

September 2018 Climate Summary – Georgia

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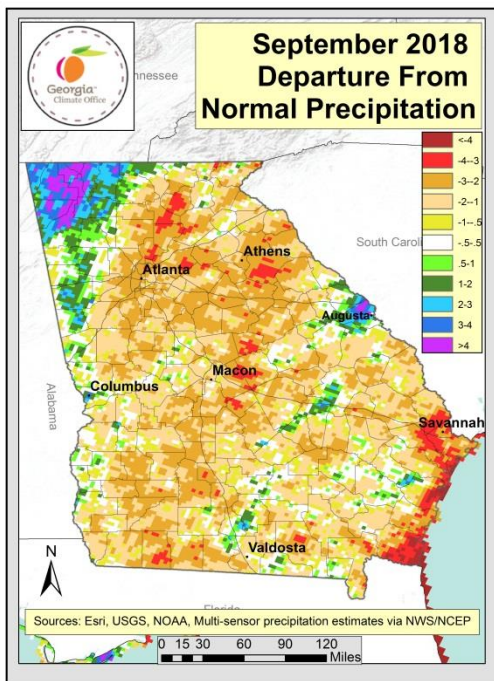
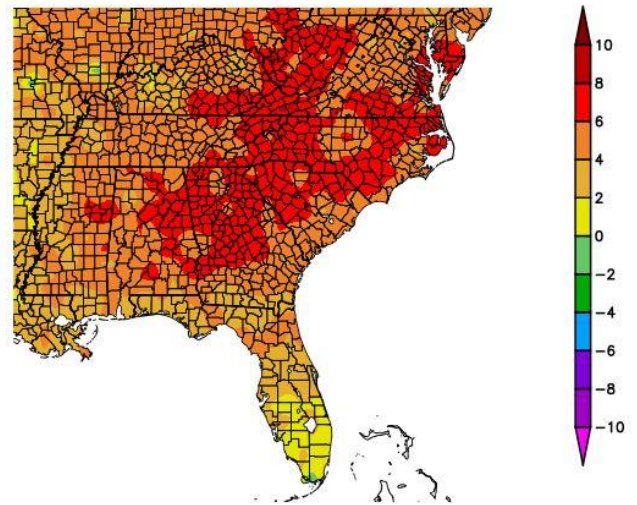
The big climate story of the month was the record-breaking temperature trend in Georgia. All major climate sites ranked in their top five for warmest September on record. The vast majority of the state saw near or below normal rainfall causing drought conditions to worsen. However, extreme northwest Georgia, east central Georgia, and localized areas along the Georgia-Alabama border saw a surplus in rainfall this month. September is typically the time of year when the Atlantic basin hurricane activity is at its peak and that proved true this month. Hurricane Florence had an interesting and long-winded path across the Atlantic with major impacts to many southeastern states.

The average temperature in Atlanta during September was 81.0°F (+7.5°) and ranked as 2nd warmest on record. Macon also ranked as 2nd warmest September with 82.1° (+7.1°). Columbus, Augusta, and Savannah all had their 3rd warmest September on record with 82.6° (+6.0°), 81.4° (+6.8°), and 81.8° (+4.9°), respectively. Athens averaged 79.9° (+6.6°) this month and had its 5th warmest September on record. The exceptionally warm temperatures caused many sites to break daily high temperature records during the month (see table 1).

