

P12.3

**An observational study of the interaction between a supercell and a mesoscale boundary**

**Mark R. Conder**, Texas Tech University, Lubbock, TX; and S. Cobb, G. D. Skwira, and J. L. Schroeder

This paper examines the mesoscale environment leading up to and during the development of a tornadic supercell on 5, October, 2003. The supercell formed in the vicinity of several boundaries and became briefly tornadic (causing F1 damage) as it interacted with an outflow boundary. Previous studies have examined situations where non-tornadic supercells became tornadic after interaction with warm-frontal or outflow boundaries (Weaver, et al, 1996, Markowski et al, 1998). Similarly, this study relates the storm evolution to variations in the near storm environment. Data for this study consists primarily of Lubbock WSR-88D Radar data, GEOS-10 visible imagery, and a 20Z sounding and surface observations from the West Texas Mesonet (WTXM). The WTXM surface data, at five-minute resolution, allows for comparison between the storm's near-surface environment and changes in the storm structure at a temporal resolution near that of the radar data (~4.7-minutes in VCP11).