

Climate Summary for Florida – August 2022

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

Key Points

- Average temperatures in August were near normal in the Panhandle and above normal in Peninsular Florida.
- Abnormally dry conditions expanded in east-central and southeastern Florida during the month, with moderate drought emerging in Brevard and Indian River Counties.
- La Niña is expected to continue through the winter, with chances decreasing to 60% during December-February 2022-23.
- Tropical activity remained quiet and August 2022 became the first time since 1997 with no named storms in the Atlantic basin.

Average temperatures in August were near normal in the Panhandle and above normal in Peninsular Florida. Average temperature departures from normal ranged from -0.6 °F in Key West to +2.4 °F in West Palm Beach for the month (see Table 1 and Appendix 1 for select cities). Many locations experienced their hottest Augusts on record based on mean monthly temperatures, including **Clermont, Tampa, Fort Myers, West Palm Beach, and Hollywood**; many other locations recorded one of their top five warmest Augusts on record. Overnight temperatures have been especially warm in south Florida. Summer of 2022 (June-August) has been warmer than normal overall, and most stations in the state had one of their top ten hottest summers on record. Many daily high maximum and high minimum temperature records were set (see appendix 2 for select daily high maximum records).

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

Station	Mean Temperature	Departure from Normal
Pensacola	82.8	-0.2
Tallahassee	81.9	-0.5
Jacksonville	81.6	-0.5
Orlando	84.7	+2.1
Tampa	85.6	+1.6
Miami	85.6	+1.4
Key West	84.9	-0.6

