Climate Summary for Florida – May 2025

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

Summary

- Average monthly temperatures in May were above normal across Florida.
- Monthly precipitation totals in May were generally above normal except in parts of South Florida.
- By the end of May, drought conditions had improved across much of the state but extreme drought (D3) expanded in southwest Florida, according to the U.S. Drought Monitor.
- ENSO-neutral conditions continued in the tropical Pacific Ocean and are expected to persist through the Northern Hemisphere summer (74% chance during June-August 2025).

Average monthly temperatures in May were above normal in Florida. Average monthly temperature departures from normal ranged from +0.3℉ in Pensacola to +3.7℉ in Jacksonville for the month (see Table 1 and Appendix 1 for select cities). Mean temperatures throughout May remained above normal statewide, and as high pressure set in mid-month, temperatures were especially warm during the second half of the month. May 2025 ended up ranking among the warmest months of May on record for most stations. Fort Pierce and Chipley experienced their warmest May on record, with a mean monthly temperature +3.7˚F and +2.8˚F above average, respectively (based on 122 years and 83 years, respectively). Many stations recorded their 2nd-warmest May (including Tampa, Orlando, Melbourne, Fort Lauderdale, Fort Myers, West Palm Beach, Miami), 3rd-warmest May (including Jacksonville, Tallahassee, Gainesville, Daytona Beach, Key West), or 4th-warmest May on record (including Sarasota). Select daily high maximum temperature records tied or broken during the month are provided in Appendix 2.

Table 1. May average temperatures and departures from normal (℉) for selected cities.

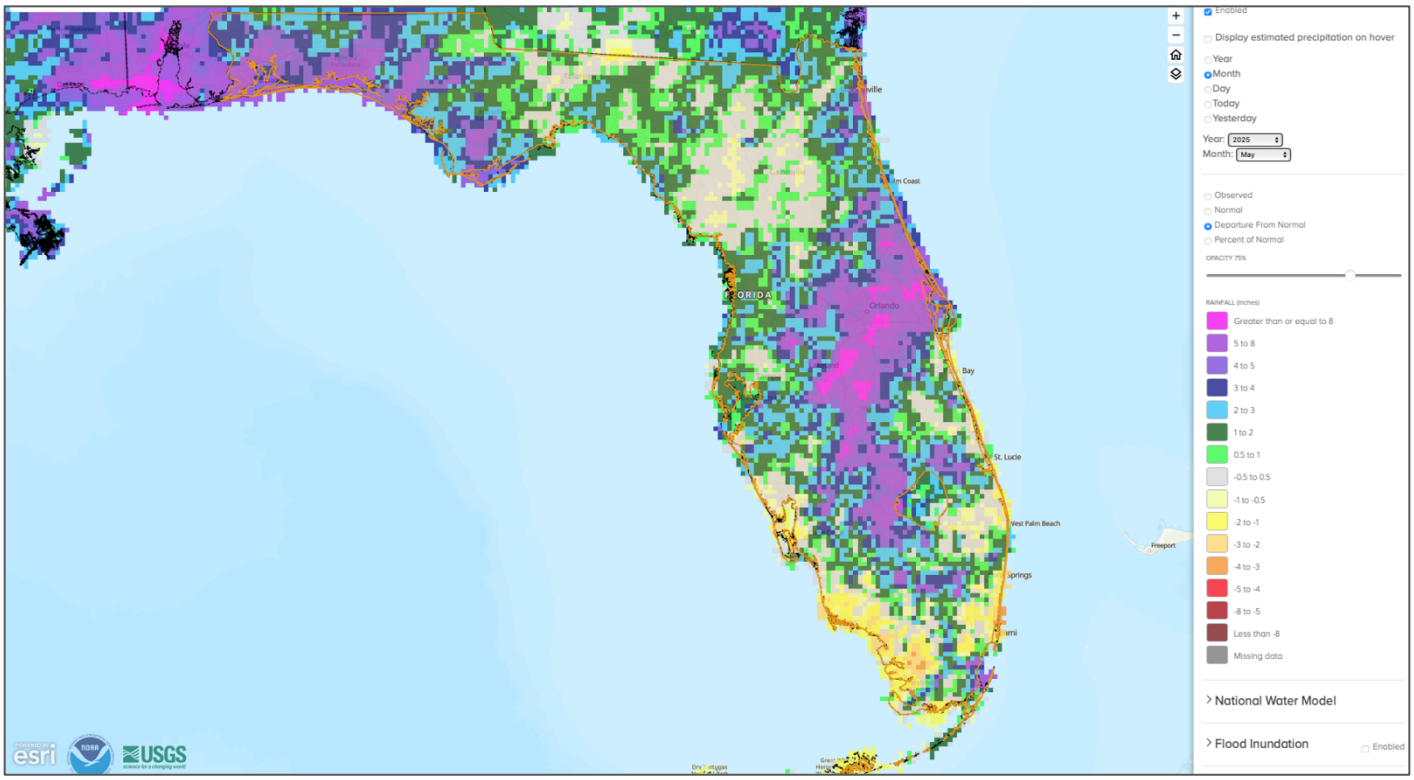
Station	Mean Temperature	Departure from Normal
Pensacola	76.3	+0.3
Tallahassee	78.3	+3.1
Jacksonville	78.6	+3.7
Orlando	80.6	+3.3
Tampa	82.6	+3.1
Miami	82.4	+2.3
Key West	82.9	+1.8

