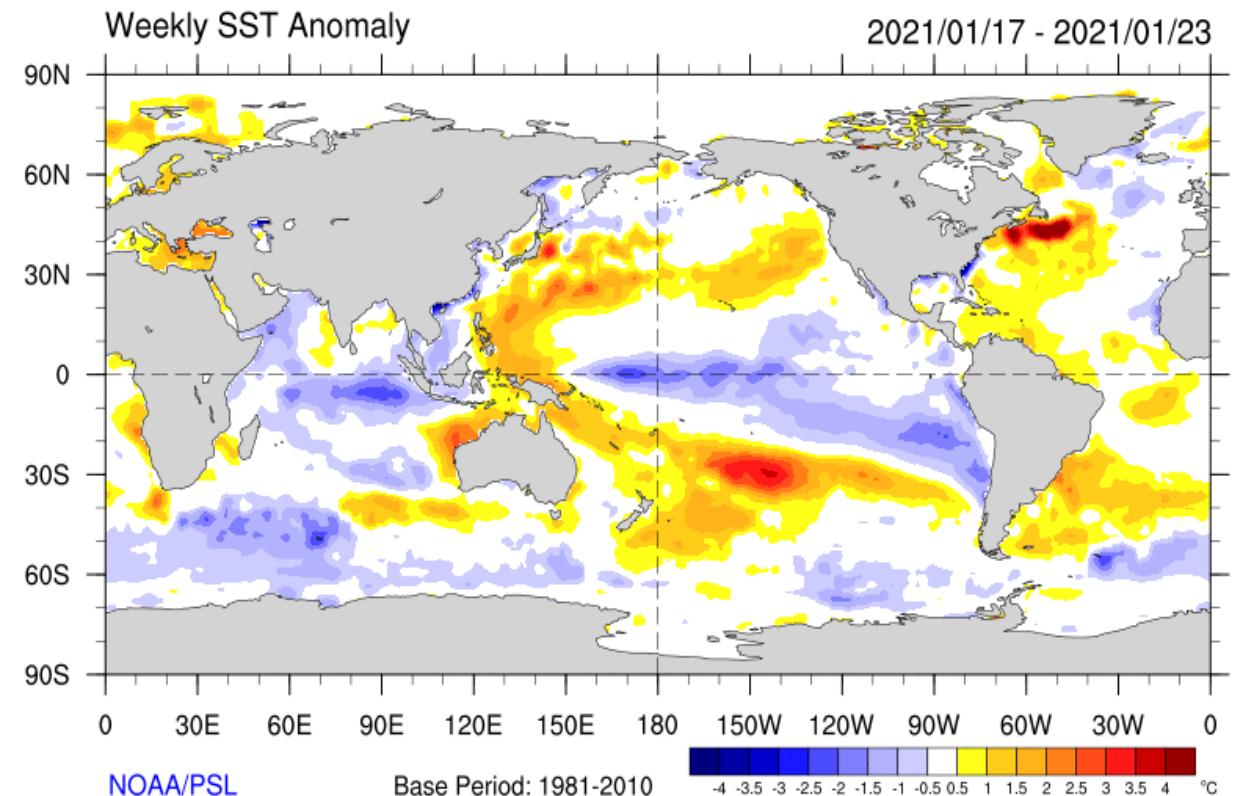
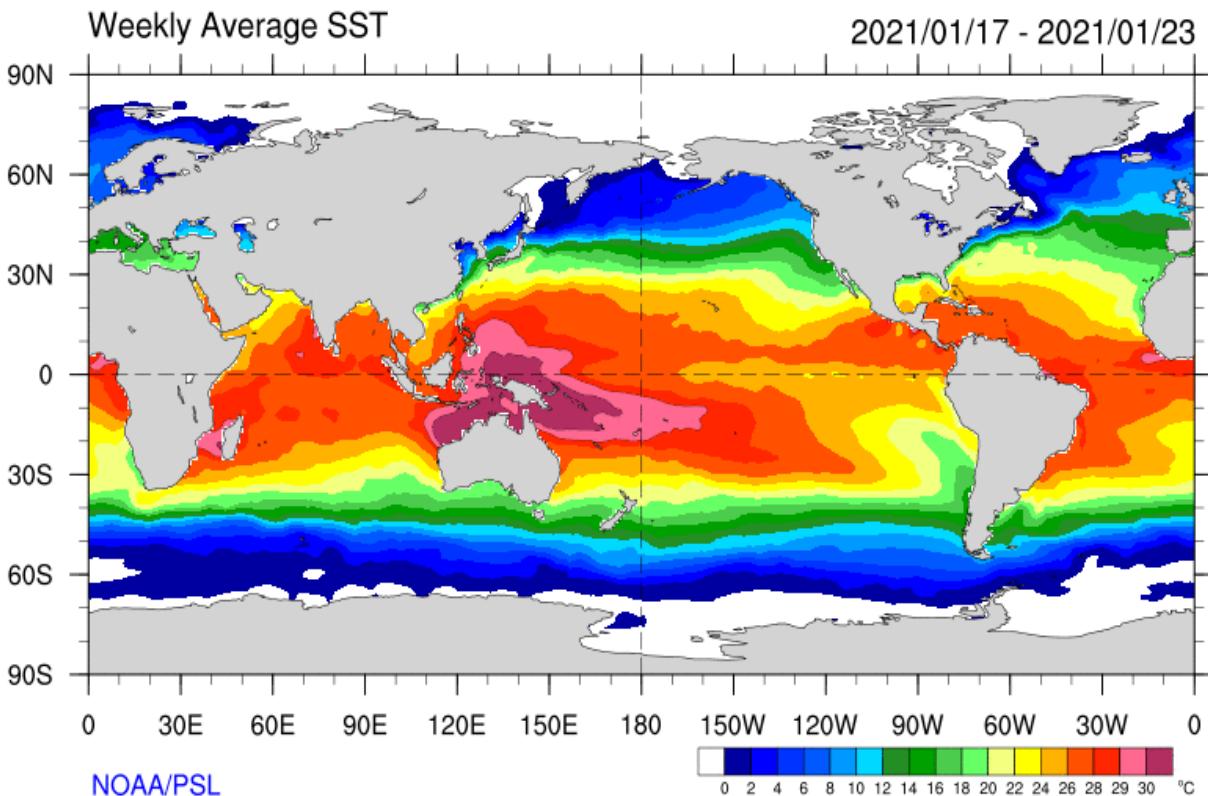




