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Plan refocuses Corps business practices

By Bernard Tate
Headquarters

There is a revolution in the U.S. Army Corps of Engineers, one of the most sweeping changes in years. It will change how the Corps does business (even how we *think* about doing business) for decades to come.

"The division business center is the concept of operating the districts in a region as a single business entity, overseen by a regional management board," said Col. Donald R. Holzwarth, commander of Southwestern Division (SWD). ("Region" is the geographical area covered by the division.) "The old method, where each district operates as its own business entity, is the culture we grew up with. But by centralizing business planning at the division, we create an interdependence so that each district can draw on the resources of the other districts in their region to meet customer needs. You shift the focus of corporate business planning from the district to the division, but you retain decentralized execution, the real strength of the Corps."

The division business center (DBC) grew out of the down-sizing the Corps has undergone in the past few years.

"As a result of getting leaner and meaner, the districts aren't as robust in capabilities as they used to be," said Holzwarth. "Now we're looking at using the resources of the whole region to better meet the needs of our customers."

SWD got a head-start in working with the division business center (DBC) concept.

"We have been building our regional operations environment for about two years," said Holzwarth. "Our Regional Management Board, originally called a Workload Resource Management Board, has been meeting for more than a year-and-a-half."

The regional management board (RMB) was part of SWD's long-range campaign plan to improve their business practices, but they quickly found they were thinking along the same lines as Lt. Gen. Joe N. Ballard, Chief of Engineers. "We first briefed the Chief last November on what we then called 'operating the division as a profit center. He liked the idea and said keep moving down the track with it, so it became a test division project," said Holzwarth. "The Chief asked me to brief the Board of Directors (the Corps' division commanders and senior leadership) in February. We got some great coordination and input from the other divisions before the briefing.

After the briefing, the Chief made the decision that all divisions would adopt the initiative and that we would standardize its name (Division Business Center), as well as the Regional Management Board."

The RMB is the key to the division business center operation. The board members from the division are the Director of Programs Management (PM), the Director of Engineering and Technical Services (DETS), and the Director of Resource Management (RM). District board members are the Deputy District Engineer for Project Management (DDEPM), and the RM. "In SWD we stress including other key district technical leaders as valuable to overall operation of the board," said Holzwarth. "This assures well-rounded corporate leadership for the region."

Holzwarth emphasized that the membership of the regional management board comes from *existing* resources. The districts do *not* lose any resources to it, and the division does *not* gain any resources.

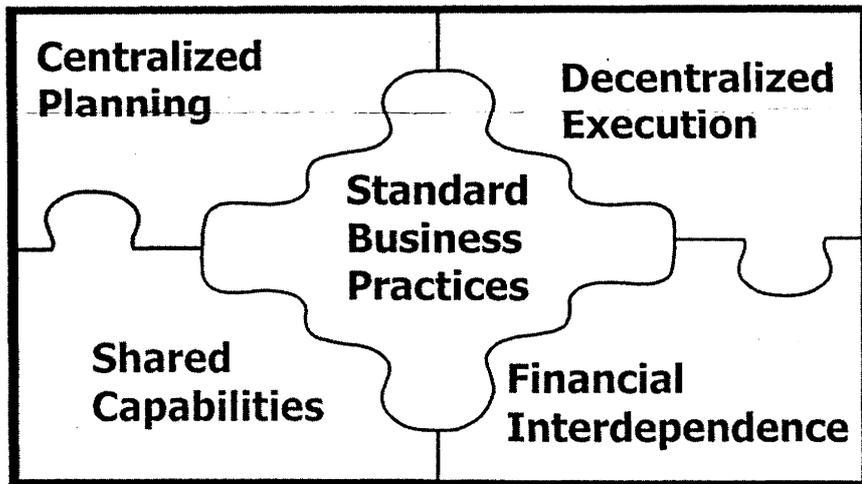
"The regional management board may meet physically at division headquarters, but it's important to define what it is, and what it is not," said Holzwarth. "It is using the districts' and division's key leaders and key management structures in a regional mode, so that corporate business planning has been moved from the district to the division.

"It is *not* some big blob at division where you have all the resources and you centrally execute everything," said Holzwarth. "The customer still deals with the district, and the district still does the work."

"One Door To The Corps" is the easiest way to explain the DBC. The customer still approaches a district to do the work. But instead of having access to just that district's staffing and expertise, the customer has access to the entire division's staffing and expertise.

"When the PMS, DETS, DDEPMs, Chiefs of Engineering and Construction, and RMs get together, they wear a regional hat," said Holzwarth. "So a person no longer represents Galveston District alone, he represents Galveston District *as part of* the SWD team. If District X has work that's beyond its capabilities, the regional management board makes it possible for them to go to District Y for help. That's good for District X because they are delighting their customer, and it's good for District Y because they used their capabilities and put their people to work.

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Dr. Westphal sworn in as new ASA(CW)

By Bernard Tate
Headquarters

Dr. Joseph W. Westphal was sworn in as the new Assistant Secretary of the Army (Civil Works) [ASA(CW)] in a private ceremony by Robert M. Walker, Acting Secretary of the Army, on June 17. Westphal's previous job was Senior Policy Advisor for Water at the Environmental Protection Agency (EPA).

President Bill Clinton nominated Westphal on March 4 and the Senate confirmed his appointment June 9. He will have a public swearing-in in the near future.

As ASA(CW), Westphal is responsible for:

- The Department of the Army Civil Works program for conservation and development of navigation water resources, including flood control, navigation, and shore protection.

- Policy and program direction of Arlington National Cemetery.

- U.S. Army Corps of Engineers' civil works support for other agencies.

- Program direction of the Corps' foreign activities, except those exclusively in support of the U.S. military forces abroad.

Dr. John H. Zirschky has been the acting ASA(CW) since July 1, 1997. Zirschky will serve as Westphal's principal deputy.

Westphal graduated from Adelphi University in New York with a degree in political science. He received his Ph.D. in political science with a minor in economics from the University of Missouri-Columbia.

From 1975 to 1987, Westphal was a professor of political science at Oklahoma State University. In 1983, he became the head of the department. While on leave from the university, he held several positions with the federal government including special assistant to the Chairman of the U.S. House Committee on the Budget in 1981; policy analyst and special assistant to the Assistant Secretary for Land and Water Resources at the Department of Interior in 1982, and in 1983 to the Secretary of the Interior; and he was a visiting scholar to the Institute for Water Resources of the U.S. Army Corps of Engineers.

Westphal has been a consultant to various federal agencies including the Corps, U.S. Information Agency, the Agency for International Development, and the Department of the Interior.

Before his appointment to the EPA, Westphal was Special Assistant to Sen. Thad Cochran, chairman of the Congressional Sunbelt Caucus. Westphal directed the activities of the caucus from 1988 to 1997.

Westphal is an Adjunct Professor of Government at Georgetown University in Washington, D.C. He is married to the former Linda McMaster. They have four children -- James, Helen, Amy, and Lindsay.

MIA recovered

Corps archeologist unearths pilot shot down in 1967

By Roderic McLean
Los Angeles District

Efforts to locate the remains of U.S. servicemen missing in the Vietnam War have been ongoing for almost 10 years. The missions are organized by Joint Task Force-Full Accounting (JTF-FA). All missing-in-action (MIA) remains are identified at the Central Identification Laboratory, Hawaii (CILHI), and archeological support is provided by St. Louis District.

I heard about this program several years ago at a meeting of professional archeologists, and Los Angeles District has been participating since 1996. I wanted to participate in what I consider a noble cause, and to direct archeology in a foreign land.

When I went to Vietnam, I was responsible for devising and implementing the strategy to find the remains of a Navy pilot shot down in 1967. I was impressed from the beginning by the serious attitude of the organizers. My team included Army, Air Force and Marine personnel. When introduced to the team, they told me it is traditional to call the team archeologist "Doc." This led to situations where the medic and I had to differentiate whether the word "Doc" being screamed meant "I am bleeding profusely!" or "I see human remains!"

We were each issued two small wooden footlockers for our food and equipment for 30 days in Vietnam. Packing these lockers with 30 days of food and most of my clothes and equipment required imagination. We flew from Hickam Air Force Base, Hawaii, to Udorn Air Base in Thailand to get heavy equipment, then boarded a C-130 for a two-hour flight to Hanoi.

We were greeted by our Vietnamese counterparts (government and military personnel), then packed our vehicles for an eight-hour drive to our site.

The main highway south from Hanoi is only about one-and-a-half lanes wide, and frequently unpaved. One does not drive with both hands on the wheel in Vietnam. One hand is always on the horn to warn the thousands of bicyclists (and occasional water buffalo) that are also on the road. American military personnel are not allowed to drive in-country, so our fate was in the hands of others. Our drivers were under orders to obey the speed limits, which I never saw posted.

Our destination was Ha Tinh, 40 kilometers (about 25 miles) from the crash site. After months of preparation, we were all anxious to get on site. The next several days, however, were spent on land negotiations and avoiding rain showers. Our hotel rooms were spartan, but they beat camping for 30 days, and the ever-present geckos kept the roaches in check. Our team set up a makeshift kitchen in the hotel so we could cook our own food, a requirement when working in rural Vietnam to avoid becoming ill from local food. It was always the buddy system when leaving the hotel, and curfew was 9 p.m.

Our missing pilot went down in central North Vietnam when his plane was hit by a surface-to-air missile while strafing a column of vehicles. The wingman gave a general location, and in 1986 the JTF-FA interviewed witnesses on the ground and pinpointed a possible burial site.

