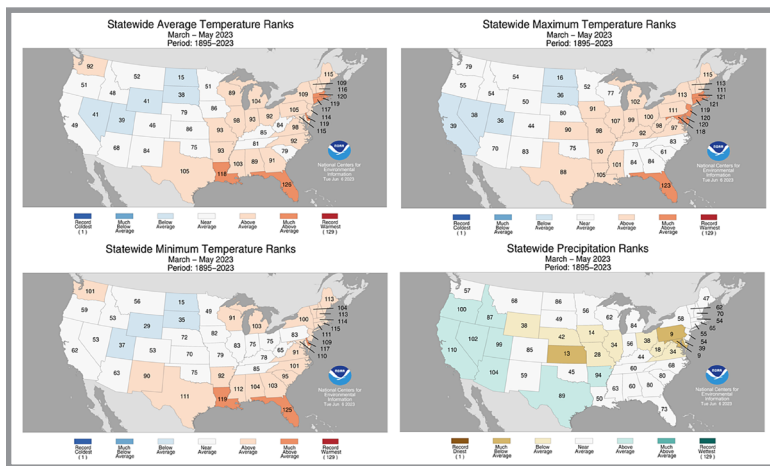




National and Regional Weather Highlights for Spring 2023



The spring season was **warmer than average** across the Southeast. **Florida recorded its 4th warmest spring on record.** Temperatures were above average in March and April, and below average in May, except across Florida. Precipitation was near to below average in March and May, and above average in April. Temperatures were near average across Puerto Rico and the U.S. Virgin Islands, while **dry conditions continued to persist across most of the Caribbean** during the spring season. For more information, see [NOAA's National Climate Report](#).

Highlights for the Southeast

Wet and windy conditions [brought down two large pine trees](#) during the Masters golf tournament in Augusta, GA on April 7th.

Pea-sized hail was reported on Saint Croix on April 6th, marking **only the second time that hail has been reported** in the U.S. Virgin Islands since 1955.

Henderson County, NC recorded its **first confirmed tornado in over 45 years** on May 7th.

Rough seas associated with a **strong low-pressure system** off the Southeast coast led to numerous rip current rescues along the Outer Banks of NC over the Memorial Day Weekend. A Carnival cruise ship took on water while attempting to reach port in Charleston Harbor, resulting in some minor injuries.

Saint Croix recorded its **5th driest spring on record** (since 1951) with 2.45 inches of precipitation.

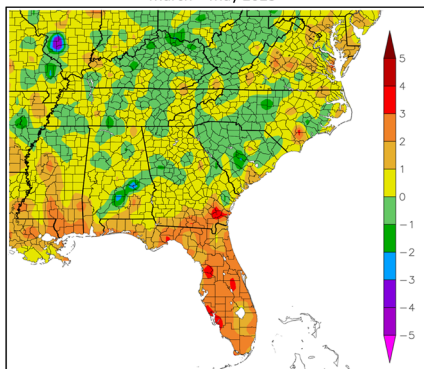
There were [19 rip current fatalities](#) and [two lightning fatalities](#) across the Southeast this spring.

El Niño has developed and is expected to continue into the upcoming winter. The chance of a strong event is over 50% while the chance of at least a moderate event is over 80%.

Regional Weather Overview for Spring 2023

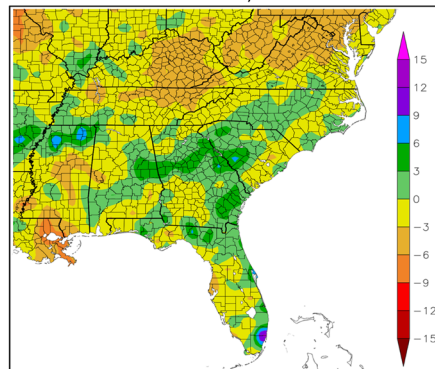
Temperature and Precipitation Anomalies

Mean Temperature Departure from Average (°F)
March – May 2023



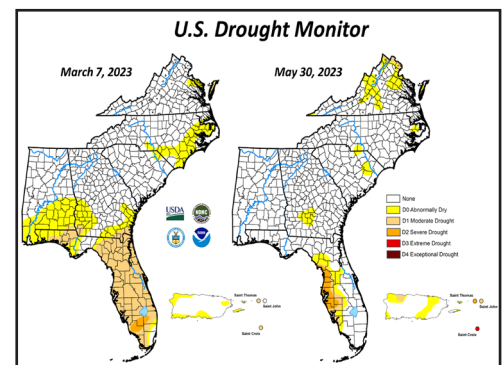
Temperatures were **near average** across much of the Southeast, with a few locations either slightly above or slightly below average. In contrast, temperatures were **2 to 4 degrees F above average** across FL and southern portions of AL and GA. Several locations in FL observed [one of their warmest springs on record](#), including Key West and Fort Myers, which had their warmest spring on record. Temperatures were **near average** across PR and the U.S. Virgin Islands.

