



## Climate Summary for Florida – February 2017

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

**Average temperatures in February were above normal across the state.** The departures from average temperatures in February 2017 were above normal across the entire state, ranging from +2.5°F in Fort Lauderdale to 8.9°F in Tallahassee (Table 1 and Appendix 1). Despite the warm average temperatures across the state, North Florida stations saw up to five nights with minimum temperatures in the 30s. A few major stations registered maximum temperatures at or above 90°F on the last day of the month. February 2017 was the 2<sup>nd</sup> warmest in Pensacola, 3<sup>rd</sup> warmest in Fort Myers, and 5<sup>th</sup> warmest in Tallahassee and Tampa. Several high temperature records were tied or broken across the state (Appendix 2).

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

Station	Average Temperature	Departure from Normal
Pensacola	63.6	+8.9
Tallahassee	62.1	+7.4
Jacksonville	62.3	+5.9
Orlando	68.0	+5.0
Tampa	68.8	+5.4
Miami	73.1	+2.9
Key West	74.7	+3.7

**Rainfall totals in February were below normal for most of the state.** Rainfall totals in February 2017 were below normal across the state except for small pockets in a few coastal areas (Figure 1). Departures from normal roughly ranged from -2.81” in Gainesville to +0.90” in Melbourne (Table 2 and Appendix 1), though localized parts of the state saw rainfall totals that were as much as 4.00” below normal to over 3.00” above normal (Figure 1). A few 24-hour precipitation records broken for the month (Table 3).

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

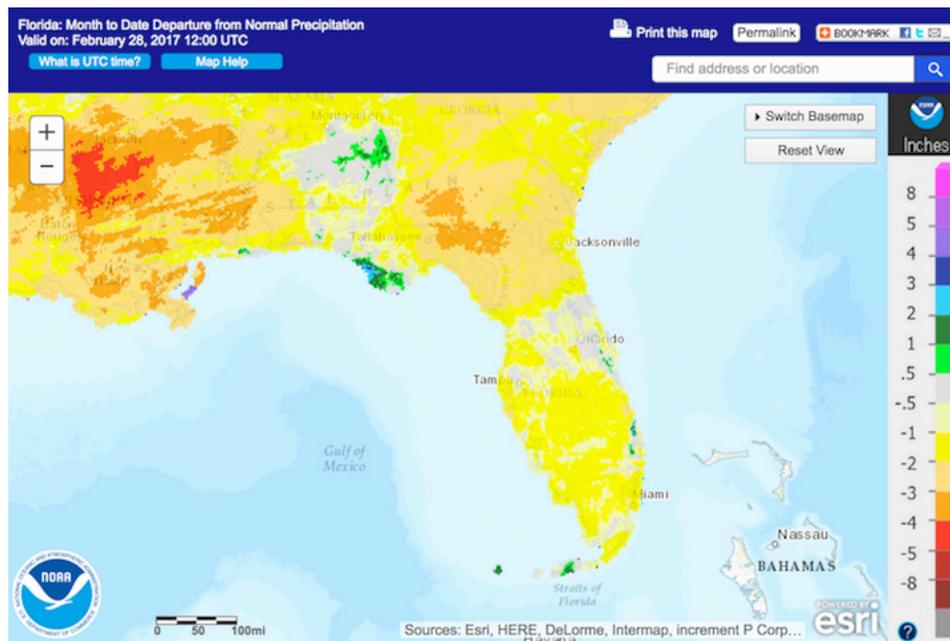
Station	Total Rainfall	Departure from Normal
Pensacola	3.62	-1.44
Tallahassee	2.72	-2.13
Jacksonville	1.35	-1.84
Orlando	0.95	-1.43
Tampa	2.06	-0.75
Miami	1.31	-0.94
Key West	2.05	+0.56

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

Date	Location	Record	Last
22	Fort Lauderdale	1.40	1.08 in 1967
22	Melbourne	2.50	0.75 in 1964



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



### **ENSO-neutral conditions are Present in the Pacific.**

Based on current data and forecast models, the Climate Prediction Center (CPC) has issued a Final La Niña Advisory. ENSO-neutral conditions are currently present, with sea surface temperatures (SST) near normal across the central and east-central Pacific Ocean, and above normal in the eastern Pacific Ocean. ENSO-neutral conditions are favored until mid-2017, with a possibility of El Niño by November 2017. The CPC seasonal outlook favors above-normal temperatures and near-normal precipitation through May 2017.

