

Climate Summary for Florida – September 2021

Prepared by the Florida Climate Center, The Florida State University, Tallahassee, Florida

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

Average temperatures in September were near normal across the state. Average temperature departures ranged from -1.3 °F in Key West to +1.7 °F in Orlando for the month (see Table 1 and Appendix 1 for select cities). Several daily high maximum temperature records set (see Appendix 2) and a few daily high minimum records during the month.

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

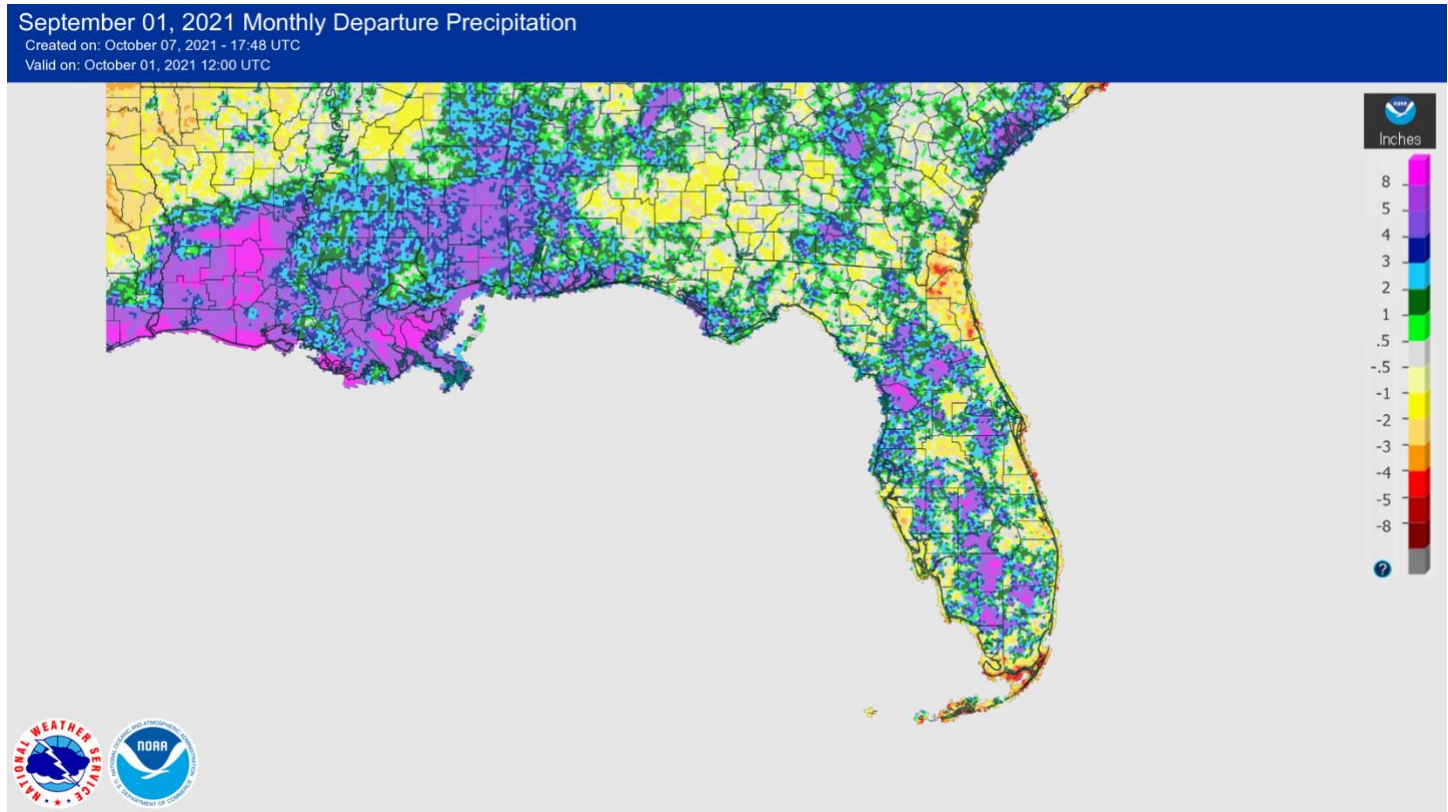
Station	Mean Temperature	Departure from Normal
Pensacola	78.9	-1.1
Tallahassee	78.4	-0.7
Jacksonville	77.9	-0.9
Orlando	82.7	+1.7
Tampa	83.1	+0.4
Miami	83.1	+0.1
Key West	83.7	-1.3

Rainfall totals in September were mixed, as many areas received well above normal rainfall while some areas had below normal rainfall. (Figure 1). Monthly departures from normal ranged from +4.66 inches in Pensacola to -4.71 inches in Key West (Table 2 and Appendix 1). The western Panhandle region continues to be wetter than normal, with a surplus in annual rainfall at Pensacola nearly 20 inches above normal for the year.

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

Station	Total Rainfall	Departure from Normal
Pensacola	11.27	+4.66
Tallahassee	8.26	+3.35
Jacksonville	5.11	-2.45
Orlando	5.65	-0.72
Tampa	7.39	+1.30
Miami	12.12	+1.90
Key West	2.53	-4.71

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



La Niña Watch.

The central tropical Pacific Ocean is in a neutral state, but a transition from ENSO-neutral to La Niña is favored this fall, with a 70-80% chance of La Niña emerging 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 September.

