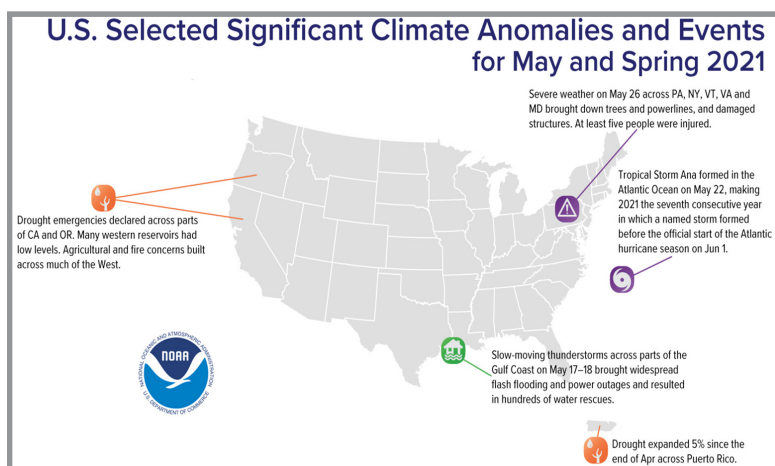


## National and Regional Weather Highlights for Spring 2021



**Near-average temperatures and below-average precipitation was observed across the Southeast this spring. Drought emerged** across portions of the eastern Carolinas and Virginia, and intensified in Puerto Rico. There were **no EF-3+ tornadoes** reported across the CONUS **during May**. If this verifies, it will be the first time since reliable records began in 1950, that no EF-3+ tornadoes occurred during the month of May. 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, West Palm Beach, FL observed its fourth **warmest spring (MAM)** on record. In contrast, a late season freeze occurred on April 22nd -23rd. Some growers reported total losses of blackberries, apples, and peaches.

Precipitation was **below normal** across much of the Southeast for the spring. Raleigh, NC reported its **driest spring (MAM)** and Wilmington, NC had its second driest spring (MAM) on record.

**Tropical Storm Ana** formed in the Atlantic Ocean on May 22nd, making 2021 the **seventh consecutive year** in which a named storm formed before the official start of the Atlantic hurricane season on June 1st.

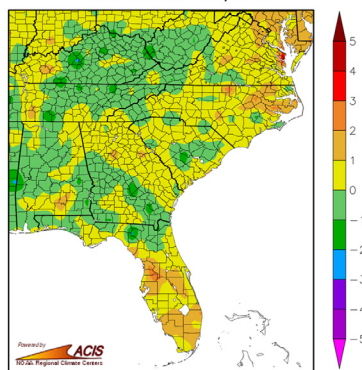
A **severe weather outbreak** occurred on March 25th - 26th. There were 13 tornadoes reported with this outbreak, including the **first EF-4 tornado** confirmed in Georgia since 2011.

On May 4th NOAA released the **new U.S. Climate Normals** as a standard way to compare today's conditions to 30-year averages.

## Regional Weather Overview for Spring 2021

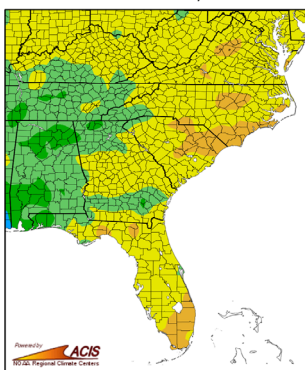
### Temperature and Precipitation Anomalies

Mean Temperature: Departure from Average (°F)  
March 2021 – May 2021



Above-average mean temperatures were recorded over parts of Virginia, North Carolina and Florida. Near-average mean temperatures were recorded over the rest of the Southeast. An upper-level ridge and surface high pressure system persisted across the region May 24th - 28th. As a result, the University of South Carolina reported its first daily maximum of 100 degrees F on May 24th, which usually isn't seen until the middle of June.

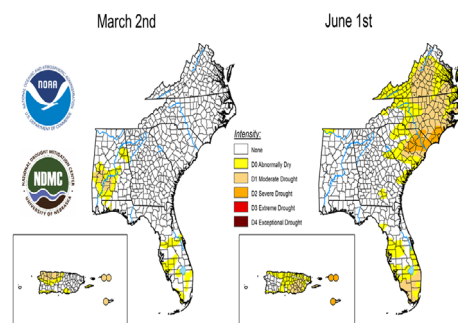
Precipitation: Departure from Normal (in)  
March 2021 – May 2021



Precipitation ranged from below normal in the eastern Carolinas and southern Florida to above normal in Alabama. Wilmington, NC only reported 4.31 inches of precipitation, which is over 7 inches below normal for spring. On April 24th, a line of thunderstorms produced heavy rainfall across Georgia, with numerous reports of localized flooding. Alma, GA observed 7.66 inches of rain, making this the wettest 24-hour day ever on record.

