UNIVERSITY OF OKLAHOMA
120 David L. Boren Blvd
Norman, OK 73072
Phone: (405) 325-1819
Fax: (405) 325-1108
www.weathersphere.org

Courtesy of The Denver Post–6/25/09

Study is unraveling mysteries of the twister

By: Monte Whaley

BOULDER — At the midpoint of an $11.9 million study that aims to untangle the mystery of tornadoes and use the information to help weather forecasters save lives, researchers are sure of one thing: People typically have only about 13 minutes of lead time before a twister touches down.

"That's just woefully inadequate," said Josh Wurman, president of the Center for Severe Weather Research and a visiting scientist at the National Center for Atmospheric Research in Boulder.

Wurman and a group of scientists Wednesday unveiled findings of the first season of the Verification of the Origins of Rotation in Tornadoes Experiment, or VORTEX2, which may give forecasters a better idea of when a simple spring storm will turn into something

to take seriously.

Funded by the National Science Foundation and the National Oceanic and Atmospheric Administration, VORTEX2 is the largest and most ambitious tornado study ever conducted.

It involves scientists from the atmospheric research center and several other agencies and institutions, including the University of Colorado, the University of Nebraska, Texas Tech University, Environment Canada, the Finnish Meteorological Institute and the Australian Bureau of Meteorology.

The first phase ran from May 10 to June 13 in an area spanning 900 miles from western Texas to southwestern Minnesota.

As many as 120 scientists and 50 vehicles used new computer technology and communication tools to create a network designed to seek and study outbreaks of severe weather, said Roger Wakimoto, a senior scientist at the center.

At a moment's notice, an armada of vehicles had to move from one end of an enormous region to another in hopes of reaching a promising funnel cloud, Wakimoto said.

"It was really like a military operation," said Wakimoto, who racked up 10,000 miles in five weeks in his rental vehicle.

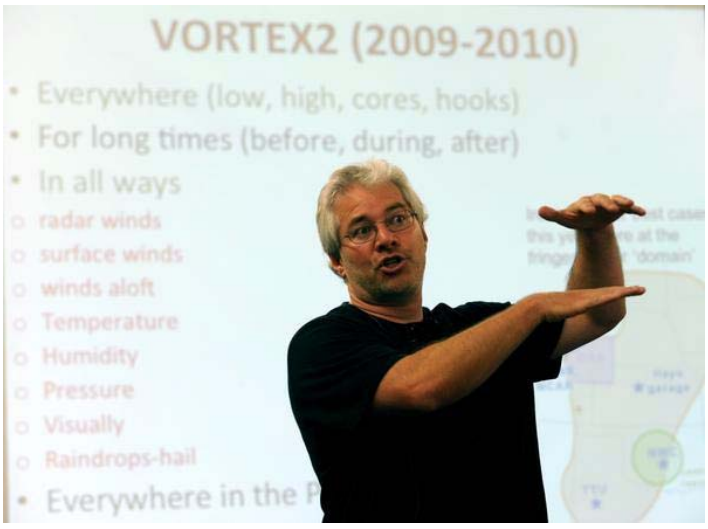
For the first three weeks, the team was "skunked," with plenty of close calls but no verifiable tornado, Wurman said. Then on June 5, word that conditions could be ripe near Chugwater, Wyo., reached the team. The group was near Sterling and began making its way northwest.

"As the day went on, we were getting great indications," said center scientist David Dowell. "Then we saw a mature cell in Chugwater."

The resulting twister turned into a F2 classification tornado, with wind estimated at 130 mph. In many ways, it was a perfect storm — with no injuries, only minor damage to structures and the VORTEX2 team recording nearly 20 minutes of activity.

The first VORTEX project was completed 14 years ago. The VORTEX2 team will head out again next year, in the same region, with even more sophisticated equipment.

"Hopefully," Dowell said, "what we learn will save lives."



Josh Wurman, president of the Center for Severe Weather Research, talks about the findings of VORTEX2, the latest tornado-monitoring experiment, Wednesday in Boulder. The project recently completed its first phase. (Helen H. Richardson, The Denver Post)