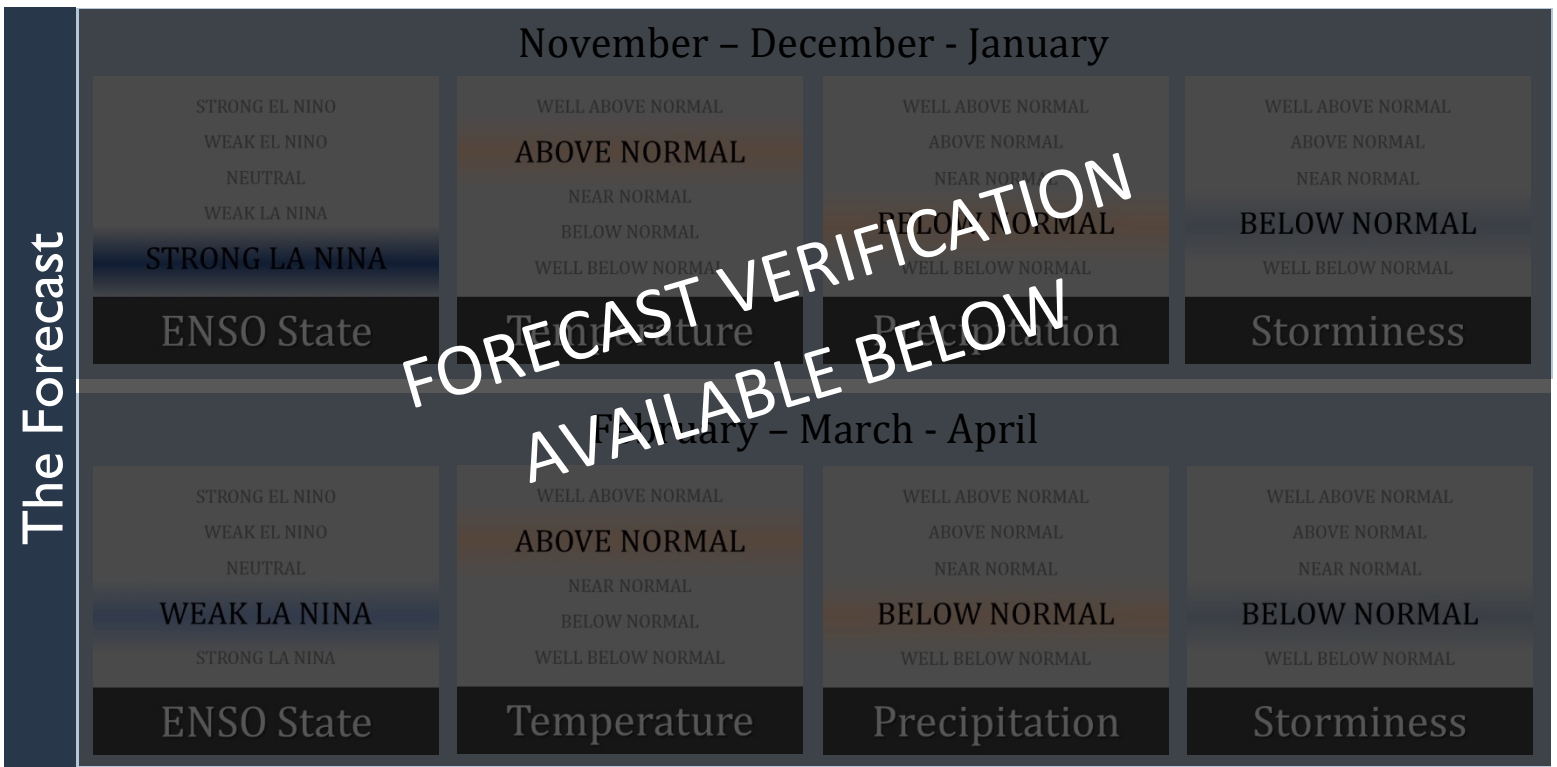


National Weather Service Melbourne DRY SEASON FORECAST

May 2021



Forecast Recap and Verification | May 2021

- **ENSO Forecast Verification and Update:** La Niña conditions persisted over the equatorial Pacific Ocean through much of the Florida dry season (November-April), but transitioned to ENSO-neutral in April (Figure 1). ENSO-neutral conditions are now likely to continue through the Northern Hemisphere summer.
- **Nov/Dec/Jan Forecast Verification:** The average temperature for the three-month period ended up around 1.7-2.3 degrees above normal across central Florida, even with a colder than normal December. Wetter than normal conditions in November, dominated over a much drier pattern in December and January, leading to above normal rainfall for this period across central Florida.
- **Feb/Mar/Apr Forecast Verification:** Warmer than normal conditions continued into the second half of the dry season, with the three-month average temperature across central Florida around 3.6-3.7 degrees above normal. Rainfall ended up generally near normal during this period, as a very dry March was balanced out by above normal precipitation in February and April.

