In any emergency satellite communication is your most valuable asset.

HURRICANE KATRINA knocked out more than three million customer phone lines in the Louisiana, Mississippi and Alabama area. The wire line communications network sustained enormous damage to the switching centers as did the local wireless networks with up to 2,000 cell sites out of service. Radio towers were equally affected.

Of the 41 broadcast stations located in the New Orleans area only two AM and one FM station continued to transmit in the wake of the hurricane.

Thirty-eight 911 call centers went down.

MSV
Mobile Satellite Ventures

As a result, in the first hours and days after Katrina made landfall satellite was the only reliable means of communications.

Basically, the entire communications infrastructure on the Mississippi Gulf Coast was destroyed.

The perception of instant connectivity to anyone anywhere has been created in the minds of the public. Unfortunately, in Katrina's wake, when communication was needed most, for the majority, it simply wasn't there.

As a result, in the first hours and days after Katrina made landfall satellite was the only reliable means of communications.

The Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) played a key role.

Their law enforcement satellite radio system was the only one in the state at the time and it was one of the ways the Governor's office was able to contact NEMA and FEMA. Cell towers were out. All power was out. Land lines were gone.

The department installed their satellite two-way radio system from Mobile Satellite Ventures in 2003 after intensive research into a variety of communication systems. They have six districts that did not communicate with each other. And in their business, reliable communications is critical.

After switching to satellite radios, these officers were able to get rid of their cell phones and eliminate the costs of maintaining their old terrestrial towers. Satellite service provides complete coverage for the entire state.

Access to talk groups connects officers 24/7 with headquarters in Jackson. A CPI interface in the vehicle is used to allow cross-banding with land mobile radios so that officers continue to have communications as they move away from their vehicles. The central dispatch centers for Mississippi Emergency Management Agency (MEMA) and the MDWFP are linked to provide a coordinated response in the event of an incident or emergency.

Statewide became the saving grace during Katrina

In fact, in discussing the design of the system with Rick McKinnon, one of MSVs dealers, they developed a feature that became the saving grace during Katrina – they designed a channel called statewide which would enable all the officers to communicate over a single channel when necessary.

All Katrina communication was conducted over this one statewide channel. Even officers not assigned to Camp Katrina would switch onto statewide just so they could hear what was going on, Basically, the satellite statewide channel provided a pathway to solve problems that saved peoples' lives during Katrina.

Perceptions and lack of awareness

Unfortunately, perceptions relating to satellite communications functionality and cost have prevented greater use and acceptance of the technology. It is still viewed by many as expensive to both buy the equipment and use the service. Yet in recent times a growing number of agencies have come to recognize the cost effectiveness of satellite communications in addition to its functionality and practicality.

The MSV network has been providing push-to-talk service since 1996 and while predominantly perceived as a secondary or tertiary network, a few agencies have incorporated satellite two-way radio into their primary operations. These include the New Mexico State Police and of course, the Mississippi Department of Wildlife Fisheries and Parks.

The State Emergency Response Team in Florida installed satellite push-to-talk (PTT) radios in its command vehicles. During the 2004 hurricane season when Florida was hit with four hurricanes in 44 days, much of the coordination and communication was via the MSV network. While many counties and regions were prepared, others were left isolated, similar to what occurred in Louisiana, Mississippi and Alabama in 2005. In both cases, neighboring counties and states offered MSV equipment to their neighbors.

All Katrina communication was conducted over this one statewide channel.

Assistance and support came in many forms throughout the country and beyond. In addition to money, supplies and prayers a number of states sent USAR teams to the devastated area. The National Guard, FEMA, The Red Cross, EMAC and numerous other organizations and individuals participated in the relief efforts, reminding us once again, how emergencies bring out the best in people.

Satellite two-way radio as an option

Satellite two-way radio is well suited to both man-made and natural disasters like 9/11 and Hurricane Katrina. It combines geographical flexibility with group functionality that is the modus operandi of the responder community.

