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German and American firefighters pack up their equipment soon after extinguishing the fire in the Amelia Earhart Center in Wiesbaden, Germany, home of Europe District.

Europe begins fire recovery process

Article by Marnah Woken
Photo by Victoria McAllister
Europe District

Cleanup and repair efforts continue at the Amelia Earhart Center in Wiesbaden following a fire that occurred in the early morning hours of March 25. The fire caused extensive damage to a sixth floor wing of the building, which housed Europe District's Program and Project Management branches. No one was injured in the blaze, which caused more than $600,000 in damages.

Although the blaze destroyed the northwest section of the wing, no corporate data was damaged in the fire. Minor smoke and water damage occurred in other areas of the building. The 30 displaced employees affected by the fire have relocated to temporary offices in the building until repairs to the wing are completed.

The Criminal Investigation Division, the German Police Investigator and the U.S. Fire Chief investigated the fire and determined the cause to be an electrical malfunction. Europe District employee Ed Wise, who happened to be working in the building at the time, discovered the fire. Wise stepped outside onto a balcony and saw flames coming from a window two floors above him. Wise alerted the only other employee in the building and immediately called the fire department. German and American fire departments responded and extinguished the blaze by about 2 a.m.

Repairs are expected to be completed by the end of May.

New cleanup program underway

FUSRAP benefits neighborhoods

By Sue Hopkins
New York District

Commitment and attention to many details are making New York District a success in the U.S. Army Corps of Engineers' newest environmental cleanup program.

"It's been a team effort," said Col. Gary Thomas, District Engineer. "We've shown that we'll go wherever necessary throughout the Corps to get work done and meet our customers' needs."

"FUSRAP, the Formerly Utilized Sites Remedial Action Program mission that Congress gave us in the 1998 budget this past fall, is a good news story," said Lt. Gen. Joe N. Ballard, Chief of Engineers, during a town hall meeting on March 14. The program was transferred to the Corps from the Department of Energy. "Even though it's only about a $140 million a year program, the fact that Congress gave it to us shows that we have the reputation for getting things done and done right. Through this program, we are progressively working at comtaminated sites around the nation, cleaning them up quickly and cost effectively."

New York District people have been working with citizens, politicians, and governing bodies to clean up contaminated sites in Maywood, Middlesex, and Wayne, N.J., and in Colonie, N.Y.

"Everybody who has worked on the program has had a positive attitude," said Ben Wood, senior program manager. "The proactive manner on small and large accomplishments has built a program the Corps can be proud of."

Wood said it was a challenge for the district to decipher the proper path and actions when taking over the FUSRAP projects.

"There was so much information, so many reports to digest," he said. Some reports drew different conclusions based on the same data, adding to the challenge of sifting through written material while keeping the program moving."

Barbara Affeldt from the district's Office of Counsel agreed.

"When we took over, there wasn't a lot of time to learn the program," she said. "We had to move quickly to bring ourselves up to speed. Considering the size of the program, it was a daunting task, but we exceeded our own high expectations."

"We've done so much, but there's still more we can do," Wood said. "We need to listen to the

Continued on page two

Huntsville begins largest DoD project

By Linda James
Huntsville Center

The view from the wooden gazebo high on a ridge at Anniston Army Depot, Ala., is breathtaking, with heavily wooded hills as far as the eye can see. But in the valley below is a *manmade* wonder. Sprawling across 19 acres is one of the Department of Defense's (DoD) largest construction projects -- the Anniston Chemical Agent Disposal Facility. Anniston is one of two such facilities being built under the watchful eyes of the U.S. Army Engineering and Support Center, Huntsville. The other is at Umatilla, Ore.

The facility at Anniston will destroy the 661,529 chemical weapons stockpiled at the depot. It is one of eight sites in the continental U.S. storing chemical weapons. Huntsville Center is the life cycle project manager for this $575 million project that, according to Karen Durham-Aguilera, the former resident engineer, defies comparison.

"I've worked on construction projects in several states and other countries, on both military and civil works projects in the last 15 years, and I cannot compare this project to any other in terms of technical complexity and challenge," said Durham-Aguilera, who once led the 23-person Anniston resident engineering office.

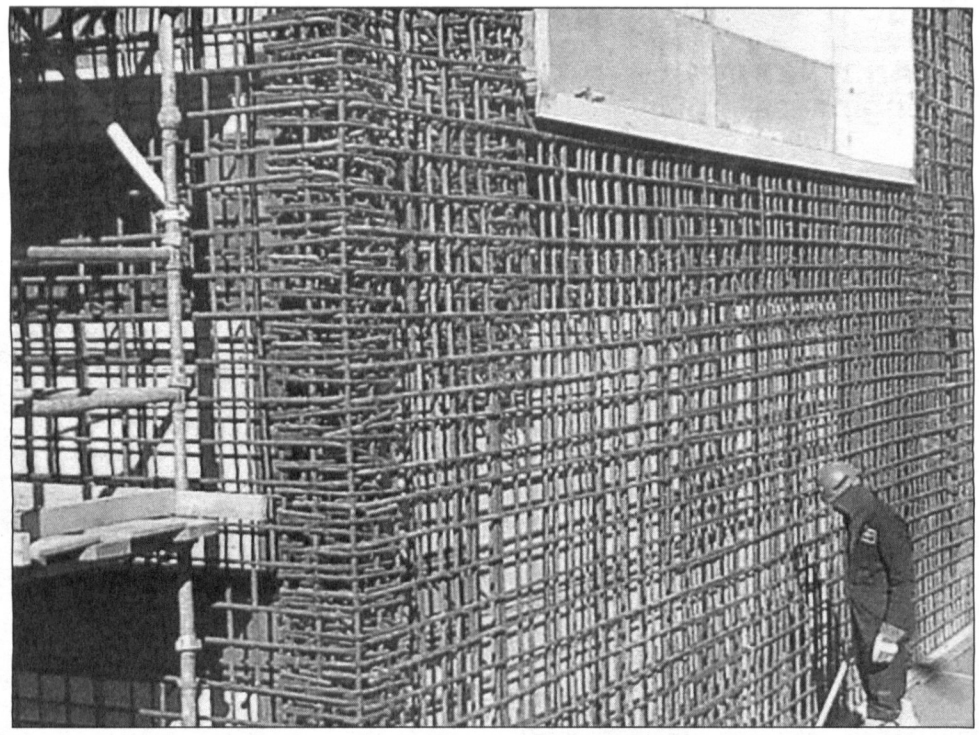
Tom Small, the Huntsville Center-based project manager for the Anniston facility, also uses the words "complex" and "challenging" to describe the project, but he adds "big" to the list. The project includes 5,600 tons of steel, 24,000 cubic yards of concrete, and 33 miles of piping.

"Safety" is another word that crops up regularly in discussions with both Small and Durham-Aguilera. An important ingredient in any construction project, it's a point of pride for one this size and scope. With the project nearly 15 percent complete, the systems contractor, Westinghouse Anniston, has worked 530,000 hours without a lost workday. A work-force of 495 people reports to the site each day. Many are bused into and out of the high-security construction area. That number will rise to 900 before construction is complete in February 2000.

According to Durham-Aguilera, the scope of a project this size and driven by something as critical as the destruction of the U.S. chemical weapons stockpile demands that "everyone be on the same team."

"It requires a balancing act with the needs of the customer (the Program Manager for Chemical Demilitarization), regulatory agencies, and the public," she said. "And it requires coordination and communication with numerous government agencies as well as a large contractor work force."

Small adamantly agrees that the ability to work as a team has been the key to the progress of such a challenging project. "Even before we broke ground, the team had begun planning in earnest for what we knew was going to be a highly visible project," said Small. "Once we received the necessary permits to begin construction, the team was ready to move out."



The iron bones of the Anniston Chemical Agent Disposal Facility dwarf a contract worker. (Photo courtesy of the Huntsville Center)

And move out they have, but not without a few bumps along the way, such as modifications to the construction contract that far exceed the typical Corps project. For instance, the largest change has been the addition of the carbon filter system. This change alone will cost more than most construction projects, and it's only one of many changes to this project.

Small explains that a change of this size has a domino affect on the entire project. "The carbon filter system requires complex reconfiguration of the design to accommodate the change," said Small. "To avoid adding cost upon cost, you have to try hard not to impact the contractor's time requirements; and you have to look at additional resources, that is, people. And you have to look at how the filter system change will impact any other changes. It's a real juggling act."

To handle the change, the Anniston team put together early in the process a partnering group including Huntsville Center, the Program Manager for Chemical Demilitarization, and the contractors. So far, the strategy is working because, according to Small, the project is right on schedule. Construction will be complete in 2000, and destruction of the stockpiled weapons should be complete by 2005.

FUSRAP

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citizens who have lived with the problem and make sure every step we take makes their lives better."

Wood credited the offices of Real Estate and Counsel with handling a tough job on the front lines in Maywood. He said the synergy of a committed team made it possible.

"The New York District FUSRAP team, working with the Environmental Protection Agency and local and state governments, has allowed us to not only maintain momentum, but to accelerate the cleanup while applying efficient engineering approaches, budget, and contracting schedules," Wood said. "Kansas City and Baltimore district have been extremely responsive and professional. They've gone the extra mile and have been there every time we've needed them."

Allen Roos, who in March replaced Ayed Ireifej as project manager for the three New Jersey sites, agreed.

"There have been a lot of people involved and a lot of different areas to work in, and there's been great progress because of the teamwork."

Some residents affected by contamination from the Maywood site had been waiting 15 years for their property to be cleaned up, noted Dean Dresser, Real Estate. "It's no wonder they weren't very receptive when we began contacting them in December about relocation and remediation."

The district has finished cleanup at one residence and a park, removing more than 2,700 cubic yards of contaminated material. Remediation is underway at two residences, with a total of 12 families relocated in April and May to begin cleanup.

Dresser said that the Real Estate and Construction staff held kitchen-table briefings with each affected family and maintained close contact to ensure smooth moves, winning over several homeowners who had been opposed to the relocation and cleanup.

Other significant actions include:

- In Lodi, N.J., a family whose home does not require cleanup is being relocated for security reasons. The family, with small children, would be the only one on the block during remediation of a dozen nearby homes.
- A woman concerned about pets buried in her yard was grateful when workers located the remains of a pet in an area to be remediated and reburied it in an uncontaminated part of the yard.
- At the Wayne site, the district supervised the final removal of a pile of contaminated soil. Additional site characterization work, including borings, is under way to ensure safe, proper removal of subsurface material.
- In Middlesex, a pile of contaminated steel has been removed. About a third of the steel (44 tons) went to Oak Ridge, Tenn., for recycling, and the rest (93 tons) was transported for disposal.
- Work has begun to remove the Middlesex Municipal Landfill pile. An alternative disposal contract will send the material to a site in Idaho at a cost of $370 per cubic yard rather than the $1,000 per cubic yard for disposal at a facility in Utah. Environmental surveilance monitoring at the site continues.
- At Colonie, real estate team members are working to secure leases from Niagara-Mohawk Power, Conrail, and the town of Colonie. Environmental surveillance and monitoring continues, and the district is working with Baltimore District to have a Total Environmental Restoration Contract in place once real estate issues are resolved.

