

**Written Statement of**

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**Hearing on  
Ensuring Operability During Catastrophic Events**

**Before the  
Committee on Homeland Security  
Subcommittee on Emergency Preparedness, Science, and Technology**

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Good morning, Mr. Chairman and distinguished members of the Subcommittee. My name is Ken Moran and I serve as the Director of the Federal Communications Commission's Office of Homeland Security. In that role, I am primarily responsible for consolidating support for the homeland security and emergency preparedness responsibilities of the Commission.

In my testimony today, I will describe some of the damage wrought by Hurricanes Katrina and Rita to the communications industry and the Commission's efforts to assist consumers, the industries the agency regulates, and other Federal Agencies during this difficult crisis. Finally, I will also address the Commission's efforts to ensure public safety operability during catastrophic events such as the recent hurricanes.

As we all know, Hurricane Katrina and Hurricane Rita devastated the Gulf Coast. People lost their homes, their businesses, and even their lives. Hurricane Wilma has also brought devastation to the people of Florida. Our hearts go out to all of those who are now struggling with putting their lives back together.

The destruction that Hurricane Katrina caused to the facilities of communications companies, and therefore the services upon which citizens rely, was extraordinary. More than three million customer telephone lines were knocked down in the Louisiana, Mississippi, and Alabama area. Significant damage was inflicted both on the wireline switching centers that route calls and on the lines used to connect buildings and customers to the network. Thirty-eight 9-1-1 call centers went down. Local wireless networks also sustained considerable damage with more than one thousand cell sites out of service. Over 20 million telephone calls did not go through the day after the hurricane. While we were not able to contact every station in the immediate aftermath, we estimate that approximately 100 broadcast stations were knocked off the air. Hundreds of thousands of cable customers lost service.

Hurricane Rita, which struck parts of Texas and Louisiana, also caused significant damage. It produced extensive flooding throughout the affected area, including many of the same parishes in Louisiana still working to recover from Hurricane Katrina. The hurricane left more than 80,000 consumers without telephone service, damaged more than 20 telephone company switches, and knocked out more than 250 cell sites in the vicinity of Beaumont, Texas and Lake Charles, Louisiana. In addition, at least five broadcasters went off the air in the affected area as a result of the hurricane's wind and flooding damage.

As a result of the communications breakdown, it was extremely difficult for hundreds of thousands of people to receive news and emergency information and to communicate with their loved ones. Emergency workers and public safety officials had difficulty coordinating. It was at times like these that we were reminded of the importance of being able to communicate. While no communications network could be expected to remain fully operational in the face of a direct hit from a category four or five hurricane, that fact was little consolation to the people on the ground.

Fortunately, the work to restore communications services began almost immediately. While considerable problems remain, the companies in the region have made meaningful progress. They have overcome significant obstacles – including flooding, lack of power,

dwindling fuel resources for generators, and security – to rebuild, reconnect and broadcast. After Hurricane Katrina, three radio stations in New Orleans continued to operate throughout the storm, and a fourth resumed operations within several hours of losing power. Wireline carriers were able to begin restoring service within five days, with significant improvement accomplished within a week, and wireless carriers began to restore service within two days, with substantial improvement by the first weekend. These extraordinary efforts were performed by employees, many of whom had suffered their own personal losses, yet still continued to work to restore services to all.

## **COMMISSION ACTIONS**

The Commission has devoted significant time and resources to enable first responders to communicate and to facilitate companies' ability to quickly restore services in the region. On August 30<sup>th</sup>, Chairman Martin established an internal Task Force consisting of senior executives and management from within the Commission. Chairman Martin directed the Task Force to coordinate the FCC's hurricane response efforts, which fall into two categories: (1) regulatory relief; and (2) industry outreach and coordination with other federal agencies. The Task Force has been working on these assignments continuously since August 30<sup>th</sup>. To date, nearly 200 FCC employees have assisted in this effort.

### **Regulatory Relief**

The Commission has taken a number of steps to facilitate the resumption of communications services in the affected areas and to authorize the use of temporary communications services for use by disaster relief personnel and evacuees in shelters.

At the start of the disaster, the Commission notified communications providers that it would provide streamlined treatment for requests for special temporary authority (STA) in order to aid them in resuming and maintaining operations in areas impacted by Hurricane Katrina. The FCC has granted more than 90 STA requests and more than 100 temporary frequency authorizations for emergency workers, organizations and companies to provide wireless and broadcast service in the affected areas and shelters around the country. The Commission has granted each of these requests within 4 hours of receipt of all necessary information from the requestor, except in instances requiring coordination with other government agencies. Even in those cases, requests have been granted within 24 hours. In addition, the Commission has released several public notices and quickly adopted orders to provide temporary relief.

### **Industry Outreach and Coordination with Other Federal Agencies**

The Commission has been working closely with industry as well as the Federal Emergency Management Agency (FEMA) and the National Communications System (NCS) pursuant to the procedures established in the National Response Plan. The Commission is continuously reaching out to communications companies serving the affected area – wireline and wireless network providers, broadcasters, cable providers, satellite providers – and to trade associations for these providers to assess the companies' status and determine what they need to resume operations. These efforts include Commission staff contacting each of the broadcast stations in the affected region.

