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Climate Summary for Florida – April 2013

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Average temperatures above normal across the state in April.
Average temperatures were above normal for April across the entire state (Table 1 and Appendix 1). Departures ranged from +0.7˚F in Jacksonville to +3.6˚F in St. Petersburg. April 2013 was the 7th warmest April in Miami and Tampa. Even though the average temperatures show April as being a warm month, there were some strong cold fronts that moved through the area, and patchy late season frosts were seen in some of the agricultural growing regions of the state. Numerous maximum and high minimum temperature records were broken and tied during the month (Appendix 2), along with a few low maximum temperatures that were broken toward the end of April.

Table 1. April average temperatures and departures from normal (˚F) for selected cities.

Station	Average Temperature	Departure from Normal
Pensacola	67.6	1.0
Tallahassee	68.0	1.9
Jacksonville	67.7	0.7
Orlando	74.2	3.0
Tampa	75.4	3.4
Miami	78.0	2.2
Key West	79.6	3.2

Rainfall totals varied across the state in April. Rainfall totals across the state varied in April (Table 2), though most of the state reported totals that were below normal. Localized portions of the northeast Florida, along the Florida/Georgia state line in Columbia, Hamilton, and Madison counties, recorded above normal rainfall (1 to 5 inches), while locations along the Nature and Sun coasts reported rainfall totals 1 to 2 inches below normal precipitation (Figure 1). There were a few precipitation records broken during April (Table 3), and portions of south Florida saw heavy rainfall and flooding in some of the metropolitan areas during the month. Most of the counties south of Lake Ockeechobee had normal to above normal rainfall, and the lake itself has a level of 13.40 feet, which is down from the high of 16 feet due to some regulatory releases. The 3-month outlooks are forecasting normal rainfall through July, but there is still concern about the lingering drought in the central part of the peninsula.

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

| Station	Total Rainfall	Departure from Normal
Pensacola	4.60	0.28
Tallahassee	4.40	1.34
Jacksonville	3.06	0.42
Orlando	3.64	0.96
Tampa	3.65	1.62
Miami	5.14	2.00
Key West	2.21	0.16

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

Date	Location	Record	Last
4	Sarasota	3.10	0.24 in 2012
5	Fort Lauderdale	1.82	0.17in 2011
5	Miami/Opa Locka	1.02	0.29 in 2007
13	Miami/Opa Locka	1.27	1.05 in 2004
14	Orlando	2.29	0.91 in 1955
14	Gainesville	1.73	1.06 in 1979
14	Apalachicola	2.49	1.56 in 1975
15	Fort Pierce	1.97	0.76 in 2011
29	Daytona Beach	1.30	0.75 in 1972

Figure 1. A graphical depiction of the monthly rainfall departure from normal (inches) for April is given in the figure below (courtesy of NOAA, NWS).
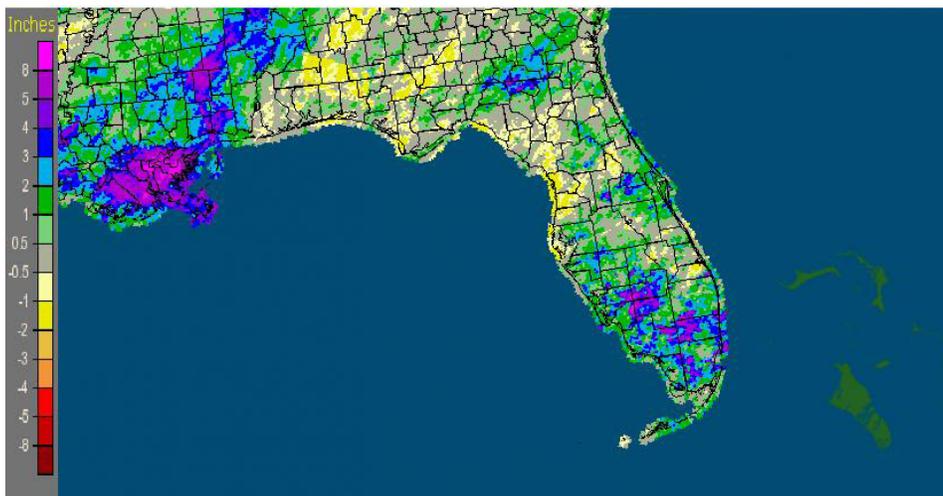
ENSO-Neutral Conditions Continue in the Pacific.
As of April 1st, neutral ENSO conditions continue to be reported for the equatorial Pacific. Equatorial sea surface temperatures (SST) are near average across much of the Pacific Ocean. ENSO-neutral conditions are favored to continue through the summer 2013. The Climate Prediction Center (CPC) predicts above normal temperatures for the state and they are also predicting normal precipitation for Florida through July.