When we finally arrived on site, I interviewed the former militiamen who buried the pilot in 1967. They showed me where they found the body atop a small hill, and where they buried him at the base of the



Roderic McLean (sitting back), L.A. District archeologist, and two members of the military team examine the remains of the pilot. (Photo courtesy of L.A. District)

hill in a ditch. They said there was little wreckage since the plane disintegrated in midair. There was no surface evidence of wreckage or life support equipment. I had the two witnesses mark a 20x7 meter (65x23 foot) area where they thought the body might be. We had three weeks to find our pilot, or say he wasn't there.

The site was covered with dense brush and a field of tea plants. So I had it cleared, then carefully examined the ground, with no results. Our ordnance specialist swept the area and his metal detector spotted several possible pieces of metal. I implemented a strategy of digging trenches one meter (3.2 feet) wide and 50 centimeters (about 20 inches) apart across the base of the hill. This included the area marked by the witnesses and the possible metal locations.

All excavated deposits were carried by bucket to a row of quarter-inch wire mesh screens and washed to recover any artifacts or remains. I had the American team and up to 40 local Vietnamese working together in both excavating and water screening. The trenches were frequently swept with a metal detector for safety and to locate possible personal effects.

At the end of the first week of field excavations, I was examining the west portion of our trenches when people started yelling "Doc!" When I reached the other end of the trench, a local worker pointed to the bottom. There were two teeth, probably human.

He had dislodged a small portion of the remains. Careful excavation with dental picks and trowels exposed part of the skull, including part of the lower jaw, and 17 more teeth. The teeth showed evidence of dental work, indicating that not only did we have a human, we had an American. In peasant Vietnamese society, no one can afford a dentist.

I cannot express the emotion of the moment -- great

happiness and a sense of accomplishment, combined with profound sadness. We carefully exposed and removed the human remains and placed them in a security case with protective wrapping. From then on, our pilot was in the care of one of the team sergeants 24 hours a day.

We spent the next two weeks looking for the rest of our pilot because, for the sake of his family, I did not want to leave any of him behind. What we found our first week was all that was left, but that was enough to confirm identity through dental records.

One evening, the Vietnamese officials wanted to honor our success. I told our sergeant in charge (NCOIC) that I wanted to honor the pilot and his family, but he said that would not be a good idea politically. That night the Vietnamese officials toasted our success, then adjourned for an early evening.

Unknown to me, the NCOIC had arranged for all the American team members to stay. With the Vietnamese officials gone, we drank a toast to the man who gave his life for his country. And we remembered his family who might now be able to have closure. Afterwards, several team members thanked me for expressing what they felt.

I gained a great deal of respect for the American military men and women who participate in these missions regularly. They made my job easy. They were all very professional and dedicated to the success of the mission. Many were excited about archeology and eager to learn.

The villagers gathered as we wrapped up our field work and loaded our equipment. They appeared to be sincerely happy for us. Our mission ended with a couple of days and nights in Hanoi. Hanoi is a combination of old French colonial architecture and new foreign development. A highlight was dinner at a French restaurant the NCOIC recommended. It was a nice change from the Dinty Moore stew and Top Ramen I had been eating for 25 days.

It was important to our American military team members to visit Maison Centrale, known by American POWs as the "Hanoi Hilton." Portions of the old brickwork were available for mementos.

We returned to Thailand. The remains of the pilot went under a joint nation forensic review in Hanoi before being flown to Hawaii for identification. After several days of report writing and debriefings in Thailand, we flew to Hawaii and I completed my report at the CILHI.

I am thankful for the opportunity to participate in a successful mission to Vietnam, but I am also glad to be home. Sometimes you do not know how good things are until you leave them behind.

If it were not for the honesty of the men who buried the pilot, and the professional attitude of my fellow team members, this case might still be open. My team leader and NCOIC supported me every inch of the way. They, like me, view this not just as a military operation, but as a kind of sacred duty. There are still more than 2,500 MIAs in Vietnam, and we were all bound together by the idea that if we had a relative missing in action, we would want someone to look for him.

My mission was in March, 1997. There is a long process that CILHI must go through to legally identify remains and notify the family. I received word this April that CILHI had identified the remains, returned them to his family, and closed the case.



Corps districts aid Stewart recovery

By Linda James
Huntsville Programs Center



Extensive tornado damage at Fort Stewart, Ga., challenged both Savannah District and Huntsville Programs Center. (Photos courtesy of Huntsville Programs Center)

When Fort Stewart, Ga., suffered severe damage during an early morning tornado in April, the U.S. Army Corps of Engineers was called in to help the fort begin cleaning up, repairing, and rebuilding what had been nearly destroyed. Not one but two Corps organizations responded help Fort Stewart when they needed it most.

According to Charles Ford of Huntsville Center's Programs and Project Management Directorate, the effort to help Fort Stewart was a textbook case of "One Door to the Corps."

"The call for help went to Savannah District and it was clear that quick response was critical to Fort Stewart," said Ford. "Savannah called as a result of a recent briefing by two members of the Huntsville Project Management team. This briefing described the various O&M tools we had at our disposal. Because of this briefing they knew that Huntsville had a contracting mechanism that would allow the Corps to quickly respond to Fort Stewart's needs."

The storm cut a path through the middle of the Army post near Savannah killing one soldier, injuring several more and doing about \$15 million in damage to 60 buildings. Ford said that many of the damaged buildings provided housing and support services to the installation's soldiers. A fire station, numerous motorpools, a company administration facility, a general administration facility, a physical training center, the central heating plant and above ground sewer lines were

among the casualties from the storm.

To respond to the devastation at Fort Stewart, Savannah District and Huntsville Center made the project a priority, and the effort showed.

"It was an amazing thing to see," Ford said. "Everyone wanted to make it work. Savannah District, the Fort Stewart Directorate of Public Works (DPW), Forces Command, the Corps area engineer -- all were determined to help Fort Stewart dig out."

That determination and a special contracting process made it possible to respond quickly to Fort Stewart. The tornado hit at dawn Thursday. Damage assessment teams from Savannah District were at Fort Stewart before 10 that same morning, providing the initial analysis of the damage and the cost estimates for repair.

"Huntsville Center was on the ground at Fort Stewart on Tuesday," he said. "Savannah District met with the installation DPW and us on Tuesday to establish a strategy; the contractor arrived on Wednesday afternoon to assess the resource requirements; and repairs began Friday."

Ford added that one of the reasons things went so quickly and smoothly was that Savannah District has an Installation Support Manager, Brent Rose, who actually sits in the Fort Stewart DPW office. "That link was invaluable to this whole effort," said Ford. "It boiled down to having the right Corps people and the right process to make it happen."

The contracting process used at Huntsville Center is an indefinite delivery contract. Ford explained that

these contracts are typically used for medical facilities repair and renewal, but can be used up to a certain dollar limit on projects other than medical.

Huntsville Center currently has four of these indefinite delivery contracts that cover the continental U.S., Alaska, Hawaii, and U.S. possessions. This contracting process eliminates the long lead times generally required to contract for work with a traditional method. They can be called up on a moment's notice and respond quickly.

According to Ford, it was just by chance that Huntsville Center people had visited Savannah District the week before to brief them on this specialized facilities contracting process. "Savannah has a similar process that they use for civil works projects, but it couldn't be used on a military installation," said Ford. "They called us because they thought our contract would meet Fort Stewart's needs, and it did."

The repair work at Fort Stewart is expected to take from six months to a year. Huntsville Center's project manager is no longer on-site facilitating work. All further development of scopes of work and preparation of government estimates are being handled by the Fort Stewart Resident Office, with task orders being processed in Huntsville.

The team at Fort Stewart is working with the contract specialists at Huntsville. Huntsville Center's contract specialist, Savannah's installation support manager, and the contractor are conducting negotiations for each project via telephone. This streamlined approach allows Huntsville Center to award firm fixed price task orders to the contractor in a matter of days.

Business centers

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The concept is not that we've got some scheme to distribute and balance workload. It's customer focused -- share the resources and focus them with centralized planning on that customer.

"And that's a big change," Holzwarth said. "The old paradigm is, 'Hey, this is my district. I'm only concerned about getting work for us.' Now we expect the district leaders and the PM to focus on what's best for his customers using regional resources versus just thinking of himself."

The "One Door To The Corps" can even extend nationwide.

"National teamwork is the next logical step," said Holzwarth. "In fact, we just had our first general partnering session with South Pacific Division, our neighbor on one side, and we'll do the same in the near future with Mississippi Valley Division, our neighbor on the other." In fact, SWD's recent work with the Immigration and Naturalization Service has provided work for Los Angeles, Albuquerque, Galveston, and Fort Worth districts, with more possibilities for future work.

"Centralized corporate planning is just one key concept in using the regional management board," said Holzwarth. "Another is standard business practices. We had a task force create formats for operating budgets and for reporting to the RMB what their operating budget will be. Now districts will have to report to the other districts what they are charging, their expected income and expenditures. Peer ac-

countability is another big part of this change."

All these changes will echo throughout the Corps well into the 21st century.

"We think this will lead to increased sharing of capabilities and resources, improved efficiency and effectiveness, and make charges to our customers more consistent and equitable," said Holzwarth. "In SWD, using the regional management board showed us that if you really want to change the Corps' culture, then change the way we do business."

"We attribute this idea to Terry Coomes, recently retired Chief of Engineering and Construction in Fort Worth District," said Holzwarth. "Terry, as part of the RMB, challenged us to do more than just talk about changing the culture, but instead to get to the heart of how we do business. His idea is what we developed into the division business center."

Of course, in a change of this magnitude, there are always bugs to be worked out.

"The Corps of Engineers Financial Management System was designed for independent districts," said Holzwarth. "We're realizing that the next logical evolution of CEFMS is financial *interdependence*. Right now, we transfer funds back and forth between our districts with Military Interdepartmental Purchase Requests, which is an antiquated process. We're experimenting with somehow making CEFMS databases work together so that it's as easy to charge from one district to another as electronic banking."