### **Hazardous Weather Events in February.**

There were 187 hazardous weather reports issued in Florida in February 2017. A large proportion of these events (117, or over 60% of the total) were made on just one day, the 7<sup>th</sup>, when a deep upper level trough and enhanced southerly flow bringing moisture from the Gulf led to the development of a large complex of thunderstorms and severe weather across the North Florida. A number of thunderstorms were accompanied by hail, particularly in Alachua, Levy, and Columbia Counties. Severe weather that day included a weak tornado touchdown in Bradford County that caused damage to a local school and downed trees and power lines. An EF1 tornado with peak winds near 100mph, track length 0.6 miles, and track width of 0.1 miles was confirmed in St. Johns County. Thunderstorm wind gusts in excess of 40 mph and up to 60mph were reported in Columbia, Alachua, Clay, Duval, St. Johns, Brevard, and Volusia Counties. Gusts of 87mph were recorded in Okaloosa County. Uprooted trees caused several injuries in Okaloosa and Clay Counties, and a fatality in Calhoun County. Numerous storm damage reports of downed trees and powerlines, trees fallen on homes and vehicles or blocking roads, and damage to roofs and building structures came from Santa Rosa, Okaloosa, Walton, Holmes, Washington, Bay, Jackson, Calhoun, Gulf, Gadsden, Liberty, Leon, Wakulla, Jefferson, Madison, Taylor, La Fayette, Columbia, Gilchrist, Levy, Union, Bradford, Alachua, Nassau, Duval, Clay, and St Johns Counties. Lightning strike damage to a building was reported in Santa Rosa County.

On February 15<sup>th</sup> a passing cold front brought strong winds to the northeastern portion of the state. Non-thunderstorm wind gusts in excess of 40mph were recorded in Alachua, Duval, Marion, St. Johns, Columbia, Osceola, and Volusia Counties. A funnel cloud was spotted in Sumter County but did not touch down. Nickel-size hail was reported in Volusia County.

Dense fog was reported in the South Florida area on the 9<sup>th</sup>, with very low visibility causing dangerous driving conditions in Broward, Miami-Dade, Glades, and Hendry County, and problems at Miami International Airport and Fort Lauderdale International Airport. Dense fog was also reported on the 15<sup>th</sup> in Glades and Palm Beach County roads. Low visibility because of a wildfire smoke caused in several traffic accidents and prompted road closures in Polk County on the 17<sup>th</sup>. The fire consumed more than 4000 acres and destroyed nine mobile homes, two single-family dwellings, and several vehicles; over 800 homes were briefly ordered to evacuate.

Despite the overall dry weather for the month, there were several isolated heavy rain events throughout the month. Observers recorded daily totals of up to 3.6 inches in Brevard County on the 22<sup>nd</sup>, and up to 5.8 inches in Martin County on the 28<sup>th</sup>.

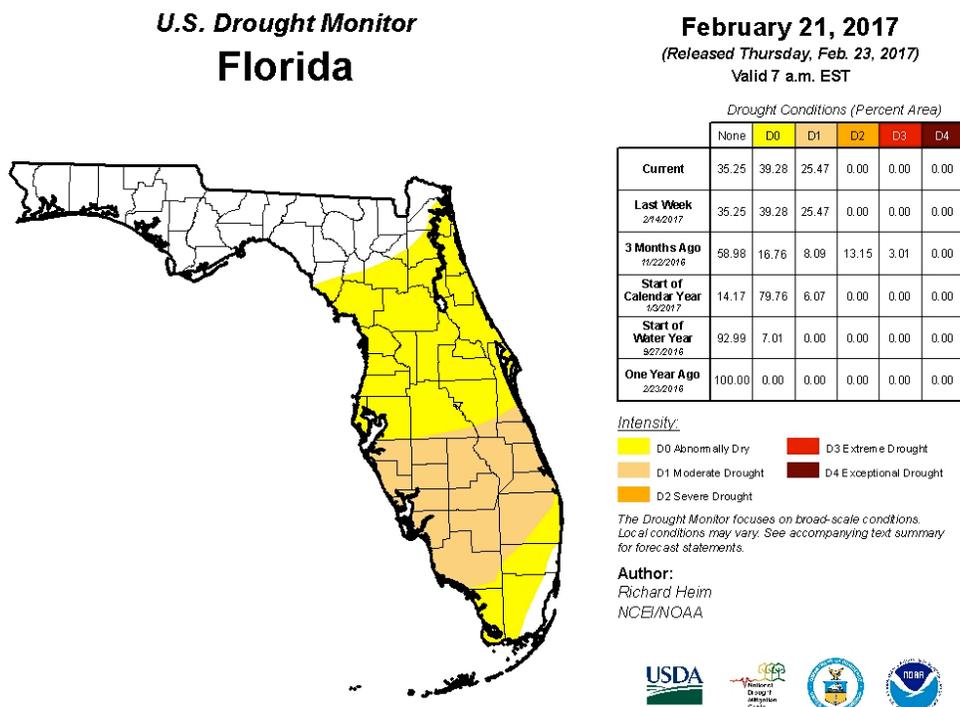
Two heat-related fatalities were reported this month, both involving young children left in a vehicle. An additional weather-related fatality resulted from rough surf and rip currents.