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Alaska cleanups win SecDef awards

Site cleaned 5 years ahead of schedule, saving over $6 million

By Pat Richardson
Alaska District

Two Alaska District projects, Akutan Naval Station and the Coordinated Comprehensive Cleanup (C3), have won Secretary of Defense Productivity Awards. Deputy Secretary of Defense John Hamre will present the awards on May 13 at the Pentagon.

At Akutan Naval Station, the district initiated a Total Environmental Restoration Contract (TERC). Akutan, a Formerly Used Defense Site, was cleaned up five years ahead of schedule, saving the government $6.25 million.

The innovative process centered on partnering with stakeholders and using a turnkey cost reimbursable contract mechanism. The project team demonstrated commitment, creativity, and initiative in planning and executing this cleanup project, said Mike Redmond, Alaska District's TERC resident engineer.

Once a whaling station, Akutan is a remote site in the Aleutian Islands. It was used as a naval refueling station during World War II. The project site is across Akutan Bay, four miles from the closest village. People working on the project traveled by boat every day to the site. All equipment was mobilized by barge and landed on the beach. Severe weather and rough seas often plagued the operation with downtime and always required specialized safety operations and survival equipment.

Under these conditions, the Alaska District and the TERC contractor, Jacobs Engineering Group, performed work with up to 30 people during a 110-day construction window. They endured 13,700 exposure hours with no lost time accidents.

The site contained six 200,000-gallon aboveground storage tanks, associated pipelines, and a support facility. By 1996 many of the tanks had leaked Bunker C (fuel) oil, threatening releases into Akutan Bay.

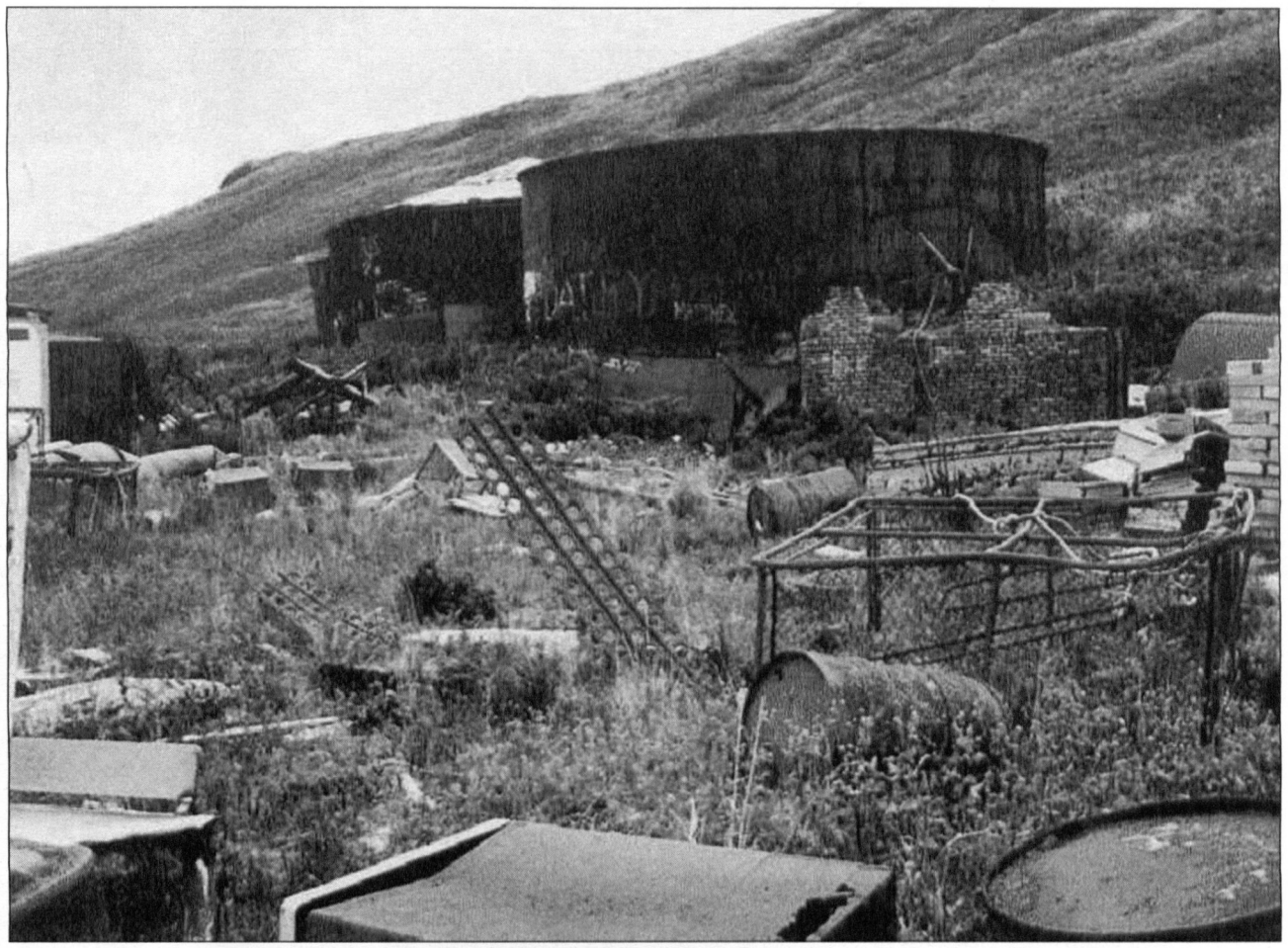
The traditional Comprehensive Environmental Response Compensation Liability Act cleanup process was modified to telescope multiple field seasons into one by focusing on cleanup instead of studies and by using turnkey cost reimbursable contracting.

Cleanup operations included removing and recycling more than 60,000 gallons of fuel oil, demolishing the six 200,000-gallon tanks, and removing and decontaminating 6,000 tons of petroleum-contaminated soil.

The remedial action was conducted first, followed by confirmation studies to show that risk-based cleanup levels were met. The $7.1-million project began in January 1996 and all field work was completed by October 1996. Effective partnering with Alaska District, Jacobs, subcontractors, and regulatory agencies allowed this project to be completed in this time frame, said Redmond.

The second award recognized the district's C3 program. The program consolidated formerly used defense sites and other federal sites requiring cleanup into geographic zones. C3 program zones were located on Kodiak Island and in the Amaknak/Unalaska region of the Aleutian Island chain. Each covered from eight to 21 sites.

This concept resulted in significant cost and schedule savings through strategic planning, coordinated mobilization, and shared project management and resources for multiple sites. The end result was significant savings and quicker site closure. In its first year of execution at two C3 zones, the program saved more than $2.6 million. Projected five-year savings range from $7 million to $9 million.



Akutan Naval Station, a former whaling station on Akutan in the Aleutian Islands, was a Navy refueling facility during World War II. The debris and contamination above is just a small part of what had blighted the island for more than 50 years. (Photo courtesy of Alaska District)

After the cleanup operation managed by Alaska District, Akutan Naval Station shows little evidence of contamination. Cleanup included removing 60,000 gallons of fuel oil, 6,000 tons of contaminated soil, and six 200,000-gallon tanks. Note the passive biovent system. (Photo courtesy of Alaska District)

Until now, the method used to execute cleanup at formerly used defense sites was to approach each site individually, often using multiple contractors at one site. This approach could not take advantage of the cost and schedule savings that can be realized by sharing resources, equipment, and coordinating management and regulatory interface, even if sites were located within 10 to 20 miles of each other, said Redmond. In Alaska, many formerly used defense sites are located in remote areas where logistical costs often exceed $100,000 per job.

Pelicans flock to rebuilt island

By Lira Frye
New Orleans District

It doesn't look like much by human standards -- just a small island off the coast of Louisiana surrounded by limestone. But to the endangered brown pelican, it's a safe haven and maternity ward.

Queen Bess Island, home to a breeding colony of 2,700 brown pelicans, three percent of the nation's population, was recently designated a Globally Important Bird Area (IBA) by the American Bird Conservancy.

Robert Russell, wildlife biologist, submitted the island for nomination. He said the designation is important because it may help bring recognition to the area that has been successfully managed by New Orleans District and the Louisiana Department of Wildlife and Fisheries.

"The Globally Important title points to the importance of the area and shows that we really need to manage it in a special way," Russell said. "This is one of the major pelican nesting areas in the state."

But that wasn't always the case, and may not have been possible without restoration efforts by the U.S. Army Corps of Engineers.

Before 1920, native populations of Louisiana brown pelicans were estimated at 50,000-85,000, but by 1963 the bird had disappeared from Louisiana. Losses were attributed to disease, hurricanes, freezing weather and pesticides that caused thinning eggshells. To help restore the population, between 1968-76, the Louisiana Department of Wildlife and Fisheries and the Florida Game and Freshwater Fish Commission introduced birds from Florida colonies to Louisiana islands such as Queen Bess.

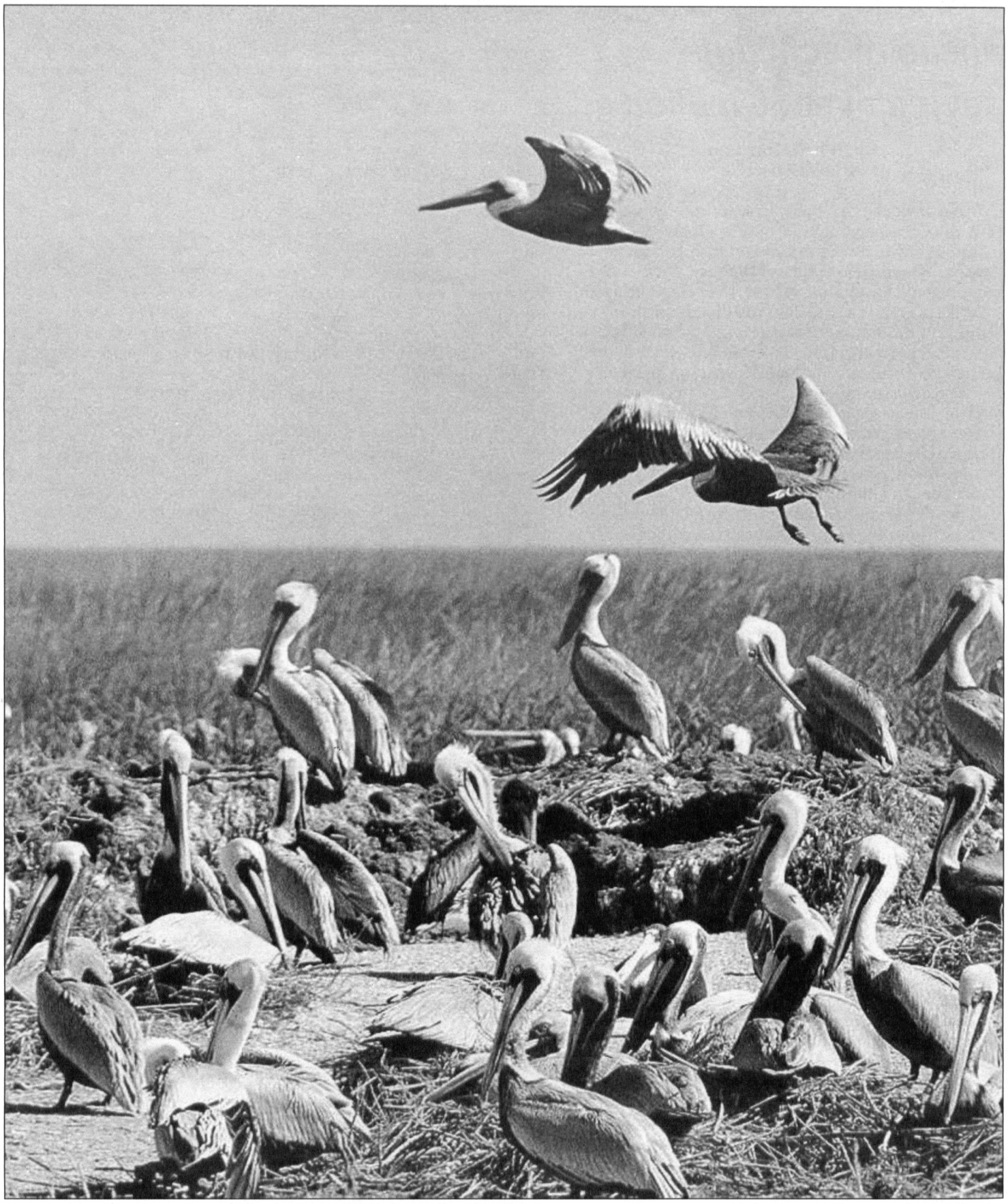
By that time the pesticide problem had been solved, but the island now faced another battle -- erosion. Measuring 45 acres in 1956, by the time the state requested federal assistance in 1989, Queen Bess had eroded to a mere 17 acres. That's where the Corps' expertise was put to use. In 1989, New Orleans District began restoration work on the island using material dredged from the Barataria Waterway.