CEFMS is not the only change in the near future. "All the divisions are looking at standardizing their

budgeting and accounting practices," said Holzwarth. "They're providing guidance to their districts for the FY99 operating budget, looking at targets and limitations. They're trying to do it early so that the FY99 budget is planned well before FY99."

"Most divisions are just starting up their regional management boards, so during FY99 they'll learn how to operate them," said Holzwarth. "They'll start capitalizing on the best business practices. Districts will be automatically sharing their thinking, so someone will say, 'Hey, that's a good idea. Why don't we do it across the division?' They'll regionalize and consolidate functions where it makes sense, expand the use of virtual teams, and allocate funds based on regional priorities. And we're all going to explore standardizing accounting practices."

Despite all the talk about changing the Corps' culture and business practices, Holzwarth says that the division business center concept is customer-oriented. To the customer, all the regional and national interaction is mostly transparent. As far as he's concerned, he approached his district for work and got what he wanted, on time and at a fair price.

"We talk a lot in SWD about delighting the customer," Holzwarth said. "It sounds a little silly, but delighted customers come back, and they refer other people to us. Some district people fear that centralized business planning means their district will get less work. That's not true. As we prove ourselves, there will be more work for all of us. As the pie gets bigger, everyone gets a bigger piece of pie."

CERL introduces girls to science

By Kirk Manley
Construction Engineering
Research Labs

It's no secret there is a shortage of women in the science and engineering fields. But the Construction Engineering Research Laboratories (CERL) has a program that is helping change that by introducing middle school girls to the applications of science in the real world.

"Middle school is a critical time for youth to begin making decisions that will affect their future education," said Maria Ehmann. Ehmann, who works in the CERL Technical Director's Office, is one of several members of the Girls in Engineering, Mathematics, and Science (GEMS) Program Committee. Along with Michele Cooper and Diane Cox, Ehmann coordinates the involvement of CERL and the Champaign Unit 4 School District with the GEMS program.

"The program provides middle school-aged girls with the chance to see the exciting and intriguing new research areas that scientists and engineers currently explore in a real lab setting," Ehmann said.

One such area included CERL researcher Jack Hayes demonstrating CERL's Triaxial Earthquake and Shock Simulator (TESS). Also, CERL researcher Jonathan Trovillion explained how polymers are made and displayed a polyurethane foam reaction. And CERL environmental chemist Pat Kemme introduced various analytical concepts by explaining how compounds are frequently analyzed in

very low concentrations such as part per million or part per billion. "To illustrate this analysis, we displayed 50, 100, 1000 and 500,000 seeds," Kemme said. "To many of the students' eyes, 500,000 seeds looked like a billion. Even 50 seeds seemed too small, so one group counted the seeds to confirm."

For the environmental chemists, the students' visit to their specific laboratory was a milestone. "This was the first group to ever tour the Environmental Chemistry Laboratory (ECL) at CERL and they did really well," Kemme said. "This experience makes it easier to welcome the next group of students to the lab."

Besides touring the ECL, witnessing CERL's shaketable, and learning about polymers, the GEMS Program students witnessed another demonstration explaining shape memory alloys. "Many metal alloys change their crystal structure at certain temperatures known as their transformation temperatures," said CERL researcher Justine Berman. "The difference between shape memory and other metal alloys is demonstrated when these materials are deformed below their transformation temperature. Upon heating above their transformation temperature, most metal remain deformed, but shape memory alloy can recover its original shape."

Witnessing this reshaping phenomenon increased the students' attentiveness and interest. "When you physically conduct experiments for the students to see, it keeps their curiosity levels high," Berman said.



Pat Kemme of CERL's Environmental Chemistry Lab displays tubes containing seeds as she explains how chemical compounds are analyzed in small concentrations. (Photo courtesy of CERL)

After the GEMS participants saw the various demonstrations at CERL, they received assistance from their Learning Science Coordinator, whose goal is to integrate what is learned during the GEMS program with the school's science curriculum.

Back in the classroom, the students "wrote in journals and turned in papers explaining the demonstrations and described their experiences with the GEMS Program," Ehmann said.

How attentive were the students to the program? "They were very responsive to the researchers' questions about the various demonstrations," Ehmann said.

"In addition, the students asked a lot of very intelligent questions," Berman said.

Because of the students' interest in

the GEMS Program, Ehmann hopes to continue its presence at CERL for years to come. "The GEMS Committee is submitting a proposal for the approval of a grant developing a program similar to the GEMS program. Eventually, this proposed program would become a mentoring program where students will have the chance to work directly with researchers at the lab," Ehmann said. "Also, we would like to pilot the GEMS program to the outlying school districts in addition to the Champaign-Urbana area."

According to Ehmann, after the proposal for the program's grant is approved, the GEMS program will continue "sowing the seeds of interest in the youth of our community so they will become the talent pool for the future."

Wetland built on supercollider site

By Judy Marsicano
Fort Worth District

When Congress cut the funding for the Superconducting Super Collider (SSC) in 1994, the construction site became a wasteland.

No more. Something special is rising from the SSC ruins around Ennis and Waxahachie, Texas. Buffalo Creek Wetland, as it is called, will give school children, parents and teachers, garden clubs, and environmentalists rare opportunities to witness the wonders of nature up close and personal. A nature trail and strategically located blinds will allow visitors to observe, study, and photograph a wide variety of riparian (living next to water) plants and animals in their natural habitats.

Four ecosystems are represented in the 16-acre complex -- grasslands, woodlands, riparian corridors, and the wetlands. To keep the wildlife and plants alive and thriving there, three distinct kinds of wetlands will be maintained:

- Heron Lake will have both deep and shallow water habitats benefiting



Young environmentalists place wire cages around aquatic plants to protect them as they grow. (Photo courtesy of Fort Worth District)

a wide variety of terrestrial animals and aquatic species. An island has been built in the center of the lake to protect waterfowl from coyotes, bobcats and racoons, their natural predators.

- Beaver Slough will be developed into a green tree reservoir and will be home to a variety of riparian wildlife, including the popular wood duck.

- Sedge Meadow will be used pri-

marily for aquatic vegetation, similar to a marsh, with the water level being kept at less than two feet.

Development of the wetland was a cooperative effort between the U.S. Army Corps of Engineers and the Department of Energy to mitigate for losses due to the construction of the Superconducting Super Collider.

The wetland was dedicated on April 25. About 85 percent of the volunteers who turned out for the event and the enhancement activities planned for the day were students. The staff of Fort Worth District's Bardwell Lake and seven rangers from four other district lakes supervised volunteer activities.

Boy Scouts from neighboring towns were out in force, earning merit badges for environmental science, water conservation, nature study, and botany. Some were assigned to groups to build and place cages around young plants and trees to protect them from beavers and other predators. Others planted native and prairie grasses and wildflowers, while others filled trashbags

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Florida restoration projects approved

Jacksonville first district to begin a Critical Projects Program

By Christina Plunkett
Jacksonville District

Five projects have been approved for initiation under the Critical Projects Program. Jacksonville District is the first district to start implementing a Critical Projects Program.

Authorized through the Water Resources Development Act of 1996 (WRDA 96), the Critical Projects Program is essentially an offspring of the Central and Southern Florida Restudy. It looks at implementing projects that are independent, can be implemented fast, and will have a significant impact to environmental quality consistent with the "Governor's Commission Plan For a Sustainable South Florida."

As of April 30, five project reports have been approved by Corps headquarters under the program. A total of 12 projects have been submitted and are under consideration.

The South Florida Ecosystem Working Group identified projects which met the Critical Projects Program criteria; the public also provided input. A total of 35 selected projects were identified, all focusing on providing independent, immediate, and substantial restoration, preservation, and protection to the South Florida environment.

The first five projects approved for implementation are:

- The East Coast Canal Structures project will build two gated control structures in the C-4 basin to raise surface and ground water levels to prevent drainage of the Everglades.

- The Florida Keys Carrying Capacity project will create a data base and interactive model to provide a comprehensive look at conditions in the Florida Keys.



The Tiger Tail Camp is located on part of the Tamiami Trail. Culverts will be built along the trail to restore more natural water flows to Southern Big Cypress Swamp. (Photo courtesy of Jacksonville District)

This will enable local, state, and federal planners to evaluate the effects of their decisions on the ecosystem.

- The Western C-11 Basin project will implement operational changes to the Structure 9 Pumping Station to reduce pollutant loads in the Everglades.

- The Southern Golden Gate Estates will build spreader channels, canal plugs, pumping stations, and remove roads to reestablish historic flow-ways and reduce the shock-load of freshwater to Ten Thousand Islands Estuary.

- The Tamiami Trail Culverts project will build numerous culverts under the Tamiami Trail at various sites to restore more natural hydropatterns to

Southern Big Cypress Swamp.

"What makes the Critical Project Program unique is its fast-track time schedule," said Col. Joe R. Miller, Jacksonville District Engineer. "Creating a project generally takes about 10 years from analysis to design and approval before beginning construction. In contrast, Congress has authorized the Corps to reduce the reconnaissance phase of critical projects and to eliminate the feasibility phase. The two phases save about four years of study."

Consequently, the five critical projects approved by Corps headquarters are now in the pre-engineering and environmental analysis phase of project implementation.

Also unique to this program, headquarters has a 10-day deadline to review the initial project report letter generated at the district for each proposed project, and either approve, reject or ask for additional data.

"The 10-day report review deadline has been met for all 12 project reports that have been submitted for headquarter's approval, which shows the Corps' commitment to making these crucial restoration projects a quick reality," said Melissa Dollar, Critical Projects Program Manager.

