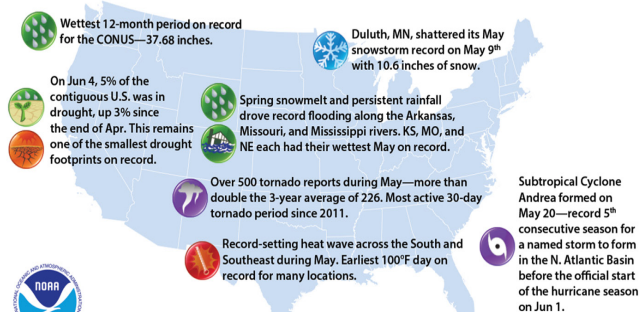


National and Regional Weather Highlights for Spring 2019

U.S. Selected Significant Climate Anomalies and Events May and Spring 2019



Much-above-average temperatures were observed across the Southeast making it one of the 10 warmest March-May periods on record. The record setting heat wave at the end of May included the earliest 100 F day for many locations. Florida ranked warmest on record for May. Below-average precipitation was observed across the Southeast during March-May. The record heat and dry conditions increased drought across much of the region by the end of Spring. For more information, see: <https://www.ncdc.noaa.gov/sotc/>

Highlights for the Southeast

March 3rd and April 19th severe weather outbreaks, including the first EF-4 tornado reported in the United States within the past two years. Over 23 fatalities were reported with these outbreaks, numerous power outages and several cancelled flights. Virginia had the most active tornado day in over 14 years.

Raleigh, NC reported a total pollen count of 3278 grains per cubic meter in April, second only to the record set in 2010. Atlanta, GA had the highest pollen count since 2013 at 6262 grains per cubic meter, and the fifth highest since 1991.

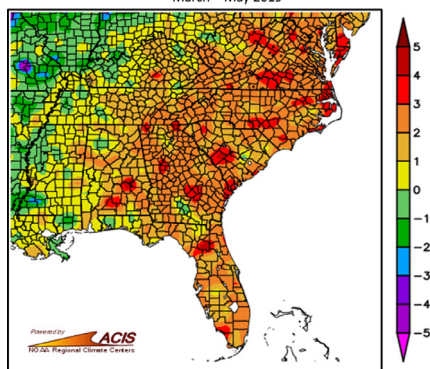
Many stations reported breaking or tying their highest all-time maximum monthly May temperature during a heat wave May 26th-30th. The heat lingered with several stations reporting 4 or more days of consecutive 100 F temperatures.

The record breaking temperatures and lack of precipitation increased drought conditions by the end of spring. This is a worry for farmers as many dryland crops are seeing impacts and soybean planting has stopped until more precipitation increases soil moisture.

Regional Weather Overview for Spring 2019

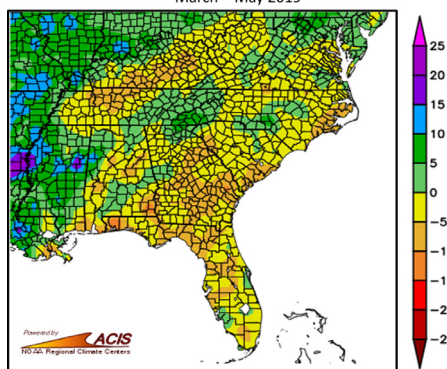
Temperature and Precipitation Anomalies

Mean Temperature: Departure from Average (°F)
March – May 2019



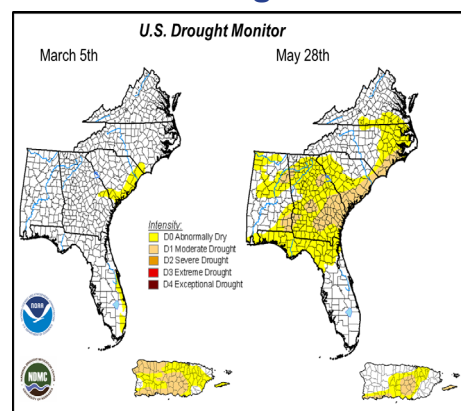
Above-average temperatures were recorded over most of the Southeast. Mean temperatures were 2-4 F above normal for most of the region. Pelion, SC, Jacksonville, FL, and Gainesville, FL all observed their 1st warmest spring on record. At the end of April, parts of NC reached 90 F, including Concord, NC and New Bern, NC. By the end of May several stations were reaching 100+ F due to the Bermuda high pressure shifting westward. Puerto Rico was near normal for spring.

Precipitation: Departure from Normal (in)
March – May 2019



Spring precipitation was around 50% to 90% of normal across much of the Southeast, except in western NC, and parts of central NC and AL, where it went up to 130% of normal. Summerville, SC reported only 5.00 inches for the period, its 4th driest in 104 years. May was especially dry, with 74 long-term stations reporting six or less days with measurable precipitation. Precipitation at most stations in Puerto Rico was less than 75% of normal.

