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Climate Summary for Florida – August 2021

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

August Key Points

- Average temperatures were near or above normal during the month.
- Rainfall totals in August were mixed, with many northern locations receiving above normal rainfall and central to southern locations receiving below normal rainfall.
- Drought conditions did not impact any part of the state during the month.
- Tropical Storm Fred impacted much of the Panhandle on the 16th with reports of localized rainfall of 7.0+ inches, flash flooding, and wind gusts.

Average temperatures in August were near or above normal across the state. Average temperature departures ranged from -0.8 ̊F in Key West to +2.2 ̊F in Orlando for the month (see Table 1 and Appendix 1 for select cities). Clermont had its warmest August on record; Jacksonville Beach and Lakeland had their second warmest Augusts on record; Orlando, Lakeland, and Tampa had their third warmest Augusts on record. Several daily high maximum and daily high minimum temperature records were set during the month (see Appendices 2 and 3).

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

Station	Mean Temperature	Departure from Normal
Pensacola	83.8	+0.8
Tallahassee	82.4	0
Jacksonville	81.9	-0.2
Orlando	84.8	+2.2
Tampa	85.0	+1.0
Miami	84.8	+0.6
Key West	84.7	-0.8

Rainfall totals in August were mixed, with above normal rainfall in the western Panhandle and north Florida regions and below normal rainfall across much of the central and southern portions of the state. Precipitation departures from normal ranged from -2.29 inches in Miami to +3.49 inches in Pensacola (Table 2 and Appendix 1 for select cities). Lakeland observed its driest August on record, and Fort Lauderdale recorded its third driest August on record. Daytona Beach had its second wettest August on record at 10.96 inches. Tropical Storm Fred, which impacted the Panhandle region on the 16th, resulted in flash flooding and heavy
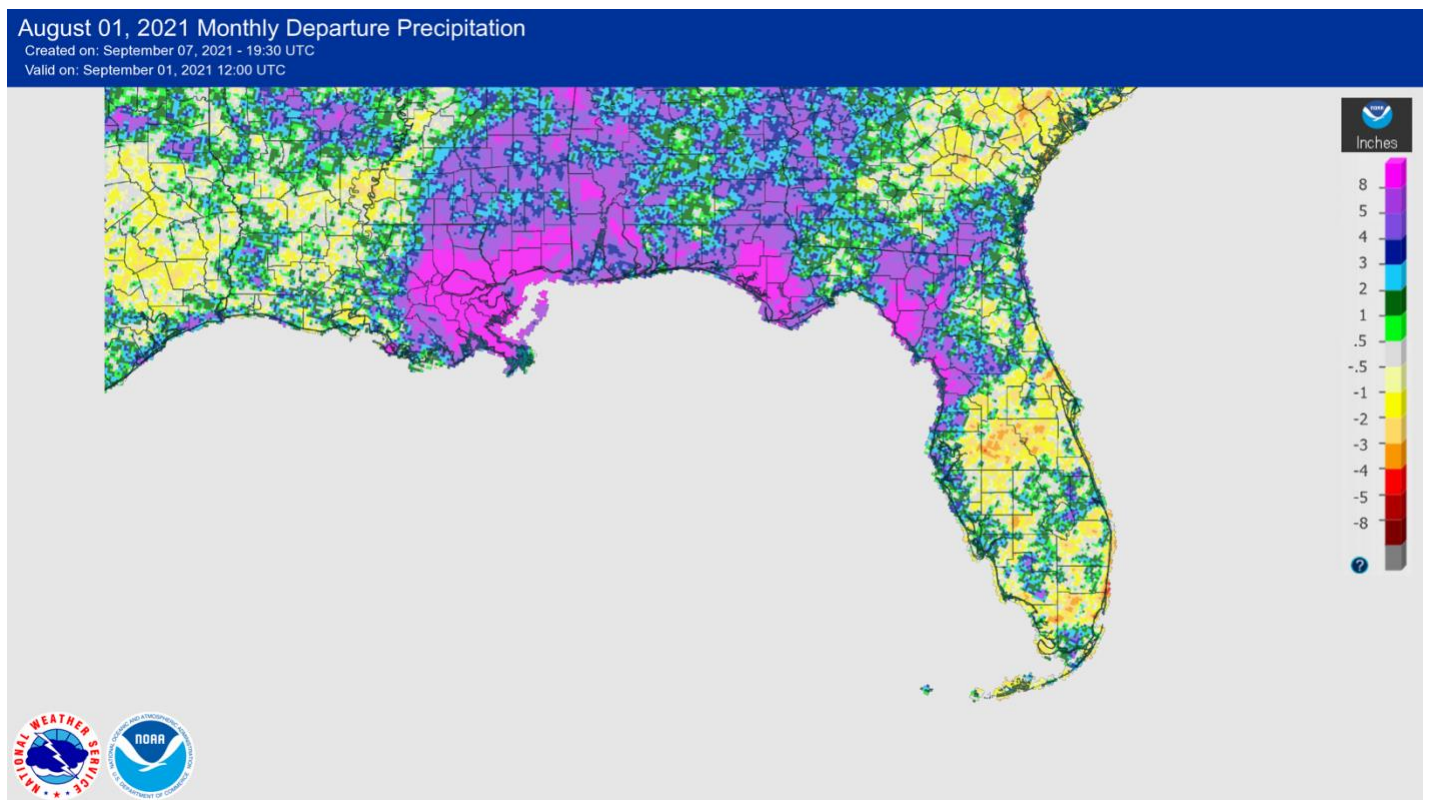
rain. Rainfall of 4.27 inches in 6 hours was reported at Alligator Point in Franklin County and 7.22 inches over 24 hours was reported in Bay County. In the Pensacola area, annual rainfall to date is just shy of 15 inches above normal.

