secretary of Defense William S. Cohen announced that the President has nominated Maj. Gen. Robert Flowers for appointment to the grade of lieutenant general with assignment as Chief of Engineers and commanding general of the U.S. Army Corps of Engineers. The selection must be approved by the Senate.

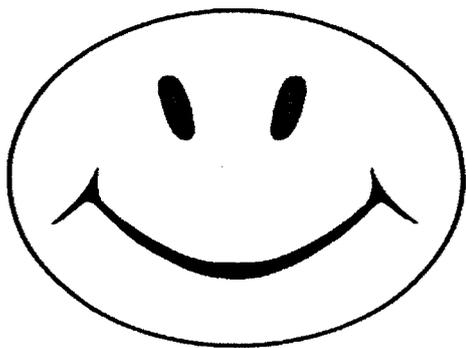
Flowers is the commanding general of the U.S. Army Maneuver Support Center and Fort Leonard Wood and commandant of the U.S. Army Engineer School at Fort Leonard Wood, Mo.

In that position, Flowers is responsible for providing the Army with well-trained soldiers and leaders of all ranks who attend Initial Entry Training up through Battalion and Brigade Pre-Command Courses. He also directs the formulation of Army engineer doctrine, force structure, battlefield tactics, training, and materiel development. In addition, he oversees the training of airmen, sailors, and Marines attending courses for civil and construction engineering; law enforcement; chemical, biological and radiological defense; and motor transport operators.

After graduation from the Virginia Military Institute and his commissioning as a second lieutenant in 1969, Flowers completed ranger and airborne training. His civilian and military education includes a master's degree in civil engineering from the University of Virginia, the Engineer Basic and Advanced Courses, Command and General Staff College, and the National War College. Flowers is a registered professional engineer in Virginia.

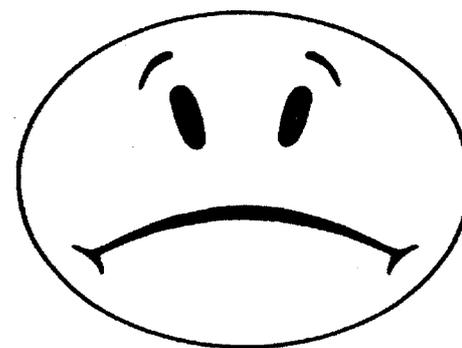
Before his assignment to Fort Leonard Wood, Flowers was the Commander of Mississippi Valley Division. During this time, he also deployed to Bosnia as the Deputy Chief of Staff for Engineering (Forward), U.S. Army Europe, responsible for U.S. forces construction in the theater.

Flowers was born in Pennsylvania. He and his wife Lynda have four sons — Rob, David, Billy, and Matthew.



*Insights*

# 'Have a good day! Or a bad one!'



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

ing and he responded rather gruffly by growling, "Have a good day! Or a bad one; the choice is yours!"

I thought that was a strange greeting from someone I've never seen before. But it did cause me to think. I kept rolling that saying around in my mind and, by the time I got to Union Station, I fully accepted the fact that I can choose if it will be a good day or a bad one. Not by the changing direction of the wind, but by the way I set the sails.

I've been with the Corps of Engineers for a couple of months now, and I've learned that this command has been through so much change lately that it makes my move to Washington, D.C., look like a walk to the candy store. There is reorganization, downsizing, and moving the Headquarters from the venerable old Pulaski Building to the building we will share with the General Accounting Office. Even the homepage on the website is different! All this is in addition to the usual

changes like retirements, change of commands, and the routine turnover of green-suiters.

And I've already learned that some of you have so much change in your personal lives that it makes the changes within the Corps look like a walk to the candy store, and you feel completely out of control.

Psychologists tell me that change causes stress, and they also say that not being in control of the change is an even greater cause of stress than the change itself. Some change we don't like, and even the change we *do* like takes some getting used to. All this adds up to the potential of major stress for all of us.

I wish I had the magic words that would take away the unwanted stress, but the best I can do is to share my lessons from the rock and an old crusty colonel. They have a special resonance for me because I'm a boater. Although my little craft is a powerboat, I understand some of the challenges that sail-

ors face. A sailor can't do a thing about which way the wind is blowing; all he or she can do is trim the sails properly to make the sailboat go where it's supposed to go.

We can't stop the winds of change, but we still have a choice. Our choice is how we react to change regardless of where we encounter it. I encourage you to spend your energy finding ways to adjust your sails, instead of spending it in the futile effort of fighting the wind. Those who weather change the best are those who learn to adapt to it or, better yet, learn to capitalize on it.

How we react to change is a choice! So I'll close with the old colonel's greeting, "Have a good day! Or a bad one; the choice is yours!"

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

As I was doing the mountain of paperwork necessary to lease the apartment that would become home during my tour as your chaplain, I noticed a rock in the apartment manager's office with a saying painted on it. It read, "We can't change the direction of the wind, but we can adjust our sails."

When I read this I thought, "That quote must have been put there just for me." Who could possibly be experiencing the winds of change more than I am? Giving up a former job and good friends, moving to a new city and a new command, meeting new people, learning a new job, getting a new apartment, and soon moving into a new building.

Then, on my first trip to work on the Virginia Railway Express, I met a crusty-looking old Army colonel. When our eyes met, I gave a little nod in greet-

ment of a Corps of Engineers prayer. As a priest, I pray and encourage others to pray. The "Corps Prayer," however, is simply bad theology. God as engineer of the universe is antithetical to the definition of God held by Christians, Jews, and Muslims - faiths which I am familiar with. I have to believe that Buddhists, Bahai, Hindus and others who make up the Corps workforce might also find the imagery pretty foreign and perhaps even offensive.

The point is, we are a hugely diverse team, observing many faith traditions. One single Corps prayer can't even begin to encompass a prayer language and imagery all of us might be able to embrace.

Pray without ceasing to be sure; for each other, our loved ones, our nation, and especially for those suffering from injustice, fear, oppression, and any form of degradation. Pray fervently in our respective tongues and faith traditions. In so doing we create a tapestry of prayer to envelope the concerns of the whole world.

**Rev. James Parker**  
Savannah District

*As Lt. Col. Tim Carlson pointed out in his first column in the January 1999 Engineer Update, the chaplain's position was an initiative by the Chief of Engineers. Major commands (MACOMs) are authorized a staff chaplain position under Army regulations, and the Chief's initiative was supported by key members of his staff, and by the Chief of the Army Chaplains office.*

*Chaplain Carlson went on to say that the Corps' chaplain office was established with a mandate to serve the spiritual needs of all members of the Corps*

*of Engineers. In any MACOM, the staff chaplain advises the commander and staff on all chaplain-related matters including morale, free exercise of religion, customs and practices of all faiths, and so on. The MACOM chaplain helps the commander consider the human and religious implications of decisions and policy.*

*The staff chaplain's position in any Army MACOM is a senior officer (colonel) position, and is primarily administrative. Junior chaplains (captains and majors) are the ones who spend the most time with troops. Despite that, Lt. Col. Carlson made several trips to Corps field sites, including to Korea. Col. Lowell Moore, the Corps' present chaplain, plans to continue the tradition of visiting Corps people in the field and overseas.*

*The Corps of Engineers Prayer was another Chief of Engineers initiative. Many other commands, throughout the armed forces, have done the same. The purpose of the Corps' prayer is not to be divisive or dictatorial. It is an example of engineer esprit and cohesion in a spiritual sense, much like the "Engineer Song" demonstrates engineer esprit and cohesion in a secular sense. No one is required to sing the "Engineer Song," and no one is required to pray the Corps prayer.*

## Civilian Conservation Corps

Although retired from South Atlantic Division working many years for Nashville District, and after retiring from six months in the Office of the Chief of Engineers, I still read the *Engineer Update*.

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## Why a chaplain?

While this may go against the conventional wisdom, I write to express my disagreement with the decision to create a permanent billet for a chaplain and chaplain's assistant at HQUSACE, and the recent establishment of a Corps prayer. I am writing, not only as a 25 year Corps employee, but also as the son of a career soldier and a priest of the church.

There is, at present, a critical shortage of Army chaplains. In fact, the Army is actively recruiting clergy up to age 40 to fill the shortage. There are troops at every level of command who are impacted by the deficit. But unlike our soldiers, the civilian employees of the Corps of Engineers have access to a large variety of pastoral care and spiritual direction in the communities in which they live. A chaplain in the Headquarters might provide some additional pastoral benefits to the Headquarters staff, but cannot in any meaningful way serve the larger Corps community. Frankly, he (or she) and the chaplain's assistant need to be with the troops and their families. I hope the Headquarters and/or the Chief of Chaplains rethinks the establishment of this billet.

Related to the chaplaincy issue is the establish-



# District expands Port of Los Angeles

By Herb Nesmith  
Los Angeles District

Time, money, and a successful partnership among the U.S. Army Corps of Engineers, the Port of Los Angeles, and contractors have produced a project that will boost the nation's economy by expanding the port's capabilities. It is already the second-busiest port in the U.S. and the ninth-busiest in the world.

The six-year, \$401 million project deepened channels so that new deeper-draft cargo ships can access Los Angeles Harbor, and the 58 million cubic yards of dredged material created the 590-acre landfill that is Pier 400. (Although the pier complex has yet to be built, the site is referred to as Pier 400.)

Some 11 million tons of quarry rock were used to build retaining dikes and protect the landfill's six-mile-long perimeter. More than 700,000 of the rocks weighed more than a ton, with the largest pieces tipping the scales at about 25 tons. All the rock came by barge from a quarry on Santa Catalina Island 26 miles away.

The Corps began making history at the port more than 100 years ago.

"In 1899 the brand-new Los Angeles District, as its very first project, began construction of a breakwater that was the first step in developing what is today Los Angeles Harbor," said Brig. Gen. Peter Madsen, South Pacific Division Commander during the completion ceremony on April 27. "And now, more than a century later, the Corps is completing another project at the port."

Pier 400 was built in two stages, the first by the port itself. The main channel was deepened to 63 feet, the north channel to 50 feet, and the dredged material created about half the landfill. The Corps did the second stage, with the work performed by contractors. The main channel is now 9,000 meters (5.6 miles) long and 81 feet deep.

The south channel was dredged to 75 feet, and a shallow portion of the north channel was deepened to a consistent 50 foot depth for its entire length. The dredged material completed the 590-acre landfill, which is large enough for 33 buildings the size of the White House.

The project was completed six years ahead of schedule. This project featured some innovative approaches, which accelerated accomplishments. Special language in the Water Resources Development Acts of 1988, '90, and '96, allowed the port to perform some work in advance, and receive credit for it.



A dredge builds the 590-acre landfill that will support Pier 400 at the Port of Los Angeles. (Photo courtesy of Los Angeles District)

And during construction, when federal funding became scarce, the port advanced the funds (since repaid) to allow work to continue.

"This project is an excellent example of local-federal partnership in action," said Los Angeles City Councilman Rudy Svorinich, Jr. "It creates needed facilities to accommodate the increased movement of goods, while stimulating the economy in our region and remaining sensitive to our environment."

To mitigate for the dredging, the Port of Los Angeles did a number of environmental projects, both on- and off-site. The port restored water quality and wildlife habitat at the 600-acre Batiquitos Lagoon at Carlsbad in northern San Diego County. It also participates in the interagency restoration of the 900-acre Bolsa Chica wetlands. In the port itself, it built more than 250 acres of shallow-water habitat, and set aside acreage on Pier 400 as a protected nesting site for the California least tern, a bird on the endangered species list.

Other agencies involved in the project included the

California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service.