The Critical Projects Program was born in September 1996 when Congress authorized \$75 million for a three year period (fiscal years 1997, 1998, and 1999) for the program, to be cost shared 50-50 by the local sponsor for a total of \$150 million. Other criteria set by Congress includes that each project must be initiated (the project cooperation agreement signed with the non-federal sponsor) by September 30, 1999, and the maximum amount the federal government will spend per project is \$25 million.

"Through WRDA 96, Congress is allowing the Corps of Engineers to take a fresh look at the environmental impacts of our projects in South Florida and to bring about restorative measures quickly to projects identified as 'critical,'" said Miller. "This is an innovative approach and can equate to a substantial savings in how the Corps does business on environmental projects."

Wetland

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with paper, plastic, and other debris carelessly left behind by previous visitors.

While planting a couple of small cypress trees, it didn't take long for 11-year-old Adrian Allen to get covered with mud from head to toe.

"I really love nature, but nature must hate me," he said, apparently relieved to finally have a good reason to get dirty. "While I was planting, I got stuck in the mud and my Dad had to pull me out," he added, pointing to a man who was equally muddy.

Though he admitted that he usually likes to sleep late on Saturday mornings, Allen understood that his small contribution would someday pay off. "All I know is that this place is for kids, and I want to grow up and bring my kids out here," he said.

Several members of the Ennis Ladies of the Garden also did their part. They planted 14 trees along the trail and the water's edge and 22 pounds of five species of prairie grass.

"We are already talking about having a pilgrimage here, hopefully in October, for our 55 members," Janice Moreland said. "I think this is a wonderful place for people to appreciate the environment, the plants, the wildlife, and especially the open air. It's

educational for the children too, because even if they can read about all this in their textbooks, it's important for them to be able to see it for themselves."

Dr. Gary Dick, a research scientist from the Aquatic Plant Research Center at Lewisville Lake, said the volunteers would be pleased to know that about 90 percent of the aquatic plants planted that day had a good chance of surviving.

"We usually work in 25,000 acre lakes and use founder colonies like you see here, because we don't want to vegetate an entire area," Dick said. "These plants can establish on their own and the cool thing is how fast they can spread."

Alton Hurley, a Bardwell Lake park ranger, who worked for months to plan and coordinate the project, said that he is not aware of any other wetland area in the vicinity that has the diversity of the Buffalo Creek Wetland.

"No where else can you see such a variety in vegetation and landscape -- everything from the wetlands to prairie grasses to hardwoods can be seen in this small area," he said. Hurley added that the primary goal of the native prairie part of the project is to establish a mixture of plants and trees that might have been seen in the 1840s.

Tuzla tower upgrade protects communication

By Marnah Woken
Europe District

Secure, reliable communications is vital to success in any military operation. Communications in Bosnia are now safer and more dependable, thanks to recent structural upgrades on the Eagle Base communications tower in Tuzla. The tower, 35.5 meters tall (about 116 feet), is used to provide communications support to various units in the U.S. sector. The 5th Signal Command in Mannheim, Germany, requested design and construction services on the tower from Europe District.

Upgrades to the existing structure included building two new antenna pipe mounts for two parabolic antenna dishes; building a lightning protection system; and installing an obstruction light. The German architectural/engineering firm of Mussigmann & Partner designed the project.

"The antenna tower is the most important means of communication for all Stabilization Forces in the Tuzla community," said Richard Moreta, Europe District's project engineer for the Tuzla tower project. "Prior to the repair work, the tower was overloaded with antennas and microwave dishes. The former access ladder was rusted and unsafe to climb. The base of the tower didn't have an efficient drainage system, and no grounding or lightning protection system existed. Also, the absence of an obstruction light was a safety hazard due to the frequency of flights from Eagle Air Base."

The structure's existing platform railings, safety rail system and personnel ladder were also upgraded and reinforced, and the tower was strengthened to withstand four centimeters (about 1.5 inches) of ice accumulation, and wind velocity of more than 53

knots (about 61 miles per hour).

The contractor, Thomcast GmbH of Munich, and the U.S. Army Corps of Engineers coordinated with 5th Signal Command and the 141st Signal Battalion to ensure the work continued without interruption and on schedule during the project.

"All coordination for the foundation phase during the preconstruction and construction period was a real challenge," said Moreta. "The policy for installation passes changed weekly and the diversity of different languages like Serb-Croatian, German and English made the project a challenge.

"The most important aspect of the mission was to perform the steel reinforcement work without interrupting transmission and receiving," said Moreta. "To keep the antennas and microwave dishes in place and working during the strengthening, a bracket system was installed to replace the diagonal bars."

Work on the project was completed one week ahead of schedule. "With construction completed, 5th Signal Command and the 141st Signal Battalion are now working more efficiently due to the strengthened tower," Moreta said. "In addition, with all of the safety standards in place, they now have the capacity to increase their communication capabilities and operations."

Europe District Safety Officer David Stanton organized safety inspections of the tower and followed all aspects of the safety plan in detail.

"I really enjoyed performing quality assurance at a high altitude," Moreta said. "As a paraglider, I've always had a lot of respect for high altitudes. Performing quality assurance at the top of the tower made me realize all of the hard work and challenges the contracting personnel faced."

Christopher Gatz was the Europe District project



This tower at Eagle Base in Tuzla provides communications support to units throughout the U.S. sector of Bosnia.

manager responsible for managing the entire project, from design to construction. In a recent appreciation letter to Gatz, Brig. Gen. Robert Nabors, 5th Signal commander said, "I offer my sincere appreciation for your outstanding management of the Tuzla Tower Strengthening project. Your excellent project management skills and personal interest contributed to the resolution of many unique issues and successful project completion. The project corrected a serious safety hazard which placed personnel and mission at risk. The 5th Signal Command greatly appreciates your support..."

Alaska District builds mobility complex

By Maj. Reinhart Koenig
Alaska District

Designing and building a \$13 million Joint Mobility Complex (JMC) on Elmendorf Air Force Base, Alaska, has been a true success for Alaska District. This facility provides the structure needed for deploying our armed forces throughout Alaska and the Pacific Basin. A fully partnered project from inception, Alaska District used the design charrette process to manage the in-house design and construction work from "cradle to grave."

The project itself is a state-of-the-art 80,000-square-foot facility that provides Alaskan soldiers and airmen a platform for worldwide deployment. It contains a troop rigging and personnel processing area, a vehicle preparation area, a parachute drying tower, vehicle wash facility, de-fueling point, covered high line dock, low boy ramp, C-130 mock up, unheated storage building and numerous administrative facilities.

Of special interest to paratroopers is the specially designed seating that provides greater comfort after personal rigging is complete. For equipment, the facility is designed for vehicles and



This state-of-the-art 80,000-square-foot facility is a platform for worldwide deployment. (Photo courtesy of Alaska District)

pallets to "flow through" using rollers and in-line scales. In short, the Elmendorf JMC provides everything soldiers and airmen need to process themselves and their equipment before boarding aircraft for deployment.

The facility is critical, given its strategic location. Elmendorf AFB offers reduced flying times to important theaters including Korea and the Middle East. Last February 1998, 240 members of the 54th Fighter Squadron de-

ployed from Elmendorf AFB to Saudi Arabia to enforce the southern no-fly zone over Iraq. And 400 paratroopers recently deployed through the JMC to jump into Alaska's largest military training exercise, Northern Edge, an annual cold weather exercise involving more than 8,500 personnel from the Army, Air Force, Navy, Marines and Coast Guard.

Building the JMC was a joint operation. It is located near the main run-

ways on Elmendorf AFB. Among the primary users are soldiers from Fort Richardson who travel five miles from their home station to the JMC for staging their deployments anywhere in the world. Funding for the project came from both the Army (60 percent) and the Air Force (40 percent) and both services are involved in the operation and maintenance of the facility. This was the first-ever dual-funded Corps project in Alaska.

Beneficial occupancy of the JMC began in June, 1996. This marked the end of a partnering effort that began with a detailed design charette (an intensive effort to complete an architectural design project). During the charette, the end users fully articulated their needs and desires. This group included the U.S. Army Corps of Engineers' in-house designers, the Army's Directorate of Public Works (DPW), the Base Civil Engineering Squadron, and representatives from the Army and Air Force.

Once the contract was awarded, the contractor was fully integrated into the partnering group. The Corps managed and coordinated among all agencies involved and provided a central point for

Continued on page seven

Corps building dam in Puerto Rico

By Mary Beth Hudson
Tulsa District

Three drillers from Tulsa District recently returned from Puerto Rico where they worked on a dam being built by the U.S. Army Corps of Engineers. The Portugues Dam will be a double curvature, three centered elliptical thin arch concrete dam on the Portugues River. Jacksonville District designed the dam and is overseeing construction. The dam will be 1,505 feet long, 271 feet high, 40 feet wide at the bottom, and 12 feet at the top.

Ray Voils, Carl Sloan, and Darrell Custer, all of Investigations Section, spent seven weeks on the project, drilling and grouting 200-foot holes. According to the project's fact sheet, "It is essential that the final grout curtain be constructed not only to control seepage for water retention but to treat unusual foundation conditions that may occur and create stability problems for the dam structure."

The crew operated hydraulic drills mounted on rails with down-hole hammers. They performed drilling, pressure testing, and grouting. The normal pace was 60 feet per day, but they set a record of 130 feet for two days, and a weekly record of 710 feet.

For Sloan, the assignment was opportunity for a family reunion. He was born and raised in Puerto Rico and still has family living there. He was able to see several aunts, uncles and cousins during his stay.

