



US Army Corps
of Engineers
Mississippi Valley Division



Corps Hurricane Response

Task Force Hope Status Report

August 20, 2008

Unique Mission - Innovative Solutions

Redefining "business as usual"

Following Katrina,
the Corps established
new priorities for
conducting business:
Actions For Change

By Susan Spaht

Hurricane Katrina struck New Orleans and the Gulf Coast on August 29, 2005. It was one of the most devastating natural disasters in U.S. history. Katrina presented the nation and, specifically, the U.S. Army Corps of Engineers with a unique mission: one of the largest repair and construction jobs in Corps civil works history with an operational goal to complete the work in only six and a half years.

Katrina's aftermath set off a wave of change, not just for the people living in her wake, but for the whole operational process of the Corps of Engineers. Things will never be the same.

"We made a promise to the people of



Interim pumps and gates at the Orleans Ave. Outfall Canal (above) were authorized and funded through the 4th Emergency Supplemental Appropriations Act, as were the pumps and gates at the 17th Street and London Ave. Canals. This type of funding is outside the normal Corps budgetary process. (USACE Photo)

Louisiana, and we took on an ambitious goal for our partners and ourselves," said Karen Durham-Aguilera, Director of Task Force Hope. "We're striving to build the Hurricane and Storm Damage Risk Reduction System (HSDRRS) to the 100-year level of protection in 2011. We are determined to get that job done; and it will not be business as usual. Those days are gone forever."

Following the devastation of Katrina,

the Chief of Engineers proposed new priorities for the Corps. These **Actions For Change** became the Corps-wide guideposts for modifying the way the Corps conducts business on a daily basis.

Continued on page 2

Also in this issue:

- Letter from MG Riley.....Page 3
- Harvey Floodwall Contract.....Page 8

Continued from page 1

The four **Actions for Change** are:

- 1. Comprehensive Systems Approach**
- 2. Risk-Informed Decision Making**
- 3. Communicating Risk to the Public**
- 4. Professionalism and Technical Expertise**

These **Actions For Change** represent how the Corps of Engineers has redefined “business as usual”.

The New Orleans team’s concerted efforts involved partnering with expert sources, developing and applying innovative methods, conducting research on new techniques and products, and using lessons learned for the purpose of delivering a quality infrastructure for the HSDRRS.

It’s been almost three years since Katrina, and the Corps of Engineers and its partners are driven to complete the System within the operational timeframe. *Determination* has been the team’s driving force, and *innovation* its overriding theme.

**Here are some examples
of a dedicated and
focused team
responding to a unique
and vital mission.**

Funding the HSDRRS

Constructing the HSDRRS presented the Corps with an especially challenging task, the size of which no other Corps organization has ever faced. And this mission understanda-



Alternative Arrangements have allowed the Corps to expedite the NEPA process while still remaining completely in compliance with all laws and regulations.
(USACE Photo)

bly has a huge cost: \$14.6 billion (including the sponsor’s cost share of \$1.8 billion).

The usual procedure for funding federal civil works projects is on a project-by-project basis. This process, including the cost-share sponsor’s participation, normally requires years to complete, especially for large construction projects.

However, in this case, the needed funds came to the HSDRRS as addendums to the numerous Emergency Supplemental Appropriations for Natural Disaster Response and the War on Terror.

Beginning immediately after Hurricanes Katrina and Rita with Emergency Supplemental #2, and continuing through to the recent Supplemental #6, Congress authorized and funded the Corps to repair, restore and strengthen storm-damaged federal projects and complete the system in 2011.

NEPA Alternative Arrangements

Since 1970 all federal projects have been required to meet National Environmental Protection Act (NEPA) compliance requirements. The NEPA compliance process for a single project, which involves environmental studies, can often take five to ten years. Because the HSDRRS involves hundreds of construction projects, coordination of the environmental impacts into traditional Environmental Impact Statements presented a daunting task.

The Corps, in an effort to achieve this unprecedented mission, sought a way to expedite the NEPA process while still remaining completely in compliance with all environmental laws and regulations.

