December 2018 Climate Summary – Georgia

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The year ended on a warm and very wet note with above normal temperatures and precipitation statewide during December. The previous year followed suit except for parts of southeast Georgia where below normal precipitation was noted. The active weather pattern and wetter than normal conditions caused drought to be eliminated. One significant severe weather and flooding event occurred that was associated with a steady stream of moisture from the Gulf of Mexico.

Atlanta's monthly average temperature was $48.6^{\circ}F(+3.3^{\circ})$ and Athens recorded $47.4^{\circ}(+2.0^{\circ})$. On December 2nd, both sites tied a daily high temperature record with 74° (previously set in 1998, 1991 and 1970) and 75° (previously set in 1991, 1970, and 1922), respectively. Macon's average temperature was 50.8° (+2.8°), Columbus recorded $51.9^{\circ}(+2.8^{\circ})$, Augusta recorded 50.8° (+3.6°), and Savannah's average December temperature was 54.5° (+2.8°). The COOP station in Rabun county (MOUNTAIN CITY 2 SW) recorded the lowest monthly mean average temperature with 37.9° , while Liberty county's COOP (FT STEWART) recorded the highest average December temperature with 61.7° .



Athens and Savannah recorded a total of 10.89" (+7.16") and 8.14" (+5.19") of rain, respectively, ranking both as 3^{rd}

wettest December on record. Savannah set a daily maximum rainfall record on December 2nd with 2.92" (the previous record of 2.70" was set in 2009) and Athens did the same on December 1st with 2.17" (the previous record of 1.71" was set in 1996). Atlanta also saw abundant rainfall on the first day of the month with 1.61" (the



previous record of 1.60" was set in 1996) and had its 4th wettest December on record with 11.83" (+7.93"). Macon's total monthly precipitation was 6.26" (+2.22"), Columbus recorded 7.93" (+3.66"), and Augusta's total December precipitation was 5.94" (+2.55"). During December, the COOP station in Habersham county (TUGALO DAM) recorded the highest total monthly rainfall with 18.87". Many sites in extreme north Georgia also saw totals over 15". A few localized spots in parts of south Georgia also saw high rainfall totals this month.

Looking back at 2018, the year proved to be warmer than normal with many locations ranking in their top ten warmest years on record. Precipitation was mostly above normal, especially in the northern half of the state, except for parts of south Georgia that

missed out on heavier rainfall events. Table 1 and Table 2 detail the mean temperatures and total precipitation Georgia's major climate sites recorded during 2018.

A severe weather event unfolded on the first weekend in December in south Georgia causing several tornadoes, widespread flooding, and even a few injuries. On December 2nd, there were two EF-0 tornadoes in

Houston and Tift counties and one EF-1 tornado in Worth county. Weather stations in Ware, Lowndes, Brantley, and others in south Georgia recorded anywhere from 5" to 12" of rain over a three-day period that triggered significant flash flooding and river flooding. Besides this event, severe weather was very limited during December in Georgia.

On December 8th through December 10th, measurable snow was recorded in extreme north Georgia as a frontal passage brought Arctic air and moisture into the area. Several stations in Rabun county recorded up to 6.0" of snow, while others in Towns, White, Stephens, and Habersham saw more than 1.0" of snow.

The United States Drought Monitor showed that D0 (abnormally dry) conditions existed in southeast Georgia at the beginning of December. They were quickly eliminated, and Georgia remained drought free throughout the month.

According to the Climate Prediction Center, there is currently an El Niño Watch and ENSO-neutral conditions are

Radar imagery from the EF-1 tornado in Worth county on December 2nd (top) and storm total rainfall (bottom)



present. Equatorial sea surface temperatures are above average across most of the Pacific Ocean. El Niño is expected to form and continue through the Northern Hemisphere winter 2018 through 2019 with about a 90% chance and through spring with about a 60% chance. The CPC's three-month seasonal outlook shows chances for below normal temperatures in the northern two-thirds of Georgia with equal chances for above, near, or below normal temperatures elsewhere. The outlook also shows chances for above normal precipitation statewide, particularly as you move southward, during January, February, and March of 2019.





Table 1:

2018 Annual Temperatures* NOAA/NWS Georgia Major Climate Sites			
City	Mean Minimum	Mean Maximum	Mean Average
Atlanta	55.5° (5 th warmest)	73.4° (10 th warmest)	64.5° (5 th warmest)
Athens	52.9° (7 th warmest)	74.4° (21^{st} warmest)	63.7° (12 th warmest)
Macon	54.8° (9 th warmest)	77.5° (12 th warmest)	66.1° (7 th warmest)
Columbus	57.4° (4 th warmest)	77.5° (20 th warmest)	67.4° (9 th warmest)
Augusta	54.0° (26 th warmest)	77.7° (8 th warmest)	65.8° (12 th warmest)
Savannah	$58.3^{\circ} (17^{\text{th}} \text{ warmest})$	78.9° (6 th warmest)	68.6° (6^{th} warmest)

*includes ties

Table 2:

2018 Annual Precipitation* NOAA/NWS Georgia Major Climate Sites				
City	Total Rainfall	Ranking		
Atlanta	70.03" (+20.59")	2 nd wettest		
Athens	69.26" (+22.93")	3 rd wettest		
Columbus	66.43" (+19.68")	6 th wettest		
Augusta	54.84" (+11.27")	12 th wettest		
Macon	49.06" (+3.38")	35 th wettest		
Savannah	43.01" (-4.95")	47 th driest		

*includes ties