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

<b>Report Type</b>	<b>Number of Reports</b>
Storm Damage	87
High Winds	59
Dense Fog	12
Hail	8
Tornadoes/Funnel Clouds/Waterspouts	2/2/3
Heavy Rain	6
Fire	2
Flooding	2
Heat	2
Lightning	1
Coastal Hazards	1

**Drought-Related Impacts.**

At the end of January, approximately 38% of the state, including the entire Panhandle, was drought free. The remaining 62%, constituting most of Peninsular Florida, were affected by abnormally dry (D0) conditions. By mid-month, much of South Central and parts of South Florida (including Manatee, Hardee, the southern portions of Polk, Osceola, and Brevard, Sarasota, De Soto, Highlands, Okeechobee, Indian River, Charlotte, Glades, Saint Lucie, Martin, Lee, Hendry, Collier, Palm Beach, and northwestern Broward County) had transitioned from D0 to moderate drought (D1) conditions. This remains the situation as of the latest Drought Monitor Report, issued on February 23, with approximately 35% of the state drought-free, nearly 40% under D0, and 25% under D1 conditions. Based on census data, roughly 3.8 million Florida citizens are currently impacted by drought. Due to the dry conditions, burn bans are in effect in Okeechobee, Glades, and Hendry Counties. Lake Okeechobee water levels at the end of the month were at 13.45 ft., which is below average for this time of the year.



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

## Agriculture-Related Impacts.

Topsoil moisture levels at the beginning of the month were mostly adequate (46%) to short (39%). Some very short (10%) and surplus (5%) values were also reported. Most of peninsular Florida has been experiencing abnormally dry or moderate drought conditions, and temperatures have been mostly above normal.

Citrus groves have been heavy irrigated to compensate for the prolonged dry conditions, despite brief showers over portions of the citrus growing region. Ditches and canals are running low. Grapefruit harvest has continued at a steady pace, while tangerine harvest has been increasing, despite overall amounts being relatively low. The early orange harvest has continuously decreased throughout the month. Blooming is widespread and at various stages.

Pasture quality has continued its seasonal decline. Pastures in many parts of the state have been brown due to dry conditions across much of the states, and most ranchers are providing supplemental feed. There have been reports of improving pasture conditions in Indian River and Brevard Counties where cattle have had access to good grazing. Overall, most cattle remain in fair to good condition.

Fruit and vegetable growers saw some damage from high winds. Unseasonably warm temperatures have caused early maturing and underweight harvest for some cool weather crops in Palm Beach County. Some producers in Dixie and Gilchrist are planting melons earlier than usual.

Spring field crop planting activities have begun in Suwannee, Washington, Flagler and Putnam Counties. Sugarcane harvesting continues on schedule in Broward, Glades, Hendry and Palm Beach Counties.

Appendix 1  
Additional February Departures from Normal Data for Florida Locations

Station	Total rainfall (in.)	Departure from Normal (in.)	Average Temperature (°F)	Departure from Normal (°F)
Gainesville	0.39	-2.81	63.1	+5.6
Melbourne	3.43	+0.90	67.3	+4.6
St Petersburg	0.53	-2.19	68.4	+4.3
Fort Lauderdale	1.57	-1.39	73.5	+2.5
Fort Myers	0.72	-1.43	71.4	+4.8

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

Date	Station	Type	Value	Broken/Tied	Last
7	Fort Lauderdale	High Min	72	Tied	72 in 1965
7	Jacksonville	Max	81	Broken	80 in 1904
8	Melbourne	Max	85	Tied	85 in 1997
9	Fort Lauderdale	Max	87	Broken	86 in 1912
12	Pensacola	Max	81	Broken	77 in 2000
12	Tallahassee	Max	82	Broken	81 in 1932
19	Pensacola	Max	81	Broken	77 in 2011
23	Pensacola	Max	79	Tied	79 in 1994
24	Tallahassee	Max	83	Tied	83 in 2012
25	Tallahassee	Max	83	Tied	83 in 2012
27	Fort Myers	Max	89	Tied	89 in 2012
27	Saint Petersburg	Max	83	Broken	82 in 2012
28	Fort Myers	Max	90	Broken	88 in 2012
28	Jacksonville	Max	87	Tied	87 in 1962
28	Saint Petersburg	Max	82	Tied	82 in 2001