"Pier 400 progressed from concept to reality only because of the port's invaluable partnership with the U.S. Army Corps of Engineers," said Dennis McCarbery, the port's public information director for the project. "The extensive assistance from the Corps includes its Waterways Experiment Station, where models of Los Angeles Harbor were used to conduct the most comprehensive studies of ocean wave action in maritime history."

Project manager Ted Gula also has a positive outlook on Pier 400. "One often thinks of major development coming at the expense of the environment, but this project combines the largest port development in the country with some very significant environmental successes. The project is on track to complete six years ahead of schedule, and with a savings of \$3 million federal dollars from what was originally budgeted. This is a testimonial to the partnership among the numerous stakeholders, and the innovative ideas and hard work of the team."

Besides the environmental aspects, the project portends financial success. Copenhagen-based Maersk Sealand will lease 484 acres of the pier for the world's largest proprietary container facility. The shipping company is expected to generate some \$2 billion in revenue for Los Angeles during a 25-year agreement.

Local congressional representatives applauded the project accomplishment.

"We have watched in wonder since 1994 as Pier 400 began to rise from the harbor bottom," said Congressman Stephen Horn in a congratulatory letter. "The Port of Los Angeles and the U.S. Army Corps of Engineers can be proud of their exemplary achievement in completing Pier 400, the largest federally-sponsored navigation project of its kind in the U.S."

"The Corps of Engineers was instrumental in making the (nation's) ports (that) we know today. One of the Corps' primary mandates is to ensure the navigability of America's waterways," the letter continued. "Pier 400 is a shining example of this mission and a model of federal, state and local cooperation."

"Faced with the difficult problem of increasing cargo volume and ever-larger ships, the Port of Los Angeles and the Corps came together to meet this challenge and keep this region competitive into the new century," Horn concluded.

## Letters

Continued from previous page

May issue, an article caught my eye about the flood of 1937. I notice that the Civilian Conservation Corps (CCC) is never mentioned in articles, although they worked on many dams and other facilities, and especially in the 1937 flood.

I worked for the CCC during the flood. I was assigned to a Corps of Engineers (then it was called the U.S. Department of Engineers) group on the Mississippi River near Hickman, Ky., along with many other CCC boys. Due to the number of CCC boys and the capacity of the quarterboat, we worked and slept in shifts. (No, we didn't change sheets!) When the boiler on the boat had problems, baths became less frequent and it was very cold. Lines were run from the steamboat that gave some relief.

Also, the cooking went on around the clock and we fed everyone that came along.

We did levee work — sandbagging, checking levees, etc. You could pump a hand-type pump in the yards of houses below the levee and it would run until you were out of sight. Artesian-type springs would break through the earth in places and we would sandbag them in circles. Some fields looked like a

system of large crawdad holes.

We were told that our levee work and other floodwork probably saved Reelfoot Lake in Tennessee. The Mississippi backwaters looked like an ocean.

We lost one boy to drowning, which caused us sadness and made us wonder if all the work and what we saved was worth it. But I'm sure there would have been many more deaths if the levee had broke.

Later, I worked for an engineer who had worked in the old Rhode Island District, and he insisted I take all civil service examinations — Axman, Rodman, Motor Boat Operator, Surveyman, Engineering Aide, etc. I was offered a job with the Corps of Engineers and spent 44 years with them. I wish government agencies would give credit to the CCC who helped them in many endeavors.

Hobart D. Parrish  
Hendersonville, Tenn.

Consider them credited, Mr. Parrish. You've done a far better job than I could. And thank you for sharing your personal experiences during the 1937 flood-fight. — Editor



The Port of Hampton Roads is one of the busiest in the U.S., and handles the world's largest volume of coal exports. (Photo courtesy of Norfolk District)

# Norfolk District helps develop plan for Port of Hampton Roads' future

By Amy Clipston  
Norfolk District

With the help of the Virginia Port Authority (VPA), Norfolk District has developed a plan, one of the first of its kind in the nation, that addresses local navigation issues. The Navigation Management Plan for the Port of Hampton Roads covers all navigation-related activities within the port, including commercial, military, and recreational boating. It was developed with substantial input from numerous maritime interests throughout Hampton Roads.

**Vision.** "I'm very proud of this report; it's the first blueprint of development for a port in the U.S.," said Robert Merhige, Deputy Executive Director and General Counsel for the VPA. "It lists and prioritizes projects that need to be done during the next 20 years. No other port in the country has taken the time to do this."

"This plan captures the vision the users have for the port," said Norfolk District Engineer Col. Allan Carroll. "So often we are trying to solve yesterday's problems today. With this plan, we are making wise decisions and solving future problems now."

The Port of Hampton Roads is located in southeastern Virginia at the southern end of the Chesapeake Bay. It is recognized as one of the largest and finest natural harbors in the world and is a primary stimulus to the economic well-being of the region, state, and nation. Vessels of every size, from aircraft carriers to pleasure craft, transit the port.

**Vital harbor.** Hampton Roads is also one of the busiest ports in the U.S. The land surrounding the harbor covers about 1,500 square miles and includes the cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Suffolk, and Virginia Beach, as well as Isle of Wight County. The area has a population of more than 1.3 million.

The harbor is the center of substantial industrial, commercial, and military activity. It handles the largest volume of coal exports in the world, and contains one of the largest concentrations of Navy installations in the country.

According to the Virginia Port Authority, the port handled a record 11.8 million tons of general cargo in 1999, which is up 5.8 percent from 1998. In January and February 2000, the port handled 1.9 million tons of general cargo, up 4.7 percent from the

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*'So often we try to solve yesterday's problems today. With this plan, we are...solving future problems now.'*

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same period last year.

By far, coal comprises the largest part of commerce moving through the port, accounting for more than 45 million tons (67 percent of total commerce and 86 percent of export tonnage) in 1997. Coal also accounts for the largest part of coastal and internal shipments, accounting for almost nine million tons (50 percent of the total) in 1997.

The Navigation Management Plan will assist federal, state, local, and private investors to better allocate scarce port resources based on the prioritized concerns established by port users and interests. The plan's goals are to provide a comprehensive, integrated plan for the port; a vehicle for spanning jurisdictions and disciplines to identify and resolve existing and potential issues; and documentation of existing corporate knowledge.

**Facilitator.** In developing the plan, the Corps acted as a facilitator, bringing together various port users and interests in a forum where they identified more than 50 problems, needs, concerns, and opportunities associated with the use and development of the port.

An advisory group of federal, state, regional and local government agencies; large and small port-related businesses; professional groups; and a local university reviewed the complete list of concerns and prioritized them. The Corps did not participate in the prioritization process except to tally the

votes of each member of the advisory group. The Corps then analyzed each of the top 15 prioritized concerns, and formulated a long-range strategic plan. The advisory group reviewed and unanimously approved the strategic plan and the report as a whole.

"The real significance of this plan is not only putting this plan together for the first time, but it's bringing the parties together as consultants before the project," said William Hull of the Hampton Roads Maritime Association.

The plan is divided into two general categories — new construction elements, and ongoing strategic elements. The new construction elements include channel deepening for the Norfolk Harbor Channel, the Channel to Newport News, the approach channels, the Elizabeth River Channel and the Southern Branch Channel; widening the turning area at the Sewells Point Anchorage; and extending the life and potential port development of the Craney Island Dredged Material Area.

Ongoing strategic elements include maintenance dredging, funding, and improving water quality.

Extending the useful life and port development of the Craney Island Dredged Material Area, a man-made peninsula on the Elizabeth River, would be considered concurrently with the channel elements. The ongoing elements of the plan, such as maintenance dredging, funding, and improving water quality, would be a continuing part of the plan.

**Channel elements.** The proposed order of implementation of the channel elements is:

- Inbound channels to 50-foot depth.
- Widening the turn at Sewells Point (K-1) anchorage to 50-foot depth.
- Outbound channels to 55-foot depth.
- Widening turn at the Sewells Point (K-1) anchorage to 55-foot depth.
- Elizabeth River and Southern Branch Channels to 45-foot depth.
- Southern Branch Channel (Upper Reach) to 40-foot depth.
- Inbound channels to 55-foot depth.

The Navigation Management Plan is flexible, sensitive to the passing of time and events, and will require periodic updates to keep it current and viable. Copies in paper and compact disk format may be obtained by contacting Amy Clipston at (757) 441-7040.

# Rural towns get fast water support

By Doug Garman  
Baltimore District

Rural communities across the country experience problems from inadequate wastewater treatment, contaminated sources of drinking water, poor water supply, and degraded surface and ground water quality. For these communities, new sewer and water systems are the answer, but a lack of local economic resources and stiff competition for state and federal assistance programs has often prevented their development.

However, a pilot program established by Section 313 of the Water Resources Development Act of 1992 is helping many communities in south central Pennsylvania obtain the assistance they need to make these projects a reality.

The South Central Pennsylvania Environment Improvement Program, known simply as the Section 313 Program, allows the U.S. Army Corps of Engineers to provide fast-track assistance to communities for design and construction of water-related environmental infrastructure projects. Among these projects are wastewater and drinking water treatment facilities, and the collection and distribution systems that support them.

Because the Section 313 Program is not a budgeted Corps program, Congress identifies the projects and provides the necessary funding to the Corps who, in turn, works with local non-federal sponsors to develop these projects. Project costs are shared 75 percent federal and 25 percent non-federal.



The first Section 313 project, the Mill Run Water Treatment Plant, produces more than five million gallons of drinking water per day for Altoona, Pa. (Photo courtesy of Baltimore District)

The first Section 313 project for Baltimore District was the design and construction of the Mill Run Water Treatment Plant in Altoona, Pa. Since its completion in 1997, the number of communities requesting assistance for similar environmental infrastructure projects has steadily increased.

According to Marilyn Benner, the district's project manager for the Section 313 program, the Corps designs

and builds some of the Section 313 projects, but most are developed by the local sponsor and partially reimbursed from federal program funds.

"For the reimbursement projects, we conduct environmental compliance and provide oversight of the design and construction to ensure the projects are developed appropriately," said Benner.

She points out that the unique reimbursement aspect of the program,

along with the recent significant increase in the number of projects, has challenged the district's Section 313 Program team. Other challenges the team faced include developing procedures for design reviews, construction oversight, real estate acquisitions, and conducting the environmental assessments for the various projects before their start.

"By remaining flexible and willing to look for ways to improve how we deal with this program, the team has successfully met these challenges as well as the recent significant increase in the program," said Benner. "With the 1999 fiscal year appropriations, Congress more than doubled our program overnight. We now have federal funding of about \$52 million for 45 cost-shared projects. The team is handling the increase in stride."

Benner adds that each technical division has dealt with the increased workload by streamlining their processes, developing tracking systems, and involving more staff in Section 313 projects. At the same time, the team has reduced project administrative and oversight costs by half.

Besides Baltimore District, Pittsburgh District is also managing about 20 Section 313 projects, and Philadelphia District is currently managing four projects.

"Although there's no way to know for sure how many projects will receive Congressional funding in the coming years, the Section 313 team is proud of the fact that we're making a difference in improving the environment and the quality of life in many of these communities," said Benner.

# Incinerator will destroy old ammo

By Doyal Dunn  
Japan Engineer District

Ever wonder what happens to ammo with an expired shelf life?

The Army demilitarizes it — totally destroys its military offensive or defensive attributes. Mutilation, burning, detonation, cutting, and crushing are some of the processes used to "demil" inert and live ammunition, according to 83rd Ordnance Battalion's Ammunition Production Manager, Wayne Tewkesbury.

