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USACE response to Gulf coast oil spill

By Jennifer Marc
New Orleans District

As far as superlatives go, the Deepwater Horizon incident might take the cake. From being named the "worst manmade crisis in history" to the "oil industry's largest accident," the oil spill plaguing the Gulf coast seems to have earned every title in the book.

But while spectators are trying to decide if this tragedy is worse than Exxon-Valdez or bigger than Hurricane Katrina, employees of the U.S. Army Corps of Engineers (USACE) have not listened to labels and instead focused on facts. The only word they care about is "best." Since the beginning, they have dedicated their best efforts to the oil spill, and they show no signs of stopping.

Before the words

On April 20, the world watched as a British Petroleum (BP) drilling rig exploded 40 miles south of Louisiana. The accident, which left 11 dead and 17 injured, at first seemed to be merely that – an accident. Because the gravity of the situation was not immediately realized, the story briefly faded into the national background. But two days later, when the rig sank, alarm grew. The leak, almost a mile below the ocean's surface, was simply too deep for a quick fix.

The estimated 53,000 barrels of crude oil that poured out daily affected a variety of victims. The oily, iconic pelicans became the news media's poster child for the wildlife at risk. A multitude of people also felt the effects, such as the fishermen and tourism proprietors who watched an entire season of business vanish before their eyes.

And there was the coast itself, a victim that had already suffered silently for years.

Faced with unprecedented damage, both public and private institutions pulled together, hastily seeking solutions. While BP supervised work at the wellhead, the Coast Guard led a regional response team of four federal organizations. Non-profit groups researched every aspect of the event, and volunteers

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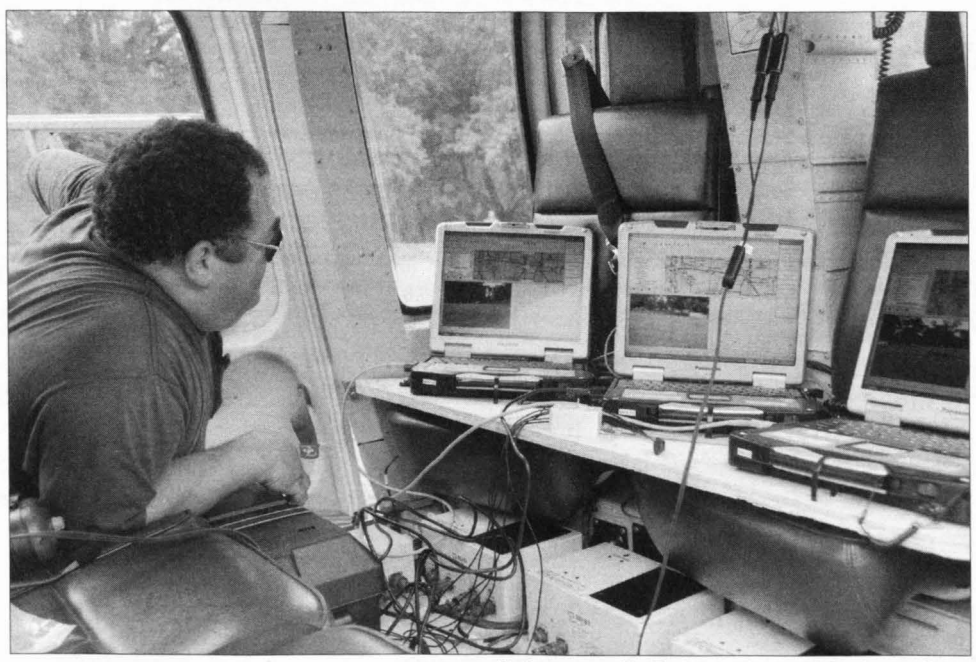

Photo courtesy of the Engineering Research & Development Center

Reggie Fontenot, the pilot from Southern Helicopters Inc., checks out the three Automated Route Reconnaissance Kits installed in the cabin of his helicopter.

Progress made since Katrina

The U.S. Army Corps of Engineers has made great progress in rebuilding the Hurricane and Storm Damage Risk Reduction System (HSDRRS) in New Orleans since hurricanes Katrina and Rita struck the Gulf coast five years ago. What was once a patchwork of levees, dikes and pumps is becoming a true system that is intended to provide 100-year perimeter protection to the greater New Orleans area.

"As we remember all that was lost, we must take stock of the work being done on recovery, while preparing for future disasters," said Barack Obama, president of the United States, in a recent speech. "With every tragedy comes the chance of renewal. It is a quintessentially American notion that adversity can give birth to hope, and that the lessons of the past hold the key to a better future."

In collaboration with Louisiana, levee authorities, local governments, academia, industry, and the public, HSDRRS work continues at a rapid pace, and USACE remains committed to providing 100-year perimeter protection to the greater New Orleans area by June 1, 2011, with other work continuing beyond 2011 to complete other features of the system.

More than 276 contracts have been awarded, and more than $9 billion obligated for the program. Current obligations include more than $2 billion directly to small and disadvantaged businesses, representing close to 30 percent of all contract obligations.

The HSDRRS is now more than one-third complete: 65 of 69 100-year contracts in the Lake Pontchartrain & Vicinity project have been awarded,

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Insights

Disciplined spirit part of 'Good to Great'

By Col. Gary Sexton
Chaplain, U.S. Army Corps of Engineers

This article begins a series on spiritual discipline that I trust will prove edifying for our readers. I have a personal interest in the fundamentals of faith. As a mid-life spiritual pilgrim, I sense a need to return to the basics of the spiritual life.

I find helpful the writings of Kenneth Boa, especially his treatment of spiritual formation in *Conformed to His Image*. And I would add "disciplined spirit" to Jim Collins' treatment of disciplined thought and disciplined action in *Good to Great*.

The framework for spiritual discipline is the balance between dependence and discipline. Boa warns us to avoid these two extremes in spiritual life.

Discipline overemphasizes our role while minimizing God's role. This tendency is recognized by its emphasis on knowledge, rules and rededication efforts, while virtually ignoring the role of God's Spirit.

Dependence is passive in its "let-go-and-let-God" approach that emphasizes experience, the supernatural and the work of God's Spirit, and downplays the human element.