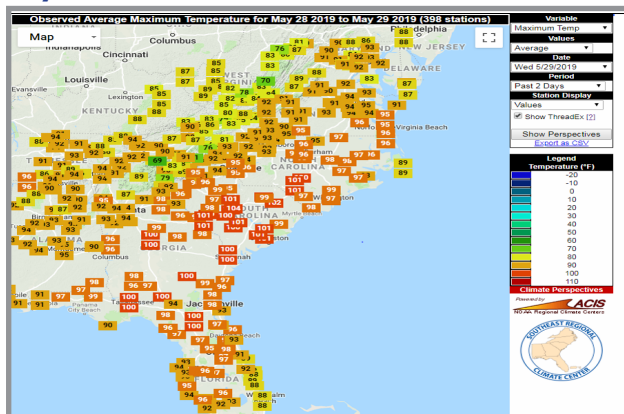
Drought



At the beginning of March the Southeast had no drought, and abnormally dry (D0) conditions covered about 5% of the region. The lack of precipitation and end of season heat wave, intensified drought conditions, however. By the end of May, moderate drought (D1) conditions covered 12% of the region, and abnormally dry (D0) covered about 51% of the region. Conversely, in Puerto Rico, moderate drought (D1) decreased from 43% to 16%.

Regional Climate Impacts for Spring 2019

May Heat Wave



Climate Perspectives 2-day Maximum Temperatures

In late May, the Bermuda high pressure system moved northwest to a position immediately off of the coast of South Carolina, leading to the development of a heat wave. On May 26th - 30th, many stations reported breaking or tying their highest all-time maximum monthly May temperature including Savannah, GA and Gainesville, FL at 102 F; Charleston, SC and Wilmington, NC at 101 F; and Tuscaloosa, AL at 98 F. Charleston, SC, Wilmington, NC, and Macon, GA each had their first 100 F day in May. Not only did many stations reach high daily maximum temperatures, but the heat stayed around for several days. Pelion, SC had six consecutive days of 100 F; Florence, SC, Columbia, SC and Augusta, GA each had five consecutive days of 100 F.

Severe Weather

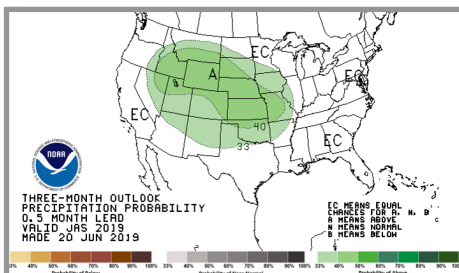
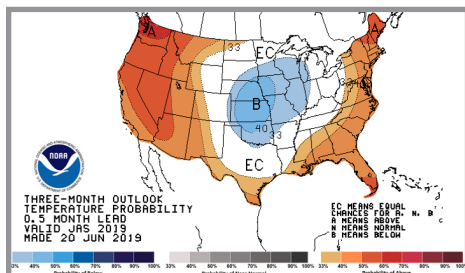
There were 1758 reports of severe weather for the spring, which is 200% of the median spring count observed during 2000-2018. A little more than 40% of these reports occurred during the severe weather outbreak on April 19th, as a low pressure system intensified and a line of thunderstorms with embedded supercells tracked northeast through the region. Virginia reported 19 tornadoes, making it the most active tornado day for Virginia in over 14 years. There were numerous power outages with this event, and hundreds of flights were cancelled. The severe weather event on March 3rd included an EF-4 tornado, with winds reaching 170 mph, through Alabama. This is the first EF-4 tornado that has been reported in the United States within the past two years.

Agriculture and Livestock

On March 6-7, temperatures in Georgia dipped below freezing just weeks after many peach trees started to bloom. While the early season peach crop in Georgia sustained some damage, a much greater yield is expected, compared to recent years, due to minimal losses from spring freezes and a sufficient accumulation of chill hours during the winter. In Florida, a hailstorm at the end of March damaged many watermelon plants, and the severe weather outbreak on April 19th caused some damage to several fruit and vegetable crops. The lack of precipitation and higher temperatures in May increased water usage of plants, and dryland crops saw impacts. As soil moisture values continue to decline, soybean planting has stopped until more rain.

Regional Climate Outlook for Summer 2019

Temperature and Precipitation



NOAA's Climate Prediction Center (CPC), forecasted that much-above-normal temperatures are likely to occur in southern Florida. Warmer-than-normal temperatures are likely for the rest of the Southeastern area. Equal chances of above-normal and below-normal precipitation are expected across the entire region. Drought will continue to persist along the southeastern coast of North Carolina and will likely increase across Puerto Rico for the summer.

Atlantic Hurricane Season

Released by the CPC on May 23rd, the Atlantic hurricane season [outlook](#) indicates a 40% chance of a near-normal season, a 30% chance of an above-normal season, and a 30% chance of a below-normal season. An average season consists of 12 named storms, with 6 reaching hurricane strength and 3 become major (Category 3-5) hurricanes. This outlook reflects competing climate factors between the ongoing weak El Niño conditions in the Pacific and the warmer sea surface temperatures in the Atlantic basin.

Southeast Region Partners

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[Climate Prediction Center](#)

[National Hurricane Center](#)

[National Integrated Drought Information System](#)

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[State Climatologists](#)

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