"We built a nine-acre addition to Queen Bess on the west side of the island," said Bob Gunn, project manager. "We pumped in dredge material to create wetlands, and then the state placed limestone around the island to protect it."

Queen Bess was on her way back, but additional work was necessary.

"In 1996, we went in and created another 10 acres," Gunn said. "In this effort we first added limestone retention dikes to match what the state had done in 1989, and then we pumped in an additional 85,000 cubic yards of dredge material."

Gunn said state officials thought that if the size of the island increased, the number of birds nesting would increase. And they were right. Now measuring nearly 44 acres because of the restoration projects, the island is not only home to the nesting brown pelicans, but also to 300 pair of tricolored herons, and the first Louisiana nesting of an American avocet.



Above, the pelican population is thriving, thanks to the safety of Queen Bess Island. Below, an aerial view of the island, made with dredged material, which now provides a sanctuary for the brown pelican. (Photos courtesy of New Orleans District)

Before restoration, the 17-acre remnant flooded every year, washing out bird nests and drowning young pelicans.

"Now the young have a better chance for survival," Russell said. "Plus it's a predator-free island and a good fishing site for speckled trout!"

About 30 additional sites in Louisiana have been nominated for the IBA designation. Russell said the district has submitted nominations for the Bayou Fordoche State Natural Area and Baptiste Collette and is waiting the conservancy's response.

The American Bird Conservancy, a non-profit Washington, D.C., group, designates IBAs throughout the U.S. to help conserve wild birds and their habitats. The group will publish an internet directory of conservation sites, including information on the island.

EPA honors Corps people

Although winning the highest award in a federal agency is an honor, it's not unusual. But what about when that award comes from a *different* agency?

Barry Holliday of headquarters and Tom Creamer of North Atlantic Division (NAD) have received the Environmental Protection Agency's (EPA) highest honor, the Gold Medal for Exceptional Service. They were part of a 23-person team who worked on the administration's plan for dredging New York/New Jersey Harbor. The award was presented by Carol Browner, Administrator of EPA, at Constitution Hall in Washington, D.C., during the EPA's annual awards ceremony on March 31.

"Back in July 1996, the Secretary of Transportation, Secretary of the Army, and the Administrator of the EPA signed a letter saying we would implement the Vice President's plan for dredging the harbor and placing the dredged material," said Holliday, chief of the Dredging and Navigation Branch at headquarters.

The issue was at a complete standstill, according to Holliday. "The environmental groups felt we were continuing to seek ways to place contaminated dredged material in the ocean, and the shipping groups felt the Corps and EPA were stalling on getting permits out to dredge the channels. So we were at an impasse and nothing was happening."

The adminstration stepped in and the Vice President said that the mud-dump site in the Atlantic Ocean near New York City would be closed. Before the closing, 10 federal projects would be dredged and the material placed over the mud-dump site to cap it. This would be done by the end of fiscal year 1997.

"So that drove a rather high-speed train that we had to jump on and figure out how to steer," said Holliday. "Everything that had been done up to that time had been filled with controversy. The Corps and the EPA were trying to figure out what was acceptable dredged material to place in the mud-dump site, and the environmental groups were fighting us every step of the way and taking us to court. It was a real mess. We all had to come together as a team, and the Gold Medal Award represents what we accomplished."

At headquarters, Holliday coordinated all activities associated with the harbor issue. "My role was making sure that we all moved forward, there were no glitches in getting the funding coordinated with EPA, and that there were resources to get the job done."

Tom Creamer, Chief of Operations, Readiness, and Regulatory Functions for NAD, was detailed to New York District as the special deputy district engineer for all New York/New Jersey Harbor activities.

"We accomplished the mission through this teamwork, and we did it before the end of last fiscal year," said Holliday. "I really appreciated them giving the award to someone outside EPA. It kind of culminated the cooperation we had between the two agencies."

"I was honored to receive the highest award EPA gives its own employees," said Creamer. "And I want to recognize all the support and cooperation I received from New York District, North Atlantic Divison, and headquarters."

New bouy designed from user needs, feedback

By Ken Kruchowski
St. Louis District

On April 1, Louisville District placed a buoy in the Mississippi River about a thousand feet below Lock and Dam 25, near Winfield, Mo. The U.S. Army Corps of Engineers has placed buoys by the thousands during the years, but none like this. This buoy may have more environmental impact than all the others combined.

The genesis of this buoy goes back to 1991 when St. Louis District instituted the Avoid and Minimize Environmental Impacts Program, or A&M for short. The program is aimed at reducing the environmental impacts of commercial traffic on the river. The A&M team consists of the U.S. Fish and Wildlife Service, U.S. Coast Guard, Illinois Department of Natural Resources, Missouri Department of Conservation, River Industry Action Committee (RIAC) and the Corps. All the members provide funds and people, while the Corps does most of the construction associated with the program.

When the A&M team began to review alternatives proposed by the natural resource agencies, one major concern was the random mooring of tows (a group of barges hauled by a towboat) near the locks and dams. One of the first things the team did was make available on-bank anchor points and floating mooring buoys where tows could tie off while waiting to lock through. This would end tree damage caused by tows tying up, and reduce turbidity (mud in the water) caused by tows damaging the banks and churning up the river bottom near the shore.

Anchor points would help, but midstream mooring buoys would be the best answer to the problem. They would keep the tows away from the banks and thus not only save the trees and eliminate turbidity, but save the time and effort of backing away from the bank, which in turn would save fuel and reduce locking time, reducing air pollution as well. A win-win situation.

The first buoys were placed below Locks and Dams 24 and 25 in 1992. They were also placed below old Locks and Dam 26 while Melvin Price Locks and Dam was under construction. The buoys were round, with no keel, sat low in the water and had a ring on top for a tie-off point. They were attached to a chain 100-to-180 feet long and a 10-ton sand anchor.

But the towboat captains didn't like them because they were almost impossible to tie off to from an unloaded barge because of the distance from the top of the barge to the buoy ring. The buoys shifted position in low water and were not located in the normal waiting areas used by tows. As one towboat captain put it, "I'd like 'em if I could catch 'em." The skipper also said he thought they had been designed by an engineer who had never been on the river.

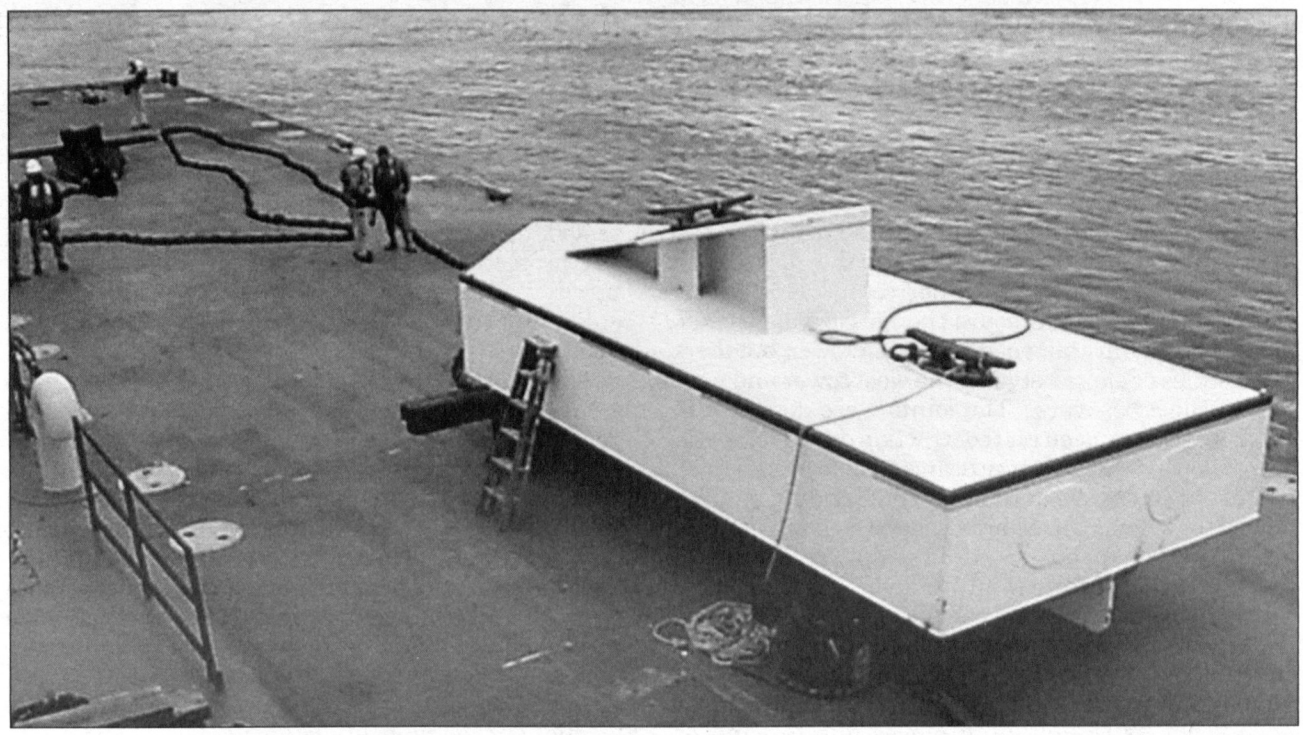
About a year ago, Dr. Ron Yarbrough of St. Louis District's Environmental Planning Branch, who also heads the district's A&M program, asked the Chairman of RIAC, Tommy Seals, why the towing industry wasn't using the mooring buoys. Seals explained the drawbacks. When asked what the industry needed, Seals sketched his idea of a usable buoy on a napkin.

