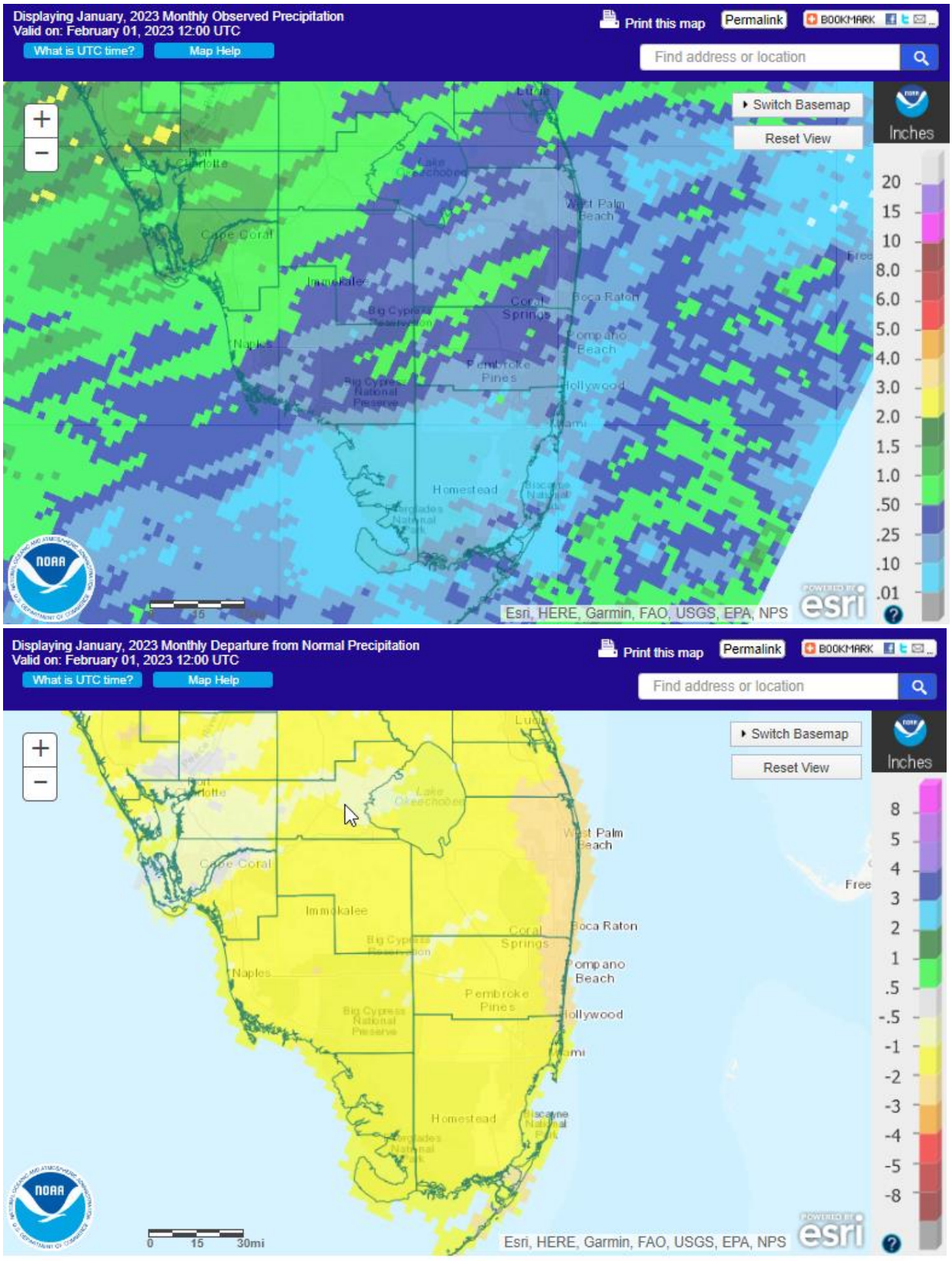
MIAMI-SOUTH FLORIDA
National Weather Service Forecast Office
http://www.weather.gov/miami

January 2023 Weather Summary for South Florida

Dry and Warm

February 1st, 2023: A relative lack of cold fronts passing through South Florida in January led to a drier and warmer than normal month across the region. Most notable was the lack of rainfall, with east coast metro sites ending up among the top 4 driest Januarys on record. Two NWS cooperative stations in Miami-Dade County, Hialeah and Royal Palm Ranger Station, did not record any precipitation last month.

