

U.S. Army Corps of Engineers Rebuilds and Restores Following Natural Disasters

L TG Carl A. Strock, Commanding General and Chief of Engineers, U.S. Army Corps of Engineers (USACE), responded to questions posed by *Army AL&T* Magazine regarding the Corps' rebuilding and restoring efforts following last year's devastating hurricanes along the Gulf Coast. He also discussed using accelerated acquisition processes during disaster relief operations and how these processes are helping the Corps prepare for this year's hurricane season.

The call went out nationwide to bring mighty pumps to New Orleans to help rid the drowned city of more than 250 billion gallons of salt water, rain run-off, sewage and chemicals that inundated the area after Hurricane Katrina hammered the Gulf Coast. USACE engineers and an army of contractors provided hydraulically powered pumps up to 42-inches in diameter to "unwater" the city and surrounding parishes. Workers kept these pumps running around the clock for more than a month to fully drain the city. (USACE photo by Alan J. Dooley, Hurricane Katrina Corps of Engineers Operations.)



AL&T: Hurricane Katrina was one of the Nation's largest natural disasters. How much of your staff was, or is, dedicated to the recovery and rebuilding effort?

Strock: Last year's unwatering of New Orleans and the ongoing recovery efforts are an enormous undertaking for the Corps. Currently, 1,626 personnel are assigned to Task Force [TF] Hope, which is the Corps' task force overseeing the repair of the damaged levees and floodwalls. The work is being accomplished by some 495 Mississippi Valley Division employees, 197 other USACE employees, 14 employees from other government agencies and 782 contractor quality assurance personnel. In addition, nearly 9,000 volunteer Corps employees have supported the hurricane recovery effort along the Gulf Coast this past year. Federal Emergency Management Agency [FEMA] mission assignments for the Corps for Hurricanes Katrina, Rita and Wilma total \$4.39 billion.

To date, the Corps and its contractors have removed nearly 48,690,201 million of the estimated 63,632,006 million cubic yards of debris, installed more than 152,000 temporary roofs and turned over nearly 950 of 1,036 planned temporary public structures in Mississippi.

AL&T: TF Guardian was assigned the mission to repair and restore the New Orleans area hurricane protection system (HPS) to its authorized level of protection by June 2006, the beginning of this year's hurricane season. By the time the July-September issue of *Army AL&T Magazine* hits the street, the Gulf Coast may have already been tested. How was the Corps able to get their

arms around such a huge mission and ensure that the infrastructure was repaired and restored in that time frame?

TF Guardian was able to accelerate the entire acquisition process, from assessment to engineering, to contracting, to construction. TF Guardian had a single function — to make the repairs before the next hurricane season, and it was fully authorized and funded to do so.

Strock: The Corps of Engineers' response to the recovery of the Gulf Coast included the establishment of a task force to repair the damages to the HPS caused by Hurricanes Katrina and Rita. TF Guardian was a lean, yet multidisciplinary organization, fully resourced and designed to make very quick and informed decisions. Just as important, TF Guardian was able to accelerate the entire acquisition process, from assessment to engineering, to contracting, to construction. TF

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Staci Ogle, Resident Engineer for Debris, Emergency Field Office-North, checks in a load of woody debris at the Petal Debris Reduction Site, Petal, MS. Contractors have removed more than 20 million cubic yards of debris in Mississippi alone. (USACE photo by Nola Leyde.)

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Without cutting any corners and recognizing the expediency of the effort, this organization could act quickly, engage contractors and non-Federal sponsors, and deliver products in a very streamlined fashion with complete quality assurance every step of the way. The people chosen were also a factor. Many on the staff came from the New Orleans District and have a personal stake in restoring the damaged system. Their commitment and dedication to success enabled an extremely ambitious plan to be successfully carried out. Thus, the strategy to “get our arms around such a huge mission” was as follows:

- Establish a multidisciplined and focused organization.
- Provide them the full authorities and funding they needed to get the job done.
- Staff it with some of the best engineers and professionals in the business.
- Then, let them execute — which they did.

