Extended Hydrologic Outlook
January 10, 2023

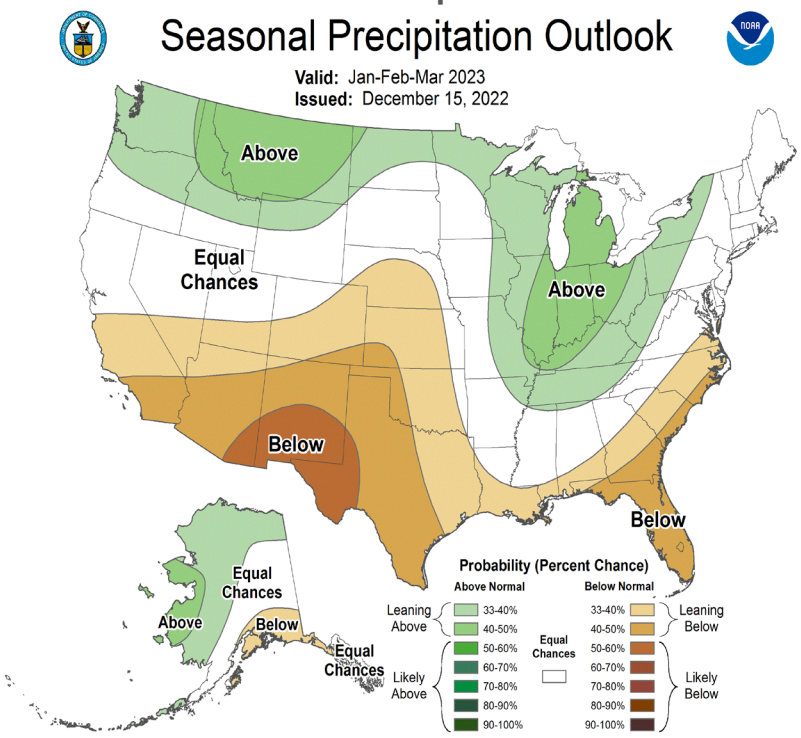
- The Climate Prediction Center (CPC) is forecasting below normal rainfall for January through March.
- La Niña is present and is expected to continue into the winter, with equal chances of La Niña and ENSO-neutral during January-March 2023. In February-April 2023, there is a 71% chance of ENSO-neutral.
- Atlantic Multidecadal Oscillation (AMO) is currently in the warm phase:
  - Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase

U. S. Seasonal Outlooks

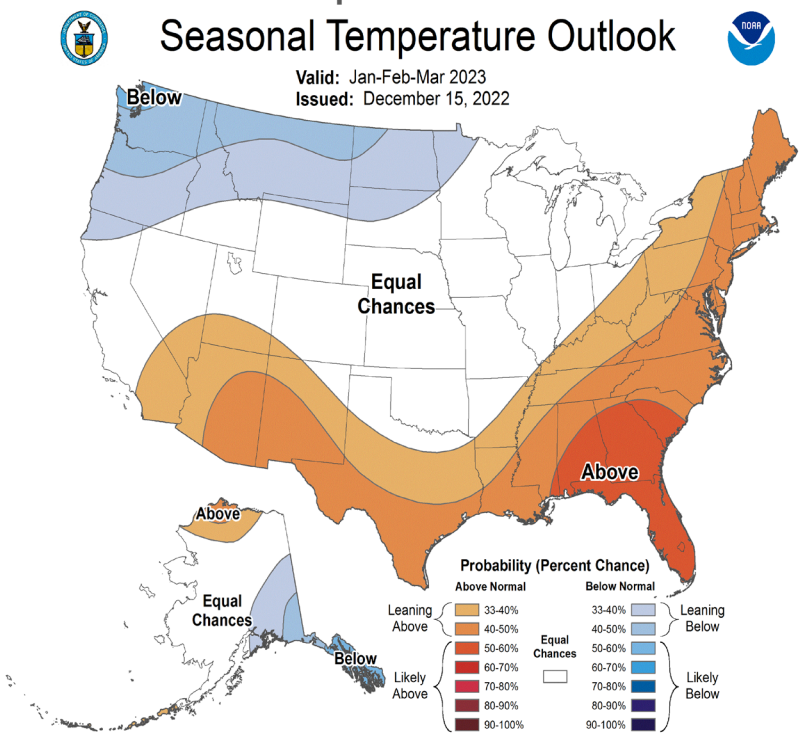
January - March 2023

The seasonal outlooks combine the effects of long-term trends, soil moisture, and, when appropriate, ENSO.

