



April 2012

# Emergency Communications Case Study: Amateur Operators Aid Emergency Communications During Violent Storms in Tennessee

## SEVERE WEATHER HITS TENNESSEE

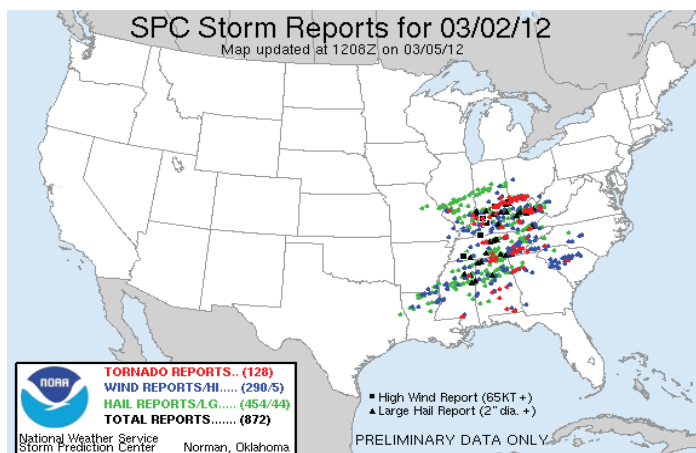
Between February 29 and March 2, 2012, two powerful storm systems spawned a series of thunderstorms and tornadoes that ripped up trees, destroyed homes and buildings and killed more than 50 people across a wide swath of the Midwest and South. The National Oceanic and Atmospheric Administration (NOAA) estimated that 45 tornadoes hit 11 States during that three-day period, causing more than \$1 billion in damage.

Tennessee was affected by the second of these two devastating storm systems. NOAA estimates that 8 tornadoes touched down in the State, and 10 of Tennessee's counties were declared disaster areas. The unrelenting onslaught of severe weather overwhelmed the capabilities and resources of emergency response and communications throughout the region.

Emergency communications officials in Tennessee have a strong working relationship with amateur radio operators also known as Auxiliary Communicators, many of whom have received training on how to operate within emergency operations centers. As a result, when the storms developed and damaged communities, Auxiliary Communicators were ready and able to fill communications gaps and offer additional assistance.

## AUXILIARY COMMUNICATORS PROVIDED EARLY WARNINGS

In Tennessee, the Middle Tennessee Emergency Amateur Radio System (MTEARS) is the



statewide system through which local Auxiliary Communicators can report significant weather observations and damage reports. The system is monitored by Tennessee's National Weather Service and by many of the local emergency operations centers, including the State Emergency Operations Center (SEOC) in Nashville. MTEARS has been in existence for nearly 15 years, and is a cooperative venture between private individuals, local emergency management agencies, and the Tennessee Emergency Management Agency.

On the afternoon of March 2, an MTEARS report noted a large storm cell approaching Nashville. As a result, a tornado warning was issued by the National Weather Service. Inside the emergency operations center, a meteorologist monitoring the radar predicted the cell would come very close to the SEOC itself. Due to the advanced warning provided through MTEARS, staff at the center had time to relocate to the building's lower level.

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As the storm passed through, cell phones became overloaded and useless, but reports and information sharing continued uninterrupted via the Auxiliary Communications circuits. In the end, a funnel cloud passed very near the SEOC, but did not touch down. Some trees were twisted and damaged, but the building and everyone inside were unharmed.

Later that night, Tennessee Deputy Governor Claude Ramsey called the State Emergency Operations Center (SEOC) requesting more information on tornadoes that were reported just a few minutes prior in Jackson and Putnam counties. The Direction and Control Officer, who was monitoring MTEARS, was able to provide a near-immediate report on conditions in those areas. Throughout the storms and across the State, MTEARS continued to report warnings and relay damage reports from amateur operators in the field.

## **ROLE OF AUXILIARY COMMUNICATIONS**

For nearly 100 years, Auxiliary Communicators have been assisting public safety in communications during natural and man-made disasters. There are an estimated 3 million amateur radio operators worldwide with 750,000 of them in the United States. Each one in the U.S. must obtain a license through the Federal Communications Commission, and operates on designated frequencies for amateur radio service.

Because amateur operators are using systems that are separate from those used for emergency communications, they can often transmit messages when normal telephone, Internet, and radio systems are down. When all else fails, they keep information flowing between government officials and emergency operations centers until normal service returns. These volunteers often have a passion for providing emergency communications

support, and they can serve as valuable, reliable, and cost-effective communications resources.

In December 2010, the DHS Office of Emergency Communications began offering an Auxiliary Communications (AUXCOMM) Workshop as part of its Technical Assistance program. The course, which is requested through Statewide Interoperability Coordinators, focuses on the ability of amateur operators to work with other organizations and agencies through the National Incident Management System/Incident Command System (NIMS/ICS) framework.

The two-day, 20-hour course is open to licensed amateur operators, who have completed specific prerequisites. The workshop walks the operators through a series of NIMS/ICS forms and protocols, and covers how to communicate and work within the structure of emergency operations centers. Along with the training in NIMS/ICS, the course can help build trust and familiarity by allowing Statewide Coordinators and other public safety professionals to get to know some of their local amateur operators and their capabilities. The operators, in turn, learn how to modify their services to work effectively with public safety. In Tennessee, 30 amateur operators attended the workshop conducted in the fall of 2011.

## **CONCLUSION**

These are just a few examples on how Auxiliary Communicators can play an important role in sustaining communications and providing timely information in the event of a natural or man-made disaster. Through continued training and coordination with public safety at the State and local levels, Auxiliary Communicators will continue play an important role in disaster response and recovery for years to come.

### **FOR ADDITIONAL INFORMATION**

Please contact [OEC@dhs.gov](mailto:OEC@dhs.gov) or visit [www.dhs.gov](http://www.dhs.gov) (keyword OEC).