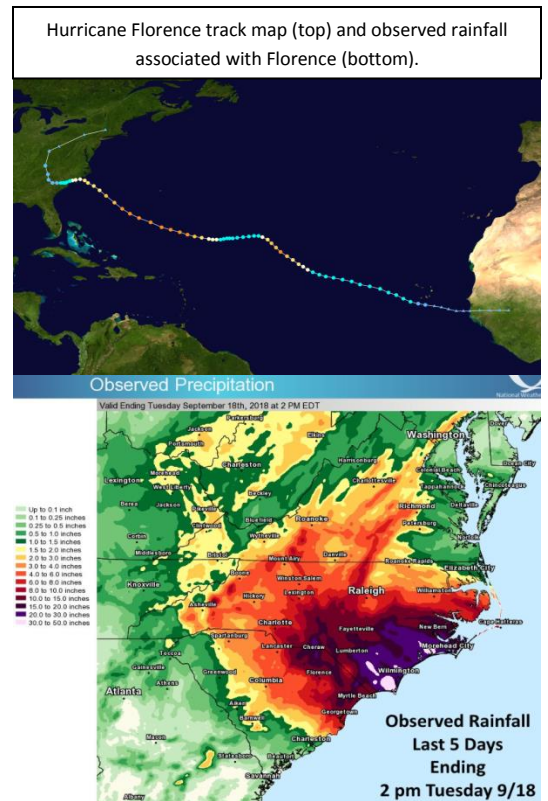
Most major climate sites recorded below normal precipitation during September, including Atlanta with 1.48” (-2.99”), Athens with 1.75” (-2.19”), and Savannah with 2.10” (-2.48”). Macon only saw 1.02” (-2.57”) this month, making it the 15th driest September on record. In contrast, Columbus received 6.50” (+3.44”) during the month and had it 5th wettest September on record. The site also set a daily rainfall record on September 25th with 3.13”, breaking the previous record of 2.88” set in 1956. Augusta recorded above normal precipitation with 7.19” (+3.97”), ranking as the 10th wettest September on record. A daily rainfall record was set on September 10th with 2.32” (the previous record of 0.99” was set in 1973).

Although severe weather was very limited during September, Numerous hurricanes formed in the Atlantic basin. The majority of storms that formed tracked across the Atlantic Ocean with little to no impact to land, including Hurricane Helene (category 2), Hurricane Isaac (category 1), Tropical Storm Joyce, Tropical Depression Eleven, and Tropical Storm Kirk. Tropical Storm Gordon made landfall just west of the Alabama-Mississippi border on September 4th. Some outer bands reached extreme southwest Georgia, but rainfall totals were not too significant. However, Hurricane Florence was powerful and long-winded and had major impacts to much of the southeast.

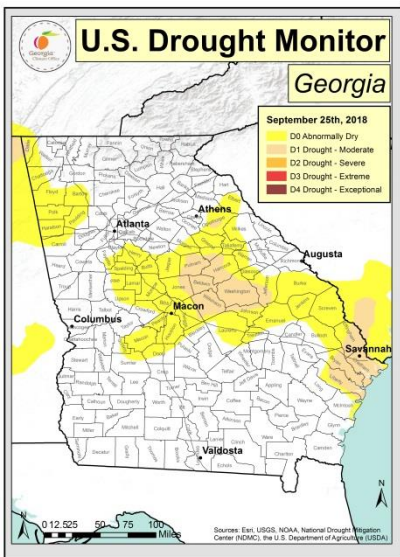
Departure from Normal Temperature (F)
9/1/2018 – 9/30/2018



Florence strengthened to tropical storm-strength off the coast of Africa early on September 1st and continued to intensify as it tracked west-northwestward across the Atlantic. After unexpected intensification occurred on September 5th, Florence strengthened to a category 4 hurricane, only to veer into a zone of greater wind shear and weaken back to a tropical storm. On September 10th, Florence strengthened again to a category 4 storm, but later underwent an eyewall replacement cycle and weakened to below hurricane intensity on September 12th. The hurricane's motion slowed significantly as it began to turn northwest towards the Carolinas. After a slight increase in intensity to a category 1 hurricane, Florence made landfall just east of Wilmington, North Carolina on September 14th. Forward speed decreased even more and abundant rain fell over the Carolinas and extreme eastern Georgia.



The United States Drought Monitor showed expanding drought conditions in many areas of the state during September. D0 (abnormally dry) conditions were present in east central Georgia at the beginning of the month and slowly expanded and intensified to D1 (moderate drought) conditions. D0 conditions were present in northwest Georgia and D1 conditions were introduced into the Savannah area by the end of the month.