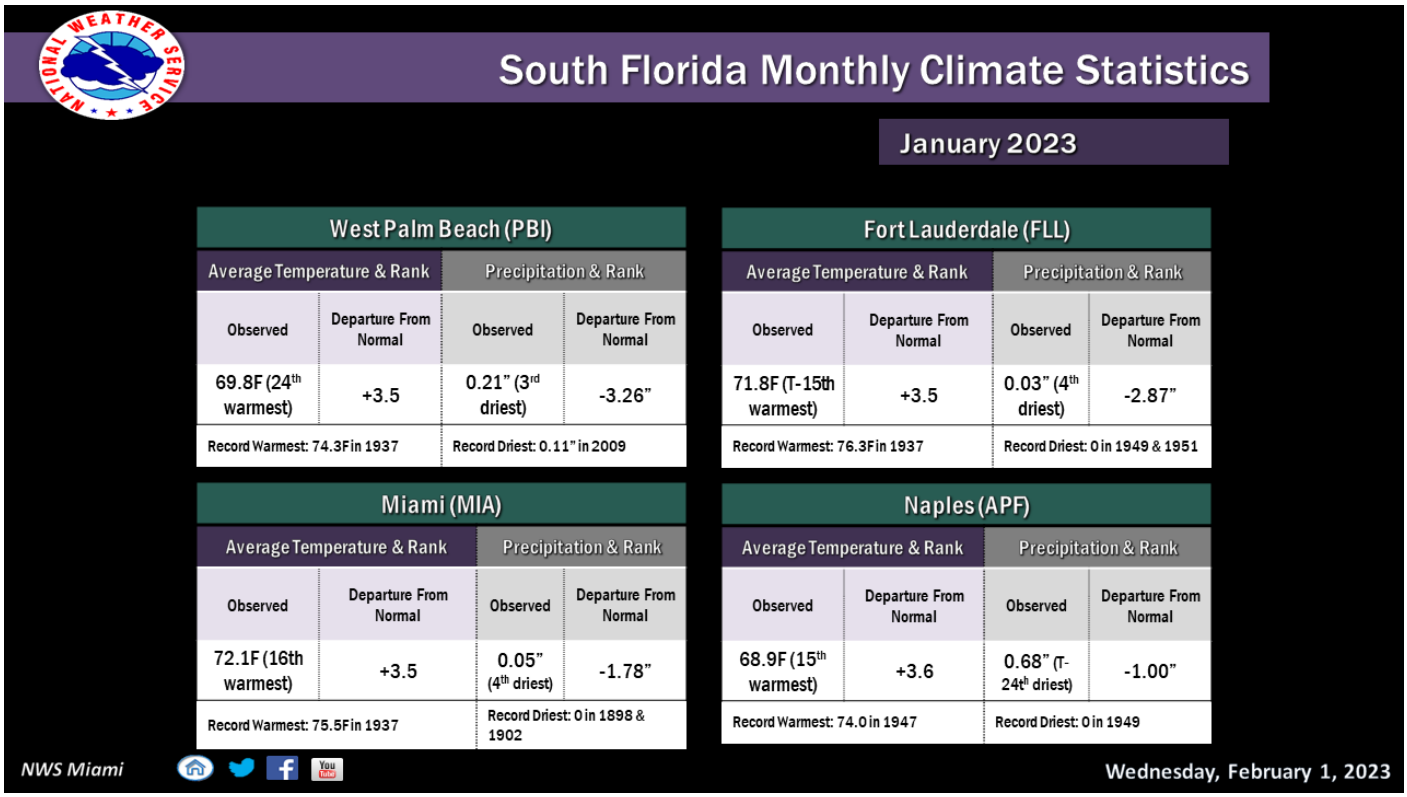
Fewer cold fronts translated to a warmer than normal month, with temperatures averaging between 3 and 4 degrees F above normal. The highest temperature at NWS airport or cooperative sites was 88F at Miami International Airport (tied the all-time highest January temperature), Miami-Tamiami Executive Airport, and Hollywood North Perry Airport on January 23rd. Unofficial sites in interior Collier County (Immokalee, Oasis Ranger Station, and Miles City) hit 90F on January 31st. The only cold episode of note in January was on the 15th and 16th when temperatures dropped into the 30s and 40s, with freezing temperatures observed in a few locations over the interior. The lowest recorded temperature at NWS sites was 34F in Moore Haven on the 16th, although unofficial readings of 30F were recorded in Palmdale on the 15th, and 32F in Immokalee on the 15th.