But the walk of faith is *both* human and divine. Paul wrote: "So then, my beloved, just as you have always obeyed, not as in my presence only, but now much more in my absence, work out your salvation with fear and trembling; for it is God who is at work in you, both to will and to work for His good pleasure." (Philippians 2: 12-13)

There is a paradox between God's sovereignty, and human responsibility and free will. Most of life's issues fit within the crossroads of two questions: "What is God's plan for my life?" and "What are the choices and decisions that I will make?" We are destined to experience a dynamic tension between these two soul-searching questions.

Marriage is an example. There is a set of questions in the decision to marry. For example: Is this the person for me? How do I (we) know? What is God's purpose in bringing this person into my life? Will our marriage bring glory to God? Do I have the blessing of both families? How will my (our) marriage contribute to the good of society? What will be our legacy?

Answering these questions entails an acknowledgement that the walk of faith must be undertaken in the power of God's Spirit. It is vital that we develop a conscious dependence upon the Spirit's power. Paul tells us: "If we live by the spirit; let us also walk by the spirit." (Galatians 5:25) Jesus is a prime example; He ministered in total dependence upon the will of his Father.

While dependence is a must, we also grow when we exercise our own discipline and self-control. Spirituality is not instantaneous or accidental; it must be nurtured and refined. Boa writes, "The spiritual life is progressively cultivated in the disciplines of faith; you and I will not wake up one morning to find ourselves suddenly spiritual. This progressive nature of the walk of faith is expressed in the scriptures using the metaphors of an athlete, a Soldier and a farmer. Each one of these images contains the idea of patience, deliberate action, training and practice. They are also forward looking and therefore full of hope."

Thus we have juxtaposed the two facets of dependence and discipline necessary for the walk of faith. I invite you to think about these dual aspects of faith with a view to finding hope and confidence in your own walk of faith. My prayer is that you will discover how a disciplined spirit makes possible disciplined thought and disciplined action.

In future *Insights* articles we will examine various faith disciplines and how they contribute to our spiritual growth.

Essayons! Amen!

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

Katrina

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36 of 39 100-year contracts in the West Bank & Vicinity projects have been awarded, and 12 of 35 contracts have been awarded for Southeast Louisiana work.

"We've made remarkable progress," said Maj. Gen. Michael Walsh, commander of Mississippi Valley Division. "It's a credit to the unwavering dedication and the commitment of our employees, our partners, and – most importantly – the residents along the Gulf Coast who are all working together to help reinforce the risk reduction measures for the Greater New Orleans area."

HSDRRS status

The Inner Harbor Navigation Canal Surge Barrier at Lake Borgne, the Corps' largest design/build civil works project, is 74 percent complete. The 1.8-mile surge barrier wall is virtually complete while work continues on the three gated structures. This effort will work in tandem with the Seabrook Floodgate Complex, which will begin construction soon.

Work started this year on the West Closure Complex, a $1 billion-plus operation that includes a 225-foot floodgate, levees, floodwalls, and the world's largest drainage pump station. This huge project is already 38 percent complete, and building continues around the clock.

Photo courtesy of New Orleans District

The Inner Harbor Navigation Canal Surge Barrier is the largest design-build civil works project in USACE history.

Other major work includes:

- Building surge protection barriers for the Harvey and Algiers Canals.
- Adding scour protection, and replacing deficient I-walls with stronger T-walls.
- Repairing existing pump stations, storm-proofing pump stations, and improving interior drainage.
- Restoring and completing components of the Lake Pontchartrain & Vicinity and West Bank & Vicinity projects.

Public involvement

The Corps has hosted more than 300 public meetings in the greater New Orleans area to listen to stakeholders and to obtain local input to the HSDRRS.

"The most important aspects of this project are the people -- the residents, communities and business who are depending on us to get the job done," Walsh said. "They serve a vital role in the decisions we make each step of the way, and we're thankful for the cooperation they've given us throughout this entire process. That's why we're so proud that we have helped provide Greater New Orleans the best perimeter defense against hurricane storm surge in its history, and the building continues."

For more information about USACE's efforts, visit www.mvn.usace.army.mil

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Boy Scout Jamboree draws 45,000

By Candice Walters
Headquarters

When it comes to the environment, whether it is a haven for threatened or endangered species, a recreation area with water sports or a park littered with unexploded ordnance that needs to be cleaned up, the U.S. Army Corps of Engineers is responsible for taking care of it.

That's just one of the messages that USACE personnel shared with more than 45,000 Boy Scouts and as many as 270,000 visitors for nine days at the end of July and beginning of August at the National Scout Jamboree at Fort A.P. Hill, Va.

The Jamboree commemorated the 100th anniversary of the Boy Scouts of America, and the theme was *"Celebrating the Adventure, Continuing the Journey."* The Jamboree provided the perfect backdrop for USACE to showcase its breadth and range of its activities and missions, from protecting the environment to teaching water safety and how to stay safe from munitions by learning and using the 3Rs: **R**ecognize, **R**etreat, **R**eport.

"It was great to visit and thank the many dedicated volunteers from USACE and see the variety of educational activities they perform at the Boy Scout Jamboree," said Brig. Gen. Peter DeLuca, commander of North Atlantic Division. "What a great way to influence and reach out to more than 40,000 Scouts who will be future community, corporate and national leaders.

"The Corps of Engineers should certainly continue to take advantage of this opportunity to communicate with emerging young leaders and really should consider expanding our participation," DeLuca added. "There are many areas we could add and we could do so in partnership with the many organizations that partner with us daily in our many roles."

Photo by Scott Sunderland, Philadelphia District

Boy Scouts look at a mock Boy Scout campground checking out partially hidden dummy munitions as part of learning the 3R's of unexploded ordnance safety -- Recognize, Retreat, Report -- as part of the Corps' Explosives Safety activity during the National Scout Jamboree at Fort A.P. Hill.

DeLuca was just one of several dignitaries who visited the Corps' hands-on activities at the Jamboree on July 30. Also visiting were Michael Ensch, chief of the USACE Operations and Regulatory Community of Practice; James Balocki, chief of the USACE Environmental Community of Practice; and Addison (Tad) Davis IV, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health).

The USACE Conservation Trail exhibit emphasized the Corps' environmental mission, and expanded upon the "green" nature of the Corps, especially in navigation, hydropower and natural resources management. The trail encouraged Scouts to get outside and take advantage of the recreation and educational opportunities available at more than 400 USACE lake and river projects nationwide.