AL&T: How do you think the area will stand up if we have a moderate to rough hurricane season?

Strock: Hurricane Katrina was a very powerful storm that exceeded the design parameters of the HPS in many areas. Following the hurricanes of 2005, however, the Corps has been able to make detailed assessments of our systems and conducted analysis on those areas that did not perform as well as the Corps would have liked. Most importantly, the Corps was able to fold those lessons learned on system performance, or nonperformance, into its repairs. As a result, the New Orleans area HPS will be much better, stronger and more resilient than it was before Hurricane Katrina.

The threats caused by storm surges entering the outfall canals have been eliminated by the construction of interim gated closure structures. Miles and

miles of levee have been rebuilt using only type-classified soils. A tremendous amount of I-wall designed floodwalls have been replaced by more stable and much more massive inverted T-walls anchored in the ground by thousands of 80 foot long H-piles. The incorporation of numerous engineered features contributes to a more robust HPS for the Greater New Orleans area that will stand up much better to hurricanes. We are confident in the work we have completed. That doesn't mean that there isn't a risk of a hurricane more severe than the system can handle, or that the consequences of such

an event couldn't be equally catastrophic.

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That's why the President has proposed additional improvements and also why Congress has asked us to look at providing a higher level of protection.

AL&T: How did the Corps monitor/assess progress and what procedural and structural changes are they implementing?

Strock: The response to repair the HPS damaged by Hurricanes Katrina

and Rita was immediate and focused. Existing *Public Law (PL84-99)* provided the authority to act, and emergency funding was on hand to execute. TF Guardian used standard Corps of Engineers practices to monitor and assess progress on its programs. However, because of the unique situation, the time frame involved and the non-negotiable deadline caused by a potential life-threatening event — the next hurricane season — the implementation of these

processes was unlike any Corps program to date. The intent early on was to decentralize the effort among as many local contractors as possible, which had many tactical level execution advantages, and served as part of the region's recovery as well. Additionally, because of the program's scale and magnitude, balanced against the minimal contractor capacity available — especially shortly after the storm — the initial philosophy was for the Corps to do what was required to make its contractors successful. TF Guardian aimed to ensure victory in February rather than attempting to prevent defeat in May. The synergy of the Corps of Engineers, non-federal sponsors, architect/engineers and contractors working together to complete an enormous and complex task was unprecedented and reflects the wave of the future — an era of increased cooperation. What was done in New Orleans was indeed enormous and rapid. It was successful because everyone involved recognized the importance and acted together in the public's greater interest. It was an impressive undertaking and the Corps will be using lessons learned from this event for years to come.

AL&T: In terms of contracting, what were your biggest challenges with the clean-up and rebuilding effort?

Strock: In terms of damages, Katrina is by far the worst natural disaster the Corps has responded to on U.S. soil. Through our Advanced Contracting Initiative, the Corps has contracts in place to respond to most of our standard FEMA missions such as ice, water, temporary power, temporary roofing and debris removal. Once we were able to get on the ground and begin damage assessment, it became readily apparent that the capacities of our roof and debris contracts were inadequate to handle the amount of damage. To ensure that there was no



Contractors Daren Creed (left) and Chuck Willson install a blue roof on a house in eastern Jefferson Parish, LA. In all, Corps contractors installed more than 192,000 temporary roofs in the areas affected by Hurricanes Katrina, Rita and Wilma. (USACE photo by Hank Heusinkveld, Wilmington District Public Affairs.)

slow down in accomplishing these missions, additional contracts had to be put in place as quickly as possible. Katrina struck on Aug. 29, 2005, and all of the additional contracts for roofing and debris were awarded by Sept. 15, 2005.

AL&T: One of the Corps' missions is to provide disaster preparedness services and advanced planning measures designed to reduce the amount of damage caused by an impending disaster. Can you discuss what lessons you've learned from the Gulf Coast storms that might be helpful in combating/preventing other environmental or man-made disasters?

