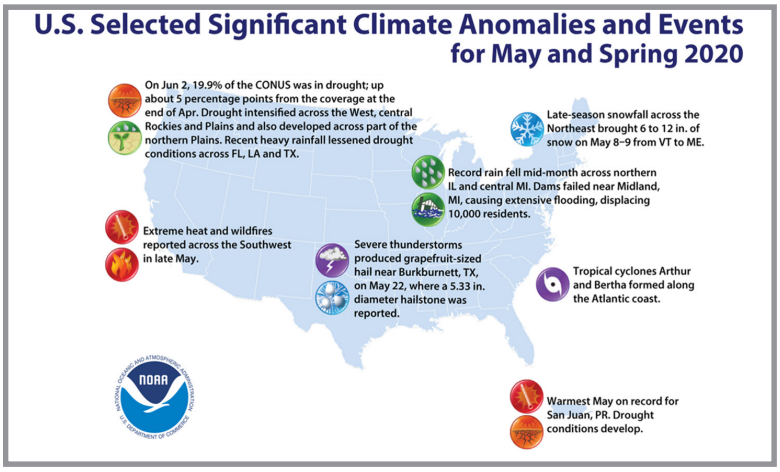
Quarterly Climate Impacts and Outlook

Southeast Region

June 2020

National and Regional Weather Highlights for Spring 2020



Above-average temperatures *were observed across the Southeast this spring. Florida reported it's* ***second warmest spring*** *on record. Precipitation varied across the region, however two tropical storms and a slow-moving upper level low observed throughout the spring, caused flooding in local areas of the Southeast. South Carolina experienced its* ***8th wettest spring*** *on record. A severe weather outbreak occurred in April, including an EF-4 tornado.. For more information, see: https://www.ncdc.noaa.gov/sotc/national*

Highlights for the Southeast

There were **few extremes in spring temperatures** across the region. However, Miami, FL and Key West, FL each observed their **warmest spring (MAM)** on record. In contrast, arctic air moved over the Southeast on May 9th - 10th. Mt. Mitchell, NC reported the **second coldest May minimum** temperature on record at 14 degrees F.

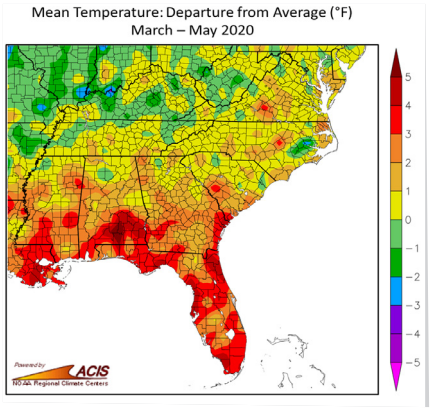
Precipitation was above normal across much of the Southeast for the spring. From May 19th - 21st, a **slow-moving upper level low** produced over 8 inches of rain for Roanoke, VA. The Roanoke Fire-EMS performed several water rescues as floodwaters rose. Some residents were asked to evacuate due to concerns that the Spring Valley damn could fail.

Unusual for this time of year, two **Tropical Storms, Arthur and Bertha**, occurred in May, providing beneficial rainfall and localized flooding in parts of the Southeast.

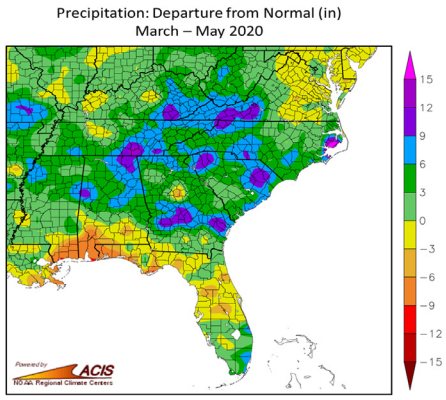
A **severe weather outbreak** occurred on April 12th - 13th. There were 99 tornadoes reported with this outbreak, including the **first EF-4 tornado** confirmed in South Carolina since 1995..

Regional Weather Overview for Spring 2020

Temperature and Precipitation Anomalies

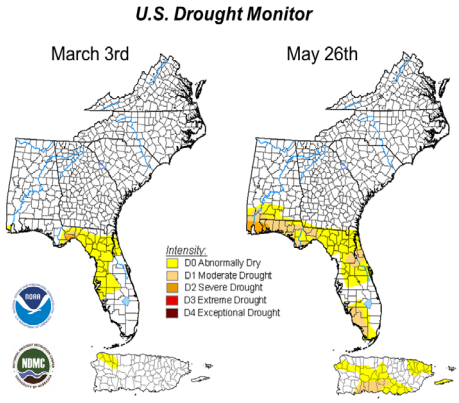


Above-average temperatures were recorded over southern Alabama, Florida and Puerto Rico, due in part to record-breaking sea surface temperatures across portions of the Gulf of Mexico and Caribbean for this time of the year. Near-average temperatures were recorded over the rest of the Southeast. Maximum temperatures were generally near normal, but minimum temperatures were 3-6 F above normal due to high humidity and cloud cover.



Precipitation ranged from slightly below normal in the Florida Peninsula to over 10 inches above normal in western NC and western VA. A few stations observed their wettest spring on record, including Roanoke, VA (20.52 inches), and Martinsville, VA (20.34 inches). In contrast, parts of Florida and Puerto Rico only had 70 percent of normal spring precipitation. Guayama, PR reported 4.28 inches of rain, more than 5 inches below normal.