Monthly precipitation totals in May were generally above normal except in parts of South Florida. The monthly precipitation departures from normal ranged from -1.72 inches in Key West to +9.16 inches in Orlando (see Table 2 and Appendix 1 for select locations). In the first half of the month, a low-pressure system brought much needed abundant rainfall to the state. During May 7-14, widespread 2-3 inches of rain fell, with some places receiving up to 6+ inches of rain. However, with dry conditions preceding and following this event as high pressure built back in mid-month, drought improved but the rainfall was not enough to alleviate long-term drought in some places. May 15th marked the official start to the rainy season, and convective thunderstorm activity affected parts of the central and eastern Peninsula later in the month, further helping to improve drought in those areas. Extreme drought expanded in southwestern Florida which missed out on the heaviest rainfall (see Figure 2 below). Year-to-date rainfall departures continue to run 2 to 9 inches below average across the Peninsula.

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

Station	Total Rainfall	Departure from Normal
Pensacola	6.99	+3.09
Tallahassee	3.43	+0.07
Jacksonville	3.34	-0.08
Orlando	13.18	+9.16
Tampa	4.18	+1.58
Miami	7.98	+1.66
Key West	1.40	-1.72

Figure 1. A graphical depiction of the monthly rainfall departure from normal (in inches) for May 2025 (courtesy of NOAA)



ENSO-Neutral Conditions Present in Pacific.

ENSO-neutral conditions are currently present in the tropical equatorial Pacific Ocean. Over the past month, near-average sea surface temperatures covered most of the equatorial Pacific Ocean, and all the weekly Niño index values were near zero. ENSO-neutral conditions are favored to persist through the Northern Hemisphere summer (74% chance during June-August 2025). There is a greater than 50% chance of ENSO-neutral extending through October 2025.

Hazardous Weather Events in May.

According to the Local Storm Reports issued by the local National Weather Service offices serving Florida, there were 382 individual local reports of hazardous weather events recorded across the state during the month of May (see Table 3 for a breakdown by event type). Severe thunderstorm activity ramped up during the month, with reports of hail up to golf ball size, damaging winds, heavy rain, and several reports of tornadoes. Rip currents led to two fatalities during the month, and another fatality occurred due to a snapped tree during a thunderstorm in Ocala on the 29th. Wildfires during the month led to road closures and one fire resulted in mandatory evacuations in Marion County during the early part of the month, though the wildfire was quickly contained.

Table 3. Breakdown of storm reports submitted in Florida during the month of May (compiled from Iowa State University/Iowa Environmental Mesonet).

