

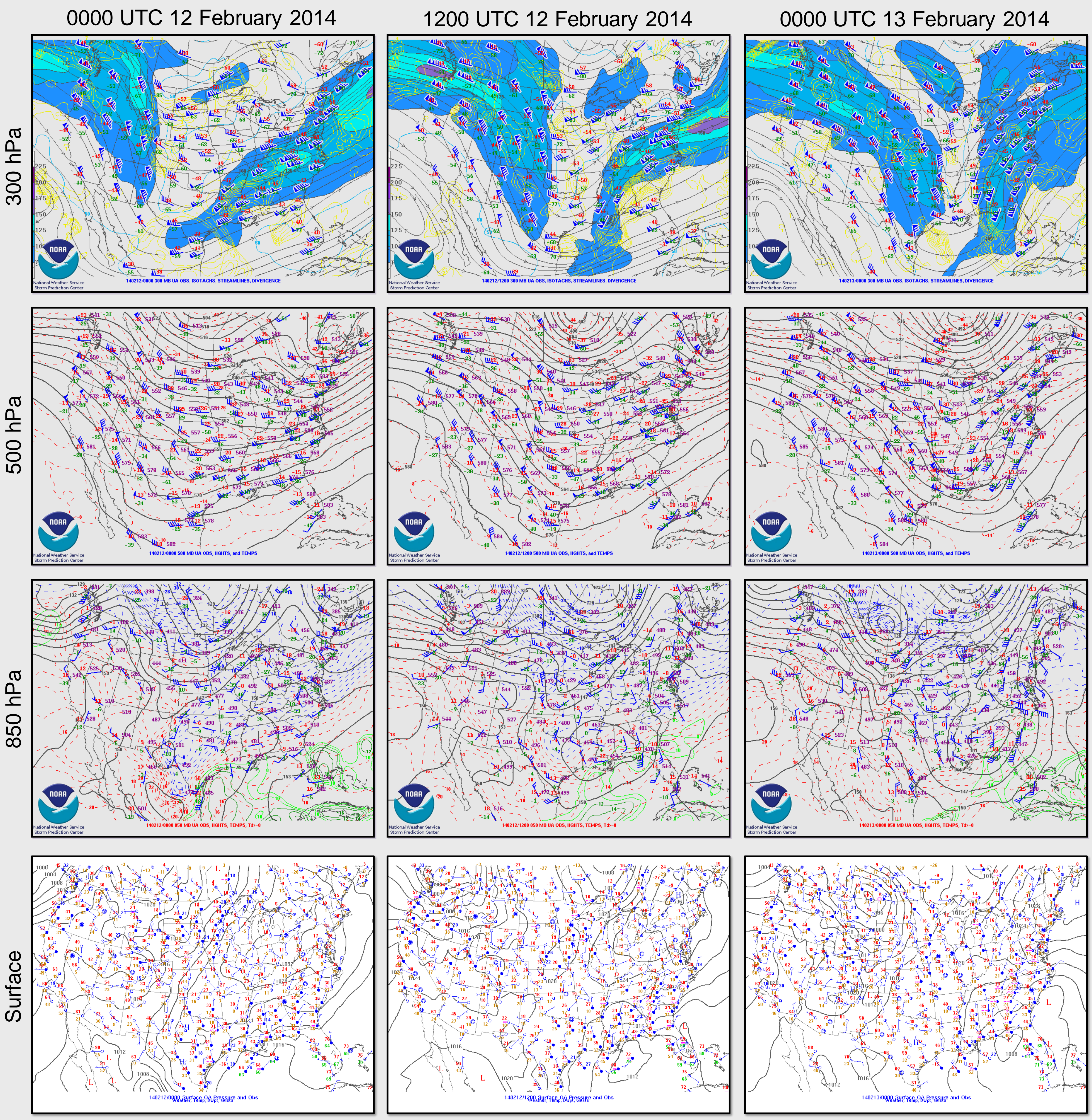
Trisha D. Palmer¹, S. Hunter Coleman², Patrick D. Moore³, Adam K. Baker¹, Jason T. Deese¹, Jessica L. Fieux¹, Steven E. Nelson¹, and Keith M. Stellman¹

