



# PSHSBulletin

A Publication of the Public Safety and Homeland Security Bureau

September 2011



## FCC's Role in Response to Hurricane Irene

By Bill Lane

One of the Operations and Emergency Management (OEM) Division's major roles is to provide support to FEMA in determining which radio transmitters may not be functional during and after a disaster. This is particularly important for public safety land mobile radio systems and the commercial broadcast community.

In order to accomplish this mission, the division has a capability called "Roll Call" with equipment and trained operators to deploy to the field. Roll Call is usually deployed to an incident area before the actual event (such as a potential hurricane) to perform pre-scans of selected portions of the radio spectrum in a circular area of radius 30 miles in the area of potential impact.

After the event, the team returns to the same locations and performs post-scans. This data is then used to determine discrepancies between the "before" and "after" scans and correlates the potential outages with the FCC licensing database. In this way, we are able to identify contact points for the radio transmitters that are not functioning and contact them to verify the operational status.

OEM currently has two mobile Roll Call units deployed with our Outreach Specialists; Paul Coburn in Tampa, Florida, and Louis Sigalos in Houston, TX. In addition, we have five units located at the headquarters.



PSHSB Chief Jamie Barnett stands next to Roll Call vehicle during FCC's Technology Demo.

The Roll Call Program is headed by Steve Maguire with principle engineering and field support provided by Jim Pierson from HFDFC, Paul Coburn in Tampa for software development, and Brian Luu and Cliff Gonsalves at headquarters for overall equipment support. Mike Caiafa, from CCR, also provides analysis support during Roll Call missions. In addition, the FCC's Enforcement Bureau provides trained operators during missions for FEMA.



(L to R) PSHSB staff Clifford Gonsalves, Steve Maguire, and Darryl Smith.

During Hurricane Irene, our Roll Call capabilities were extended to their maximum limit. Initially, Paul Coburn, along with Dedrick Roybiskie (EB) and Doug Miller (EB) deployed to support FEMA Region IV on the eastern Florida coast to do pre-scans in advance of the storm. A second team of Brian Luu along with Al Knerr (PSHSB-PD-Licensing Branch Gettysburg) deployed to North Carolina in advance of the storm as well. Eventually, Louis Sigalos from Houston took Paul's place in Florida as Paul was relocated to New England. The two southern teams operated under the leadership of Joe Husnay (EB).

As the storm moved up the coast, two more teams were dispatched to support FEMA Region I in New York, Connecticut, and Massachusetts. Paul teamed up with Mike Regiec (PSHSB-PD-Licensing Branch Gettysburg) while John Kuzma (EB) and Mark Lueth (EB) were deployed from Chicago to Massachusetts (by way of headquarters) to pick up the equipment. Paul was the designated leader of the northern two teams. Some very long hours on the road and performing scans late into the night was accomplished by the northern

team as they repeated some pre-scans that had been done a year ago. As the storm passed, the southern team in North Carolina returned to do post-scans in a number of locations. Similarly, the northern team returned to perform post-scans in the areas of NY, CT, and MA, where they had done the pre-scans. In total, the teams performed scans in 24 locations in 8 different states!

While the field teams were performing their endurance-testing scans, the home team of Cliff Gonsalves and Mike Caiafa was performing the analysis necessary to identify the radio stations that did not seem to be operational after the storm. Once these stations were identified, a number of OEM personnel made direct calls to the licensee contacts to verify the condition of the station.

The end result of all this hard work (8969 miles driven, 966 man-hours, 24 locations, and untold hours of lost sleep!) and the on-going efforts of the OEM Roll Call Team were reports to FEMA that helped to identify potential problems. In fact, two important radio stations were identified by the teams as being off the air and FEMA was not aware of their condition. This resulted in direct actions that helped to bring the stations back on line.



(L to R) PSHSB staff Brian Luu, Al Knerr, Mike Regiec, and Richard Lee.

Roll Call is an extremely useful capability that the FCC uses in disaster situations and the staff that support Roll Call Deployments are true professionals in their dedication and commitment to doing the job under exceptionally trying circumstances. The efforts of each of the Roll Call Team members is sincerely appreciated. ■

## Using DIRS to Track Hurricane Irene

By John Healy

The Disaster Information Reporting System (DIRS) is a voluntary, web-based system designed to collect information on the status of communications infrastructure and restoration efforts during a disaster. DIRS was the FCC’s primary source of situational awareness during Hurricane Irene, producing detailed daily reports on wireline, wireless, broadcast, and cable system infrastructure impacts.