Park rangers at the exhibit led discussions about natural resources decisions involving invasive species and threatened and endangered species and their impact on other USACE missions. They also addressed the competing demands of shoreline management -- balancing private demands with public expectations about the project, using the Missouri River Recovery Program as an example of how to successfully balance those demands.

The rangers' message at the Conservation Trail was consistent with other federal exhibitors in the area, such as the National Park Service, the U.S. Geological Survey, the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Bureau of Land Management, the Bureau of Reclamation and the Natural Resources Conservation Service.

The USACE water safety team was a first-time exhibitor in the Sea Scouts area of the National Exhibits

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District builds Native American schools

By Elizabeth Lockyear and Dave Harris
Albuquerque District

Albuquerque District is celebrating the completion of its largest school project in cooperation with the Bureau of Indian Affairs (BIA). The $70 million high school and dormitory for 800 students at Fort Wingate, N.M. was dedicated Aug. 23. The contract was awarded in Feb. 2008, and completed on schedule 23 months later.

Another $41 million school at Crownpoint, N.M., on Navajo land is complete. It will accommodate 500 students from kindergarten to eighth grade.

In all, Albuquerque District has been involved in building eight schools, six student dormitories and numerous smaller projects including fire protection upgrades, studies, surveys and designs. The total value of these projects is more than $300 million.

"We were asked to help BIA with these schools because they had a heavy program," said Blaine Kemsley, the district's Interagency Support Section supervisor and program manager. "The Corps is known for execution, particularly in vertical construction, so it was a good fit."

The U.S. Army Corps of Engineers has an important role because "we have the capacity to design and oversee contracting and execution of construction for these large school projects," said Tom Plummer, program manager for BIA projects in the district.

Plummer said that, while each school is built on a specific tribe's land, any student enrolled in a federally-recognized tribe can attend these schools.

Because the schools are on tribal land, they aren't like public schools elsewhere in the U.S. Schools on reservations fall under the Department of the Interior's Bureau of Indian Education and not under the U.S. Department of Education as public schools on non-reservation lands do.

Western Resident Office resident engineer Frank Parker said that USACE and the BIA always strive to incorporate as many sustainable design features as possible into the projects. The goal is to achieve the U.S. Green Building Council's Leadership in Energy and Environmental Design certification for environmentally responsible design and construction.

The facilities incorporate a wealth of sustainable design strategies including use of daylight, energy efficiency, low-water use, acoustic performance and overall indoor environmental quality.

Photo by Ronna Schelby, Albuquerque District.

The hallways in Fort Wingate High School converge in a kiva-shaped rotunda. The four directions are written in Navajo above the hallways.

Although the BIA takes the lead on most issues up front, any work on behalf of tribes requires that design and construction teams follow the Corps' tribal policy principles. These principles require parties at all levels to recognize tribal sovereignty, government-to-government relationships, involve tribes in pre-decision consultation, fulfill federal trust responsibilities, and support self-reliance and economic-capacity building, according to Ron Kneebone, Albuquerque District's tribal liaison.

"The tribes own the land," Kneebone said. "Instead of telling them what we're going to do, we ask them for their vision for the finished project."

"Tribes build on their history and think of the future as a continuation of the past," Kemsley said. "One's dealings with the tribe in the past, depending on whether one's actions were wrong or right, can be devastating to the relationship, or held to one's honor. There are many layers of culture that need consideration."

Kemsley told of one cultural awareness breach when he held a review conference meeting with tribal members. Fifteen minutes into the meeting a tribal woman asked, "What about the prayer?" So Kemsley suspended the agenda for a few minutes and the woman led the audience in prayer.

"The work is challenging and rewarding, working on projects that contribute to the education of children," Kemsley said. "There is always something new and different."

USACE scientists respond to oil spill

During the Deepwater Horizon oil spill, throngs of U.S. Army Corps of Engineers employees worked hard behind their desks. But there were a handful who made it out to the field. Most were locals, such as Jacksonville project manager Ivan Fannin, who was on a sentry vessel examining sea life caught in nets towed behind the boat. Others, such as Pittsburg District physical scientist Jennifer Crock, travelled more than a thousand miles to help.

'We can help.' -- When Crock got the opportunity to travel to the Gulf to take part in a team evaluation of the oil spill crisis, and participate in formulating clean-up methods, she immediately made travel arrangements.

"With our expertise, we can help," she said.

Crock and a team of 45 USACE employees from 12 districts spent a week in June determining which USACE techniques would be the most useful to the cleanup.

"It was an intense experience," Crock said. "As soon as I arrived I received my itinerary, which was broken down into 15-minute increments. Each night I had homework, and every day my team had to prepare a briefing of possible clean-up techniques."

Three different teams were organized, each with a different focus. The mission team focused on how the USACE mission can be incorporated with clean-up methods. The remediation team evaluated methods to clean up the spill and how realistic they were in terms of time and budget. The restoration team formulated plans to restore the ecology to its previous state, or better.

Photo courtesy of Pittsburgh District

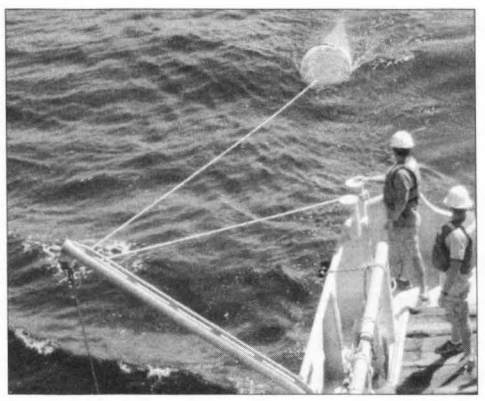

Photo courtesy of Ivan Fannin

(Left) Jennifer Crock traveled from Pittsburgh District to the Gulf coast to take part in a team evaluation of the oil spill crisis. (Right) The crew of the sentry vessel *Ocean Star* uses a neuston net to collect samples of marine organisms from the Gulf of Mexico. The samples were analyzed for traces of oil.

Crock was on the remediation team. She and her USACE colleagues determined there were four methods of clean up: mechanical, biological, chemical and hydraulic. "We were told to think outside the box and to be bold and aggressive with our ideas," Crock said.

Mechanical methods include dredging and skimming; biological methods include using oysters to filter the oil out of the water; chemical methods would add chemicals to the water to congeal the oil; and hydraulic methods would use the tides to aid the clean-up.

