

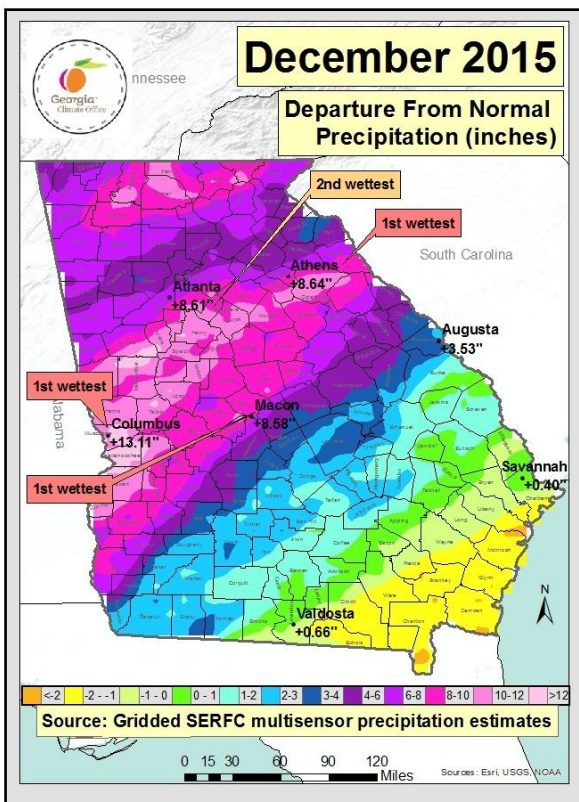
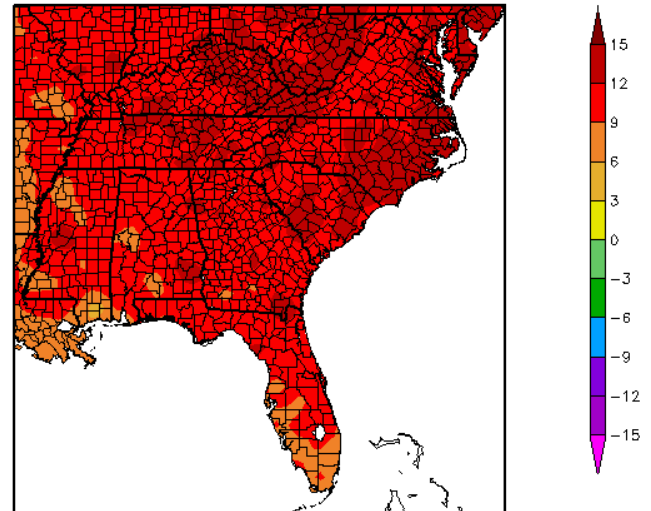
December 2015 Climate Summary – Georgia

Lauren Lindsey, *Service Climatologist*
State of Georgia Climate Office

December in Georgia was characterized by extraordinarily warm temperatures and plentiful precipitation statewide. A strong polar vortex kept cold air from penetrating southward, and most climate sites experienced their warmest December on record. A moisture-rich southerly jet stream fed moisture from the Gulf of Mexico and Atlantic Ocean into the state allowing for abundant rainfall and record-breaking monthly precipitation totals.

Most areas in Georgia saw average monthly temperatures more than 10°F above normal due to a dominant high pressure ridge that settled over the state. Atlanta, Athens, Macon, Columbus, Augusta, St. Simons Island, Savannah, Valdosta, Alma, and Gainesville all had their warmest Decembers on record with 57.6° (+12.3°), 56.4° (+11.0°), 58.6° (+10.6°), 59.1° (+10.0°), 59.3° (+12.1°), 64.6° (+10.5°), 64.2° (+12.5°), 64.5° (+11.4°), 63.4° (+10.8°), and 55.0° (+11.3°), respectively. Daily minimum temperatures were also much above normal due to nighttime cloud cover, and this allowed these monthly average temperatures to reach record warmth. In the latter half of the month, temperatures climbed into the 70s and 80s throughout the state. Many sites broke daily high temperature records for several days, and some sites broke their high minimum temperatures on the same days (see table 1).