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

Station	Total Rainfall	Departure from Normal
Pensacola	10.99	+3.49
Tallahassee	5.55	-2.05
Jacksonville	7.48	+0.60
Orlando	6.14	-1.55
Tampa	7.43	-1.60
Miami	7.29	-2.29
Key West	4.14	-1.23

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

La Niña Watch

A transition from ENSO-neutral to La Niña is favored in the next couple of months, with a 70-80% chance of La Niña during the Northern Hemisphere winter 2021-22. Over the last month, ENSO-neutral conditions continued with near-to-below average sea surface temperatures persisting in the central and eastern equatorial Pacific. The latest Niño index values ranged from -0.2 °C to -0.3 °C. As of now, forecasters anticipate La Niña to be of weak strength (seasonal average Niño-3.4 index values between -0.5°C to -0.9°C).

Hazardous Weather Events in August.

According to the Local Storm Reports issued by the local National Weather Service offices serving Florida, there were 700 individual local reports of hazardous weather events recorded across the state during the month of June (see Table 4 for a breakdown by event type). There were many reports of strong thunderstorm wind gusts and flooding throughout the month. Tropical Storm Fred impacted much of the Florida Panhandle on August 16 with rain bands and strong wind gusts of more than 50 mph in places. One injury was reported in Bay County when a tree fell on a car. Lightning strikes resulted in several injuries during the month. Two people were hospitalized with injuries after being struck by lightning at Saint Petersburg Beach on the 12th and two more people suffered injuries after being struck by lightning in Clearwater and Safety Harbor on the 13th. A fatality resulted when a kitesurfer was blown off course and launched into a building at Fort Lauderdale Beach due to strong thunderstorms with gusty winds in the area.

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

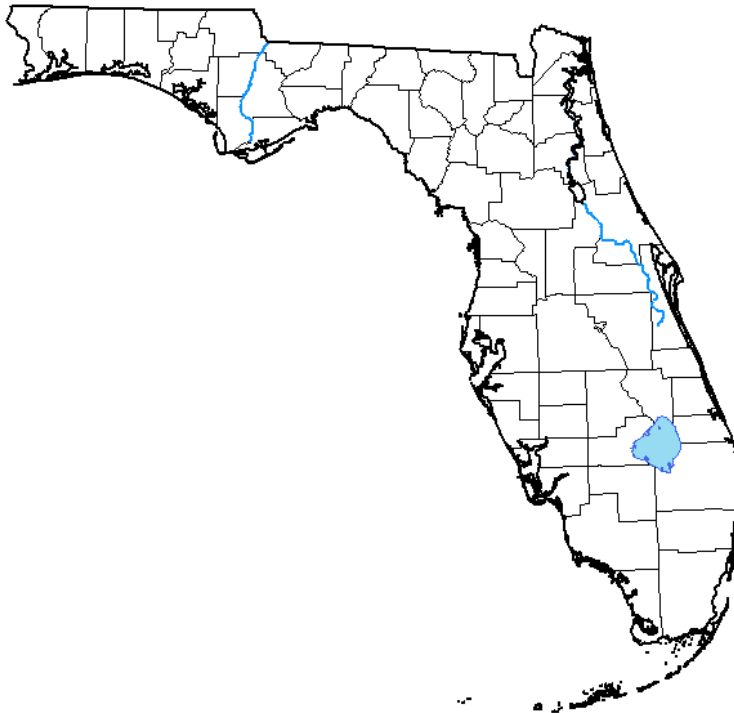| Report Type	Number of Reports
Flood	33
Coastal Flood	0
Flash Flood	39
Hail	6
Heavy Rain	26
Marine Thunderstorm Wind	243
Non-Thunderstorm Wind Gust	70
Tornado/Waterspout/Funnel Cloud	3 / 11 / 3
Thunderstorm Wind Damage	27
Thunderstorm Wind Gust	216
Lightning	5
Tropical Storm	18

Drought-Related Impacts.

Throughout the month of August, drought did not impact any part of Florida, according to the U.S. Drought Monitor. The past few months have provided sufficient rainfall to prevent abnormally dry or drought conditions from developing.

As of August 31, the Lake Okeechobee water level was at 14.69 ft. above sea level (Feet-NGVD29), which is just above the average for this time of the year. At the first of the month, the water level was 13.72 ft. above sea level.