Strock: One of the things we in the Corps do very well is our remedial action program. After every event we get together, and include our FEMA partner as well as many other government and non-government partners, to share lessons learned with the goal of improving

our response for the next time — and there will be a next time. We are currently undergoing that process.

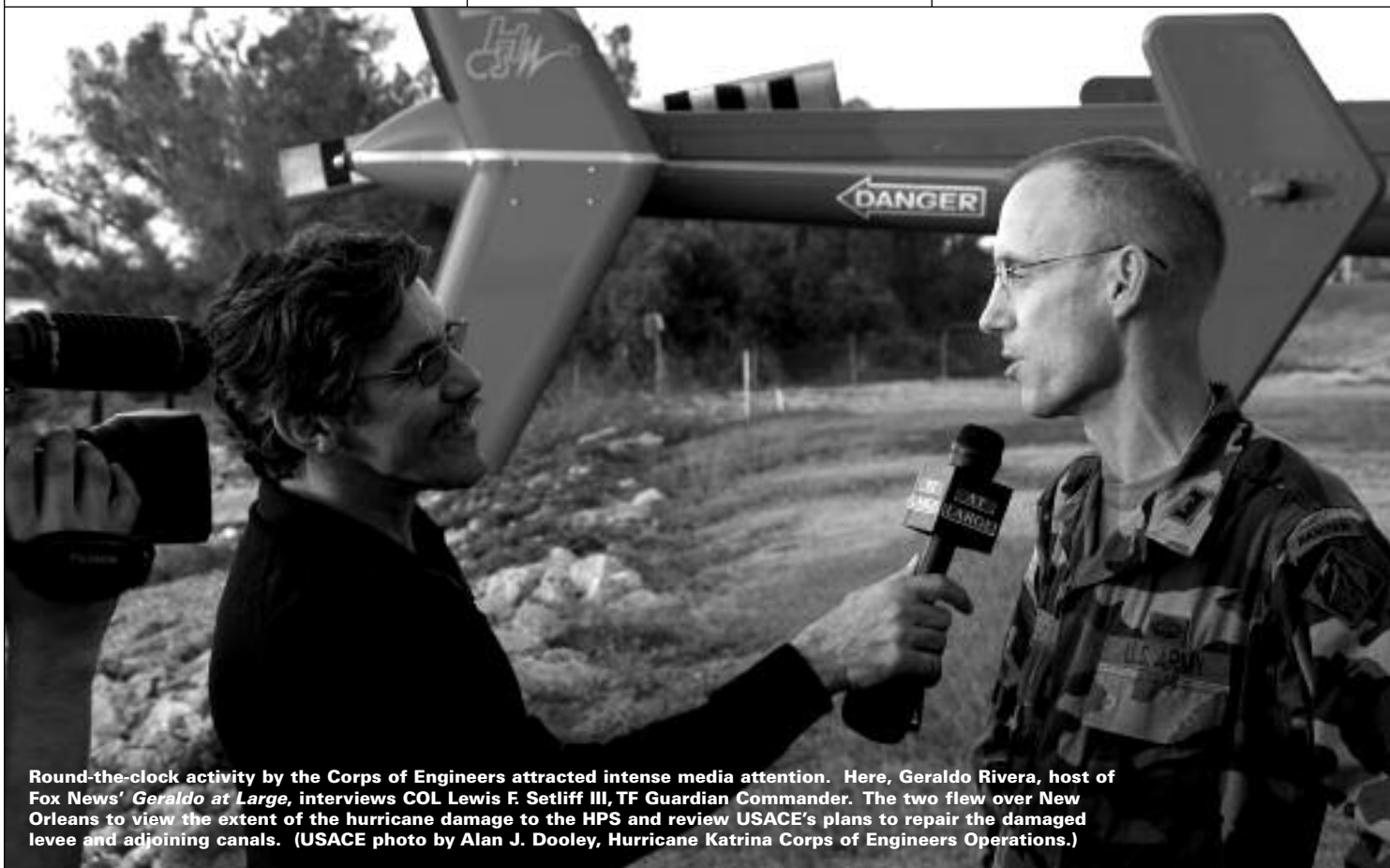
AL&T: One of your key tenets is to "delight your customers." With the diversity of your efforts — both

geographically and logistically — how do you know when you have accomplished this?