Yarbrough took the sketch to some of the district's engineers. Would it work? Probably. They improved the design somewhat. Then Yarbrough asked the most important question -- Would the industry be willing to have one built? On a trip to New Orleans, Seals asked the owner of Bollinger Shipyards, Inc., of Lockport, Louisiana, if they would build a prototype. Bollinger said yes.

Orgulf Transport Company of St. Louis volunteered to deliver the buoy to St. Louis District's Service Base. The district attached a chain and anchor and set the buoy. "We don't produce paper," Yarbrough said with pride. "We put something on the river."

The buoy looks like a small white boat. It is built of three-quarter-inch steel plate. It is partly filled with concrete for ballast and blocks of Styrofoam for buoyancy. It is 12 feet wide, 24 feet long, and weighs 15 tons. It's held in place by a five-ton ship's anchor and 180 feet of chain. Two crew members need only loop a line over a post on the buoy and tie it off, making it safer than earlier models.

RIAC has assisted in developing a questionnaire for the towboat captains who use the buoy. This questionnaire will determine if they like it or if modifications will be needed. RIAC will process the questionnaires and report the results to the district and the A&M team. The towing industry has requested that if the buoy design can be agreed upon, the same type of buoy be made available throughout the Upper Mississippi River system as funds become available.



The experimental bouy has a generally boat-like shape. (Photo courtesy of St. Louis District)

Customer service: Corps efforts help national laboratory, Air Force

Louisville ensures safety of lab facility

By Mike Perricone

The headquarters of a world-class laboratory will soon be safer to work in, thanks to some help from the U.S. Army Corps of Engineers.

In 1993, a chunk of concrete fell from the 15th floor through the sloping glass of the cafeteria of Wilson Hall, headquarters of the Fermi National Accelerator Laboratory (Fermilab). This accident prompted a full-scale structural examination of the 16-story building, which lead the lab's Facilities Engineering Services Section to plan for interim and permanent repairs.

Louisville District endorsed the $18.5 million renovation plan, and certified that the building will be safe for five years while repairs take place.

Fermilab, a Department of Energy (DoE) lab in Batavia, Ill., is the world's foremost high-energy particle physics lab. Physicists use its Tevatron, a ring accelerator four miles in circumference, to collide protons and anti-protons, analyze the results, and search for exotic sub-atomic particles.

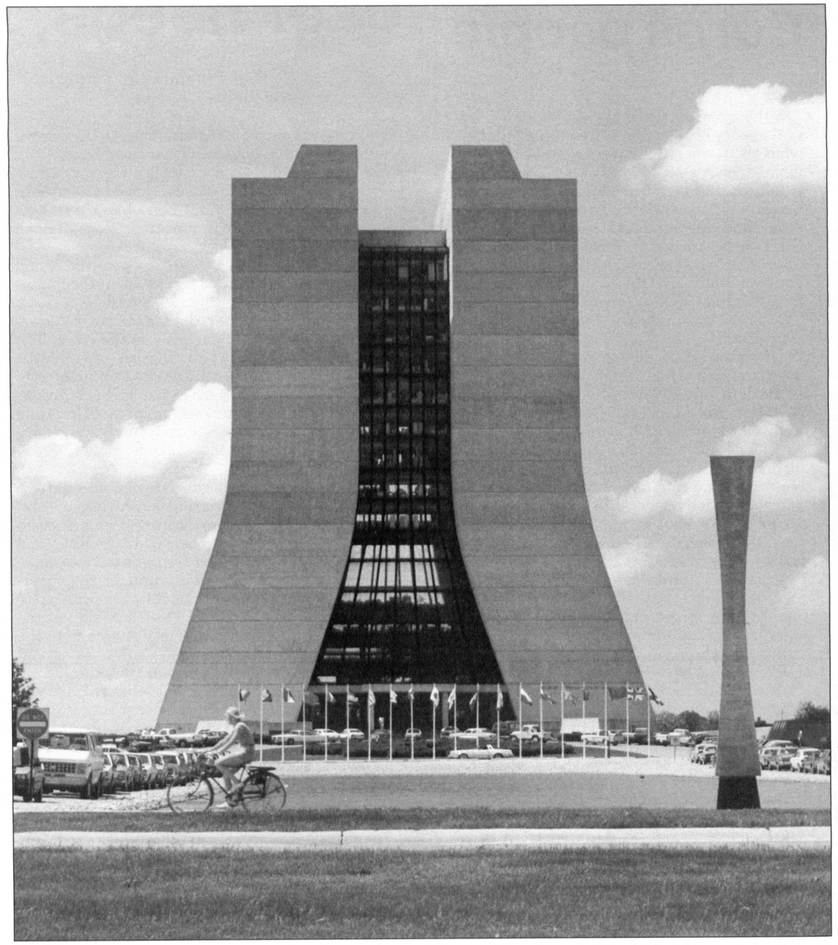
"We took Fermilab's data on the building's temperature and environmental changes over a five-year period," said Jim McCoy, a structural engineer with Louisville District, who directed the study. Anatech of San Diego provided computer modeling. "We programmed the data into the computer to show the accumulated damage in concrete at the end of five years, and we showed that the safety factor was definitely adequate for that period of time."

The repairs were needed because of the Wilson Building's unusual design.

"It's unique," said McCoy, whose experience in concrete structures ranges from barracks to nuclear power plants. "Even beyond the temperature variations, this is a building that is not symmetrical on any axis or any floor. It's just a very interesting structure. It was a fun building to work on."

It's also a *moving* structure, the source of all the complications. Wilson Hall is actually *two* towers joined across the atrium, and normal movements due to weather and temperature changes are magnified. The crossovers are fastened to the east tower, but there are a series of joints between the west tower and west end of the crossovers. The joints were designed to "give" with expansion and contraction due to temperature, allowing the crossover beams to slide in the joints.

But the joints are built of concrete sliding against concrete, which causes breakage instead of sliding. That's what happened in 1993 -- a piece of concrete broke off and fell from the 15th floor. The $14.5 million main repairs involve reengineering the building's crossover supports. Teflon-coated steel plates will be imbedded in the support for the crossover floor and the crossover floor itself. The plates will slide against each other as the building moves due to wind or temperature changes.



The unusual design of Fermilab's headquarters led to safety problems. (Photo courtesy of Fermilab)

This is a common construction technique. It is often used in bridge construction, and Fermilab uses it in supports at one end of liquid nitrogen tanks to allow for thermal expansion.

Interim repairs include steel brackets installed to provide extra support where joints show deterioration, and protective cloth under the joints along the west tower, under the seventh floor, and above the main entrance. The cloth catches dislodged concrete chips before they fall.

The contract for permanent repairs should be awarded next October, with work to begin in fiscal year 1999.

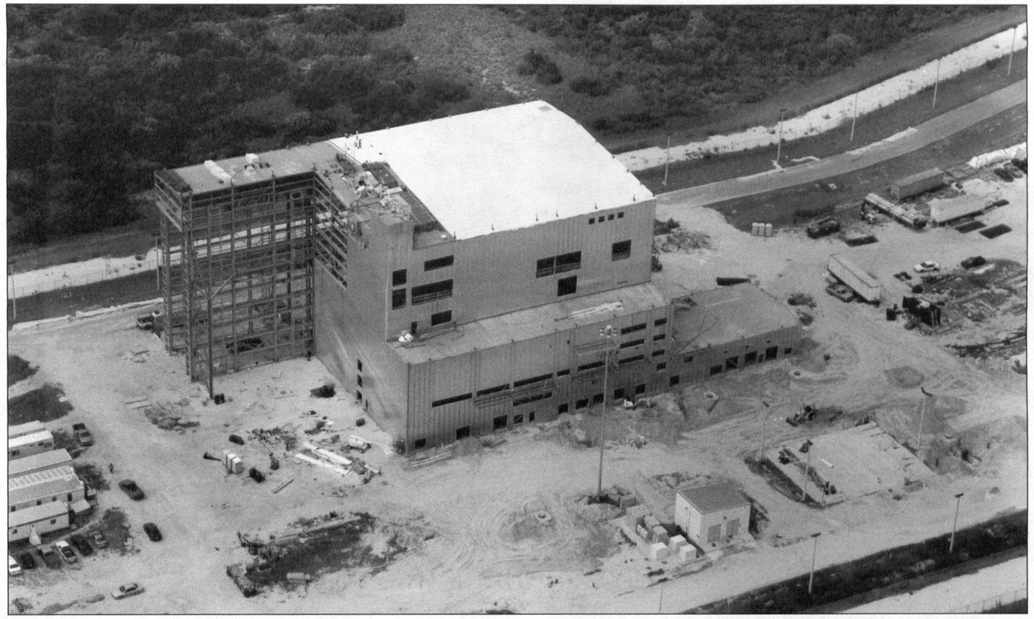
The Corps' review of the project came about at the request of Fermilab Director John Peoples and Fred Bernthal, URA (Universities Research Association, Inc.) President. (The URA is a group of 87 universities that operate Fermilab under contract to Department of Energy.) They wanted the Corps to provide an independent validation of proposed repair techniques. More important, the director wanted additional assurance that the building would be safe throughout the renovation.

Fermilab had a couple of good reasons to value the Corps of Engineers' opinion. First, the Corps also recently reviewed Fermilab's CZero project (an upgrade to part of the accelerator ring) which gets underway this year. Second, a former Corps officer works for Fermilab.

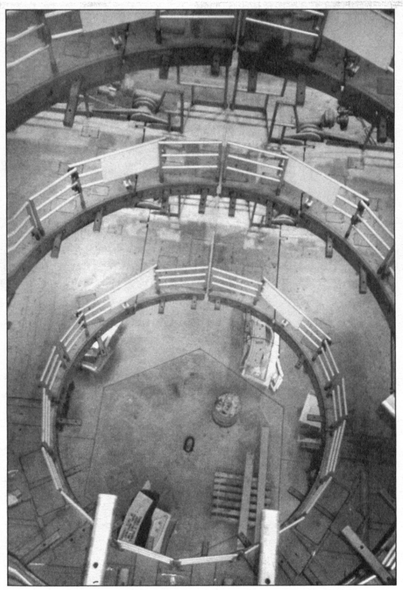
"We definitely wanted an independent review," said George Robertson, Associate Director for Operations Support at Fermilab. Robertson is a retired major general and former Director of Military Programs at Corps headquarters. "But the House subcommittee was considering some language requiring a Corps of Engineers review for projects starting in 1998. So to play it safe, we went through DoE to get an interagency agreement for the Corps to conduct the review."

"Their (Louisville District's) response was absolutely outstanding in every respect," said Robertson in a letter to Lt. Gen. Joe N. Ballard, Chief of Engineers. "Jim McCoy and Russell Boyd, Louisville's study directors for the Wilson Hall and CZero projects respectively, epitomized the Corps' dedication to customer care and response."

