

Severe Weather Spotting: 6 Questions Answered

Mike Corey, K11U/VE9IU

In an average year, the US experiences more than 10,000 severe thunderstorms, 5,000 floods, and more than 1,000 tornadoes, often causing hundreds of injuries and deaths and billions in damages. Here's how you can become one of the thousands of ham volunteers who have trained to provide real-time information on weather events.

1 What is severe weather spotting?

Networks of amateur radio weather spotters observe and report weather conditions such as tornadoes, damaging winds, flooding, and hail. These reports allow partners like emergency management and forecasters at the National Weather Service (NWS) to gain near-real-time information that helps them issue weather watches, warnings, and advisories.

2 Why do it?

Weather spotting gives hams another way to use our skills as communicators. Some hams enjoy weather spotting to contribute to keeping our communities safe. Many radio amateurs have a secondary interest in meteorology, and storm spotting is a way to pursue that interest.

3 How do I get involved?

Once you have your ham license, the next step is to get trained as a severe weather spotter, often called a storm spotter. This training is offered through the National Weather Service SKYWARN® program. This training is offered in many local areas, is free of charge, and typically takes a few hours. To find a SKYWARN class in your area, go to weather.gov and search for your nearest National Weather Service office.

4 What is SKYWARN®?

SKYWARN®, a volunteer program with 350,000 to 400,000 trained weather spotters, was established in the 1970s by the NWS and partner organizations. Volunteers help keep their communities safe by providing the NWS with timely, accurate reports of severe weather.

Since the program's inception, the information provided by SKYWARN® spotters, coupled with Doppler radar technology and improved satellite and other data, has enabled the NWS to issue more timely and accurate warnings for tornadoes, severe thunderstorms, and flash floods. SKYWARN® storm spotters form the nation's first line of defense against severe weather. For more information go to weather.gov/SKYWARN.

5 What equipment do I need?

The SKYWARN net often operates on local VHF or UHF repeaters, so you'll need a VHF/UHF handheld if you're participating from

home. You can also use a mobile transceiver, power supply, and external antenna. For observing severe weather from your vehicle, a mobile radio is a good option. It will run off the car battery, and an external antenna can be mounted to the vehicle (disconnect external antennas when lightning is present).

6 Where does the info go?

Let's say you're observing a severe thunderstorm and you begin to see hail about 2 inches in diameter. You'd use your radio to check in to the local SKYWARN net and make your report, stating your call sign, your location, the fact that you observed hail 2 inches in diameter, the time it was observed, and how long it lasted. You may be asked if any damage occurred to structures. The net control operator will relay this information to the National Weather Service forecast office, where meteorologists will use it to gain a better understanding of the intensity of the storm, or verify observations they have made on radar or through networked weather stations.

Mike Corey, K11U/VE9IU, has been a radio amateur since 1988, a storm spotter since 1991, and is author of the book Storm Spotting and Amateur Radio.