Hazardous Weather Events in April.
April was a fairly active month for severe weather, with 214 storm reports made during the 30-day period. The month started off with six swimmers rescued from strong rip currents near Miramar Beach, FL, a thunderstorm that produced pea to nickel sized hail in the Miami metro area, and wildfire (~1000 acres burned) that was started by lightning near Kennedy Space Center all on April 1st. A low-pressure system in the Gulf of Mexico pushed through the state on April 3rd - 5th, bringing multiple rounds of severe weather associated with both a warm and cold front. Non-thunderstorm related wind gusts over 50 mph were reported along the Florida Panhandle and offshore on the 3rd, while reports of storm damage, hail, high winds were reported along the peninsula during the 4th and 5th. An EF0 tornado was confirmed to have touched down on the south end of Big Pine Key on the 5th. A wildfire that burned more than 400 acres started near Juniper Springs on the 7th. Another strong cold front pushed through the state April 11th – 13th, caused high winds (60 mph gust in Milton, FL) and storm damage in the Panhandle, and heavy rains and flooding to portions of Miami-Dade County. Lightning is believed to be the cause of a house fire in Normandy, FL on the 14th. On the same day, a low-pressure formed in the northern Gulf of Mexico and a warm front lifted across the northern part of the state- and spawned a waterspout that moved on shore and did damage to some homes in Eastpoint, FL. Numerous reports of hail were made in and around the Orlando area, ranging from pea to quarter-sized hail during an hour period on the 14th. Thunderstorm wind gusts of at least 40 mph were record at a variety of stations in the Tampa/St. Petersburg area. In addition, reports of heavy rain, flooding, hail, storm damage and high winds were also made on the 15th from many south Florida locations. A 1600-acre wildfire was reported by the U.S. Forrest Service in Playalinda Beach, FL on the afternoon of the 18th. The 19th and 20th of the month had more reports of high winds in the interior and along the eastern peninsula coast, along with

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reports of waterspouts and funnel clouds seen in portions of the Lower Keys. At the end of the month, severe thunderstorms produced high winds, hail and storm damage in the over night and early morning hours of the 29th in Ocala, Orlando, Daytona Beach, and Jacksonville. On the 30th, more hail, storm damage and heavy rain were reported around Orlando, while waterspouts and a tornado, along with flooding and hail were seen in areas of the Gold Coast from West Palm Beach to Miami.

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

Report Type	Number of Reports
Heavy Rain and Flooding	20
High Winds	95
Storm Damage	37
Hail	40
Thunderstorm/Lightning	2
Tornadoes/Funnel Clouds/Waterspouts	18
Coastal Hazards	1
Dense Fog	0
Fire	4

Agricultural and other climate related impacts.
At the beginning of April, corn and peanuts were being planted and some spring hay harvesting had also been reported. The harvesting of sugarcane was nearing completion. North Florida farmers also began planting cantaloupe, watermelons and tomatoes. Warm seasons crops in south Florida had a setback from a late season frost and high winds. Drought continued to limit forage growth, and the lingering cold temperatures from March has slowed growth, while flooding and disease compounded the problem. Bad weather caused farmers to replant corn and watermelons in some locations. Planting of sweet corn and peas in the Panhandle started in mid-April, as cabbage, watermelons and blueberries were harvested in central and south Florida. Statewide, most of the cattle stock was in fair to good condition, though poor forage in some locations forced ranchers to hay feed their herd. After more bad weather in portions of the Panhandle, certain crops had to be replanted. Spring vegetables were being planted in central Florida, but south Florida growers were battling disease due to heavy rain.

While the statewide rainfall totals varied greatly across the state during April, there have been some improvements. The Florida Panhandle remained drought free through April, though at the beginning of the month, portions of south Florida degraded from dry conditions to moderate drought, before rains set in and helped eased the dryness. Unfortunately, the dryness of April continued in the central Peninsula, and the region of severe drought spread from Flagler and Putnam counties, westward into Marion, Citrus and Levy counties. The beneficial rains at the end of the month helped pull south Florida out of moderate drought, helped either ease the drought in some locations and remove it from others.

Figure 2.   Drought conditions in Florida as of April 23, 2013 (courtesy of U.S. Drought Monitor).
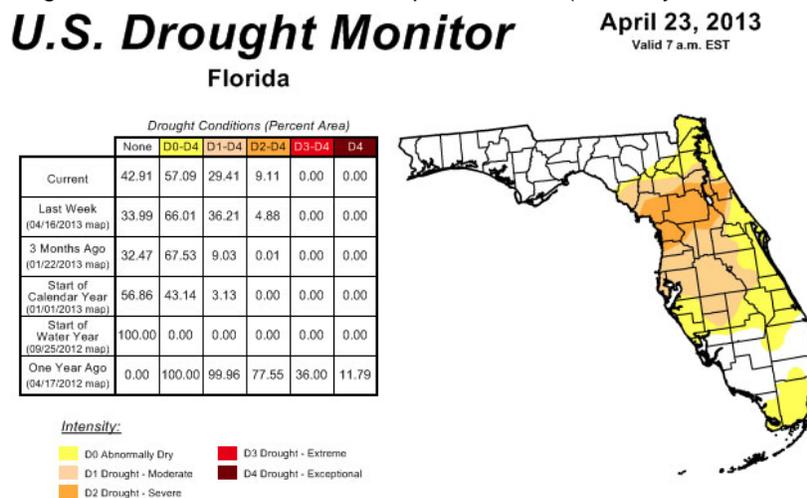
Appendix 1: Additional April Departures from Normal Data for Florida Locations

