

# Climate Summary for Florida – November 2020

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

Average temperatures continued to be well above average across the state in November. Most places in Florida were warm throughout the month with average temperatures above normal, much like the contiguous U.S. which had its 4<sup>th</sup> warmest November on record. Departures from normal across the state ranged from +1.4 F in Key West to over +6 F in the Panhandle (Table 1 and Appendix 1). West Palm Beach observed its second warmest November on record (1888-2020). Both maximum and minimum temperatures were well above average during the month across the state as well. Many high daily minimum temperature records were set during the month; Tampa observed its highest daily minimum temperature on record at 78 F on the 10th (1890-2020). Additionally, many record daily high maximum temperatures were set, particularly during the middle of the month (Appendix 2).

Table 1. November average temperatures and departures from norma	al (°F) for selected cities.
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Station	Mean Temperature	Departure from Normal
Pensacola	67.2	+6.5
Tallahassee	66.6	+5.8
Jacksonville	67.3	+4.7
Orlando	73.5	+5.0
Tampa	74.6	+5.2
Miami	77.4	+2.2
Key West	77.8	+1.4

**Rainfall totals in November were mixed, with wetter than normal conditions in the southern half of the state and drier than normal conditions in the northwestern and Panhandle regions**. The Panhandle observed monthly precipitation departures from normal ranging from -3.5 inches in Crestview to -1.3 inches in Perry. Conversely, the Peninsula experienced wetter conditions during the month, with departures from normal ranging from +1.6 inches in Orlando to over +11 inches in Fort Lauderdale (Table 2 and Figure 1). From November 8-12<sup>th</sup>, Tropical Storm Eta impacted portions of west-central and southern Florida, contributing between 5 and 10 inches of rainfall in these areas. On the 11<sup>th</sup>, Sarasota-Bradenton observed its wettest November day on record (since 1911) with 6.41 inches of rainfall. Additionally, Fort Lauderdale, Miami, Homestead, and Sarasota all experienced their wettest Novembers on record.

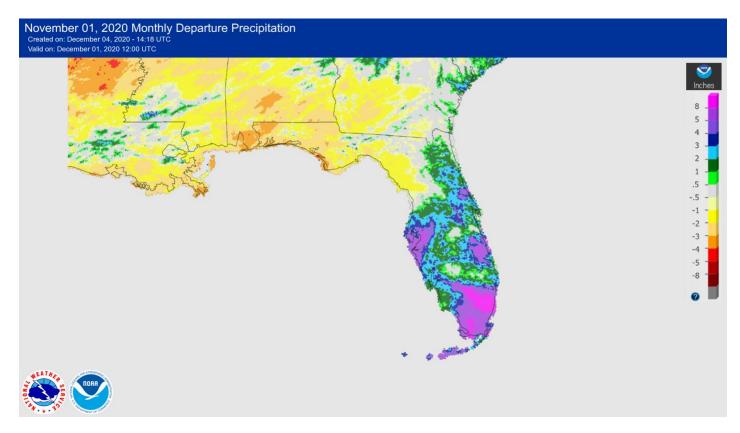




Station	Total Rainfall	Departure from Normal		
Pensacola	2.20	-2.53		
Tallahassee	3.63	+0.13		
Jacksonville	1.81	-0.31		
Orlando	5.24	+3.06		
Tampa	5.40	+3.86		
Miami	9.61	+6.34		
Key West	7.52	+5.22		

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

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



#### Strong La Niña Conditions in the Pacific.

La Niña strengthened in the tropical Pacific in October, as indicated by sea surface temperature indices in the two westernmost Niño regions. La Niña will continue through the winter (100% chance) with conditions expected to remain strong. La Niña conditions are expected to continue into spring (~65% chance during March-May). La Niña winters tend to favor above-average temperatures and dry conditions across the southern tier of the U.S.

### Hazardous Weather Events in November.

There were 676 individual local reports of hazardous weather events recorded in Florida during the month of November (see Table 4 for a breakdown by event type). Tropical Storm Eta made initial landfall on Lower Matecumbe Key, FL on the 8<sup>th</sup> with maximum sustained winds of 65 mph and several reports of wind gusts exceeding 50 mph. The storm made a second landfall on the 12<sup>th</sup> near Cedar Key, FL. The storm impacted central and southern parts of the Florida Peninsula, with numerous reports of flooded roadways and homes as the storm moved north and east across the state. With the close of November, the 2020 record-breaking hurricane season has officially ended. Tropical Storm Eta was the 12<sup>th</sup> named storm to make landfall in the U.S. during this season, which broke the previous annual record of 9 landfalls set in 1916.