Precipitation



Temperature



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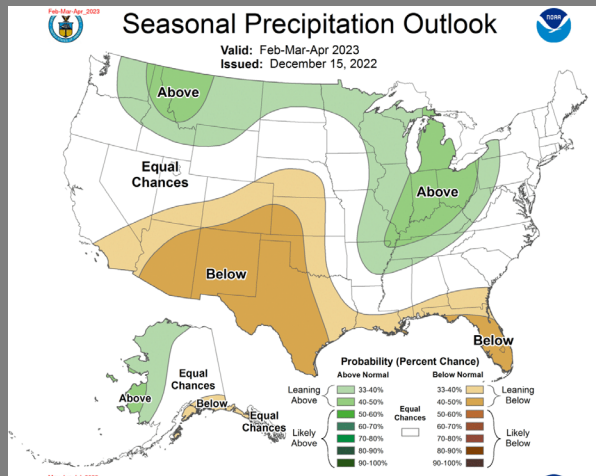

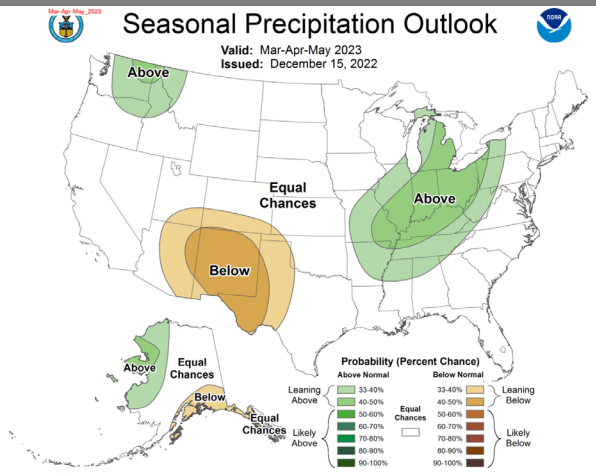

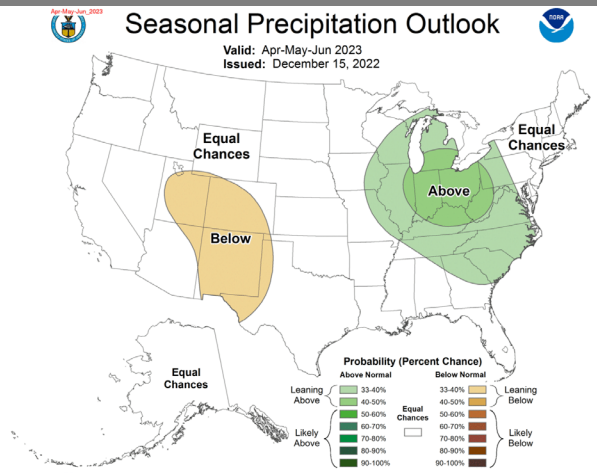

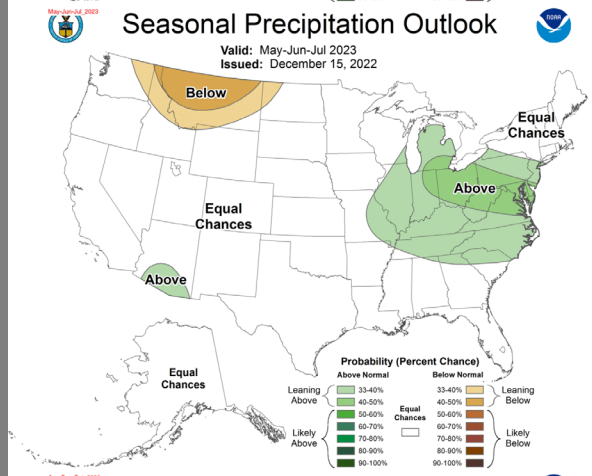

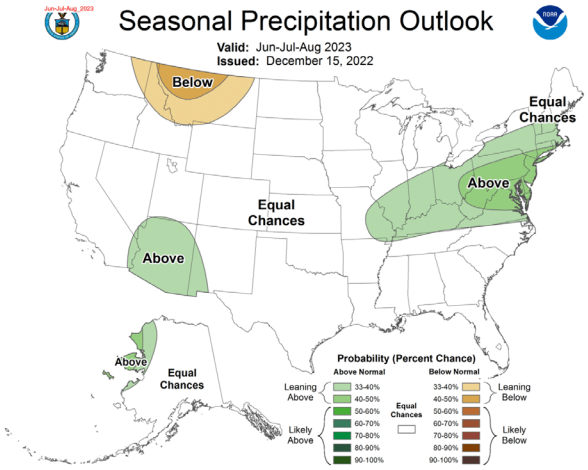

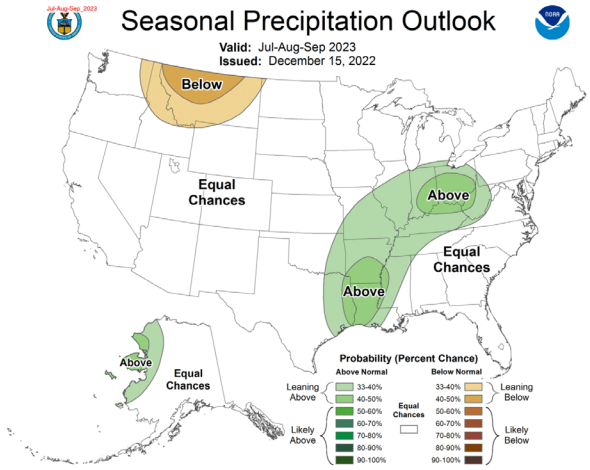

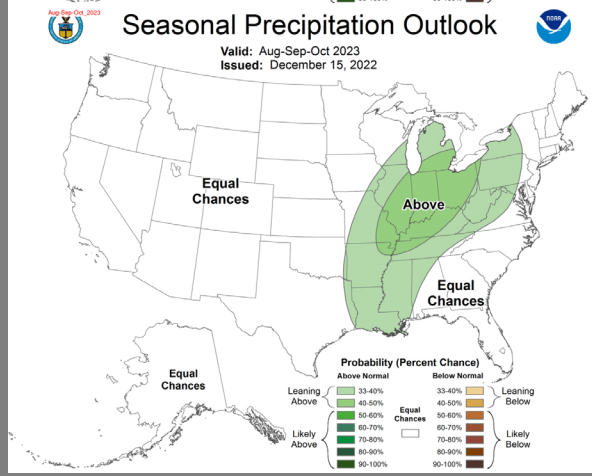

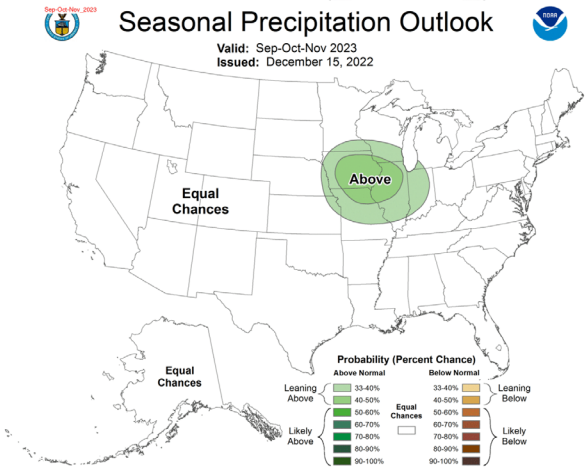

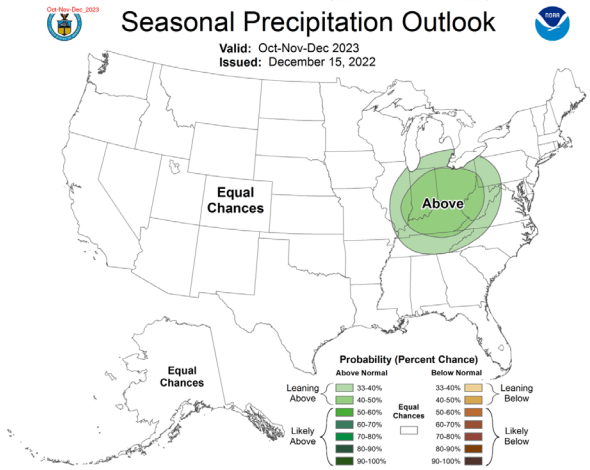

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Teleconnections to South Florida

Climate anomalies being related to each other at large distances:

El Niño Southern Oscillation (ENSO)

- **El Niño increases the chances of a wetter-than-normal dry season and decreased tropical activity, La Niña increases the chances of a drier-than-normal dry season and increased tropical activity (both have most influence in south Florida from November through March)**

Pacific Decadal Oscillation (PDO)

- **Increases variations in south Florida dry season rainfall, positive leads to more El Niño events, negative leads to more La Niña events**

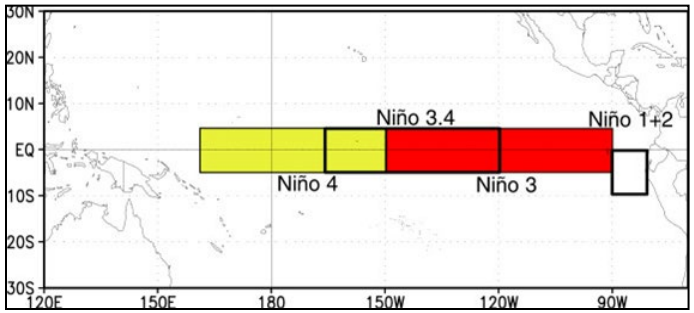
Atlantic Multidecadal Oscillation (AMO)