(Mike Perricone works for the Office of Public Affairs at the Fermi National Accelerator Laboratory.)



An aerial photo shows the size of the Centaur Processing Facility. (Photo courtesy of U.S. Air Force)



This shot looks down through one of four vertical assembly cells used to put together the Centaur booster. (Photo courtesy of U.S. Air Force)

Corps supports Air Force rocket booster program

By Tim Dugan
Mobile District

Mobile District supported the U.S. Air Force's space mission by managing construction of the Centaur Processing Facility at Cape Canaveral Air Station, Fla. The project gives the Air Force a multi-story rocket assembly and instrumentation testout building for the Centaur rocket.

The Centaur is a second stage (booster) which places satellites in orbit. A Titan or Atlas first stage rocket launches the Centaur and its payload into low orbit, then the Centaur pushes the satellite into higher orbit.

Two contracts were used to build the facility, according to resident engineer Louis Askew of the Centaur Resident Office. The first phase contract was the Centaur Cryogenic Tanking Facility, and the second phase contract was the Centaur Processing Building. Both projects together make up the Centaur Processing Facility.

The $16.2 million contract for the Centaur Cryogenic Tanking Facility built about 970,000 square feet of developed area including roads, parking areas, drainage facilities, fluid storage areas, utilities, surface improvements, and below grade improvement.

The $34.4 million contract for the Centaur Processing Building built a 116,400 square foot, multi-level rocket assembly facility. The building features a large multi-level clean room, a 20-ton clean room compatible bridge crane, moveable clean room compatible rocket assembly platforms, and large vertical lift doors. (A clean room is one where the air is filtered to remove all particles down to a specified size to ensure proper performance and safeguarding of sensitive equipment.)

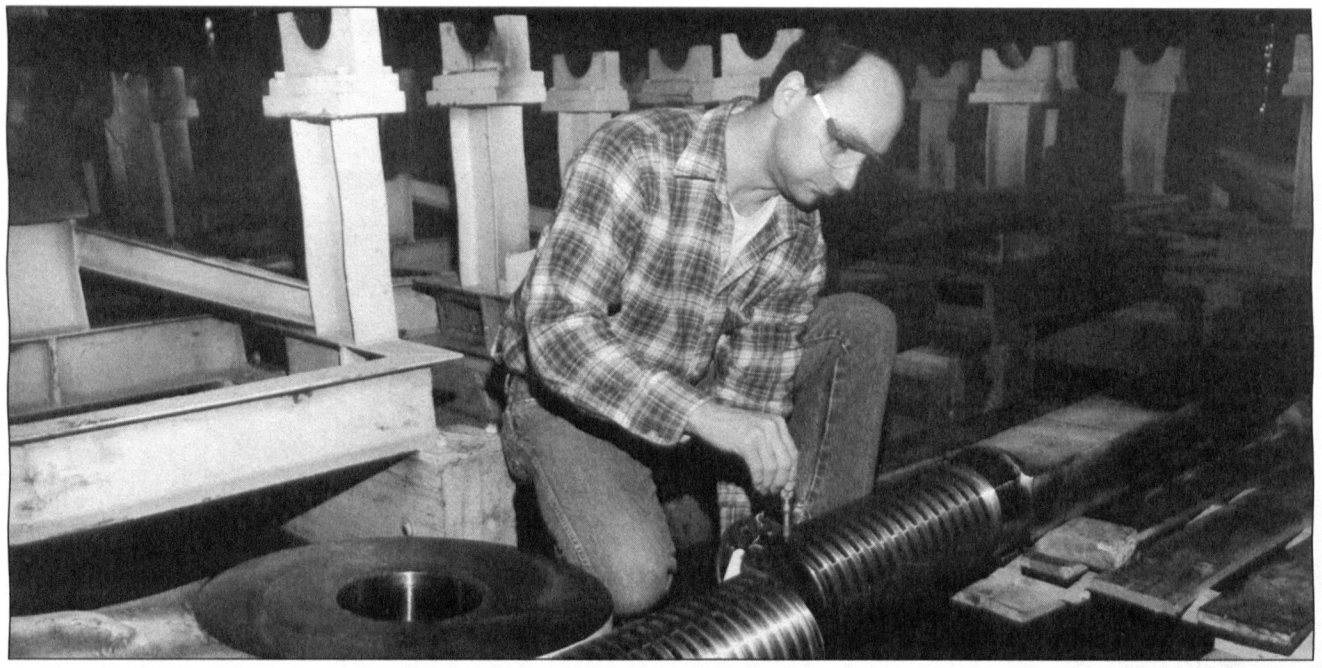
Together, the two projects make up the Centaur Processing Facility.

"They are rocket assembly facilities," said program manager Ralph Etheridge of Programs and Project Management Division. "They are for the assembling, fueling, and instrumentation testout of the Centaur rocket."

The projects fall under the overall management of the Florida Area Office and area engineer Jerry Valek. Initially, direct management was handled by the Cape Canaveral Air Station Resident Office and resident engineer Dennis Newell, and later the Centaur Resident Office and Askew.

"The Centaur Resident Office was established to complete the building with an acceptable level of quality, with no lost-time accidents, and within funds available," said Askew. "Through a spirit of partnership with the Air Force and the contractor, that mission has been accomplished."

The Centaur Processing Facility presented many challenges, according to Etheridge. "We had a lot of criteria changes through both projects. We had a lot of design modifications throughout construction. The launch vehicle really determines the criteria for the facility and drives the design changes, and it has changed a lot during the years. We were averaging one design modification a month during design and construction."



Scott Castel measures the tolerances of an anchorage bar being machined at Rock Island Arsenal.

Arsenal helps district

Article by Paul Levesque
Photo by Gary Soltau
Rock Island Arsenal

Rock Island Arsenal (RIA) has long been known for supporting combat units. Now the arsenal is supporting the U.S. Army Corps of Engineers by building hard-to-find parts for navigation locks.

Many locks which control waterways were built in the 1930s, and need repair and renovations to keep operating. The Corps also has an ongoing need for replacement parts for the lock and dam system. In the past year, RIA has completed one project to build parts to renovate a lock managed by the Corps. Lock parts for other projects are currently being produced in the arsenal's manufacturing area.

The Corps first became an arsenal customer when it contacted RIA about producing parts for the Chicago Lock. Managed by Chicago District, the lock links Lake Michigan to the Illinois Waterway.

In 1996, Chicago District began preparing for a major lock renovation. Due to the lock's unique design, virtually all parts would have to be custom built. The district found that delivery from private contractors would take up to two years, possibly longer.

Because the renovation couldn't be delayed that long, Chicago District did what many Department of Defense organizations have done -- they turned to Rock Island Arsenal to build critical items that can't be obtained quickly from commercial sources.

Representatives from Chicago District visited RIA in November 1996 to see the arsenal's manufacturing capabilities. They placed an order for production of the parts, and the project began.

The arsenal treated the work much like a prototyping project, since it involved the limited production of unique items. Engineers and planners worked off two drawings provided by Chicago District that were first drafted when the lock was built. The drawings had to be translated into tolerances and terminology more familiar to weapons manufacturing, then transformed into 31 different three-dimensional designs, one for each part produced.

Manufacturing began in April 1997. Most of the parts were cast from steel in the arsenal's foundry, then heat-treated and painted. Three coats of vinyl paint in alternating colors were applied to help future lock inspectors measure wear and corrosion.

The parts replaced worn items on the mechanism used to open and close the Chicago Lock gate. The gate weighs 385,000 pounds, measures 50 feet high, and has a unique triangular design that makes it the only one of its kind in the Midwest.

Given the massive proportions of the gate, massive parts are required to control it. Many of the parts made for this and other Corps projects look like giant versions of the hardware used on ordinary doors. RIA manufactured parts for the hinge, including a ball covering the top of the hinge that weighs 950 pounds and is 21 inches in diameter. Other hinge parts included a foot-long lock nut and a bolt that's five feet long and weighs more than half a ton. The arsenal also made the rollers used on the bottom of the gate. The rollers are 16-inch-wide wheels that support the entire weight of the gate as they move it open and shut.

Renovation of the west lock gates, on the side facing Lake Michigan, was done this winter and had to be completed before the start of the navigation season. During the project, workers found an upper hinge shaft that had rusted and needed to be replaced, but was not among the parts originally ordered.

RIA responded to the unexpected order and produced the part in three weeks. All parts needed for the project were delivered by February, about one month ahead of schedule. In early March, a team of RIA employees went to the Chicago Lock to help install a two-inch-square key. They installed the key (used to anchor part of the hinge in place) by using super-cold liquid nitrogen to force the metal to contract, then placing the key in its slot, where it set itself in place as the metal warmed and expanded.

With the navigation season under way, the arsenal-built parts are being proven in actual use. Their success led the Corps to order parts for the renovation of the east gate. They are currently being produced in the manufacturing area and will be delivered by late fall, in time for renovation this winter.

RIA is also producing parts for a passage between the Great Lakes and the Mississippi River made up of the Illinois River and related canals and tributaries. Most of the Illinois Waterway falls under the control of Rock Island District.

In this project, the arsenal is producing anchorage bars and related parts for the upper hinges on the lock gates. Anchorage bars look like giant turnbuckles and hold the gate in either the open or closed position, making them critical to lock operation. Metal fatigue can cause anchorage bars to break unexpectedly, so the Corps must keep spares on hand or risk closing the waterway for days at a time.

Though the anchorage bars were originally forged, RIA machined them from parts cast in the foundry. Since every lock on the Illinois Waterway is unique, sizes and tolerances have varied from item to item. RIA saved the Corps substantial money by redesigning one part on the hinge so it can now be made as one piece instead of three.

Prank leads to mercury cleanup

By Jennifer Wilson
Little Rock District

The local news called it madness. Local residents called it a threat. Local officials called it a prank gone bad. Whatever they called it, the mercury contamination at Texarkana, Texas, that began in January was a mess to clean up, and required the combined effort of state and government agencies, including Little Rock District.

In late December, two teenagers reportedly took about 90 pounds of mercury from a vacant neon sign factory. Since then, the liquid metal has been showing up in homes and businesses, sending people to the hospital and raising a lot of concern in the area.

"Most people don't get enough mercury in their system to cause them to worry about health problems," said Dr. Charles Poteet with the Emergency Room at St. Michael's Hospital in Texarkana. "The dangerous aspect of mercury is its colorless, odorless vapors that, when inhaled, can cause seizures, vomiting, and even renal failure."

A person's amount of exposure to mercury determines how severe the symptoms are and how long they last. There are drugs available to take the chemical from a person's system with no long-term side effects.

While local medical experts treated people who had been exposed to mercury, the cleanup of homes and businesses began. The Environmental Protection Agency (EPA) and state emergency response units mobilized to begin work, and Little Rock District was there to help.

"The EPA just doesn't have the resources to handle the real estate portion of the project," said Richard Devine of Real Estate Division. "They can clean up the homes, but they need help finding temporary housing for the families and getting them money to live on."

Little Rock District has experience in this area. Last year, the district was involved in the methyl parathion clean up in Jacksonville, Fla. Contamination by the cotton insecticide in some homes caused the permanent relocation of six local families.