Monthly Regional Focus Group Session

Wednesday 27 January 2021

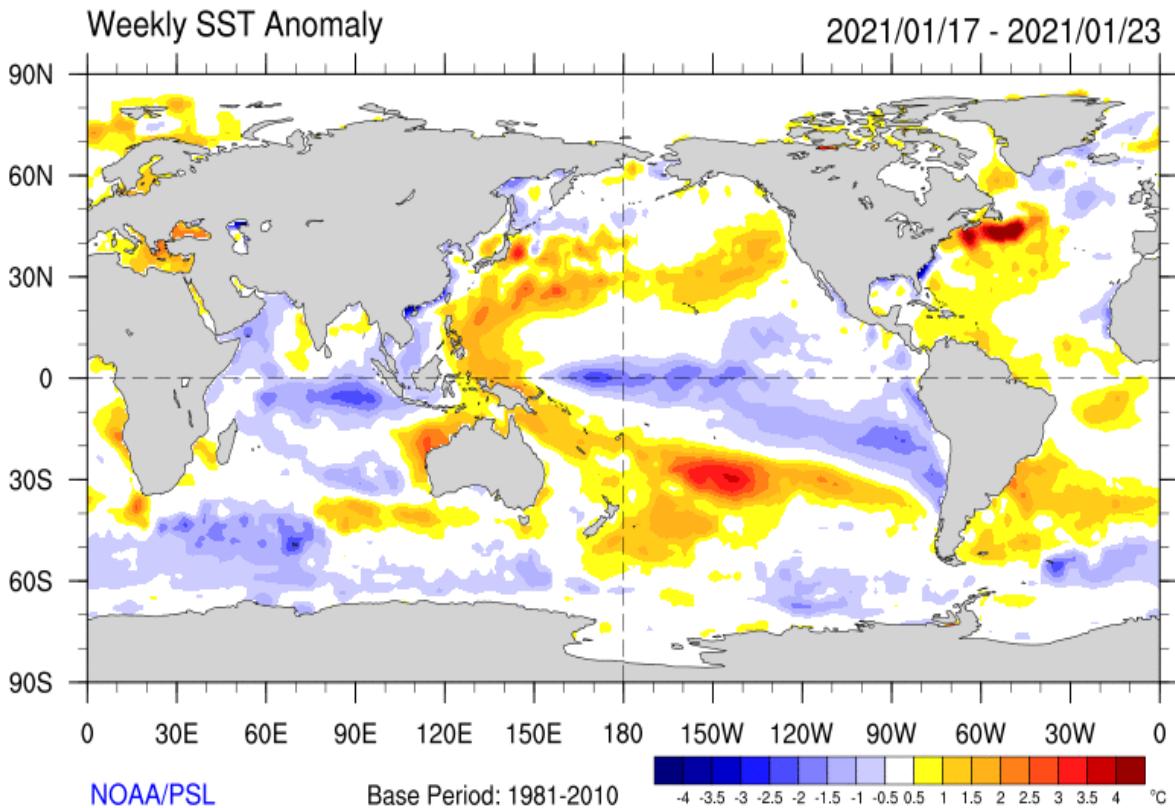
Sea Surface Temperatures (Last Week)