¹National Weather Service Atlanta Forecast Office, Peachtree City, GA

²National Weather Service Forecast Office, Columbia, SC

³National Weather Service Greenville-Spartanburg Forecast Office, Greer, SC

Synoptic Overview



Aloft

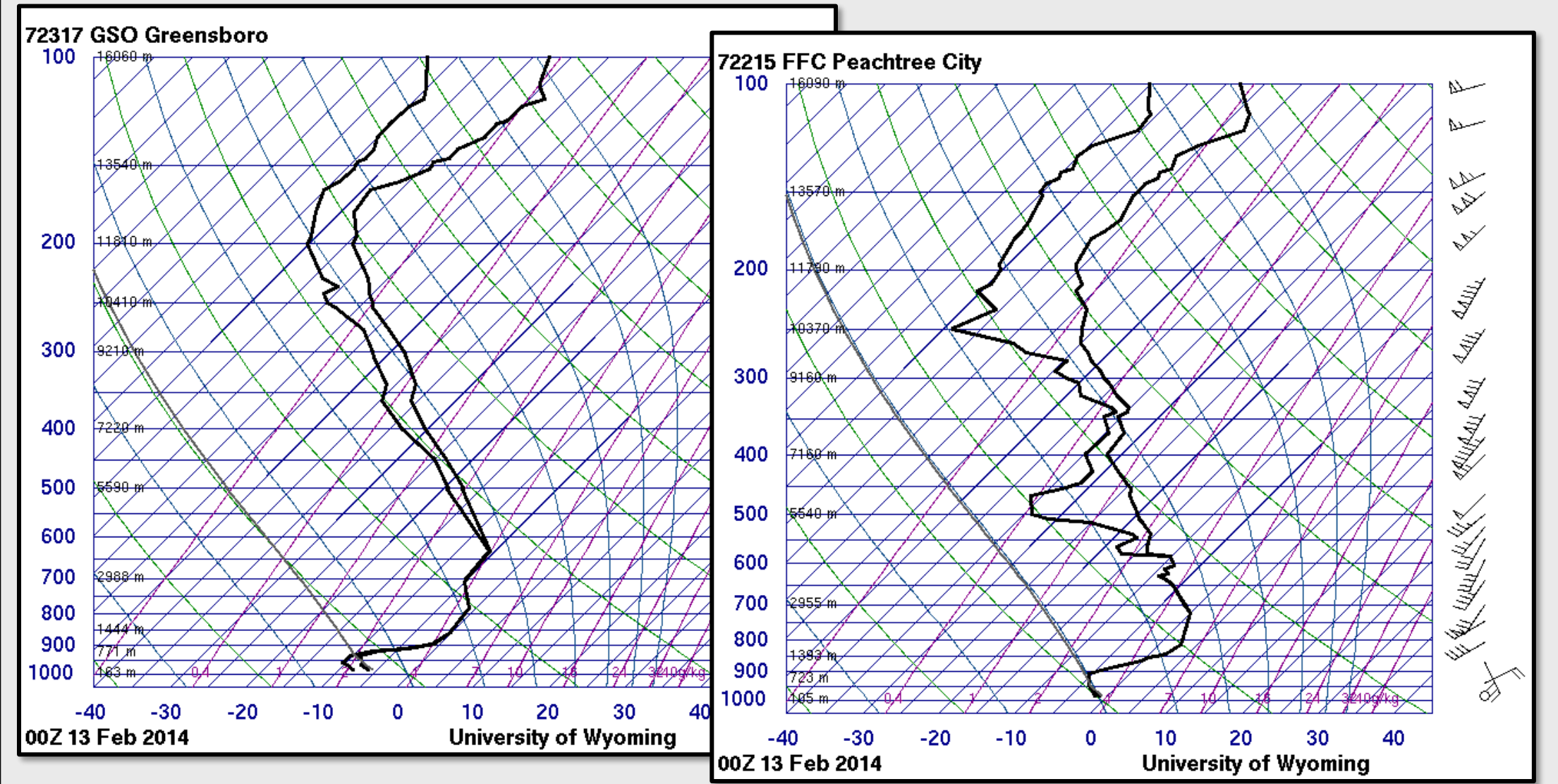
- Southwest flow aloft with upper divergence across the Southeast associated with right entrance region of jet
- Strong shortwave pushed into the southern Plains on 12 February, into the Southeast on 13 February
- Freezing level at 850 hPa stretched from north GA into central NC – all freezing to the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

