Climate Summary for Florida – January 2023

Prepared by the Florida Climate Center, The Florida State University, Tallahassee, Florida
Online at: http://climatecenter.fsu.edu/products-services/summaries

Key Points

- January average temperatures were above normal statewide for the month.
- Monthly precipitation totals were below normal for the month.
- Drought conditions improved in the Panhandle during the month but persisted in the Big Bend region; the Peninsula became abnormally dry by month's end.
- La Niña conditions in the equatorial Pacific Ocean weakened, and a transition to ENSO-neutral is expected over the next couple of months.

Average monthly temperatures in January were above normal across the state. Average temperature departures from normal ranged from +1.3 °F in Melbourne to +6.8 °F in Pensacola for the month (see Table 1 and Appendix 1 for select cities). Following a cold end to December, mean average temperatures in January were well above normal during the beginning of the month. During the first week, departures from normal ranged from +5 °F in south Florida to +13 °F in the western Panhandle. Select daily high maximum temperature records tied or broken during the month are provided in Appendix 2.

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

Station	Mean Temperature	Departure from Normal
Pensacola	60.0	+6.8
Tallahassee	57.5	+5.3
Jacksonville	58.0	+3.8
Orlando	64.4	+3.8
Tampa	64.6	+2.6
Miami	72.1	+3.5
Key West	72.6	+2.0

January was generally dry, with monthly rainfall totals below normal for much of the state. The monthly precipitation departures from normal ranged from -3.26 inches in West Palm Beach to +2.27 inches in Tallahassee (see Table 2 and Appendix 1 for additional locations). The Tallahassee and Apalachicola areas picked up several inches of rain toward the end of the month, which helped to alleviate drought in this area, but generally most places were dry and, as a result, abnormally dry conditions appeared over much of the Peninsula by the end of the month.
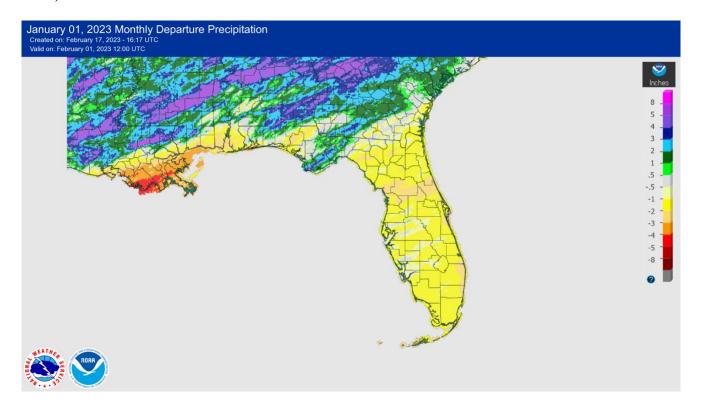

Table 2. January precipitation totals and departures from normal (inches) for selected cities.

Station	Total Rainfall	Departure from Normal
Pensacola	4.03	-1.00
Tallahassee	6.68	+2.27
Jacksonville	2.18	-1.10
Orlando	1.01	-1.47
Tampa	1.55	-1.10
Miami	0.05	-1.78
Key West	0.08	-1.75

Figure 1. A graphical depiction of the monthly rainfall departure from normal (in inches) for January (courtesy of NOAA).

La Niña Continues but Weakens.

A weak La Niña was still in place throughout the month of January with signs of weakening. Sea surface temperatures in the eastern equatorial Pacific Ocean were not as cold as they have been, with the latest Niño index values generally near -0.5°C, and sub-surface temperatures warmed too. There is forecaster consensus that La Niña is expected to continue to weaken, with a transition to ENSO-neutral over the next couple of months. ENSO-neutral is expected to then persist through the Northern Hemisphere spring and early summer. There are increasing chances of El Niño at longer forecast horizons, though large uncertainty remains.

Hazardous Weather Events in January.

According to the Local Storm Reports issued by the local National Weather Service offices serving Florida, there were 140 individual local reports of hazardous weather events recorded across the state during the month of January (see Table 4 for a breakdown by event type). No major impacts were reported.

