



## Climate Summary for Florida – October 2013

*Prepared by Melissa Griffin and David Zierden.*

*Special thanks to Lauren Zuromski.*

Florida Climate Center, The Florida State University, Tallahassee, Florida

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

**Average temperatures varied across the state in October.** Average temperatures varied during October across the entire state (Table 1 and Appendix 1), though the majority of stations reported above normal temperatures. Departures from normal ranged from -0.8°F in Ft. Lauderdale and Key West to 2.6°F in St. Petersburg. Average temperatures for October 2013 were the 8<sup>th</sup> warmest on record in Miami, the 9<sup>th</sup> warmest at Key West and Orlando, and the 10<sup>th</sup> warmest in West Palm Beach. There were a number of low maximum and high minimum temperatures tied and broken during the month (Appendix 2).

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

Station	Average Temperature	Departure from Normal
Pensacola	71.7	2.1
Tallahassee	71.4	2.0
Jacksonville	70.5	0.1
Orlando	76.1	1.3
Tampa	77.3	1.1
Miami	80.6	0.7
Key West	81.6	1.4

**Rainfall totals were below normal across most of the state in October.** There were a few pockets of near normal or slightly above normal rainfall (Flagler County) for October, but, on the whole, rainfall totals across the state were below normal for the month (Figure 1). Departures from normal roughly ranged from 0.54" to -3.89" (Table 2 and Appendix 1), though areas along the eastern coast of Florida saw rainfall totals that were as much as 5.00" below normal. October 2013 was the 2<sup>nd</sup> driest October on record for Orlando and Melbourne, the 3<sup>rd</sup> driest for Gainesville and West Palm Beach, the 4<sup>th</sup> driest for Vero Beach and the 7<sup>th</sup> driest for Naples. Numerous 24-hour precipitation records were broken for the month (Table 3).

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

Station	Total Rainfall	Departure from Normal
Pensacola	1.89	-3.35
Tallahassee	1.03	-2.20
Jacksonville	1.58	-2.35
Orlando	0.15	-3.16
Tampa	0.82	-1.44
Miami	6.87	0.54
Key West	1.04	-3.89

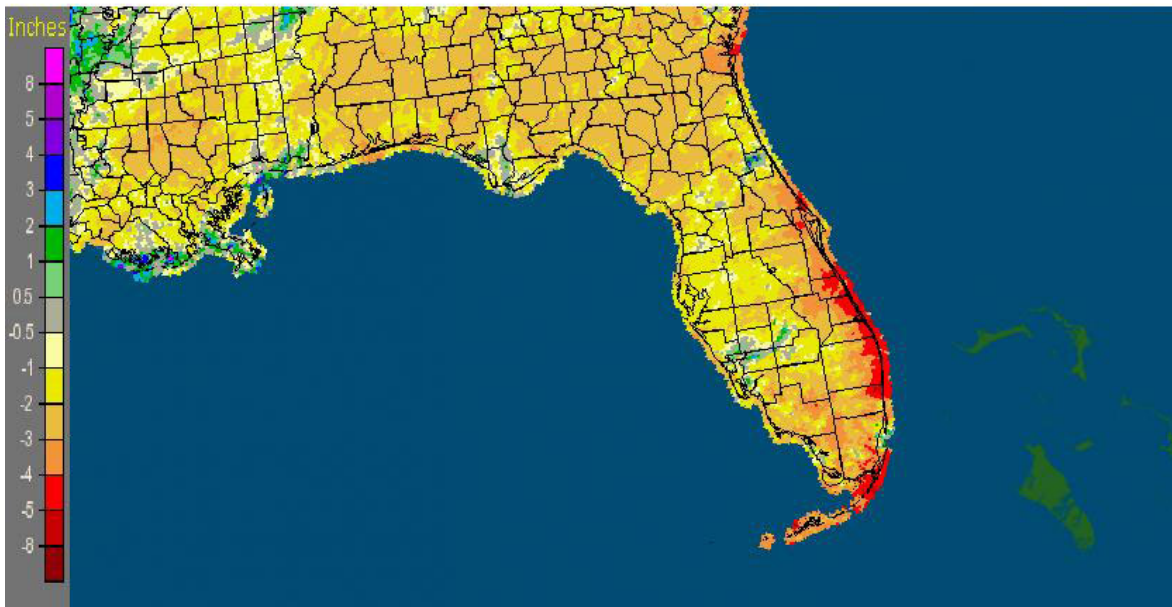


Table 3. Select daily rainfall records (inches) broken during October (Compiled from NOAA, NWS)

