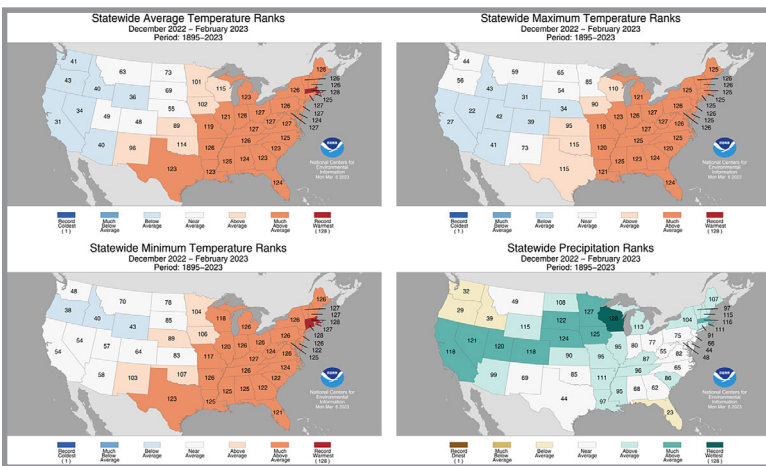




National and Regional Weather Highlights for Winter 2022-2023



Much above average temperatures were observed across the Southeast this winter, particularly in February. Regionally, it was the **5th warmest winter on record**. Precipitation was near to below average across the region in December and January, and mostly above to much above average in February, except in Florida, where **dry conditions persisted** through much of the winter. Temperatures were near average and precipitation was below average across Puerto Rico and the U.S. Virgin Islands. For more information, see [NOAA's National Climate Report](#).

Highlights for the Southeast

An **Arctic outbreak** struck the region around the Christmas holiday, with daily mean temperatures running between **20 and 35 degrees F below average** in many places. Freezing temperatures were reported as far south as central FL. Wind gusts between 50 and 60 mph caused numerous power outages across NC and VA.

Unseasonably warm weather in late January resulted in some **all-time daily temperature records** for the month across parts of GA and FL.

St. Croix recorded its **5th driest winter on record** (since 1951) with 3.27 inches of precipitation.

A total of **29 tornadoes** were reported in Alabama in January, **breaking the previous January record** of 21 tornadoes set back in 2017 (since 1950).

Washington D.C. recorded its **first measurable snowfall of the season** on February 1st, which is the fifth latest date on record (since 1884-1885).

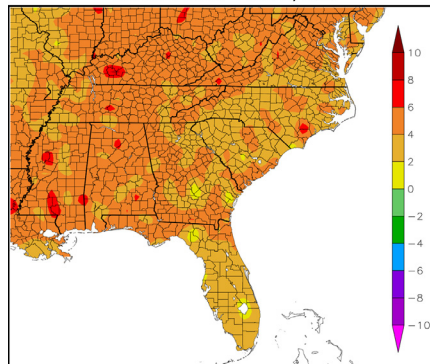
There were **12 rip current fatalities** across the Southeast this winter (**six in both PR and FL**).

La Niña has ended and ENSO-neutral conditions are expected to continue through early summer.

Regional Weather Overview for Winter 2022-2023

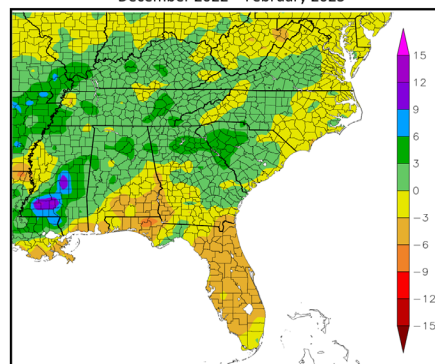
Temperature and Precipitation Anomalies

Mean Temperature Departure from Average (°F)
December 2022 – February 2023



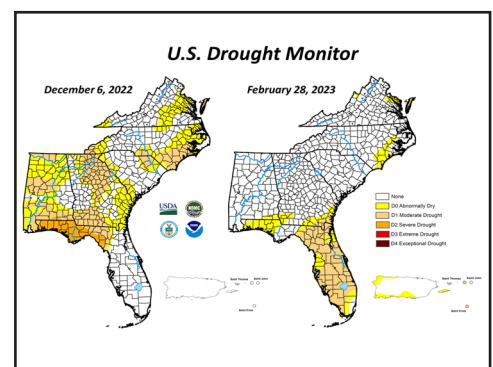
Temperatures were **much above average** across the Southeast, particularly in AL and VA, as well as parts of the Carolinas and North FL, where many locations were 4 to 6 degrees F above average for the season. Temperatures were 2 to 4 degrees F above average across the FL Peninsula. Several long-term weather stations observed one of their **warmest winters on record**. Temperatures were near average across PR and the U.S. Virgin Islands.

Precipitation Departure from Normal (in)
December 2022 – February 2023



Precipitation was **variable** across the Southeast this winter. The wettest locations (125 to 150 percent of normal) were found across the interior of the region, particularly northern portions of AL, GA, and SC. The driest locations (25 to 75 percent of normal) were found across southern AL, the western Panhandle of FL, and much of the FL Peninsula. It was also quite dry across much of PR and the U.S. Virgin Islands.