Drought

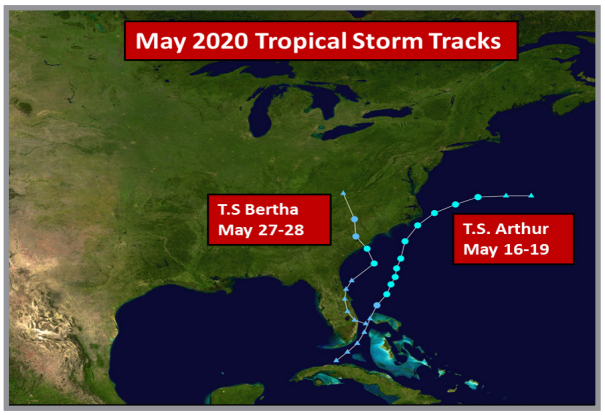


In early March, much of the region was moist with areas of severe drought (D2) and moderate drought (D1) restricted to portions of Florida. Above-average spring precipitation kept the region mostly drought free, except in the central Panhandle of Florida, where the small pocket of severe drought (D2) remains. Below-average precipitation led to the development of abnormally dry conditions (D0) with an area of moderate drought (D1) in PR.

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

Regional Climate Impacts for Spring 2020

Tropical Storms



May 2020 Tropical Storm Tracks (image from SERCC)

On the morning of May 18th, Tropical Storm Arthur, the **first named storm of the 2020 Atlantic hurricane season,** made its closest approach to the Outer Banks of North Carolina. Carteret County, NC observed over 4 inches (102 mm) of rain from Arthur. Highways along the Outer Banks were closed. On May 27th, Tropical Storm Bertha made landfall on the South Carolina coast, just east of Charleston. The system weakened rapidly and moved northwest through the region. The precursor disturbance to Bertha however, **caused a significant, multi-day rainfall** event across South Florida, with accumulations of more than 8 inches (203 mm) across several locations. On May 26th, **Miami, FL** (1895-2020) observed a 24-hour rainfall total of 7.4 inches (188 mm), making it the 3rd wettest May day on record.

Severe Weather

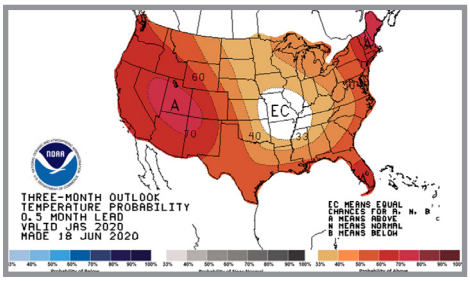
There were **1658 reports of severe weather** this spring, which is over 188% of the median spring count observed during 2000-2018. One hundred and fifty-two tornadoes (46 EF-0s, 76 EF-1s, 19 EF-2s, 10 EF-3s, 1 EF-4) were confirmed from March - May, which is over 266% of the average count of 57 tornadoes observed during 2000-2018. **An EF-4 tornado** associated with a long-track supercell occurred during the severe weather outbreak April 12th - 13th, resulting in winds of 174 mph and causing five fatalities in South Carolina. **An EF-2 tornado** was reported in Georgia during that outbreak, with winds of 135 mph, resulting in seven fatalities and 23 injuries. On May 21st, **tea-cup sized hail** (3 inches) was reported in Lake Mary, FL. This was the 18th tea-cup or larger sized hail in the state since 1950, and only the 4th in the May.

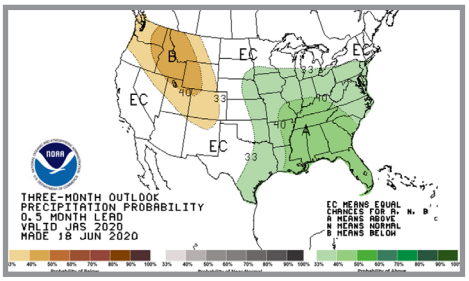
Agriculture and Livestock

The **wet conditions** across most of the Southeast complicated the fieldwork applying herbicides, fertilizers, and nutrients, plus **caused disease pressures** on watermelons, potatoes, corn, and peanuts. South Carolina reported water damage to strawberry crops. Many cattle producers were forced to rely on hay due to the rain. The warm weather paired with scattered thunderstorms led to the appearance of flies on the cattle. In Georgia, the blueberry crop was badly **damaged by the severe weather** in April. The lack of rainfall in Florida led to poor grazing conditions and numerous wildfires. On of the largest fires burned over 8,600 acres and forced a portion of I-75 to close. Many residences were destroyed from this fire, and many residents were told to evacuate the area.

Regional Climate Outlook for Summer 2020

Temperature and Precipitation





NOAA's Climate Prediction Center (CPC), forecasted above-normal temperatures are likely for all of the Southeastern region, during the months of July, August, and September. Precipitation is expected to be wetter-than-normal across the entire Southeastern region. Drought is expected to improve in the Panhandle of Florida and southern Alabama, however remain in the southern portions of Puerto Rico.

Atlantic Hurricane Season

Released by NOAA's Climate Prediction Center on May 21st, the Atlantic hurricane season outlook indicates a 60% chance of an **above-normal season**, a 30% chance of a near-normal season, and a 10% chance of below-normal season. The above-average season consists of 13-19 named storms, with 6-10 reaching hurricane strength, and 3-6 becoming major (category 3-5) hurricanes. This outlook reflects the contributing climate factors of the ongoing ENSO neutral conditions and above average SSTs.

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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