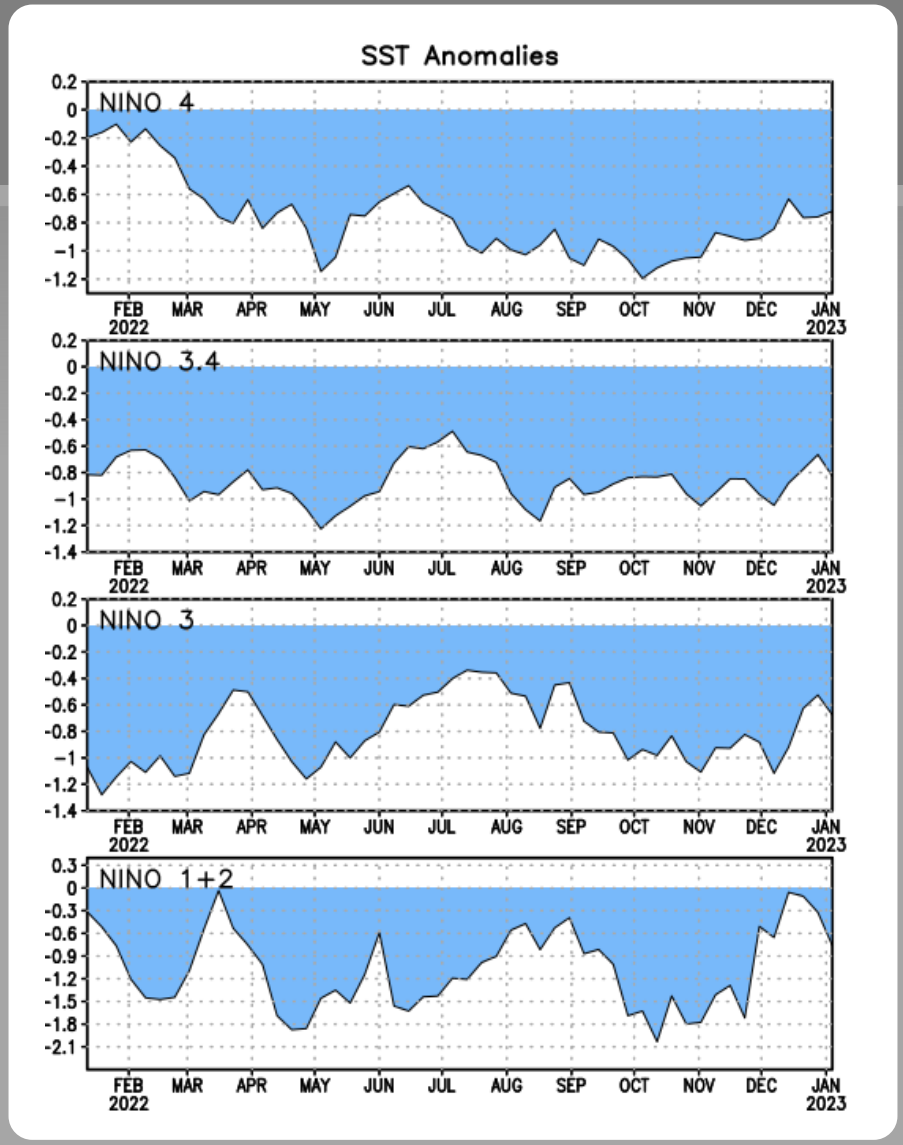
- **Average annual inflow to Lake Okeechobee is nearly 50% greater during the warm phase compared to the cold phase of the AMO, easterly flow toward south Florida affected by phase**

Niño Region SST Departures (ºC) Recent Evolution

The latest weekly SST departures are:

Niño 4	-0.7ºC
Niño 3.4	-0.8ºC
Niño 3	-0.7ºC
Niño 1+2	-0.8ºC





This weekly sea surface temperature data is based on OISSTv2.1 (Huang et al., 2021).