Voils said the trip was made much easier by the fact that Sloan could speak, read, and write the language. Besides working with local hired labor, the men also worked with employees from Buffalo and Jacksonville districts. Workers from Vicksburg,



A down-hole hammer at work on the dam in Puerto Rico. (Photo courtesy of Jacksonville District)

New Orleans and Baltimore, have also worked on the project.

Voils said the worst part of the trip was, "eating stuff you didn't know what it was," and the worst part of the job was, "climbing that hill with a can of gas in one hand." He said the 15 men working on the hill would drink 40 gallons of water each day –

and that the water had to be carried uphill. He also mentioned the heat, climbing and callouses.

Of course, the assignment also had its rewards. Voils mentioned the beauty of the area, the friendly people, and the cooperation by the diverse crew on the job site. His best memory? "Swimming in the Caribbean Sea."

James Bond ride filmed at Corps lake

By Doug Makitten
San Francisco District

The legend of James Bond recently visited one of the U.S. Army Corps of Engineers' lakes, and can now be seen nationwide. Some of the action sequences for "License to Thrill," a new attraction at Paramount theme parks, were filmed at Lake Sonoma in San Francisco District.

"License to Thrill" is a ride film projected inside a motion simulator which rolls and lurches on computer-controlled hydraulic arms. The audience inside feels as if they are experiencing the action from Bond's point-of-view as he rescues a kidnapped scientist.

In the movie, a stunt man portraying Bond parachutes into the lake, knocks an enemy jet-skier from his craft, then chases a speedboat carrying the vil-

lain and the scientist. During the rescue, Bond dispatches five other jet-skiing henchmen, blows up the chief bad guy, and rescues the scientist who, in keeping with the Bond tradition, is an attractive woman.

The film is only about five minutes long, but it took literally months of negotiation, preparation, and rehearsal before the film was completed on Lake Sonoma last December.

The Thrillco Company, which produced the film, spotted Lake Sonoma while doing some filming in Willets, north of the lake. Once the company expressed interest, Lake Sonoma Park Manager Perry Crowley began researching how to make it happen. That process involved a wide range of district offices, including Construction Operations Division, Public Affairs, Office of Counsel, Regulatory Branch, Environmental Branch, and Sacramento District's Real Estate Division, which ultimately issued the permit.

"It was an interesting process, and we were able to negotiate an agreement that Thrillco would provide us \$15,000 in playground equipment in return for the use of the lake, the ranger, and administrative costs," said Crowley. No money was paid to the district. After the amount was negotiated, Thrillco made a check payable to a playground equipment firm.

Thrillco was required to have a variety of licenses and permits, as well as a \$1 million insurance policy. The also had to complete a Record of Environmental Consideration to ensure their filming would not damage the lake or its wildlife.

Park ranger Tim Golden had a key role in the whole process and served as the Corps' Thrillco liaison on-site during the rehearsals and final filming.

"I volunteered to do it as an opportunity to learn new things and see how filming a movie is done," said Golden. "I was amazed at the number of people, about 50, that Thrillco had on the job, and that it took about a week of work to do a five-minute film."

Golden also said he was impressed by the Thrillco group's skill and professionalism. For a week they worked from dawn to dusk, repeatedly braving dives into the frigid lake until each sequence was done perfectly.

"They were down-to-earth, straight-forward, and business-like," said Golden. "They stressed safety and everything was carefully orchestrated."

Golden said no big-name movie stars took part in the filming, since all the characters were played by stunt people, one of whom Golden described as "looking like Fabio with a goatee."

For those who want to see the finished film and its scenes of a Corps lake, "License to Thrill" is playing this summer at all five Paramount-owned theme parks -- Carowinds in Charlotte, N.C.; Kings Island at Kings Island, Ohio; Canada Wonderland in Ontario; Great America at Santa Clara, Calif.; and Kings Dominion in Doswell, Va.

Complex

Continued from page six

communication. The DPW and the Base Civil Engineers office's afforded two central points of contact for user concerns. The user's involvement included numerous site visits during construction to review the progress and insure their operational requirements were met. When they identified a potential improvement to better satisfy their operational needs, they coordinated with the Corps and their command to ensure that the corrections were made.

Because this facility is near active runways, close coordination was necessary among the Corps, the contractor, and airfield operations personnel. This effort eliminated any and all potential problems. In addition, minor corrections to the design were expedited and minimized the impact on the contractor. The contractor, Wick Constructor's, Inc. worked

closely with all the agencies to actively incorporate user-requested changes and ensure that the project served the needs of the Army and Air Force. The end result is a facility that meets the needs of the customer as they perform their vital mission.

Thanks to the close communication between all parties, the facility is a benchmark for other mobility complexes being built in the Department of Defense (DoD). The charrette process and partnering effort paid huge dividends and made our customers strong supporters of these processes. Alaska District recently received an Air Force Citation for Design Excellence in the Facility Category for its efforts on the JMC. The success of the project and its ability to effectively support force projection has inspired the Army and Air Force to begin planning similar facilities at other DoD installations.

'Safe Passage'

Water safety leader receives national recognition for video

By Nola Conway
Walla Walla District

It's every parent's nightmare.

For just a moment you look away from where your child is playing by the water. When you look back, she's not there.

You fear the worst, and the worst has happened. People come running to your cries for help. Within minutes they locate her near the shoreline. The ambulance takes her away and the crew desperately tries to revive your child, but it's too late.

For Lynda Nutt, a park ranger on duty at the time at a U.S. Army Corps of Engineers' lake, this was a real event that grew into a lifetime commitment to water safety.

"The little girl was only five years old," Nutt said. "Her mom took her eyes off her just for moment. And in that moment, she was gone."

Nutt was also a volunteer emergency medical technician at the time and rode in the ambulance, doing cardiopulmonary resuscitation as the crew raced the young drowning victim to the hospital.

"I had two young daughters of my own," Nutt said. "The loss was hard to take because it was preventable with just a life jacket. I made up my mind at that moment that I would do everything possible to get the word out on water safety."

Working for the Corps has given her the opportunity to get the word out. The Corps is the nation's leading provider of water-based recreation. An estimated 25 million people visits Corps recreation areas, boat launching facilities, picnic areas and campgrounds at least once each year.

The National Water Safety Congress (NWSC) recently recognized Nutt's commitment to water safety with their National Award. She received it in May at the NSWC's International Boating and Water Safety Summit. Nutt, an outdoor recreation planner with Walla Walla District, and manager of the Corps' Water Safety Program, received it for exceptional accomplishment.

Nutt has more than 21 years of experience with water safety. In 1994, she spent a few months at Corps headquarters on a developmental assignment as a visual information assistant. There she assisted Chuck Gregory, Water Safety Program products manager in Information Management (IM), with developing water safety products and displays.

"Before leaving, I heard rumors that the Corps' water safety program was expected to encounter problems, as IM's staffing had downsized and restructured," she said. "In short, Chuck was no longer going to be able to manage the program."

Nutt felt committed to find a way to continue the program from a "virtual office."

"I recognized the value of having a centralized, Corps-wide emphasis on water safety," said Nutt. "So after much discussion among the various offices dependent on the program, I negotiated a memorandum of understanding among Information Management, Operations, Safety, the Public Affairs Offices, and Walla Walla District."

The district serves as the Corps' National Operation Center (NOC) for water safety. Nutt was assigned management of that program in July, 1994. Her focus was grassroots product planning and program advisors. Currently, each Corps division has at least one natural resource management representative on the committee. A public affairs specialist, and a safety representative round out the team. A review/advisory board oversees the NOC's operation.

In three years, Nutt and her committee exceeded all NOC requirements, including identifying accident/fatality causes, and developing targeted products and programs to tackle these problems and promote wa-



This is a scene from *Safe Passage*, Lynda Nutt's award-winning water safety video. (Photo courtesy of Walla Walla District)



Lynda Nutt manages the Corps' water safety program. (Photo courtesy of Walla Walla District)

ter safety for all age groups.

During Nutt's tenure with the NOC, fatality rates at Corps lakes have reached all-time lows.

"The success of the NOC is a reflection of the great teamwork in the Corps' water safety program," said Nutt. "The award has my name on it, but it really goes to the water safety team. I work with an extremely talented (not to mention opinionated) team of park rangers/managers, outdoor recreation planners, public affairs specialists and safety folks who all assist in product ideas and development."

Safe Passage was produced last year to teach el-

ementary school children about water safety. It includes a teacher's packet so impressive that it has been shown on the Nickelodeon Television Network and will be nationally distributed to educators. The video was produced by Nutt with assistance from a Spokane, Wash., video production company.

"The script was the result of a brainstorming session which involved several of our water safety committee members," said Nutt. The film has won an "Addy" from the Northwest Advertisement Foundation, winning the film presentation category.

Nutt also coordinates the Corps' Water Safety Products Program with catalog and product distribution to more than 700 sites nationwide. The products are top quality and are in high demand by many agencies and educators. Colorful posters, public service announcements, children and adult brochures, water safety badges, rubber stamps, children's songs, public service announcements featuring Roland Martin as spokesperson, and a personal watercraft video are a few of the products conceived and developed by the NOC under Nutt's leadership.

This year the products can be ordered on the Corps' Water Safety webpage, another NOC production. The site is at <http://www.nww.usace.army.mil/watersafety>.

New products under development include a CD-ROM water safety game, a combination adult/safe boating brochure, a driver's education module, public service announcements with Gloria Estefan, a how-to kit for forming water safety partnerships, a data base for national statistics and a *USA Today* Kids Safety Page with direct Corps web link.

Nutt was also recognized in the award for establishing water safety partnerships with the California Department of Boating, Personal Watercraft Industry, International Jet Sport Boating Association, *USA Today*, US Power Squadron, Bombardier, Kawasaki, Yamaha, and others.