According to the Local Storm Reports issued by the local National Weather Service offices serving Florida, there were 225 individual local reports of hazardous weather events recorded across the state during the month of September (see Table 4 for a breakdown by event type). Tropical Storm Mindy made landfall in the Florida Panhandle on September 9th at St. Vincent Island with maximum sustained winds of 45 mph. The system produced wind gusts of up to 61 mph and daily rainfall exceeding 4 inches in parts of Tallahassee and the surrounding area. Heavy rainfall affected several areas throughout the month, including an estimated 4.22 inches that fell in one hour at the Sanford Airport in Seminole County on the 20th. There were several reports of fatalities from rip currents during the month, as well as one fatality due to lightning in Manatee County.

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

Report Type	Number of Reports
Flood	33
Flash Flood	6
Hail	2
Heavy Rain	56
Marine Hail	1
Marine Thunderstorm Wind	26
Non-Thunderstorm Wind Gust	2
Tornado/Waterspout/Funnel Cloud	1 / 17 / 1
Thunderstorm Wind Damage	6
Thunderstorm Wind Gust	31
Lightning	2
Rip Currents	4
Tropical Storm	37

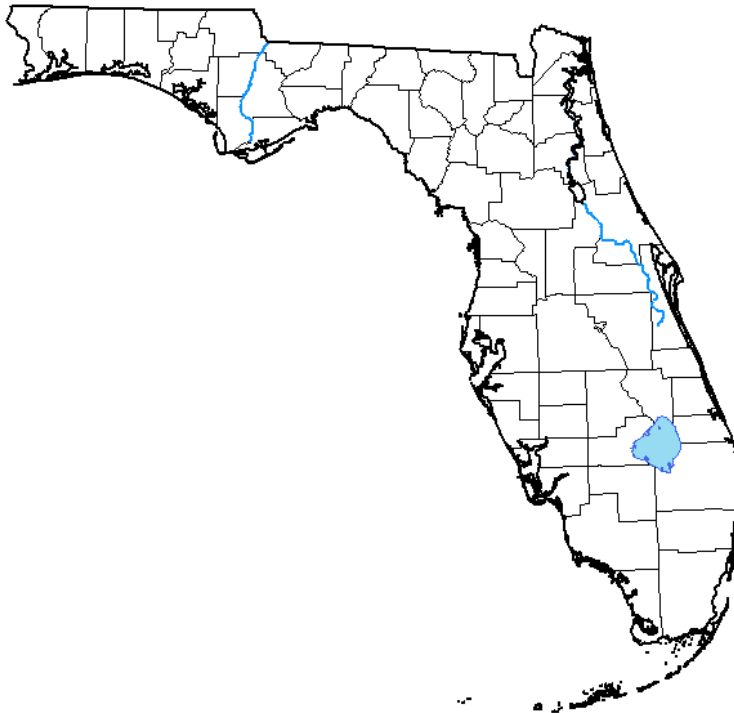
Drought-Related Impacts.

The month of September remained drought free across the state. No areas were impacted by drought, according to the U.S. Drought Monitor.

As of September 30, the Lake Okeechobee water level was at 15.55 ft. above sea level (Feet-NGVD29), which is above the average for this time of the year. The water level remained above average throughout the month. At the first of the month, the water level was 14.69 ft. above sea level.

U.S. Drought Monitor
Florida

September 28, 2021
(Released Thursday, Sep. 30, 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 <i>09-21-2021</i>	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago <i>06-29-2021</i>	88.65	11.35	0.00	0.00	0.00	0.00
Start of Calendar Year <i>12-29-2020</i>	89.27	10.73	0.00	0.00	0.00	0.00
Start of Water Year <i>09-29-2020</i>	100.00	0.00	0.00	0.00	0.00	0.00
One Year Ago <i>09-29-2020</i>	100.00	0.00	0.00	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 mid-September, topsoil moisture levels were adequate for 70% of the state, short in 4%, and 26% of the state was in surplus. By the end of September, topsoil moisture levels were adequate in 67% of the state, short in 5%, and 28% of the state was in surplus. Much of the state had either fair (20%), good (52%) or excellent (24%) 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 September 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	78.5	-0.3	8.67	+3.62
Sarasota	81.8	-0.4	5.30	-0.70
Melbourne	80.9	-1.2	3.53	-4.10
Fort Myers	83.3	+1.1	9.03	+0.03
West Palm Beach	82.4	+0.5	6.64	-1.32

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

Location	Date	Record (°F)	Broken/Tied	Last
Jacksonville Beach	1	95	Broken	93 in 2007
Miami	1	96	Broken	95 in 2006
Vero Beach	1	95	Broken	94 in 2017
Perrine	2	95	Broken	94 in 1996
Miami	5	94	Broken	93 in 2020
Orlando	6	95	Tied	95 in 2019
Punta Gorda	7	95	Tied	95 in 2019
Plant City	8	97	Tied	97 in 1937
Key West	8	93	Tied	93 in 2020
Vero Beach	9	96	Broken	95 in 1987
West Palm Beach	9	94	Tied	94 in 1993
Key West	10	93	Broken	92 in 2015
Punta Gorda	12	96	Tied	96 in 2019
Tampa	12	95	Broken	94 in 2019
Fort Myers	12	94	Tied	94 in 2011
Key West	12	93	Tied	93 in 2007
Tampa	13	95	Tied	95 in 1990
Plant City	14	95	Tied	95 in 2018
Key West	24	91	Tied	91 in 2020
Fort Myers	26	95	Tied	95 in 1988
Key West	28	92	Tied	92 in 2020