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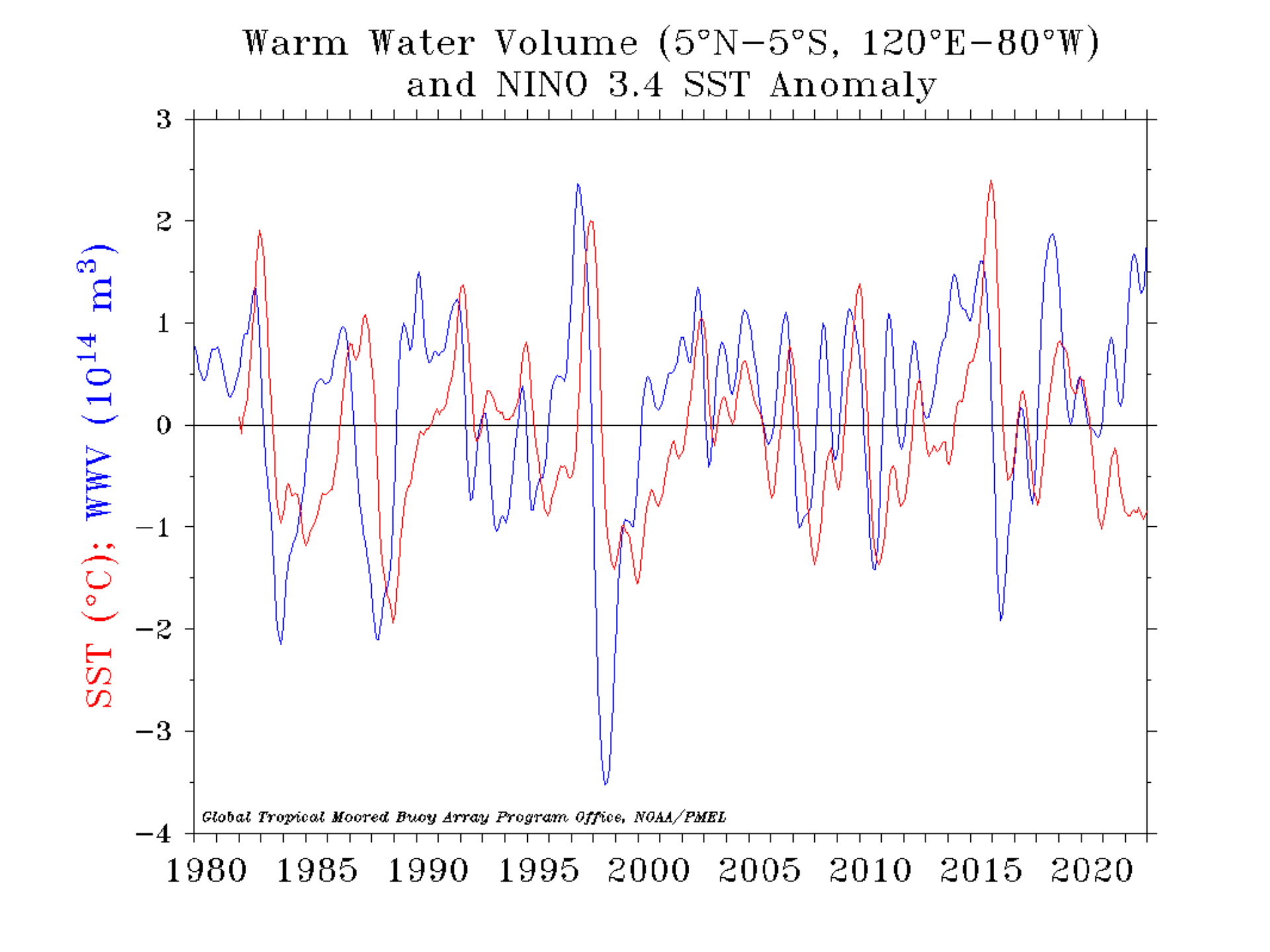
