Climate Summary for Florida
July 2010

Prepared by Preston Leftwich, David Zierden, and Melissa Grifiin
Florida Climate Center
The Florida State University
Tallahassee, Florida

Online at: http://coaps.fsu.edu/climate_center/summaries/flmonthly2010_07.shtml

Average temperatures mostly above normal for July. Continued high pressure at both the surface and aloft led to widespread record-warm temperatures during July. Monthly average temperatures for July were above normal across all areas of the state except the Keys (Table 1).

Table 1. July average temperatures and departures from normal (^{o}F) for selected cities.

Station	Average Temperature	Departure from Normal
Pensacola	84.1	1.5
Tallahassee	84.5	2.1
Jacksonville	83.7	2.1
Orlando	84.0	1.6
Tampa	84.3	1.8
Miami	84.9	1.2
Key West	84.3	-0.2

There were 30 daily maximum records tied or broken at primary reporting stations during the month. Six of these records were temperatures of 100^{o} F or higher. The maximum temperature at Lakeland on the 28th was the highest temperature recorded there during July. The extent of the warmth was evident again in July as more than 50 record high daily minimum temperatures occurred across central and southern parts of the state throughout the month. Temperatures of 83^{o} F at West Palm Beach (21st and 24th) and Naples (30th) were record high minima for the month of July. A complete tabulation of the daily records is found in the Appendix.

July rainfall below normal in most areas. Monthly rainfall in July was below normal in most areas around the state, except in the extreme southeast and the Keys. Pensacola (3.70 in) was more than four inches below normal (Table 2). However, localized heavy rain produced record daily amounts (Table 3). In particular, daily totals of 2.51" at Fort Lauderdale on the 4th and 4.03" at Apalachicola on the 5th broke records in existence since 1922 and 1940, respectively.

The overall distribution of July rainfall departures from normal is depicted in Figure 1. Note that some areas in the Panhandle and east-central Florida experienced well below normal amounts of rainfall.

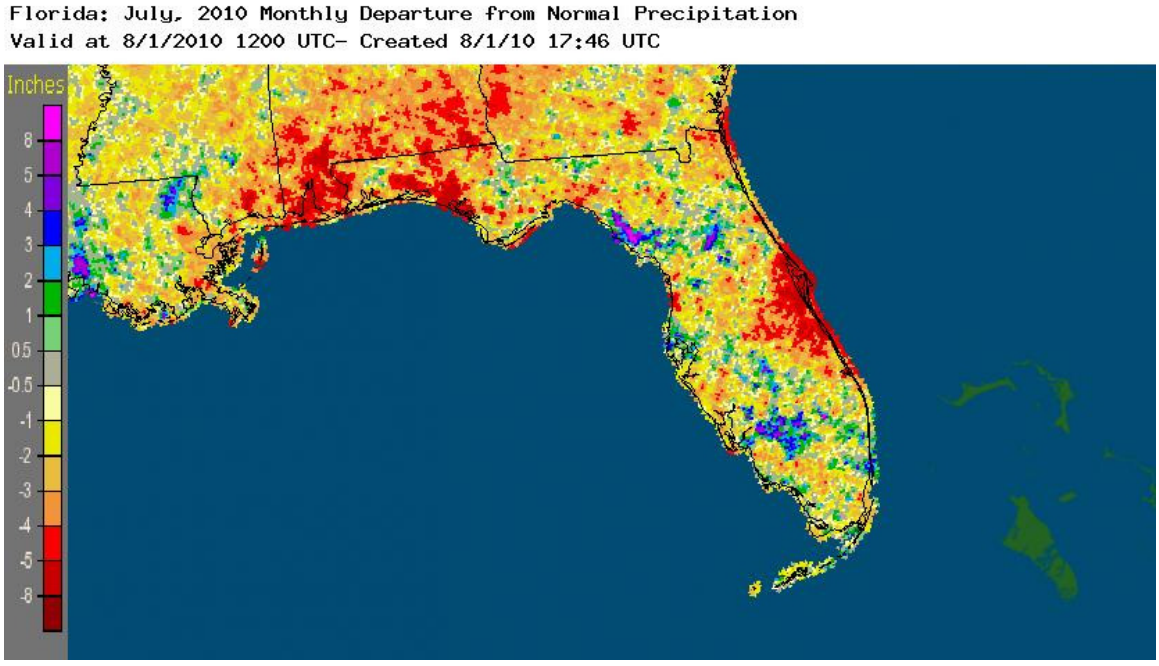
Table 2. July precipitation totals and departures from normal (inches) for selected cities.