Table 4. Breakdown of storm reports submitted in Florida during the month of January (compiled from Iowa State University/Iowa Environmental Mesonet).

Report Type	Number of Reports
Heavy Rain	0
Flood	0
Coastal Flood	0
Hail	2
Marine Thunderstorm Wind	35
Non-Thunderstorm Wind Gust	22
Non-Thunderstorm Wind Damage	1
Tornado/Waterspout/Funnel Cloud	6 / 0 / 2
Thunderstorm Wind Damage	27
Thunderstorm Wind Gust	43
Rip Currents	0
Wildfire	2

Daily Record Events in January.

Table 5. Summary of daily records broken in Florida in January (source: NCEI Daily Weather Records).

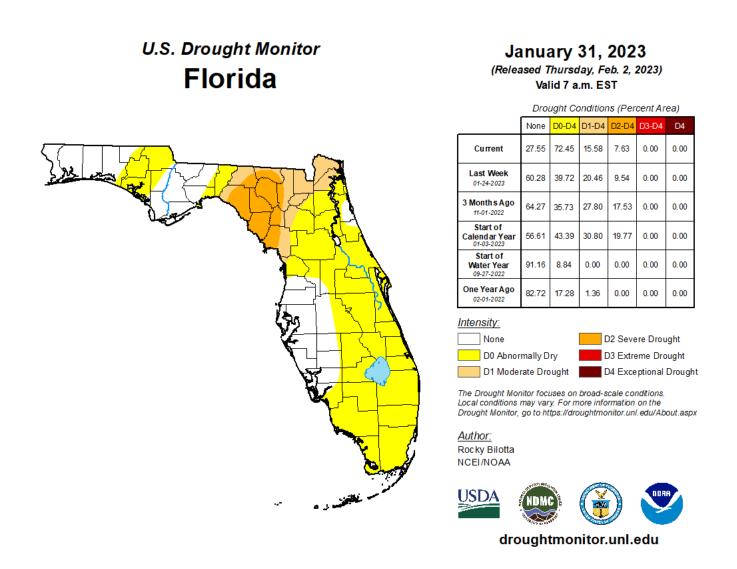| Category	Number of Records
Highest daily max. temp.	69
Highest daily min. temp.	39
Lowest daily max. temp.	6
Lowest daily min. temp.	3
Highest daily precipitation	6
Total	**123**

Weather/Climate Highlight of the Month: January temperatures were above average, and the statewide monthly average maximum temperature ranked 12th-warmest on record. Many daily high maximum temperature records were broken during the month. Key West reached a high of 90 °F several times during the month, including on the 23rd, 25th and 31st, which shattered previous records of 83 °F, 82 °F and 83 °F set on this day in 1973, 2012 and 1946, respectively.

Drought-Related Impacts.

By the middle of January, severe drought (D2) affected the eastern Panhandle and Big Bend regions. About 16% of the state was in severe drought (D2), 13% was in moderate drought (D1), and 13% was abnormally dry, according to the U.S. Drought Monitor. By the end of the month, drought was removed in the Panhandle, but 8% of the state remained in severe drought (D2), 8% was in moderate drought (D1), and 57% was abnormally dry (Figure 2 below).

As of January 31, the Lake Okeechobee water level was 16.02 ft. above sea level (Feet-NGVD29), which is above average for this time of the year. At the first of the month, the water level was 16.36 ft. above sea level.

Figure 2. A graphical depiction of the current drought conditions in Florida according to the U.S. Drought Monitor (courtesy of the National Drought Mitigation Center, University of Nebraska-Lincoln).