Precipitation Departure from Normal (in)
March – May 2023



Precipitation was **variable** across the Southeast. **Above average** precipitation was found across the interior of the region, northern FL, and coastal sections of GA. The **wettest locations** were found in southeast FL, particularly near Fort Lauderdale, which experienced exceptionally heavy precipitation in April. In contrast, precipitation was **below average** across west-central, FL, northern VA, PR, and the U.S. Virgin Islands.

Drought



Spring began with about 17% of the region in at least moderate (D1) drought. Severe (D2) drought expanded across the FL Peninsula in March and April, with extreme (D3) drought emerging in southwest and west-central FL. **Conditions in FL improved** greatly in May. Areas of abnormally dry conditions and moderate drought also expanded across VA, NC, and PR but were largely eliminated by the end of spring. **Severe and extreme drought emerged** across the Virgin Islands.



Regional Climate Impacts for Spring 2023

Heavy Rain and Flooding in South Florida



Fort Lauderdale Airport under water (*image from USCG*)

A slow-moving frontal boundary and strengthening low pressure system in the Gulf of Mexico contributed to **exceptionally heavy precipitation and flash flooding** in Broward County, FL from April 12th to the 13th. Between 15 and 20 inches fell across the county, with some locations, including the Fort Lauderdale airport, recording **over 25 inches of rain**. Hourly rainfall rates exceeded 3 inches, which is a **1 in 1,000-year event**. The communities of Fort Lauderdale, Dania Beach, and Hollywood were most severely impacted, as **flood waters reached 3 feet** in places. Hundreds of water rescues were performed as people became stranded in their cars and homes. Hundreds of flights at the Fort Lauderdale airport were cancelled, stranding tens of thousands of passengers over several days.

Severe Weather

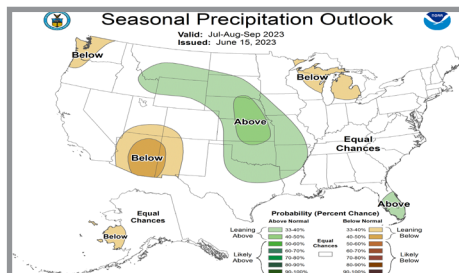
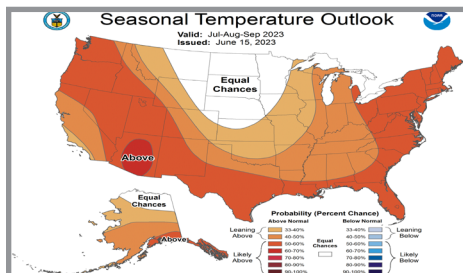
There were **1,096 reports of severe weather** this spring, which is 111% of the median spring frequency observed between 2000 and 2022. There were **54 confirmed tornadoes** (17 EF-0s, 28 EF-1s, 6 EF-2s, 3 EF-3s), which is 87% of the median spring frequency. Eighteen of these occurred during a **severe weather outbreak** from March 24th to 27th, where over two dozen homes were destroyed and five people were injured. On April 1st, an **EF-3 tornado** with peak winds of 160 mph killed at least one person and injured another five people in Madison County, AL. There were **784 reports of high winds**, which is 127% of the median spring frequency. Gusts between **80 and 90 mph** were recorded in far southwest VA on May 16th. The largest hailstone reported was **teacup-sized** (3 inches) in Hillsborough County, FL on April 24th.

Agriculture and Livestock

After record warmth in February, **periods of subfreezing temperatures** during the first half of spring negatively impacted many crops, particularly peaches. Producers in GA have reported **losses of up to 90%**. Low hay supplies from the winter forced many operators to continue supplementing feed, though livestock were in generally good condition. Warm and dry weather in FL negatively impacted pastures, while **fungal diseases** and flooded fields were noted in places that received above average precipitation. **Hail damage** was also reported across parts of GA and FL. Cool temperatures delayed the planting and emergence of many crops in May. **Farm ponds dried up** and pastures were in generally poor condition across parts of PR and the U.S. Virgin Islands.

Regional Climate Outlook for Summer 2023

Temperature and Precipitation



NOAA's Climate Prediction Center (CPC) is forecasting **above average temperatures** across the Southeast during the July-September 2023 period. There are **equal chances** of above and below average precipitation across most of the region, except South FL, which is expected to be **wetter than average**. **Drought removal** is expected across the FL Peninsula and northern PR, but is expected to **persist** across parts of VA. No additional development is expected.

Atlantic Hurricane Season

On May 25th, the CPC issued its **outlook** for the Atlantic Hurricane Season, which calls for **near-normal activity this year**. The forecast is for 12 to 17 total named storms, of which five to nine could become hurricanes, with one to four becoming major hurricanes (Category 3+). The outlook reflects a **combination of competing factors**, including the development of El Niño, an above-normal west African monsoon, and warmer than normal sea surface temperatures in the tropical Atlantic and Caribbean Sea.

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](#)