The Corps’ environmental team - with concurrence from the White House’s Council on Environmental Quality, the Department of the Army, federal and state resource agencies,

Continued on page 4

Corps responsible for 2,000 levees across the country

Many of our country's levees are locally-owned or privately-owned, as are most of the levees in Iowa.

The Corps of Engineers serves as one of the nation's largest infrastructure stewards with oversight authority for approximately 2,000 levees across the country. There exists a perception that the Corps has universal responsibility for all our nation's levees when, in fact, there is no single agency with levee oversight nationwide. Thousands of miles of levees are

owned and controlled by local governments and private landowners, while certification of levees for FEMA's National Flood Insurance Program is the responsibility of the local levee owner or sponsor.

Regardless of levee ownership, the Corps works closely with state and local managers to inspect, advise and assist communities

with professional engineering expertise and material during flood fights.

Below is an open letter from Maj. Gen. Don T. Riley, Deputy Commanding General and Deputy Chief of Engineers, U.S. Army Corps of Engineers, who reflects on the flood fighting efforts in the Midwest and the Corps' levee responsibilities.



As you know, we are in the middle of several major flood fights in the Midwest and the Corps is bringing its special expertise, professionalism and compassion to assist our fellow citizens throughout the entire Mississippi River Valley. Our thoughts and prayers go out to the people who have suffered both loss of life and property in the valley.



MG Riley

Our planning and response teams are supporting FEMA in these stricken areas with debris removal, provision of emergency drinking water, commodities, temporary housing and emergency power teams. More missions are being assigned as needs are identified and we expect to be engaged for some time.

We have more than 12,000 miles of levees in the federal inventory, but there are many, many thousands more in local and private ownership – of unknown quantity and condition.

Many of these non-federal levees were originally constructed to protect agricultural assets, but subsequent unrestricted community and business development has significantly changed the risk and consequences in "protected" areas.

The majority of the levees above St. Louis are not in the federal program, but when people see Corps personnel flood fighting side-by-side with local, state and federal responders, they draw the conclusion that these are Corps levees.

In Cedar Rapids, for example, the flood of record was set in 1851 at a crest of 20 ft. A couple of weeks ago, the Cedar River crested there at 31 ft., 11 ft. above the record. This overtopped two private levees and led to extensive property damage. There have been 35 total levees overtopped – seven federally-authorized, 24 non-federal, and four private. Early indications are that all of the federal levees that were overtopped far exceeded their design conditions and provided adequate time for public evacuation.

In many peoples' eyes, the Corps

has become the face of levees for this event and we are thus challenged to ensure that the public and media understand our limited authorities and roles with regard to levees. We are working diligently to provide simple and accurate information to all media outlets and community leaders.

Lastly, we are emphasizing the risks associated with living and working behind levees and the shared responsibility among federal, state, local agencies and private landowners; and we are working with all these parties to educate them on how they can participate in reducing their total flood risk, of which levees may or may not be a component. Zoning laws, building codes, insurance and evacuation plans are other important elements of prudent flood risk management.

We have magnificent and selfless public servants working very long hours to assist with the Midwest flood fights; the Chief of Engineers and I are enormously proud of them.

Respectfully,

Don Riley



The Company Canal “barge gate” acts as an interim measure to reduce surge into the canal during storms. (USACE Photo)

still under study to determine how to provide it with 100-year protection.

While the final solutions are being considered, an **interim measure** to impede storm surges has been provided for Company Canal. A “barge gate,” a floating structure, has been moored at the mouth of the canal. In the event of a storm surge, the barge gate will be placed over the entrance to the canal, like a gate. It will then be filled with water and sunk at the canal entrance to block surging water from entering the canal.

When the storm passes, water will be pumped out of the barge gate and it will be floated back into its moored position. As an interim measure, this apparatus will reduce risk to the area until the 100-year protection solution is determined and constructed.

During Hurricane Katrina, storm surge pushed water from Lake Pontchartrain into the three outfall canals at 17th Street, Orleans Avenue and London Avenue, ultimately causing three breaches.