Devine went to work in late January finding a place for the misplaced families to stay, and he found the perfect location -- a Howard Johnson Motel.

"We went through Vicki Lipsey in Contracting Division who negotiated the price for the families," Devine said. "The relocations lasted from a couple of days to more than a month. It just depended upon the amount of cleanup that needed to be done."

For the one family who needed to be permanently relocated, Devine also helped them find a decent, safe, and sanitary alternative to the house they had been renting.

"This has been a good project to work on," Devine said. "We have been able to help some

Continued on next page

Runner combines racing with helping

By Nancy J. Sticht
Buffalo District

A Buffalo District marathoner used her running to make a contribution to cancer research. Diane Kozlowski, a biologist and team leader in Regulatory Branch, completed her eighth marathon on Jan. 11 at Walt Disney World. Kozlowski, an avid runner, participated in the Leukemia Society of America's Team in Training (TNT) program, the largest marathon and cycling training program in the world.

TNT began in New York in 1986 when runner Lucy Duffy wanted to assist her husband's battle with leukemia. She ran the New York City marathon and solicited pledges for contributions to the Leukemia Society for each mile she completed. She raised $22,000 and TNT was born. It now includes 10,000 participants who raised $24 million in 1997. The goal for 1998 is $33.5 million.

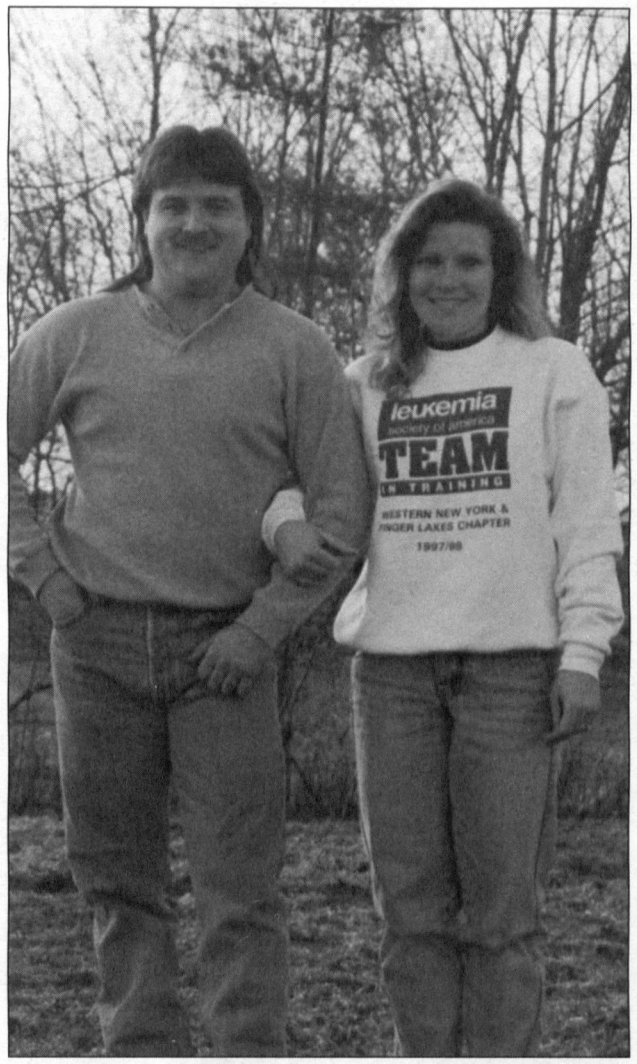
TNT participants get coaching, support, fitness and nutrition tips in a four-to-six-month program to help them successfully walk or run a marathon (26.2 miles) or bicycle a century (100 miles). They commit to a fund-raising goal to support leukemia research, patient services, and education, and are paired with a leukemia patient in whose honor they walk, run, or cycle.

Once their fund-raising goals are met, participants go to national and international events. Koslowski is a member of the Western New York and Finger Lakes Chapter. Their teams ran in the Marine Corps Marathon last October in Washington, D.C., the Honolulu Marathon last December, and the Walt Disney World Marathon in January.

Kozlowski started running on her high school track and field team. "I never cared for distance running and I said I never would run a marathon. I thought marathoners were crazy," she said. But she got hooked by the challenge and sense of accomplishment. She recently completed the first Air Force Marathon in Dayton, Ohio, and took first place for her age group in the Canal Fest four mile run in North Tonawanda, N.Y. Then she learned about TNT through local running circles, and found a whole new reason to run.

TNT paired her with local leukemia patient Mike Roland, a 30-year old machinist in his second year of remission with non-Hodgkins lymphoma. She researched leukemia on the Internet to learn about the disease and to better understand Mike's situation. Her first meeting with Roland came when she and her husband, Ron, met Roland and his girlfriend for dinner. There Koslowski heard his story.

Roland was 27 and had suffered a persistent cold and noticed what he thought were swollen glands. But his doctor discovered lumps in Roland's throat, under his arm, and on his chest. A biopsy confirmed he had cancer. The lumps were removed and he underwent chemotherapy. Roland is in remission and undergoes regular bone marrow check-ups every six months. The checkups will occur less frequently the longer he is in remission.



Diane Kozlowski raised $2,900 for leukemia research through her marathon training. Her friend Mike Roland, a leukemia patient, is currently in remission. (Photo courtesy of Buffalo District)

When they met, Roland asked Kozlowski why she got involved in TNT. "Quite simply, it's one of those feel-good things you get from helping others," she said. "It helps to put things in perspective when you realize how lucky you are to have your health."

Kozlowski set a fund-raising goal of $2,600 ($100 per marathon mile) and pursued it as aggressively as her running. She sold candy bars to coworkers and, with the help of her nieces, to tailgaters at Buffalo Bills football games. Her most successful, and difficult, fund-raiser was a volleyball tournament which she arranged with the help of Ron and his parents.

A local organization, Volleyball Unlimited, advertised the tournament. Four teams paid an entry fee to play for prizes which Kozlowski received as donations from local businesses. Local supermarkets, grocers, and the Pepsi Company donated food. Roland assisted by cooking hot dogs for tournament participants.

"I was incredibly impressed with the donations and generosity of my coworkers and friends," Kozlowski said. Although most of her donations came from friends and people she knew, Kozlowski was also got $25 from a total stranger who overheard her asking for a prize donation at a local business.

Last July, TNT teamed participants with local runners who served as trainers and mentors. Each month they scheduled group runs. "It really helps to have the camaraderie," Kozlowski said.

Her marathon training includes three to four weekday runs of about eight miles each, and longer weekend runs of 14 to 16 miles, gradually increasing each week to a 20-mile run. "You must put the time in for training so you can finish without tremendous pain," she said. "You will hurt at the end of a marathon, but you can limit the pain by preparing for it mentally as well as physically."

Kozlowski logs her training runs to help time and pace herself. Her personal best time for a marathon is 4:09:02, "but I will break it," she vows.

Eighteen TNT members, including Kozlowski, ran the Walt Disney World marathon, along with about 1,200 people from 19 chapters nationwide. Leukemia patients were represented by a 14-year-old girl who has battled leukemia for nine years. "I was so impressed with her poise and maturity," Kozlowski said.

The Walt Disney World marathon began at Epcot Center and took runners through Cinderella's Castle at Magic Kingdom, Disney's Wild World of Sports complex, the Boardwalk resort, Disney-MGM Studios, and back to Epcot. Watching the markers placed at each mile, Kozlowski knew she was on a pace for her best time, until she "hit the wall."

"There's a point in the race when your energy reserves are on low or empty, and the race is finished as far as your mental state and positive thinking," she said.

Kozlowski's pace slowed and she realized she was not going to beat her best time. The giving nature that brought her to this marathon got her through the crisis as she talked to a nearby runner who was running his first marathon and showing signs of giving up.

"He began to vocalize negative thoughts as he became discouraged with hills, the pain in his legs, and the weather," Koslowski said. "I used my experience to turn those thoughts into positives. I told him, if we run uphill there must be a downhill, even though the sun's out it's still comfortable, and after we reach 17 miles, we can count down by single digits."

She finished the marathon with a time of 4:22 and exceeded her goal by raising $2,900. She is setting her sights on a new goal -- the Boston Marathon. To qualify in her age group, she must run a marathon in three hours, 45 minutes.

Would she participate in TNT again?

"I really enjoyed the team effort, and I may do it again sometime in the future," she said, adding that it would be difficult to return so soon to the same sources for support.

In the meantime, she sees TNT team members at races, and she saw Roland again at a TNT Victory Party. Because she enjoyed working with the Leukemia Society of America, she has offered to do volunteer work and help in other ways.

"It was an extremely positive experience, and I highly recommend it," Koslowski said. "Thirty years ago, the survival rate for Mike's form of cancer was 31 percent. Today it is 52 percent. Those statistics are encouraging, but we can't stop there. The more money raised for cancer research, the better the chance of finding a cure."

Mercury cleanup

Continued from previous page

families and another federal agency at the same time. It helps us too, because this gives us experience in another aspect of emergency work. We can always use it again."

This clean-up has been no small job for anyone.

"This stuff has been in the carpet in rooms, it's been spilled on beds and evaporated, and the vapors have filled the house," said Dave Hall of the Texarkana Office of Emergency Management. "People have turned in 40 pounds of mercury so far. There is possibly another 40-45 pounds still out in the community. We are basing that on what the kids told us about the size of the stolen jars."

One problem is that the youths have told conflicting stories about the containers. They recently said there were four jars, 12 to 18 inches tall. Three were less than half full and the other was a little more than half full, they said. "If what they say is true, we could still have quite a bit of it out there," Hall said.

By the time EPA finished the cleanup in April, it cost about half a million dollars. Superfund pays for the cleanup and a partial reimbursement for the contaminated property. Superfund is paid for by taxes that the chemical and petroleum industries pay to cover such instances. All but one of the affected families has returned to their residences.

Fuzzy ambassador

Corps helps teddy bear in travels to teach geography, culture

Not many roving ambassadors have the warm, fuzzy image of Beauregard T. "Bo" Bear, a globe-trotting teddy bear who represents Bowmar Avenue Elementary School in Vicksburg, Miss. Vicksburg District sponsors the school. Bo has traveled around the world and America with the help of the U.S. Army Corps of Engineers and other Department of Defense agencies. Students at Bowmar follow Bo's travels and study the places he has been.

The idea of a traveling teddy bear ambassador began when teacher Linda Johnson and PTA president Cheryl Montgomery put their heads together. They wanted the students to learn geography through multimedia and the Internet.

"We had in mind from the beginning using multimedia and the Internet and letting the classroom teachers tailor everything to their needs," Johnson said. "It's been much more than just keeping up with Bo's travels."

Johnson applied for the grant and, when it was approved, she and Montgomery approached the Corps about sponsoring Bo's trips. The idea was for Corps employees to take Bo with them when they traveled on business, covering areas the school couldn't reach.

"That seemed like a natural partnership, and our positive contacts with the Corps really encouraged us," she said. "Col. Wright's encouragement was just what we needed."

Johnson explained that the enthusiasm of Col. Gary Wright, District Engineer, sparked everything. "The project mushroomed far beyond what we envisioned and has exceeded our expectations," she said.