"Everyone I meet has a story to tell about a near-drowning or, tragically, a drowning," said Nutt. "I'm thankful that I can be part of the effort to save lives and prevent water-related accidents. I feel so fortunate to work with committed people and an organization that is committed to water safety."

Cellist is active in her community

Article by Ann Marie Reyes
Photo by Larry Rosenberg
New England District

Most people in New England District know Beryl Dixon as the Human Resources Officer. And that's who she is by day. But on her own time Dixon is a huge advocate of community service. She is a cellist in the New Hampshire Philharmonic Orchestra, a board member on the Massachusetts Committee for Children and Youth, and member of the Church of the Good Shepherd Vestry in Nashua, N.H.

Dixon began her musical career as a cellist in the seventh grade in Cleveland, Ohio. "I have a musical family, and my sister, who is 14 months older, played the viola," Dixon said. "I didn't want to play the same instrument, so I started playing the cello."

The cello has been Dixon's instrument of choice, except for the autoharp which she played briefly in grade school.

In junior and senior high school she competed in annual city-wide solo and ensemble contests. Before the 11th grade, Dixon only competed with groups. "I was a junior in high school and I finally summoned the courage to play a solo," Dixon said. "Much to my surprise I got a one. I still have the judge's write-up!" Soloists are rated from one (highest) to four.

Dixon has been playing with the New Hampshire Philharmonic Orchestra for six years. Before that, she played with the Nashua Chamber Orchestra for three years. During that time, the New Hampshire Philharmonic approached Dixon to audition. "It's a very small music community and they knew I played cello," said Dixon. "I was flattered that they asked me to audition."

Dixon credits her church with getting her back into music after a long hiatus. "I hadn't played seriously for a couple of years," she said. "When I moved to Nashua in 1987 and joined the church, they found out that I played and asked me to perform with one of the church productions. That led me to join the Nashua Chamber Orchestra and from there the New



Playing the cello in the New Hampshire Philharmonic Orchestra is one of Betty Dixon's many community activities.

Hampshire Philharmonic."

The philharmonic consists almost entirely of volunteer musicians, both professional and amateur. "Playing the cello relaxes me," said Dixon. "I enjoy playing with the New Hampshire Philharmonic and

it's a good way to give back to the community."

There are eight chairs in the orchestra's cello section. Dixon sits fourth and is happy with that position. "Being first chair is a lot of work," she explained. "You have to practice every day, and I don't have the time."

But Dixon says there is no real emphasis on who's the best player. "We try to give people who may not be as talented an opportunity to sit by someone who is very talented to enhance their skills."

Practice is held once a week for two-and-a-half hours. "Right before a concert, we have special sessions in addition to the regular practice," she said.

The orchestra plays six to eight concerts a year and performs at the Palace Theatre in Manchester, N.H. Each concert has a different musical selection and lasts about an hour-and-a-half. The orchestra plays to audiences that average about 700. They also perform at the annual Riverfest in Manchester, which is attended by thousands of people.

According to Dixon, the orchestra also performs free concerts for children and supports scholarships and musical education for young people. "The orchestra serves a purpose in the community," she said.

Dixon is still active in her church. Recently, she was elected to the church vestry for her second three-year term. One of her duties is to be the liaison to the personnel committee at the church, and she still participates occasionally in ensembles and talent shows for the church.

Dixon's community service does not end with the orchestra or her church. She has sat on the board of directors at the Massachusetts Committee for Children and Youth since 1989, America's oldest, private, statewide child advocacy organization. The agency works to reform state services for children and pushes for legislation on children's issues. The board meets quarterly in Boston.

Dixon also organizes and attends fund-raisers, and has served on various committees. "Not having children of my own, I wanted a way to support children," she said.

Artifacts of Corps tragedy discovered

By Jim Pogue
Memphis District

A demolition crew recently discovered artifacts from one of the greatest tragedies in the history of the U.S. Army Corps of Engineers.

On May 8, 1925, the *M.E. Norman*, a 113-foot-long sternwheel steamboat, took 72 passengers on a river inspection trip and picnic. The passengers were engineers and their families attending a convention in Memphis, Tenn.

In a freak accident at Cow Island Bend just south of the city, the swift current caught the *Norman*. She drifted crossways to the current and capsized. River worker Tom Lee, in a 28-foot motorboat, was the only eyewitness to the sinking. He rushed to the *Norman* and personally rescued 32 survivors. In spite of Lee and the efforts of others, 23 people lost their lives.

Fast-forward to today. A demolition crew is tearing down the old bridge leading into Ensley Engineer Yard as a new road is built into the facility. As they smash one of the old bridge supports, a small metal box pops out and tumbles to the ground. The workers



Twenty-three people died when the *M.E. Norman* sank in 1925. (Photo courtesy of Memphis District)

shut down their heavy equipment to see what they have uncovered.

Prying open the expertly soldered copper box, they discover a time capsule containing an oil-soaked flag, passenger list, photos, newspapers, and other artifacts from the sinking of the *Norman*. The box was originally sealed in a cement column at the entrance to Memphis district's old West Memphis river facility May 12, 1936. When Ensley Engineer Yard was built, the column containing the time capsule

was moved and incorporated into the design of the new entrance road bridge. During the years, memory of the time capsule's existence apparently faded.

But since its discovery, interest in the time capsule and the *Norman* has grown. Two newspaper articles have been published, and calls asking for more information have come in from around the U.S. People have phoned to say their parents or grandparents either survived or perished in the sinking, and several callers have offered to

share their memories and collection of documents from the incident.

Staff archeologist Jimmy McNeil has taken the lead on caring for the artifacts from the time capsule. The oil-soaked Corps flag has been sent to a fabric preservation expert, and the yellowed, fragile documents have been sent to another preservationist who specializes in paper products. Once all of the artifacts have been returned, probably some time this summer, plans are to create an exhibit in the federal building in Memphis.

"We've received so many calls from people expressing interest in the *Norman*, we may try to put together a small history book about the incident," said McNeil. "It would be a shame not to capture some of these memories while we still can."

The district plans to hold a ceremony when the proposed exhibit opens, and invite descendants of the *Norman's* passengers and crew to participate. Museums and history centers in Vicksburg, Miss.; Morgan City, La.; and Nashville, Tenn., have also expressed an interest in borrowing the items for temporary displays in their areas.

\$60M in work done at Ft. McPherson

Article by Alicia Gregory
Photos by Jonas Jordan
Savannah District

Although small in area, Fort McPherson, Ga., and its sub-installation, Fort Gillem, are home to some of the most significant organizations in the Army.

Both installations are just outside of Atlanta, Ga. Fort McPherson covers 487 acres. It is home to Forces Command (FORSCOM) headquarters (the Army's largest major command), U.S. Army Reserve Command (USARC) headquarters, and the Third U.S. Army headquarters.

Fort Gillem covers more than three times the acreage of Fort McPherson. Its tenant organizations are the Second U.S. Army headquarters, the U.S. Criminal Investigation Command (Third Region) headquarters, the U.S. Criminal Investigation Laboratory headquarters, U.S. Army Second Recruiting Brigade, and the Army and Air Force Exchange Distribution Center.

"We have just completed more than \$60 million in projects, and future projects at both McPherson and Gillem will total more than \$5 million," said Harry Ike, resident engineer at the Savannah District's Fort McPherson Resident Office.

The McPherson Resident Office supports construction at Fort McPherson, Fort Gillem, Camp Merrill, and Army Reserve centers in north Georgia. The office was established when construction began on the FORSCOM Headquarters building in 1983. The office has six full-time employees, with support as needed from the Robins Air Force Base Resident Office. Ike has been resident engineer since August 1997.

"This is the place where the action is," Ike said. "Decisions must be made quickly. The success of any resident office is totally dependent on the people working there, and I have very talented people."

Ike's relationship with the contractors is effective, and he has a special kinship with them, having been a private contractor himself. "The contractor is out there trying to do a good job while making a profit," Ike said. "It can be frustrating at times for both the contractor and the customer; my job is to work with both to produce a quality end product."

