Forecast Recap and Verification | May 2019

- **ENSO Forecast Verification and Update:** Weak El Niño conditions fully developed into January and have persisted across the central and eastern equatorial waters of the Pacific Ocean into the spring of 2019 (Figure 1). Weak El Niño conditions are likely to continue through the summer and potentially into the upcoming fall.

- **NDJ Forecast Verification:** Average temperature for the three-month period ended up around 2 degrees above normal across central Florida. Rainfall was generally near to below normal in November, but increased into December and January, with precipitation amounts for this period averaging around 4-6 inches above normal.

- **FMA Forecast Verification:** Warmer than normal conditions intensified into the second half of the dry season, with the three-month average temperature across central Florida around 4 degrees above normal. Rainfall decreased from Feb-Apr, with precipitation around 2-4 inches below normal for this period.

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 Nino 3.4 region (represents the equatorial Pacific from about the dateline to the South American coast). While temperatures warmed into the summer and fall of 2018, the atmosphere didn’t respond to these warming sea surface temperatures (SST) until early in 2019, when weak El Niño conditions fully developed. SST anomalies have remained warmer than normal through the spring.

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 2018 – April 2019 period. Average temperature anomalies during the 6-month period averaged around 3.3 degrees (F) above normal calculated using 1901-2000 mean. The rank is based off of 124 years of record where a rank of 1 would be record coldest and 124 would be record warmest.

Source: NOAA NCEI Climate at a Glance: https://www.ncdc.noaa.gov/cag/
Figure 3. Quantitative Precipitation Analysis (QPE) indicating the percent of normal of precipitation for the 6-month period from November 2018 through April 2019. Rainfall across Climate Divisions 3 and 4 (central Florida) was generally near to above normal, with portions of east central Florida around 75 to 90% of normal rainfall during the period.

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