You can now add burning to that list. Tewkesbury's unit is getting a new "Demil Furnace" to incinerate small explosive components, such as approved small arms ammo, artillery fuzes, blasting caps, primers, and any small explosive devices.

**Win-win.** "Ammunition stored for any length of time eventually begins to deteriorate," said Tewkesbury. "When this occurs, the item is either renovated or destroyed. At this time, there is no approved incineration capability in the Pacific Far East. "The U.S.-funded furnace will provide a safe and environmentally approved way of disposing of these items. Plus, it will save the cost of shipping back to CONUS for destruction, and will even generate a little money from recycling the metals."

The joint use facility has been designed to incorporate some of the demil workload of the Marines,

Air Force, and Navy. An important benefit beyond the cost savings is safety.

"Range brass (expended small arms cartridges) is normally collected and turned in to the Defense Reutilization Marketing Office (DRMO)," Tewkesbury said. "However, it requires 100 percent visual screening to preclude live ammo from being inadvertently turned over to the general public."

The Demil Furnace will ensure the brass' safety. It has three major parts — the feed room area, the retort assembly or incineration chamber, and the pollution abatement system.

**Process.** Unserviceable ammo will be stationed in the feed room where 83rd Ordnance Battalion operators will load and space ammo on a conveyor at a predetermined feed rate. They will program the furnace through an automated control panel for the particular item being demilitarized. The items will move up the conveyor and into the incineration chamber where the furnace temperature will reach about 1,200 degrees. The munitions will then explode within this safely contained area and be rendered demilitarized.

**Clean air.** The last and most important part of the system is the state-of-the-art pollution abatement design. Any hazardous gases generated by the furnace are processed through a series of ce-

ramic filters in the baghouse. The end result is a clean and environmentally safe gas release.

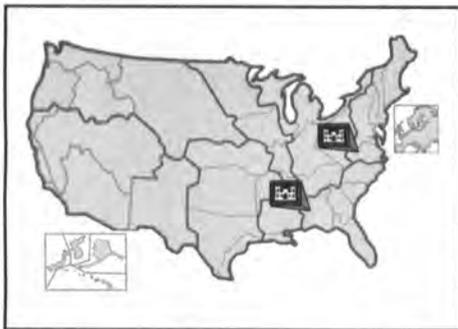
The 83rd will then collect and weigh the brass, steel, or other recyclable metals for turn-in to DRMO.

**Credit.** Tewkesbury credits Japan Engineer District for providing the expertise needed to ensure the project is a success.

"Without Japan Engineer District, the 83rd Ordnance Battalion never would have been able to begin this project," he said. "They provided the guidance on all levels to get the construction part of the plan moving. From the initial environmental and engineering study, they have guided us all the way to where we are today."

"We have a good rapport with their personnel and meet repeatedly on issues to iron out problem areas," Tewkesbury continued. "There was a lot of technical data sharing with JED on equipment specifications in the infancy stages of this project. However, the equipment installation is not part of JED's responsibility; this is Army-owned equipment."

"The district did the leg work to get the contractor to place the concrete and utilities, their expertise and oversight in the planning and monitoring of the construction has been exceptional to say the least, and we expect to be finished a little ahead of schedule due to some innovation of their part," Tewkesbury concluded.



## Focus on the Centers

Transatlantic, Huntsville

# Transatlantic serves huge area

By Joan Kibler  
and Julie Shoemaker  
Transatlantic Programs Center

Transatlantic Programs Center (TAC) accomplishes a critical role in meeting our nation's engineering needs abroad. TAC, headquartered in Winchester, Va., delivers quality, responsive design and construction in the Middle East, Africa, Russia, and the Central Asian States of the Former Soviet Union. Customers in the region include deployed U.S. forces, other U.S. government organizations, and various agencies of friendly foreign nations.

"We serve our nation by providing diverse services to a wide range of customers throughout our area of operations," said Col. Donald Wynn, TAC Commander. "Our work includes design and construction management on behalf of host nation clients, military construction for forward deployed forces, logistics contracting for the Army in the Balkans, and assistance to African nations. Because of the variety of our international work and its associated customer base, the Transatlantic Center is positioned to respond quickly to engineering needs in even the most remote locations."

### Organizational heritage

TAC's half-century history of service to the nation includes several organizational configurations, names, and headquarters locations. Predecessor organizations were headquartered in Italy and Saudi Arabia. When a massive design and construction program began in Saudi Arabia in the mid-1970s, the Corps established a stateside element near Winchester to manage the design effort.

As the Saudi Arabian program decreased in the mid-1980s, other needs emerged in the Middle East and Africa with work for U.S. and foreign customers. Just days after the 1990 Iraqi invasion of Kuwait, the Corps was on the ground supporting deployed U.S. troops. The Transatlantic organization led the Corps' efforts during the Gulf War and later during Kuwait's recovery and reconstruction.

The early 1990s saw new developments in the former Soviet Union, with projects for the Department of State and DoD.

### U.S. Central Command

In one of its most critical missions, TAC helps U.S. Central Command (USCENTCOM) meet its facility needs at installations on host-nation bases in the Middle East. USCENTCOM protects U.S. interests in 25 nations that stretch from the Horn of Africa through the Arabian Gulf and into Central Asia.

"These efforts help protect the lives of our troops, improve their quality of life, and provide operational areas for performing their missions," said Col. Larry Ghormley, TAC's Gulf Regional Engineer in Kuwait. "While much of this work is typical for any military construction mission, there is one significant difference — the urgency of the work because of where it takes place. Our work has direct impact on our soldiers, airmen, and sailors who are on the frontlines of U.S. military strategy in the Middle East."

Since the Gulf War, meeting operational and qual-



Transatlantic Programs Center is completing the third phase of facilities construction for the U.S. Army in Qatar. (Photo courtesy of TAC)

ity of life needs has earned heightened importance at host nation facilities that U.S. forces use under government-to-government agreements. The bulk of the work is in Kuwait, Qatar, and Bahrain.

"TAC personnel are accomplishing much of the facilities design," said Chris Hinton-Lee, technical director. "In certain cases, design is done in-house at the customer's direction. In many instances, we work closely with host-nation officials throughout the design. And always, we work closely with our U.S. military customer."

**Kuwait:** Since the Gulf War, the Army has been stationed in Kuwait with three missions — to maintain security, train with Kuwait armed forces, and maintain a prepositioned heavy brigade set. The Army uses Camp Doha, a former industrial warehouse complex, and together the Army and TAC have converted the complex into a fully functioning installation.

Today, TAC's work at Camp Doha provides top-quality installation support services to improve living and working conditions for soldiers.

"Camp Doha essentially has served as an interim facility until a new installation, south of Kuwait City at Arifjan, is completed," said Wayne Henry, director of project management. "The Arifjan installation is being built by the Kuwait government, with TAC providing quality assurance services."

The Installation Support Office (ISO) at Camp Doha serves other USCENTCOM components in the region. It provides critical support to the U.S. Air Force

compounds on Kuwait's two air bases. The Air Force's austere presence is being upgraded with prefabricated buildings, facility and utility upgrades, and master planning for additional needs. The ISO has also assisted with projects elsewhere in the Middle East.

"Corps people stationed at Camp Doha live in the same conditions as our soldiers," Henry said. "Because the Army and Air Force generally don't have

the continuity of permanent staff found at U.S. installations, they turned to the Corps for help. We are almost always looking for temporary or permanent people to fill critical positions in Kuwait. Our work makes a substantial difference in the lives of our deployed forces."

**Qatar:** Under a defense cooperation agreement with Qatar, the U.S. Army is positioning a second brigade set in the region. TAC is completing the third phase of building a \$100 million facility that provides warehousing and support facilities for storing materials, supplies, and equipment.

The site contains large warehouses, maintenance buildings for wheeled and tracked vehicles, workshops, storage areas, communications facilities, and all associated utilities. Support structures include a headquarters building, administrative areas, living

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Foreign military sales in Transatlantic Programs Center may include upgrading air bases, like this one in Egypt, to accommodate weapons purchases from the U.S. (Photo courtesy of TAC)

## Transatlantic

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quarters, access roads, and security fencing.

Operations and maintenance services are provided as well, for both the Army installation and for storage facilities previously built for the Air Force.

**Bahrain:** The Naval Support Activity (NSA) in Manama provides logistics and administrative support to the U.S. Naval Forces Central Command, and the U.S. Fifth Fleet in the Arabian Gulf.

After the Khobar Towers bombing and increased force protection requirements, the Navy enlisted the Corps' assistance with designing and building facilities that will be consolidated at the NSA.

The first phase of improvements was recently finished — a new medical/dental clinic, transient quarters, utilities upgrade, and a quality of life facility with office and recreation space. A second contract for additional quarters and barracks was awarded last December, and an operations center was awarded this summer.

Besides Navy units in Bahrain, TAC works closely with the Atlantic Division of the Naval Facilities Engineering Command in Virginia.

### Contracting services

TAC also provides unique services to U.S. Army Europe (USAREUR) for about 10,000 troops deployed to Bosnia and Kosovo. On behalf of USAREUR's Deputy Chief of Staff for Logistics, TAC administers a logistics services contract that provides soldiers with essential life support, and transportation and maintenance services.

"Using a logistics support contract has become almost mandatory in certain kinds of overseas military operations," Wynn said. "This results from restrictions in the force structure and the military footprint allowed in the theater. Combining the Corps' engineering expertise with the requisite contracted logistics support clearly establishes a template for providing temporary facilities and services in Operations Other than War. In conjunction with North Atlantic Division, which has the engineering lead for the Balkans operations, we have a wealth of experience that can be applied to engineering doctrine for supporting future Army deployments."

The current contract, awarded to Brown & Root Services, became effective in May 1999 and can be used for up to five years. The scope of work is writ-

ten to provide flexibility to meet the Army's needs in a rapidly changing scenario, said contracting officer Bob Gruber. "All services are provided under five major areas — develop and maintain facilities; run supply operations; provide life support services such as food, water, laundry, and sanitation; perform maintenance of military vehicles and equipment; and provide transportation and shuttle services."

In less than three months as the Kosovo operation began, the contractor provided 1,134,182 meals, 55,544,000 gallons of water, and 383,071 gallons of diesel fuel. The contractor also serviced 671 portable latrines 31,037 times, collected 89,228 cubic meters of trash, and loaded/offloaded 4,229 containers. The contractor also supported the Army and Navy in building SEAhuts (large plywood buildings to house troops) at the two major camps in Kosovo.

### Foreign military sales

TAC's overseas response reaches far beyond the services provided to meet the immediate needs of deployed U.S. forces. Provisions of the U.S. Security Assistance Program enable TAC to have an engineering role in foreign relations and security goals through the Foreign Military Sales (FMS) program.

"FMS is a program employed by eligible foreign governments to purchase defense equipment and services from the U.S.," said Ollie Werner, deputy for Programs and Project Management and Project Delivery Team. "Through a signed government-to-government agreement, foreign governments can purchase articles. These articles could be weapons and equipment or services, including the Corps' design and construction and training."

Individual agreements are assigned specific identifiers and called cases. At the inception of an FMS case, several U.S. organizations are involved. The process is initiated by the foreign government with a letter of request to the U.S. embassy. The Department of State and DoD are advised, which then directs the appropriate service organization. For FMS cases involving TAC, the process flows from DoD to the Corps. Others involved include the Defense Security Assistance Agency, the Department of Army, and the unified command for the particular region.

"TAC's roots grew out of services provided to foreign defense forces shortly after World War II in the Mediterranean and Middle East," said Werner.

