



## Climate Summary for Florida – July 2014

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Online at: <http://climatecenter.fsu.edu/products-services/summaries>

**Average temperatures varied across the state in July.** The departures for average temperatures in July 2014 varied across the entire state, though most of the reporting stations saw average temperatures above normal. The departures ranged from -1.5°F in both Pensacola to 1.8°F at Key West. (Table 1 and Appendix 1). July 2014 was the 4<sup>th</sup> warmest on record in Key West and the 7<sup>th</sup> coldest in Perry. Royal Palm Ranger Station reported 101°F on the 28<sup>th</sup>, the highest temperature in Florida for the month. Tallahassee reported a maximum temperature over 95°F for nine days in July, and Miami recorded its hottest temperature (95°F) since 2011. Minimum temperatures were also a story this month, with multiple records tied or broken due to cold fronts impacting the state (Appendix 2).

Table 1. July average temperatures and departures from normal (°F) for selected cities.

Station	Average Temperature	Departure from Normal
Pensacola	80.7	-1.5
Tallahassee	82.3	0.3
Jacksonville	81.5	-0.8
Orlando	83.1	0.4
Tampa	83.0	0.0
Miami	83.9	-0.2
Key West	86.3	1.8

**Rainfall totals varied across the state in July.** Portions of the Florida Peninsula reported monthly rainfall totals well above normal, while most of the rest of Florida saw below average rainfall during July (Figure 1). Departures from normal roughly ranged from -4.84” to 5.61” (Table 2 and Appendix 1), though localized parts of Florida saw rainfall totals that were as much as 8.00” below normal to over 8.00” above normal. July 2014 was the 7<sup>th</sup> wettest in Tampa and the 10<sup>th</sup> wettest on record at Miami, and it was the 2<sup>nd</sup> driest in Tallahassee (the driest was in 1918, with only 1.28” reported for the month) and it was 8<sup>th</sup> driest on record in Jacksonville. There were multiple 24-hour precipitation records broken for the month (Table 3).

Table 2. July precipitation totals and departures from normal (inches) for selected cities.

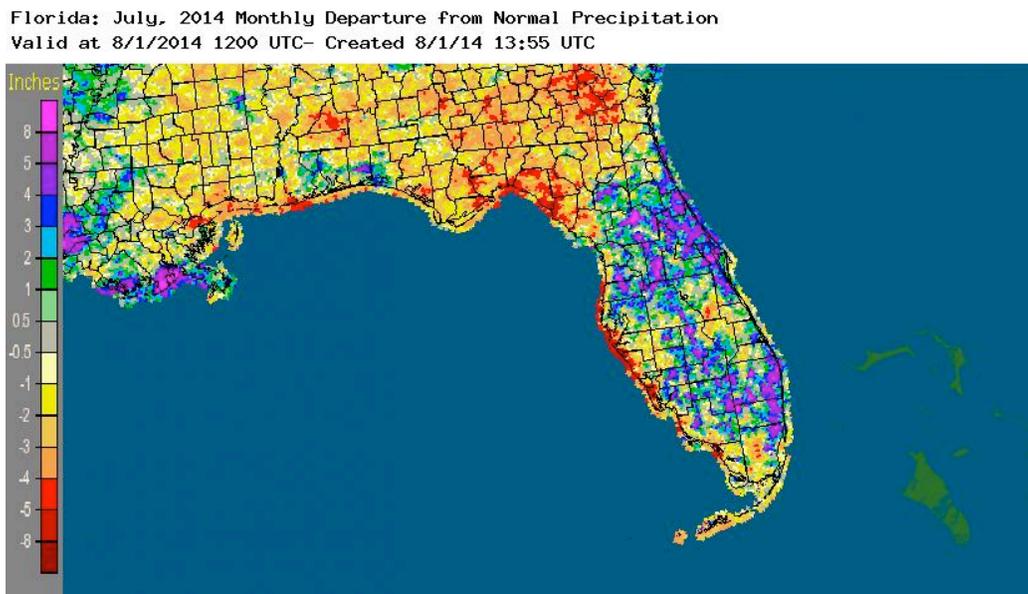
Station	Total Rainfall	Departure from Normal
Pensacola	7.64	0.23
Tallahassee	2.33	-4.84
Jacksonville	2.75	-3.80
Orlando	8.79	1.52
Tampa	12.68	5.61
Miami	10.29	3.79
Key West	2.86	-0.69



Table 3. Select daily rainfall records (inches) broken during July. (Compiled from NOAA, NWS)

Date	Location	Record	Last
4	Jasper	3.60	2.00 in 1958
6	Titusville	2.10	1.55 in 1951
7	Titusville	7.30	1.20 in 1997
8	Tampa	4.49	3.67 in 2011
10	Fort Myers	3.31	2.55 in 1972
16	Tarpon Springs	3.47	2.20 in 1988
17	Fernandina Beach	2.30	2.05 in 1964

Figure 1. A graphical depiction of the monthly rainfall departure from normal (inches) for July is given in the figure below (courtesy of NOAA, NWS).