The three main teams formulated fact sheets of their findings, and used them to compile a comprehensive report about 30 pages long that went to Headquarters for review.

Along with formulating clean-up plans, Crock and her teammates had to estimate a budget for the various methods, and how long each clean-up technique would take to be effective. Furthermore, they had to be prepared for complications that could arise due to the hurricane season.

"From an environmental standpoint, the oil spill is the worst U.S. disaster," Crock said. "It's awful to see what happened in the communities there, but it was one of the coolest experiences to have an impact on cleaning this up."

'Like being in a tin can.' – Fannin's role actually took him into the Gulf of Mexico.

BP hired National Response Corporation to deploy a sentry vessel to provide real-time ocean monitoring – an early warning of when, where and how much oil or tar might appear on Florida shores. The two-day or longer lead time informed the Unified Command about the resources they would need to respond effectively, and the appropriate scale and location.

Fannin was the only government scientist on board the first sentry vessel, the *Ocean Star*. "This was a groundbreaking effort," Fannin said. "Nothing like this has ever been done."

Fannin said conditions were challenging. Being on board the 73-foot aluminum-hulled boat was "like being in a tin can." The *Ocean Star* was stationed 105 nautical miles west of Dry Tortuga in seas 12,000 feet deep with seven to nine foot swells.

The turbulent seas tossed Fannin out of his bunk. "In about four days, I only had seven or eight hours of sleep. It really wears on you. This is *not* the time to find that you get seasick!"

Fannin's role was to examine sea life caught in neuston nets towed by the vessel. (Neuston refers to the tiny organisms that inhabit the surface of water, such as plankton. A neuston net is a fine-meshed conical net pulled along the surface to gather these organisms.)

Aerial reconnaissance identified possible anomalies in the Gulf of Mexico, and the crew moved the *Ocean Star* to those areas. Twice daily reports were relayed back to an operations center, and if oil sheen, odor or other oil byproduct was detected, another team deployed by helicopter to meet the vessel and examine the findings.

"We never saw any evidence of oil products in the sea grasses, and every sample of marine life that we collected in the nets was alive," Fannin said.

The *Ocean Star* returned to port after eight days due to the weather and rough seas.

(Jasmine Chopra, Nancy Sticht and Gabriel Gonzalez of Jacksonville District, Jennifer Marc of New Orleans District, and Rachel Fay Haring of Pittsburgh District contributed to this article.)

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flocked south in droves.

In the midst of this frantic response, some experts worked feverishly to stop the flow of oil and others conceived ways to best collect what had surfaced. From installing booms to building sand berms, a variety of containment measures were suggested.

But regardless of their ingenuity, before these ideas could move from planning to production, they first had to get the green light. So USACE suddenly became a major player.

Emergency efforts

More than a century ago, the Department of the Army established a regulatory program to protect and maintain navigation on the nation's waters. The Rivers and Harbors Acts of 1890 and 1899 dictates that any individual or organization wanting to alter these waterways (build bridges, dredge channels, modify dams) they must first obtain permission, which comes in the form of a regulatory permit issued by USACE.

Lasting anywhere from 60 to 120 days, the permitting process is a thorough and judicious procedure. After receiving an application from an interested party, USACE works with the necessary local and federal agencies to assess the project's potential impacts and ensure that it adheres to existing legislation. Meanwhile, the public is invited to evaluate and comment on the plan. If the proposal proves not contrary to public interest and does not significantly damage the environment, the applicant is allowed to proceed.

But the Deepwater Horizon incident was not a standard event, and the standard permitting procedure would not suffice. Given the spill's scope and severity, USACE did not have months to review each case. With pressure coming from every angle, the regulatory branch hardly had days. As applications piled up, districts across the coast had no choice but to implement their emergency permitting process.

Although the emergency permitting process compels quick action, science is never sacrificed in the interest of time. While the public comment period is omitted, USACE still confers with other agencies to examine the possible repercussions. In accordance with standard procedure, if the project is publically and environmentally worthwhile, the request is approved. But within 30 days of receiving the go-ahead, the permittee must provide either a restoration plan to repair the impacted site, or a traditional permit request if they wish to maintain the authorized work.

As the situation intensified, proposals were submitted by the minute. Due to its proximity to the spill, New Orleans District received the most requests: 59 as of this writing.

"The biggest challenge we faced was handling the multitude of applications, some of them very complex," said Pete Serio, chief of the Regulatory Branch. Complicating the sheer volume of requests was the speed needed to evaluate each one. "We had to reach a decision in such a short period of time," he said. Of the 45 permits that were issued, 80 percent were approved in one to two days, a feat made possible only by USACE employees working into the wee hours.

Though New Orleans District was seemingly in the spotlight, districts around the Gulf worked just as hard. Since the proposals started arriving in May, Jacksonville District issued just as many permits

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USACE leaves legacy for Iraqi engineers

By Vincent Marsh and Mike Scheck
Gulf Region District

On Aug. 31, Barack Obama, the president of the United States, announced the end of combat operations in Iraq. Likewise, the role of the U.S. Army Corps of Engineers has been declining, but USACE is leaving a legacy to the Iraqi people to ensure that reconstruction continues under the supervision of highly-qualified Iraqi engineers.

Col. Dan Anninos, former commander of Gulf Region District (GRD), said engineers are leaving more than just engineering techniques to their Iraqi counterparts. "The reconstruction effort in Iraq was a comprehensive approach that fostered legitimacy, focused on building capacity across many institutions, promoted and set the stage for reconciliation and enforced reasonable standards for construction quality and schedule. During thousands of projects, GRD continually provided Iraqi engineers training, coaching and mentoring on construction, design and job-site safety practices."

On Feb. 17, Secretary Of Defense Robert Gates announced that as of Sept. 1, the name Operation Iraqi Freedom would be replaced by Operation New Dawn. After Aug. 19, about 50,000 US troops will remain in the country in an advisory capacity. They will help to train Iraqi forces in a new mission named Operation New Dawn, which will run until the end of 2011.

In light of these decisions, USACE has reviewed a number of contingencies, and made plans for its own departure.

GRD is the enduring USACE presence in Iraq, having scaled back from a division and three districts during the past year. The district is currently working on options to deal with project completion after the last USACE personnel leave Iraq. One option that USACE has aggressively promoted is hiring and training Iraqi engineers and support personnel.