The current system provided by Mobile Satellite Ventures allows for the configuration of equipment over the air which reduced the demands on operators to reprogram equipment. The service functions similarly to trunked radio and can have 15 talk groups on each user radio. The technology can also be patched to traditional terrestrial radio through patching switches.

MSV also provides the ability to receive the GPS coordinates of the user every time the PTT key is activated. This provides command and control decision makers the ability to accurately direct resources to the required location.

Mission critical communications

Communication is critical when responding to any disaster. The adoption of a communications strategy that has the ability to stand alone when all else fails is key to emergency services ability to meet the immediate requirements of any situation. This, of its nature, must assume that regular means of communications are no longer available. After Katrina, it is accepted that no communication can be a reality. If we learned anything from Hurricane Katrina, it is that we cannot rely solely on terrestrial communications. When towers are down, satellite communication is, in some instances, the only means of communicating.

Hurricane Katrina did incredible damage across six states in her seven day dance of destruction… damage not only by the hurricane itself, but from wind, rain and exceptionally large ocean surges along the coast. A total of 32 reported tornados, some as far east and north as Georgia and Tennessee were also associated with Katrina.

Natural disasters are an ongoing reality

The re-occurrence of natural catastrophes is known, accepted and even predicted. In the last five years alone, the United States experienced 17 weather related billion dollar disasters for a total of approximately 197.4 billion dollars in damage with an estimated 1,831 deaths. Despite this, preparedness for these events remains, at best, minimal. Band Aid solutions are implemented repeatedly. The ability to initiate an "action plan" demands contingency planning and awareness. To progress beyond the planning stage, the resources necessary to allow the "action plan" to go into operation must be allocated.

Spreading the word

Interoperable satellite communications is an integral component of disaster management. With the launch of the MSAT-G2, we have a tremendous opportunity to ensure more agencies are better prepared for the next natural or man-made disaster.

For further information, please contact:
Mobile Satellite Ventures
1-800-216-6728
info@msvlp.com
www.msvlp.com

Satellite services from MSV enable emergency personnel to coordinate and maintain communications between multiple responding agencies – even when natural disasters take down traditional land-based communication systems. From mobile data, satellite phone, two-way radio, and scalable talk groups, MSV's comprehensive suite of services lets you speak with one voice wherever an emergency occurs.

Katrina's seven day dance of destruction

Tuesday, August 23 – Tuesday, August 30, 2006

August 23
The National Hurricane Center (NHC) issues advisory of the season's 11th tropical depression forming over the Bahamas.