For Hurricane Irene, DIRS was activated in 171 counties in 13 states. DIRS was activated in three stages following the

path of the storm. On August 26, DIRS was activated in North and South Carolina. As the storm moved North, Delaware, Maryland, New Jersey, New York, Pennsylvania, and Virginia were added. Finally, as the storm moved towards New England, Connecticut, New Hampshire, Massachusetts and Vermont were added.

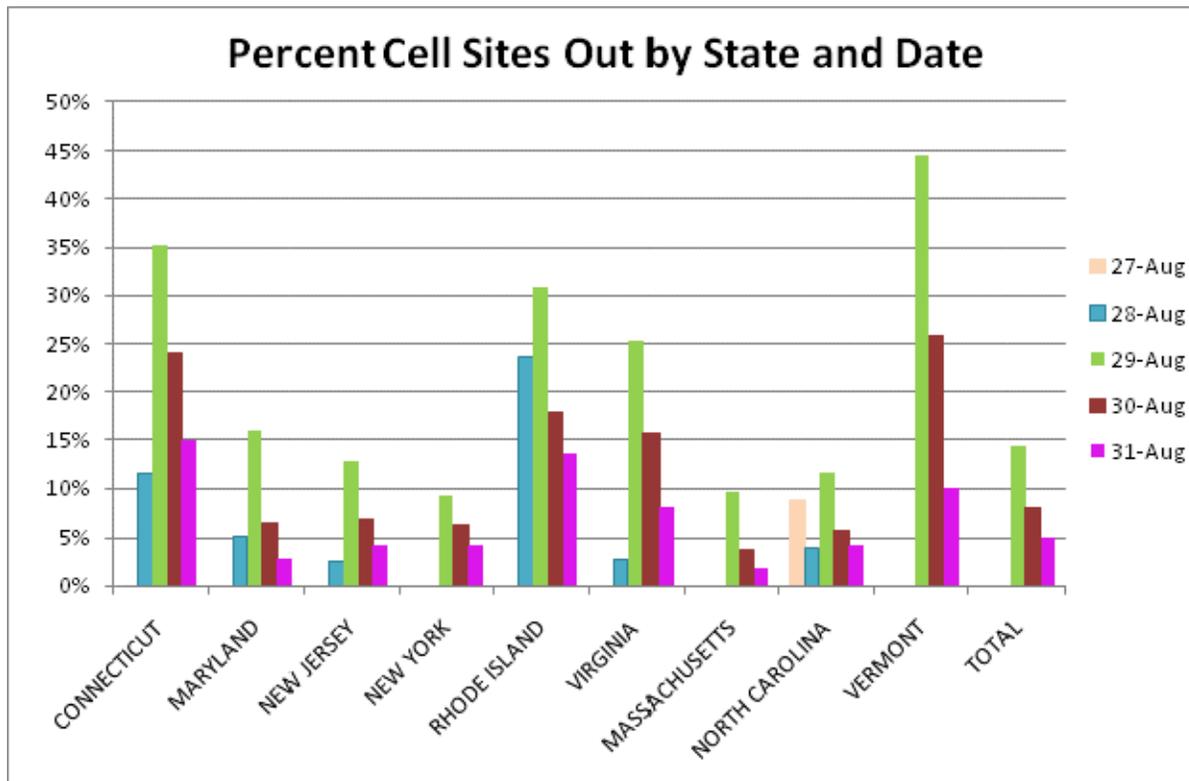
A number of other Bureaus including the Media Bureau, the Wireline Competition Bureau and the Wireless Telecommunications Bureau contributed to the effort by reaching out to communications providers to fill in any holes in the DIRS data. Also several industry associations (e.g., National Association of Broadcasters, National Cable & Telecommunications Association, etc.) reached out to their

members to provide data into DIRS. However, we need to thank primarily the wireline carriers and wireless carriers along with the broadcasters and the cable system providers for inputting information into DIRS when we asked.

The data in DIRS was extremely timely – the published reports very accurately reflected the situation on the ground. We received the information by 12 noon each day. The information in DIRS was cleaned by 1 pm so that anyone with direct access to DIRS could get the most recent information. DIRS can automatically generate tables and maps which describe the status of restoration efforts. Formal reports containing much of this information were available by 2 or 3 pm each day.

