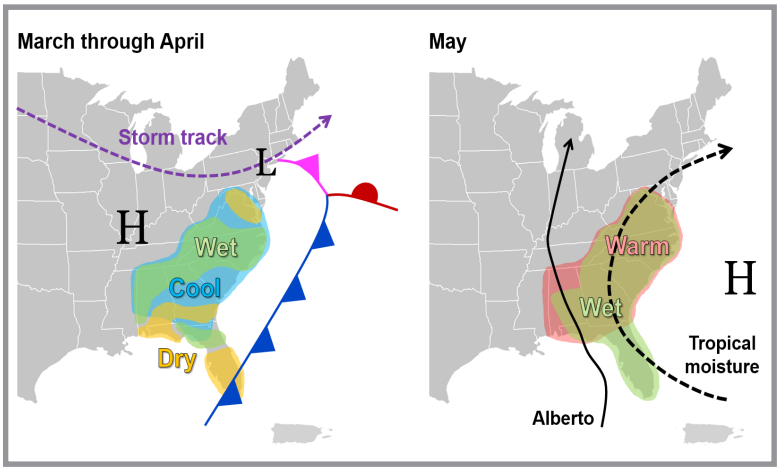
Quarterly Climate Impacts and Outlook

Southeast Region

June 2018

Regional Weather Pattern and Highlights for Spring 2018



During much of March and April, a series of continental high pressure systems ushered in unseasonably cold, dry air from Canada. Precipitation was highly variable across the Southeast during this two-month period. In contrast, a pattern reversal occurred during May, as the circulation around the Bermuda High, situated off the Atlantic coast, transported warm, humid air over the region. Temperatures were well above average during May, and the persistent influx of tropical moisture resulted in well-above-normal precipitation across much of the region.

Highlights for the Southeast

Mean temperatures from March through April were at least 2°F below average for over 55% of the 215 long-term (i.e., period of record equaling or exceeding 50 years) stations across the region. A total of 52 long-term stations observed March–April mean temperatures that were ranked within their five coldest values on record.

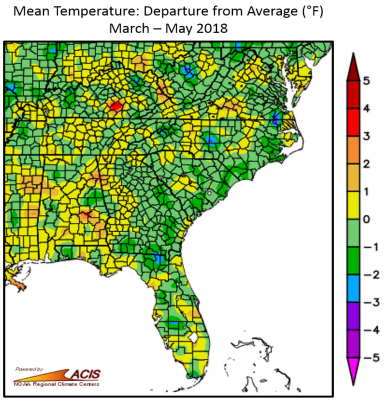
On March 19th, an exceptionally large hailstone measuring 5.38 inches in diameter and weighing 9.8 ounces was found in the community of Walter, AL. This officially became the largest hailstone on record for the state of Alabama.

Precipitation was 150% to more than 500% of normal across much of the region during May. At least 23 long-term stations observed their wettest May on record, including Stuart, FL (24.20 inches), Asheville, NC (14.68 inches), Charleston, SC (10.62 inches), and Richmond, VA (10.35 inches).

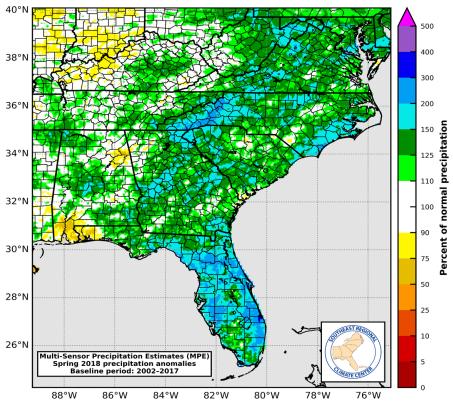
On May 28th, Subtropical Storm Alberto made landfall near Laguna Beach, FL with maximum sustained winds of 45 mph. Significant flash flooding occurred across western North Carolina, resulting in numerous mudslides and swift water rescues.

Regional Weather Overview for Spring 2018

Temperature and Precipitation Anomalies

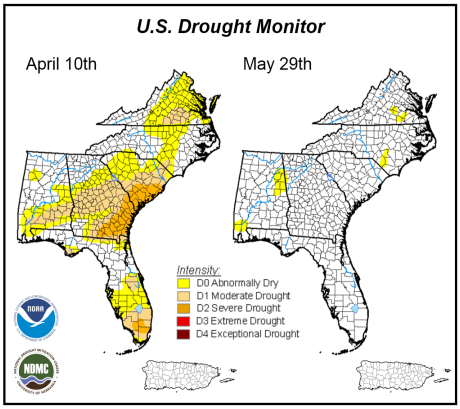


With an unusually cool March–April period and an exceptionally warm May, spring mean temperatures were near average across the Southeast. Only 6% of the 205 long-term stations in the region observed spring mean temperatures that were ranked within their ten warmest or coolest values on record. However, at least 26 long-term stations observed or tied their warmest May on record, including Muscle Shoals, AL, Atlanta, GA, Raleigh, NC, and Roanoke, VA.



Spring precipitation was 100% to more than 200% of normal across much of the Southeast, with exceptional wetness found in portions of North Carolina and the Florida Peninsula. At least 45 long-term stations observed spring precipitation totals that were ranked within their five highest values on record, including Highlands, NC (38.98 inches), Helen, GA (32.70 inches), Lakeland, FL (23.85 inches), and Wilmington, NC (22.98 inches).