August 31, 2021
(Released Thursday, Sep. 2, 2021)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 08-24-2021	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 06-01-2021	61.66	38.34	11.49	0.00	0.00	0.00
Start of Calendar Year 12-29-2020	89.27	10.73	0.00	0.00	0.00	0.00
Start of Water Year 09-29-2020	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago 09-01-2020	95.57	4.43	0.00	0.00	0.00	0.00

Intensity:

None		D2 Severe Drought
D0 Abnormally Dry		D3 Extreme Drought
D1 Moderate 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

Author:
David Simeral
Western Regional Climate Center

USDA   NDMC   NOAA

droughtmonitor.unl.edu

Agriculture-Related Impacts.

During mid-August, topsoil moisture levels were adequate for 68% of the state and short in 3%, while 29% of the state was in surplus. By the end of August, topsoil moisture levels were adequate in 77% of the state and short in 3%, while 20% of the state was in surplus. Much of the state experienced fair (13%), good (54%), or excellent (30%) pasture and range conditions by the end of the month. For more information, consult the weekly Crop Progress and Condition reports 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 (ºF)	Departure from Normal (ºF)	Total Rainfall (in.)	Departure from Normal (in.)
Gainesville	81.9	+0.6	8.21	+1.81
Sarasota	83.4	0	9.33	+0.22
Melbourne	82.9	-0.5	7.08	+0.41
Fort Myers	82.7	-0.9	7.75	-1.00
West Palm Beach	84.5	+1.3	9.90	+1.22

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

Location	Date	Record (ºF)	Broken/Tied	Last
Key West	1	94	Broken	93 in 2020
Miami Beach	1	96	Broken	93 in 1999
Quincy	2	99	Tied	99 in 2010
Plant City	6	98	Tied	98 in 1980
Plant City	7	98	Broken	97 in 2020
Key West	9	95	Broken	94 in 2020
Crestview	10	97	Tied	97 in 2015
Tampa	12	96	Tied	96 in 1972
Tampa	18	97	Broken	95 in 1960
Clermont	19	99	Broken	97 in 2018
Orlando	19	97	Tied	97 in 2005
Plant City	20	100	Broken	98 in 2017
Punta Gorda	20	97	Tied	97 in 2014
Gainesville	20	95	Tied	95 in 2016
Clermont	21	98	Broken	97 in 2017
Plant City	21	100	Broken	99 in 1902
Daytona Beach	21	97	Broken	96 in 2016
Clermont	22	98	Broken	97 in 2016
Punta Gorda	22	98	Broken	97 in 2018
Daytona Beach	23	94	Broken	93 in 2015
Punta Gorda	23	98	Broken	97 in 2016
Tampa	25	96	Tied	96 in 2020
Orlando	31	95	Tied	95 in 1989

Appendix 3. Select daily record high minimum temperatures tied or broken during August (compiled from NOAA).

Location	Date	Record (ºF)	Broken/Tied	Last
Clermont	1	77	Broken	75 in 2019
Tarpon Springs	1	82	Broken	80 in 1999
Venice	1	83	Tied	83 in 2012
Fort Myers	1	80	Broken	79 in 1999
Tampa	1	83	Tied	83 in 1999
Key West	1	86	Broken	84 in 1977
Punta Gorda	2	80	Broken	79 in 1999
Venice	2	84	Broken	79 in 2012
Fort Myers	2	79	Broken	78 in 2012
Key West	2	86	Broken	84 in 1962
Lakeland	2	78	Broken	76 in 1958
Key West	5	86	Broken	84 in 2020
Key West	7	85	Broken	84 in 2020
Cross City	9	76	Broken	75 in 2019
Key West	9	87	Broken	85 in 2020
Lakeland	11	77	Broken	76 in 1991
Fort Lauderdale Beach	12	83	Broken	82 in 2004

Daytona Beach	13	83	Broken	79 in 2013
Fort Pierce	13	82	Broken	81 in 1937
West Palm Beach	15	83	Broken	81 in 2016
Usher Tower	16	79	Broken	76 in 2017
Orlando	16	79	Broken	78 in 2010
Daytona Beach	17	79	Broken	78 in 2010
Perry	18	77	Broken	76 in 2010
Miami	18	83	Broken	82 in 2015
Jacksonville Beach	19	81	Tied	81 in 2009
Clermont	20	77	Broken	76 in 2016
Cross City	20	77	Broken	75 in 2010
Tampa	21	81	Broken	79 in 2018
Usher Tower	22	79	Broken	77 in 2015
Miami	22	82	Broken	81 in 2007
Pensacola	22	79	Broken	78 in 2017
Quincy	23	75	Broken	74 in 1993
Key West	23	86	Broken	84 in 2020
Crestview	23	77	Broken	75 in 2015
Perry	24	76	Broken	75 in 2019
Miami	24	84	Broken	82 in 2000
Key West	24	87	Broken	84 in 1964
Clermont	28	78	Broken	77 in 2020
Perrine	28	81	Broken	79 in 2005
Usher Tower	28	78	Broken	76 in 2012
West Palm Beach	28	83	Broken	81 in 2010
Key West	29	85	Broken	84 in 2014
Crestview	31	76	Broken	74 in 2020