Report Type	Number of Reports
Heavy Rain	28
Flash Flood	4
Flood	2
Hail	92
Marine Thunderstorm Wind	43
Non-Thunderstorm Wind Gust	0
Thunderstorm Wind Damage	47
Thunderstorm Wind Gust	108
Non-Thunderstorm Wind Damage	0
Tornado/Waterspout/Funnel Cloud	12 / 15 / 16
Rip Currents	3
Wildfire	8

Daily Record Events in May.

Table 4. Summary of daily records broken in Florida in May (source: NCEI Daily Weather Records).

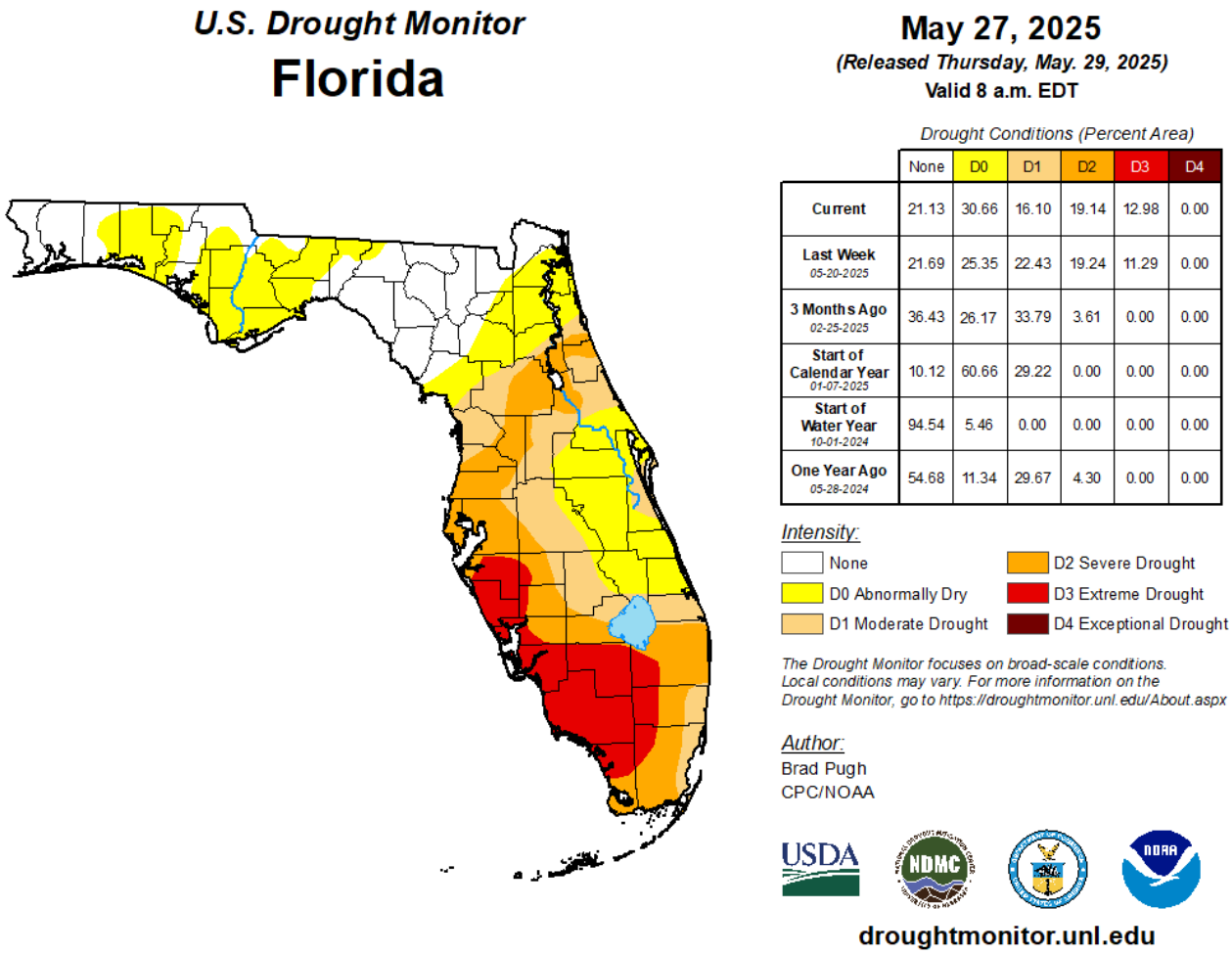
Category	Number of Records
Highest daily max. temp.	67
Highest daily min. temp.	79
Lowest daily max. temp.	1
Lowest daily min. temp.	0
Highest daily precipitation	46
Total	**193**