About this Product

This forecast product is a result of research from the National Weather Service (NWS) in Melbourne, Florida on the El Niño - Southern Oscillation (ENSO) and its impact on Central Florida's dry season (November – April). This research, conducted since early 1997, was produced in recognition of the fact that climatic fluctuations on regional and global scales have been shown to have a profound impact on Florida's weather from season to season. The importance of seasonal forecasting continues to increase as extreme weather events affect more of Florida's growing population. These forecasts are meant to supplement, not replace, the official NWS Climate Prediction Center's (CPC) seasonal and winter outlooks by providing more detail and adaptive meteorological interpretation of the impact of predicted climatic events on Central Florida.

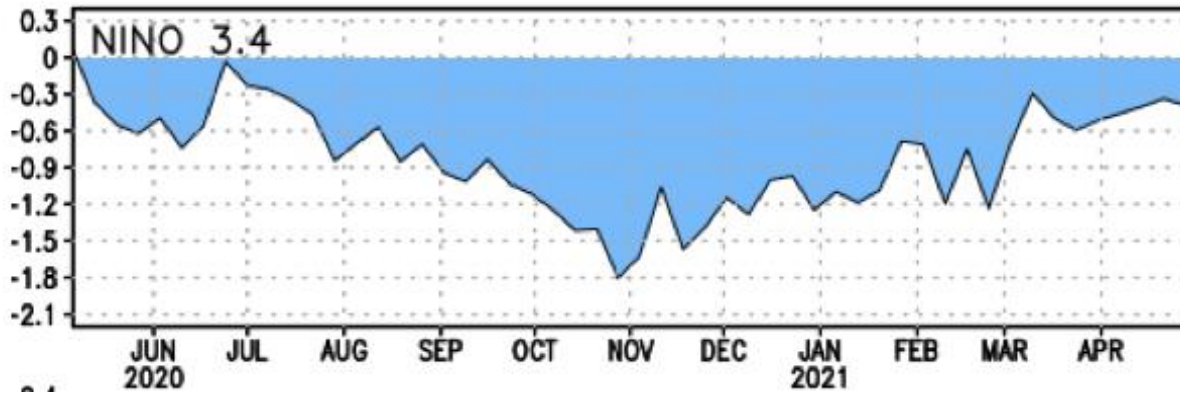


Figure 1. Average temperature anomalies in the Niño 3.4 region (represents the equatorial Pacific from about the dateline to the South American coast). Average temperature anomalies remained below average, falling as low as -1.8°C in the Fall, and generally remaining below -0.5°C through November-April, as weak to moderate La Niña conditions persisted through the dry season.

Source: ENSO: Recent Evolution, Current Status, and Predictions available [here](#).

