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Tornado researchers see Wyoming twister up close

By: Dan Elliot/AP

Scientists who stalked tornadoes in the central United States this spring were treated to a textbook example when one touched down in Wyoming two weeks ago, researchers said Wednesday.

"Nature threw us a very slow pitch that day," said Josh Wurman of the Vortex2 project, a two-year study designed to improve scientists' understanding and forecasting of tornadoes.

The June 5 twister in southeastern Wyoming was "very well behaved" with nearly ideal conditions for study, Wurman said. The tornado was isolated and moved in a relatively straight line.

Because the researchers had detected tornado conditions, they arrived at the scene 20 minutes before the twister formed, giving them time to gather key information that will help them understand what causes such storms.

"That's the prize that we're after," said David Dowell, a scientist with the National Center for Atmospheric Research in Boulder.

One group of researchers got within about a mile of the tornado, and some unmanned instrument clusters were closer, although Wurman said the tornado may not have passed directly over them as they hoped.

The instruments measure wind, temperature, humidity and pressure, and two cameras record video. They're designed to survive a direct hit, but even if they're destroyed, the data would likely survive because it's stored in a heavy waterproof case, said Wurman, president of the Center for Severe Weather Research.

The data from the Wyoming tornado is still being analyzed.

It occurred in sparsely populated Goshen County and did little damage, which was a disappointment to the scientists, who study destruction for clues about storms.

The project name, Vortex2, stands for Verification of the Origins of Rotation in Tornadoes Experiment-2. The original Vortex study was from 1994 to 1995.

The two-year, \$12 million project is funded primarily by the National Science Foundation and the National Oceanic and Atmospheric Administration. This was the project's first year, and fell in a below-average tornado season. The Wyoming tornado was the only one researchers witnessed.

Vortex2 also focused on Minnesota, South Dakota, Iowa, Nebraska, Colorado, Kansas, Texas and Oklahoma.

Wurman and other researchers still insist it was a success. They tracked and studied numerous thunderstorms that didn't spawn tornadoes, which they said will help them figure out why some weather systems produce twisters and others don't.

They also learned how to quickly deploy their army of 120 researchers and 50 vehicles, some equipped with mobile radar.

"I'm pretty confident now that we've debugged the system," said Roger Wakimoto, senior scientist with the National Center for Atmospheric Research. "It was almost like a military operation."

Wakimoto said the odds of back-to-back below-average seasons are low. The field study resumes in May.

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On the Net:

Vortex2: <http://www.norman.noaa.gov/2008/06/vortex2/>