Drought-Related Impacts.

Drought conditions improved in Florida during May, but extreme drought expanded in southwest Florida which missed out on heavy rainfall during the month. In mid-May, roughly 9% of the state was in extreme drought (D3), 21% was in severe drought (D2), 21% of the state was in moderate drought (D1), and 36% was abnormally dry (D0), according to the U.S. Drought Monitor. By the end of the month, approximately 13% of the state was in extreme drought (D3), 19% was in severe drought (D2), 16% was in moderate drought (D1), and 31% of the state was abnormally dry (D0) (Figure 2 below).

As of May 31, the Lake Okeechobee water level was 10.95 ft. above sea level (Feet-NGVD29**)**, which is below average for this time of year. At the first of the month, the water level was 11.22 ft. above sea level.

Figure 3. A graphical depiction of the latest drought conditions in Florida according to the U.S. Drought Monitor (courtesy of the National Drought Mitigation Center, University of Nebraska-Lincoln).



Agriculture-Related Impacts.

In mid-May, topsoil moisture conditions were adequate in 59% of the state, short in 31%, and very short in 9% of the state, while 1% of the state had surplus topsoil moisture conditions. By the end of May, topsoil moisture conditions were adequate in 50% of the state, short in 33%, and very short in 10% of the state, while 7% of the state had surplus topsoil moisture conditions. For more information, consult the Crop Progress and Conditions report, which is published by the USDA's National Agricultural Statistics Service.

Appendix 1. Additional May 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	78.4	+3.4	2.86	-0.22
Sarasota	80.1	+2.3	2.80	+0.22
Melbourne	79.9	+3.1	4.43	+0.90
Fort Myers	82.0	+2.7	3.69	+0.23
West Palm Beach	82.2	+3.5	4.28	-0.63

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

Location	Date	Record (°F)	Broken/Tied	Last
Bradenton	6	92	Broken	91 in 2024
Key West	6	92	Broken	91 in 2024
Jacksonville Beach	16	96	Broken	92 in 1961
Orlando	16	96	Broken	94 in 1995
Daytona Beach	16	96	Broken	94 in 1994
Jacksonville	16	97	Broken	96 in 1995
Tallahassee	16	98	Broken	95 in 1962
Clermont	17	99	Broken	97 in 1981
Daytona Beach	17	94	Broken	93 in 2001
St. Augustine	17	96	Broken	93 in 1990
Tallahassee	17	96	Broken	94 in 1993
Clermont	18	98	Broken	96 in 2003
Ft. Lauderdale	18	92	Broken	90 in 2023
Clermont	20	98	Broken	96 in 2015
Vero Beach	21	96	Broken	95 in 2015
Daytona Beach	22	96	Broken	95 in 1938
Ft. Lauderdale	22	96	Broken	95 in 1990
Fort Pierce	22	97	Broken	95 in 1988
Homestead	22	98	Broken	96 in 2020
Vero Beach	22	95	Broken	94 in 2016
Key West	22	96	Broken	92 in 2020
Ft. Lauderdale	23	96	Broken	94 in 1951
Homestead	23	98	Broken	96 in 2015
Bradenton	24	97	Broken	95 in 2024
Clermont	24	99	Broken	98 in 2000
Clermont	25	100	Broken	98 in 2024
Ft. Lauderdale	26	96	Broken	94 in 1963
Bradenton	29	97	Broken	95 in 2024
Ft. Lauderdale Beach	29	94	Broken	92 in 2017