Bo's adventure began early in the school year, when Wright arrived at the school in a humvee, courtesy of the 412th Engineer Command, and escorted by local police and sheriff's deputies with sirens blasting. Wright accepted Bo from a delegation of students and promised to take Bo on the trip of a lifetime.

The project has been so successful that it won a national award at the International Paper Company's Education and Community Resources (EDCORE) Conference in Panama City, Fla. Johnson said their display drew the attention of educators from around the country, and she has stayed in contact with several since. She keeps copies of the grant available to those who might want to duplicate the project in their own schools.

Johnson explained that each grade developed its own method of studying the areas covered in Bo's travels. When Bo visited Germany, a Vicksburg resident of German descent spoke to classes about the Holocaust and about Jewish history in Vicksburg and Warren County. The sixth graders even studied foods from different countries.

During his travels, Bo has flown with the Blue Angels, the Navy's precision flying team, and explored Germany, Austria, Bosnia, and Switzerland. In the U.S., he has visited Portland, Ore., Seattle, Washington, D.C., New Orleans, Memphis, Tenn., Albuquerque, N.M., Hawaii, and enjoyed snow skiing in Utah.

The students have received weekly messages from Bo through e-mail, which have described his trips and the culture and sights of the places he visited. In addition, photographs and pins from various Corps districts and other agencies have filled Bo's scrapbook.

Not only has the school and the Corps followed Bo's route, but the community has become involved as well. The local newspaper has carried a weekly article on Bo's whereabouts, and a local radio station has had weekly reports from the students on Bo's travels.

Kim Cote, a Bowmar sixth grader, said her favorite Bo adventure was his visit to Europe and added she had always dreamed of going there herself. Fifth grader Abby Tankersley compared the seige of Sarajevo to the seige of Vicksburg and said Bo's visiting so many sites taught students that if they really wanted to do something, they could do it.

Bo Bear waves hello from the Capitol Building in Washington, D.C. With Bo are Col. Gary Wright (left), former Vicksburg District Engineer, and Col. Bob Crear who replaces Wright on May 12. Wright is now Director of Public Works at Fort Sill, Okla. (Photo by Steve Gambrell)

"The project has been so successful because it has lent itself to so many ways to study geography," Johnson said. "It was sort of like a big umbrella, and teachers could go in any direction they wanted."

"I think the main benefit of the project has been motivation," said Rick Tillotson, principal at Bowmar. "It's kept the students interested and has given them something to look forward to. It hasn't been just one group of students; it's been the whole school. It's not often that a project reaches everybody in the school."

Johnson expressed her pleasure at the public response to Bo. "We didn't anticipate public response to be so good, but everywhere he's gone, people have wanted to be a part of Bo."

"The cooperation and enthusiasm from other Army and military agencies has been tremendous," said Patty Kay Elliott, deputy public affairs officer. "Once word got around about Bo, everyone wanted him to visit their installation."

Elliott added there was no problem keeping Bo moving. "We had four bachelors from the district take him skiing in Utah," she said. "They brought back photos of Bo sitting in the airport and riding the ski lift with them. They really displayed the spirit of cooperation we received."

Bo's journey ended May 1, when he returned to Bowmar School. Wright returned him in a special homecoming ceremony and shared a "Teddy Bear Picnic" with the students. However, this won't be the end of Bo Bear's travels. He's just taking a break. Johnson said Waterways Experiment Station had expressed interest in escorting Bo for a year, so he will be back on the road in the fall.

(By Patty Kay Elliott, Vicksburg District Public Affairs Office.)

Around the Corps

Flood damages prevented

Corps flood control projects and emergency activities prevented about $45.5 billion in flood damages in fiscal year 1997. The total damages prevented are well above the 10-year average of $19.7 billion, and exceeds the previous record of $32.3 billion set in 1993.

In its annual report to Congress, the Corps says the record amount of damage is the result of major storms hitting six areas of the country covering more than half of the nation. In a typical year, only three or fewer basins are severely affected.

Flood damages were prevented in 46 states and one territory. Eighteen states and one territory encountered high or very high amounts of flood damages prevented compared with the last 10 years. Ten states and one territory experienced from two-to-five times the 10-year average of flood damages prevented. Federal projects in seven states provided exceptionally high levels of benefits, more than five times the average.

Organizational survey

The headquarters Vision Campaign Team 8 (culture) will be conducting a Corps-wide organizational survey in mid- to late-May. You may be randomly selected to complete the electronic survey, which will arrive via e-mail. With 75 questions about work satisfaction, decision-making, rewards, communication and other work-related topics, the survey is designed to assess the Corps' strengths and weakness and be used as a baseline measure for charting progress in achieving the vision's objectives.

The survey, which has in place a mechanism to ensure confidentiality, takes most people about 20 minutes to complete. The campaign team wants honest, candid answers.

Results of the survey will be posted on the Corps' website.

Life-saving machine

You might be in for quite a shock the next time you visit headquarters. The Pulaski Building is now equipped with its own automatic external defibrillator (AED), which uses electric shock to restart the heart's normal rhythm during a medical emergency.

While many people in the building are CPR (cardiopulmonary resuscitation) certified, CPR alone is often not enough, according to the American Heart Association (AHA). That's because many cardiac arrests are caused by abnormal heart rhythms in which the heart's electrical impulses suddenly become chaotic. The AED's shock restores normal pumping action far more successfully than CPR.

The AHA estimates that at least 20,000 deaths could be prevented each year if AED's were more readily available.

The AED in the Pulaski building, which cost less than $3,000 and is about the size of an unabridged dictionary, is in the Health Unit. Health Nurse Tracey Marcalus will be the primary responder. She is also forming a volunteer team of back-up responders. To serve on the team, volunteers must have certification in basic life support and they will receive additional training. The machine, however, is user-friendly and guides the user step-by-step. It is kept with two fully-charged batteries at all times.

Louisiana conservationist

The Louisiana Wildlife Federation (LWF) named New Orleans District Engineer Col. Bill Conner their Professional Conservationist of the Year for 1997. The award, part of the 34th annual Governor's State Conservation Achievement Program, was made March 7 at a LWF banquet. Each year the LWF awards six conservationist awards in the categories of professional, non-professional, youth, corporate, educator, and elected official.

Conner was named Conservationist of the Year in the professional category in part for his leadership as chair of the Louisiana Coastal Wetlands Conservation and Restoration Task Force. During Conner's tenure, 24 projects to restore or protect nearly 20,000 acres of fragile coastal wetlands have been started or completed. Through the five federal task force agencies and state of Louisiana, 30 more projects will be started this fiscal year.

The group further said, "Another innovative approach championed by Conner is the Coast 2050 initiative. The concept is to explore what is realistically possible in coastal restoration from a science, engineering, community needs and expectations perspective measured against the natural, cultural and economic values at stake if projects are implemented."

Correction

David Cozakos of the Los Angeles District Hydrology Section was featured in the photo on the front page of the March *Engineer Update.*

Mississippi conservationist

A wildlife biologist from Grenada Lake and a volunteer group from Enid Lake were recently honored by the Mississippi Wildlife Federation. Hollis Ishee, resource manager at Vicksburg District's Grenada Lake, received the Governor's Award as Conservationist of the Year. Ishee was recognized for his lifelong commitment to conserving Mississippi's natural resources.

Ishee has sought the aid of volunteers, local organizations, and sister agencies in improving habitat and wildlife management around Grenada Lake. He has mentored college students who work at the lake through cooperative education programs, and many have gone on to successful careers in resource management.

The Enid Lake Habitat Volunteer Association received the federation's award for Fisheries Conservationist of the Year for their Habitat Day at Enid Lake. The volunteer group has established this annual event to place bundles of leftover Christmas trees in the lake where fish shelters are located. Research by state fisheries biologists shows these shelters provide enormous benefits to the fishery and the fishing at Enid Lake. The program has been so successful that other Vicksburg District lakes have adopted similar efforts.

Board member named

The Hon. James Lee Witt, Director of the Federal Emergency Management Agency (FEMA), has selected Steven Stockton, Chief of Engineering Division in the Directorate of Civil Works, as the first Department of Defense representative on the new National Dam Safety Review Board (NDSRB). Stockton was nominated for the position by the Assistant Secretary of the Army (Civil Works).

Congress established the NDSRB as part of the 1996 Water Resources Development Act. The board has 11 members including five representatives from federal agencies, five from state dam safety agencies, and one representative from the U.S. Committee on Large Dams. The board assisted the FEMA director in implementing the National Dam Safety Program in accordance with the National Dam Safety Act.

Safety training

During the first two weeks of March, the Far East District (FED) compound became a center for safety training in Korea. Jim Thomsen and his team from Failsafe Risk Management Alternatives conducted 11 days of training for 100 students.

The first course, for 33 students, was the Environmental Protection Agency's (EPA) Asbestos Hazard Emergency Response Act (AHERA) Asbestos Abatement Contractor/Supervisor Course. This course gave the graduates EPA accredited training and the credentials to acquire state certifications. It covered topics such as asbestos regulations, health effects, abatement techniques, and decontamination.

A student builds an asbestos containment and decontamination chamber. (Photo courtesy of FED)

A one-day refresher course was taught for 12 people who had completed the 40-hour contractor/supervisor course so they could maintain their credentials.

As a bonus, Thomsen taught the Asbestos Abatement Project Monitor Course, an add-on to the contractor/supervisor course, to 30 students. It introduced students to procedures such as personal, environmental, and final air clearance air monitoring.

The second accredited course, taught to 38 students, was the 40-hour OSHA/EPA Hazardous Waste Operations & Emergency Response (HAAZWOPER) Course. The course covered topics such as hazardous waste site operations and emergency response procedures for hazardous substance release episodes. A one-day refresher course was conducted for 20 more people who had completed the HAAZWOPER Course to maintain their credentials.

FED team members, 18th MEDCOM, U.S. Army Environmental and DPW personnel, U.S. Air Force Environmental and BCE personnel, and contractors took the courses.

Excellence Grand Award

Vicksburg District and the engineering firm of Neel-Schaffer, Inc. (N-S) have been recognized by the Consulting Engineers Council of Mississippi (CEC) with their 1998 Engineering Excellence Grand Award. Mississippi Governor Kirk Fordice presented the award to district and N-S representatives at CEC's annual awards banquet.

The honor was based on their work on the J. Talbert Thomas Water Control Structure at Greenwood, Miss. The structure, completed in 1997, enables engineers to reduce flooding in the Alligator-Catfish Bayou Basin and provide aquatic habitat for waterfowl and other species. N-S designed the project for the district as part of the Upper Yazoo flood control project, which has been undergoing continuous review since the late 1980s to minimize environmental impacts.

Louisville District claims oldest locks

By Charles Parrish
Louisville District

*(**Editor's note:** The January "Engineer Update" published an article about Portland District having the oldest navigation locks in the U.S. Army Corps of Engineers, the 125-year-old Williamette Falls Locks. In the April issue, Charles Parrish, Louisville District historian, published a letter staking his district's claim to the oldest-locks title. Following is Parrish's proof.)*

Louisville District operates four locks and dams on the Kentucky River which were built between 1836 and 1842, making them the oldest navigation projects managed by the Corps.