With decades of FMS experience in the region, TAC has designed and built facilities for state-of-the-art

air bases, naval installations, workshops, storage areas, and even complete cities. TAC's largest FMS program today is in Egypt supporting the Egyptian air force, navy, land forces, and Ministry of Defense. The facilities accommodate their weapons systems purchases from the U.S., such as F-16 aircraft.

"The FMS arena differs from military construction since the direct benefactors of our services are foreign defense agencies," Werner said. "Our efforts provide vital facilities to house and maintain military equipment and weapons that these governments have purchased from the U.S. At the same time, we're assisting the U.S. in meeting its interests and needs of promoting stability and maintaining alliances in the region."

### Africa

The current administration has made ending conflict, cultivating democracy, and humanitarian assistance in Africa a focus of its foreign policy. A White House fact sheet states, "Promoting democracy and stability in Africa means building the capacity of the institutions needed to promote justice, foster internal trade, enhance regional cooperation, and consolidate peace efforts."

The State Department leads discussions with African nations, which may be aimed at social, political and economic reform, depending on specific needs.

"Since some of these discussions involve infrastructure projects that would help stabilize and rebuild a country, the State Department periodically calls on the Corps to assist in these areas," said Roger Thomas, customer account manager. "In some cases, the discussions might focus on providing adequate housing, transportation networks, and water and sewer systems to improve the economy."

While TAC periodically responds to requests from the State Department through Corps headquarters, its history on the continent started in the mid-1980s with a security assistance program known as Military Civic Action. Both the State Department and DoD are involved in managing this program.

"These projects were set up to benefit both military and civilian populations by increasing the standard of living, even though the work is accomplished by African military establishments," Thomas said.

TAC provides project planning, technical assistance, and procurement services. The work has included quality of life improvements such as housing, water, schools, and clinics; a biodiversity program aimed at protecting plants and animals at African game parks; and building and furnishing facilities to train African military forces to remove mines that were placed during tribal and ethnic conflicts. More than 50 projects have been completed in some two dozen countries.

Elsewhere in Africa, TAC is assisting the U.S. Agency for International Development with rebuilding commercial buildings destroyed by terrorist bombings in Kenya and Tanzania in 1998. TAC is assisting with contracting and engineering tasks in both countries.

### Russia

Since 1992, TAC has been involved with design and construction of a facility in Russia to store fissile materials recovered from dismantled nuclear weapons. The project, at Mayak in the Ural Mountains, is a major effort in DoD's Cooperative Threat Reduction program. CTR is destroying nuclear, chemical, and other weapons of mass destruction and establishing safeguards against the spread of those weapons in the former Soviet states.

TAC is part of a multitude of participants from both the U.S. and Russian governments, all working toward providing safe, secure, and ecologically sound storage of nuclear materials. The Defense Threat Reduction Agency is the executive agent for the CTR program.

Completion of the first phase, which will provide a facility to store 25,000 containers of fissile materials, is scheduled for 2002. U.S. funding has been incremental and will total about \$400 million.

# Chief reflects on time of sweeping change

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

**(Editor's note:** Lt. Gen. Joe Ballard, 49<sup>th</sup> Chief of Engineers, retired on Aug. 2 in a ceremony at Fort Myer, Va. He led the U.S. Army Corps of Engineers through a period of sweeping changes, and recently shared his thoughts about his tenure as Chief.)

**Update:** What do you think will be your legacy to the U.S. Army Corps of Engineers?

**Ballard:** I hope I'm just remembered as the 49<sup>th</sup> Chief of Engineers, who was a pretty good Chief.

It's been a personal honor to be the 49<sup>th</sup> Chief, and to serve at a point that has been one of tremendous change, not only in the country but in the Army, and in particular the Corps of Engineers. But I've not really thought about my legacy, because I didn't do it for a legacy. I just tried to do the best I could during the four years I was here.

So you'll have to let historians figure out my legacy. To me, I just hope they say he came to work every day, he worked hard every day, and he did the best he could do. If folks just remember me for that, that's enough.

**Update:** What do you feel has been the Corps' greatest success during your tenure as Chief of Engineers?

**Ballard:** If I had to pick one thing that I think we did right, it's that we revitalized our value to the Army. We are truly involved with the Army around the globe. We've been instrumental in supporting our installations in the base ops world; we support privatization. Folks now know that we're on the Army staff, and that we're part of the Army. That's been a big change. When I came onboard three-and-a-half years ago, we weren't even in the Pentagon! We didn't even have an office in the Pentagon! Now we're back there.

The other thing I'd put right at the top is this initiative to invest in people. The Corps is great simply because we have great folks, and we've put in a program that says we care about people and invest in people. The recent evaluation by *Government Executive* magazine rated us as the second-best organization in government. But the thing I felt best about is that they gave us an A in human resources which, when you stop to think about it, is saying a lot. We're all over the globe, we're multi-cultural, multi-lingual, and we got an A! We've increased our workforce diversity and made this a better place for everyone, not just the select few. I feel pretty good about that.

We've also streamlined our business processes, for which *Government Executive* gave us a worthy score. We've increased our customer focus; the customers we were losing three or four years ago have come back, plus we've gained new customers. The Congress has greater confidence and trust in us.

Of course, there are many, many other successes we don't know about. When you go to the far-flung corners of the Corps, there's always someone doing something good for the country, for the Army, and for Mankind. And it's not important that we know about them all. I think what's important is that it's the Corps of Engineers, and we're making a difference.

**Update:** During your first interview with the "Engineer Update" you said, "I think everyone needs to know that a new Vision of the Corps is being developed, and it will be one Vision for the whole Corps." Now that we've actually worked with the Corps Vision for several years, do you have any final comments about it?

**Ballard:** Yes. The Vision has been a much greater

success that I ever thought it would be. I'll be honest, I thought it would be difficult to put a single Vision in place for the entire Corps, and have everyone identify with it. I didn't have doubts about what we wrote; I had doubts about our ability to assimilate it.

Think about it — we have 49 districts, and at that time 16 divisions. Poaching was the byword, and it was everyone for himself. How do you take an organization with that type culture and get them to buy into a single Vision?

The fact that they did says a lot about how good the Vision really turned out to be. And it wasn't something I came up with. We had total buy-in; that was the beauty of it. We brought in current members of the Corps, former members of the Corps, retirees, stakeholders, members of the Army staff and DoD staff. And we were all in that room and it took us several months to hammer that thing out.

It was a great deal of work, but it endured, and the longer the Vision hangs on, the more folks believe in it. After three-and-a-half years, we've not felt the need to rewrite it. How's the old saying go, "It's not the destination, it's the journey?" I think that's how we are with this Vision. It's a good Vision, when you look at its components, the growth opportunities and investment in people and revolutionizing effectiveness. It's driven everything we've done, the whole change process. So I'm as enthusiastic about the Vision today as I was three-and-a-half years ago. It's been a great vehicle for change.

**Update:** If you had one more year as Chief of Engineers, what would you concentrate on?

**Ballard:** I'd probably concentrate a lot more on strategic communication.

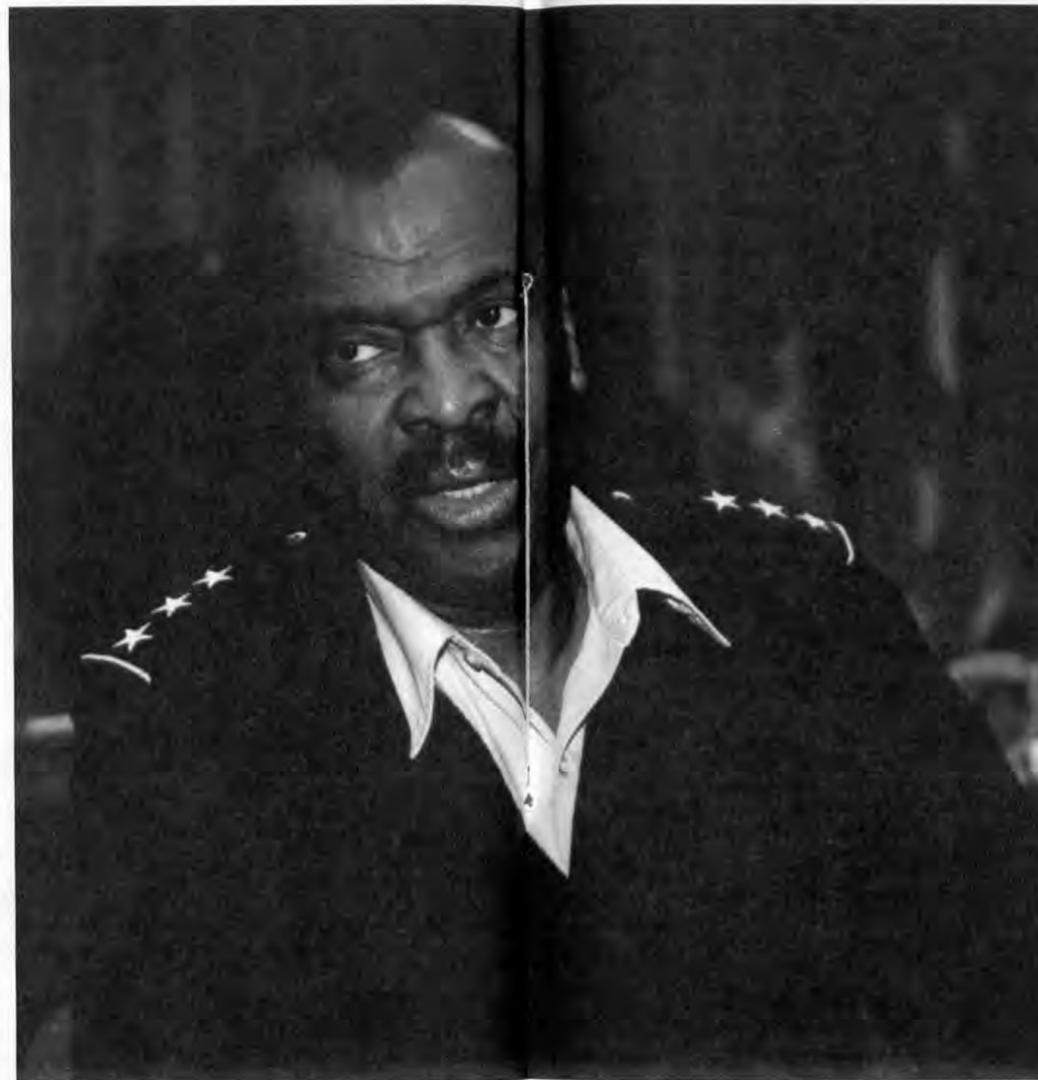
Let me explain that. I've found that members of the Corps have no problem rising to the occasion and going out and doing things and doing them well, if they understand what they are expected to do and why. The question is, how do you sit on the eighth floor of the Pulaski Building, knowing what you want to do and how you want to do it, and communicate that to 34,000 people who are in the Pacific Rim, in Russia, in Bosnia, in every congressional district, and make sure they fully understand it?

Strategic communication is how you do that, but that's just one part of it. I've learned there are at least two other components of strategic communication that you need to focus on — not just the internal audience, but also those you support and those who support you. All three groups need to understand where you're going, why you're going there, and what you mean when you say certain things. I'm not just talking about the Congress, but the administration and the Pentagon, all the folks who have an impact on you.

I would put together a much more dynamic, proactive program for strategic communication. That's definitely one of the first things I will suggest to the next Chief. Pay attention to communications of intent and direction. Folks will tend not to criticize things they understand. They don't have to agree with it, but if they understand what you're doing, they tend not to criticize it.