Drought

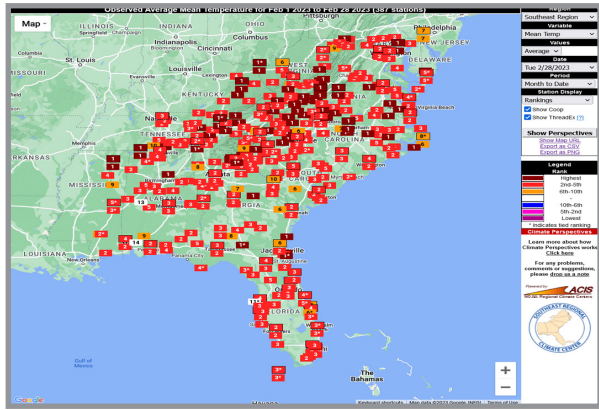


Winter began with over 50% of the region in at least abnormally dry (D0) conditions, and over 25% of the region in at least moderate (D1) drought. Severe (D2) drought was observed across the western Panhandle of FL. By the end of winter, **drought conditions were eliminated or improved across much of the region**; however, moderate (D1) drought had expanded across the FL Peninsula. Abnormally dry (D0) conditions returned to PR, while moderate (D1) drought emerged across the U.S. Virgin Islands.



Regional Climate Impacts for Winter 2022-2023

Spring Comes Early!



Ranks of Mean February Temperatures (from [SERCC](#))

The month of February was **second warmest on record** for the Southeast (since 1895), while the Commonwealth of VA recorded its **warmest February**. Nearly 90% of the long-term weather stations in the region observed one of their **top 5 warmest** mean February temperatures on record (see image above). In addition, over 150 **all-time daily maximum and high minimum temperature records for February** were tied or broken. As a result, spring leaf out [arrived several weeks earlier than normal](#) across much of the region. Days with high pollen counts in Atlanta, GA [reached record levels](#) for February (since 1991), while Raleigh, NC observed its [earliest start](#) to the pine pollen season since 2003. The early bloom and flowering of shrubs and crops has farmers concerned about potential losses from a late season freeze.

Severe Weather

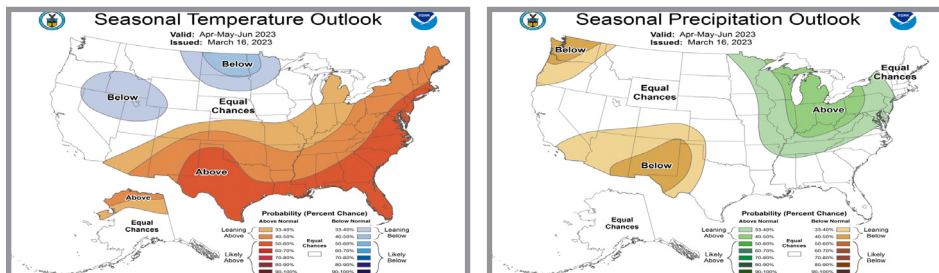
There were **493 reports of severe weather** this winter, which is 259% of the median winter frequency observed between 2000 and 2021. There were **76 confirmed tornadoes** (27 EF-0s, 32 EF-1s, 15 EF-2s, 2 EF-3s), which is 281% of the median winter frequency. The majority of these occurred during three **severe weather outbreaks** in December and January. Significant damage was observed in the towns of Selma, AL and Griffin, GA. **Nine fatalities and at least 50 injuries were confirmed**. There were 365 reports of high winds, which is 243% of the median winter frequency. Gusts between 80 and 90 mph were recorded across parts of AL, GA, and northern FL during the two January outbreaks. The largest hailstones reported were **golf ball-sized** (1.75 inches) in Camden County, AL on January 3rd and in Shelby County, AL on January 12th.

Agriculture and Livestock

Cold temperatures early in the season severely impacted agricultural production and livestock across the region. Cattle deaths were reported in FL and poor grazing conditions forced many farmers to supplement feed throughout the winter. Planting of early season crops was also delayed in many places. However, the **warm and dry weather** later in the winter helped many crops recover and allowed most agricultural activities to progress, though many pastures in FL remained in poor to fair condition where **precipitation deficits** have been the greatest. **Wet conditions** in parts of AL and GA limited field activities and introduced some diseases. Farmers in PR and the U.S. Virgin Islands were taking measures to conserve water heading into the dry season.

Regional Climate Outlook for Spring 2023

Temperature and Precipitation



[NOAA's Climate Prediction Center](#) is forecasting **above average temperatures** across the Southeast during the April-June 2023 period. There are **equal chances** of above and below average precipitation across most of the region, except across parts of VA, western NC, and extreme northern AL and GA, which are expected to be **wetter than average**. Drought **removal** is expected across the FL Peninsula, while **additional development** is expected across PR.

So Long, La Niña!

According to the [latest ENSO update](#) issued on March 9th, the La Niña that has persisted since the fall of 2020 has ended and **ENSO-neutral conditions** are expected to continue through the spring and early summer. While forecast confidence is currently low, there is a **chance of El Niño** forming during the summer, with at least a 60% chance by the August-October period.

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](#)