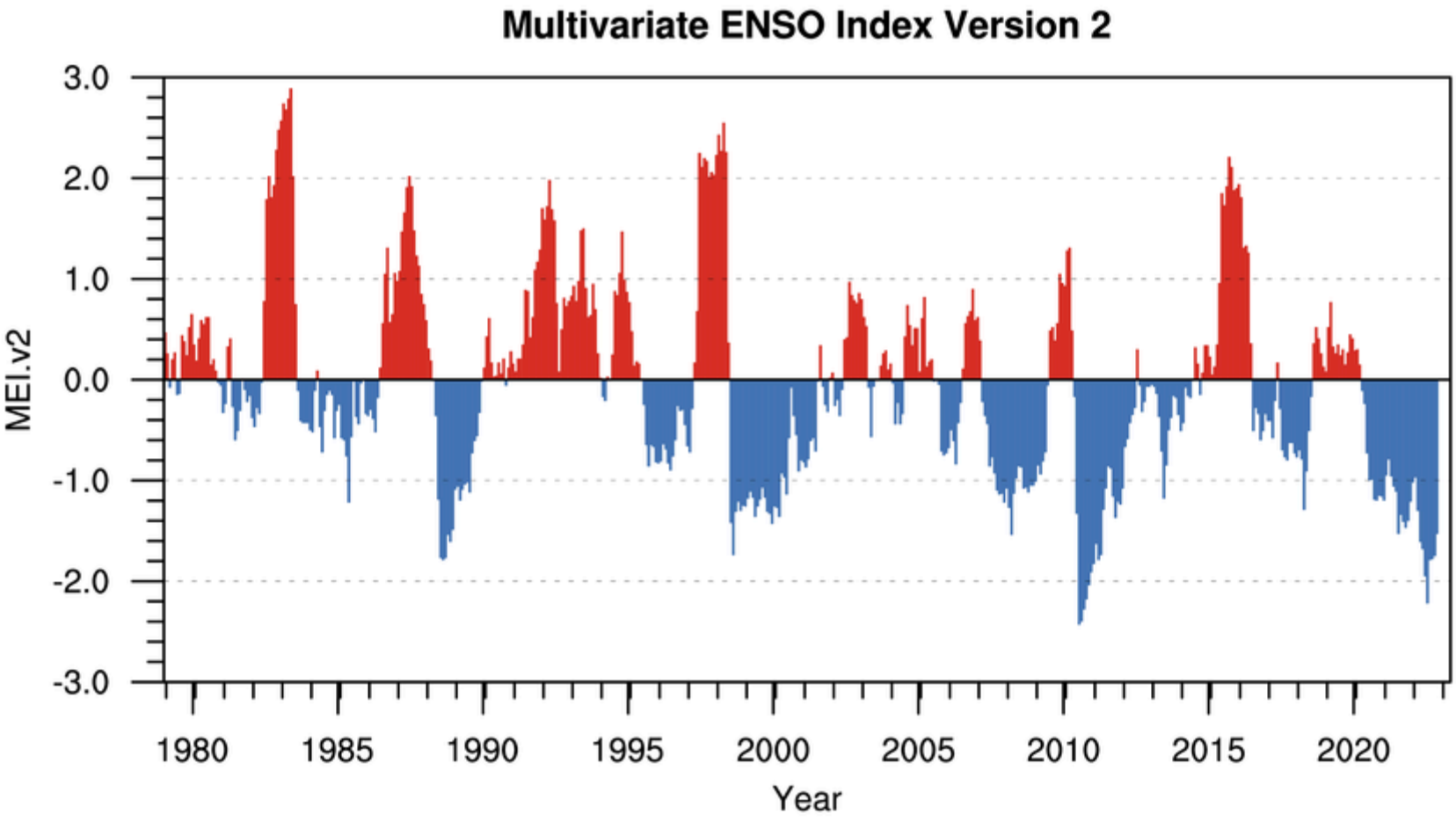
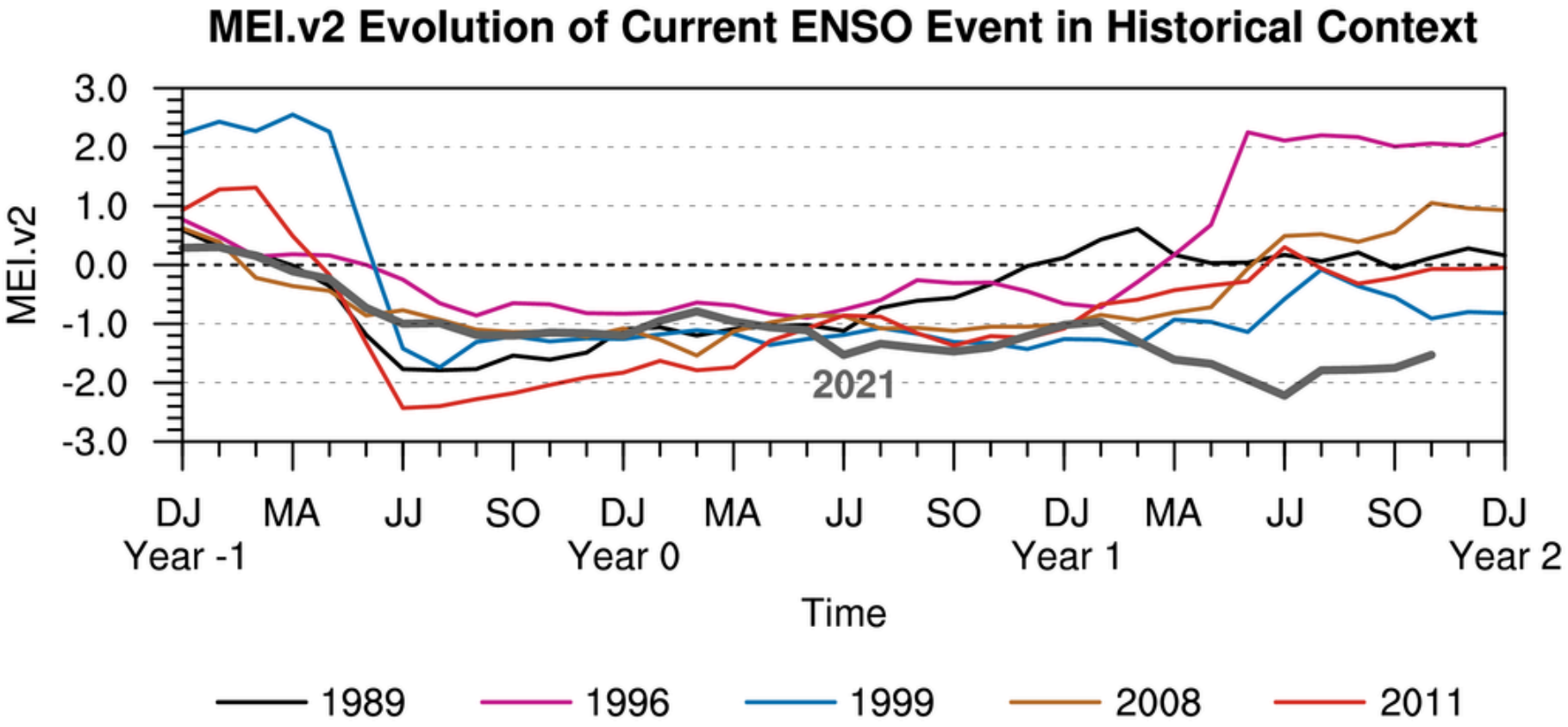