Date	Location	Record	Last
3	Punta Gorda	2.30	1.82 in 1972
9	Crescent City	2.76	2.14 in 1953
14	St. Augustine	0.70	0.35 in 2008
20	Archbold Bio Station	2.85	0.96 in 2001
20	Hastings	1.05	0.20 in 2006
21	Fort Lauderdale Beach	1.80	1.47 in 1966
21	Quincy	0.23	0.03 in 1988
22	Hastings	0.48	0.47 in 2007
23	Cross City	0.99	0.60 in 1980

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

Florida: October, 2013 Monthly Departure from Normal Precipitation  
Valid at 11/1/2013 1200 UTC- Created 11/1/13 15:44 UTC



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

Neutral ENSO conditions continue to be reported for the equatorial Pacific, with the equatorial sea surface temperatures (SST) near average across much of the equatorial Pacific. ENSO-neutral conditions are favored to continue through the spring of 2014. The Climate Prediction Center (CPC) predicts normal temperatures and below normal precipitation for the state through January.

#### Hazardous Weather Events in October

In October, only 43 severe weather reports were made across the state. Flooding and heavy rains were reported in the Miami area on both the 2<sup>nd</sup> and 3<sup>rd</sup>, with a report of 6.73" from Pinecrest, FL, in the 24-hour period, causing numerous streets to flood. Between the 6<sup>th</sup> and 8<sup>th</sup>, 9 waterspouts were reported along the Florida Keys up the coast to Fort Lauderdale. On the 8<sup>th</sup>, a pilot and weather observer spotted a tornado on the property of MacDill Air Force Base.

#### Tropical Storm Karen

At the end of September, an area of disturbed weather formed in the Southwest Caribbean Sea, moved through the Yucatan Channel, and formed into Tropical Storm Karen on the 3<sup>rd</sup> of October. The forecasting models initially had Karen strengthening into a hurricane, but strong shear and dry air weakened the storm, and it deteriorated to a tropical depression on the 6<sup>th</sup>. While Karen threatened the Florida Gulf Coast, the storm caused increased wave heights and dangerous rip currents along north Florida. Many beaches posted double red flags, meaning that water was closed to the public.



**Rough surf along Fort Walton Beach on October 5<sup>th</sup>.**

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

<b>Report Type</b>	<b>Number of Reports</b>
Heavy Rain and Flooding	19
High Winds	4
Storm Damage	1
Hail	0
Thunderstorm/Lightning	1
Tornadoes/Funnel Clouds/Waterspouts	18
Coastal Hazards	0
Dense Fog	0
Fire	0

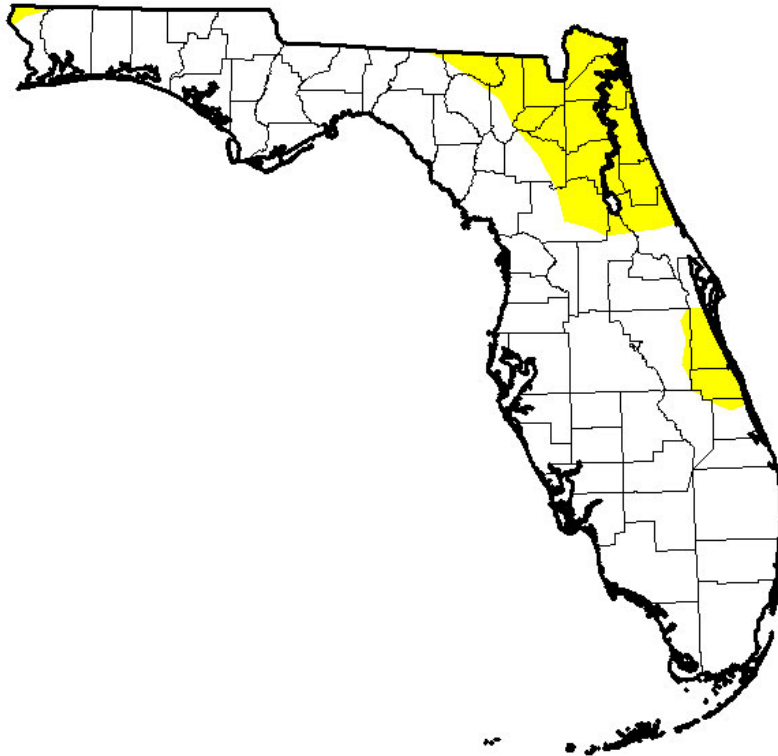
**Agricultural and other climate related impacts.**