### Drought

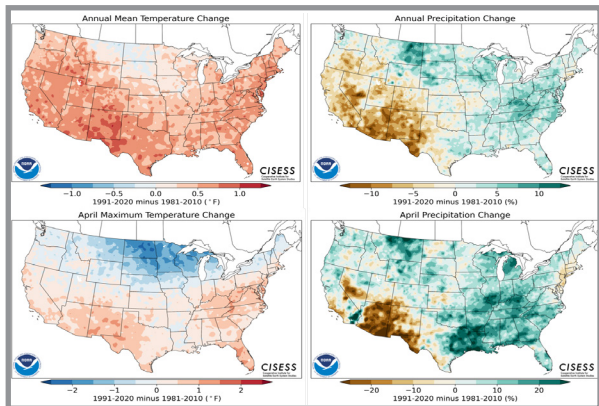
U.S. Drought Monitor



In early March, much of the region was moist with areas of moderate drought (D1) restricted to portions of Alabama and Puerto Rico. Adequate spring precipitation led to the removal of drought conditions in Alabama. Below-average precipitation led to the development of moderate drought (D1) and severe drought (D2) conditions across Virginia, North Carolina, South Carolina and Florida. By the end of spring, drought conditions remained in Puerto Rico.

## Regional Climate Impacts for Spring 2021

### New Climate Normals



1991 - 2020 minus 1981-2010 normals (image from [NCEI](#))

NOAA released the new U.S. Climate Normals on May 4th. NCEI generates the official U.S. normals every 10 years in keeping with the needs of the user community and the requirements of the World Meteorological Organization and the National Weather Service. Most of the U.S. was warmer and the eastern two-thirds of the contiguous U.S. was wetter from 1991-2020 than the previous normals period, 1981-2010. The spring months (MAM) show a variety of changes in maximum temperature and precipitation. The entire Southeast region is now considerably warmer and wetter in April than the previous normals period, 1981-2010. The single months show the pattern shifts with the seasons. Overall, for the Southeast region, the new normals show that the pattern has gotten warmer and wetter.

### Severe Weather

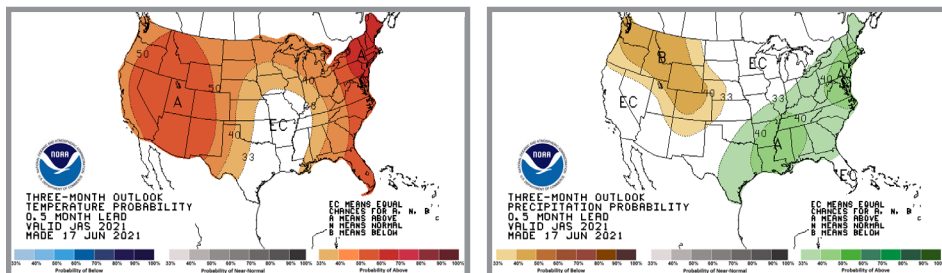
There were **1236 reports of severe weather** this spring, which is over 137% of the median spring count observed during 2000-2019. Eighty three (1 EF-U, 28 EF-0s, 39 EF-1s, 10 EF-2s, 4 EF-3s, 1 EF-4) were confirmed from March - May, which is over 138% of the average count of 60 tornadoes observed during 2000-2019. An **EF-4 tornado** associated with a long-track supercell occurred during the severe weather outbreak March 25th - 26th, resulting in winds of 170 mph and causing one fatality in Georgia. An **EF-1 tornado** was reported in South Carolina on May 3rd, causing major damage to a family farm and killing over 4000 turkeys. On April 24th, **softball sized hail** (4 inches) was reported in Orange Beach, AL. On May 10th, lightning struck part of I-10 in Walton County, FL, sending road debris into a pickup truck.

### Agriculture and Livestock

Heavy rains from storms flooded fields and delayed planting in Alabama. The **drier conditions** in Georgia, South Carolina, North Carolina and Florida slowed the planting of cotton and other row crops. Some pastures dried out, forcing livestock producers to **rely on hay**. In South Carolina, the lack of rainfall forced farmers to choose which fields to plant based on soil moisture; in addition, the planting/transplanting of tobacco stopped due to the soil moisture deficit. The dry conditions in the citrus groves of FL forced farmers to irrigate. In the southern part of Florida, warm, dry weather increased **pest pressure**, including whiteflies on vegetables. A **late-season freeze** occurred in April causing notable damage to several crops including berries, vineyards, and peaches.

## Regional Climate Outlook for Summer 2021

### Temperature and Precipitation



NOAA's Climate Prediction Center (CPC), forecasted that much-above-normal temperatures are likely for most of Virginia, the eastern Carolinas and the Florida Peninsula. The rest of the Southeast region will likely see above-normal temperatures for the summer season. Above-normal precipitation is likely for most of the region, with equal chances for the Florida Peninsula. Drought removal is likely for the region through the summer.

### Atlantic Hurricane Season

Released by NOAA's Climate Prediction Center on [May 20th](#), 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 13-20 named storms, with 6-10 reaching hurricane strength, and 3-5 becoming major (category 3-5) hurricanes. This outlook reflects the contributing climate factors of the ongoing [ENSO neutral conditions](#) and near 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](#)