**Update:** If you could sit down with the next Chief of Engineers over a cup of coffee, what would you tell him about the Corps?

**Ballard:** I'd tell him this will probably be the hardest job he has ever had in his life. Being the Chief of Engineers is not a cakewalk! I've worked harder in this job than I've worked in any other job in 35 years in the military, and that includes two years in combat! The job is so complex, so demanding, that if you're going to do it right you must get involved. Because of the nature of the job, the challenge of being a good Chief and running the Corps of



"It's been a personal honor to be the 49th Chief, and to serve at a point that has been one of tremendous change, not only in the country but in the Army, and in particular the Corps of Engineers."

Engineers is great.

But here's the other side of it. The rewards are *fantastic!* The job satisfaction of realizing that you make a difference, such as when you visit the field and learn about the potential of a flood ravaging an area, but it didn't happen because the Corps put a flood control structure in place. You realize you made a difference in the life of people in an African village because you put in a well that gave them access to clean water. You think about all of that and you feel pretty darn good; you feel all the work is worthwhile.

I would tell him that because of this mission, there is a need for our expertise. There is a need for the Corps at home and abroad.

I would also tell him this is an organization of great people. So you've gotta hug em all the time, you've gotta constantly stroke them. You've got to love em, and you've got to lead them. And if you lead them with dedication and affection, they'll follow you. You won't have any problem with that. The Corps' dedication to the Army, the integrity of the people, the quality of the people, and the service we perform is unmatched. So to me it was a very rewarding job.

I would impress those things on him, because I guarantee he'll need to remember them when the unpleasant aspects of this job hit him. Because in

ation sites...I can't think of an aspect of American life where the Corps does *not* play a role, directly or indirectly. And most folks don't have the foggiest idea. We've got to do better.

**Update:** In light of the recent criticism the Corps has faced in the news media, what message do you want to send to the folks in the field?

**Ballard:** That's an easy one. I've said it before and I'll say it again — I know that we stand on the right side of this discussion. There is no doubt in my mind. I say that without hesitation, and I think that any fair, independent investigation will also prove that to be true. I stand firmly behind the integrity of the Corps, the integrity of our leaders, I stand squarely behind our ability to make unbiased recommendations on all of our projects.

So my guidance, my last word to the folks on this subject, is to *stay the course*. If we stay the course, stay in our lane, if we rise above the rumors, the gossip, and the allegations, we'll be okay.

But you have to understand something else. We are a public organization. We are in the public eye, and part of what makes our country great is that people have the freedom to criticize us. But if we do what we know we're supposed to do, and concentrate on our job, everything will be okay. Believe me, I'm convinced of that.

*"I hope I'm just remembered as the 49th Chief of Engineers, who was a pretty good Chief."*

**Update:** You came to the Corps of Engineers as an outsider; you had been one of our customers and one of our critics. Now that you've been on the inside for several years, were there any preconceived notions about the Corps that have proven accurate, and were there any that you had to change?

**Ballard:** The only one I had to revise was about the people. I had no exposure to the breadth of talent and dedication among the people in the Corps. We have some of the hardest-working folks you can think of, and they love what they do, and they are very good at it. I had never seen that aspect of the Corps of Engineers.

But all the other preconceived notions about the Corps being arrogant and expensive, I found to be very true. That's *not* true today, but I don't think I was the person who made the difference. I can't tell 34,000 folks how they should relate to their customers. We examined ourselves collectively and we realized that we had to change, and we did. It all started with our business processes; all I did was provide a sense of urgency of why we had to change.

Four years is a very short time for an organization that's 225 years old. You can stand on your head for four years and wait out the Chief of Engineers. But that didn't happen. We put a process in place that my leaders, my senior civilians, decided collectively that we needed.

I'm happy to say that the perceptions I had are no longer there. But we need to continue to work on them because there are many other Joe Ballards who have never been inside the Corps who carry the same baggage I had four years ago.

**Update:** What will be your best memory of your years with the Corps of Engineers? Does any event, person, or situation stand out for you?

**Ballard:** There are two.

There is a one memory etched in my brain that will never, ever go away. When General Reimer placed the MacArthur Castles on my lapels and the history embodied by those little insignias was read, I can't even describe the feeling that overwhelmed me. I knew right then and there that this was *not* just another Army job! Greater things were expected of me in this position.

I really mean that. I can tell you that three-and-a-half years ago I had no idea. But I do now. The water you drink, the roads you drive on, the recre-

My second cherished memory is wrapped up in going out in the field — the dozens of town hall meetings where I stood in front of members of my command and talked to them, shared experiences, listened to their questions of me, and shared their thoughts. Some of those meetings were tough moments, but I remember every one of them. Through the town hall meetings I got a feel for what was happening in the command that you can't get from reading e-mails and papers. Riding down the Mississippi on one of the motor vessels, talking to the local folks, visiting the 249<sup>th</sup> in Bosnia, those were all highlights.

**Update:** What are your plans for the future?

**Ballard:** I'm going to take a little time to reconnect with my family and with my grandkids. I'm definitely going to go fishing! And I'd like to believe that I'm too young, not only in age but also in my mind, to retire-retire. So I have every intention of moving into the private sector and do something there, if only to prove to myself that I can do it.

And I want to get a different life. I've been in the public eye for a long time. Public service sort of puts you out there. There's nothing wrong with that, but I'd like to slow the tempo just a bit. Hard work is okay, but I want to work hard for eight or nine hours a day rather than 14 or 15. I want to enjoy the grandkids, make a little money, and enjoy the more productive part of my life.

**Update:** Is there anyone you would like to thank by name in this article?

**Ballard:** There are literally hundreds of people I'd like to thank by name, and I'll find my own way of doing that. I hesitate to try to do it in the *Engineer Update* because I would leave someone out.

So I would like to just say thanks to every member of the Corps, regardless of who they are or where they are. And I really mean that. I want to thank them for their support and for their prayers, and I received a lot of those even before the recent rash of publicity. There have been folks who supported what we have tried to do, and they haven't hesitated to tell me about their support.

And there were those who did *not* believe in what we were doing, because there will always be disagreement among professionals about the best way to do things. But they didn't work to knock the train off the track, and I want to thank them for that, too.

It's the people of the Corps who have made this the experience of a lifetime. Not just the generals and the colonels and the SESers, but the professional engineers and architects, the admin and resource folks, the contracting teams, small business folks, the guys who work the rivers, the park rangers, the soldiers in the 249<sup>th</sup>, and everyone else. I offer a simple thanks.

**Update:** Are there any final messages you would like to send to the folks in the Corps?

**Ballard:** Number one is to support your new chief and your new leaders. They need it, and if you support them as well as you have supported me, then you will have done well.

I also want them to know that it has truly been an honor and a privilege to represent each member of the Corps as their 49<sup>th</sup> Chief and the commander of the U.S. Army Corps of Engineers.

And I want to wish them all the best. I'm not leaving the Corps; I'm not leaving the regiment; I'm not leaving the planet. I'm just changing my job. I'll always be there with them. And I hope the future for everyone in the Corps will be as exciting, as professionally rewarding, and as filled with fun as it has been for the generations that went before us. If we do that, we're going to be all right.

*Essays!*



This chemical weapon destruction facility in Anniston, Ala., represents America's commitment to reduce the threat of chemical warfare. (Photo courtesy of Huntsville Center)

## Center got start in space program

By Bob DiMichele  
Engineering and Support  
Center, Huntsville

"Proposed deployment schedules do not allow for slippage in Corps planning," cautioned a memorandum to the Chief of Engineers about support to the nation's ballistic missile defense program. "Failure to act now will seriously jeopardize the Corps' ability to respond to the demands of any of the deployment schedules now being proposed."

As the headlines fill with debate about the pros and cons of national missile defense effectiveness, cost, and international impact, the U.S. Army Corps of Engineers' leadership decided on a path to assure success in an important defense requirement.

However, the date of the memo is *not* August 2000. It was October 1966. Based on the need for responsiveness from the Corps, Lt. Gen. William Cassidy, then Chief of Engineers, began establishing an organizational structure which, a year later, would become a specialized construction and project management organization called Huntsville Division.

The Corps organization in Huntsville managed the design and construction of the radar, launch, and other site facilities needed to protect the country from foreign missile attack. When the nation's initial ballistic missile defense program gradually diminished in the 1970s, Corps' Headquarters re-focused the technical expertise, innovation, flexibility, and responsiveness in Huntsville to support the Corps' geographic-based structure in a variety of military programs.

Now a major subordinate command called the U.S. Army Engineering and Support Center, Huntsville (Huntsville



X-band radar tracks incoming ballistic missiles. If the National Missile Defense Program is approved by President Clinton, Huntsville Center will manage the design and award the construction contract, while Alaska District will manage construction. (Photo courtesy of Huntsville Center)

Center, for short), it is able to throw its specific strengths behind projects for districts or divisions throughout the Corps.

"Huntsville Center remains true to its charter; it is a niche organization," said Col. Harry Spear, the center's commander. He describes Huntsville Center's missions as involving programs that are broad in scope; require integrated facilities that cross geographical boundaries; require commonality, standardization, multiple-site adaptation, or technology transfer; require a centralized management structure for effective control of program execution; or require technical services not normally provided by other Corps elements.

Supporting more than 500 specialized projects, the center's 690 employees manage a \$660 million workload this year. Because of widespread partnerships, \$52 million goes directly to divisions and districts that bring in work through the "One Door to the Corps" concept. About \$547 million is planned for contractor support.

And the center's tradition of supporting the nation's missile program has not been lost. Indeed, America's newest missile defense may be waiting in the wings.

"Huntsville Center's longstanding commitment to the national missile defense program has provided the Corps a role to manage the design and construction of the necessary tactical

and non-tactical facilities, should the President decide to move forward with this initiative," Spear said. If approved, Huntsville Center would manage facilities' design and award the engineering construction services contract. Alaska District would plan and manage construction of facilities expected to be located in that state.

The engineering and technical expertise developed to support the missile defense program in blast containment is also used on another national defense priority, destroying the chemical weapons stockpile. Huntsville Center is the Corps' Life Cycle Project Manager for the facilities that will destroy chemical munitions. The center is responsible for the facility design, facility construction, equipment acquisition, and equipment installation for the seven remaining chemical demilitarization facilities planned for the U.S.

Huntsville Center managed the design of the first chemical weapons incineration facility built on Johnston Island in the South Pacific, and managed the design for the incinerator built by Sacramento District in Tooele, Utah. It currently manages construction of three other incineration facilities at Anniston, Ala.; Pine Bluff, Ark.; and Umatilla, Ore.; and construction of neutralization facilities at chemical weapons sites in Newport, Ind., and Aberdeen, Md. Construction efforts at the Anniston and Umatilla sites are well past 80 percent complete.

"Districts like Seattle and Little Rock have picked up the support work from this construction for such things as roads, utilities, parking lots, and guard houses," said Jim Cox, director of Chemical Demilitarization.

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# Huntsville

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The Huntsville Center is also the design and construction manager for the first chemical weapons destruction facility in the Russian Federation. As such, it has worked with Transatlantic Center on a central analytical laboratory completed in Moscow last spring.

The center's munitions expertise extends beyond destroying the nation's chemical weapons stockpile to disposing of conventional weapons as well. The effort to dispose of unexploded ordnance (UXO) found at closing installations or formerly used defense sites around the country is an important national public safety program that involves many Corps districts, according to David Douthat, director of Huntsville Center's ordnance team.

"Unexploded ordnance left over from years of military training can pose an imminent and substantial endangerment to public health or the environment," Douthat said.