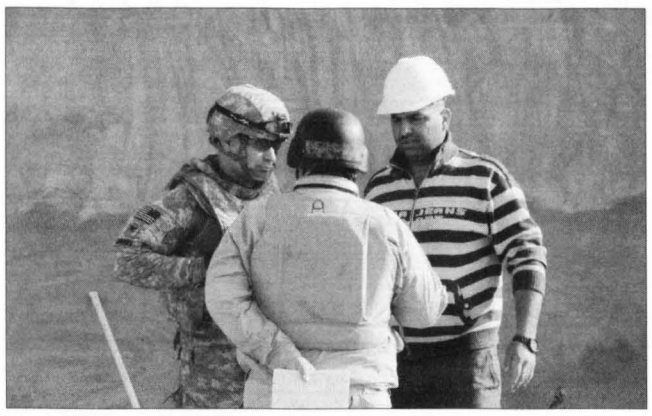

Photo by Ron Elliott, GRD

An Iraqi associate engineer talks with Col. Dan Anninos, former GRD commander, and a contractor at the Al Alil Training Center in Mosul.

The goal of the Iraqi associate hiring initiative is for Iraqi engineers to garner engineering knowledge and pass it on to their counterparts in both the government and the private construction field.

"In our short time left, these efforts will go a long way in setting the conditions for the Iraqis to provide construction and design oversight as they take control of their infrastructure," Anninos said before his departure. "The result of that training and mentoring has been phenomenal in areas ranging from technical knowledge to project management to maintaining and operating facilities."

The USACE mission in Iraq is to rebuild the infrastructure and improve the lives of Iraqi citizens. From the beginning, USACE hired local experts in engineering, safety and quality assurance. Identifying the needs and skill sets for a local workforce were the first steps in a long process. The next step was to develop a local national capability that could enforce the International Building Code (IBC).

The purpose of the Iraqi Associate Program, according to the program management plan, is to "develop the capacity of professional Iraqi engineers to independently perform construction management, engineering and quality assurance functions."

The program will increase the institutional capacity of the Iraqi engineer field, and develop the economy by allowing Iraqi engineers to continue the reconstruction efforts initiated by their U.S. counterparts.

About 90 percent of the USACE projects are in communities far from U.S. military installations. Monitoring these projects requires engineers proficient in Arabic, and in engineering and construction techniques. These skills are in high demand but limited supply in Iraq. To ensure proper construction, USACE embarked on a mission to develop the technical capability of the Iraqi people that would enable them to interpret U.S. federal contracts and build projects to the IBC standard. This was accomplished by awarding a personal services contract that bridged the gap between effective contract oversight and insufficient oversight resources.

The personal services contract enabled USACE to obtain the Arabic-speaking professional engineers needed to execute its mission. This contract currently employs about 233 personnel that provide a broad range of skills including administrative assistants, engineers, real estate specialists, senior media analysts, construction inspectors and photojournalists.. These professionals are embedded with USACE employees to learn the USACE mission, program management business plans, and the proper enforcement of contract terms, conditions, and specifications to build quality projects.

In addition, Iraqi associates interface with the local community, explain the project and relay the community's concerns to USACE. This is establishing the professional workforce that builds quality projects and meets the needs of the Iraqi people.

The $10 million Iraqi Associate Program is funded through the U.S. State Department's Economic Support Fund. The capacity development program also includes an Iraq engineer enhancement program that provides three-to-six-month fellowships to engineers from the various ministries, university faculty and small businesses. The fellowships are with public, academic and private sector engineering environments in the U.S.

To sustain the Iraqi Associate Program, the State Department has provided $45 million from the Economic Support Fund to select Iraqi academic institutions to develop curriculum and training to meet Government of Iraq requirements.

The training program for USACE Iraqi associates includes one month of formal training, an internship, and a qualification transition where candidates convert from an associate-funded position to a project-funded position. Follow-up is provided in continuing education workshops and webinars.

These Iraqi associates provide a vital link in the Corps' construction network, said to Gregory Croon, a project engineer at the district's Southern Area Office. "We have a large team of Iraqi engineers serving side-by-side with USACE employees who have performed extraordinarily for us in all construction aspects. On many occasions, their expertise and abili-

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as New Orleans, and Mobile District issued 24.

Beyond paper

Although officially USACE was only required to review regulatory permits, the efforts of the employees extended far beyond paper, both at home and away *(see "USACE scientists respond to oil spill" on page 4)*. From monitoring wildlife populations to performing advanced computer modeling, the Engineer Research and Development Center helped in a variety of capacities.

Other districts deployed workers to dozens of agencies around the coast to coordinate responses. Not only did teaming with different organizations allow employees to provide technical expertise and information on-site, it also facilitated proactive action.

"We learned a lot," said Terry Wells, Jacksonville project manager, of the time he spent at Tallahassee's emergency operations center. Working closely with the Department of Environmental Protection, Wells reviewed permit requests much sooner than if he were at the district. "As organizations prepared to respond, we shared what we learned with our teams throughout the state."

The three Unified Incident Command Centers in Louisiana, Alabama and Florida were among the most popular spots to send USACE contacts. In addition to assisting with emergency operations, staff members ensured that everyday projects stayed on schedule.

"Our liaison's role was to coordinate and provide input into any actions or issues that could affect our ongoing navigation projects, operations and maintenance of navigation channels, and other ongoing Katrina-related work in Mississippi," said Patrick Robbins, chief of Legislative and Public Affairs in Mobile District.

After more than four months of innovative efforts and hard work, the oil spill in the Gulf is finally subsiding, and while experts predict that the effects of this accident will be felt for years, the news media is already moving on. Soon a new event will arise, and reporters will craft a new set of labels for it, proving that in the end that the labels don't really matter at all. Worst, largest, most disastrous -- they're all just words. As long as the actions of USACE and its employees speak loud than words, that's all that truly counts.

Disaster response PRTs

Debris management teams

By Jennifer Lynch
Headquarters

(This is the third in a series of articles about the Corps' emergency planning and response teams.)

Debris is one of the most visible results of a disaster. The mountains of debris in New Orleans after Hurricane Katrina, or in New York City at Ground Zero, made striking footage night after night on the evening news, and a massive mission day after day for the U.S. Army Corps of Engineers.

Following a natural or man-made disaster, USACE can provide debris management assistance where the damage and debris are so extensive that it exceeds local and state capabilities. This assistance is assigned by the Federal Emergency Management Agency (FEMA) as part of the federal government's National Response Framework.