Surface

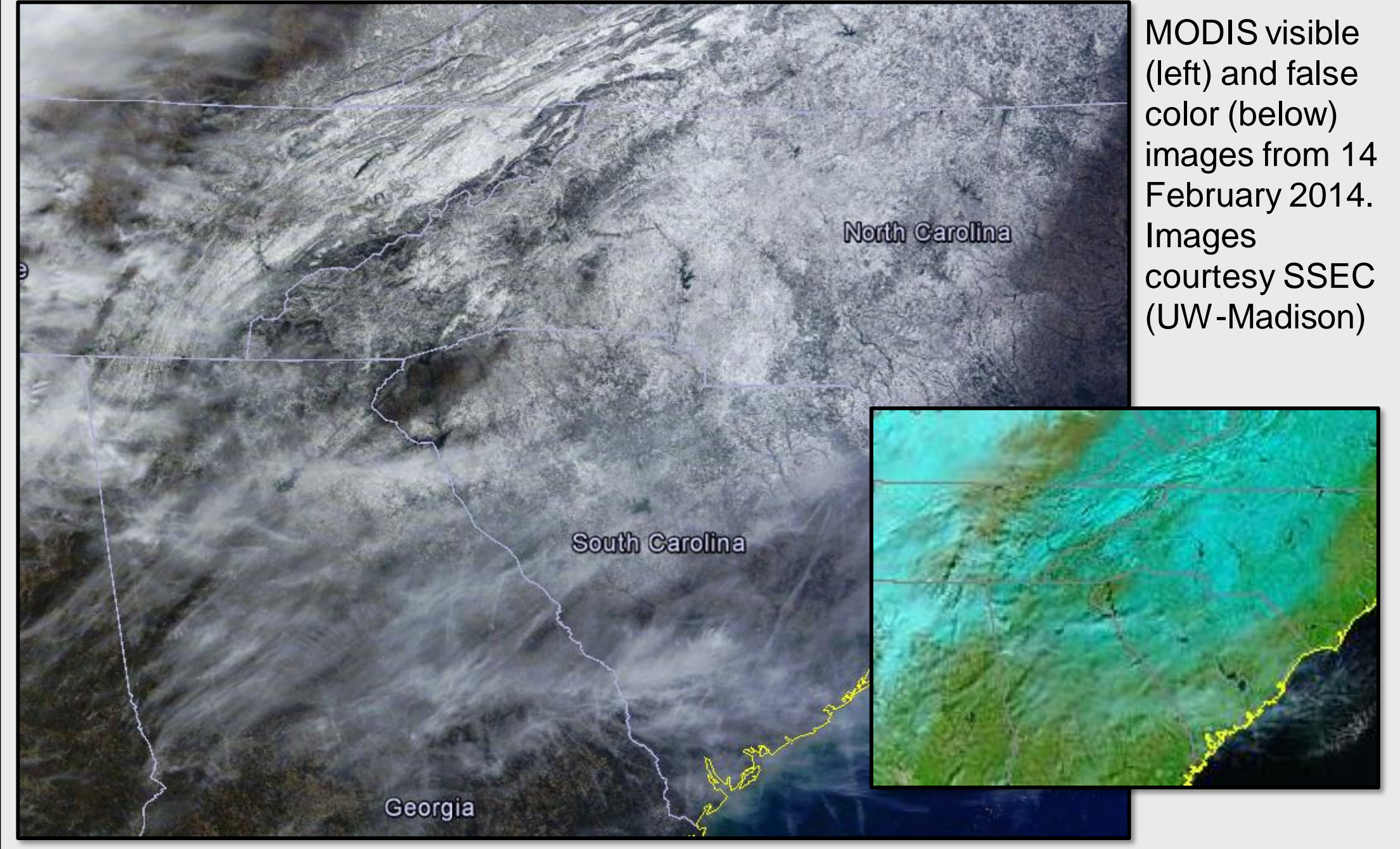
- Diabatically-enhanced classical cold air damming (CAD) in place across the Southeast and Mid-Atlantic
- Surface low developed in northern Gulf and pushed into Southeast on 13 February
- Sub-freezing surface temperatures in place across most of NC/SC/GA early on 12 February
- Location of freezing line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