U.S. Drought Monitor
Florida

January 31, 2023
(Released Thursday, Feb. 2, 2023)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	27.55	72.45	15.58	7.63	0.00	0.00
Last Week 01-24-2023	60.28	39.72	20.46	9.54	0.00	0.00
3 Months Ago 11-01-2022	64.27	35.73	27.80	17.53	0.00	0.00
Start of Calendar Year 01-03-2023	56.61	43.39	30.80	19.77	0.00	0.00
Start of Water Year 09-27-2022	91.16	8.84	0.00	0.00	0.00	0.00
One Year Ago 02-01-2022	82.72	17.28	1.36	0.00	0.00	0.00

Intensity:

None
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. For more information on the
Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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droughtmonitor.unl.edu

Agriculture-Related Impacts.

During the month of January, Florida pasture conditions remained mostly fair to good but cold spells and lack of rainfall in the southern half of the State did hurt some pastures with reports of bleaching and frost. Livestock remained in mostly fair to good condition. Sugarcane planting and harvest progressed well, while citrus activities included the removal of dead trees and other maintenance activities. Several vegetable crops were planted and harvested, such as green beans, yellow squash, potatoes, sweet corn, pepper, and avocado. Preparation for rice planting also began during the latter part of the month. For more information, consult the **Crop Progress - State Stories** reports, which are produced monthly December through March by the USDA's National Agricultural Statistics Service.

Appendix 1. Additional January departures from normal data for select Florida locations (source: NWS).

Station	Average Temperature (ºF)	Departure from Normal (ºF)	Total Rainfall (in.)	Departure from Normal (in.)
Gainesville	58.5	+3.7	1.65	-1.64
Sarasota	64.3	+1.9	1.43	-1.36
Melbourne	64.6	+1.3	0.43	-2.20
Fort Myers	68.9	+4.2	1.33	-1.10
West Palm Beach	69.8	+3.5	0.21	-3.26

Appendix 2. Select daily record high maximum temperatures broken or tied during January (compiled from NOAA).

Location	Date	Record (ºF)	Broken/Tied	Last
Stuart	1	86	Broken	85 in 2022
Niceville	2	79	Broken	78 in 1975
Pensacola	2	79	Broken	74 in 2009
Key West	2	90	Broken	86 in 2022
Cross City	3	82	Broken	81 in 2015
Deland	3	85	Tied	85 in 1907
Pensacola	3	81	Broken	79 in 2020
Hastings	4	83	Broken	82 in 2015
Crestview	4	79	Broken	77 in 1997
Sanford	5	86	Broken	84 in 2015
Miami	5	86	Broken	84 in 2015
West Palm Beach	5	86	Broken	84 in 1972
Key West	8	88	Broken	85 in 2022
Marianna	12	80	Broken	79 in 2017
Crestview	17	80	Tied	80 in 2017
Pensacola	17	80	Broken	78 in 2017
Jacksonville Beach	19	83	Broken	82 in 2001
Plant City	19	85	Tied	85 in 2001
Key West	19	88	Broken	82 in 2020
Jacksonville	19	84	Broken	83 in 2001
Tallahassee	19	84	Broken	79 in 2001
Mayport	22	83	Broken	80 in 2017
Key West	22	89	Broken	84 in 2017
Hialeah	23	85	Broken	84 in 2017
Miami	23	88	Broken	85 in 2007
Key West	23	90	Broken	83 in 1973
Perrine	24	86	Broken	84 in 2018
Plant City	25	88	Broken	86 in 1898
Orlando	25	86	Broken	85 in 1990
Gainesville	25	82	Broken	81 in 1990
Vero Beach	25	86	Broken	84 in 2002
Key West	25	90	Broken	82 in 2012
Clermont	26	87	Broken	84 in 1962

Daytona Beach	26	84	Broken	82 in 1965
Key West	28	89	Broken	83 in 1997
Miles City	29	87	Tied	87 in 1990
Key West	29	88	Broken	84 in 1997
Jacksonville Beach	30	88	Broken	83 in 1991
Gainesville	30	86	Broken	84 in 2013
Crestview	30	83	Broken	78 in 2013
Tallahassee	30	83	Tied	83 in 1957
Jacksonville	30	87	Broken	85 in 2013
Jacksonville Beach	31	88	Broken	85 in 1985
Gainesville	31	85	Broken	83 in 1985
Key West	31	90	Broken	83 in 1946