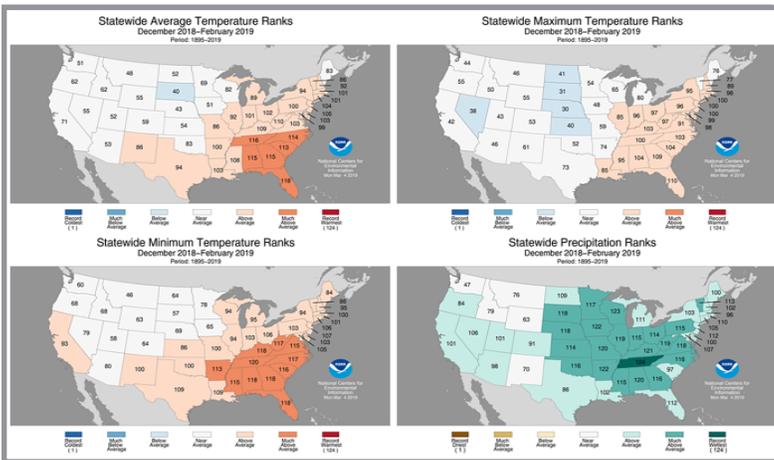




### Regional Weather Highlights for Winter 2018-2019



The Southeast experienced its 9th warmest winter on record. While daytime maximum temperatures were near normal for most of the region, nighttime minimum temperatures were much above normal; in fact every state in the region was ranked in the top tenth warmest minimum temperatures for 1895-2018. This was due in part to plumes of moisture streaming northward from the Gulf of Mexico, producing many clouds and much rainfall (4th wettest winter on record for the Southeast).

### Highlights for the Southeast

A Historic December 8-10 snowstorm yielded accumulations of more than 10 inches of snow across North Carolina and Virginia. The storm caused power outages, snarled traffic and led to the cancellation of hundreds of flights.

A vigorous low pressure system moved through the region on December 20-21, with pressure values that set new records. The lowest measured sea level (MSL) pressure observed in the storm was 986.6 mb in Asheville, NC.

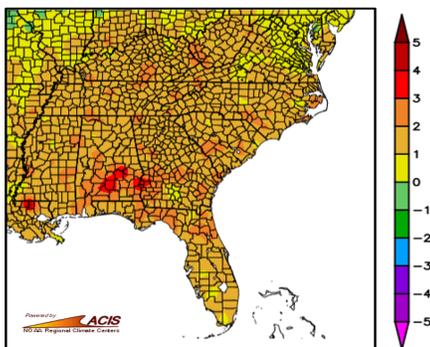
Grandfather Mountain in North Carolina recorded its highest wind gust at 124.0 mph on February 24th, as the center of an intense low pressure system moved across the Great Lakes. Less than an hour later, the station measured a sustained wind speed of 101.5 mph, also a new record.

There was much severe weather across the Southeast, with more hail, thunderstorm wind, and tornado reports (224) than the average (199) value from 2000-2016. An EF-3 tornado on December 1st caused four injuries at Kings Bay Naval Base in Camden County, GA along the coast

### Regional Weather Overview for Winter 2018-2019

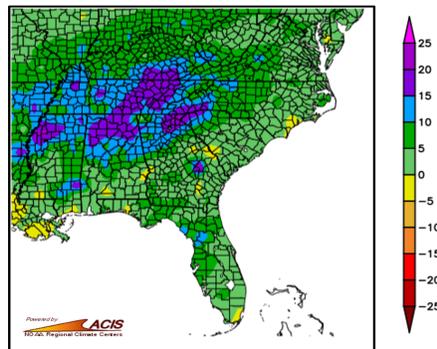
#### Temperature and Precipitation Anomalies

Mean Temperature: Departure from Average (°F)  
December – February 2018 – 2019



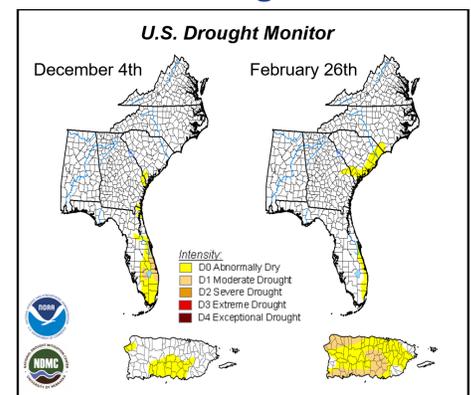
Above-average temperatures were observed over almost all of the Southeast. A few stations had their warmest winter (DJF) max temperature on record, including Montgomery, AL and Gainesville, FL. Maximum temperatures were generally within 1-2 F of normal, but minimum temperatures were generally 3-8 F warmer than normal. Atlanta's minimum temperature stayed above 32 F for February; the last time this happened was in 1957.

Precipitation: Departure from Normal  
December – February 2018 – 2019



Precipitation ranged from slightly below normal along the Eastern Coast of the region to over 10 inches above normal along the Appalachian Mountains. Many stations in western North Carolina recorded their wettest winter on record, including Asheville, NC (23.32 inches) and Brevard, NC (37.28 inches). In contrast, the coastal areas of the Carolinas only saw 70% of normal winter precipitation, and San Juan, PR reported their 6th driest winter at 6.52 inches.