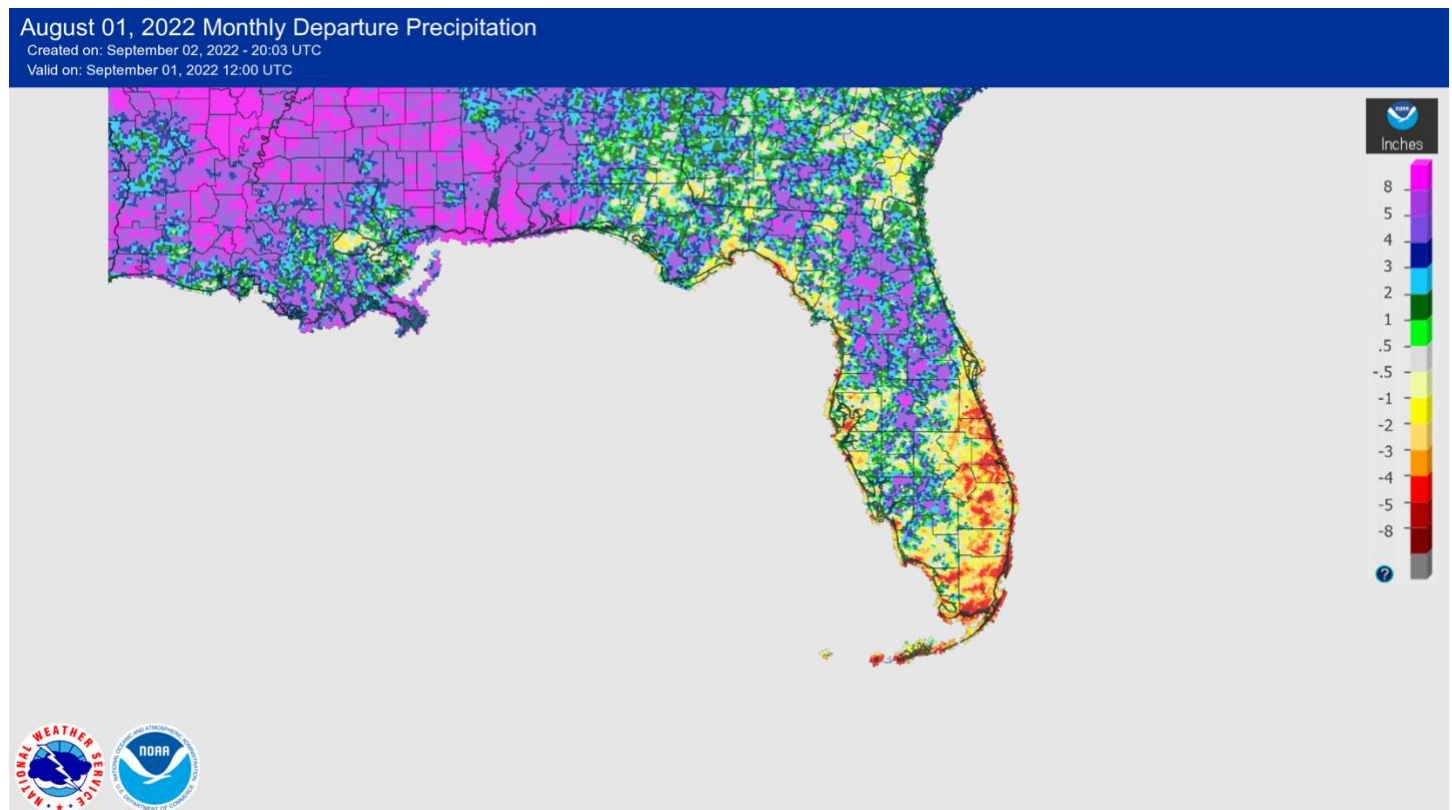


Rainfall totals in August were above normal across north Florida and below normal in central and south Florida. The monthly precipitation departures from normal ranged from -5.56 inches in West Palm Beach to +5.33 inches in Gainesville (Table 2 and Appendix 1). The pattern of unsettled weather continued in August across the Panhandle, with ample rain falling across much of northern Florida. **Pensacola** set a new daily rainfall record of 4.59 inches on the 11th (39% of its monthly rainfall total). The annual rainfall surplus to date is 10.2 inches in **Pensacola**, 8 inches in **Tallahassee**, and 9.6 inches in **Gainesville**. While thunderstorm activity picked up across the Florida Peninsula during the month, some areas continue to see below normal rainfall, especially in southeastern Florida. Year-to-date rainfall deficits include: 12.0 inches in **Vero Beach**, 13.2 inches in **Stuart**, 11.4 inches in **West Palm Beach**, and 5.2 inches in **Orlando** and **Miami**.

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

Station	Total Rainfall	Departure from Normal
Pensacola	11.76	+4.26
Tallahassee	8.47	+0.87
Jacksonville	10.40	+3.52
Orlando	7.88	+0.19
Tampa	6.51	+2.52
Miami	5.17	-4.41
Key West	2.33	-3.04

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



La Niña Advisory.

La Niña is expected to continue through the winter, with chances decreasing to 60% during December-February 2022-23. Below average sea surface temperatures expanded across the central-eastern equatorial Pacific Ocean during the past month, and overall the coupled ocean-atmosphere system remained consistent with an ongoing La Niña. Looking ahead, La Niña is projected to be the most likely outcome during fall and winter, while most models suggest a transition to ENSO-neutral conditions in January-March 2023, though much uncertainty remains that far out.

Hazardous Weather Events in August.

According to the Local Storm Reports issued by the local National Weather Service offices serving Florida, there were 432 individual local reports of hazardous weather events recorded across the state during the month of August (see Table 4 for a breakdown by event type). Thunderstorms and locally heavy rainfall occurred throughout the month, with many locations reporting 3-5 inches of daily rainfall. Reports of 5.26 inches and 6.45 inches of rain in 2 hours were reported on the 14th in Gadsden County. Several waterspouts were reported, as well as two tornadoes, during the month.

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

Report Type	Number of Reports
Flash Flood	5
Heavy Rain	55
Flood	28
Hail	41
Lightning	20
Dense Fog	0
Marine Thunderstorm Wind	60
Non-Thunderstorm Wind Gust	11
Non-Thunderstorm Wind Damage	0
Tornado/Waterspout/Funnel Cloud	2 / 28 / 11
Thunderstorm Wind Damage	55
Thunderstorm Wind Gust	115
Wildfire	1

Daily Record Events in August.