Departure from Normal Temperature (F)
12/1/2015 – 12/31/2015

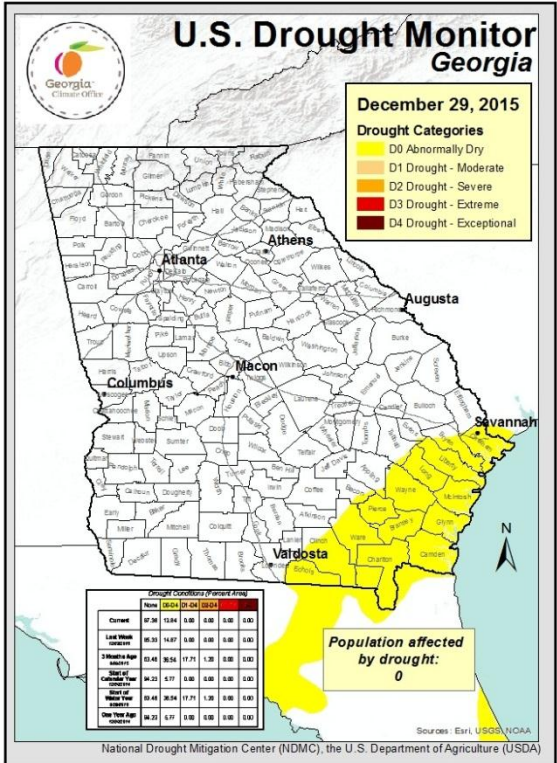
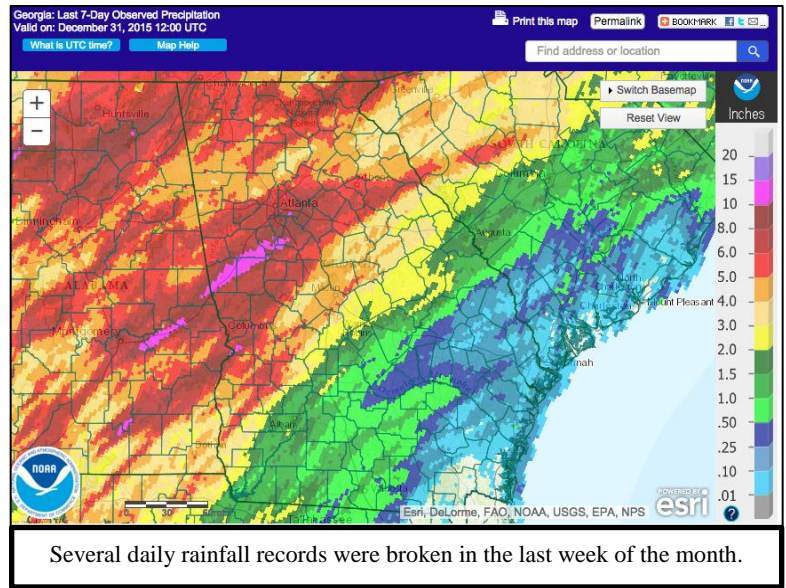


Rainfall was well above normal throughout much of Georgia except for a small pocket in the southeast. The majority of rain fell in the second half of the month. Several sites had their wettest December on record, including Athens with 12.37” (+8.64”), Macon with 12.62” (+8.58”), and Columbus with an incredible 17.38” (+13.11”). Atlanta had its second wettest December on record with 12.51” (+8.61”). Augusta’s monthly precipitation totaled 6.92” (3.53”), Savannah saw 3.35” (+0.40”), and St. Simons Island received below normal rainfall with 1.35” (-1.29”). Several daily rainfall records were broken this month (see table 1). Numerous flood warnings and advisories were issued when rivers reached flood stages and urban areas began to feel the effects of the consistent and abundant moisture surging from the Gulf of Mexico.

Severe weather occurred on three days of the month in Georgia. The National Weather Service confirmed that an EF-0 tornado touched down on December 24th in Upson County near Culloden. Strong winds were also reported and caused a few downed trees on this day. There were two other days where strong

winds and some damage were reported as well.

The United States Drought Monitor currently shows extreme southeast Georgia experiencing D0 (abnormally dry) conditions, corresponding with below normal rainfall in that area in recent months. There is a fast-flow pattern in place and an active subtropical jet, resulting from the current strong El Niño, so a slight shift in storm track should help southeast Georgia eradicate the current D0 status.



According to the Climate Prediction Center, El Niño conditions are present and there is currently an El Niño advisory. El Niño is expected to remain strong through winter 2016, with a transition to ENSO-neutral expected during late spring or early summer. The Oceanic Niño Index (ONI) value for October, November, and December is 2.3°. This ONI value ties the current El Niño event with the strongest El Niño on record, which occurred in 1997 through 1998.

The CPC's seasonal outlook for January, February, and March shows chances for below normal temperatures in the southern third of the state, and equal chances for above, near, or below normal temperatures for North Georgia. The outlook indicates that for all except the extreme northwest corner of Georgia, there are greater chances for above normal precipitation.