According to the Climate Prediction Center, ENSO-neutral conditions are present and there is currently an El Niño Watch. Equatorial sea surface temperatures are near-to-above average across most of the Pacific Ocean. There is a 50% to 55% chance of El Niño onset during the Northern Hemisphere Fall 2018, increasing to 65% to 70% during winter 2018 through 2019. The CPC's three-month seasonal outlook calls for equal chances of above, near, or below normal temperatures in much of Georgia except in the far north. The outlook also calls for chances for above normal precipitation, particularly in southeast Georgia, during October, November, and December.

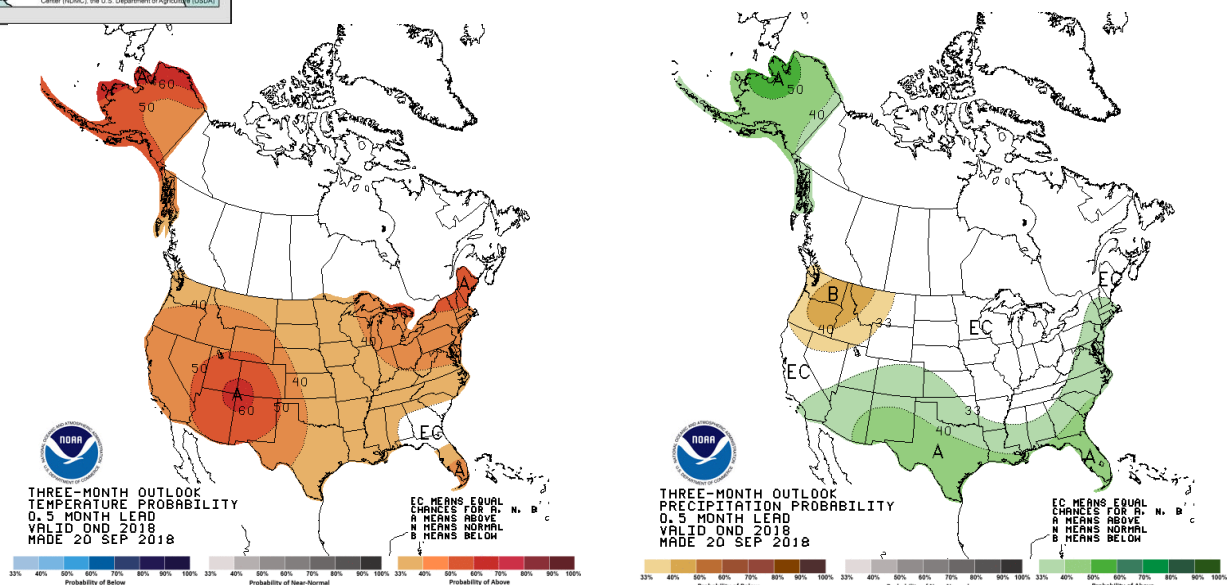


Table 1:

Daily High Temperature Records in Georgia				
September 2018				
Date	City	Record	Temperature	Previous Record
9/13	Atlanta	Minimum	75°	74° set in 1991
9/13	Columbus	Minimum	75°	1973 (tie)
9/13	Augusta	Minimum	75°	1927 (tie)
9/14	Macon	Maximum	99°	97° set in 1980
9/14	Columbus	Minimum	76°	74° set in 1990
9/14	Augusta	Minimum	76°	75° set in 1925
9/15	Macon	Minimum	75°	1911 (tie)
9/15	Columbus	Minimum	76°	74° set in 1978
9/16	Columbus	Minimum	75°	2004 (tie)
9/17	Macon	Maximum	98°	1972 (tie)
9/17	Savannah	Minimum	77°	76° set in 1996
9/18	Macon	Maximum	100°	99° set in 1931
9/25	Atlanta	Minimum	74°	73° set in 1993
9/25	Athens	Minimum	70°	1980 (tie)
9/25	Macon	Minimum	73°	1988 (tie)
9/26	Macon	Minimum	72°	68° set in 1970
9/26	Macon	Maximum	96°	1970 (tie)