Figures 1 (top) & 2 (bottom): January 2023 rainfall and departure from normal

January 2023 temperature and rainfall summaries are below:

Location (beginning of period of record)	January 2023 Rainfall (inches)	Departure from Normal	Ranking
Cape Florida (1999)	0.27	-2.17	2nd driest
Ft. Laud/Hollywood Int'l Apt (1912)	0.03	-2.87	4th driest
Fort Laud Executive Airport (1999)	0.03	-2.35	2nd driest
Hialeah Water Plant (1941)	0	-2.03	Driest on rec.
Hollywood North Perry Apt (2000)	0.12	-2.59	2nd driest
Hollywood Water Plant (2000)	0.10	-2.82	Driest on rec.
Homestead General Airport (1991)	0.02	-1.68	Driest on rec.
Juno Beach (2003)	0.40	-3.45	Driest on rec.
Marco Island (2003)	0.13	-2.37	2nd driest
Miami International Airport (1896)	0.05	-1.78	4th driest
Miami/Tamiami Exec Airport (1999)	0.01	-1.73	2nd driest
Muse (2010)	0.95	-1.34	6th driest
Naples Municipal Airport (1942)	0.68	-1.00	T-24th driest
NWS Miami – FIU Main (2000)	0.03	-2.00	Driest on rec.
North Miami Beach (2000)	0.15	-2.15	2nd driest
Opa Locka Airport (1999)	0.08	-1.73	2nd driest
Palm Beach Gardens (2003)	0.25	-3.13	3rd driest
Palm Beach Int'l Airport (1888)	0.21	-3.26	3rd driest
Pompano Beach Airpark	0.24	-1.69	
The Redland (1942)	0.10	-1.94	5th driest
Royal Palm Ranger Station (1950)	0	-1.70	Driest on rec.
South Bay/Okeelanta	0.34		



Discussion

High pressure in the mid and upper-levels of the atmosphere predominated over the SE United States and Florida during January (Figures 3 and 4). This pattern is common during La Niña winters as is the case this winter, with drier than normal conditions over Florida due to the jet stream and associated storm tracks tending to be farther to the north. This can act to limit the strength of cold fronts moving into Florida, as well as the amount of atmospheric moisture these fronts can tap into to produce precipitation.

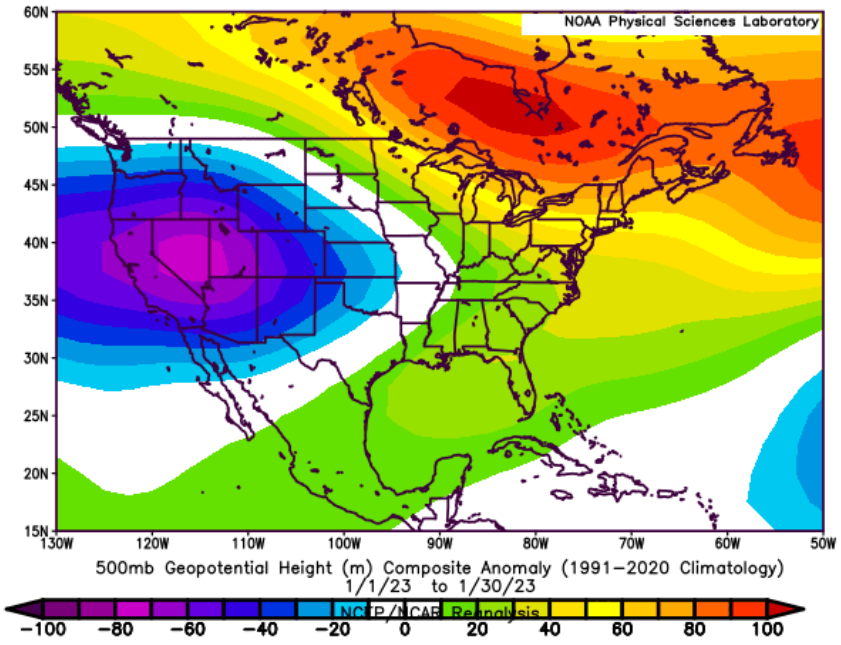


Figure 3: Average 500 mb height anomalies for January 2023. Green, yellow, and red colors indicate higher than normal pressures aloft

