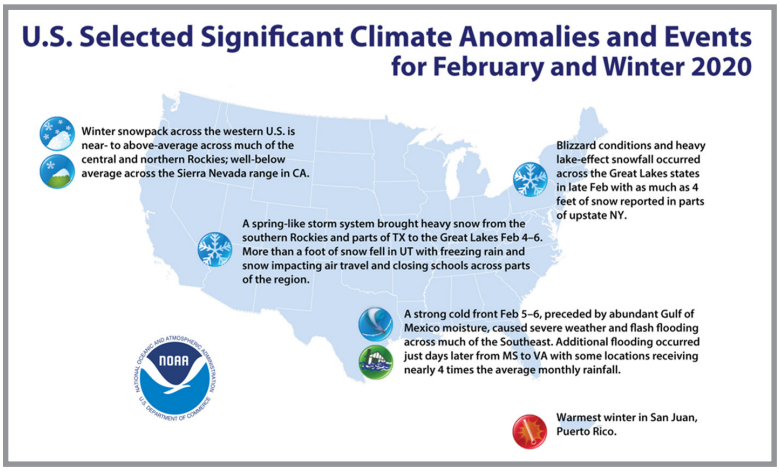
Quarterly Climate Impacts and Outlook

Southeast Region

March 2020

National and Regional Weather Highlights for Winter 2019-2020



*Much-above-average **minimum temperatures** were observed across the Southeast this winter. Fort Myers, FL, Orlando, FL and Vero Beach, FL all broke records for number of days with high minimum temperatures. A series of slow-moving low pressure systems were observed throughout the winter, causing **flooding** in local areas of the region. At the end of February, **snow fell** across North Carolina and southern Virginia, resulting in several hours of light to moderate snowfall. For more information, see: https://www.ncdc.noaa.gov/sotc/national*

Highlights for the Southeast

There were **few extremes in winter temperatures** across the region. However, Fort Myers, FL, Orlando, FL, and Vero Beach, FL each broke records for the number of days with a minimum temperature at or above 70 degrees F.

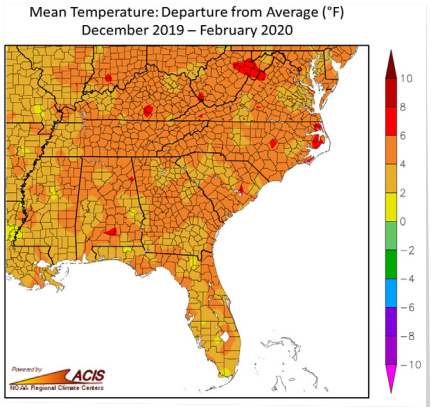
Precipitation was above normal across much of the Southeast for the winter. From February 6-7th, a **slow moving low pressure system** produced over 5 inches of rain for Hickory, NC. Virginia Governor Ralph Northam declared a state of emergency due to the heavy rains and **flooding** in several areas, from this storm.

Grandfather Mountain in North Carolina reported a peak wind gust of 107 mph on December 5th.

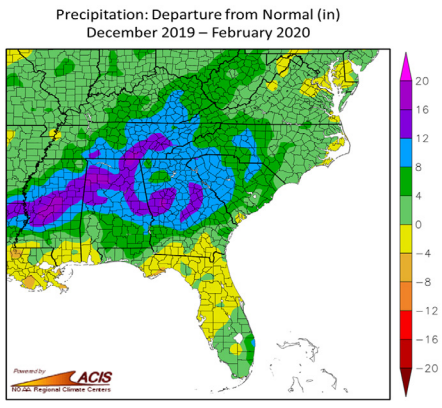
There was much **severe weather** across the Southeast A **microburst** was reported in Sampson County, NC on January 13th, with wind speed estimated at 85 mph. It damaged an elementary school gymnasium, resulting in three injuries. On January 24th, a **downburst** produced straight-line wind damage in Chesterfield County, SC, flipping a mobile home, causing six injuries. Maximum wind speed was estimated at 75 mph.

Regional Weather Overview for Winter 2019-2020

Temperature and Precipitation Anomalies

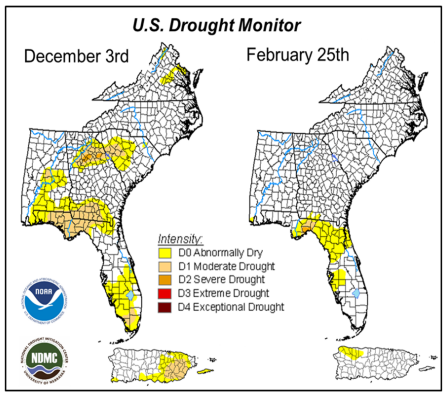


Above-average temperatures were recorded over most of the Southeast. Maximum temperatures were generally near normal, but minimum temperatures were 3-6 F above normal due to high humidity and cloud cover. There were eight long-term stations that observed their warmest winter (DJF) on record, including San Juan, PR, Norfolk, VA, and Elizabeth City, NC. San Juan, PR also observed its warmest February for monthly minimum temperatures.



Precipitation ranged from slightly below normal in the Florida peninsula to over 10 inches above normal in northern Alabama. Many stations observed their wettest winter on record, including Athens, GA (24.28 inches), Shelby, NC (21.43 inches) and Columbia, SC (20.63 inches). In contrast, parts of central Florida only had 70 percent of normal winter precipitation. Ocala, FL reported 5.35 inches of rain, nearly 3 inches below normal.