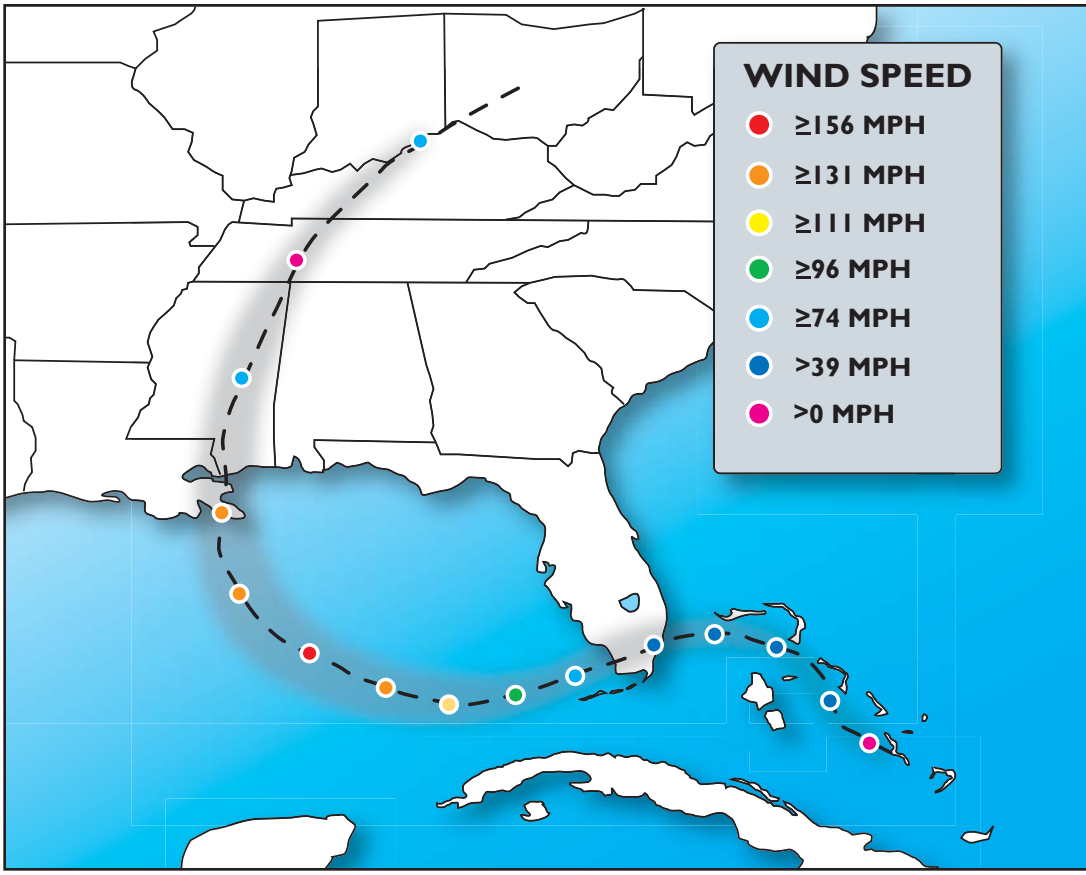
August 24
The depression strengthens and is now tropical storm Katrina, the 12th named storm of 2005 with winds up to 40 mph.

August 25
Katrina strengthens becoming a Category One Hurricane which comes ashore on Florida's southeastern coast with winds of 80 mph.

August 26
1 a.m. Katrina weakens and is reclassified as a tropical storm with winds of 70 mph.
11:30 a.m. NHC reports Katrina is rapidly strengthening as it crosses the Gulf of Mexico's warm waters. In just a few hours the winds have increased to about 100 mph.
Governors Blanco of Louisiana and Barbour of Mississippi declare states of emergency.
11 p.m. NHC predicts Katrina will become a major hurricane by the time it reaches the central Gulf of Mexico.

August 27
Katrina's strongest winds have reached 115 mph making her a Category Three Hurricane.

August 28
2 a.m. Katrina becomes a Category Four Hurricane with winds of 145 mph.
11 a.m. Hurricane Katrina has mushroomed into one of the most powerful hurricanes ever to form in the Atlantic. Blowing winds of 175 mph make her a Category Five Hurricane.



August 29
2 a.m. Hurricane Katrina turns north toward the Louisiana coast, with winds about 155 mph. A weather buoy about 50 miles east of the Mississippi River's mouth reports 40 foot high waves.
7 a.m. Hurricane Katrina's eye is about to come ashore in Plaquemines Parish, Louisiana with winds of 145 mph.
Mayor Ray Nagin reports water flowing over one of New Orleans' levees.
11 a.m. Katrina's front-right quadrant – which contains its strongest winds and peak storm surge – slams into several coastal cities with devastating force, completely destroying Bay St. Louis and Waveland with Gulfport and Biloxi suffering incredible damage.
A major levee in New Orleans has failed. Water is pouring through the 17th Street Canal, and the city is beginning to flood.
1 p.m. Katrina continues to weaken as she moves farther inland with winds 105 mph.

August 30
11 a.m. The NHC issues its last advisory on the storm that was once Hurricane Katrina. Winds have dropped to 35 mph but its center is dumping heavy rainfall on Tennessee.
Floodwaters continue to pour into New Orleans from breaks in the levees.