Actually, the presence of Army engineers on the Kentucky River began in 1828 when a team of officers surveyed the river to study its improvement potential. Based on their report and a survey in 1835, Kentucky built five locks and dams, opening them to steamboat and flatboat traffic in 1842. This system allowed navigation 95 miles upstream from where the Kentucky empties into the Ohio River, and provided a means for farmers and merchants in the state to move goods down the inland waterways to New Orleans and points between.

The locks, measuring 38 feet wide by 145 feet long, were built of huge blocks of limestone. Much of it was quarried along the high palisades that line the central portion of the river, and which is such fine quality it is often called "Kentucky River Marble." The dams were built of stone-filled timber cribs, bolted together to stretch from the lockwall across the river.

The five locks and dams were operated by the state until after the Civil War and the system provided some economic development to central Kentucky. However, the state government did not have sufficient funds to maintain the structures, and by the end of the war all five were badly deteriorated. Political leaders requested federal takeover of the system, also suggesting further examination of the entire 255-mile-long river, the goal being additional locks and dams to open the timber and coal-rich region of eastern Kentucky.

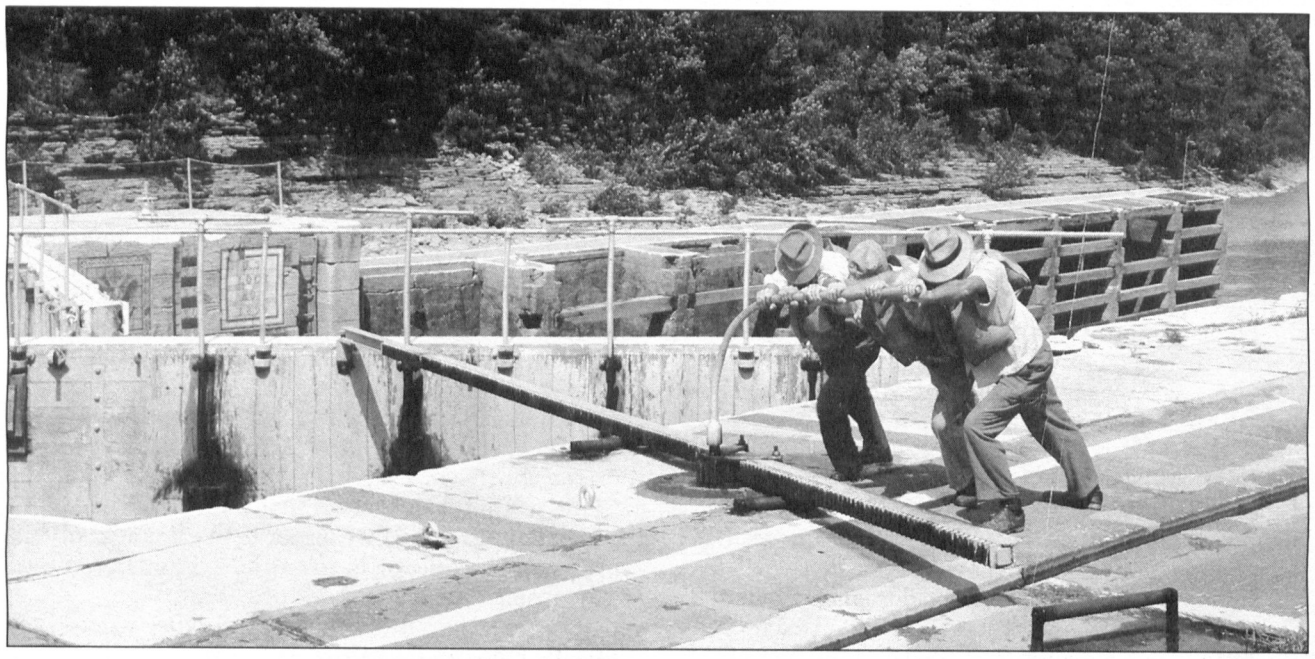
The federal government assumed jurisdiction of the Kentucky River in 1880, and shortly after the Corps began repairing the old projects. Some of the dams were completely rebuilt, but the original locks remained in place, as they are to this day.

By 1886 the river was reopened to navigation, and the Corps was charged to extend the system upriver. Between the late 1880s and 1917, the Corps built nine additional locks and dams on the Kentucky, providing a navigation system for moving coal, timber, oil, farm produce, and other commodities down the entire length of the river.

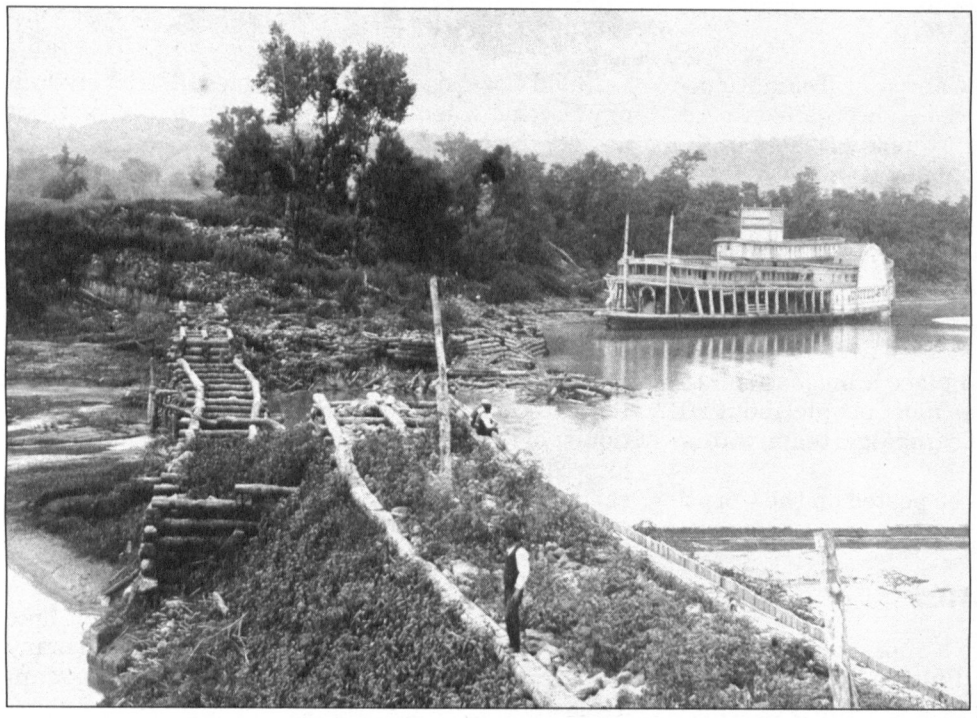
Commerce on the Kentucky River fluctuated greatly after completion of the system; construction of railroads and highways in the eastern mountain region was a major cause. Since the 1970s, the only commercial traffic on the river has been shipment of aggregates through the lower four locks; the only use above is recreational boating.

Around 1980, Louisville District began a disposal process to return the upper 10 locks and dams to the state. They are now operated by the Kentucky River Authority under a lease agreement, and provide lockage for pleasure boaters only on the weekends in the summer and fall seasons. The dams supply water to much of central Kentucky, and in recent years the district has repaired the upriver dams to assure adequate pools. The disposal action continues.

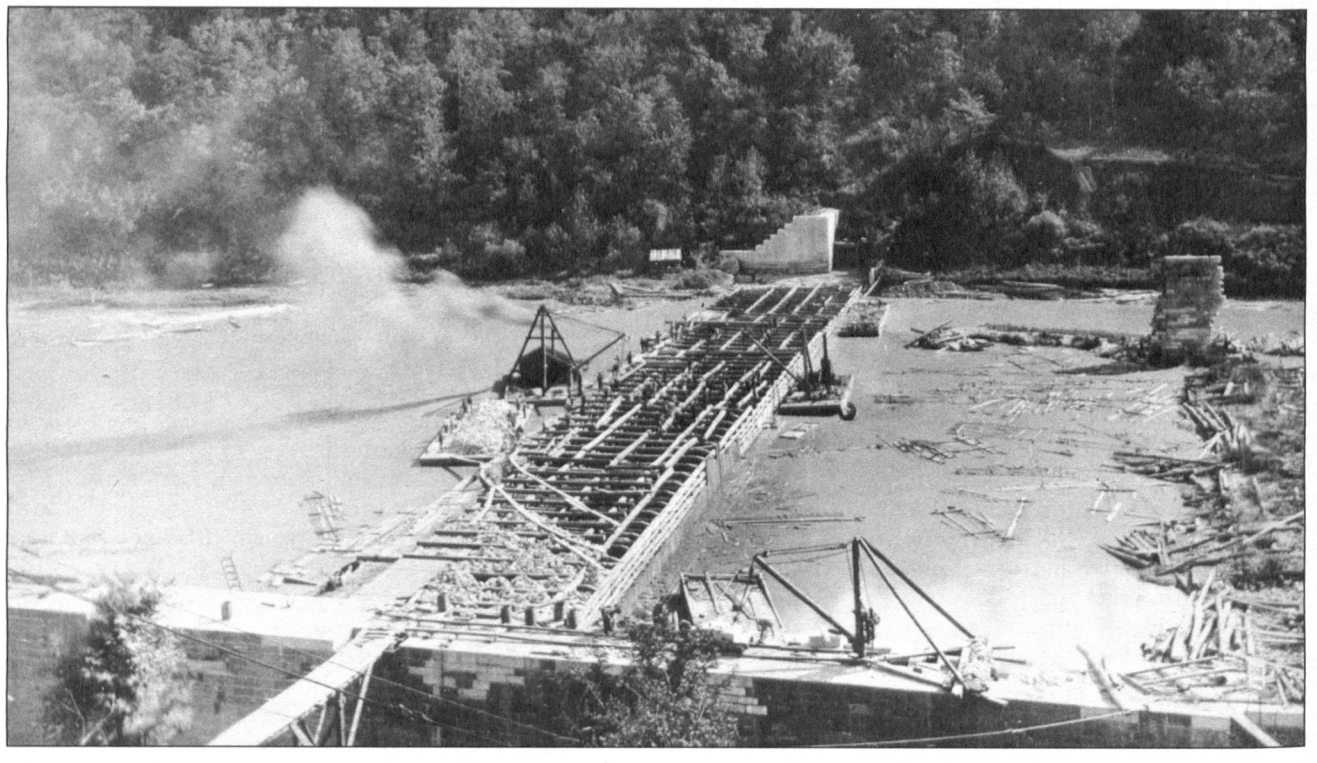
Louisville District still operates the lower four locks, the same structures built in the early 19th century, truly "navigation dinosaurs." The district recently completed a history of navigation development on the Kentucky River which will be published this fiscal year or next.



The early locks were operated by raw muscle power. (Photo courtesy of Louisville District)



For more than 150 years, the Kentucky River Locks and Dams have played an important role in the growth and economy of Central Kentucky. (Photo courtesy of Louisville District)



The lock chambers on the Kentucky River were built of limestone, the dams were built of stone-filled timber cribs. The dams have been replaced, but the original locks remain. (Photo courtesy of Louisville District)