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



Upper air soundings for KGSO (Greensboro, NC), left – all snow – and KFFC (Peachtree City, GA), right – freezing rain/sleet – from 0000 UTC 13 February. Source: University of Wyoming



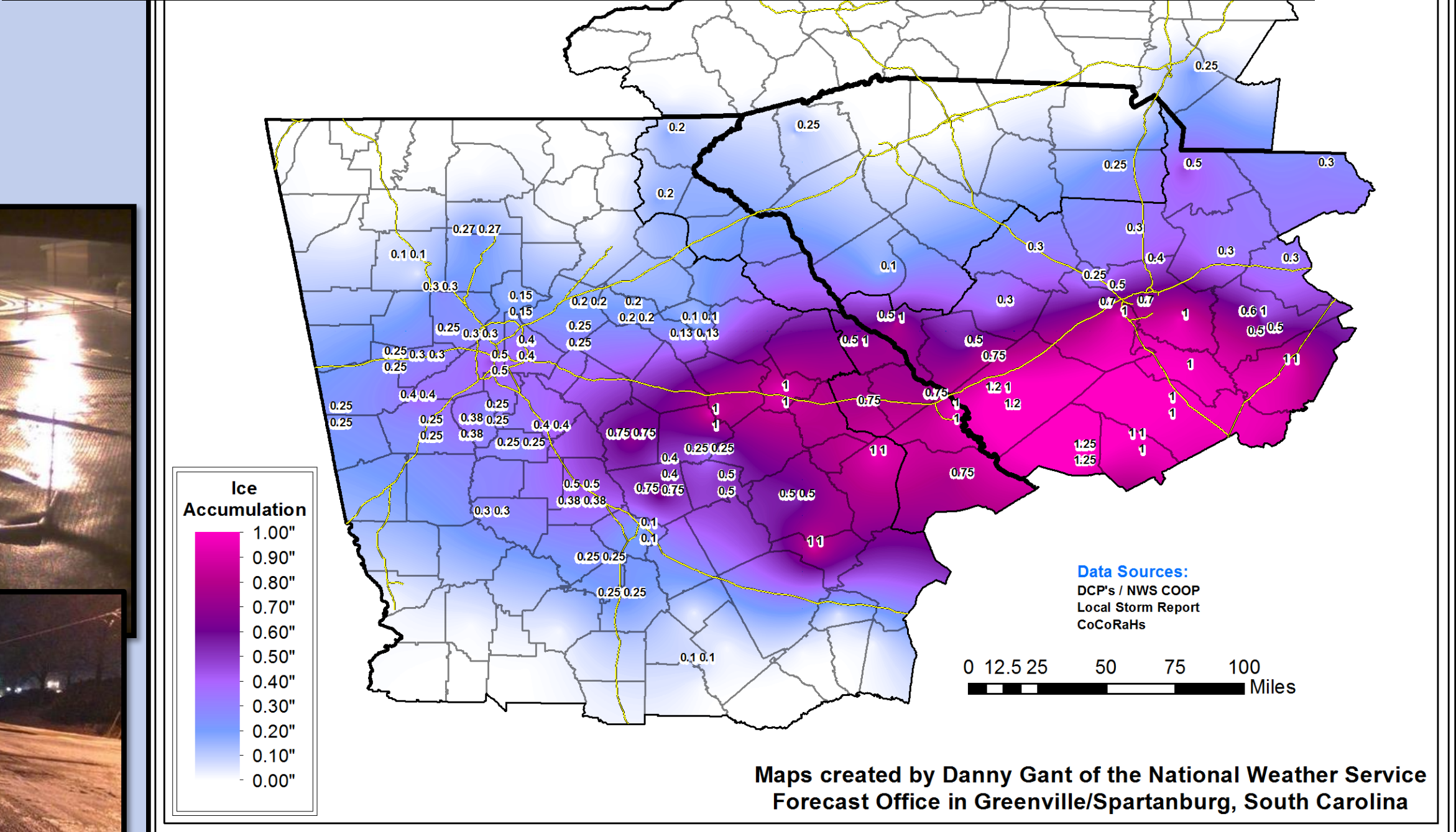
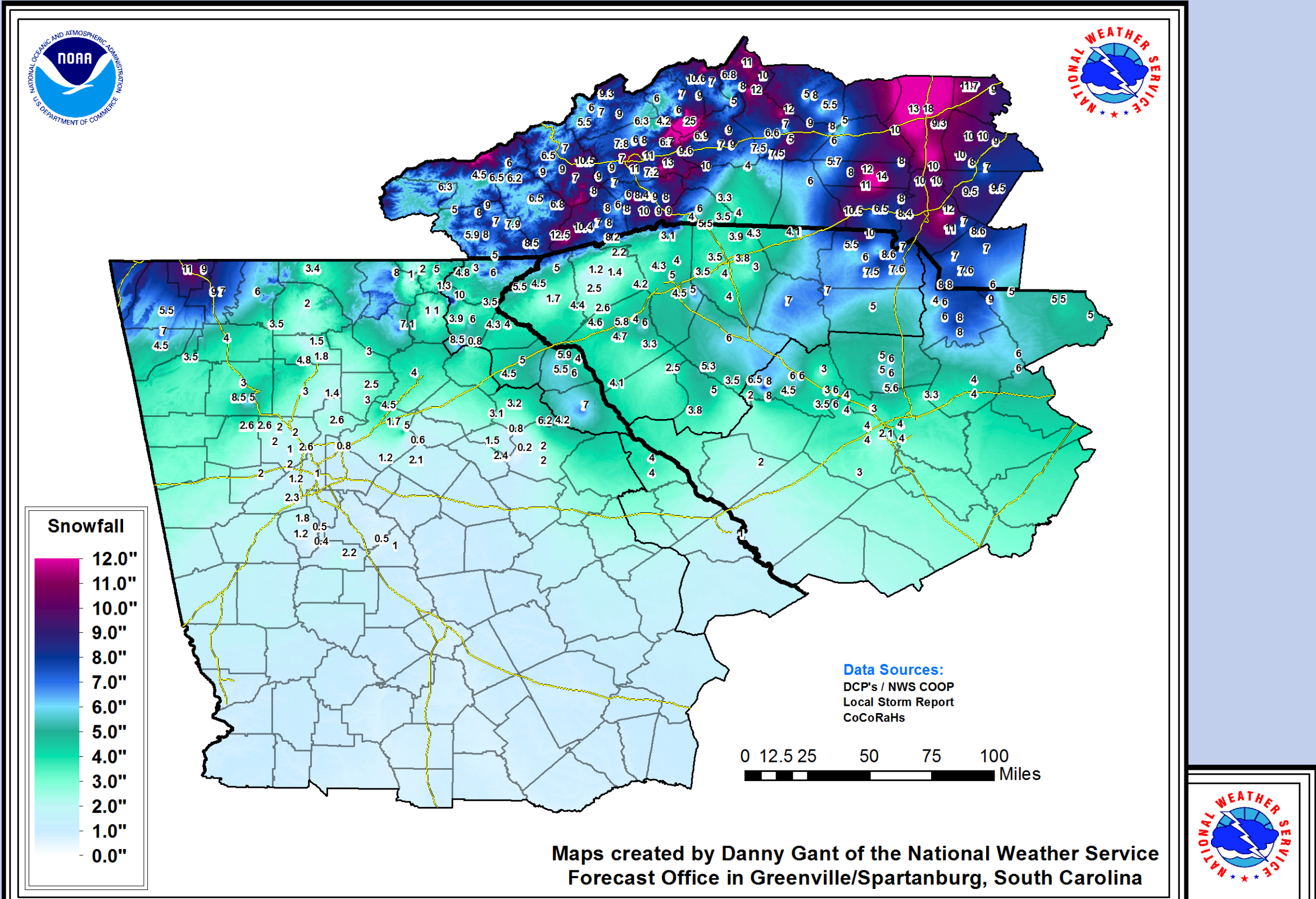
MODIS visible (left) and false color (below) images from 14 February 2014. Images courtesy SSEC (UW-Madison)



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

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: \$360 million over 1.5 million acres
 - GA: \$65 million
 - Historic Eisenhower Tree at Augusta National Golf Club suffered irreversible damage



Snowfall (top) and ice (bottom) accumulation from the 13 February 2014 storm (courtesy Danny Gant, WFO GSP)

Contact: Name: Trisha D. Palmer
Organization: NOAA/NWS Peachtree City
Email: trisha.palmer@noaa.gov