Meteorological Overview of the 12-13 February 2014 Southeast Winter Storm

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Accumulation and Impacts

- Several inches of heavy, wet snow fell across western NC, upstate SC, and northern GA
- Combination of snow/sleet/freezing rain fell from Metro Atlanta east and just south of the Interstate 85 corridor
- Catastrophic amounts of freezing rain fell, in some places over an inch, from just south of Atlanta along the Interstate 20 corridor towards August and Columbia.
- Impacts from ice:
  - At least five fatalities
  - Power loss (some homes without power for >3 days):
    - SC: 346,000 homes
    - GA: over 500,000 (80% of Augusta left in the dark)
  - Storm damage estimates:
    - SC: near $20 million
    - GA: over $35 million
  - Forestry Commission timber damage estimates:
    - SC: near $20 million
    - GA: over $35 million
- Historic Eisenhower Tree at Augusta National Golf Club suffered irreversible damage

Precipitation

- Moisture overspread the Southeast on 12 February as CAD deepened
- Multiple precipitation types were observed, from all snow across northern portions of the area, to all freezing rain south
- Freezing surface temperatures did not stretch as far southwest as originally expected; limited ice totals in portions of western GA
- Event ended as light snow everywhere as the upper trough axis pushed a surface front through, eroding the CAD and bringing the entire column below freezing

Synoptic Overview

0000 UTC 12 February 2014
1200 UTC 12 February 2014
0000 UTC 13 February 2014

Surface

- Southwest flow aloft with upper divergence across the Southeast associated with right entrance region of jet
- Strong shortwave pushed into the southern Plains on 12 February, into the Southeast on 13 February
- Freezing level at 850 hPa stretched from north GA into central NC – all freezing to the north, warm nose aloft to the south

Aloft

- Diabatically-enhanced classical cold air damming (CAD) in place across the Southeast and Mid-Atlantic
- Surface low developed in northern Gulf and pushed into Southeast on 13 February
- Sub-freezing surface temperatures in place across most of NC/SC/GA early on 12 February
- Location of freezing line difficult to forecast

Images from the 13 February winter storm. Clockwise from top left: Sandersville, GA (courtesy Washington EMA); Averey County, NC (courtesy Joshua Palmer); Swansea, SC (courtesy Jay Lindler); Peachtree City, GA (courtesy PTC Police); WFO Columbia; Augusta, GA (courtesy Augusta Chronicle).