### As an illustration of some of the information provided in DIRS reports:

- Cell site restoration was remarkably fast. About 40% of the cell sites that were out of service were restored each day. The following chart was contained in one of the reports for Hurricane Irene.
- About 60% of the cell sites that were out-of-service were out because of transport problems (e.g., the fiber optic cable connecting the cell site to the mobile switching center was out because it traversed a washed out bridge).
- No major switch or mobile switching center was ever taken out of service during the storm.
- No PSAPs were completely out of service. A total of 18 PSAPs had their traffic rerouted at sometime during the storm.
- The maximum number of radio stations down was 10.



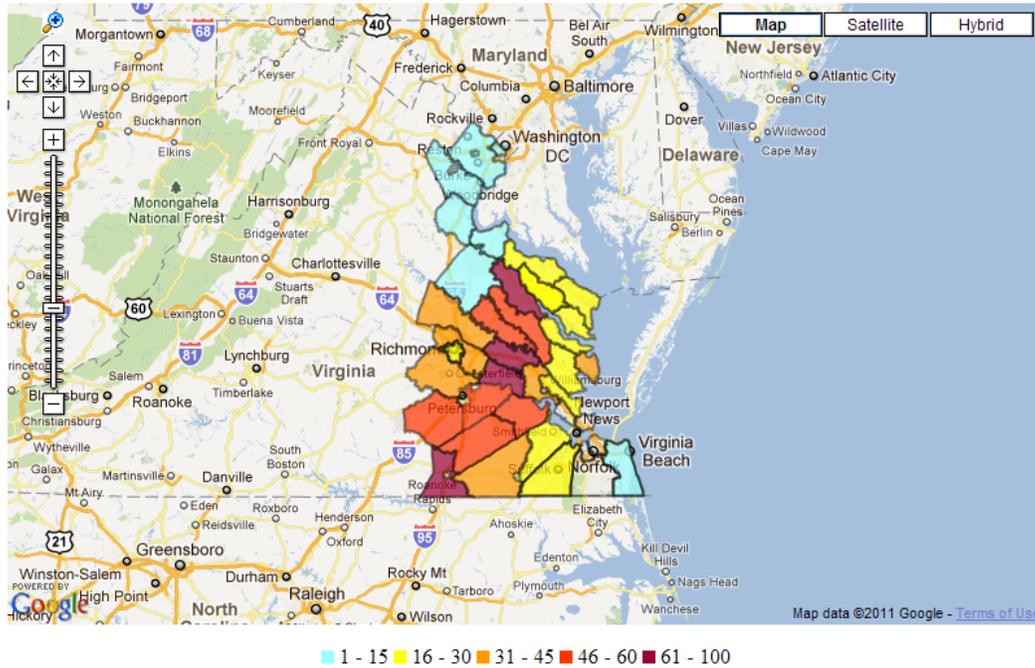
**Using DIRS to Track Hurricane Irene (cont'd.)**

By John Healy

DIRS can automatically generate maps which illustrate the current status. Examples are maps of switches out-of-service or on back-up power, broadcast stations out or on back-up power and percent cell sites out by county. Below is the map of Percent Cell Sites Down by County for Virginia on August 30.

**Percent Cell Sites Down By County**

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DIRS also has the capability of collecting information about the direct needs of broadcasters and carriers and potentially getting them help. During hurricane Irene, WVXR in Vermont contacted the FCC through DIRS because it was in need of a generator. The DIRS team directed the request to Richard Lee and Bill Lane.

Vermont Public Radio wrote the following about the response from DIRS:

“Thanks for the reply - and I'm very impressed at how well the DIRS reporting and coordination system is working; ... this looks like a great resource. To the extent that we have equipment or resources around the state which might be of use to others, it is good to know that there is this kind of response and clearing house for information.”

**Upcoming Events**

- October 14, 2011 - Emergency Access Advisory Committee (EAAC) , FCC Headquarters, Washington, DC
- October 27, 2011 - Open Commission Meeting, FCC Headquarters, Washington, DC
- October 31, 2011 - DACA Workshop, FCC Headquarters, Washington, DC

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**Questions or Comments?** Email your questions or comments concerning the content of this bulletin to Kim Anderson ([kim.anderson@fcc.gov](mailto:kim.anderson@fcc.gov)).