USACE has seven debris planning and response teams in Baltimore, Fort Worth, Louisville, Mobile, New Orleans, Portland and Sacramento districts that execute domestic debris missions. Debris experts have provided technical assistance around the world, including in Haiti, where USACE experts worked with Naval Facilities Engineering Command to develop a debris management for the Haitian government following the January earthquake.

There are no "typical" debris management missions for USACE, but generally there are three types of debris missions that FEMA can assign:

Direct federal assistance – USACE undertakes the debris management mission, as assigned by FEMA. Direct federal assistance missions may consist of one or more of the following tasks:

- Right of way debris removal
- Emergency clearance
- Private property debris removal
- Demolition
- Debris removal from drainage structures

Photo courtesy of Pittsburgh District

Debris estimator Richard Spencer calculates the cubic yardage of debris left behind after an F3 tornado struck the Masonic Lodge in Mena, Ark., on April 9.

- Waterway debris

Technical assistance – USACE assists local governments in developing debris removal contracts and environmental issues, as well as training and coordinating with FEMA and local government debris monitors.

Federal operations support – USACE provides oversight for FEMA of state and local debris operations.

The 2005 hurricane season became the largest debris mission undertaken by USACE. The Corps managed the removal of 114 million cubic yards of debris in Louisiana, Mississippi, Texas and Alabama -- enough to fill 28 Louisiana Superdomes.

After Hurricane Ike in 2008, USACE supported 546 jurisdictions in 46 Texas counties with debris removal monitoring and technical assistance, and removed 70,000 cubic yards of debris from Cameron and Vermilion parishes in Louisiana.

In addition, USACE is constantly refining and improving its disaster response, and the agency recently pre-awarded debris contracts in six different regions that can be quickly mobilized after a disaster. This advanced contract initiative will provide depth to the Corps' ability to respond quickly and effectively during a crisis to the debris mission.

Iraq

Continued from previous page

ties played a pivotal role in the successful completion of projects throughout our area."

Maj. Joseph Geary, officer in charge of the Al Anbar Resident Office, says they currently employ 20 Iraqi engineers, with three working as project engineers. "All three project engineers are capable of handling projects independently with little to no U.S. engineer supervision."

Training, according to Geary, is primarily on-the-job working side-by-side with a project engineer. "As they learn our system, we slowly move them up in responsibility."

Other Iraqi associates in the Al Anbar office work as quality assurance (QA) representatives in the field. "They prepare daily reports, monitor safety, review design drawings and ensure that quality is maintained at the project site," Geary said. He added that the standout QA reps are often groomed for project engineer positions.

All of the associates attend the safety office training and are constantly reminded of its importance at the job site, Geary added.

"As the project load got smaller, we began to rely more on our Iraqi associates to get to the job sites that are too far or take too long for U.S. personnel to visit," said Maj. Andrew Staiano, officer in charge of the Forat Resident Office. "As we complete projects and scale back our workforce, we have been successful at placing well-qualified Iraqi engineers in other positions due to the demand for their exceptional project management skills."

Staiano believes that USACE projects are in good hands under the management of the Iraqi associates. "We will leave a legacy of improved safety and improved quality assurance methods, and by the sheer volume of our projects, we've developed a pool of qualified contractors and qualified inspectors who have seen what a difference a well-executed quality assurance program can make."

HR Corner

Most Corps people covered by TAPES

With the successful transition back to the General Schedule, most U.S. Army Corps of Engineers employees are now covered under the Total Army Performance Evaluation System (TAPES). The intent of TAPES is to improve performance, and it is designed to:

- Communicate organizational goals and priorities, and Army values and ethics to employees;
- Establish individual performance expectations that reflect organizational goals and priorities;
- Increase communications between employees and their supervisors;
- Provide an environment where all employees understand that they are part of USACE and the Army team, working together to achieve shared goals, and that they are rewarded accordingly.

The USACE campaign plan sets the major goals and objectives for our workforce to build a great organization. All USACE employees should have measureable objective plans in place that document a significant level of importance to and impact on mission accomplishment.

Communication is the key to employees better understanding what is expected and how to achieve the desired outcome. Performance evaluations under TAPES will soon be due. Employees transitioning out of NSPS will be evaluated by a special rating cycle covering from Oct. 1, 2009 to Oct. 31, 2010. Accomplishments during this special cycle will include those achieved in both the NSPS-covered period and the TAPES-covered period, and will be documented at the end of the rating period in TAPES.

For employees who were never under NSPS, the standard rating schedules established in your organization apply. Generally, the ending periods are Sept. 30 for the senior system and Oct. 31 for the base system. For subsequent TAPES rating periods, normal end of rating cycle dates will apply.

Army Regulation 690-400 contains detailed guidance and lists the responsibilities of all parties involved in TAPES. If you have questions regarding the appraisal process this year, please contact your division human resources office, or your local Civilian Personnel Advisory Center.

AROUND THE CORPS

Alaska coast projects

When the Energy and Water Development Appropriations Act of 2010 (Public Law 111-85) became law last October, Alaska District wasted no time continuing four coastal erosion projects.

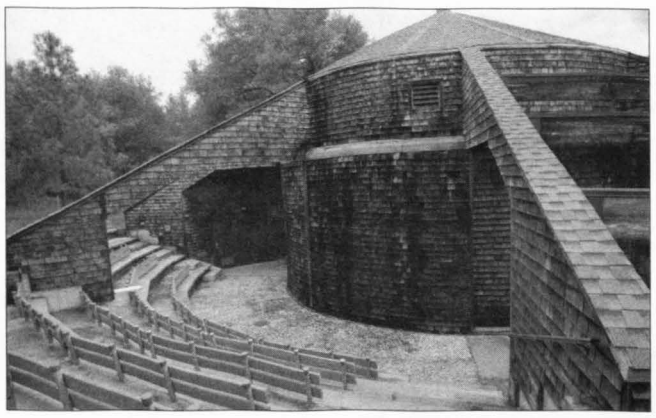
The district continued the Unalakleet shoreline erosion project and the protection of Unalakleet's fish processing plant, one of Alaska's high-priority erosion concerns. Alaska had already appropriated $5 million, and another $1.7 million was available after the start of the new state fiscal year.