Warm Water Volume (5°N–5°S, 120°E–80°W)
and NINO 3.4 SST Anomaly
SST (°C); WWV (10^{14} m^3)
3
2
1
0
−1
−2
−3
−4
1980
1985
1990
1995
2000
2005
2010
2015
2020
Global Tropical Moored Buoy Array Program Office, NOAA/PMEL



Prepared by: NOAA Physical Sciences Laboratory



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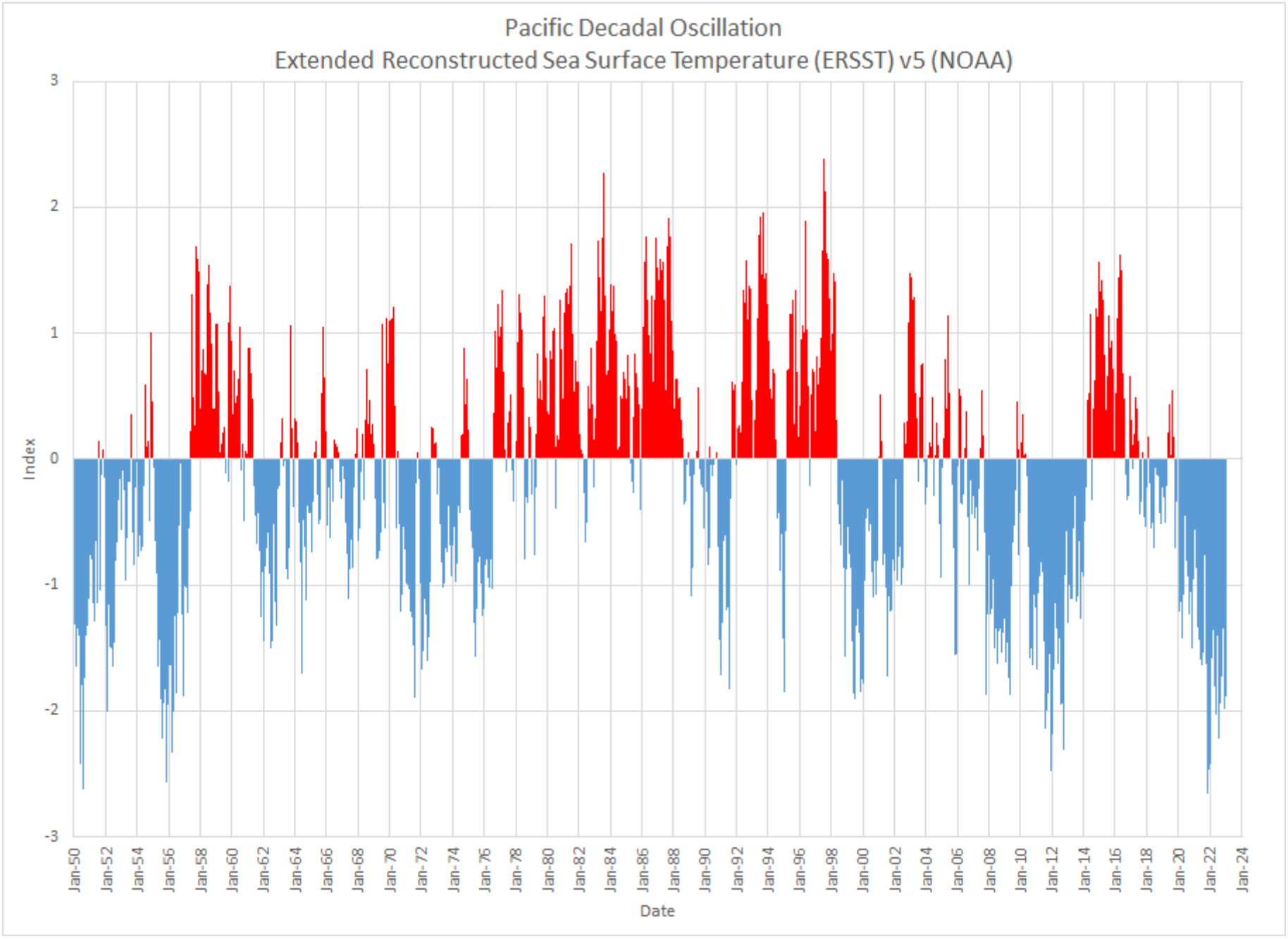
Pacific Decadal Oscillation
Extended Reconstructed Sea Surface Temperature (ERSST) v5 (NOAA)
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3
2
1
0
-1
-2
-3
Jan-50
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Jan-58
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Jan-66
Jan-68
Jan-70
Jan-72