Strock: The Corps is all about customer support. That's a top priority for us. As such, we always strive to



Robert Johnson (lower right), a contractor with Dale Stockstill and Associates, responds to a caller at the Operation Blue Roof Call Center in Hattiesburg, MS. (USACE photo by Nola Leyde.)



Round-the-clock activity by the Corps of Engineers attracted intense media attention. Here, Geraldo Rivera, host of Fox News' *Geraldo at Large*, interviews COL Lewis F. Setliff III, TF Guardian Commander. The two flew over New Orleans to view the extent of the hurricane damage to the HPS and review USACE's plans to repair the damaged levee and adjoining canals. (USACE photo by Alan J. Dooley, Hurricane Katrina Corps of Engineers Operations.)

stay closely connected to our customers. When they're not happy, they let us know. No matter what the requirement, whether it be disaster response, military construction, environmental services or support to the global war on terrorism, just to name a few, our customers usually have options when it comes to fulfilling their needs. If they are not satisfied, they let us know.

AL&T: What is the difference between contracting for commodities, supplies or services for the war in Afghanistan and Iraq and a natural disaster like Hurricane Katrina?

Strock: Contracting for both scenarios is very similar. The same acquisition regulations apply regardless of the environment. The commodities themselves and the industry sources will differ to suit the needs of the situation. Therefore, the engineering expertise used for developing and evaluating requirements will vary as well as possible acquisition strategies. The contracting procedures in both situations, however, remain constant.

AL&T: The theme of this issue of *Army AL&T Magazine* is "Army Contracting — Getting It Right Fast!" Understanding that this is the goal of all contracting efforts, can you point to some specific Corps accomplishments where you did get it right, fast?

Strock: I think the unwatering of New Orleans is a good example. The federal procurement system is based upon the principle of full and open competition. However, Congress also realized that in emergency situations, immediate action is required. In most cases, the *Federal Acquisition Regulation* mandates a 15-day advertisement period and a 30-day proposal period. If we followed these usual rules for full and open competition, we would not

have been able to award a contract to get the flood waters out of the city of New Orleans until the end of October. Clearly the people of New Orleans could not wait two months for any action to start. Through the urgency exception, the Corps' contracting officer contacted several companies and was able to make an award within just days. The unwatering effort was completed earlier than initially expected.

AL&T: We have moved from acquisition reform to implementing acquisition excellence. What means do you use to keep your staff current and recognize excellence in contracting?

Strock: Development of personnel is key to the success of an organization and we recognize that here at the Corps. We make every effort to encourage our people to stay abreast of advances in the contracting field. At a minimum, our contracting professionals are required to meet the *DAWIA [Defense Acquisition Workforce Improvement Act] II* certification requirements for their level. As part of those requirements, people are expected to take 80 hours of continuous learning within their 2-year cycle. The Corps



In the aftermath of a horrific 2005 hurricane season, USACE has overseen the reconstruction and refurbishment of miles of levees in and around New Orleans. Here, a crane lowers a sling of filled bags of material to be placed into the breach in the 17th Street Canal Flood Wall last September. (USACE photo by Alan J. Dooley, Hurricane Katrina Corps of Engineers Operations.)

also has both internal and external developmental opportunities at our headquarters. People from within and outside the Corps are brought in for special assignments. These assignments provide for an exchange of ideas and learning in both directions. Another example is our Community of Practice teleconference, which is held monthly between the Division Directors of Contracting and the Headquarters. This free-flow forum provides for the sharing of best practices, lessons learned and new initiatives across the Divisions. These are just a few examples of how the Corps ensures acquisition excellence throughout its vast community. We continue to look for ways to further improve our excellence in contracting.