#### ENSO-Neutral Conditions Continue in the Pacific.

Based on current data and forecast models, the Climate Prediction Center (CPC) continue to have an El Niño Watch in place. Though Neutral ENSO conditions continue to be reported as sea surface temperatures (SST) were slightly above average across the eastern equatorial Pacific. Tropical rainfall is slightly enhanced over Indonesia and in the western equatorial Pacific. CPC predicts above normal temperatures across the entire state and normal precipitation through October 2014.

#### Hazardous Weather Events in July.

There were a total of 229 severe weather reports made in Florida during July. The month started off with the St. Augustine Life Guard Patrol performing 11 rip current rescues on the 2<sup>nd</sup>. A strong thunderstorm complex that moved westward across the Peninsula during the afternoon on the 2<sup>nd</sup> caused storm damage along the Apalachee Bay area and in portions of the Big Bend during the early morning hours on the 3<sup>rd</sup>. Also on the 3<sup>rd</sup>, a possible tornado caused damage in Elkton, FL and multiple reports of storm damage, including high winds and hail in portions of north Florida. A man was struck by lightning while outside of his house in Sunrise, FL the afternoon on the 4<sup>th</sup>. Waterspouts were reported on the 9<sup>th</sup>, in both Boca Raton and Venice, FL. On the same day, lightning created several small brush fires and a structural fire in Palm Coast, FL (Flagler County). Spotters reported waterspouts again on the 10<sup>th</sup>, this time off of Big Torch Key and Patrick AFB. The Jacksonville area had three days (12<sup>th</sup> – 14<sup>th</sup>) of severe weather, with thunderstorms producing high winds (55 mph), storm damage (downed trees and power-lines), hail (pea to marble sized), and heavy rains. Lightning caused a house fire in Naples, and a thunderstorm produced dime-sized hail in the greater Miami metro area on the 15<sup>th</sup>. Strong storms ahead of an approaching cold front caused multiple reports of lightning strikes causing structural fires in and around the Tampa Bay area on the 16<sup>th</sup>. The same line of thunderstorms produced high winds along portions of the Peninsula and even a few waterspouts off the coast of Venice, FL. Rip currents were strong along east Florida beaches on the 19<sup>th</sup> – 21<sup>st</sup> with over 2 dozen water rescues and 2 fatalities reported by lifeguards from Jacksonville to Melbourne. From the 20<sup>th</sup> – 24<sup>th</sup>, one person died and 5 others were injured when struck by lightning across the state. A very weak tornado touched down along SR 528 in Wedgefield, FL (Orange County) on the 24<sup>th</sup>. The very next day, an EF0 tornado touched down at Massey Ranch Air Park, flipping two planes and causing extensive damage to three

hangers. Lightning from a severe thunderstorm struck a car on Interstate 10 in Jackson County on the 28<sup>th</sup>, causing significant damage to the vehicle and injuring the driver.

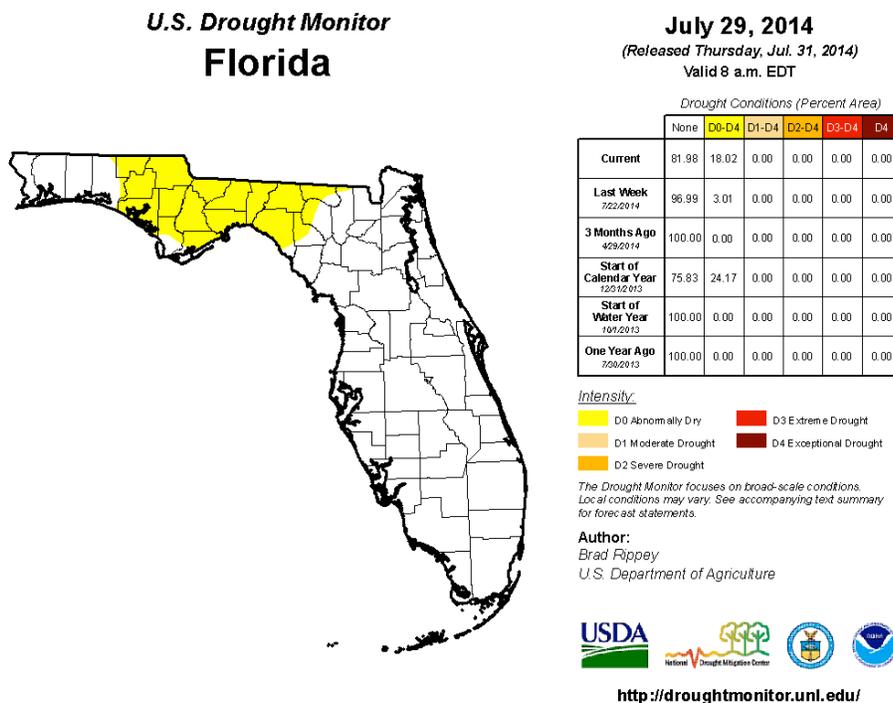
Table 4. Breakdown of storm reports submitted in Florida during the month of July (Compiled from Southeast Regional Climate Center.)