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Jan-84
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Jan-90
Jan-92
Jan-94
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Jan-06
Jan-08
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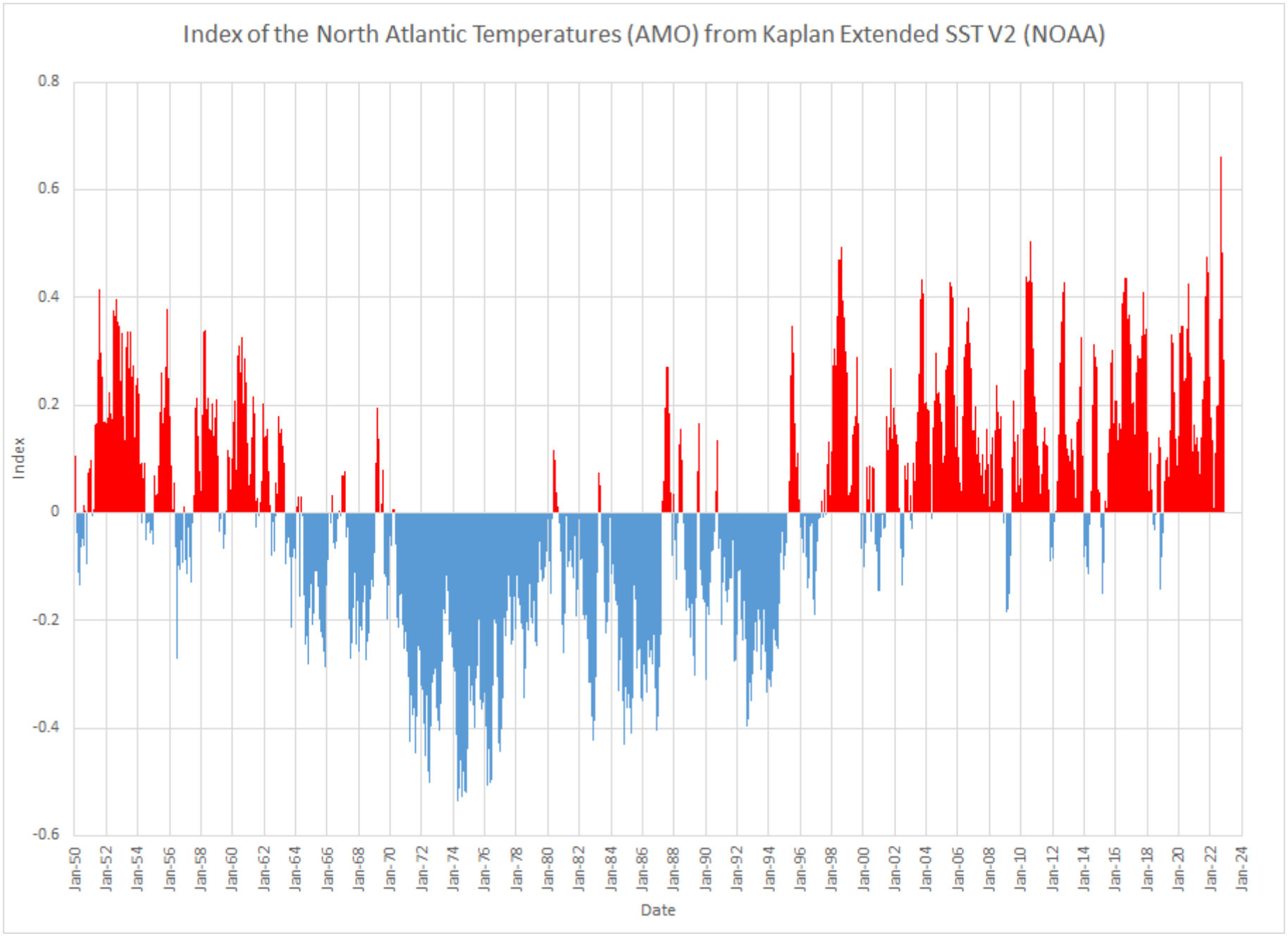
Jan-16
Jan-18
Jan-20
Jan-22
Jan-24
Date


Index of the North Atlantic Temperatures (AMO) from Kaplan Extended SST V2 (NOAA)
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
Index
Jan-50
Jan-52
Jan-54
Jan-56
Jan-58
Jan-60
Jan-62
Jan-64
Jan-66
Jan-68
Jan-70
Jan-72
Jan-74
Jan-76
Jan-78
Jan-80
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Jan-84
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Jan-24
Date