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

Category	Number of Records
Highest daily max. temp.	42
Highest daily min. temp.	34
Lowest daily max. temp.	8
Lowest daily min. temp.	11
Highest daily precipitation	11
Total	106

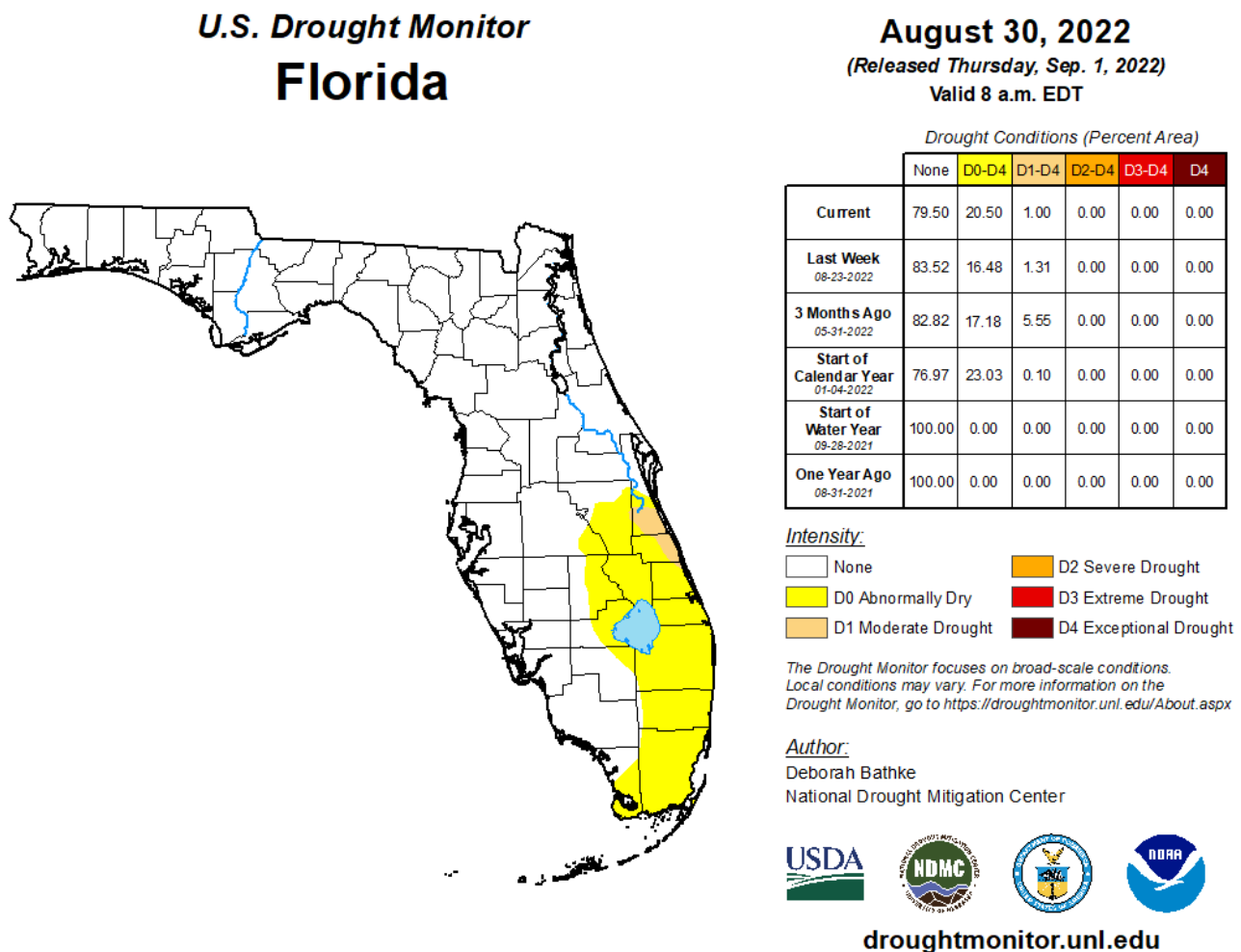
Weather/Climate Highlight of the Month: The tropics remained quiet with no named storms in August. This is the first time since 1997 with no named storms in the Atlantic basin in August, and only the third time since record keeping began.