Are the anomalies deep?

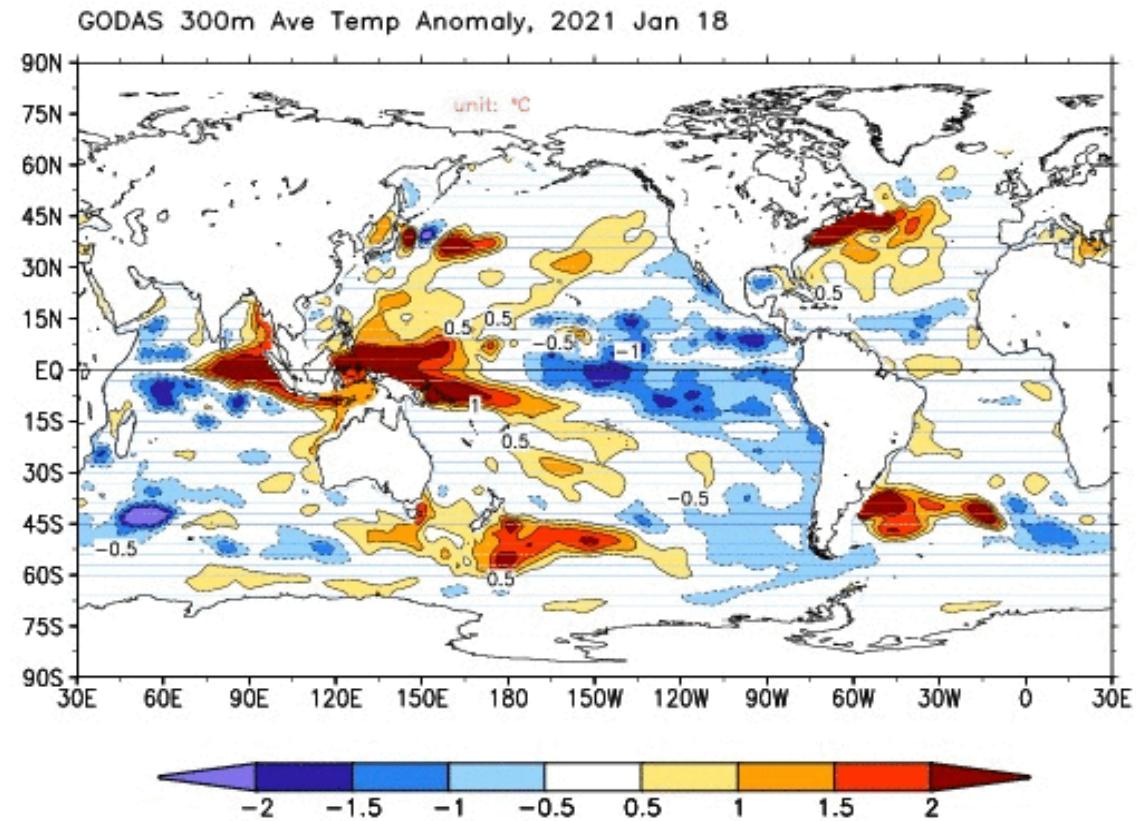
Deep anomalies tend to last longer and are useful for subseasonal forecasting.

