National and Regional Weather Highlights for Winter 2021-2022

Above-average temperatures were observed across the Southeast this winter. Georgia and South Carolina each experienced their seventh-warmest winter on record. Precipitation was generally below average, which is a typical pattern for a La Niña winter. Although drought was prevalent in Puerto Rico during December and January, above average precipitation in February reduced this drought by more than 34 percent. For more information, see: https://www.ncdc.noaa.gov/sotc/national

Regional Weather Overview for Winter 2021-2022

Temperature and Precipitation Anomalies

Above-average temperatures were recorded over the entire Southeast, with much of the region observing more than 2 degrees F above normal. There were a number of stations that tied their record number of 70 and 80 degree F plus days for the winter including; Lumberton, NC (30 days of 70 degrees F), Elizabeth City, NC (18 days of 70 degrees F), Macon, GA (7 days of 80 degrees F), Pensacola, FL (5 days of 80 degrees F) and Wilmington, NC (5 days of 80 degrees F).

Precipitation was below average for much of the Southeast this winter. Indeed, parts of the Florida Panhandle reported more than 6 inches below normal. New Bern, NC tied its driest February and Charlottesville, VA observed its 2nd driest December. Due to many low - pressure systems that tracked through the region in January, Beech Mountain, NC observed 49.5 inches of snowfall, making this its fifth highest January total since 1991.

Drought

At the start of the season, there were pockets of severe drought (D2) in the Carolinas and Virginia. As the winter progressed, adequate precipitation slowly eroded away this drought leaving an area of moderate drought (D1) ringed by abnormally dry conditions (D0) in the eastern Carolinas, but the dry conditions stretched all the way down into Florida and Alabama. The drought conditions in Puerto Rico improved throughout the winter.

Highlights for the Southeast

Winter temperatures across the region were topsy-turvy, with December and February much above average and January slightly below average.

The last week of December was warm across the region, with daily maximum temperatures reaching more than 15 degrees F above normal for most of the Southeast.

Precipitation was below average for much of the region this winter. However, San Juan, PR observed its wettest February on record at 11.7 inches of precipitation, more than 9 inches above normal.

As a result of many low-pressure systems that came through the region in January, a few places in the Southeast observed or tied their top ten counts of snow days for January, including Danville, VA at 8 days and Columbia, SC at 5 days.

Columbia, SC broke its second longest streak of no measurable snowfall at 1839 days, on January 21st, finally receiving 2 inches of snow.

There were three fatalities and two injuries from car accidents due to dense fog in Flagler County, FL in February.

Contacts: Chip Konrad, Sandra Rayne and William Schmitz (SERCC) Ellen Mecray (NOAA/NCEI), Sharon Mesick (NOAA/NCEI)
Regional Climate Impacts for Winter 2021-2022

Winter Storms

A few low-pressure systems brought snowfall to the Southeast region throughout January. On the 3rd, a strong low-pressure system and accompanied cold front brought snow as far south as the Florida Panhandle. As the system moved northeastward, snowfall rates of 1-2 inches per hour were observed in parts of Virginia leading to a closure of a portion of I-95 that lasted over 24 hours. Another system moved northeastward through the region on January 16th-17th. This storm brought over 10 inches of snow to Germany Valley, GA. A third system developed along the coast of South Carolina and brought 6.7 inches of snow to Norfolk, VA. Ice storm warnings were issued for Myrtle Beach, SC and Wilmington, NC. This was the first ice storm warning issued for these cities by the NWS since 2015.

Seasonal Snowfall Accumulation (image from NWS)

Severe Weather

There were 282 reports of severe weather this winter, which is over 150 percent of the median winter count observed during 2000-2019. Forty-four tornadoes (24 EF-0s, 16 EF-1s, 4 EF-2s) were confirmed from December - February, which is 176 percent of the average count of 25 tornadoes observed during 2000-2019. The strongest tornado occurred in Greene County, AL and was rated EF-2 with winds of 135 mph. This tornado destroyed several homes and caused 8 injuries and 1 fatality. There were 209 wind reports for the season, which is 144 percent of the median. A thunderstorm produced a wind gust of 73 mph in Manatee County, FL with a report of damage to a car due to a 'wind driven coconut'. Unfortunately, there was one rip current death for the winter, a 12-year old boy in Puerto Rico.

Agriculture and Livestock

The warm and dry winter required many farmers in the citrus growing region of Florida to run irrigation. Although fungal problems were under control, disease in the southern part of the state was an issue due to heavy fog late in December. Indeed, Gainesville, FL set a record (16 days) for number of dense fog (visibilities of 1/4 mile or less) days in one month, compared to a normal of only six days in a record extending back to 1973. The daily warmth and cool nights led to more respiratory problems in livestock in Georgia and Alabama. An early February freeze damaged some strawberry crops in Alabama, but they are expected to recover by harvest. The warmer weather by the end of February allowed farmers to prepare fields for spring planting in the Carolinas.

Regional Climate Outlook for Spring 2022

Temperature and Precipitation

NOAA’s Climate Prediction Center (CPC), forecasted that above normal temperatures are likely for all of the Southeastern region, during the months of April, May, and June. Precipitation is expected to have equal chances of wetter or drier than normal across most of the region throughout the spring season. Drought removal is likely for the Carolinas, Georgia, Florida and Alabama, but drought is expected to persist in Puerto Rico.

La Niña

Updated by NOAA’s Climate Prediction Center on March 10th, a La Niña advisory is in place. La Niña is favored to continue through the Northern Hemisphere summer June - August (~53% chance), with a 40 - 50% chance of La Niña or ENSO-neutral thereafter. For the summer and beyond, there is large uncertainty in the state of ENSO; however the coupled ocean-atmosphere system reflect the continuation of La Niña. La Niña will affect temperature and precipitation across the US in the upcoming months.

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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

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