Drought-Related Impacts.

At the beginning of August, small pockets of abnormally dry conditions (D0) impacted parts of the state. As of August 2, approximately 6.7% of the state had abnormally dry conditions, according to the U.S. Drought Monitor. Abnormally dry conditions expanded throughout the month across the eastern Florida Peninsula and southeast Florida and a small area of moderate drought (D1) emerged. As of August 30, 19.5% of the state was in abnormally dry conditions and 1% was in moderate drought (Figure 2 below).

As of August 31, the Lake Okeechobee water level was 12.57 ft. above sea level (Feet-NGVD29), which is below average for this time of the year and is approaching water shortage management levels. At the first of the month, the water level was 12.94 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).



Agriculture-Related Impacts.

In mid-August, topsoil moisture conditions were adequate in 79% of the state, short in 13%, and very short in 3% of the state, while 5% of the state had surplus topsoil moisture conditions. Near the end of August, topsoil moisture had slightly improved with levels adequate in 78% of the state, short in 7%, and very short in 1% of the state; 14% of the state was in surplus. Warm overnight temperatures in South Florida affected some crops during the month, like corn. For more information, consult the [Crop Progress and Conditions report](#), which is published by the USDA’s National Agricultural Statistics Service.

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

Station	Average Temperature (°F)	Departure from Normal (°F)	Total Rainfall (in.)	Departure from Normal (in.)
Gainesville	82.1	+0.8	11.73	+5.33
Sarasota	82.9	-0.5	8.91	-0.20
Melbourne	83.5	+0.1	4.87	-1.80
Fort Myers	85.2	+1.8	10.52	+0.09
West Palm Beach	85.6	+2.4	3.12	-5.56

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

Location	Date	Record (°F)	Broken/Tied	Last
Bradenton	1	96	Broken	95 in 2010
Plant City	1	99	Broken	98 in 1961
Orlando	1	98	Broken	97 in 2010
Key West	1	96	Broken	94 in 2021
Clermont	2	99	Broken	97 in 2016
Plant City	2	100	Broken	97 in 2020
Miles City	2	97	Tied	97 in 2006
Tampa	2	96	Broken	95 in 2005
Clermont	3	99	Broken	97 in 2016
Plant City	3	100	Broken	96 in 2020
Key West	3	96	Broken	94 in 2021
Plant City	4	99	Broken	98 in 1899
Key West	4	96	Broken	94 in 2020
Clermont	5	98	Broken	97 in 1972
Tampa	5	96	Broken	95 in 1993
Key West	5	95	Tied	95 in 2011
Tampa	6	95	Tied	95 in 1987
Key West	6	95	Broken	94 in 2019
Plant City	7	98	Tied	98 in 2021
Tarpon Springs	7	97	Broken	96 in 2017
Jacksonville Beach	16	97	Broken	95 in 2020
Vero Beach	16	96	Tied	96 in 1945
Clermont	17	98	Tied	98 in 1951

Miami	17	96	Broken	95 in 1991
Vero Beach	17	98	Broken	95 in 1987
Key West	17	95	Broken	94 in 2020
Vero Beach	18	96	Broken	94 in 1984
Plant City	18	99	Broken	98 in 1896
Miami	18	96	Broken	95 in 2017
Fort Lauderdale	19	95	Broken	93 in 1964
Tampa	20	97	Broken	96 in 2007
Gainesville	20	95	Tied	95 in 2021
Fort Myers	20	98	Tied	98 in 1987
Key West	20	97	Broken	95 in 2010
Clermont	21	99	Broken	98 in 2021
Key West	21	97	Broken	93 in 2021
Plant City	23	100	Broken	98 in 2021
Key West	23	95	Broken	94 in 2020
Key West	24	96	Broken	94 in 2021
Plant City	26	99	Broken	97 in 1914
Key West	26	96	Broken	94 in 2007
Key West	30	95	Broken	93 in 2020
Plant City	31	100	Tied	100 in 2017