Retrospective Analysis of the 31 May 1998 Northeastern U.S. Severe Weather Outbreak

Kevin S. Lipton

NOAA/National Weather Service Forecast Office, Albany, NY

ABSTRACT

On 31 May 1998, a widespread, multi-day severe weather outbreak occurred across the upper Midwest, Great Lakes and northeast states, with 32 tornadoes, 264 reports of wind damage, and 84 reports of 3/4 inch diameter or larger hail. The severe weather outbreak resulted in 5 fatalities and 127 injuries.

As part of this severe weather outbreak, a tornado rated F3 on the Fujita scale tracked through Mechanicville, New York, and traveled over 30 miles before reaching southwest Vermont as an F2 tornado. The passage of the tornado through Mechanicville resulted in 68 injuries, and over $71 million in damage

A synoptic and mesoscale analysis of this significant severe weather outbreak will be presented utilizing North American Regional Reanalysis (NARR) and NCEP/NCAR Reanalysis data, as well as regional rawinsonde, radar and satellite data. Synoptic-scale characteristics and climatological anomalies will also be compared with other significant northeast U.S. severe weather outbreaks which had tornadoes rated F3 or greater.