The FCC provides the critical information about resources that communications providers need to restore and maintain service in the affected area to FEMA and NCS, who are responsible for ensuring that priority needs are met. For instance, the Commission identified wireline central offices and radio and television broadcasters that could be operational if provided fuel to power on-site generators. The agency updates FEMA and NCS daily on evolving needs.

The Commission also is responsible for providing the National Coordinating Center (NCC) with information on communications companies' operational status for incorporation into the government-wide situation reports. Again, the agency gathers and submits this data daily.

In addition, the FCC has worked closely with the communications industry to help identify resources for use by disaster response personnel. The agency both transmits this information to NCC and facilitates industry's communication with other federal officials. For example, Commission staff coordinated discussions between FEMA and a major Direct Broadcast Satellite (DBS) provider to set up free televisions at disaster relief facilities and to provide a nationwide channel for disaster emergency services programming. Staff also worked with a wide range of providers – including those offering competitive facilities-based telecommunications, satellite, wireless, wireless internet access and Wi-Fi services – to identify those providers capable of offering facilities and services that can assist those in the affected area.

Finally, the Commission has been coordinating with the Interagency Coordinating Council on Individuals with Disabilities, organized by the Department of Homeland Security, to ensure that the needs of the disability community are addressed in the coordinated federal relief efforts.

## **INTEROPERABILITY**

In the aftermath of Hurricanes Katrina and Rita, the Commission has devoted significant time and resources to enable first responders to communicate and to help facilitate companies' ability to quickly restore communications services in the region. For example, the Commission granted special temporary authorities (STAs) to allow first responders to use "through-the-wall" imaging equipment to locate hurricane victims and to emergency response organizations to facilitate communications on the ground.

These recent disasters are also prompting the Commission to reassess the steps that have been taken to address interoperability in recent years. These steps have consisted mainly of efforts (1) to provide additional spectrum to public safety entities; (2) to promote technological developments that enhance interoperability; and (3) to provide technical expertise and input on a number of interagency efforts.

The Commission has designated approximately 97 MHz of spectrum from ten different bands for public safety use throughout the country. Public safety entities also actively use spectrum-based services in other spectrum bands. In addition, the Commission has designated certain channels in these public safety bands specifically for interoperability. By "interoperability," we generally mean radio communications between public safety agencies (usually of different jurisdictions) in furtherance of both day-to-day and emergency operations. Frequencies designated for interoperability include 2.6 MHz of the 700 MHz band, 5 channels in

the 800 MHz band, 5 channels in the 150 MHz band (VHF band), and 4 channels in the 450 MHz band (UHF band). A public safety entity may use these designated frequencies only if it uses equipment that permits intersystem interoperability. In response to requests from public safety entities, the Commission designated 50 MHz of spectrum at 4.9 GHz for public safety users. The 4.9 GHz band rules also foster interoperability by providing a regulatory framework where traditional public safety entities can pursue strategic partnerships with others, including critical infrastructure entities, as necessary for the completion of their mission. And, last year the Commission released its decision regarding public safety interference in the 800 MHz band, which will not only promote effective and robust public safety communications but ultimately, will make additional spectrum available for public safety use.

Other steps the Commission has taken to facilitate interoperability include:

- To facilitate interoperability on a regional basis, the Commission reallocated television spectrum in the New York City area for public safety use to promote interoperability among area public safety entities.
- The Commission has developed policies and rules to promote the sharing of spectrum. For example, the Commission's rules permit the shared use of radio stations where licensees may share their facilities on a non-profit, cost-shared basis with other public safety organizations, including Federal government entities, as end users.
- The Commission modified its rules to eliminate regulatory barriers to help speed introduction of software defined radio (SDR) technology. Radios traditionally have been built with unalterable hardware components that perform specific functions. SDR technology allows radios to cover multiple frequency bands and signal formats by simply sending different software instructions to a microprocessor instead of using additional (frequently bulky and heavy) parts. Although this technology is not currently available for public safety use, we are aware that public safety entities and industry are actively exploring these applications.

Chairman Martin has announced his intention to establish an independent expert panel to review the impact of Hurricane Katrina on the communications infrastructure. The panel will be composed of public safety and communications industry representatives and will make recommendations to the Commission regarding ways to improve disaster preparedness, network reliability and communications among first responders such as police, fire fighters and emergency medical personnel.

## **CONCLUSION**

The damage wrought by the recent hurricanes is tremendous and its effects will be felt for months and possibly years to come. The Commission is continuing to work with other Federal agencies and the communications industry to determine what additional actions can be taken to assist in the disaster relief and restoration effort. The Commission also will continue its important work in

reaching out, and responding to, consumers affected by this tragedy.

The Commission stands ready to work with Congress, our colleagues at federal, state, and local agencies, and the American public to do whatever we can to help with the disaster relief and restoration efforts. I would be pleased to respond to your questions.