Drought

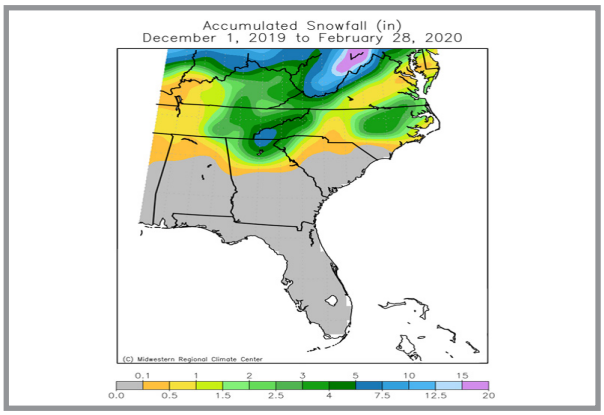


In early December, there were pockets of severe drought (D2) in northern Georgia, and moderate drought (D1) covered the Florida Panhandle, and eastern Puerto Rico. Above average winter precipitation eliminated the drought across the region, except in the central Panhandle of Florida, where a small pocket of severe drought (D2) remains. In Puerto Rico, abnormally dry conditions developed in the northwest part of the country by the end of February.

Contacts: Chip Konrad, Sandra Rayne and William Schmitz (SERCC)
Ellen Mecray (NOAA/NCEI)

Regional Climate Impacts for Winter 2019-2020

Winter Snowfall



Accumulated Snowfall DJF (image credit: MRCC)

While measurable snowfall was observed in portions of the region that rarely receive snow, some of the climatologically snowiest locations in the region recorded much-below-normal snowfall during the winter. The **Washington, DC** area only **reported 0.6 inches** of snow for the entire winter (DJF) season, which ranks it as the **4th lowest snowfall** total for a winter season. In contrast, a rapidly developing low pressure system moving off the Atlantic Coast, combined with a cold high pressure to the northwest led to several hours of light to moderate snow across North Carolina and southern Virginia on February 20th. Beaufort County, NC reported **4.3 inches of snow**, which is much above the 0.6 inches of snowfall that they normally receive for the entire winter (DJF).

Severe Weather

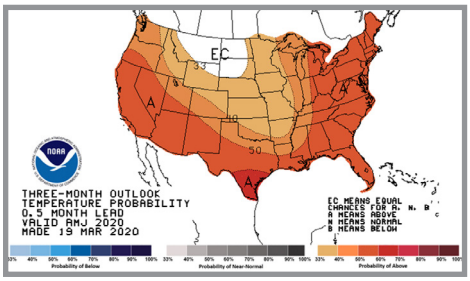
There were **733 reports of severe weather** this winter, which is over 350% of the median winter count observed during 2000-2018. **Fifty-two tornadoes** (19 EF-0s, 24 EF-1s, 9 EF-2s) were confirmed from December - February, which is over 200% of the average count of 23 tornadoes observed during 2000-2018. An EF-2 tornado associated with a **long-track supercell** occurred on December 16th, resulting in winds of 134 mph and causing **two fatalities** in Alabama. Another EF-2 tornado was reported on January 11th in Alabama, resulting in **three fatalities**. There were 673 reports of strong thunderstorm winds this winter, more than quadruple the average of 147. A thunderstorm wind of 75 mph in Green County, AL blew a very large tree down onto the water main in Forkland, and many thousands of gallons of water spilled out of the tower.

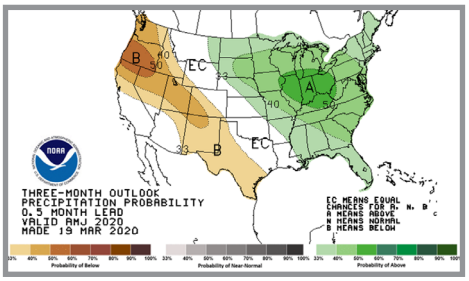
Agriculture and Livestock

The **wet conditions** across most of the Southeast complicated the harvest of cotton, soybeans, and other crops, plus hindered the planting of winter grains, pastures, and onions. Many cattle producers were forced to **rely on hay** due to the rain. In Georgia, livestock producers had to travel far to buy hay, since supplies were short due to the drought conditions last autumn. Strawberry growers in Florida indicated higher than normal **fungal disease** pressure and pest pressure due to the warmer temperatures in January and February. Tomato and potato farmers also reported pest pressure. **Premature budding and blooming** of several crops were observed in February, which increases their vulnerability to damaging late frosts or freezes.

Regional Climate Outlook for Spring 2020

Temperature and Precipitation





NOAA's Climate Prediction Center (CPC), forecasted much-above-normal temperatures are likely for all of the Southeastern region, during the months of April, May, and June. Precipitation is expected to be wetter-than-normal across the entire Southeastern region. Drought is expected to persist in the Panhandle of Florida, and develop throughout the entire Florida peninsula. Drought is not expected to develop across Puerto Rico.

El Niño

NOAA's Climate Prediction Center indicated on March 12th, that **ENSO neutral conditions are likely** to continue through the spring 2020 (~65% chance) and continue through the summer (~55% chance). Above-average sea surface temperatures (SSTs) were reported across the western, central, and far eastern Pacific Ocean during February. Even though associated atmospheric anomalies became more well-defined, the forecast consensus expects SSTs to decrease gradually during the spring and summer.

Southeast Region Partners

- National Oceanic and Atmospheric Administration
  - National Centers for Environmental Information
  - National Weather Service Eastern Region
  - National Weather Service Southern Region
  - Climate Prediction Center
  - National Hurricane Center
  - National Integrated Drought Information System
  - Carolinas Integrated Sciences and Assessments
  - National Sea Grant Office
  - Southeast and Caribbean Regional Collaboration Team
- State Climatologists
- Southeast Regional Climate Hub
- Southeast Climate Science Center
- South Atlantic Landscape Conservation Cooperative

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