Immediately following the hurricane, Congress funded measures to repair and protect the outfall canals until a permanent solution could be decided. The Corps installed interim gates and closure structures at all three outfall canals by the start of the following (2006) hurricane season, and continued to increase pumping capacity into the season.

Risk & Reliability Maps

New Orleans is the first city in the nation to have Risk & Reliability Maps that provide a comprehensive system assessment of the area’s flooding risk. The Risk Maps are part

Continued from page 2

and Corps stakeholders – are achieving compliance in part with a unique method called “Alternative Arrangements.”

Through Alternative Arrangements, proposed construction projects are identified and evaluated by basins within the system. These Alternative NEPA Arrangements allow for a system-wide environmental study to be completed, while still moving segments ahead to construction at a pace fitting the emergency nature of the work at hand.

The Alternative Arrangements process, a vital tool enabling the Corps to complete the HSDRRS in an expedited fashion, supports the 2011 goal.

Design-Build/Advance Measures

The Inner Harbor Navigation Canal (IHNC) surge reduction barrier is the largest design-build civil works project in Corps history. After completion of the NEPA process, construc-

tion on the 1.4 mile barrier, located at the confluence of the Gulf Intra-coastal Waterway and the Mississippi River Gulf Outlet, is expected to begin in the fall with completion planned in 2011.

Given the area’s vulnerability to flooding from storms, and the schedule for completion of a permanent solution, consideration was given to providing some degree of surge protection to the IHNC area before the project is complete. The Corps, using its professional and technical expertise and that of its contractor, Shaw Environmental & Infrastructure LLC, is including **Advance Measures**, which requires the contractor to provide a certain level of risk reduction in 2009. This innovation supports the Corps’ charge to reduce risk continuously as it works toward delivering a completed system in 2011.

Interim Measures

Located at the northern end of Bayou Segnette in the West Bank and Vicinity area, Company Canal is

Continued on page 5



A backhoe places borrow (levee material) from a local pit into a truck for transport to a levee. The Corps will need 100+ million cubic yards of borrow to build the levees to the 100-year level of protection.
(USACE Photo)

Continued from page 4

of the Corps' goal of communicating risk and assisting the public with risk-informed decision making.

The Risk Maps were a product of the Interagency Performance Evaluation Task Force, a team made up of more than 150 U.S. and foreign engineers and scientists.



The Corps is experimenting with different types of matting materials to be used as armoring for levees. The material should be porous enough to allow grass to grow through it, like the articulated concrete blocks in the levee above.
(USACE Photo)

Borrow

Never before in the history of the Corps has so much levee material (borrow) been required to complete a project or, in this case, a system. The Corps and its partners need 100+ million cubic yards of borrow to complete the HSDRRS.

The Corps is collaborating with industry, private landowners and local governments in its effort to obtain the necessary borrow.

Prior to Katrina, borrow material was usually obtained close to the levee where it was needed. Because of the tremendous present need, three options for borrow were established to

obtain material. In addition to government-furnished, there are contractor site and supply contract site options.

The Corps is exploring potential sites and possibilities, not only in the five parishes that include the HSDRRS, but nationwide. This has never been done before for any Corps project in the United States.

Armoring

Overtopping of surge waters from Hurricane Katrina caused scouring of many levees in the system. Armoring adds resiliency to a levee and can reduce erosion and scouring by protecting levee backslopes against wave overtopping.

Since Katrina, the Corps has undertaken a concerted effort to improve standard armoring methods and to develop new uses for traditional erosion control materials and new techniques for armoring levees. Again, the Corps called upon its extensive knowledge and technical expertise, as well as that of private industry and academia, to find the best armoring methods for the HSDRRS.

The universe of armoring materials being evaluated by the Corps and academia for use in the system includes grass, geotextile materials, and more substantial means like stone and paving materials.

The Corps will build a full-scale levee-testing facility at the Corps' Engineer Research and Development Center in Vicksburg, Miss. to test new levee armoring materials and techniques in realistic conditions. This physical model will serve to improve the knowledge and un-

Continued on page 6

Continued from page 5

understanding of how to better protect levees from scour and erosion during storm events.

