



Climate Summary for Florida - December 2012

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Online at: <http://climatecenter.fsu.edu>

Average temperatures were above normal across the state in December.

Average temperatures were well above normal for December across the entire state (Table 1 and Appendix 1). Departures from normal ranged from 0.9°F at Fort Lauderdale to 3.9°F in Pensacola. This was the 6th warmest December on record in Pensacola. Multiple temperature records either tied or broken (Appendix 2), with most of those being associated the maximum temperatures.

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

Station	Average Temperature	Departure from Normal
Pensacola	58.0	3.9
Tallahassee	56.8	3.0
Jacksonville	57.9	2.9
Orlando	65.0	2.0
Tampa	65.1	1.8
Miami	71.9	2.0
Key West	73.4	1.4

Rainfall totals varied across the state in December.

While most of the state recorded below normal rainfall totals for the month (Table 2), some small portions of the state actually had above normal precipitation in December (Figure 1). Coastal portions of Collier County, along with Palm Beach and Martin counties, areas around the northern shore of Lake Okeechobee, and a line from Gainesville to St. Augustine recorded monthly rainfall totals that were more than 2" above normal. However, most of the state saw between 1" and 2" below normal, and December 2012 was the 10th driest December on record in Pensacola.

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

Station	Total Rainfall	Departure from Normal
Pensacola	2.09	-1.88
Tallahassee	3.27	-0.83
Jacksonville	2.31	-0.33
Orlando	1.28	-1.03
Tampa	2.20	-0.10
Miami	0.51	-1.67
Key West	0.67	-1.47

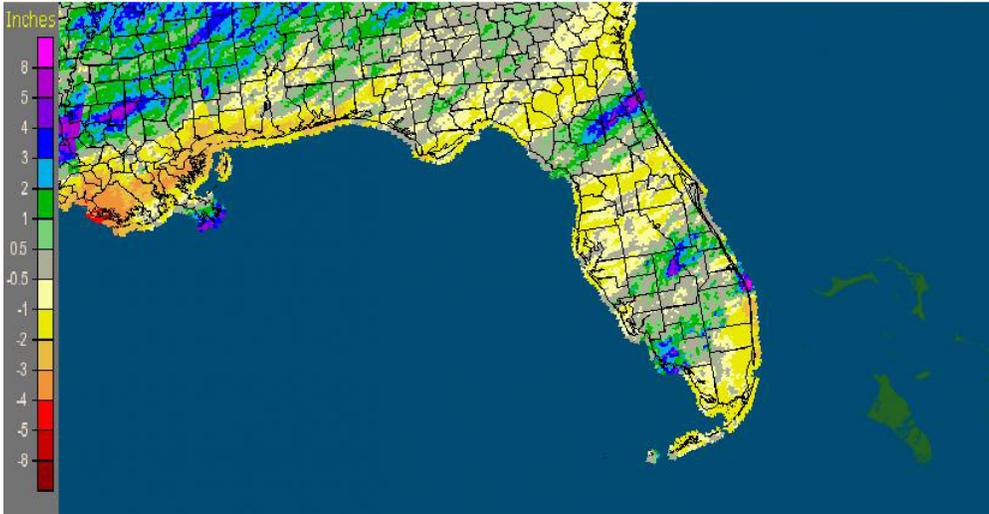
Table 3. Select daily rainfall records (inches) broken during December (compiled from NOAA, NWS).

Date	Location	Record	Last
7	Fort Pierce	1.32	0.00 in 2011
10	Gainesville	3.56	2.28 in 1967
28	St. Petersburg	1.04	0.47 in 1994
29	Gainesville	1.04	0.63 in 1983



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

Florida: December, 2012 Monthly Departure from Normal Precipitation
Valid at 1/1/2013 1200 UTC- Created 1/2/13 13:41 UTC



ENSO-neutral conditions continue in the Pacific.

As of December 30th, the Climate Prediction Center (CPC) reported that ENSO neutral conditions continue for the equatorial Pacific. Equatorial sea surface temperatures (SST) were near average across much of the Pacific Ocean. ENSO-neutral conditions are favored to continue through the winter of 2012-2013 and into spring 2013. CPC predicts above normal temperatures for the state, with above normal precipitation for northern Florida in January, but below normal precipitation in peninsular Florida through March.

Hazardous weather events in December.

December was a quiet month for severe weather across the state with only 81 severe weather reports. Dense fog was reported along coastal portions of Nassau, Duval and St. Johns counties during the early morning hours of December 8th, reducing visibility to less than ¼ mile in some locations. On December 10th, a storm system caused multiple severe weather reports in portions of inland and coastal central Florida. Waterspouts were observed over New Smyrna Beach and Lake Apopka, while a funnel cloud was reported in Lakewood, FL, and a tornado in Edgewater, FL. Areas of Alachua, Marion and Orange counties saw heavy rain and storm damage from the same storm system. Multiple flooding reports were made on the 11th in the Jupiter, FL, area after unofficial rainfall totals measured 3-10” in portions of Palm Beach County. Law enforcement officials in Hendry, Glades and Collier counties reported widespread dense fog on the 13th, with visibilities reduced to ¼ mile. Storms caused damage in portions of the Panhandle on the 17th, with multiple reports of storm damage and wind gusts over 40 mph. A strong cold front moved through the state on the 20th – 22nd, which spawned a tornado near Perry, FL, and caused storm damage across Florida. Trees were knocked down from Freeport to Jacksonville, and high wind reports were made from every portion of the state, with the highest reported wind speed being 45 mph at Shell Point. Another vigorous cold front pushed through the portions of the state on the evening of 25th through the morning of the 26th. The squall line produced a waterspout near Santa Rosa Beach on the 25th, and caused storm damage and high winds as it pushed through north Florida.