Topsoil and subsoil were near 100% at adequate or surplus levels at the beginning of the month. The majority of the peanut crop was reported in fair to good condition, with about 33% of the harvesting complete. Dry conditions led to increased harvesting activity in many counties: Jackson (cotton), Hamilton and Flagler (corn) and numerous Panhandle and Big Bend counties (hay). Bradford County prepared strawberry and planting green fields. Standing water, pests and drought limited the forage conditions. The lack of rainfall allowed peanut harvesting to be completed and the planting of winter forage to begin. Multiple crops (hay, soybeans, cotton, sugarcane) were actively harvested through the middle to the end of the month. Fieldwork for vegetables continued in most counties, though planting was behind schedule in Palm Beach County. The citrus growing area remained drought free and grove activities included resetting new trees, mowing, fertilizing and psyllid control. Winter grazing was stressed in Jefferson County, and the cotton yield was poor due to saturated soil in Jackson County. Sugar mills opened in Palm Beach County, and vegetable harvesting increased in most counties. By the end of the month, 33 of the 44 citrus packinghouses and seven of the 19 processing plants were open and small quantities were being shipped.

The combined below normal rainfall totals in September and October prompted the reintroduction of dry conditions (D0) toward the end of October. The D0 conditions were first identified in northeast Florida, around Jacksonville, St. Augustine, Glen St. Mary, Lake City and Orange Park. When the Drought Monitor was released on the 29<sup>th</sup>, the D0 category had doubled in spatial area and included all of Indian River County, portions of southern Brevard County and northwestern Escambia County. Statewide, normal November rainfall totals range from a low of 1.45" (Naples and Royal Palm Ranger Station) to a high of 5.40" (Niceville). Despite the lack of rainfall, Lake Okeechobee is reporting a lake water level of 15.23' (as of November 1<sup>st</sup>) and South Florida water levels are well positioned for the start of the dry season. One month remains in the 2013 Hurricane Season, but any storms that form typically track away from Florida. The CPC forecast for the next three-months is predicting below normal rainfall, so the chance of seeing more dry conditions, and potentially drought, introduced into the state remains high.

# U.S. Drought Monitor Florida

**October 29, 2013**  
(Released Thursday, Oct. 31, 2013)  
Valid 7 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	83.07	16.93	0.00	0.00	0.00	0.00
<b>Last Week</b> 10/22/2013	91.85	8.15	0.00	0.00	0.00	0.00
<b>3 Months Ago</b> 7/30/2013	100.00	0.00	0.00	0.00	0.00	0.00
<b>Start of Calendar Year</b> 1/1/2013	56.86	43.14	3.13	0.00	0.00	0.00
<b>Start of Water Year</b> 10/1/2013	100.00	0.00	0.00	0.00	0.00	0.00
<b>One Year Ago</b> 10/30/2012	100.00	0.00	0.00	0.00	0.00	0.00

**Intensity:**

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Brian Fuchs  
National Drought Mitigation Center



<http://droughtmonitor.unl.edu/>

Appendix 1: Additional October Departures from Normal Data for Florida Locations

Station	Total rainfall (in.)	Departure from Normal (in.)	Average Temperature (°F)	Departure from Normal (°F)
Gainesville	0.08	-2.80	72.0	1.1
St Petersburg	0.94	-1.84	79.8	2.6
Fort Lauderdale	3.57	-3.25	79.8	-0.8
Fort Myers	1.34	-1.54	78.2	0.3