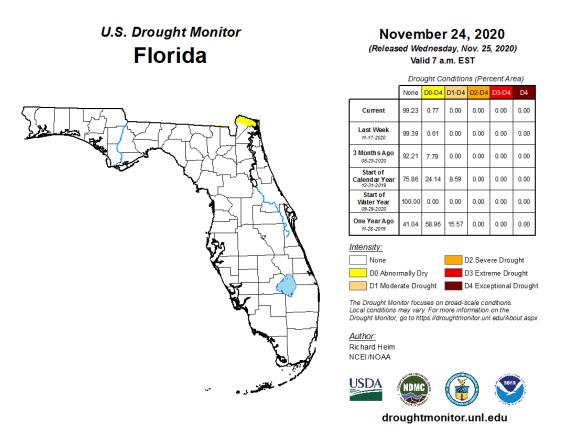
Report Type	Number of Reports
Coastal Flood	3
Flash Flood	12
Flood	36
Heavy Rain	20
Marine Thunderstorm Wind	251
Non-Thunderstorm Wind Damage	1
Non-Thunderstorm Wind Gust	121
Tornado/Waterspout/Funnel Cloud	4/1/1
Thunderstorm Wind Damage	14
Thunderstorm Wind Gust	54
Hail	2
Rip Currents	1
Storm Surge	16
Tropical Storm	139

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

## **Drought-Related Impacts.**

During the month of November, drought did not impact any part of the state, according to the U.S. Drought Monitor. Abnormally dry conditions (D0) affected a small area in the extreme northeastern most section of the state expanding into parts of Georgia. Continuing La Niña conditions are expected to result in a dry winter pattern across the Southeast U.S. region.

As of November 30, the Lake Okeechobee water level was at 16.12 ft. above sea level (Feet-NGVD29), which is above average for this time of the year. At the beginning of November, the water level was at 16.26 ft. above sea level.



#### **Agriculture-Related Impacts.**

In mid-November, topsoil moisture levels were adequate in 53% of the state, short in 9% of the state, and 38% of the state had a surplus. By the end of November, topsoil moisture levels were adequate in 66% of the state, short in 10%, and 24% of the state was in surplus. For more information, consult the weekly <u>Crop Progress and</u> <u>Condition reports</u> published by the USDA's National Agricultural Statistics Service.

Appendix 1. Additional November 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	67.5	+4.7	2.41	+0.35
Sarasota	74.7	+5.5	7.62	+5.69
Melbourne	73.2	+4.2	4.41	+1.53
Fort Myers	75.8	+4.2	4.21	+2.29

Appendix 2. Select daily high maximum temperature records tied or broken during November (compiled from NOAA).

Location	Date	Record (°F)	<b>Broken/Tied</b>	Last
Miles City	1	94	Broken	93 in 2015
Key West	1	96	Broken	89 in 2019
Fort Lauderdale	2	89	Broken	88 in 2019
Key West	5	90	Broken	88 in 2019

Pensacola	8	85	Broken	82 in 2017
Key West	9	90	Broken	88 in 1993
Pensacola	9	85	Broken	83 in 1986
Bradenton	10	87	Tied	87 in 2018
Tarpon Springs	10	90	Broken	89 in 1946
Gainesville	10	84	Tied	84 in 1998
Tampa	10	89	Broken	87 in 1986
Key West	10	89	Broken	88 in 2018
Crestview	10	85	Broken	83 in 2002
Pensacola	10	84	Broken	82 in 2002
Tallahassee	10	87	Tied	87 in 1986
Niceville	11	83	Broken	81 in 2018
Marianna	11	86	Broken	82 in 2010
Crestview	11	86	Broken	82 in 2010
Pensacola	11	87	Broken	82 in 2006
Key West	12	94	Broken	88 in 2018
Miami	14	86	Tied	86 in 2018
Key West	14	93	Broken	88 in 2018
Punta Gorda	15	89	Broken	88 in 2011
Key West	15	94	Broken	90 in 2007
Pensacola	15	85	Broken	84 in 1951
Hastings	16	85	Tied	85 in 1993
Niceville	16	85	Broken	81 in 1980
Key West	16	95	Broken	86 in 1993
Perrine	17	86	Broken	85 in 2010
Key West	17	90	Broken	87 in 1988
Key West	19	87	Broken	86 in 2018
Key West	20	92	Broken	86 in 1976
Key West	21	90	Broken	86 in 1994
Key West	22	91	Broken	85 in 1998
Key West	23	87	Broken	85 in 1986
Tallahassee	26	83	Broken	82 in 1967
Gainesville	27	82	Tied	82 in 1988
Key West	27	93	Broken	86 in 2019
Key West	28	94	Broken	86 in 1994
Key West	29	94	Broken	86 in 1994
Key West	30	89	Broken	86 in 1994