<b>Report Type</b>	<b>Number of Reports</b>
Heavy Rain and Flooding	17
High Winds	76
Storm Damage	63
Hail	23
Thunderstorm/Lightning	13
Tornadoes/Funnel Clouds/Waterspouts	33
Coastal Hazards	4
Dense Fog	0
Fire	0

**Agricultural and other climate related impacts.**

At the beginning of July, topsoil and subsoil moisture levels across the state were running more than 70% adequate and about 5%. A late planting of soybeans continued in the Panhandle, while hay was being cut due to the drier field conditions in the same area. Central Florida hay fields were too wet for any cutting, but the rain was beneficial to the citrus producing area. Watermelon harvesting completed in Gilchrist County and began in Jackson County. By mid-month, peanut conditions across the state were mainly good (72%) to excellent (7%) with pegging at 71%. Armyworms had been spotted in pastures in the Panhandle and north Florida. Pasture conditions in Charlotte, Collier, Glades, Hendry and Lee counties had improved, through standing water was reported in pastures in St. Lucie County. Fall tomato planting started in Gadsden County, while peppers were planted in Bradford County. Vegetable and fruit were harvested in southern counties, with avocados, okra, and mangoes were harvested in Miami-Dade County. Cattle conditions for the month were good (74%) to excellent (8%) and the next season’s citrus crop was progressing well with growers applying summer oils, fertilizers and resetting new trees.

Rainfall across most of the state kept drought conditions in check for most of July. The state started the month ‘drought free’, until the release of the National Drought Monitor on the 15<sup>th</sup>. Abnormally dry conditions (D0) were introduced in Gadsden and Leon counties, along with portions of Holmes, Jackson and Jefferson counties along the state line between Alabama, Florida and Georgia. By the end of July, dry conditions were shown for most of the Big Bend and Panhandle counties after 3-months of below normal precipitation had been observed. In the Peninsula, the rains had curbed most of the dryness during the month and the water levels in Lake Okeechobee were currently at 13.89 ft., which is up from the end of June.



Appendix 1

Additional July Departures from Normal Data for Florida Locations

Station	Total rainfall (in.)	Departure from Normal (in.)	Average Temperature (°F)	Departure from Normal (°F)
Gainesville	6.79	0.72	80.6	-0.6
St Petersburg	5.51	-1.83	84.2	0.3
Fort Lauderdale	9.18	3.20	84.6	0.3
Fort Myers	8.64	-0.40	83.4	0.2

Appendix 2

Select daily maximum and minimum temperature records (°F) tied or broken during July.  
(Compiled from NOAA, NWS)

Date	Station	Type	Value	Broken/Tied	Last
2	Key West	High Min	84	Tied	84 in 1967
3	Tallahassee	Max	99	Tied	99 in 1970
3	Avon Park	High Min	76	Tied	76 in 1927
3	Key West	High Min	84	Broken	83 in 1998
5	Tallahassee	Min	64	Broken	66 in 1967
5	Crestview	Min	62	Broken	67 in 1977
5	Pensacola	Min	69	Tied	69 in 1985
6	Wewahitchka	Min	65	Broken	68 in 1988
6	Apalachicola	Min	68	Broken	69 in 2000
6	Crestview	Min	64	Broken	66 in 2011
7	Key West	High Min	84	Tied	84 in 2007
7	Fort Pierce	Low Max	81	Broken	81 in 1938
7	Vero Beach	Low Max	85	Tied	85 in 2011
7	Wewahitchka	Min	66	Broken	67 in 1984
7	Inverness	Min	67	Tied	67 in 1994
8	Crestview	Min	65	Tied	65 in 1985
9	Fort Pierce	Low Max	81	Broken	83 in 2002
12	Jacksonville	Low Max	79	Broken	83 in 1953
15	Miami	Min	71	Tied	71 in 1954
17	Pensacola	Min	65	Tied	65 in 1935
18	Miami	Max	95	Tied	95 in 1983
18	Key West	High Min	85	Tied	85 in 2009
18	Apalachicola	Min	69	Broken	70 in 2012
18	Crestview	Min	64	Broken	66 in 2009
18	Key West	High Min	85	Tied	85 in 2009
19	Fort Lauderdale	Max	94	Tied	94 in 1938
19	Tallahassee	Low Max	81	Tied	81 in 1984
20	Moore Haven	Max	96	Tied	96 in 1963
20	Niceville	Low Max	79	Broken	81 in 1977
24	Key West	High Min	85	Broken	84 in 2011
27	Glen St. Mary	High Min	75	Tied	75 in 1945
28	Glen St. Mary	High Min	74	Tied	74 in 1930
28	Royal Palm Ranger Stn.	Max	101	Broken	98 in 2010
28	Tampa	High Min	81	Tied	81 in 1925
28	Sarasota	High Min	84	Broken	80 in 1912
29	Daytona Beach	High Min	81	Tied	81 in 1942
29	Inverness	High Min	78	Tied	78 in 1899
29	Naples	High Min	82	Broken	79 in 1946
30	Tallahassee	Min	66	Broken	67 in 1927
30	Fort Lauderdale	Max	97	Tied	97 in 1999
31	Pensacola	Min	63	Broken	67 in 1936
31	Jacksonville	Min	69	Tied	69 in 1914