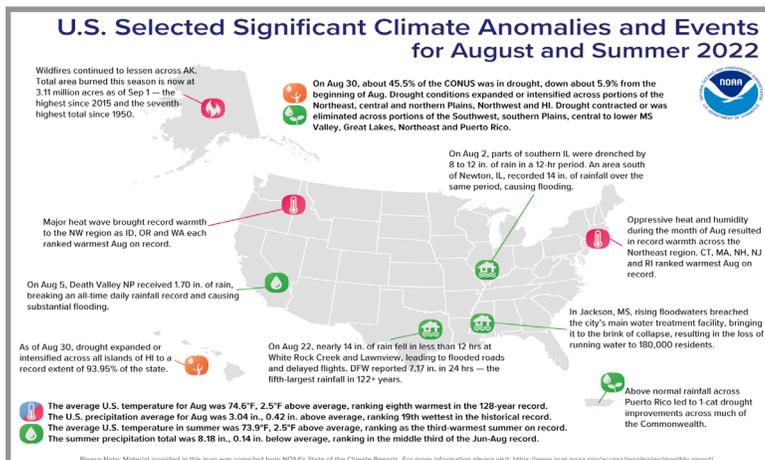




## National and Regional Weather Highlights for Summer 2022



### Highlights for the Southeast

Tampa, FL recorded its **warmest summer on record** (85.7 degrees F).

On July 7th, Augusta Regional Airport in Georgia recorded its **highest 1-hour rainfall on record** with 4.76 inches.

**Severe flooding** occurred in southwestern Virginia on July 12th, where up to 5 inches of rain was recorded in just a few hours. A weather station in Jewel Ridge, VA recorded 5.14 inches in 3 hours, which exceeded the 1000-year rainfall event.

**Potential Tropical Cyclone One** contributed to flooding and thousands of power outages across South Florida in early June. It eventually became **Tropical Storm Alex**, producing heavy surf and rip currents off the Atlantic coast.

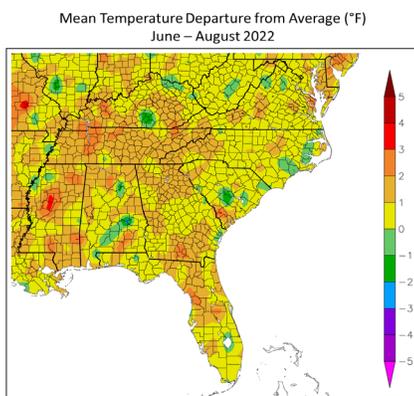
**Tropical Storm Colin** formed along the South Carolina coast in early July, resulting in locally heavy rainfall, rough surf, and rip currents. One man drowned near Oak Island, NC.

There were **11 rip current fatalities** and **9 lightning fatalities** across the Southeast this summer.

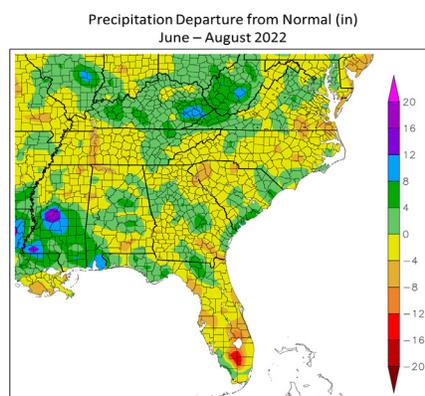
Several locations in the Southeast recorded one of their **top 5 warmest summers** on record. Precipitation varied considerably over the summer. June was mostly dry, resulting in an expansion of drought, while July and August were much wetter, resulting in some localized flooding. There were numerous high wind reports, but relatively few tornadoes. Only two tropical cyclones affected the region. Drought conditions improved in Puerto Rico. For more information, see: <https://www.ncdc.noaa.gov/sotc/national>

## Regional Weather Overview for Summer 2022

### Temperature and Precipitation Anomalies

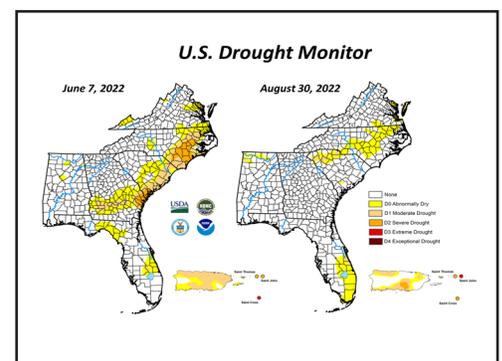


Temperatures were above average across most of the Southeast this summer. The greatest departures (2-4 degrees F) were found across the southern tier of the region. Tampa, FL set an annual record for **number of days at or above 95 degrees F** with 25. Minimum temperatures were also quite warm. Richmond, VA recorded 25 consecutive days (July 17 to August 11) with a minimum temperature at or above 70 degrees F, the third longest streak on record.



Precipitation was highly variable across the Southeast this summer. The wettest locations (6-8 inches above normal) were found across central portions of Alabama and Georgia, northern Florida, and coastal portions of South Carolina. In contrast, precipitation was up to 8 inches below normal across interior portions of the Carolinas and southeast Virginia, and as much as 16 inches below normal across parts of South Florida.