Additional projects include protecting the lagoon side of Kivalina at an estimated cost of $15 million, three more phases to protect the waterfront at Shishmaref estimated at $20 million, and 1,500 feet of revetment at Unalakleet estimated at about $10 million. At Newtok, Alaska District designed an evacuation road, and will continue plans for an evacuation center at Metarvik.

Pomo Tribe Center

San Francisco District awarded a contract to Yerba Buena Engineering & Construction to renovate the exterior of the Pomo Tribe Center at Lake Mendocino. Funding for this $245,650 project was provided by the American Recovery and Reinvestment Act.

Built in the early 1980s, the center is operated by the Coyote Band of Pomos and USACE. Its exhibits feature Pomo dancing, basket making and hunting. It also has an outdoor amphitheatre, modeled after a traditional Pomo roundhouse that is frequently used for performances.



The American Recovery and Reinvestment Act provided funds to renovate the exterior of the Pomo Tribe Center in Lake Mendocino, Calif.

Far East District awards

Far East District recently received several prestigious awards.

The district's safety office accepted the Chief of Engineers Award for Safe Performance for exceptional safety performance during 2009.

Robert Lau, chief of Resource Management, was honored at the 2010 Army Day in Orlando, Fla. He received the Assistant Secretary of the Army (Financial Management and Comptroller) fiscal 2009 Resource Management Award in Resource Management for Outstanding Service below Army Command Level.

Edward Minnerly, chief of the Logistics Management Office, received the USACE Meritorious Logistician of the Year Award for 2009. The award recognizes excellence in logistics services and in managing logistics resources. He received the award for his role supporting more than 400 employees in Korea, and for overseeing multi-billion dollar projects.

Jo-Ellen Darcy, Assistant Secretary of the Army (Civil Works) and local youth examine a model of the confluence of the Mississippi and Ohio rivers.

Great outdoor initiative

More than 320 youth took part in the Rediscover the River youth event Aug. 20 at the National Great Rivers Museum in Alton, Ill. Jo-Ellen Darcy, Assistant Secretary of the Army (Civil Works), and St. Louis District, hosted the event to understand what young people feel officials can do to conserve the environment and help others connect with the outdoors.

Hands-on workshops introduced the youth to canoeing, watchable wildlife, river research, geocaching and more. The event concluded with Darcy and Col. Tom O'Hara, St. Louis District commander, listening to how teens spend their time outdoors, and what they feel can be done to protect the environment.

The youth event was followed by a public listening session at Lewis and Clark Community College in Godfrey, Ill., with Darcy and Secretary of the Interior Ken Salazar. More than 150 Missouri and Illinois residents spoke about their concerns for the environment and the Mississippi River.

For more information about America's Great Outdoors Initiative, visit www.doi.gov/americasgreatoutdoors.

Army environmental award

Alaska District received the Secretary of the Army Award for Environmental Restoration on Aug. 4 in a ceremony at district headquarters. The district's Formerly Used Defense Sites (FUDS) program received the Army's highest honor in environmental science and sustainability for investigation of formerly used military sites on Tanaga and Ogliuga Islands in the Aleutian Islands.

The team searched for environmental contaminants, unexploded ordnance and buried munitions dating back to World War II. Government personnel and the USACE contractor overcame many difficulties. Getting to the uninhabited islands 1,350 miles southwest of Anchorage required airplane, helicopter, barge, charter vessel, and utility vehicle. The team also walked many cross-country miles.

By executing three remedial investigation projects simultaneously, the FUDS team saved more than $5.2 million in mobilization and demobilization costs. The team's extensive planning, innovative real-time field screening, and improvements from combining projects have developed into a program management model for future Aleutian Island projects, which is estimated to save $5-$15 million.

Mitigation & ecosystem banking conference

With the support of USACE, the 14th National Mitigation & Ecosystem Banking Conference is headed to Baltimore in 2011. This remains the only national conference that brings together key regulators, bankers, users and providers of services in the mitigation, conservation and ecosystem banking marketplace.

The conference seeks presentations from experienced regulators, mitigation and conservation bankers, users, engineers, investors, environmental organizations and others who have experience in the mitigation, conservation and ecosystem banking industry.

Submit a summary of your presentation (about 300 words), indicating which topics it best fits in from the list below, along with the presenter's complete contact information to cbahler@comcast.net, or fax to 703-997-8690. Visit www.mitigationbankingconference.com for more information on this important conference, or call (703) 548-5473.

Regulator of the year

Tim Smith of the St. Paul District has received the Don Lawyer Regulator of the Year Award. The award is the highest regulatory recognition in USACE, and honors individuals for superiority in regulatory operations, and his or her contribution to maintaining the integrity of the regulatory program.

Smith received the award for developing the district's first administrative penalty for permit non-compliance, addressing challenging jurisdictional issues and serving as the project manager for one of six national watershed mitigation pilots.

He has also been recognized by the Environmental Protection Agency and the Department of Justice for making St. Paul District's enforcement program one of the strongest in the country.

F-22 Raptor contracts

Honolulu District recently awarded an $8 million contract to Watts Contractors to build a concrete taxiway, aircraft parking area and supporting utilities at Hickam Air Force Base, Hawaii. The project will support the 20 F-22 Raptor fighter planes that will be based at Hickam by December 2011.

Great Wonders of USACE

Vital bridge built in secure area

By Tyler Stalker
Sacramento District

In 2003, security concerns following Sept. 11, 2001, compelled federal officials to close the road atop Folsom Dam, Sacramento's main protection against catastrophic floods. It was a blow to the region. The road was a main throughway between Sacramento, Calif., and its suburbs, passing more than 18,000 commuters across the American River daily. When it closed, alternate routes grew congested, forcing overflow traffic through the narrow streets of the Gold Rush-era old town in Folsom. Calif.

In 2004, Sacramento District answered the call to help. Already at work on improvements to the dam and downstream levee system under the American River Watershed Program, USACE and the U.S. Bureau of Reclamation, which owns and operates Folsom Dam, were well-positioned to respond.

Just five years later, the $139-million Folsom Lake Crossing was complete, in about half the time it takes to complete the typical USACE civil works project. But getting there required an unprecedented collaboration between USACE, Bureau of Reclamation, and state and local agencies.

As the nation's lead agency for developing water resources, USACE does not typically build bridges. "We were originally scheduled to build a temporary bridge," said David McDaniel, American River watershed program manager.