Hiring Innovations/Direct Hire Authority

Given the amount of work to be accomplished on the HSDRRS in the next three years, the Corps had to find ways to bring enough expertise on board quickly to accomplish its vital mission.

One strategy was to request Direct Hire Authority (DHA) for the mid-level engineer career field from the federal Office of Personnel Management (OPM) in Washington D.C. This authority permits hiring temporary and permanent employees without regard to the traditional competitive process of the federal employment system.

Positions authorized under this authority include mechanical, electrical, structural, hydraulic and civil engineers. This request required the approval of the Department of the Army and Department of Defense before reaching OPM for a decision.

When Hurricane Katrina swept over the Gulf South, it set off a world of change. It changed a historic city and its neighbors, and it changed the Corps of Engineers. The greater New Orleans area is gradually getting back to normal. But the Corps of Engineers will never be the same.

The Corps set new goals and pri-

It has been nearly 25 years since the Corps was granted a Direct Hire Authority (DHA), but this unique mission required special consideration to meet its ambitious deadline. To date, 12 mid-level engineers have



The Corps is using Direct Hire Authority and other methods to obtain qualified engineers for the enormous HSDRRS mission. (USACE Photo)

been hired through this authority with more pending.

For those applicants that did not reach the qualification threshold for DHA criteria, management has used the Federal Career Intern Program (FCIP) as a gateway for entry-level engineers to progress to the mid-

orities for itself, and it's not looking back. The bar has been raised, and the results are most obvious in the greater New Orleans area.

The Hurricane and Storm Damage Risk Reduction System, when completed, will provide the area with the best flood protection in its history. Innovative practices, lessons learned and

level engineer positions. To date, 52 engineers have been hired under this authority.

Job candidates in all fields may be eligible for recruitment bonus incentives, which can equal up to 25% of the annual rate of basic pay, provided they sign a service agreement to remain with the Corps for a guaranteed length of time. Employees from other Corps districts who relocate to New Orleans for the HSDRRS mission also have return rights to their home districts.

Another solution to the personnel shortage was to bring back Corps retirees, who have a wealth of knowledge gained from years of federal service.

Through the Rehired Annuitant program, retirees filled more than 800 temporary positions in the nearly three years since

Katrina, and they continue to serve today.

Close to 400 retired personnel, some serving multiple deployments, have taken part in the hurricane response and recovery missions and in the ongoing HSDRRS work.



new technologies developed during this mission will be used throughout the United States and, in some cases, the world.

The Corps of Engineers is dedicated to the positive changes and improvements borne out of this unprecedented disaster and the Nation's response.



New Orleans District Corps of Engineers

CORPS WINS CRYSTAL AWARD...AGAIN!



U.S. Small Business Administration's "Crystal Award"

For the third consecutive year, the New Orleans District, U.S. Army Corps of Engineers, has received the Small Business Administration's Crystal Award in recognition of the district's dedication to small businesses, particularly its commitment to the 8(a) Business Development Program.