#### Drought

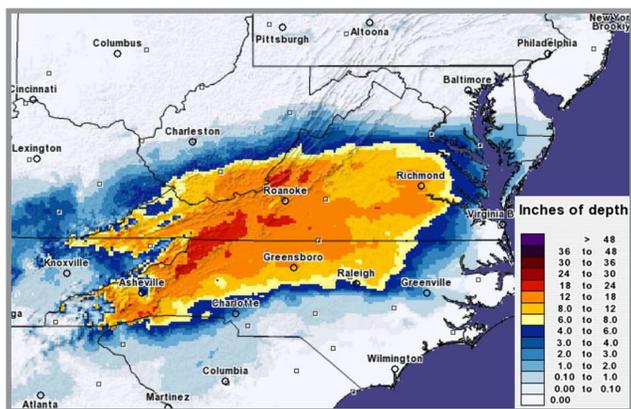


At the beginning of the season, a small area of moderate drought along the East Coast of the Florida peninsula covered 1.6% of the area. By the end of winter, moderate drought was gone from the region; however abnormally dry conditions spread northward into coastal areas of South Carolina and southeastern North Carolina. Abnormally dry conditions in Puerto Rico increased in areal coverage, as moderate drought emerged with 33% coverage by the end of February.



## Regional Climate Impacts for Winter 2018-2019

### Historic December Snow



48-hour snowfall totals as of 7 a.m. on 12/10/2018

A heavy snowstorm impacted [Virginia and northern North Carolina on December 8-10](#), as a low pressure system moved along the Gulf and Atlantic coasts. Heavy rainfall was observed along the coast, with [Cape Hatteras measuring 4.16 inches of rain](#). Many sites in Virginia and North Carolina received more than a [foot of snow](#), which is close to the annual average snowfall for these locations. Mount Mitchell and Jefferson, NC reported 32 and 20 inches, respectively. And Boone, NC and Roanoke, VA reported 15 inches of snow. [The snow caused power outages that affected nearly 300,000 customers](#), snarled traffic, and led to the cancellation of hundreds of flights in the region.

### Wet Winter of 2018-2019

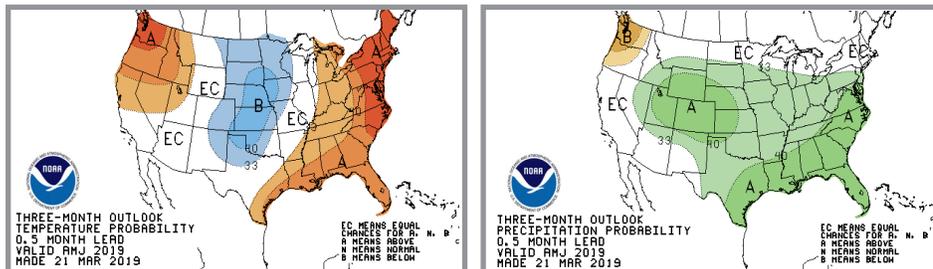
The season started off exceptionally wet in the Southeast. Most of the [region was at least 150 percent wetter than normal](#), with a large swath of rainfall of more than 300 percent of normal covering most of northern Florida and stretching up the Atlantic Coast to Charleston, SC. Numerous stations reported their [wettest December on record](#), and 76 long-term (more than 50 years of record) reported precipitation amounts ranked in the top three for their sites. In January, most areas received above average rainfall. The southern half of the [Florida peninsula](#) received rainfall amounts up to 200% wetter than normal. In [February, several stations reported record precipitation totals](#), including Muscle Shoals, AL (14.13 inches) and Huntsville, AL (13.72 inches). Areas of western North Carolina received heavy rains that caused minor flooding and [mudslides](#) near the border with Tennessee.

### Agriculture and Livestock

The wet conditions across most of the Southeast continue impacted 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](#), field crops, fruit and vegetable growers all noted negative impacts from too much moisture. The warmer weather in the first half of January improved [strawberry harvests in Florida](#) after a slow-down in December due to the cooler temperatures and rain. 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 Winter 2018-2019

### Temperature and Precipitation



[NOAA's Climate Prediction Center \(CPC\)](#), forecasted that much-above-normal temperatures are likely to occur in eastern Virginia, North Carolina, and northeastern South Carolina. Warmer-than-normal temperatures are likely for the rest of the Southeastern area. Precipitation is expected to be wetter-than-normal across the entire region. Drought is expected to decrease some in Puerto Rico.

### El Niño

NOAA's Climate Prediction Center indicated on [March 14](#) that weak El Niño conditions are likely to continue through spring 2019 (~80% chance) and summer (~60% chance). El Niño conditions strengthened during February 2019 as above-average sea surface temperatures (SSTs) increased and associated atmospheric anomalies became more well-defined. Climatologically, El Niño is associated with reductions in Atlantic hurricane activity due to increased vertical wind shear and also associated with [above average precipitation in Florida during Spring](#).

### 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](#)