Superficial Anomaly



Source: <https://psl.noaa.gov/map/clim/sst.shtml>

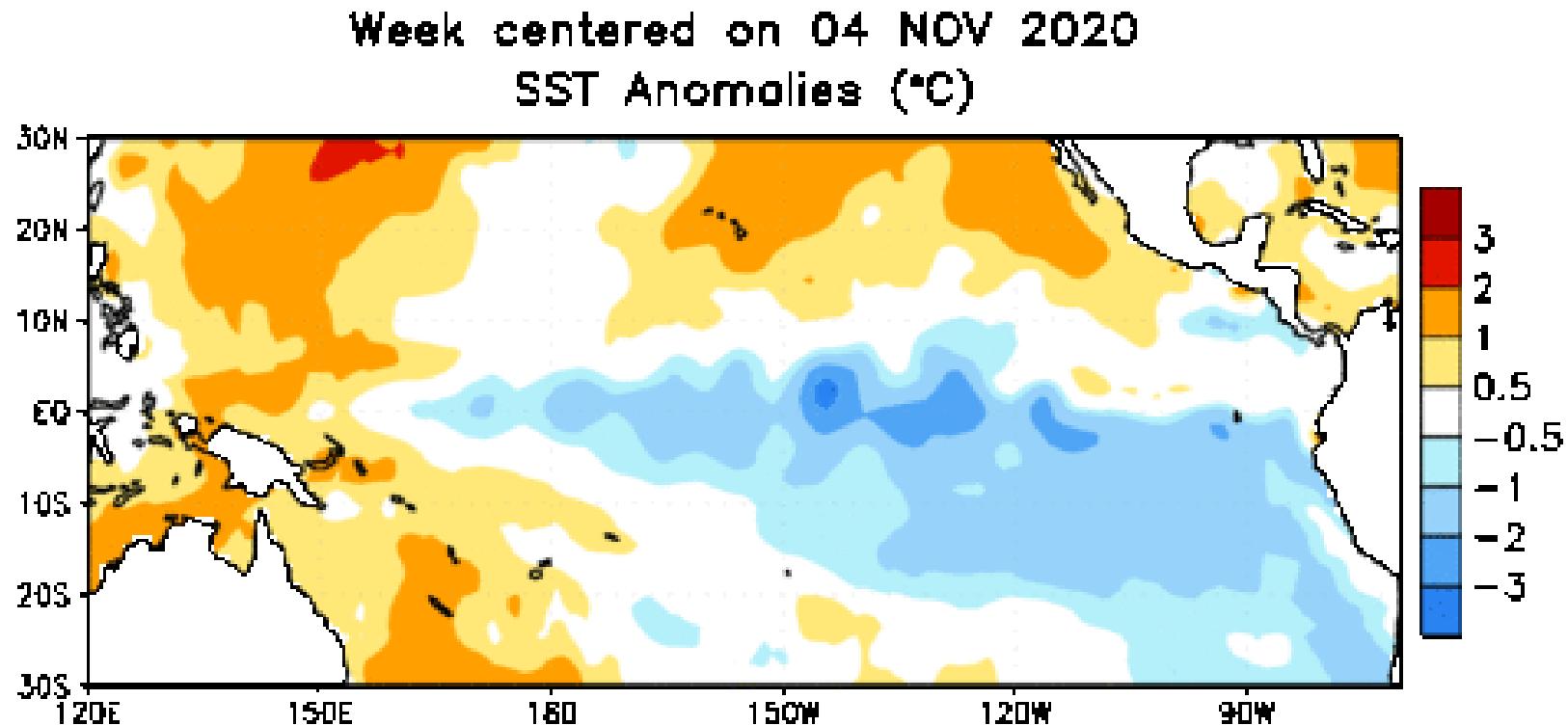
Top 300m Layer Anomaly



Source: CPC GODAS, <https://www.cpc.ncep.noaa.gov/products/GODAS/>

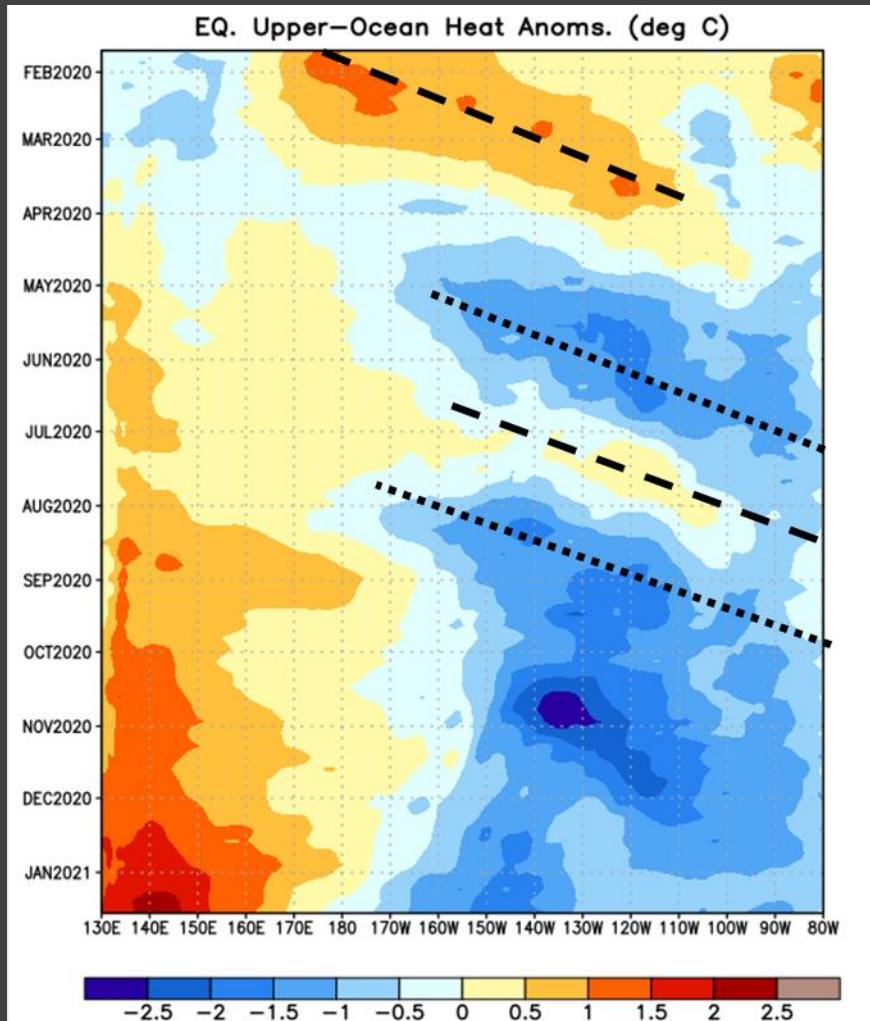
ENSO: La Niña

- La Niña Advisory: La Niña conditions are present.
- Equatorial sea surface temperatures (SSTs) are below average from the west-central to eastern Pacific Ocean.
- The tropical atmospheric circulation is consistent with La Niña.

