Sanford Underground Research Facility

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Deep Thoughts

Notes from the underground by Communications Director Constance Walter

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Tornado safety

On February 27, Massachusetts experienced a rare weather event when a tornado touched down. The EF-1 twister, which reached speeds of 110 mph, cut a 200-yard-wide, five miles long swath, passing right through Conway, a town of 2,000. Fortunately, no one was hurt.

Although extremely rare in Massachusetts, tornados are no strangers to South Dakota. To prepare South Dakotans for "tornado season," the Office of Emergency Management designated April 24 through 28 as Severe Weather Preparedness Awareness Week. In conjunction with the statewide drill, Sanford Lab and the City of Lead will hold a drill April 26.

"This is an important event for Sanford Lab," said Noel A. Schroeder, ESH director. "It allows us to refresh our severe weather training to better protect ourselves and visitors."

The drill consists of a tornado watch and warning phase. In the warning phase, staff relocate to pre-determined safe areas around the SDSTA property.

The peak "tornado season" for the northern plains and upper Midwest is June or July. But, according to the National Weather Service, tornados can



VORTEX2 field command vehicle with tornado in sight. Wyoming, LaGrange. June 5, 2009. Photographer: Dr. Mike Coniglio, NOAA NSSL. Credit: VORTEX II

happen any time of year and strike at any time day or night.

"Having been born and raised in Iowa, I know first-hand the importance of being prepared for tornados," Schroeder said. "I've been through eight touchdowns."

The National Severe Storms Laboratory says the most destructive and deadly tornados occur from super cells, rotating thunderstorms with a well-defined radar circulation called a mesocyclone. These super cells can also produce damaging hail, severe non-tornadic winds, unusually frequent lightning and flash floods. But the truth is, no one truly understands how tornados form.

Burns makes top safety performance



Excessive water on any level at Sanford Lab is cause for concern. In February, Alvin Burns, infrastructure technician with the Yates Shaft, called for a shutdown of a dewatering pipe when he learned that water was building up in an area on the 4850 Level.

"His level head and critical thinking prevented further problems and damage," said Jack Stratton, Yates Shaft foreman.

Burns also was recognized in March for his suggestion to add the name of the designated person on call and a phone number to the "crawl" on the digital signs throughout the property.

What you can do

Tornados are destructive and unpredictable, but there are some things you can do to keep yourself safe.

Listen to local news or a <u>NOAA</u> <u>Weather Radio</u> to stay informed

Know your community's warning system. Communities have different ways of warning residents.

Pick a safe room in your home to gather during a tornado (basement, storm cellar or an interior room on the lowest floor with no windows).

Those living in mobile homes should go immediately to the nearest sturdy building—do not wait until you see a tornado.

Practice periodic tornado drills so that everyone knows what to do if a tornado is approaching.

When you know a severe storm is coming:

- Prepare for high winds by removing diseased and damaged limbs from trees.
- Move or secure lawn furniture, trash cans, hanging plants or anything else that can be picked up by the wind and become a projectile.

For more **information about** staying safe during a tornado, check the NOAA website.

Know your tornado terminology: Watch: Normally issued for several hours, a "watch" indicates a need for planning, preparation, and an increased awareness of changing weather conditions and that current weather conditions support the potential formation of tornados.

Warning: A tornado has been spotted or indicated by radar and there is a serious threat to life and property to those in the path of the tornado. Take action immediately to find safe shelter.