To minimize that hazard, the center's experts work with districts to identify sites that pose a potential risk, then dispose of UXO that proves to be a hazard. St. Louis and Rock Island districts conduct preliminary assessments, called archive search reports, for Huntsville Center. Districts identify and prioritize the cleanup of UXO sites within their boundaries, then use a combination of Huntsville Center's specialized in-house expertise, and contractor expertise, to supplement their project management, real estate, and public affairs capabilities. Several districts now have the core expertise to execute removal projects and, ultimately, design work.

"Our goal is to position the Corps to provide total support to the DoD for this type of work," Douthat said. The center's Ordnance Team is already the Corps' Center of Expertise and Design Center for UXO, and has earned an international reputation for success based on its technical capabilities, experience in conventional weapons effects, and application of methodologies to mitigate explosives effects, Douthat added.

Disposing of old ordnance is a final stage in a process that begins when soldiers train to fight and win on the battlefield. That readiness involves live-fire training on ranges. In support of readiness, the center also serves as the Center of Expertise for Ranges and Training Land Management. It provides the Army, the National Guard, and the Marines with technical support and design guidance in standardizing ranges so that training can be done safely and effectively. This capa-



Unexploded ordnance poses a public safety hazard. Huntsville Center works with Corps districts to reduce that threat. (Photo courtesy of Huntsville Center)

bility, together with the center's expertise in UXO, gives the military a full life-cycle of support for ranges from the initial design through closure.

For example, at Fort Knox, Ky., Huntsville Center, Louisville District, and Fort Knox are working together to create a new urban combat range for armored forces, a readiness necessity for future deployments and combat operations.

The center's innovative and cost-effective technical skills support a wide array of services for government facilities. That led Corps' Headquarters to establish two new centers of expertise at Huntsville Center in the past year — the Installation Support Center of Expertise (ISCX) and the Medical Facilities Center of Expertise (MX).

The ISCX began in Huntsville after the Corps' disestablished the Center for Public Works (CPW). Huntsville Center combined programs transferred from CPW with existing programs in its installation support mission. This

mission is carried out using new technologies developed by Corps' laboratories, and in partnership with local supporting districts, creating synergies in the "One Door to the Corps" concept, according to Mirko Rakigijja, director of ISCX.

The ISCX provides expertise in a variety of areas, including Energy Savings Performance Contracting; utilities privatization; utility control and elec-

tronic security systems; ranges and training lands; facility standards; facility and utility operation; repair and renovation;

agency support; fire protection; furniture and furnishings; and automated systems such as the Integrated Facilities System and DD Form 1391 Processor.

"This consolidation of installation support programs is a natural fit," said Rakigijja. "The ISCX links business practices and innovative processes in support of installations. It benefits

from program management, engineering, contracting and legal matrix expertise imbedded in its various program teams."

On the medical side, the Medical Facilities Office, once part of Corps' Headquarters, is now the Corps' Medical Facilities Center of Expertise (MX) and part of the Huntsville Center. The MX continues its previous role working with all divisions and districts by developing and maintaining design criteria, policies, and procedures for medical facility design and construction.

The MX has a wide range of services. It provides technical expertise and customer care on medical aspects of design and construction policy and criteria, technical guidance, procedures, criteria, specifications, and standards.

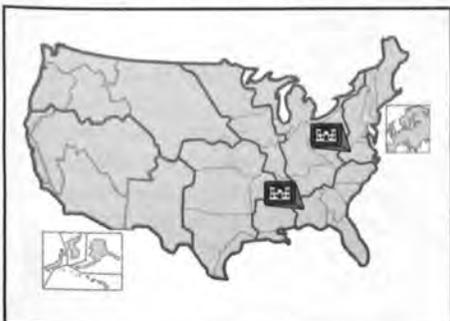
"We manage project initiation of all new DoD military medical facility projects through 35 percent design," said Thomas Kenney, MX director. "DoD's medical program has no geographic boundaries, so Huntsville Center is the appropriate place for it organizationally."

The realignment ties the unique expertise needed to design new medical facilities into three other medical programs run by Huntsville Center. The center procures equipment ranging from magnetic resonance imaging systems to nurse call systems. The MX team members created a process to maintain, repair, and renew medical facilities quicker, better, and faster than traditional government methods. That process won the DoD Productivity Award in 1999.

Also, the Operations and Maintenance Engineering Enhancement (OMEE) team develops O&M criteria and procedures that cover the life-cycle of facilities including master planning, maintenance plans, operations plans, staffing plans, training, task and skill analysis, acquisition planning, contracting, DD Forms 1391s, plus a generic preventive maintenance standards manual.

"Our employees were concerned about the efficiency and cost-effectiveness of government business practices long before it became fashionable," said Donna Rovere, director of Resource Management. "Huntsville Center has always dedicated itself to continuous process improvement." As proof, Huntsville Center was recognized by the President's Quality Award Program as one of the top performing agencies in the federal government in 1998 and 1999. In addition, the center has won the Army Chief of Staff Quality Award three years in a row.

"We're proud of our reputation for safety, resourcefulness and customer service," Spear said. "More important, we want the Corps of Engineers to be the 'Engineer Team of Choice' for the nation, and we'll assure that our contributions build upon its legacy of credibility and integrity."



## Focus on the Centers

Transatlantic, Huntsville

# 'Maneuver District'

## Far East District field-tests two new systems during Korea exercise

By Gloria Stanley  
Far East District

With the end of the Cold War, Korea is one of the few places left where war could begin without warning. So strategic exercises have a special urgency there.

Every spring Far East District (FED) trains for contingency operations during the Reception, Staging, Onward Movement & Integration (RSO&I) military exercise held throughout the peninsula. Participation in this exercise enables FED to improve skills and response capabilities necessary in a contingency situation.

**New systems.** This spring, FED played a greater role in the RSO&I, and field-tested two new automated systems under contingency conditions, TeleEngineering and the Theater Construction Management System.

"Contingency operations are the most important reason for our existence (not the most work we do, but the most important) and we only have two times a year, during RSO&I and Ulchi Focus Lens (UFL), for this kind of training," said Col. David Rehbein, former FED Commander.

FED ordinarily performs its joint engineering design and construction contracting mission using military construction (MILCON) funds and other sources of funding. But during contingencies, it performs this mission under direction from the U.S. Forces Korea (USFK) Regional Contingency Engineering Management (RCEM) cell using money from suspended MILCON projects. Korean contractors assigned to FED by the Republic of Korea Ministry of National Defense perform the construction.

The RCEM assigns FED projects from the Contingency Construction List (CCL). FED will usually get projects beyond the scope of troop construction or the capacity of Korean Service Corps units. Because construction troops will not arrive in strength in theater until several weeks into a contingency, FED anticipates being assigned numerous projects initially, which will taper off as construction troops arrive.

Wartime Host Nation Support may also supply facilities, eliminating the need for building some items on the CCL. The Army Material Command may also activate the Logistics Civil Augmentation Program (LOGCAP) to perform construction. FED provides quality assurance for LOGCAP construction.

**Contingency ops.** During contingencies, FED stands up a 24-hour operations center at Camp Henry in Taegu. FED assigns Liaison Officers to Eighth US Army, 7th Air Force, Marine Forces Korea, Naval Forces Korea, Second ROK Army, and the RCEM.

During the most recent RSO&I, for the first time the FED commander and most of the senior staff deployed to the FED Operations Center (FEDOC) at Camp Henry to role-play in the exercise. Other members of the FED team remained at the headquarters in Seoul to run the real-world district operations.

"It's key that our senior folks participate in the exercise full-time," said Rehbein. "The division chiefs have done an outstanding job; the district is operating fine. It's a good size now and we have good depth in the district divisions. The district is in good hands."

FED's overall readiness improves with each exercise, according to Rehbein. The district completed 300 Theater Construction Management System (TCMS) design projects, compared to just a handful during UFL last August. TCMS, a computerized



Far East District participants design projects using the Theater Construction Management System during the Reception, Staging, Onward Movement and Integration exercise in Korea. (Photo courtesy of FED)

planning, design, management, and reporting system, automates engineering activities. The system has a data base of 4,300 designs for basic facilities to be built by troop labor and provides a basic starting point for theater planners during a contingency.

Just before the exercise, personnel from the U.S. Engineering and Support Center and Dyntel Corporation (the company which created TCMS) conducted two two-day classes and trained 20 people to use TCMS. This allowed more productive use of the system during RSO&I in April.

**TCMS.** "It went smoother this time because two of the four people working TCMS during RSOI had been through the previous exercise," said Sandra Mayes from the Engineering and Support Center. "It's been mutually beneficial because they have given us ideas on how to improve the system."

The databases have been updated and by August they hope to have made some programming changes that will make the program easier to use, such as improvements so it will be more like Windows applications. There is also some reports that users need to be able produce which Mayes said they will incorporate into the system.

"Being with the user and seeing how the user uses the system helps in making improvements," said Richard Morris, systems engineer for Dyntel Corporation. "FED is hands above other organizations in actually using TCMS and has shown exceptional implementation of our invention. There has been good information management support, particularly with the Internet, making it possible to show the design to a user on the screen and not have to be on-site."

"It's exciting work," said Tom Gotto from the Design Branch in Honolulu District. Gotto was the TCMS project manager, coordinating TCMS requests from RCEM and Eighth U.S. Army and getting the finished products to the requestor. "There's a lot going on with 200-plus projects, trying to accomplish them all."

Gotto said the FED team worked well together and that TCMS helps, but agreed it could be improved. "TCMS needs a cost estimating piece that will allow contracting," said Rich Schiavoni, Chief of FED's

Engineering Division.

**TeleEngineering.** Another important capability FED used during this exercise was TeleEngineering. This was the system's first deployment in the Pacific region. Created by the Engineering Research Development Center (ERDC), TeleEngineering gives those in the field the ability to contact others in the Corps for help in handling engineering challenges. The TeleEngineering communications equipment allows secure and non-secure communications, including teleconferencing.

There are deployable and non-deployable versions of the system. The deployable system, used during RSO&I, processes data a little slower than the non-deployable system, but allows field people, wherever they are, to connect to subject matter experts.

**Impressed.** "The Combined Forces Command was impressed by FEDOC's fast responses," said Mitchel Glenn, Chief of FED's Emergency Management Office.

"Requestors were pleased with the support they received," said Dr. Larry Lynch from ERDC who operated the system during RSO&I. The Korea Contingency Response Unit is considering procuring the system, depending on funding and approval.

