

Minutes for AMS/NWA chapter meeting, Jan 29, 2008

The South Central Kansas chapter of the American Meteorological Society (AMS) and National Weather Association (NWA) met at 6PM on Tuesday, January 29, 2008 at Two Brothers Barbeque in Wichita for dinner. Following the meal, at 7PM, Mike Umshied of the National Weather Service (NWS) office in Dodge City made a presentation on the Greensburg, Kansas tornado that occurred May 4, 2007.

Mike started his presentation with the synoptic meteorological plots at 300mb, 500mb, and 850mb. These plots showed clearly the large-scale dynamical support for severe weather. The discussion then centered on the evolution of the surface weather pattern that afternoon, and the roles of dry, well heated and mixed air, under which the developing cyclonic system over Colorado dragged very humid air from the southeast. Several storms developed approximately 50-100 miles southwest of Greensburg; the southernmost received a large moist inflow near sunset as the low-level jet developed. A short sequence of satellite photographs showed the storms in the early stage of their development.

The southernmost supercell produced a family of tornadoes, including four large tornadoes EF3 or stronger as well as several weaker ones over its lifespan of several hours. Mike first described the early stages and the time history of the sequence of warnings as it became apparent that Greensburg was in great danger. The Greensburg tornado was very well documented by spotters and storm chasers, as well as by detailed descriptions by a Greensburg resident. Very high resolution mobile radar data, furnished by Howard Bluestein and some of his associates, revealed cyclical variations within the supercell, portraying a sequence of events that Bluestein and others had written about in scientific papers some years earlier.

Mike ended the talk giving credit to the entire warning system for the timeliness of the Greensburg warning which undoubtedly saved a number of lives. The positive role of storm chasers and the media in the proper handling of this situation was also credited.

Donations of \$5.00 apiece were received from the 25 attendees, as well as dues received for 2008 membership in the local chapter.

Our next meeting is scheduled for Tuesday, March 25, 2008 for which Jon Davies will give a presentation on storm chasing. The location of the next meeting will be announced later.

Submitted by Nathaniel Reynolds, 29 January 2008.