Station	Total rainfall	Departure from Normal
Pensacola	3.70	-4.32
Tallahassee	7.79	-0.25
Jacksonville	3.98	-1.99
Orlando	4.26	-2.89
Tampa	6.08	-0.41
Miami	7.36	1.57
Key West	6.00	2.73

Table 3. Daily maximum rainfall records set in July.

Date	Station	Amount (in)	Previous Record
2	Naples	2.58	2.46 in 1975
3	Apalachicola	2.29	2.00 in 2003
4	Ft Lauderdale	2.51	1.40 in 1922
5	Apalachicola	4.03	2.50 in 1940
5	Ft Lauderdale	1.82	0.85 in 1959
11	Gainesville	3.16	1.50 in 1974
25	Sarasota	2.38	2.10 in 1945

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).



La Niña begins during July. Sea surface temperatures in the equatorial Pacific Ocean continued to cool during July and now denote a cold phase of ENSO, or La Niña. The development of La Niña has little impact on climate in Florida during summer.

Hazardous weather. Thunderstorm winds downed trees and/or power lines in several northern and central locations on the 15th. Also on the 15th, a building was damaged near Melbourne, and, as a line of thunderstorms moved off the southeast coast, wind gusts of 66 mph and 70 mph were recorded at Key Biscayne and Fowey Rocks. Minimal Tropical Storm Bonnie made landfall just south of Miami on the 23rd with maximum sustained winds around 40 mph. A gust of 52 mph was recorded along the coast at Fowey Rocks. Also on the 23rd, a weak tornado blew trees onto a house in Pensacola and thunderstorm winds caused roof damage at Crestview. On the 28th, 1" hail and 67 mph wind gusts were observed near Tampa.

Agricultural and other impacts. Beneficial rain for crops occurred early in the month in the Panhandle and southern portions of the state. On the other hand, these rains encouraged rapid weed growth in northwestern areas. Persistent hot temperatures produced heat stress on field crops and pastures without irrigation. By late in the month, some areas along the eastern coast reached mild drought conditions.

Appendix

Temperature Records (° F) Tied or Broken during July (compiled from NWS)

Date	Location	Record	Tied/Broken	Max/Min	Previous Record
1	Miami	82	Broken	Min	81 in 2003
1	Ft. Lauderdale	82	Broken	Min	81 in 2003
7	Ft. Lauderdale	82	Broken	Min	81 in 2003
7	Melbourne	79	Broken	Min	78 in 1959
7	Vero Beach	79	Tied	Min	79 in 2005
9	Tallahassee	100	Tied	Max	100 in 1932
10	Daytona Beach	97	Tied	Max	97 in 1930
10	Miami	94	Broken	Max	93 in 2004
11	Melbourne	97	Tied	Max	97 in 1980
11	Miami	95	Tied	Max	95 in 1981
12	Vero Beach	96	Tied	Max	96 in 1987
14	Orlando	76	Broken	Min	75 in 2005
14	West Palm Beach	82	Broken	Min	81 in 1972
16	Melbourne	81	Broken	Min	80 in 1961
17	Key West	84	Tied	Min	84 in 1991
17	Sarasota	95	Tied	Max	95 in 1994
17	Daytona Beach	78	Tied	Min	78 in 2002
18	Tampa	95	Tied	Max	95 in 1946
18	Melbourne	82	Broken	Min	81 in 2005
18	West Palm Beach	82	Tied	Min	82 in 1963
19	Tampa	96	Broken	Max	95 in 1991
19	Melbourne	81	Tied	Min	81 in 1986
19	Vero Beach	79	Tied	Min	79 in 2005
20	Sarasota	97	Broken	Max	95 in 1993
20	Melbourne	82	Broken	Min	80 in 2005
20	Vero Beach	80	Tied	Min	80 in 2005
21	Naples	95	Tied	Max	95 in 1981
21	Miami	82	Tied	Min	82 in 1924
21	Melbourne	81	Broken	Min	77 in 1991