The SBA Crystal Award recognizes federal agencies within

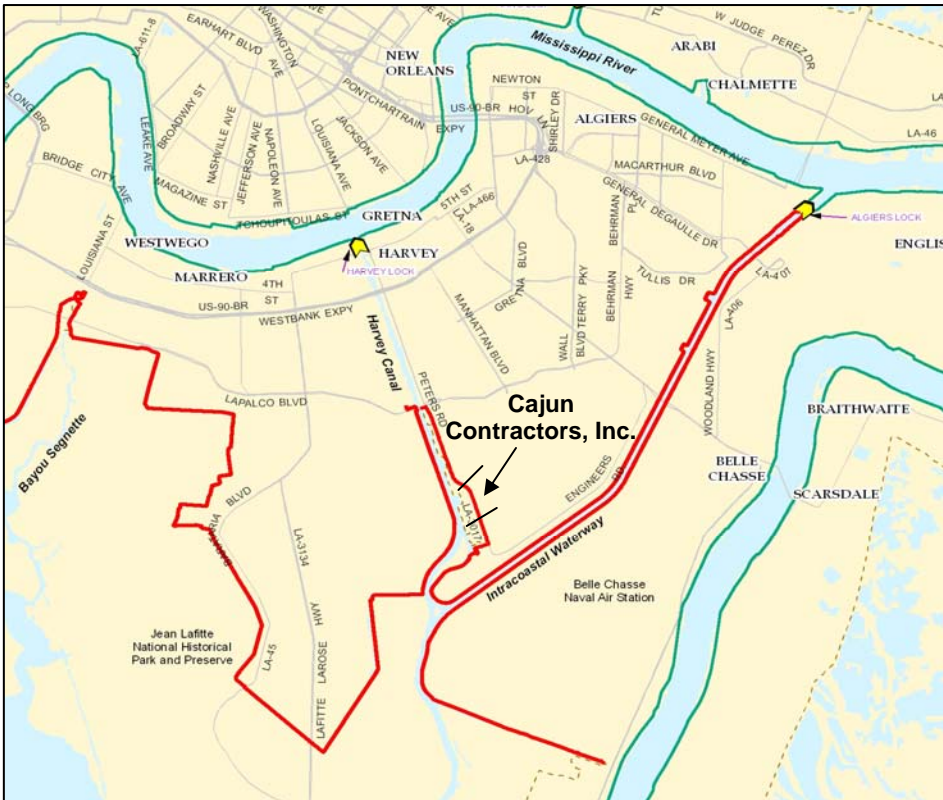
the Louisiana District that exhibit exemplary performance in pursuit of aggressive goals and strategic initiatives that help ensure increased small business participation in the federal marketplace.

During the first nine months of the 2008 fiscal year, the New Orleans District awarded \$285 million in contracts to small business, of which approximately \$91 million has been

awarded to small disadvantaged businesses.

This year marks the fourth overall time the district has received the award, and demonstrates the Corps' continued commitment to supporting small business by including them in all aspects of its program execution.





Corps awards final Harvey Canal Floodwall Contract

The U.S. Army Corps of Engineers has awarded a \$48.5 million contract to Cajun Contractors Inc. of Baton Rouge for construction of approximately 3,900 feet of floodwall, tying into the floodwall currently under construction along Peters Road and running north past Boomtown Casino.

“This is the final Harvey Canal floodwall contract to be awarded,” said Sami Mosrie, Project Manager for floodwalls. “It will complete this portion of the flood protection system along Peters Road from the Harvey Canal Floodgate complex on the northern end to the Hero Pump Station on the southern end.”

The T-walls will be built to an elevation +14 ft. using more than 19,000 cubic yards of concrete. The founda-

tion will require approximately 262,000 linear feet of steel H-piles, which reach about 50 miles when laid end to end. Each pile is approximately 130 feet long.

This project will provide 100-year level of protection for the area. The level of public safety in the Harvey area will increase significantly with the completion of the Harvey Canal floodwall projects.

Under post-Katrina legislation, the federal government will pay for 100 percent of the project. The Corps is working in coordination with its non-federal partners, the Louisiana Department of Transportation and Development, the Southeast Louisiana Flood Protection Authority-West, and the West Jefferson Levee District.



Contact Information

U.S. Army Corps of Engineers

New Orleans District

(504) 862-2201

Task Force Hope

(504) 862-1836

Hurricane Protection Office

(504) 862-1708

The *Status Report Newsletter* supports the information program for Task Force Hope and its stakeholders.

It also serves as the primary tool for accurately transmitting the Corps' hurricane recovery work to stakeholders.

This is an online publication that is open to public distribution.

This issue and past issues can be found at:
<http://www.mvn.usace.army.mil/hps>

Comments and questions may be sent to the Status Report Newsletter editor at:
b2fwdpao@usace.army.mil

The Status Report Newsletter is an unofficial publication authorized under the provisions of AR 360-1. Views and opinions expressed are not necessarily those of the Corps of Engineers or the Department of the Army.



Task Force Hope Status Report Newsletter

Task Force Hope
Strategic Communications
7400 Leake Ave., Room #388
New Orleans, LA 70118