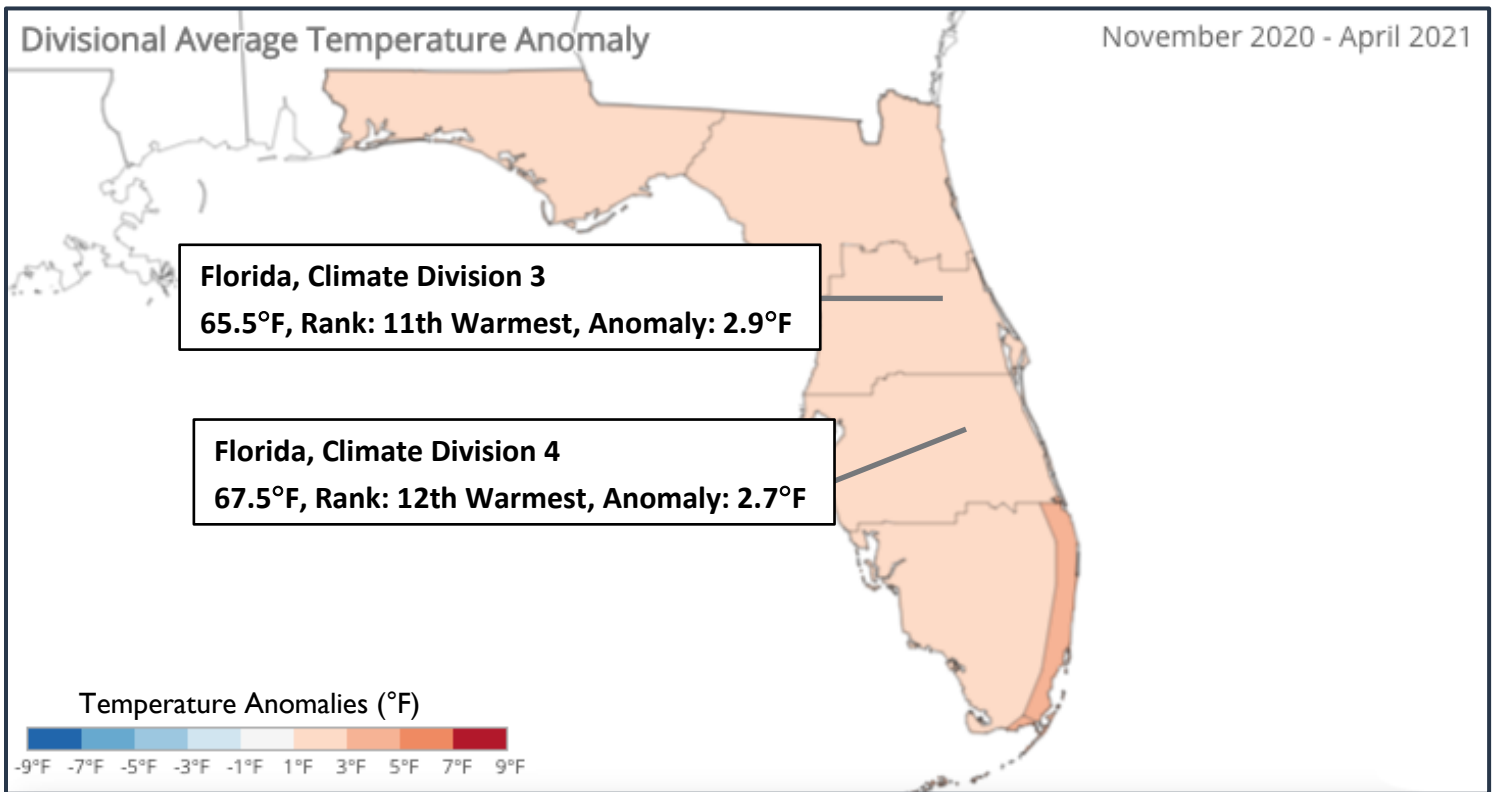


Figure 2. Seasonal temperature averages for Florida Climate Divisions 3 and 4 during the November 2020 – April 2021 period. Average temperature anomalies during the 6-month period averaged around 2.7-2.9 degrees (F) above normal, calculated using the 1901-2000 mean. The rank is based off of 126 years of record.

