



## Technology Companies Team Up To Support U.S. Marines

Most people will never receive an urgent call from the United States Marine Corps, let alone one asking for help rebuilding a significant portion of the country following one of the greatest natural disasters ever to strike the United States. Michael Gray, however, is not like most people. He received one of many such calls recently in the wake of Hurricane Katrina.

Gray is president and chief executive officer of Global Relief Technologies (GRT), a company that provides technologies for simplifying the process of collecting and communicating information between headquarters and field operations, typically in disaster situations.

While Gray was watching television coverage of the devastation caused by Hurricane Katrina and contemplating how GRT could provide the most benefit for relief efforts, the call came in from the Marines. The matter was urgent: could he send someone to equip the elements of the 2<sup>nd</sup> United States Marine Expeditionary Force with GRT technology within the next 24 hours?



While it seems like a tall order, to Gray and his team the answer to calls of this nature is always, “Yes. We’ll be there.” The next day, Gray sent Ken LeMoult, director, GRT Virtual Network Operations Center and a Lieutenant Colonel in the Marine Corps Reserves, to Camp Lejeune, a Marine Corps base in North Carolina, equipped with nine Recon rugged handheld computers from Trimble. Each Recon was loaded with customized Rapid Data Management Software (RDMS) developed by GRT for the rapid collection of critical engineering and logistics data in the hurricane-stricken region.

GRT also sprang into action by creating a customized Virtual Network Operations Center (VNOC), a centralized, highly secure Web-based relational database management system, where information gathered in the field would be immediately sent for analysis and review.

Less than 24 hours after receiving the initial call, LeMoult met the *USS Whidbey Island* at Camp Lejeune and deployed aboard the Navy ship with the Marines. While en route from North Carolina to the Gulf Coast, LeMoult provided technology training to the Marine engineers who would be conducting engineering reconnaissance and reporting on logistics operations once in the field.

Trimble Navigation Limited, P.O. Box 947, Corvallis, OR 97339, USA, (541) 750-9200, [handhelds@trimble.com](mailto:handhelds@trimble.com)

“We’ve worked with the Marines on multiple occasions in the past, so they’re familiar with our technology and its capabilities, but the individuals who were recording Hurricane Katrina data had not used the equipment previously,” said Gray. “Because our technology is used entirely in the field, often in disaster situations, it is designed to be easy to learn and quickly deployed.”

Traditionally, in disconnected environments the military has used pencils, paper and radios to communicate information about the status of roads, bridges, power lines and other critical data. The result was often reams of data flowing in from several different locations, which made it difficult to analyze, share and utilize that information on a real-time basis.

Now, with RDMS software and the Recon rugged handheld computers, Marine engineers were able to deploy throughout the battered region to electronically collect critical data with exact GPS coordinates and immediately transmit it back to the VNOC from the Recon using a satellite phone. The customized software included reporting capabilities on shelter, water/sanitation, medical, logistics and transportation requirements, among others. Once recorded in the Recon, the data could be uploaded by connecting the handheld to a satellite phone with a lightweight cable, then using a touch-screen to send the information directly to the operation center, either immediately or intermittently throughout the day.



Back in the VNOC, the consistent flow of data could be easily compiled into graphs, charts or any number of reports, then overlaid on a map and satellite imagery using the correct GPS coordinates from the field. Within moments, decision-makers could securely view a complete spatial representation of a geographic area, including a comprehensive overview of the status of roads, bridges, shelters, transportation needs and other critical data.

Based upon the information received, teams in the office could begin laying the groundwork for rebuilding a disaster-stricken region almost immediately. With instant and reliable access to information in the field, people at headquarters could begin to identify how to get aid, materials and services to the field quickly and more efficiently, as well as how much and which kinds of material would be needed to begin rebuilding critical structures.

“GRT has significantly reduced our processing and administrative work. We are currently working with GRT for a number of humanitarian assistance, non-combatant evacuation, mass casualty, and convoy and beach/port logistic throughput operations, all with outstanding results,” said Martin Klotz, retired Major, United States Marine Corps and senior instructor with the Special Operations Training Group, USMC II MEF. “GRT is the total logistics package. Their technology is operationally proven, fast, user-friendly and extremely durable.”

The rugged design of the Recon handheld computer was put to the test in the flooded, muddy, disaster conditions along the Gulf Coast, and much of the data collection was completed in the wind and rain.

“We’ve evaluated a lot of hardware and use the Recon for every project that calls for a rugged personal digital assistant,” said Gray. “We’ve used the Recon for support for operations in areas such as Africa, Iraq, Afghanistan and global crisis situations in other parts of the world, and it meets our extreme

demands every time. It's perfect for situations like these because it's small enough and light enough to fit in your pocket, but tough enough to withstand the conditions we're often operating under."

As the data collection process draws to a close, GRT is already in communication with FEMA, the Governor of Louisiana and other officials to determine the most efficient way to proceed with rebuilding the devastation left in Hurricane Katrina's wake.

Meanwhile, Gray's phone has been ringing once again. With the devastation from Hurricane Katrina still fresh in their minds, Gray and his team have received another urgent request, this time in support of Hurricane Rita emergency relief efforts in Houston. And once again, Gray's response is, "We'll be there."