Station	Total Rainfall (in.)	Departure from Normal (in.)	Average Temperature (˚F)	Departure from Normal (˚F)
Gainesville	3.48	0.81	69.6	2.0
St Petersburg	1.35	-0.92	76.5	3.6
Fort Lauderdale	5.92	3.03	77.4	1.2
Fort Myers	3.09	0.91	76.9	3.1

Appendix 2: Select daily maximum and minimum temperature records (^{o}F) tied or broken during April. (Compiled from NOAA, NWS)

Date	Station	Type	Value	Broken/Tied	Last
10	St Petersburg	Max	88	Broken	87 in 2011
11	St Petersburg	Max	89	Broken	87 in 1991
11	Key West	High Min	78	Tied	78 in 1995
11	Miami	High Min	76	Tied	76 in 1975
11	West Palm	High Min	75	Tied	75 in 1962
11	Vero Beach	High Min	74	Tied	74 in 1995
11	Tampa	High Min	73	Broken	72 in 1944
11	St Petersburg	High Min	73	Tied	73 in 1975
11	Orlando	High Min	70	Tied	70 in 1962
12	Vero Beach	Max	93	Broken	91 in 2011
12	Key West	High Min	79	Broken	78 in 2001
12	Fort Lauderdale	High Min	78	Tied	78 in 1980
12	Miami	High Min	78	Broken	77 in 1979
12	Vero Beach	High Min	75	Broken	73 in 1995
12	Fort Myers	High Min	74	Broken	73 in 1994
12	Orlando	High Min	73	Tied	73 in 1980
12	Sarasota	High Min	73	Tied	73 in 1979
12	St Petersburg	High Min	73	Tied	73 in 1979
12	Orlando	High Min	73	Broken	70 in 1979
12	Gainesville	High Min	71	Broken	68 in 1979
12	Daytona	High Min	71	Tied	71 in 1979
12	Jacksonville	High Min	70	Tied	70 in 1948
13	Key West	High Min	79	Broken	78 in 2001
13	Fort Myers	High Min	74	Broken	71 in 1997
14	Key West	High Min	79	Tied	79 in 1975
15	Fort Myers	Max	91	Tied	91 in 1994
15	Tampa	Max	89	Tied	89 in 1994
15	St Petersburg	Max	89	Broken	87 in 1999
15	Gainesville	Max	88	Tied	88 in 2001
15	Key West	High Min	80	Broken	78 in 1999
16	Fort Myers	Max	94	Broken	92 in 1945
16	Tampa	Max	92	Broken	88 in 1994
16	St Petersburg	Max	92	Broken	88 in 1982
16	Sarasota	Max	91	Tied	91 in 1978
16	Crestview	Max	90	Broken	88 in 1977
16	Key West	High Min	81	Broken	79 in 1982
17	Tampa	Max	89	Tied	89 in 1960
17	Sarasota	Max	89	Broken	88 in 1979
17	St Petersburg	Max	88	Tied	88 in 1982
17	Key West	High Min	80	Broken	79 in 1982
17	Fort Lauderdale	High Min	77	Broken	75 in 1998
17	Miami	High Min	77	Broken	76 in 1982
18	Key West	High Min	79	Broken	78 in 1982
19	Orlando	Max	92	Tied	92 in 2011

19	Orlando	Max	91	Tied	91 in 2011
19	St Petersburg	Max	90	Tied	90 in 1982
19	Miami	High Min	78	Tied	78 in 1975
19	West Palm	High Min	77	Broken	74 in 1994
19	Vero Beach	High Min	74	Broken	73 in 1998
19	St Petersburg	High Min	74	Broken	73 in 1988
19	Tampa	High Min	73	Tied	73 in 2012
19	Daytona	High Min	72	Tied	72 in 1972
19	Orlando	High Min	71	Broken	70 in 2006
19	Gainesville	High Min	64	Tied	64 in 2006
20	Miami	Max	90	Tied	90 in 2006
20	Jacksonville	Low Max	62	Broken	66 in 1953
20	Gainesville	Low Max	64	Broken	66 in 1983
21	Gainesville	Low Max	71	Broken	73 in 1989
22	Jacksonville	Low Max	64	Broken	68 in 1993