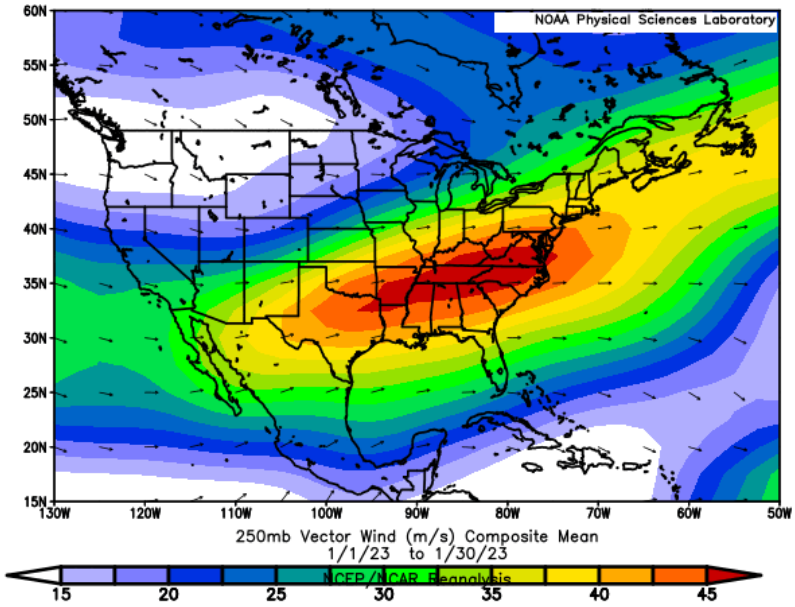


Figure 4: Mean 250 mb wind. Mean jet stream position is indicated by the red streak across the SE United States

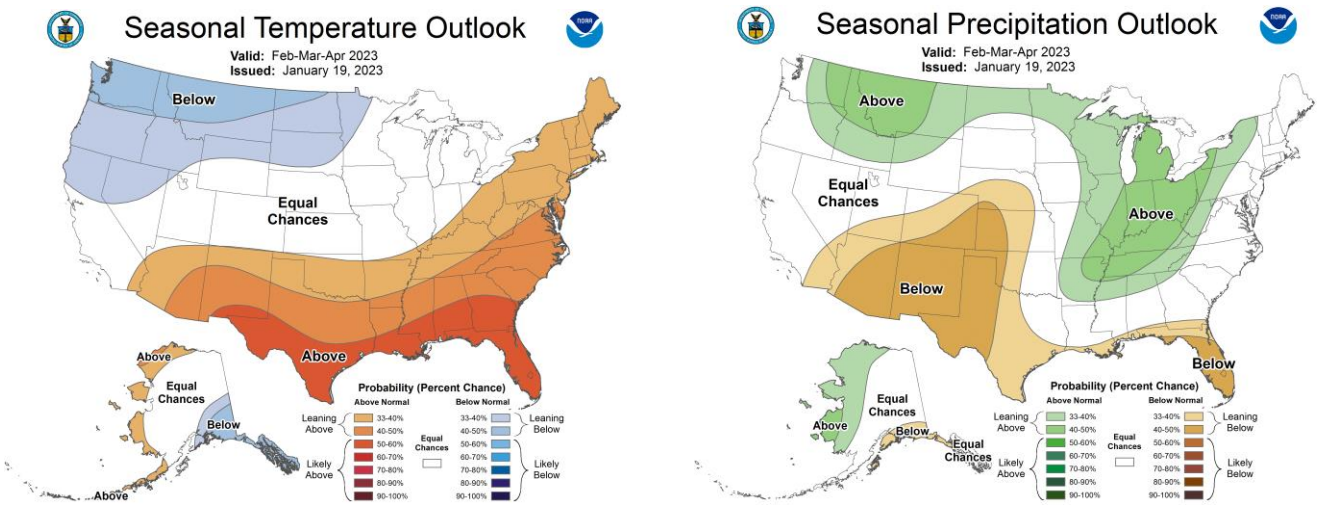
Outlook

The February-April outlook by the NOAA Climate Prediction Center (CPC, Figures 5 and 6) are for a continuation of increased chances for above normal temperatures and below normal precipitation for South Florida. The La Niña pattern is expected to transition to neutral during this time frame, however the lingering warming/drying effects of La Niña are more likely than not to persist across South Florida.