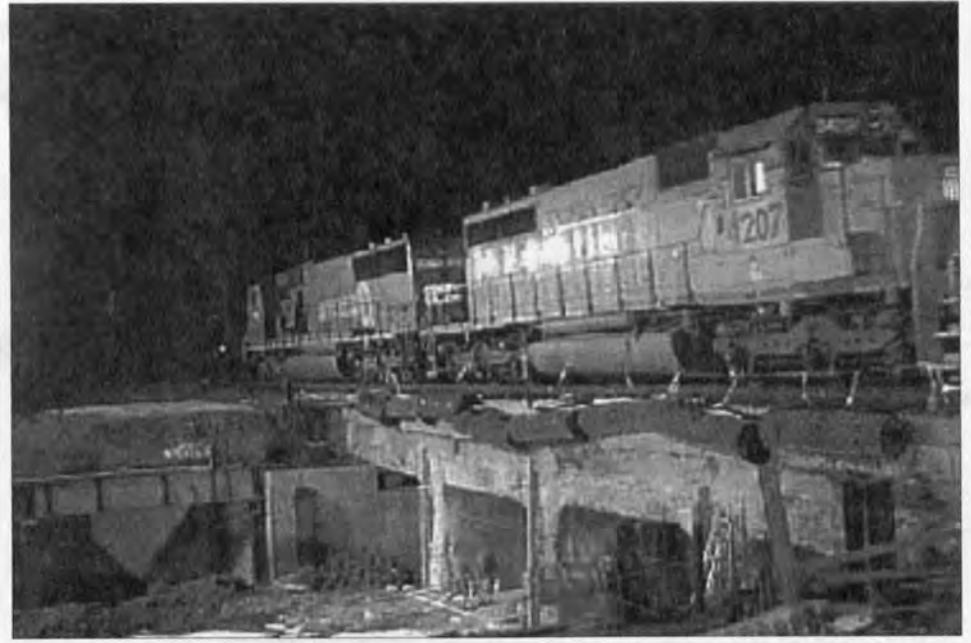
For the first time, the new Korea Contingency Response Unit (CRU) Team deployed to Korea for the RSO&I. They were the night shift staff for the FEDOC at Camp Henry. In previous exercises, FED Individual Mobilization Augmentees (IMAs) had this responsibility as part of their annual two week active duty assignments.

"In FY01 the IMA strength will increase to 38 Reservists and, with the addition of the eight-person Korea CRU Team, FED should consider bringing in at least three or four Reservists for a two week annual training before both RSO&I and UFL," said Lt. Col. Michael Alexander. He served as the night shift executive officer. Alexander said he has seen a gradual increase in involvement and is amazed at the transformation in four years.

"It was great that the CRU was able to come and great to have the total force participate," said Lt. Col. Mark Cain, former Deputy Commander of FED.



The old railroad bridge on Holes Creek in Ohio had to be replaced while shutting it down once for 24 hours. (Photo courtesy of Louisville District)



The last train crosses the Holes Creek railroad bridge before replacement began. (Photo courtesy of Louisville District)

# Railroad bridge replaced in 24 hours

By Ardis Moonlight  
Louisville District

The mission to place a different style of railroad bridge over an Ohio creek as part of a flood control project had an unusual twist to it. The railroad owners demanded that the heavily-used twin rail lines that span Holes Creek, a 12-mile stream that winds through West Carrollton, a suburb of Dayton, be closed *just once* for 24 hours.

The quickest way for the U.S. Army Corps of Engineers to remove the existing bridge was to use explosives. They would attach demolition mats (enormous rubber curtains) to either side of the old span piers to block the blasted rubble, set off the charges, remove the old bridge fragments, and roll in the new 70-foot clear span. And they did the job almost on schedule.

Faced with a difficult time challenge, the design team (Louisville District and Dodson-Stilson of Columbus, Ohio) decided to build a new pierless steel bridge on a temporary set of trestles beside the old bridge. The old bridge's piers continually caught debris and increased flooding problems.

While trains continued using the tracks, new steel H-pile foundations were installed next to the corners of the bridge, driving in more than 120 piles.

Putting in the reinforcement steel, forms, and cast-in-place concrete for the new foundations and abutments went slowly because Holes Creek flooded several times in the next few months.

The railroad company required the government's construction contractor, Ahern & Associates of Springfield, Ohio, to perform the final demolition and roll-in of the new bridge on the date of a nationwide rail shut-down.

The contractor used high-capacity steel rollers and steel cable "come-alongs" to pull the bridge into final position. Two of the come-alongs broke, but the contractor was resourceful and used the bucket of a large track excavator to push the bridge into place.

Obtaining all right-of-ways and relocations necessary for the bridge construction and channel widening was complicated also. Corps representatives and the area sponsor, the Miami Conservancy District of Ohio, needed to talk and coordinate the various aspects of the project with two telecommunication companies, the electric company, sewer and water companies, and three or four railroad departments.

For instance, two telecommunications companies had lines in different areas on separate banks of the creek which were obstacles to the project. Before any work could be done, the companies agreed

to put the lines in the same trench beside the new work. However, a contractor had to be scheduled to put the trench and conduit in. Then each company arranged for their own work teams to cut the original lines and install them in the new location.

But even before *that* work could occur, the electric company, Dayton Power and Light, needed to move its overhead utility lines to a new area. And the non-federal project sponsors had to arrange for a temporary easement before the new area could be cleared.

Making the change in the rail lines also involved tremendous coordination. One rail department oversaw project design. Another shut down the rail lines and monitored the rerouting and the safety of the new lines. Another rail department did the actual cutting of the existing tracks, then moved them and reset the ballast. Also, ownership of the rail line changed from Conrail to Norfolk Southern during construction.

The one-mile project, located in the lower two miles of the stream, involved widening the channel, stabilizing the banks with riprap, and reseeding the banks with grass and replanting trees. The total project cost was \$9,245,000, with the Corps paying \$7,940,000 and the Miami Conservancy District paying \$1,305,000.



Working feverishly through the night, contractors race to replace the Holes Creek railroad bridge. (Photo courtesy of Louisville District)



Holes Creek with the new railroad bridge in place. (Photo courtesy of Louisville District)

# Career spans 56 years in Japan

By Maureen Ramsey  
Japan Engineer District

World War II had ravaged Japan, and Clara Kamano wanted to find out what happened to her relatives there. Little did the 23-year-old Army secretary from Hawaii realize that she would spend most of her 56 years of federal service there.

Kamano arrived for her first tour in Japan in 1947 as a secretary-interpreter with the Economic and Scientific Section in the General Headquarters.

## Curiosity

"My father sent care packages every month to all of my relatives," said Kamano, who had visited her relatives before the war. "So, I thought if I came over, I could check to see how the living conditions were. And I was curious to see Japan again. My sister's house was burned, not bombed. After three years, I resigned and went home," said Kamano.

But due to Kamano's interest in Japanese culture, especially Kabuki (the art of singing and dancing), she returned to the country in September 1954. This time she worked for a U.S. Army Corps of Engineers element with the Armed Forces Far East, now U.S. Army Japan.

"I worked for its construction division," said Kamano. "Then they started talking about establishing POD (Pacific Ocean Division) and a Japan Area Office. When they finally decided on a Japan Area Office, I was the first to volunteer. It was in Tokyo, and I lived in Tokyo. That was in 1956."

## Close-knit

Kamano said the new Japan Area Office was close-knit.

"It was a big outfit, but we were very close," she said. "We had good engineers. Everyone was real nice, as people. Work-wise, everyone was very helpful and knowledgeable. We had a great, nice working outfit."

But why did she remain so long in Japan?

"My father passed away in April 1955," she explained. "I didn't have any relatives in Hawaii and I couldn't leave my mother alone, so I went back to get her. But she didn't want to come to Japan. At first, I thought I'd have to resign my job, and stay in Hawaii because every day she would tell me, 'Yes, I'll go,' then 'No, I won't go.' It just went on and on.

"Finally, one day she said yes, she would go," Kamano continued. "So I picked up the phone, called a friend and had him take her around to immigration and the consulate, then buy her a ticket. Everything was done that afternoon. She couldn't back out.

"When we came to Japan, the first thing she said was we're going back in two years," said Kamano. "When two years came around I asked, 'Do you want to go back?' She said, 'Yes, for a vacation.' We just stayed on and on until she passed away 20 years ago."

During her tenure, the district went through numerous reorganizations from the U.S. Army Engineer District, Far East, Rear Area Office headquartered in Okinawa, to the present Japan Engineer District established at Camp Zama in Japan in May 1972.

## Many jobs

Throughout the changes, Kamano served the district in a variety of capacities. At one time or another, Kamano served as the district's executive secretary, adviser to the commander, chief admin support officer, records administrator, assistant property administrator and accountable property officer, civil



Fascination with Japanese culture is one reason Clara Kamano spent so many years there. Here she wears a traditional kimono. (Photo courtesy of JED)

engineering technician, conference project officer, institutional memory, public affairs officer, social director, liaison with master labor contractors, and set up the Resident Offices.

"Of course, I used to grumble a lot at all the assignments," Kamano said. "They wouldn't ask, they would send me a letter saying 'You have been appointed accountable property officer' because the GS-11 hadn't arrived, you know. I knew nothing about new equipment; they would have to describe the item. Then after the person arrived, all I would get is a thank you letter."

But all that impromptu experience turned out to be useful. "After settling down in my current position (civil engineering technician), I'm really grateful to have had the opportunity to learn all the different jobs," Kamano said. "I've had my ups and downs, but all in all it has been good."

If she had things to do over again, what would she change? "I'd never be a secretary; that's for sure!"



Col. Thomas Charlson, Japan Engineer District Commander, explains the bronze de Fleury Medal to Clara Kamano during her retirement ceremony. (Photo by Doyal Dunn)



Clara Kamano during the 1960s. (Photo courtesy of JED)

Fifty-six years is a long time, and Kamano has seen the Pacific Rim change quite a bit. She cited Japan's rise as an economic power, but indicated that it was just too expensive for tourists.

Another thing she has seen develop is "freedom of travel," she said. "You can travel anywhere you want to go. I've been to Thailand, Vietnam, Hong Kong, and Macaw."

## Music

Kamano has retired to Hawaii. She said she has no relatives there, but many good friends. She enjoys Japanese classical music and plays the shamisen, a traditional Japanese instrument with a long neck and three strings that looks a bit like an American banjo. "I'll do some volunteer work," she concluded. "I probably will get involved with the Hawaii talents or artist group."

# Around the Corps

## De Fleury Medal

On behalf of the Chief of Engineers, Brig. Gen. Edwin Arnold, Commander of Southwestern Division, presented the Gold De Fleury Medal posthumously to Command Sgt. Maj. Robert Elke. Elke's widow received the medal on behalf of her husband.

The citation read that Elke was recognized for service to the Corps beginning in 1943. Elke served as an engineer NCO for 29 years of active military service, including combat in World War II and Vietnam.

The de Fleury Medal is the most prestigious award of the Engineer Regiment. It recognizes civilian and military personnel for outstanding contributions to the nation and to Army engineering. The award is named for Francois Louis Tesseidre de Fleury, a French engineer who served with the American Army during the Revolutionary War.

## Youth camp

Louisville District is helping create a youth camp in Kentucky. Tim Horton's, a Canadian coffee/baked goods franchise, has built four youth camps in Canada and will open its first U.S. camp for disadvantaged youth at Kentucky's Green River Lake State Park next summer.

"The Corps...is proud to be included in this partnership at the federal, state, local, and international levels," said Col. Robert Slockbower, Louisville District Engineer, during the groundbreaking. "This project is a major investment, not only in capital and buildings, but...in the future."

Louisville District, which has jurisdiction over the area, leased 50 acres of land to the state for 50 years. The Corps also made an environmental assessment of the site, arranged for the 766,000 gallons of water the camp will need each year, and approved the structural and drainage plans.

## Rio Salado

As Corps projects go, it's not large — just 550 acres along a dry riverbed. But for citizens of Phoenix, it's a high-interest project. On June 1, a groundbreaking ceremony launched the Río Salado (Salt River) envi-

ronmental restoration project along a five-mile stretch of dry riverbed.

Shortly after the turn of the century, the Bureau of Reclamation built dams on the Salt and Verde rivers to develop a water supply for Phoenix and the Salt River Valley. This created a reliable water supply, but it also caused the Salt River to go dry. Today, the riverbed is an open gash running through the southern part of the city, lined with landfills, gravel pits, and industrial areas. It's also along the flight path for airliners at Sky Harbor Airport, which presents an unattractive view of the metropolitan area.