Date	Location	Record	Tied/Broken	Max/Min	Previous Record
21	Vero Beach	80	Tied	Min	80 in 1991
21	Ft Lauderdale	83	Tied	Min	83 in 2005
21	West Palm Beach	83	Broken	Min	82 in 2005
21	Naples	79	Tied	Min	79 in 2003
22	Naples	95	Tied	Max	95 in 1961
22	Melbourne	80	Broken	Min	79 in 1987
22	West Palm Beach	81	Tied	Min	81 in 1901
22	Ft. Lauderdale	83	Broken	Min	82 in 2009
23	Pensacola	98	Tied	Max	98 in 1952
23	Melbourne	78	Tied	Min	78 in 2005
23	Vero Beach	80	Broken	Min	78 in 2005
24	Daytona Beach	79	Tied	Min	79 in 1977
24	Orlando	78	Tied	Min	78 in 2005
24	Melbourne	81	Broken	Min	78 in 1973
24	Vero Beach	81	Broken	Min	78 in 1989
24	West Palm Beach	83	Broken	Min	81 in 1998
24	Naples	78	Tied	Min	78 in 2009
25	St. Petersburg	95	Tied	Max	95 in 1987
25	Daytona Beach	77	Tied	Min	77 in 1977
25	Orlando	78	Tied	Min	78 in 2005
25	Melbourne	79	Broken	Min	78 in 1984
25	Vero Beach	78	Broken	Min	77 in 1996
26	Daytona Beach	76	Tied	Min	76 in 1989
27	Gainesville	98	Tied	Max	98 in 1968
27	Melbourne	79	Tied	Min	79 in 1981
27	Vero Beach	78	Tied	Min	78 in 1947
27	Orlando	98	Broken	Max	97 in 1966
27	Orlando	78	Broken	Min	77 in 2006
28	Apalachicola	98	Broken	Max	94 in 1936
28	Gainesville	97	Broken	Max	96 in 1999
28	Lakeland	102	Broken	Max	99 in 1992
28	Lakeland	80	Tied	Min	80 in 1960
28	Melbourne	78	Broken	Min	75 in 2006
28	Vero Beach	78	Tied	Min	78 in 1999
28	Naples	78	Broken	Min	77 in 1998
29	Apalachicola	99	Broken	Max	96 in 1993
29	Gainesville	98	Broken	Max	97 in 1952
29	Lakeland	98	Tied	Max	98 in 1993
29	Lakeland	77	Broken	Min	76 in 1960
30	Tallahassee	103	Broken	Max	102 in 1986
30	Jacksonville	102	Broken	Max	100 in 1941
30	Daytona Beach	99	Tied	Max	99 in 1930
30	Daytona Beach	77	Tied	Min	77 in 2004
30	Melbourne	100	Broken	Max	97 in 1987
30	Vero Beach	97	Broken	Max	95 in 2000
30	Lakeland	77	Broken	Min	76 in 1999
30	West Palm Beach	96	Tied	Max	96 in 1990
30	Naples	83	Broken	Min	81 in 1999
31	Tallahassee	101	Tied	Max	101 in 1999
31	Daytona Beach	79	Broken	Min	77 in 2005
31	Orlando	80	Broken	Min	77 in 1999
31	Melbourne	79	Broken	Min	78 in 1995

Date	Location	Record	Tied/Broken	Max/Min	Previous Record
31	Vero Beach	95	Tied	Max	95 in 1999
31	Naples	80	Tied	Min	80 in 1986