The temporary bridge was intended for construction access while USACE and its partners worked to complete other projects under the America River watershed program. After the road closure, however, congressional representatives and local officials were looking for something more, *and* they would secure the additional funding.

"The local partners wanted a permanent bridge," McDaniel said. "So, we worked with them to place a permanent bridge that would fit all their needs at no extra cost to the federal government."

The challenge wasn't just to take on an uncommon project, but to get it done quickly, too. It would take a total team effort. Enhanced communication, coordination and dedication by the entire project delivery team were vital, as any misstep could slow down the project.

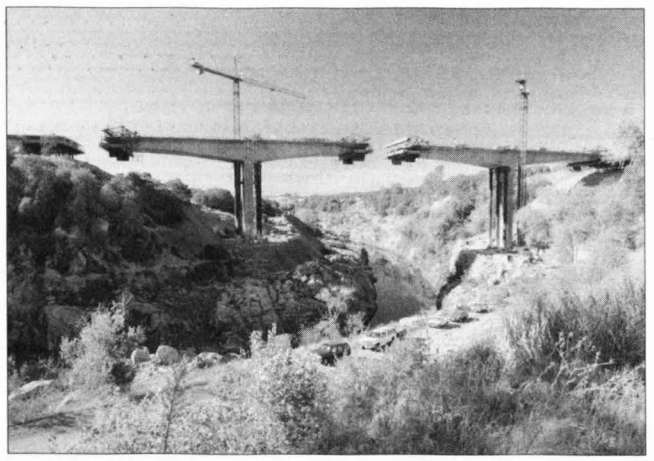


Photo by Michael Nevins, Sacramento District

Using a cast-in-place concrete segmental box girder design allowed the construction team to work on the Folsom Lake Crossing Bridge in four directions at once.

"To get a project of this size done in half the average time of a civil works project, it takes a great amount of collaboration from all involved, and they all have to be willing to push forward to quickly find creative solutions when challenges arise," McDaniel said.

The location of the new bridge presented several challenges. Access to the construction site was constrained because it was hemmed in by the walls of the river canyon, and the bridge spanned between the dam and Folsom Prison, two security-sensitive sites.

"We were building a bridge between two sensitive facilities," McDaniel explained. "Heightened security following 9/11 made it challenging to get the required clearance for anybody who needed access to the site."

Land and right-of-way acquisitions were also serious threats to the schedule. Property had to be acquired from the prison, California Department of Parks and Recreation, the Bureau of Reclamation and private land owners. These processes normally take more than a year, but were done in months to avoid project delays.

Perhaps the biggest challenge, though, was coordination. With the Bureau of Reclamation, Folsom State Prison, California Department of Water Resources, the city of Folsom, the Sacramento Area Flood Control Agency and federal and state environmental agencies all working on different angles of the project, with overlapping and sometimes conflicting timelines, the potential for schedule slips was high.

Then there were the technical obstacles.

The bridge was designed for fast construction. Spanning a high river canyon, it had to be tall -- at least 200 feet. A cast-in-place concrete segmental box girder bridge structure, commonly used for highway bridges throughout California and the U.S., was chosen because it provided a cost-effective solution that was familiar to potential contractors. A symmetrical design allowed construction to proceed in both directions from each pier. Liquid nitrogen was used to lower the temperate of the concrete to allow for concrete pours on hot summer days and in larger segments.

It worked. After two years of continuous construction, and just six years after the closure of the Folsom Dam Road, the new bridge was ready for traffic. In March 2009, a ribbon-cutting ceremony and festival welcomed the new Folsom Lake Crossing to the community. More than 10,000 people attended.

At the ceremony, former U.S. Rep. John Doolittle hailed the bridge as "a vital piece of transportation infrastructure that will serve the needs of the people of this region for generations to come."

Capable of carrying up to 40,000 vehicles daily, plus a paved path for bicyclists, the bridge was built for the future. But for Folsom residents and businesses, how it helps *now* is what counts. Eighteen months later, the never-ending line of cars in Folsom's old town is gone. In place of honking car horns and exhaust fumes, there are chirping birds and the aroma of chocolate.

"We feel fortunate that we were able to hold steady during the road closure," said Jim Snook, owner of Snook's Candies in Folsom's old town. "We're extremely grateful that the bridge was completed so quickly."

Boy Scout Jamboree

Continued from page 3

section. The Scouts seemed most interested in learning more about park rangers and their inflatable life jackets, said Lynda Nutt, manager of the USACE National Operations Center for Water Safety.

Scouts always like to earn patches, and to get one from the water safety team required them to participate in ranger-led activities and learn the four signs of drowning, key rescue techniques and how to properly wear life jackets.

The Explosives Safety exhibit at the Armed Forces Adventure Area was also popular. Scouts and their leaders learned the Army's 3Rs of explosive safety from USACE volunteers from the formerly used defense sites (FUDS) program and their partners, the Army Material Command's Research Development and Engineering Command, the 55th Explosives Ordnance Disposal unit and the DASA (ESOH) office.

The activity conveyed the safety message to an at-risk population because young males, typically those of Scouting ages, are more likely to be injured or killed by actions they take when they encounter munitions.

"It was a tremendous opportunity to tell the Army story to the future leaders of America," Davis said. "It enhanced the awareness of the importance we place on unexploded ordnance safety. When you consider that we talked with more than 14,000 Scouts and leaders who will take the information back and share with 20 other Scouts or 20 other individuals, our investment in the Jamboree was a tremendous benefit to everyone."

On the Boy Scouts of America website following the Jamboree, a Scout from Utah wrote that the "one of the best things to do at camp was exploring the armed forces area." He noted that he had learned about the danger of bombs during his visit to the armed forces area.

A father of a Scout told another FUDS team member that he thought the exhibit was "powerful" and that his son had originally thought he was going to learn "how to blow things up," but instead learned how to stay safe.

During the Jamboree, more than 8,000 contacts were made in the Conservation Trail area, more than 13,000 contacts in the water safety exhibit, and more than 14,750 contacts in the Explosives Safety exhibit. The contacts were international because visitors/Scouts were present from throughout the world, including Great Britain, Canada, the Philippines, Japan, Brazil, Mexico, Saudi Arabia, Egypt, American Samoa, Puerto Rico, Japan and Panama, among others.

The next Jamboree is set for 2013 at Bechtel Summit near Beckley, W.Va.