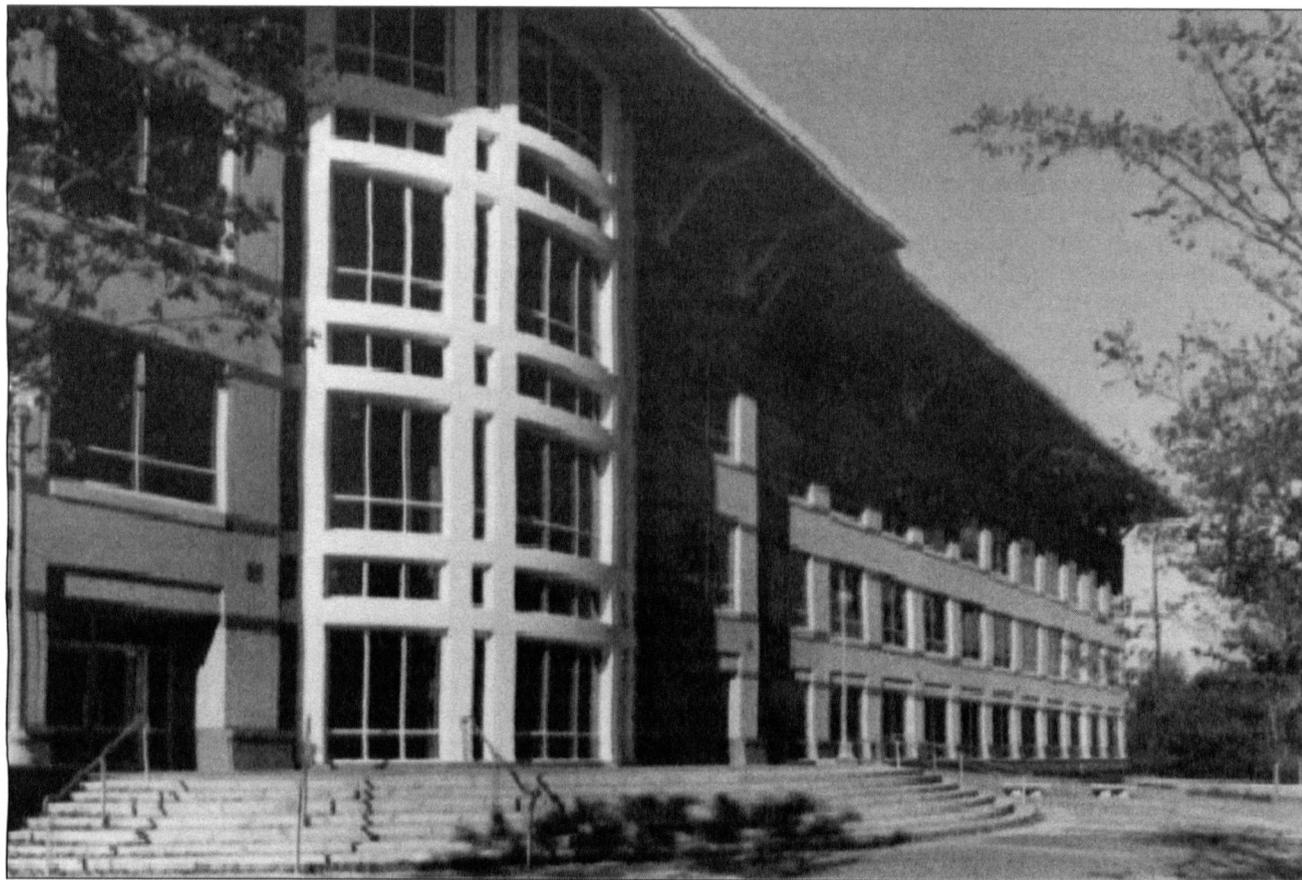
The U.S. Army Reserve Command and Control Center, which was turned over to the command last September, is a project that exceeded customer expectations. The Atlanta-based architectural firm of Smallwood, Reynolds, Stuart, Stuart, and Associates designed the structure in less than a year. The facility won first place for building design in the Public Works category from the Georgia chapter of the American Concrete Institute.

The \$29 million building, built by Metric Constructors of Marietta, Ga., has more than 220,000 square feet on its five floors and houses about 850 military and civilian employees. It has a full service cafeteria, a command briefing room with tiered seating for 100, large computer rooms, and a three-quarter basement with the command's historical archives and a production studio. The facility also has a three-story, 600-car parking garage. Modifications to the contract, including landscaping and adding precast panels to the parking garage area are being negotiated.

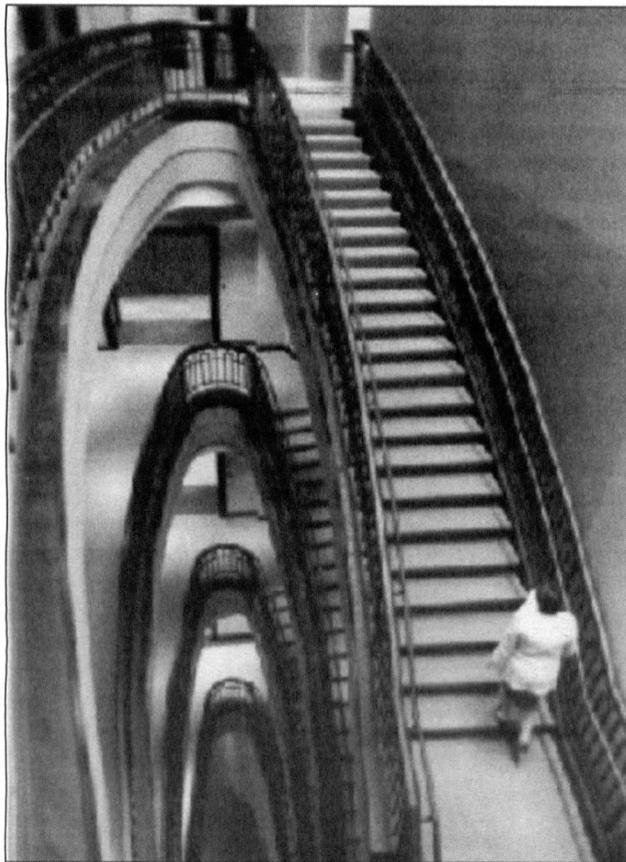
The resident office recently turned over two other projects, the medical/dental clinic, and the Audie Murphy Barracks complex.

The \$11.3 million medical/dental clinic, designed by Ellerbe Becket Company, Inc., opened for business Jan. 13. Built by Ellis-Don Construction, Inc., it is 74,451 square feet and contains doctor offices and examination rooms, dental chairs and laboratories, diagnostic and treatment areas, a state-of-the-art fire suppression and alarm system, and a full-service pharmacy.

Soldiers stationed at Fort McPherson recently



More than 800 civilian and military employees work in the \$29 million U.S. Army Reserve Command building.



Features like this sweeping staircase are the reason the USARC building is an award-winner.

moved into the new Audie Murphy Barracks. Designed by Savannah District and built by Conner Brothers Construction Co., Inc., the barracks conform to the Army's one-plus-one standards (two soldiers sharing one module or mini apartment).

"The troops are very pleased with the barracks," said Lt. Col. Robert A. Dunn, director, Installation Support for Fort McPherson and Fort Gillem. In fact, during the ribbon-cutting ceremony, Col. William D. Clingempeel, Garrison Commander for Fort McPherson and Fort Gillem, said that not many people get to live in a condo overlooking a golf course. The \$25.7 million barracks complex consists of

eight buildings -- two three-story barracks, a soldier's community center, four company operations buildings, and a battalion headquarters. Although the soldier's have moved into the completed barracks, modifications to the contract are being negotiated to provide a battalion headquarters building.

The family housing project in Dahlenega, Ga. (for Camp Merrill soldiers and their families) and an upgrade to the water treatment plant at Camp Merrill have also been completed. The \$4 million housing area, built by Metric Constructors, has 40 units with playgrounds, basketball courts, and a jogging trail.

The water treatment upgrades to the Ranger Camp, completed by Southern Champion Construction, Inc., include a 300,000 gallon water-storage tank, raw water intake, a new water supply and distribution system, a new septic tank system, and a sprinkler system. The \$1.5 million contract, which also included the demolition of the old water-storage tanks, was completed last August.

New military construction projects in the works include the \$3.1 million Military Entrance Processing Station (MEPS) at Fort Gillem, and the \$3.8 million Combined Club for officers and enlisted soldiers at Fort McPherson. The Combined Club is a shared design/build project between Savannah District and Seattle District, with Savannah District performing quality assurance on the project.

Military construction projects aren't the only projects ongoing. "We recently started working on a \$500,000 Energy Conservation Improvement Program to replace lights in several of the installation's buildings," said Ike. "Customer service is very important to us. To ensure we give the customer what he wants, we keep in constant contact and have established good working relationships with the Directorate of Installation Support and the users."

According to Dunn, that relationship has been successful. "I am pleased with the commitment the district has shown," he said. "We have developed a strong partnership and, hopefully, will be co-located within the next few years. We are all part of the same engineering team. It takes dedicated project engineers, good contractors, and our partnership with the Corps to produce success."

Around the Corps

Video wins

A Detroit District video has won an award for the company which produced the 25-minute film. Jodi Gonska from Idetix, the production company, won a 1998 Aegis Award for "Living on the Edge -- Great Lakes and St. Lawrence Shoreline" in the Education/Training category. The judges, industry professionals from around the country, chose it for this award because of its outstanding production quality. "We didn't know it was competing for an award, but this is great news," said Dave Schweiger, Chief of Hydraulics and Hydrology, and coordinator of the video project. "It's nice to know that quality is rewarded. We're proud of this video and hope a lot of people get to see it and learn from it."

Morris honored

Retired Lt. Gen. John Morris, the 44th Chief of Engineers, received the U.S. Military Academy Association of Graduates (AOG) Distinguished Graduate Award on May 26 at West Point. The award is presented to West Point graduates who have supported the academy throughout their lives and whose character, service, and stature reflect well on the academy.

After graduating from the academy in June, 1943, Morris began his career in military and civil engineering in World War II building airfields in the Pacific. In 1970, he took command of Missouri River Division. In 1972, he became Director of Civil Works in the Office of the Chief of Engineers. In 1976, he was became the 44th Chief of Engineers, and retired from the Army after serving in that position.

Past winners of the award include Norman Schwarzkopf, William Westmoreland, Alexander Haig Jr., and Frank Borman.

Puddle ducks

The recently completed waterfowl management area at the Richard B. Russell project in Savannah District attracts a type of duck called puddle ducks, which include mallards, green-wing teal, black ducks, and wood ducks.

"Puddle ducks are the most common ducks in the piedmont area," said Dave Brady, wildlife biologist. "They're called puddle ducks because they prefer shallow water. Their diving ability is limited to about 30 inches or less. Canada geese are also attracted to this type of habitat and are frequent visitors to the impoundment."

The waterfowl habitat began as a staging area, or dredged spoil site, during Russell Dam development. "Later, it was decided the area was the most logical place to pump sand slurry created as part of the pumpback operation," said Brady. "We built a dike with a flashboard riser drainage system around the area to hold the sand in and allow water to drain off. We had 86 acres of sand out there, which we decided to convert into a wildlife management area."

"We have three ponds with a series of three flashboard riser drainage systems to maintain a water level of about 24 inches," said Brady. "The flashboard riser system allows us to flood certain portions of the planted area, or the entire area based on duck population."

