



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 Norman Transcript-07/19/2009

Hazardous Weather Testbed asks users what info they need

By Julianna Parker Jones

Social Science Woven Into Meteorology (SSWIM) has worked with many of the agencies, businesses and academic departments housed at the National Weather Center since its inception.

One agency that is trying to incorporate social science into its work with the help of SSWIM is the National Oceanic and Atmospheric Administration's Hazardous Weather Testbed.

The testbed conducts experiments every spring that bring together researchers with their advances in technology and forecasters with their practical field applications, said Gregory J. Stumpf, research meteorologist with the National Weather Service who works at the testbed. The series of experiments are meant to bring new research developments to forecasters and allow researchers to see how their strategies will be practically applied, he said.

The Hazardous Weather Testbed is trying to incorporate social science into severe weather prediction by adapting to the needs of the public. That public can incorporate a lot of diverse needs and changing variables, however, Stumpf said.

"We don't want to consider the users of (weather) information as one big mass of what people call the 'general public,'" he said. Instead, the testbed wants to work with SSWIM to research what different people and organizations need in severe weather forecasts and warnings, he said.

The testbed has been working with its forecasters to improve the use of probabilistic weather forecasting, instead of deterministic. Deterministic forecasting was used about a decade ago when forecasters said a North Dakota flood would peak at a certain height. There was a small possibility it would go higher, but that wasn't included in the forecast because it wasn't as probable. The less likely possibility ended up occurring and much destruction occurred that could have been avoided, Stumpf said.

This year, a flood reached North Dakota again. Forecasters gave probabilistic data instead, saying that although it was most likely that the flood waters would reach one height, it was also possible (although less likely) they could go higher.

Stumpf said the community prepared for the worse flood, even though it didn't end up happening. However, that kind of probabilistic information is what many people need to make decisions about being safe in severe weather.

"It empowered the user to make their own decision," he said of the forecasts in North Dakota.

This effort and others by the Hazardous Weather Testbed are just some examples of the way researchers in weather and climate are making efforts to understand human behavior and tailor their products to the public's needs.

Julianna Parker Jones 366-3541 jparker@normantranscript.com