
South Carolina Severe Winter Storm

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(Group 1)





Agenda

- Overview of the disaster
- Precautions
- Disaster management
- What was right/wrong?
- Lessons learned
- References

Overview of the Disaster





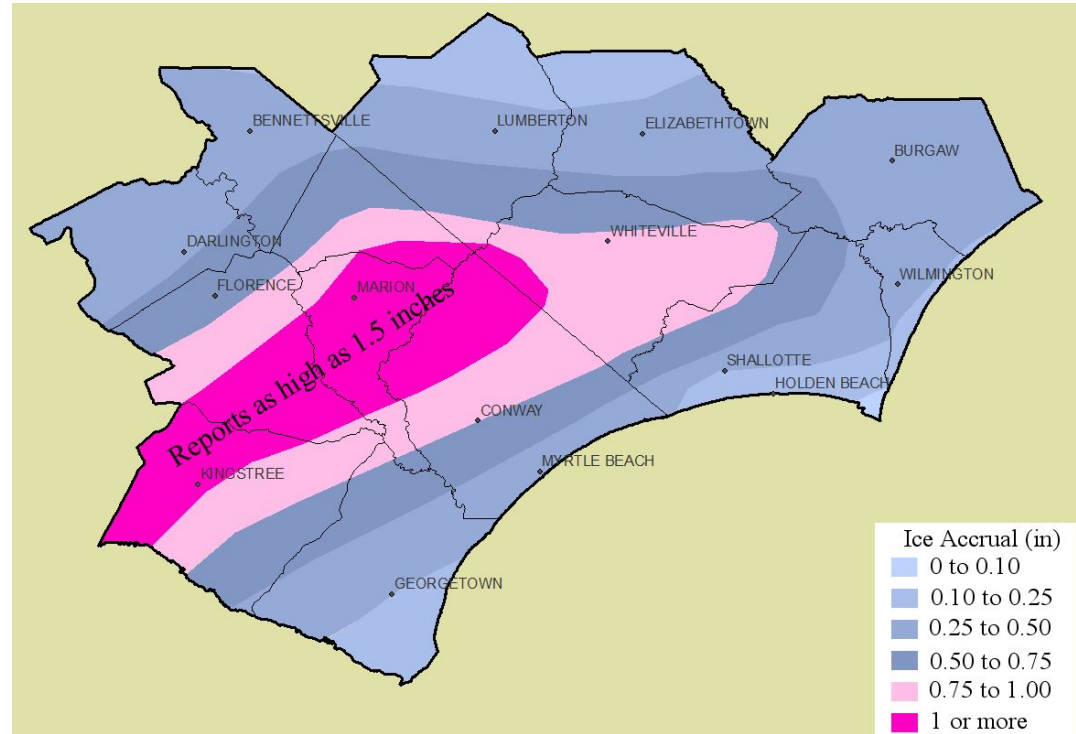
Overview

- “**Severe winter storm**” = prolonged event involving snow or ice
- Snow & ice, temperature, duration

- South Carolina: bordered by North Carolina, Atlantic Ocean, Georgia across the Savannah River
- February 11-12, 2014
- Caused by cold and dry air and the movement of low pressure areas through Atlantic and Georgia coast