Drought

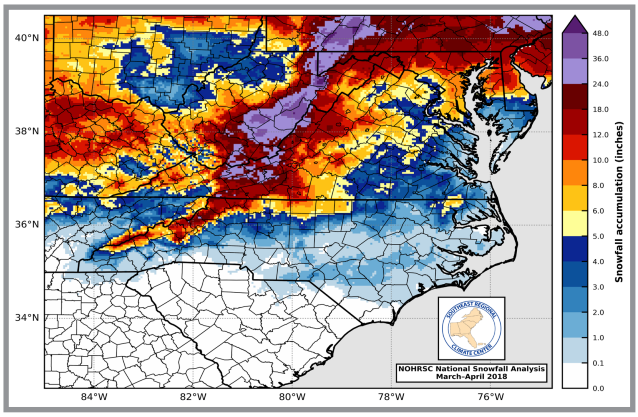


At the beginning of March, about 13% of the Southeast region was classified in moderate (D1) drought, including over 20% of Alabama and Georgia. After intensifying from March through early April, moderate-to-severe (D1–D2) drought covered over 50% of Georgia and South Carolina, as well as most of southern Florida. However, well-above-normal rainfall during the second half of May rapidly eliminated drought conditions across every state in the region.

Contacts: Chip Konrad, Jordan McLeod, and William Schmitz (SERCC)
Ellen Mecray (NOAA/NCEI)

Regional Climate Impacts for Spring 2018

March and April Snowfall



Total snowfall during March–April 2018. (Data: NOHRSC)

On March 24th and 25th, a winter storm produced 3 to more than 12 inches of snowfall across portions of northwestern North Carolina and southwestern Virginia. On the 25th, Burkes Garden, VA (15.0 inches), Wytheville, VA (13.9 inches), and Pulaski, VA (12.0 inches) observed their greatest 1-day snowfall on record for March, surpassing daily snowfall totals that were recorded during the "Storm of the Century" in March 1993. Over 70,000 customers in southwestern Virginia lost power, and a NASCAR race at Martinsville Speedway was postponed due to treacherous track conditions. From April 7th through the 10th, a series of weak low pressure systems produced snowfall, which is unusual for April, across portions of North Carolina and Virginia, with total accumulations ranging from a trace to 5 inches.

Severe Weather

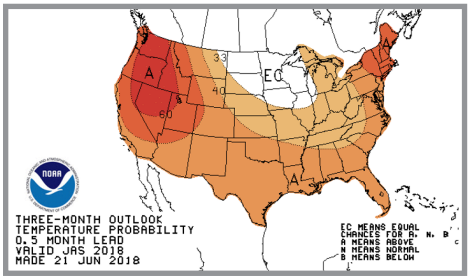
On March 2nd, a rapidly intensifying nor'easter off the Atlantic coast produced non-convective wind gusts of 50 to more than 70 mph across portions of North Carolina, Virginia, and Washington, D.C. At least 2 fatalities and 10 injuries were caused by falling trees, and most of these casualties occurred in vehicles. A total of 61 tornadoes (including 6 EF-2s and 2 EF-3s) were confirmed from March–May, which is nearly equal to the median spring count of 60 tornadoes observed during 2000–2017. At least 34 injuries were caused by tornadoes during spring, and 10 of these injuries were associated with an EF-2 tornado that produced extensive damage in Greensboro, NC on April 15th. Two fatalities and 8 injuries were caused by lightning strikes, with both fatalities and all but 1 injury occurring in Florida.

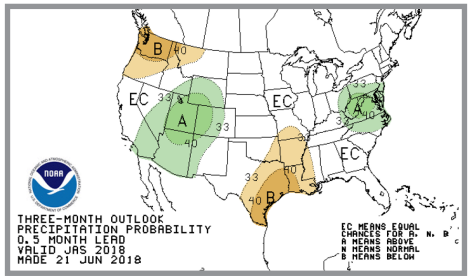
Agriculture and Livestock

During March and April, cooler-than-normal air and soil temperatures delayed the planting and early growth of row crops, livestock pastures, and hayfields across the region. Periods of frost and sub-freezing temperatures damaged a variety of fruit crops in several states, including blueberries in southern Georgia. While the early-season peach crop in Georgia sustained some damage, a much greater yield of peaches is expected in Georgia and South Carolina compared to recent years, due to minimal losses from spring freezes and a sufficient accumulation of chill hours during the winter. Excessive rainfall and flooding during the second half of May prevented fieldwork and the harvesting of small grains, increased disease pressure on crops, and required some fields to be replanted.

Regional Climate Outlook for Summer 2018

Temperature and Precipitation





NOAA's Climate Prediction Center (CPC) forecasted an increased probability of warmer-than-normal summer temperatures for the entire Southeast. Increased chances of above-normal summer precipitation are predicted for Virginia and much of North Carolina. Drought is not expected across the mainland portion of the region during the summer, but drought development is likely in southern Puerto Rico.

Atlantic Hurricane Season

Released by the CPC on May 24th, the Atlantic hurricane season outlook indicates a 40% chance of a near-normal season, a 35% chance of an above-normal season, and a 25% chance of a below-normal season. An average season consists of 12 named storms, with 6 reaching hurricane strength and 3 becoming major (Category 3–5) hurricanes. This outlook reflects factors such as the current ENSO-neutral conditions in the Pacific and cooler-than-normal sea surface temperatures in the tropical Atlantic basin.

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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