Appendix 2: Select daily maximum and minimum temperature records (°F) tied or broken during October.  
(Compiled from NOAA, NWS)

Date	Station	Type	Value	Broken/Tied	Last
1	Daytona Beach	High Min	81	Broken	78.1 in 2012
1	Fort Lauderdale Beach	High Min	79	Tied	79.0 in 1956
1	Bartow	High Min	75.9	Tied	75.9 in 1995
3	Fort Lauderdale Beach	Low Max	82	Tied	82 in 2000
5	Clermont	High Max	93.9	Tied	93.9 in 2012
6	Plant City	High Max	97	Broken	95 in 1915
6	Immokalee	High Max	91.9	Tied	91.9 in 2004
9	Vero Beach	High Max	90	Tied	90 in 2009
9	St Augustine	Low Max	75	Broken	75.9 in 1991
10	Crescent City	Low Max	69.1	Broken	73.0 in 1924
14	Daytona Beach	High Max	89.1	Broken	88.0 in 2012
19	Clermont	High Max	93	Tied	93.0 in 2006
19	Jacksonville	High Min	73.9	Tied	73.9 in 1995
20	Immokalee	High Max	93	Tied	93.0 in 2007
20	Clermont	High Max	93	Broken	91.9 in 2006
20	Fort Lauderdale Beach	High Max	88	Tied	88.0 in 2006
20	Cross City	High Max	88	Tied	88.0 in 2007
20	Daytona Beach	High Min	79	Broken	79.0 in 1959
20	Venice	High Min	73.9	Broken	73.0 in 2007
20	Tarpon Springs	High Min	73.9	Tied	73.9 in 2006
21	Punta Gorda	High Max	91.9	Broken	91.0 in 1993
21	Bradenton	High Max	90	Tied	90.0 in 1998
21	Daytona Beach	High Min	78.1	Broken	73.0 in 2006
21	Venice	High Min	73.9	Broken	73.0 in 2005
21	Bradenton	High Min	73.9	Tied	73.9 in 2007
21	St. Augustine	High Min	73	Tied	73.0 in 2005
21	Deland	High Min	73	Broken	72.0 in 2001
22	Clermont	High Max	93	Broken	91.9 in 2006
22	Archbold Bio Station	High Max	91.9	Tied	91.9 in 1993
22	Moore Haven Lock	High Max	91.9	Broken	91.0 in 2006
22	Avon Park	High Max	91.9	Tied	91.9 in 2006
22	Melbourne	High Max	91	Tied	91.0 in 2002
22	Inverness	High Max	91	Tied	91.0 in 1993
22	Venice	High Max	90	Tied	90.0 in 2007
22	Sanford	High Max	90	Tied	90.0 in 2006
22	Lisbon	High Max	89.1	Tied	89.1 in 2006
22	Sanford	High Min	73	Tied	73.0 in 2006
23	Fort Pierce	High Max	91.9	Broken	91.0 in 1987
23	Punta Gorda	High Max	91.9	Broken	90.0 in 2007
23	Clermont	High Max	91.9	Broken	91.0 in 2007
23	Archbold Bio Station	High Max	91	Tied	91.0 in 2007
23	Moore Haven Lock	High Max	91	Broken	90.0 in 2007
23	Kissimmee	High Max	91	Tied	91.0 in 2006
23	Vero Beach	High Max	91	Broken	90.0 in 2006
23	Inverness	High Max	91	Tied	91.0 in 1985
23	Daytona Beach	High Max	91	Tied	91.0 in 2006
23	Fort Lauderdale	High Max	90	Tied	90.0 in 1969
23	Canal Point	High Min	73.9	Broken	73.0 in 1973
23	Quincy	Low Max	69.1	Tied	69.1 in 1998
24	Moore Haven Lock	High Max	91.9	Tied	91.9 in 1990
27	St Augustine	Low Max	72	Tied	72.0 in 1999