

Lee Co ARES Monday night training net – March 28, 2022

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Tonight's topic is tornados.

I'm always a bit on edge during severe weather. Growing up in central Mississippi and later as an adult in the Houston Gulf Coast area, I've had more than my fair share of tornados and hurricanes over the years. On March 3, 1966, when I was in the sixth grade, an EF-5 tornado demolished a nearby shopping center and spread a half mile wide path of destruction over 200 miles across Mississippi and Alabama over 3 hours and 45 minutes. That storm killed 58 people and injured 518. The damage was estimated at over \$75 million. My dad worked at a glass bottling plant about 20 minutes away from home and we heard on the news that facility had been destroyed. Telephone lines were down, and this was before cell phones, so we were on pins and needles waiting to hear anything. Several hours later he arrived home safely in his banged-up car, full of debris with all the windows blown out. Several days later, when he was involved in the clean-up process at the plant, he noticed that where he had found refuge during the storm, the steel girders over his head were bent.

According to the National Weather Service:

A tornado is a violently rotating column of air extending from the base of a thunderstorm down to the ground. Tornadoes are capable of completely destroying well-made structures, uprooting trees, and hurling objects through the air like deadly missiles. Tornadoes can occur at any time of day or night and at any time of the year. Although tornadoes are most common in the Central Plains and the southeastern United States, they have been reported in all 50 states.

The National Weather Service uses the Enhanced Fujita scale to rate tornados from EF-0 to EF-5. An EF-5 tornado would have winds in excess of 200 mph. Tornadoes are rated based on the damages observed over 28 different types of objects and materials (wood frame building, concrete block building, metal roof, different types of trees, etc.)

Since the 1970's, SKYWARN has provided the means for ham radio operators to interact with the National Weather Service. We provide 'Eyes on the Sky' to provide timely severe weather observations for meteorologists to gather info and make more accurate weather predictions.

Last Monday night was a prime example of why we do what we do as ham radio operators. Multiple tornado warnings across Central Texas put us on high alert; we activated a SKYWARN net, solicited weather observations from ham operators, reported conditions to the National Weather Service, and advised listeners to stay safe.

We had two tornados in Lee County. The Elgin tornado was classified as an EF-2 tornado, with 130 mph winds, and a maximum width of 500 yards. The track length was over 12 miles and it was on the ground about 20 minutes. About a hundred homes were damaged and 19 were destroyed.

You may have seen the video footage taken in Elgin by a professional storm chaser, as that tornado passed over 290, flipping a red 2004 Chevy Silverado on its side, spinning it around and flipping it back on its tires so the driver was able to drive away. The teenage driver escaped with minor injuries, and after Chevrolet saw the video, they're giving him a new 2022 red Silverado. Probably a great truck commercial coming out of that.

The Giddings tornado was classified as an EF-1 tornado, with winds of up to 95 mph. Its path length was just under 2.5 miles, and width of 50 yards. That tornado started about two miles southwest of Giddings and ended about one mile south-southeast of Giddings and was on the ground for only 4 minutes, causing minor damage.

We were very lucky Monday night.

I urge everyone to take the SKYWARN training whenever it's made available. The training is free and lasts about two hours, and covers topics such as:

Basics of thunderstorm development

Fundamentals of storm structure

Identifying potential severe weather features

Information to report

How to report information

Basic severe weather safety

SKYWARN training has been conducted in classrooms, Zoom calls, and as online training.

Some of the items that meteorologists want us to observe and report include wall clouds, wind rotation, funnel clouds, sleet, hail, heavy rain, flooding, power outages, and storm damage.

As amateur radio operators, we are storm spotters and not storm chasers. We watch the sky, looking for signs of pending severe weather, and reporting our observations to the National Weather Service thru a SKYWARN net.

I also highly recommend everyone to be able to step up as a Net Control Operator for our training nets and field exercises, which provides confidence and experience for those 'real-life', non-scripted emergency nets that could take place at any time. We have had Net Control Operator training in the past and should consider revisiting that soon. As a Net Control Operator, you can also gain access to the National Weather Service Chat Room to communicate directly with NWS meteorologists and other weather observers, and to access NWS weather maps & severe weather bulletins.

So, what do you do, if there's a tornado barreling down on you? If you are in a building, seek shelter in a ground floor interior room away from windows, preferably under stairs, a doorway, or in a bathroom.

Get in the bathtub and cover yourself with a blanket. If you are outside, and can't get to a building, seek shelter in a ditch. If you are driving, don't try to outrun the tornado but pick a route 90 degrees away from its path. Tornadoes have lifted vehicles and dropped them hundreds of yards away. Do not stop under a highway overpass. In all cases, keep a low profile to the ground, covering your head with your arms or a heavy blanket. Make sure you have a plan in place with your family, with a designated meeting place after the storm passes in case you get separated.