The city, wanting to improve conditions along the riverbed, asked the Corps to see if it is feasible to restore the Salt River. The Corps found that it is, and when Congress passed the Water Resources Development Act of 1999, the \$80 million Phoenix Río Salado Habitat Restoration Project became possible.

The Río Salado project will return the Salt River channel to a meandering stream with a chain of ponds, along with native riparian vegetation as habitat for wildlife. The project is a partnership — the city is sponsoring it, Los Angeles District is designing it and contracting for construction, and the county is responsible for flood-control elements.

## Correction

Pamela Doty, a park ranger at Lake Shelbyville in St. Louis District, won the 2000 Hiram M. Chittenden Award for Interpretive Excellence, not Melissa Rinehart as reported in the July *Engineer Update*.

## Small businesses, big year

In June, Arkansas Governor Mike Huckabee and the Arkansas Small Business Administration (SBA) recognized Little Rock District for contributions to the district made to the Small Business Program.

This is the first time that the Arkansas SBA has awarded a procuring agency. Huckabee and Michael Carter, chairman of the state chamber of commerce, presented the award to Annie McClintock, chief of Contracting, and to District Engineer Col. Thomas

Holden.

The district awarded \$6.8 million in fiscal year 1999 (FY99) under the 8(a) program for small and disadvantaged businesses. That is up from \$604,000 in FY98.

"SBA was instrumental in allowing the district to use a competitive procedure that was below the required threshold instead of a sole source on most of these awards," said Paula Crane, manager of the district's 8(a) program. "The chemical demilitarization project has been in process for several years, and the district put forth a lot of effort to get the projects awarded on time and within budget."

Major 8(a) contracts awarded to Arkansas contractors in the past fiscal year include the \$3.3 million chemical demilitarization utilities contract at Pine Bluff Arsenal, the \$2.3 million contract for Morgan Point Bendway, a \$368,000 bank stabilization project at Batesville, a \$179,000 bank stabilization project at Jacksonport, a \$40,000 erosion control project at Millwood Lake, and a \$100,000 rehabilitation to the water distribution system at Dam Site and Horseshoe Bend parks on Beaver Lake.

The Arkansas SBA award did not include more than \$4 million awarded to Rayco Construction, Inc. for their portion of the district's regional job order contract. That 8(a) money was counted under the Texas SBA program.

## Seligman Crystal

The International Glaciological Society (IGS) has selected Dr. Samuel Colbeck, a research geophysicist and senior research scientist with the Cold Regions Research and Engineering Laboratory (CRREL), to receive the Seligman Crystal.

The Seligman Crystal, the IGS' highest award, is given periodically to those who make outstanding scientific contributions to the field of glaciology (the study of glaciers). Since 1963, only 25 scientists have received the award.

Colbeck is the fifth CRREL researcher to receive it. His research includes how snow grains bond together to give snow its strength, and how weak layers form and cause avalanches. Colbeck says, "Science is fun, especially when you get to do it on skis!"

## 225 years

# Corps people helped Greece rebuild

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

The advantages of having a military-civilian engineer organization were demonstrated when the U.S. helped Greece recover from the devastation of war.

Soon after the end of World War II, Greece was torn by a civil war between Communist guerillas and government troops. President Harry S. Truman and Congress believed it was in the national interest to prevent a Communist take-over. To strengthen the anti-Communist forces, the State Department developed a program of economic aid to Greece. They felt that a Greece on the road to economic recovery would be less likely to fall to Communism.

Truman appointed Dwight Griswold, a former governor of Nebraska, as the administrator of the recovery program. Soon after his arrival in Greece in July 1947, Griswold reported on the extensive devastation. The State Department decided the priority tasks were reconstructing and rehabilitating roads, railroads, bridges, ports, and the Corinth Canal, one of Greece's main waterways. They felt that once

Greece's transportation system was restored and the ports were operable, economic recovery would be more rapid.

The State Department received some 100 letters from construction firms interested in the work. But the department was unfamiliar with construction and letting contracts and had no organization to do the job. It sent representatives a number of times to the Office of the Chief of Engineers to get information about such matters as selecting contractors, the types of contracts that could be used, and fees.

The State Department concluded it would be unable to do the work because it did not have the know-how to deal with contractors, and had no organization to put into Greece. The Secretary of State asked the Secretary of War to assume responsibility for the job. In late July, 1947, the Secretary of War gave the mission to the Corps of Engineers, who had a far-flung civil works construction organization. The work was scheduled to be completed in a year.

The Corps created the Grecian District with headquarters in Athens, manned it with personnel drawn largely from Corps divisions and districts, and entered into agreements with a number of contractors who formed joint ventures. In mid-August, Col. David Griffiths, the new district engineer, some of his civilian employees, and some of the contractors'

employees arrived in Athens.

Work began in mid-September with cleaning debris from the port of Athens. Soon work was underway on rebuilding other ports, rebuilding wrecked railroad bridges and tunnels, and upgrading highways, which had deteriorated badly. The Corinth Canal was cleared of debris. And soon after arriving in Greece, Griffiths received the additional duty of upgrading a number of airfields.

All this work had to be done rapidly and efficiently. As the Secretary of War wrote, "The War Department is on continual exhibition to the President, the Congress, the State Department and to Greece...and other interested nations." Col. George Marvin, the chief engineer of the U.S. Army Group advising the Greek army in its fight against the guerillas, helped Griffiths by obtaining Greek army units to provide security for workers at district projects.

The Corps rebuilt about 900 miles of highway, rebuilt three major ports, restored railroad bridges and tunnels totaling about two miles, and upgraded 10 airfields. The Corinth Canal reopened after about one million cubic yards of earth and debris were removed. Actual construction time was about 18 months; the overrun resulted mainly from guerilla attacks, unusually severe winter weather, and delays in getting supplies.

# Vietnam vet writes book about war

Article by Sandy Clawson  
and Terrie Hatfield  
Photo by Ida Morris  
St. Louis District

When Roger Hayes fought in Vietnam, he never dreamed that one day he would write a book about his experiences. In May his book, *On Point — A Rifleman's Year in the Boonies: Vietnam 1967-1968* was published by Presidio Press.

The development of *On Point* began in November 1996. Hayes, a park ranger in St. Louis District headquarters, reconstructed events, dates, and places from letters he had written to his mother, which she kept neatly bound in chronological order. He completed the first draft in three months, the second in six, and wrote four more before he sent the manuscript to the U.S. Copyright Office. In June 1999, Presidio Press decided to publish *On Point*.

For months, Hayes reworked the book to meet the requests of the publisher, then copyedited, proofread, and finally printed. Presidio Press designed the book's cover and layout, and developed marketing and promotion plans. Advance sales were available on the Internet, advance copies were mailed to major book reviewers, and on May 15, *On Point* began to appear in book stores (coincidentally, about the same time as the 25th anniversary of the end of the Vietnam War).

Hayes has been interviewed by local media, which generated even more interest. So far, Hayes has had two public book signings.

"I feel extremely lucky to be where I am with this," Hayes said. "A lot of good writers never get this far. All the time I was writing, I felt that there was little chance of selling my story, but getting it down on paper was enough to keep me going. I thought it would make a good family and unit history. Knowing that it will soon be on the shelves of bookstores all across America really blows me away."

*On Point* covers Hayes' military career, beginning with a draft board physical at the age of 18. Two



Roger Hayes fought in Vietnam in 1967 and 1968, and recently published a book about his experiences.

years later, while in college, he was drafted. After basic and advanced training, Hayes arrived in Vietnam as a private first class, and slowly became a contributing member of his unit, the 25th Infantry Division. He served as a point man and tunnel rat, eventually rising to the level of squad leader. He proudly returned home wearing sergeant stripes. During his tour, he was wounded four times and decorated six times.

Hayes' book is more than a story about war. He describes the close relationships formed by the men of his platoon who depended on each other for support, entertainment, and survival, and illustrates the anguish of those on both sides who were touched by

the war. Touches of humor and a bit of romance provide balance and a little relief from the tragedy.

Dr. Eric Bergerud, history professor and author of four books, wrote the foreword and describes *On Point* as "a splendid combat memoir with battle descriptions that leave the palms sweaty... Anyone interested in men at war will learn much from Roger Hayes's moving and very well told story."

A diverse audience met Hayes at his first public book signing just before Fathers Day. Of course there were other Vietnam vets who purchased the book and wanted to talk. But there were also several purchasers who wanted personally autographed copies for their fathers who are also Vietnam vets. One gentleman purchased the book for his wife, a teacher, who plans to use it as part of her American history curriculum. The rest of the audience was a mix of people who waited for family members to come home while watching the war on TV, and those who only know it as history.

Hayes' first professional review in "Publisher's Weekly" called *On Point* "a literate and thoughtful journal" and stated that "Unlike many battlefield memoirs that focus on hardship and hardware, this... addresses the culture of war, and of this war in particular, through the eyes of an intelligent innocent... Packed with details and curious observations, this could easily wind up on university reading lists for courses examining the culture of war."

A recent review by Presidio Press said, "Hayes offers the reader insight into the world of a frightened, green rifleman who evolves into a skilled and competent veteran squad leader... recommended for academic and public libraries."

Unlike most Vietnam stories, the language in this book is suitable for audiences of all ages and acceptable for high school libraries.

Hayes is pleased with the support offered by co-workers. "The people here in the district have been very supportive and enthusiastic," said Hayes. "Quite a few have told me that they've already purchased the book. I won't forget that."

## Hot project on time, under budget

By Peggy Massey  
Tulsa District

On time, under budget — always music to Corps' ears. That's exactly the way it was at the Vance Project Office on the completion of the Air Force's new Fire Training Facility. Brawner Construction, along with Tulsa District's Gerald Grosz, project engineer, and Wes Baker, quality assurance representative at Vance, brought the project in five weeks ahead of schedule and \$15,000 under the original contract price.

Two inspectors from the Air Force Civil Engineers Support Agency certified the project on their first attempt, which is rare for this type of facility. Representing both facets of the inspection process (engineering and operations), the inspectors each inspected the project on different days, and both came to the same conclusion — that the facility passed both criteria with flying colors.

They told Grosz that the inspections went more smoothly than any they had ever performed. "Vance Air Force fire chief, Andrew Anderson, was very pleased with the facility," Grosz said.



A firefighting team at Vance Air Force Base tries to extinguish a fire in the mock-up fuselage. The facility passed the test by being inextinguishable except by turning off the propane valves. (Photo courtesy of Tulsa District)

The project was not without hurdles. It had taken years to get to the construction stage. The basic concept design was done by the Air Force. There had been 40 other bases with fire train-

ing facilities built in the past several years. "Lessons learned" from those projects had to be incorporated in the new design. Then there were the many amendments during the bid process

which had to be included.

The Corps' major players and the prime contractor brought thorough previous knowledge and experience in building fire-training facilities. It was the third such facility for Dan Johnson, resident engineer, Central Oklahoma Area Office, who supervises the Vance Project Office.

"This was the fourth Fire Training Facility built by Tulsa District in the past several years," said Johnson. "It was the second one for Jerry Grosz, Wes Baker, and Brawner Construction."

As resident engineer, Johnson had been involved in building a similar facility at Sheppard Air Force Base. Building the fire training facility at Altus Air Force Base followed that project, where Grosz was project engineer. Baker's experience occurred at Tinker Air Force Base, where he served as the Corps' quality assurance representative on the fire training facility there, working alongside the prime contractor, Brawner Construction.

"There was a lot of effort at the very beginning and a good blend of experience which really paid off in the successful execution of this project," Johnson concluded.