The likelihood of drier than normal conditions added on to the observed dryness of the past 1-2 months means that drought conditions are likely to develop across the Florida peninsula (Figure 7), raising concerns about an active wildfire season in South Florida.

All persons are urged to be familiar with wildfire safety practices, and heed the advice of local officials pertaining to wildfire prevention.

For the latest south Florida weather information, including the latest watches, advisories and warnings, please visit the National Weather Service Miami Forecast Office's web site at weather.gov/southflorida.



***Figures 5 and 6**: February-April 2023 temperature probability (left) and precipitation probability (right) from NOAA's Climate Prediction Center (CPC).*

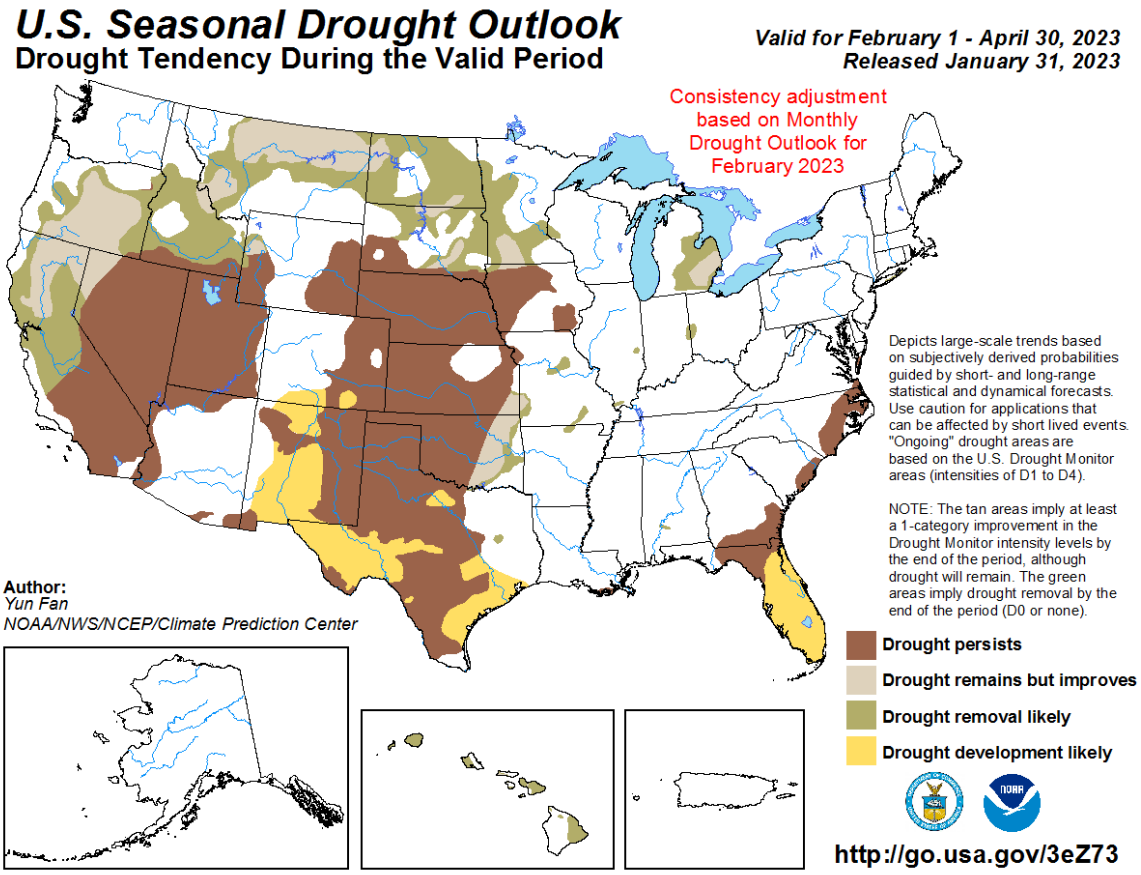


***Figure 7**: February-April 2023 drought outlook from NOAA's Climate Prediction Center (CPC).*