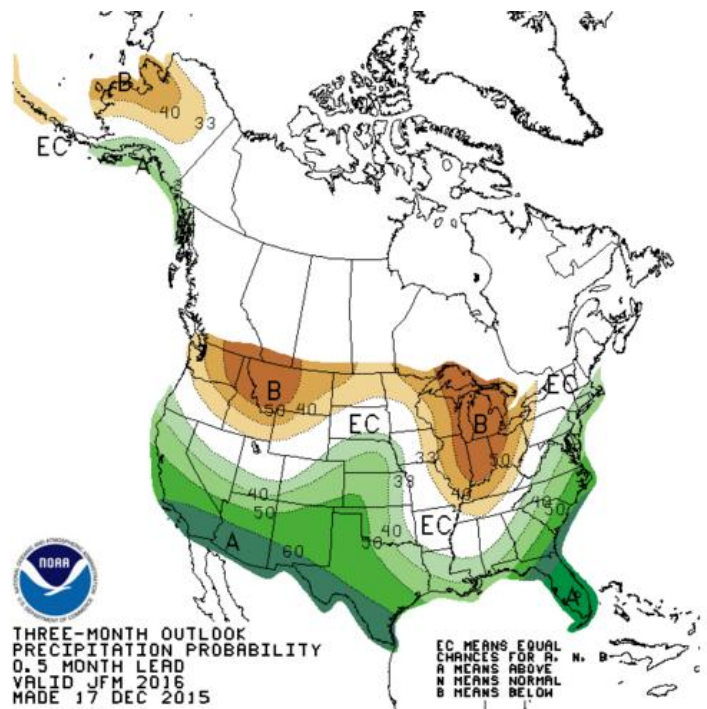
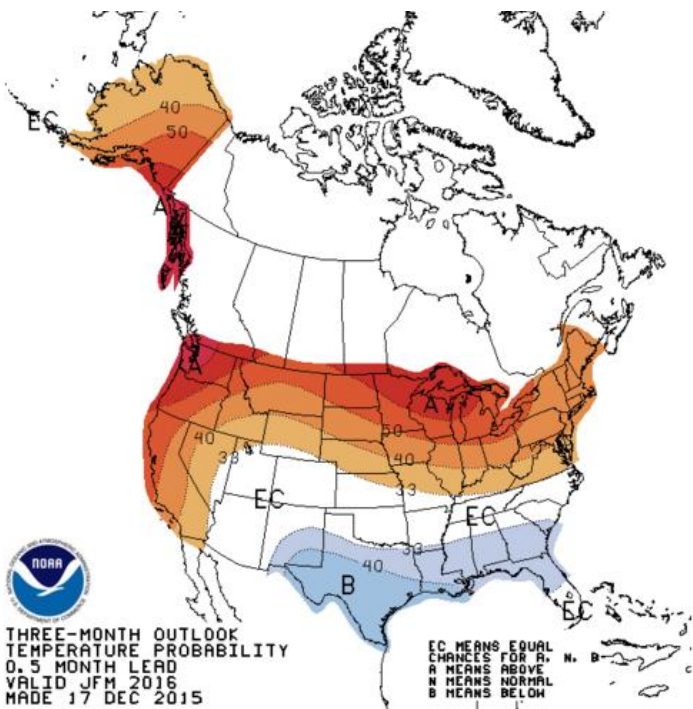


Table 1: Major Climate Sites – Daily Records

Date	Station	Type	Value	Broken or Tied	Previous
12/17	Athens	Rainfall	2.01”	Broken	1.69” in 1888
12/23	Savannah	High Min Temp	67°	Broken	65° in 1990
12/24	Atlanta	High Temp	72°	Tied	1984
12/24	Atlanta	Rainfall	3.67”	Broken	2.10” in 2002
12/24	Macon	High Temp	77°	Tied	1964
12/24	Columbus	Rainfall	3.31”	Broken	2.40” in 1941
12/24	Augusta	High Min Temp	64°	Broken	62° in 1964
12/24	Savannah	High Temp	83°	Broken	80° in 1931
12/24	Savannah	High Min Temp	69°	Broken	62° in 1879
12/25	Athens	High Temp	77°	Tied	1982
12/25	Atlanta	High Temp	75°	Broken	72° in 1987
12/25	Macon	High Temp	78°	Tied	1982
12/25	Columbus	High Temp	78°	Broken	76° in 1982
12/25	Augusta	High Temp	81°	Broken	79° in 1984
12/25	Savannah	High Min Temp	68°	Broken	65° in 1932
12/25	Savannah	High Temp	82°	Broken	80° in 2008
12/26	Athens	High Temp	77°	Broken	74° in 1964
12/26	Macon	High Temp	77°	Tied	1987
12/26	Augusta	High Temp	80°	Tied	1964
12/26	Savannah	High Min Temp	67°	Broken	63° in 1987
12/26	Savannah	High Temp	82°	Broken	79° in 1987
12/27	Athens	High Temp	73°	Tied	1971
12/27	Macon	High Temp	79°	Broken	78° in 1987
12/27	Columbus	High Temp	79°	Broken	78° in 1911
12/27	Augusta	High Temp	77°	Broken	76° in 1971
12/27	Savannah	High Min Temp	67°	Broken	64° in 1875
12/27	Savannah	High Temp	80°	Broken	79° in 1987
12/28	Macon	High Temp	78°	Broken	76° in 2008
12/28	Augusta	High Temp	81°	Broken	80° in 1984
12/28	Savannah	High Min Temp	64°	Tied	1942
12/28	Savannah	High Temp	82°	Broken	80° in 2014
12/29	Savannah	High Min Temp	70°	Broken	64° in 1875
12/30	Columbus	Rainfall	2.29”	Broken	2.00” in 1907
12/30	Athens	Rainfall	2.66”	Broken	1.89” in 1948
12/30	Savannah	High Temp	83°	Broken	81° in 1984
12/30	Savannah	High Min Temp	68°	Broken	64° in 2007
12/31	Savannah	High Min Temp	66°	Broken	62° in 2006
12/31	Savannah	High Temp	80°	Tied	1973