The area is planted with crops that are attractive to ducks, like corn, brown top millet, Japanese millet, and dwarf sorghum. Crops will be planted in the summer by farm contractors and allowed to mature. In the fall the crops will be flooded while ducks migrate through the area. In the early spring the ponds will be drained, then the cycle will repeat.

The Russell project may also develop the area as part of an outdoor education facility. A proposal for developing it includes a nature trail and the possibil-

ity of combining dam tours with tours of the waterfowl impoundment.

Researchers awarded

Three researchers at the Construction Engineering Research Laboratories (CERL) received the Federal Laboratory Consortium (FLC) Award for Excellence in Technology Transfer. The award recognizes federal lab employees who have done an outstanding job of transferring technology developed in the lab to outside partners, primarily the private sector. The awards were presented on May 14 at the FLC national meeting in San Antonio.

Vincent Hock and Susan Drozdz were recognized for their research on a commercial product, Blastox, which removes lead-based paint by abrasive blasting. The results are a stable, non-hazardous waste that greatly lowers the cost of disposal. Blastox was proven safe for removing lead-based paint at military installations, and for public and private use.

Richard Lampo received the award for research on recycled plastic lumber which is made from waste plastic. Lampo led a team that improved the production process for plastic lumber and also developed industry standards that will help this material gain acceptance by the U.S. construction industry.

Veterinary clinic

Military working dogs helped cut the ribbon to the new Veterinary Clinic in Wuerzburg during a recent opening ceremony. Europe District began interior renovations last October to prepare for the clinic's



A ribbon "biting" ceremony opens the new Veterinary Clinic. (Photo courtesy of Europe District)

move from the basement of the Wuerzburg Army Hospital to Building 26 at Leighton Barracks.

"We completely redesigned and renovated the interior of the building, which previously housed offices for Army Community Service," said Tim Hall, Europe District's project manager and project engineer.

The new facility offers three separate waiting rooms, four separate kennels, four screening rooms, a surgery prep room, a lab, an X-Ray room, and a pharmacy. Up-

grades to the heating, water, and electricity were also completed.

"This is a dramatic improvement from what we're used to," said Maj. Dan Holland, deputy commander of the 72nd Medical Detachment. "We were in a really old facility before, and space was limited. This new facility is much more efficient. It's really going to improve ease, safety, and patient flow. We've also added a diagnostic room with EKG and ultrasound."

"The waiting room is a lot larger," said veterinarian Jim McLaughlan. "There are three exam rooms and we now have X-Ray and developing capabilities. A prep-room and separate surgery room has been added and we're able to put larger dog kennels in the clinic. We were working with five people in one tiny office, so the additional office space is a big improvement."

Flood damages prevented

Flood damages of more than \$115 million were prevented in March and April by New England District dams and local protection projects.

On March 9-10, four to six inches of rain fell on southern New England. River levels rose above flood stage in the Thames and Blackstone river basins in south central Massachusetts, eastern Connecticut and Rhode Island, as well as along tributary rivers in the Connecticut and Merrimack river basins. More than \$50 million in damages were prevented, including \$14.6 million in Connecticut, \$26.2 million in Massachusetts and \$9.7 million in Rhode Island.

During late March and early April, warm temperatures caused the snowpack in northern New England to melt rapidly. As a result, the mainstem of the Connecticut River from Vermont through Connecticut rose to just above flood stage. In addition, the mainstem of the Merrimack River north of Concord, N.H., also rose significantly.

Damages prevented during this snowmelt event totaled \$65.2 million, including \$44.8 million in Connecticut, and \$20 million in Massachusetts. Lesser amounts of \$48,400 were prevented in New Hampshire and \$316,000 in Vermont.

Correction

The Contractor of the Year is not Durocher Dock and Dredge, Inc., as reported in the June issue of *Engineer Update*. The Contractor of the Year has not yet been selected.

Volpe award

The Society of Military Engineers (SAME) awarded New England District's Joe Bocchino the Volpe Award on April 28. Bocchino received the honor for his contributions to the Boston Post of SAME.

Bocchino's contributions include being a long-time member of the Spring Committee, writing many articles for the post's publications, an active organizer of the post's golf outings, co-chair of the 1996 New England Regional Conference, organized the post's historical archives, and he is currently editing and producing the post's monthly newsletter.

"It is not unusual, whenever a volunteer is requested, for Joe Bocchino to be the first man with his hand raised," said Volpe. "Yet he finds time for civic service such as heading the Blackstone, Massachusetts, Solid Waste Committee, pursuing his law degree, and still has enough energy to be an active father to his daughter and twin sons."

Times Square

The Times Square Recruiting Booth, is about to undergo a complete transformation. The booth has been around since World War II and will be completely demolished, then rebuilt with many features including an exterior high-tech design with an American flag of neon lights and a video display screen.

Construction is scheduled to begin in late August or early September, with scheduled completion by the New Year. New York District is the design and construction agent, and the project will cost about a half-million dollars. The district's Real Estate Division will relocate the recruiters to temporary space for four months during construction.

In the old booth, recruiters worked from four corners of the 35-by-18-foot booth, shared common areas, and used 1950s furniture which made the space seem even smaller.

In the new booth, recruiters will have individual sections and new systems furniture. It will have air conditioning, electrical outlets for computers and fax machines, and restroom facilities.



Black soldiers served only in segregated units until President Truman signed Executive Order 9981 on July 26, 1948, which began the process of desegregation. (Photos courtesy of Office of History)

Fifty Years Ago

Truman order began Army integration

By Dr. Paul Walker
Office of History

Fifty years ago desegregation in the Army became policy when President Harry S. Truman signed Executive Order 9981 stating that "there shall be equality of treatment and opportunity for all persons in the armed forces without regard to race, color, religion, or national origin." The order, signed July 26, 1948, also established an advisory committee to examine the rules, practices, and procedures of the armed services and recommend ways to make desegregation a reality.

During World War II, the Army had become the nation's largest minority employer, yet existing policy supported segregated units, training, and facilities. From within the Army, most calls for change set efficiency and improved performance, not desegregation, as goals. But civil rights activists argued that segregation actually caused many problems which could only be corrected by ending the policy.

In the fall of 1945, the Gillem Board, composed of three general officers, examined racial problems in the Army. Maj. Gen. Lewis A. Pick, later Chief of Engineers, was selected for the board because of his wartime success commanding both black and white troops on the Ledo Road in the China-Burma-India theater.

In its final report, published the following April, the board adopted integration as a long-term goal and recommended that qualified Negroes be included in special and overhead units and that black officers be assigned the same tasks as white officers. The board's recommendation that the accepted ratio of black to white troops be the same as the ratio in the civilian sector (Army policy during the war), unfortunately was widely seen as a restrictive quota rather than a minimum baseline.

Kenneth C. Royall, Secretary of the Army, interpreted the board's recommendations as taking a separate but equal approach to military units, an approach he believed was not discriminatory. And like many soldiers and civilians, Royall believed that the Army should not engage in social experimentation but follow the lead of the nation.

Whatever the interpretation of the Gillem Report, segregation in the Army was not ended. Further action was required to bring about sub-



Maj. Gen. Lewis Pick, later the 44th Chief of Engineers, was part of the Gillem Board which examined racial problems in the Army. (Photo courtesy of the Office of History)

stantive change.

By the summer of 1948, several factors came together to force a new racial policy. Chief among these were the significant number of blacks in the armed forces, the growing strength of the civil rights movement, the politics of a presidential campaign, and the unlikelihood that Congress would take any action. By early 1946, the number of blacks in the Army had exceeded the wartime high of 9.68 percent of those enlisted. That figure was expected to reach 15 percent or more the following year. With such numbers, many argued, maintaining separate forces would make less and less economic sense.

In the spring of 1948, President Truman sought congressional approval of a new draft law and universal military training. After the draft law was enacted in June, A. Philip Randolph, president of the Brotherhood of Sleeping Car Porters and a powerful

civil rights leader, argued that the proposed legislation was severely handicapped because it did not outlaw segregation. If discrimination was not addressed, Randolph threatened a march on Washington and resistance to the draft.

Meanwhile, at the Democratic Party convention a strong civil rights plank called for an end to discrimination in the armed forces. The pressure was on, and Truman responded with Executive Order 9981.

Randolph immediately called off the march on Washington and resistance to the draft. But because the order did not include the word "integration," he obtained assurances from President Truman that he did indeed intend to end segregation.

Through a series of hearings and recommendations, the Committee on Equality of Treatment and Opportunity in the Armed Services (known as the Fahy Committee after its chairman, Charles Fahy) eventually got the Army to agree to abolish the quota, open all unit specialties and training to qualified Afro-Americans, and assign blacks to any unit based on individual ability or Army need. Many leaders continued to support separate but equal units.

Integration that civil rights activists and special committees were slowly accomplishing against persistent resistance speedily became reality after the outbreak of the Korean War in June 1950. In just five months, the Army's size doubled. Without a quota, black strength grew disproportionately while casualties severely reduced white units. In the heat of battle, the Eighth Army began assigning individual black soldiers to previously all white units, even before receiving official guidance from Washington.

By mid-1951, more than 18 percent of the blacks were serving in integrated or partially integrated units. The change to integrated units was permanent, if limited. And most important, the integrated units were successful. Segregation officially ended in 1954 when the last all-black unit was disbanded.

[Dr. Paul Walker is the Chief Historian of the U.S. Army Corps of Engineers.

Sources for this article were "Integration of the Armed Forces, 1940-1965" (1981) by Morris J. MacGregor Jr. and an unpublished paper, "Racial Integration of the U.S. Army," by Dr. Lewis B. McCammon (March 1998).]