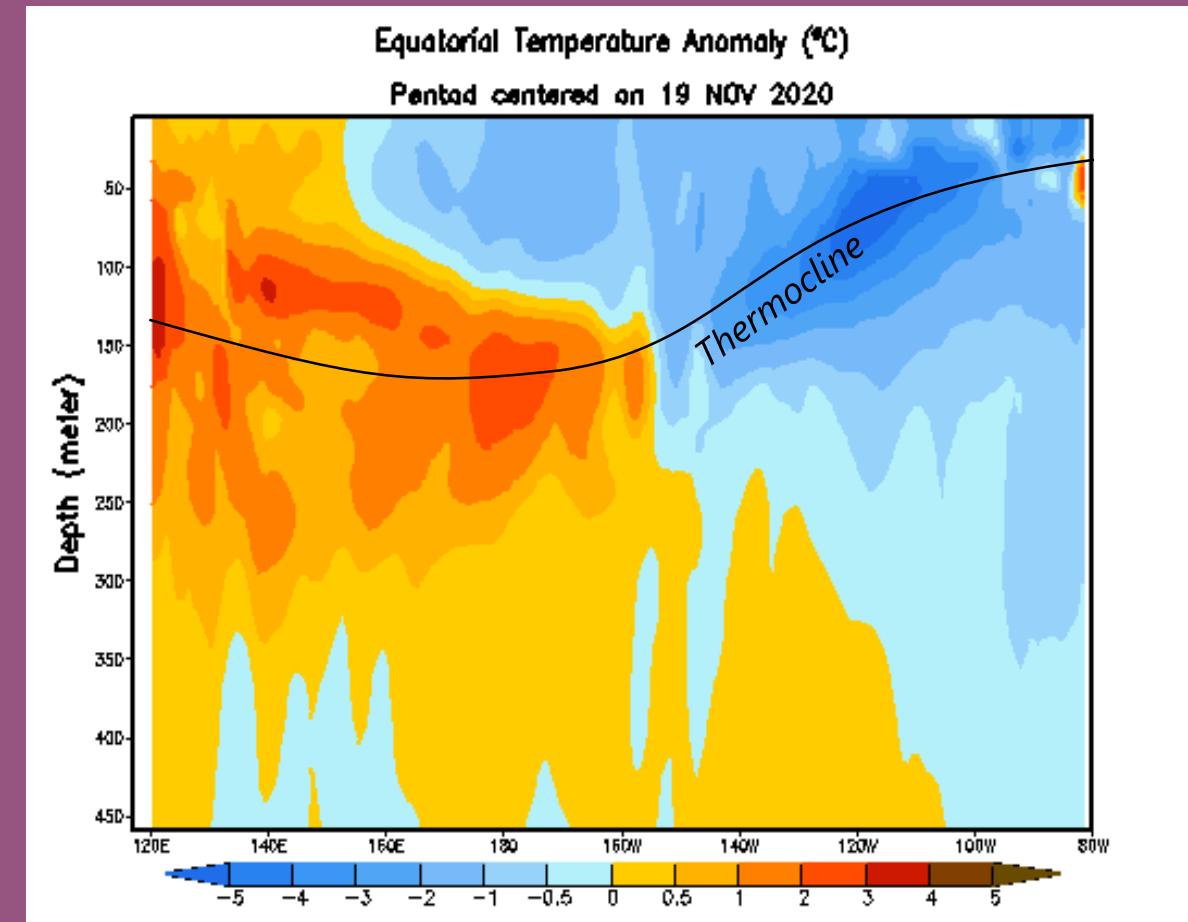


ENSO

Hovmöller: Heat Content



Equatorial Pacific Temp. Anomaly

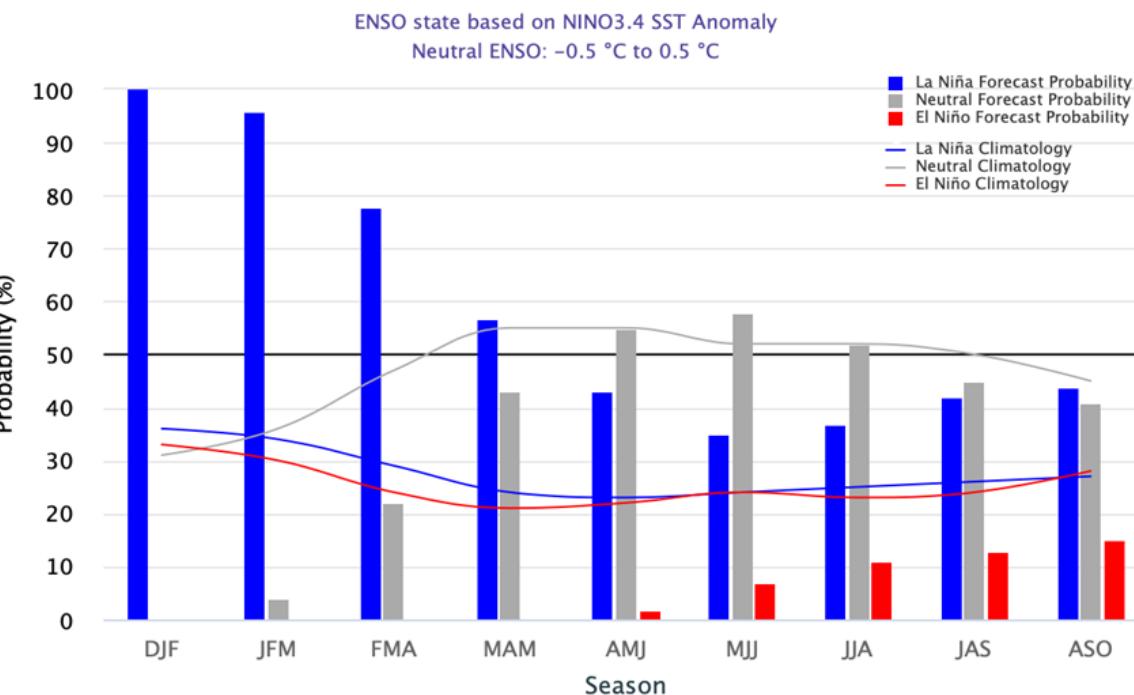


ENSO Outlook

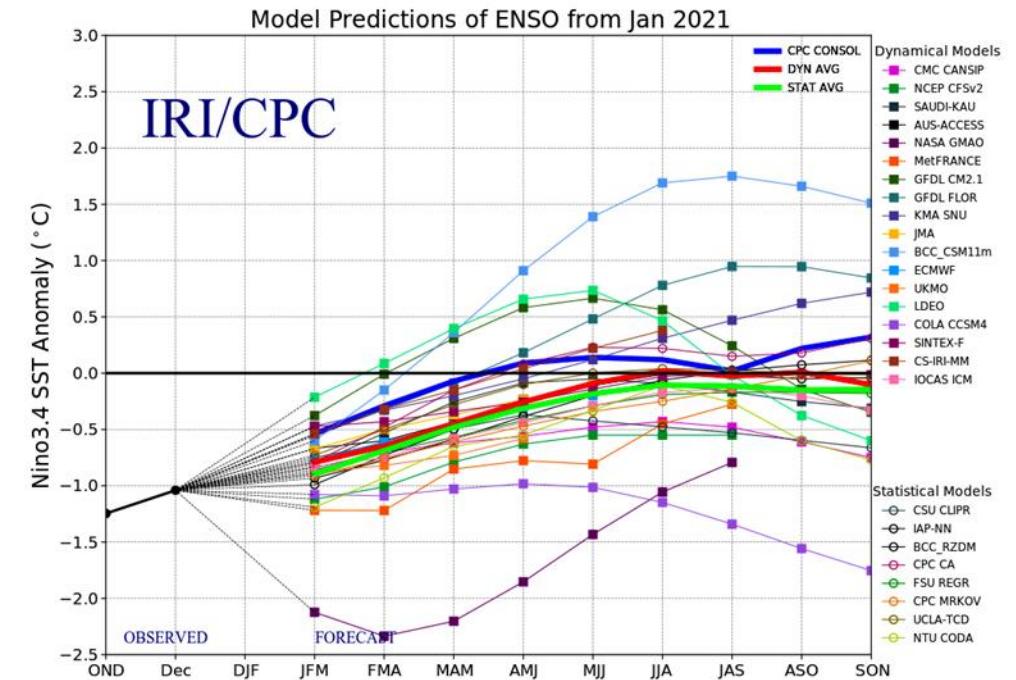
La Niña is expected to continue through the Northern Hemisphere winter 2020-21 (~95% chance during January-March), with a potential transition to ENSO-neutral during the spring 2021 (55% chance during April-June).*

