

Storm spotters told there's 'no substitute for human eyes'

Ross Dolan - The Daily Republic
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There are certain things you don't want to do in the face of an oncoming thunderstorm — like leaning against an iron pole, or flying a kite.

Ben Franklin was just lucky.

Such actual lapses of common sense illustrated the importance of personal safety to more than 100 would-be weather watchers who attended Thursday's National Weather Service Storm Spotter training at the Davison County 4-H Fairgrounds.



Ross Dolan/ Republic - William Hoffman, 7, of Sioux Falls, watches intently as his stepdad, Shawn Liebl of the National Weather Service in Sioux Falls, presents a storm spotter training program Thursday at the Davison County 4-H Fairgrounds. More than 100 attended the event. Hoffman said the most exciting storm event he witnessed was a truck being blown off a highway near Lubbock, Texas.

Management Director Jim Montgomery was more than pleased with the turnout.

In addition to entire families and individual weather aficionados, many at the event, Montgomery said, were volunteer fire and rescue personnel from Mitchell and surrounding towns.

"There's no substitute for human eyes," Liebl said, but he also stressed the need for reporting accuracy.

The free two-hour session, taught by NWS Meteorologist Shawn Liebl, familiarized amateur storm spotters with the life cycle of thunderstorms and their deadly progeny — tornadoes.

The program's high-tech intro, with an amped-up soundtrack with musical origins somewhere between "Pirates of the Caribbean" and Richard Wagner, accompanied film of boiling clouds as they assembled themselves in to a dangerous t-storm.

Music segued to the "Mission Impossible" theme as an actual twister ripped across fields, surgically excising and exploding trees, yet leaving others untouched.

While attendance numbers didn't match a recent training of about 470 held at the Sioux Falls Washington Pavilion, Davison County Emergency

He explained that weather spotters are needed to help the NWS confirm weather phenomena like hail, cloud rotation and fully formed twisters that are only suggested by weather radar.

Severe weather occurs when northbound moisture-laden clouds from the Gulf of Mexico collide with cooler air. The culprits to watch in such cases are "super cells," large thunderstorms with powerful updrafts that produce hail. They frequently produce wind shear, or winds that move in different directions, causing cloud rotation that's part of tornado formation.

Spotters also were warned to be aware of the dangerous collateral effects of storms, such as flash floods, lightning strikes and large hail.

One of the evening's film episodes showed an adventurous group of would-be storm chasers whose trip became less exciting when large hail smashed their vehicle's windshield and blew out other windows.

Noting that many storms move in a northeasterly direction, Liebl said spotters are told to view those from a southerly location.

"Keep your eyes open," he said, "storms are always changing and evolving."

Extra caution is needed during night spotting, when spotters must use light from electrical storms to determine a storm's location.

"Watch for power line flashes and pay attention to wind direction and changes," he said, "and know the road." It's not a good feeling to be stuck on a dead-end road with a storm bearing down, he said.

Trainees were there for multiple reasons.

Jeff Crain, a safety manager with Graphic Packaging, Mitchell, said weather has "always been my passion."

Tim McGannon, Mitchell's public works director, enjoys watching storms develop from his home. "I can see for miles in every direction," he said.

Some folks have no sense of danger during a tornado, said professionals Kenny Allen and Kory Hartman of SevereStudios.com, who chase storms and supply on-the-scene film for area TV stations.

They recalled one 2006 Beadle County tornado they tracked to a farm near Cavour. With a tornado on the ground close by, the crew was ready to leave the area when a woman pulled in and asked if they wouldn't mind taking her photograph with the twister.

They declined.



A tornado is defined as a violently rotating column of air in contact with the ground. Although tornadoes occur in many parts of the world, they are frequently found in the United States east of the Rocky Mountains during the Spring and Summer. In an average year, 800 tornadoes are reported nationwide, resulting in 80 deaths and over 1,500 injuries. Tornadoes have occurred in every month of the year, but in the Tri-State area, they are most common during the months of May, June and July. Tornadoes can also occur at any time of the day, but are most common during the late afternoon and early evening hours. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. — National Weather Service

The Chandler/Lake Wilson, MN tornado of June 16, 1992, was an example of one of these violent tornadoes. Damage paths with the violent tornadoes can be in excess of one mile wide and 50 miles long.

Interesting Tidbits

Some tornadoes may form during the early stages of rapidly developing thunderstorms. This type of tornado is most common in the High Plains' states. Tornadoes may appear nearly transparent until dust and debris are picked up. Occasionally, two or more tornadoes may occur at the same time. The average tornado moves from the southwest to the northeast, but tornadoes have been known to move in any direction. Strong straight-line winds can cause damage that can be mistaken for that caused by a tornado. Straight-line winds can easily exceed 70 mph.

Recent Violent Tornadoes in the Tri-State Area

Manchester, SD - June 24, 2003; Spencer, SD - May 30, 1998; Comfrey, MN - March 29, 1998; Chandler/Lake Wilson, MN - June 16, 1992