Source: NOAA NCEI Climate at a Glance: <https://www.ncdc.noaa.gov/cag/>

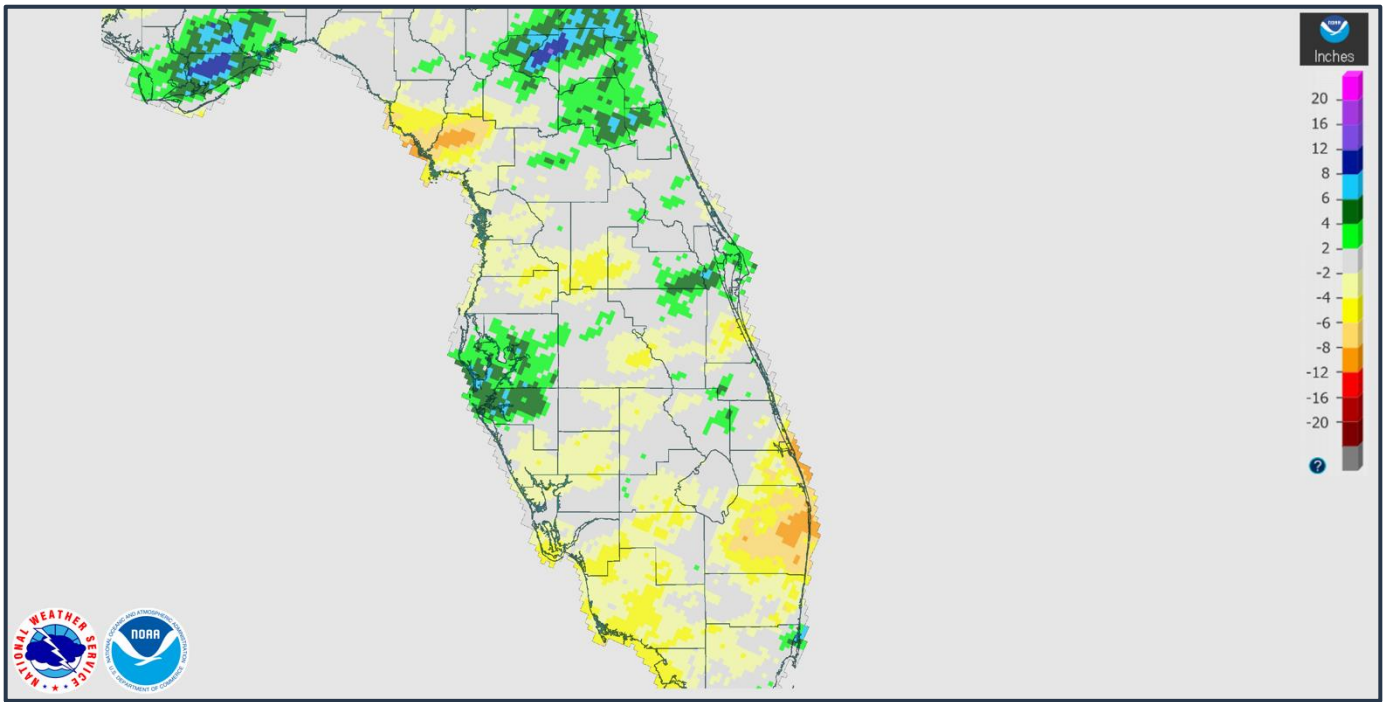


Figure 3. Quantitative Precipitation Analysis (QPE) indicating the departure from normal precipitation for the 6-month period from November 2020 through April 2021. Rainfall across Climate Divisions 3 and 4 (central Florida) was generally near normal, with some localized areas of both wetter and drier than normal conditions.

Source: QPE, Quantitative Precipitation Estimates: <https://water.weather.gov/precip/>

| November 2020 - April 2021 Rainfall | | | | |
|-------------------------------------|----------|--------|-----------|-------------|
| Station | Observed | Normal | Departure | % of Normal |
| Daytona Beach | 15.86 | 16.03 | -0.17 | 99 |
| Leesburg | 17.07 | 13.78 | 3.29 | 124 |
| Sanford | 11.55 | 13.93 | -2.38 | 83 |
| Orlando | 17.52 | 14.40 | 3.12 | 122 |
| Melbourne | 11.41 | 14.50 | -3.09 | 79 |
| Vero Beach | 16.81 | 16.89 | -0.08 | 100 |
| Fort Pierce | 18.19 | 16.24 | 1.95 | 112 |
| Clermont COOP | 9.99 | 15.52 | -5.53 | 64 |
| Lisbon COOP | 13.52 | 15.93 | -2.41 | 85 |
| Deland COOP | 20.95 | 16.49 | 4.46 | 127 |
| Sanford COOP | 16.35 | 15.49 | 0.86 | 106 |
| Titusville COOP | 14.47 | 16.53 | -2.06 | 88 |
| Fort Pierce COOP | 19.15 | 18.10 | 1.05 | 106 |
| Stuart COOP | 14.49 | 20.31 | -5.82 | 71 |

Table 1. Rainfall totals and statistics at select sites across east central Florida for the November 2020-April 2021 time period. COOP indicates Cooperative Observer Program sites.

Helpful Links

Teleconnection Guidance & Forecasts from the Climate Prediction Center (CPC)

[ENSO](#) | [AO](#) | [NAO](#) | [PNA](#) | [MJO](#)

CPC Guidance (Temperature, Precipitation, Drought, Hazards)

[1-Month Outlook](#) | [3-Month Outlook \(~90 Days\)](#)

[U.S. Drought Information](#) | [U.S. Hazards Assessment](#) (out to 2 weeks)

National Weather Service Melbourne, FL Research

[ENSO and Climate](#) | [Storminess](#) | [Severe Weather](#) | [Rainfall](#) | [Temperature](#)

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