### Drought

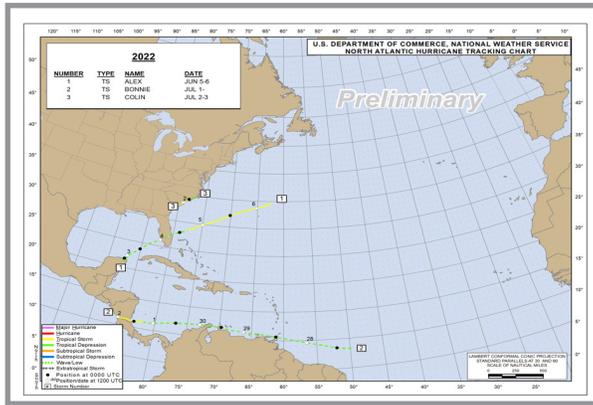


The summer began with moderate (D1) and severe (D2) drought in small parts of Georgia and coastal sections of the Carolinas. Drought intensity peaked in late June, with small pockets of extreme (D3) drought in Georgia, South Carolina, and eastern North Carolina. Drought conditions began to improve in early July, and by the end of summer 87% of the region was drought free. Drought conditions improved in Puerto Rico, while severe and extreme drought persisted across the U.S. Virgin Islands.



# Regional Climate Impacts for Summer 2022

## Quiet Start to the Atlantic Hurricane Season



Atlantic tropical cyclone tracks for JJA (image from NHC)

After active starts to the previous two Atlantic hurricane seasons, the first three months of the 2022 season have been unusually quiet. Through the end of August, there has only been three named storms: **Tropical Storm Alex**, **Tropical Storm Bonnie**, and **Tropical Storm Colin**. The accumulated cyclone energy (ACE) from these storms is only about 10% of the climatological average for the end of August. This is the first season since 2013 where no hurricanes formed in the Atlantic Basin by the end of August. There were no named storms in August for just the sixth time on record (since 1851) and for the first time during a La Niña season. Forecasters expect more favorable conditions in the Atlantic Basin over the rest of the season and are still calling for an above-average year (see below).

## Severe Weather

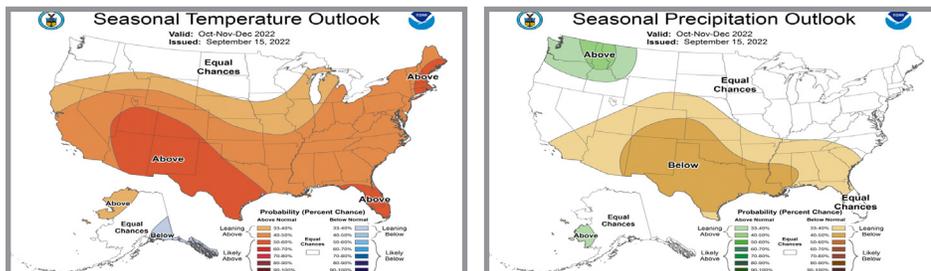
There were **2,297 reports of severe weather** this summer, which is 38% greater than the median summer frequency between 2000-2020. There were **9 confirmed tornadoes** (7 EF-0s, 2 EF-1s), which is 30% of the median summer frequency of 30. No major damage or fatalities were reported. The largest hailstone reported was **baseball-sized (3 inches)** in Louisa, VA on June 16th. Reports of high winds were 38% higher than the median summer frequency and resulted in at least **six fatalities due to trees falling onto vehicles and buildings**. A severe thunderstorm in July produced wind gusts up to 80 mph in Charleston, South Carolina, resulting in downed trees and power lines. On July 10th, high winds caused an umbrella to become airborne, striking and killing a woman at Garden City Beach in South Carolina.

## Agriculture and Livestock

Generally **hot and dry conditions** at the beginning of summer limited growth in numerous crops and pastures, particularly across parts of Georgia and the Carolinas. In addition, heat stress and lower quality pasture contributed to low weight gain in livestock. **Wetter conditions** in July and August provided much relief to farmers, though it also introduced some disease pressures and delayed harvesting and field preparations in places. In general, most locations benefited from wetter and cooler conditions during the latter half of the season. Pasture and livestock conditions improved considerably, particularly across parts of Alabama. Yield projections for most crops in the region are generally good, and preparations for fall and winter planting are progressing well.

# Regional Climate Outlook for Autumn 2022

## Temperature and Precipitation



**NOAA's Climate Prediction Center (CPC)** is forecasting above average temperatures across the Southeast during the months of October-December. There are equal chances of above and below average precipitation across Virginia, North Carolina, and the Florida Peninsula, with the rest of region expected to be drier than normal. Drought development is not expected, while improvements are forecasted for Puerto Rico and extreme eastern Virginia.

## Atlantic Hurricane Season

The outlook issued by the CPC on **August 4th** reveals a 60% chance of an above-normal season, a 30% chance of a near-normal season, and a 10% chance of a below-normal season. An above-normal season consists of 14-20 named storms, with 6-10 reaching hurricane strength, and 3-5 becoming major hurricanes (Category 3-5). The outlook reflects a combination of favorable conditions including above-average SSTs, weaker trade winds in the MDR, weaker vertical wind shear, and an enhanced West African monsoon.

## 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](#)