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

<u>Report Type</u>	<u>Number of Reports</u>
Heavy Rain and Flooding	8
High Winds	23
Storm Damage	29
Hail	1
Thunderstorm/Lightning	0
Tornadoes/Funnel Clouds/Waterspouts	11
Coastal Hazards	1
Fire	0
Fog	9

Agricultural and other climate-related impacts.

The lack of rainfall at the beginning of the month further depleted the topsoil moisture levels across the state. Some citrus trees were straining to keep the fruit set healthy and growing, and some growers were beginning to irrigate their groves to keep moisture levels from becoming too short. The winter field crops struggled due to the lack of rainfall; however, the above-normal temperatures resulted in good growing conditions for numerous vegetable varieties across the state. Strawberries were already being marketed. By mid-month, some rainfall in central Florida had reduced the need for irrigation for citrus and winter crops, but slowed some of the work in the fields. Other portions of the state still relied heavily on irrigation, as parts of the state were still dry due to the lack of rainfall. However, by the end of the month, two rounds of rainfall boosted soil moisture levels and further eased some of the irrigation demands on Florida agricultural. Some of the storms associated with the two strong cold fronts did cause localized wind damage. The passage of the fronts did bring sub-freezing temperatures to parts of the state and growers prepared to check the damage done to crops. Fruit and vegetable growers continued to market a variety of crops, and orange harvesting continued at a rapid pace.

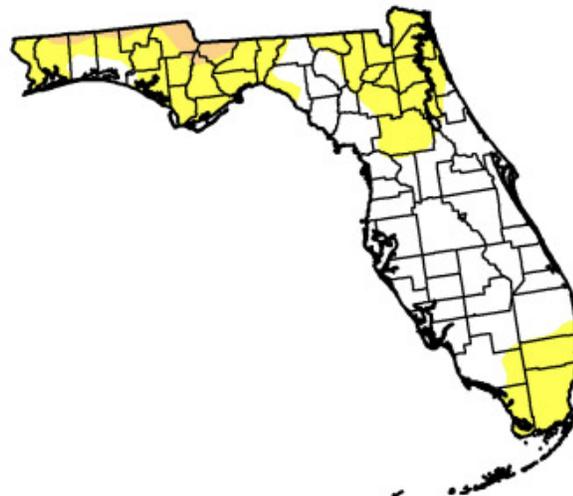
As the dry conditions continued from November, the authors of the National Drought Monitor expanded some of the dry conditions in north Florida by the beginning of the month, to include most of the southwest coast of the state and portions of north central Florida. Mid-December, the dry conditions had been removed from Charlotte, Collier, Glades, Hendry, and Lee counties, though the dryness was kept in Monroe County. The moderate drought conditions along the Florida/Alabama and Florida/Georgia line persisted through the end of the month, while Dade and Broward counties are now reporting dry conditions.

Figure 2: Drought conditions in Florida as of December 25, 2012 (courtesy of U.S. Drought Monitor).

U.S. Drought Monitor **December 25, 2012**
Valid 7 a.m. EST
Florida

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	56.86	43.14	3.13	0.00	0.00	0.00
Last Week (12/18/2012 map)	63.89	36.11	3.13	0.00	0.00	0.00
3 Months Ago (09/25/2012 map)	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year (12/27/2011 map)	38.81	61.19	27.41	12.84	2.61	0.00
Start of Water Year (09/25/2012 map)	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago (12/20/2011 map)	46.66	53.34	27.41	17.16	6.33	0.00



Intensity:

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

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

<http://droughtmonitor.unl.edu>



Released Thursday, December 27, 2012
Richard Heim, National Climatic Data Center, NOAA

Appendix 1. Additional December departures from normal data for Florida locations

Station	Total rainfall (in.)	Departure from Normal (in.)	Average Temperature (°F)	Departure from Normal (°F)
Gainesville	6.93	4.37	59.0	2.7
St Petersburg	2.35	-0.25	67.4	3.7
Fort Lauderdale	1.83	-0.82	70.2	0.9
Fort Myers	2.18	0.60	68.2	1.8

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

Date	Station	Type	Value	Broken/Tied	Last
10	Vero Beach	Max	86	Tied	86 in 1978
10	Pensacola	Max	78	Tied	78 in 1971
11	Fort Lauderdale	Max	86	Tied	86 in 1997
11	West Palm Beach	Max	86	Tied	86 in 1997
11	Miami	Max	85	Tied	85 in 1997
11	Fort Myers	High Min	72	Tied	72 in 1986
11	Gainesville	High Min	65	Tied	65 in 1986
12	Key West	High Min	76	Tied	76 in 2009
12	Fort Myers	High Min	70	Tied	70 in 1986
17	Fort Lauderdale	Max	83	Broken	82 in 2000
17	Daytona Beach	Max	82	Tied	82 in 1971
20	St. Petersburg	Max	81	Tied	81 in 1990
20	Key West	High Min	76	Broken	75 in 1990
23	Sarasota	Min	37	Tied	37 in 1989
26	Fort Lauderdale	Max	85	Broken	84 in 1997
26	Miami	Max	84	Broken	83 in 1998
26	Vero Beach	Max	84	Broken	83 in 1981
29	Vero Beach	Max	85	Broken	83 in 1946
30	St. Petersburg	Low Max	58	Broken	60 in 2000
30	Sarasota	Low Max	59	Broken	60 in 1983
30	St. Petersburg	Min	42	Tied	42 in 2002