Overview

- Freezing rain on the coasts
- Snow in interior areas

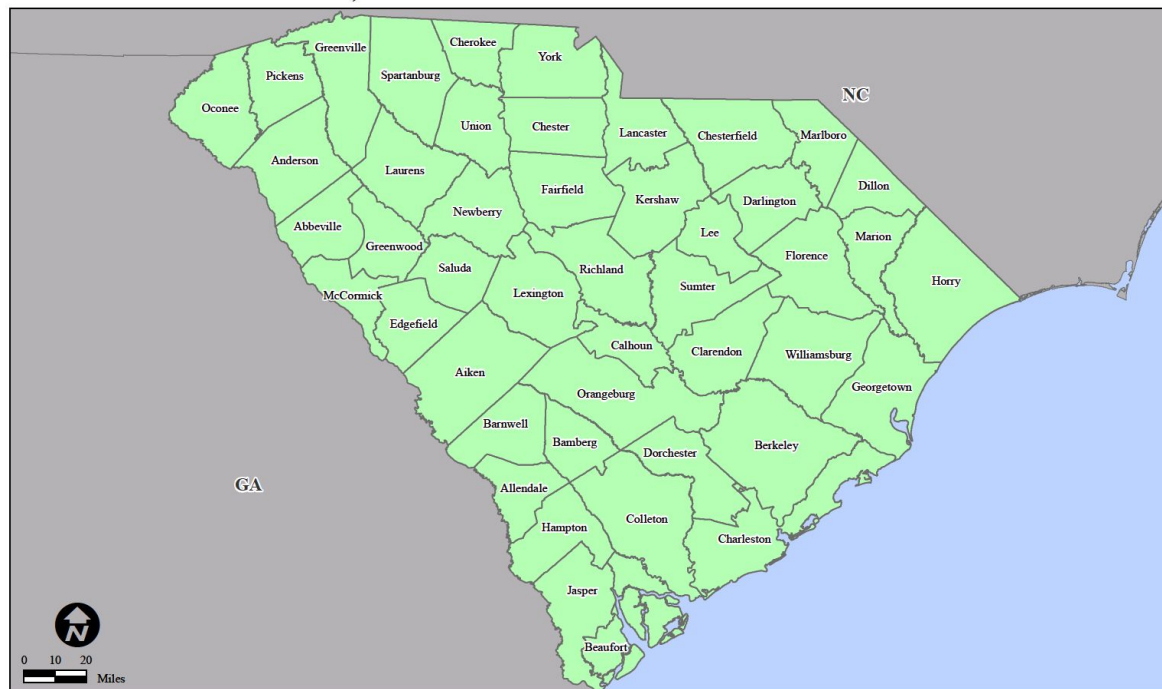




Overview: Affected Regions

- Florence County SC
- Horry County SC
- Marion county SC
- Darlington County SC
- Dillon County SC
- Marlboro County SC
- +other areas in North Carolina

FEMA-3369-EM, South Carolina Disaster Declaration as of 02/12/2014



Location Map



Designated Counties
 Public Assistance (Category B)

*Additional designations may be made
 at a later date if requested by the state
 and warranted by the results of further evaluation.*



MSB-OCIO-AEES
 Enterprise Geospatial
 Information Services (EGIS)

02/13/14 - 7:43 AM EST

Source: Disaster Federal Registry Notice
 02/12/2014



Precautions and Disaster Management



Some Statistics

In 2014 winter storm, more than:

- 13 deaths related with weather conditions

- 364,000 power outages

- 550 people in need of emergency shelters

- \$260 million in damages

- 3,000 cancelled flights

Before Disaster:

- Disaster Supply Kit: Rock salt and shovels
 - For possible isolation: sufficient heating fuel
 - Insulation for pipes (or newspapers, plastic)
 - Faucets should drip in winter
 - Learning to shut off water valves (in case a pipe bursts)
 - Vehicle check
 - Winter emergency kit for vehicles
- 
- A coiled yellow fire hose is shown in the top right corner of the slide.



WINTER EMERGENCY CAR KIT

70%

of winter deaths related to snow and ice occur in cars. Assemble an emergency car kit to stay safe during the winter season.

Windshield Scraper



Shovel



Phone Charger



Flashlight & Batteries



Jumper Cables



Non-perishable Food



First-aid Kit



Grit for Traction



Blankets & Clothes





Disaster management

During the Disaster

- Stay indoors
- Lightweight clothing, mittens, scarf, hat
- Be careful about shoveling snow- stretch
- Keep dry
- Pay attention to signs of frostbite
- Try to avoid driving- iff absolutely necessary
- If you're caught in the vehicle: pull off to the highway, run the engine every hour for only 10 minutes-- window for ventilation, snow on exhaust pipe- carbon monoxide poisoning
- Avoid overexertion

Disaster management

During the Disaster

- Avoid dehydration- drink
- Build up of ice on power lines
- Potentially still energized





What was right/wrong?

- (+) more than 4000 tons of salt on roadways
- (+) warning from forecasters of National Weather Service
- (-) late warning about power outage
- (-) 350,000 residents without power during 1 week due to damage in electric service
- (-) no universal approach to assessing the risk



Lessons learned

- Mitigation plan should include vulnerabilities of the community
- Sheltering, feeding, clearing roads are important not only for hurricanes but also for winter storms
- Better communication between the state and local agencies should be made during a disaster



References

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<https://www.planningforhazards.com/severe-winter-storm>

<https://www.weather.gov/ilm/Feb2014WinterStorm>

<https://www.npr.org/sections/thetwo-way/2014/02/12/275811245/crippling-paralyzing-southern-storm-will-be-wicked>



References

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<https://veoci.com/blog/lessons-from-atlanta>

<https://www.scemd.org/stay-informed/publications/severe-winter-weather-guide/>

<https://weather.com/safety/thunderstorms/news/2019-06-20-north-carolina-impacts-severe-wind>

<https://www.weather.gov/cae/Feb2014SnowIceEvent.html>



THANK YOU!

Any questions?