CPC/IRI Probabilistic Forecast

Early-January 2021 CPC/IRI Official Probabilistic ENSO Forecasts

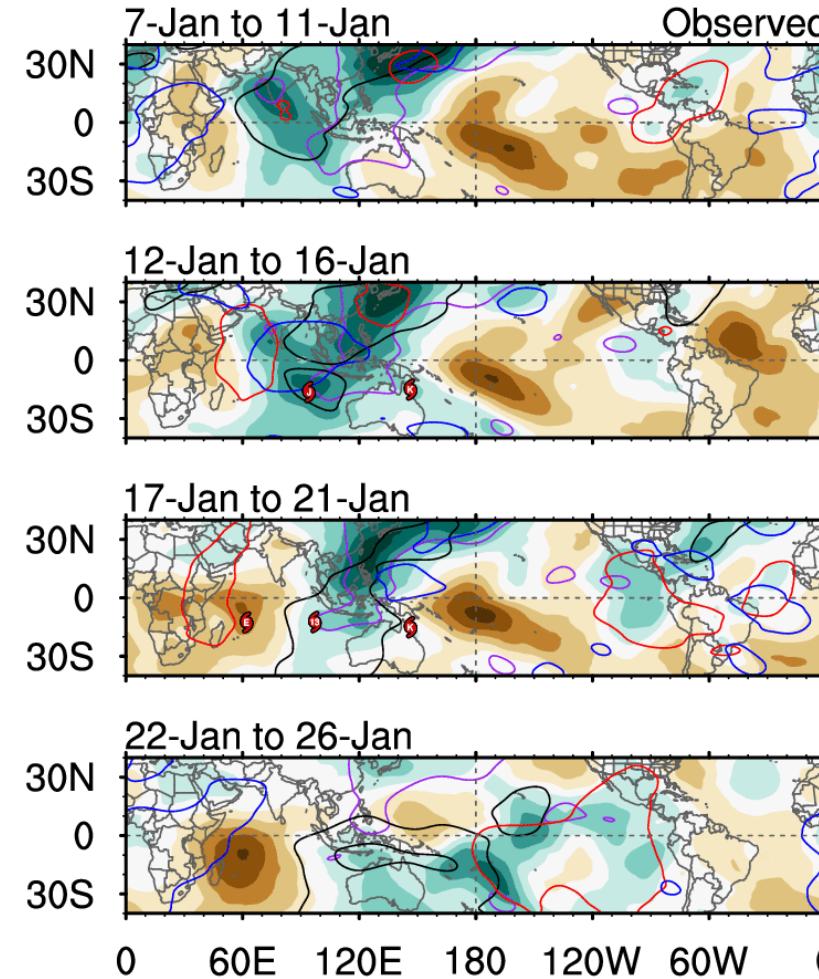
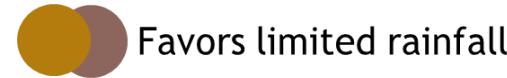
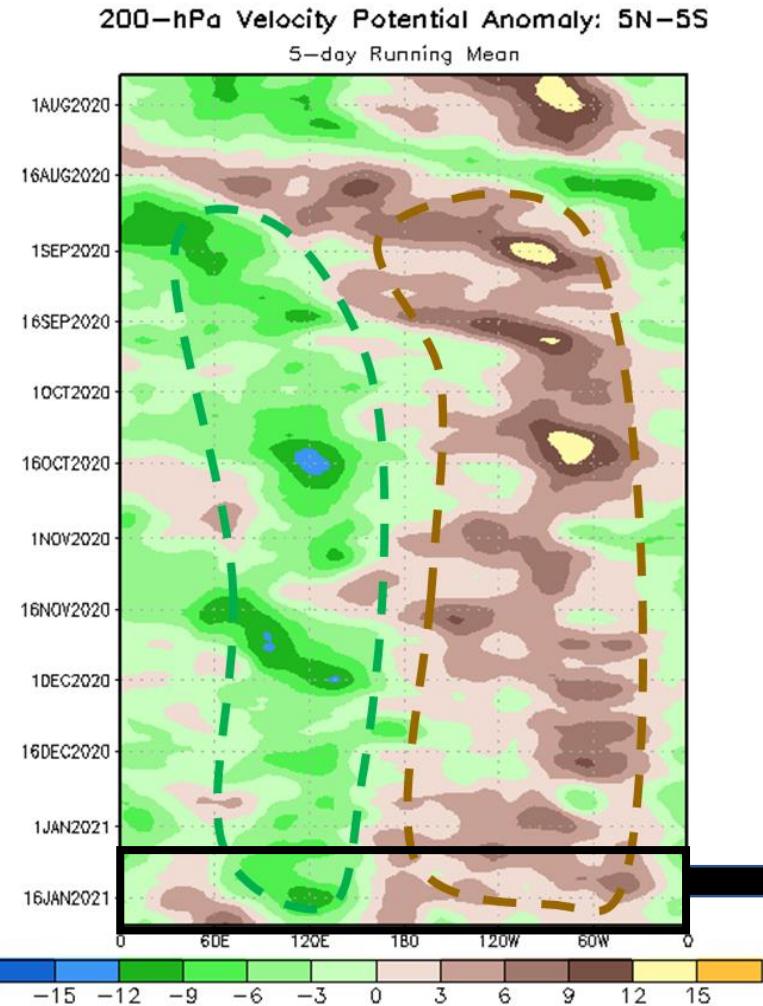


IRI/CPC Dynamic Models



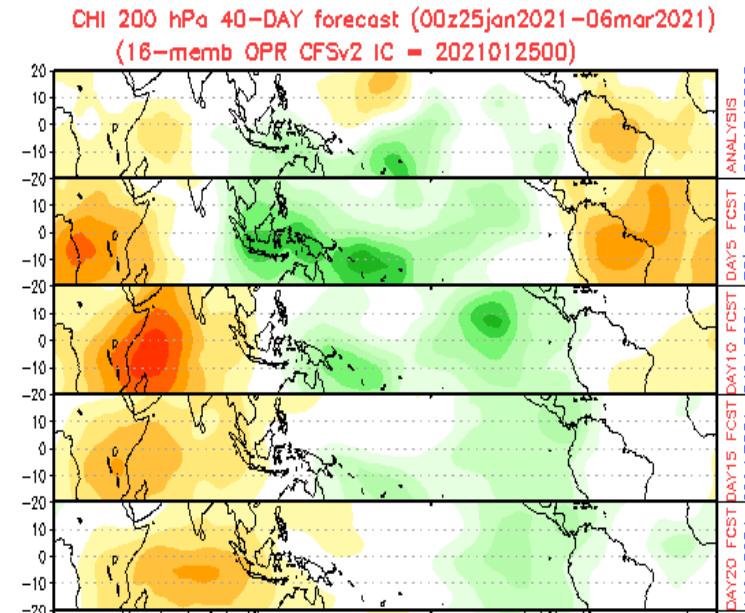
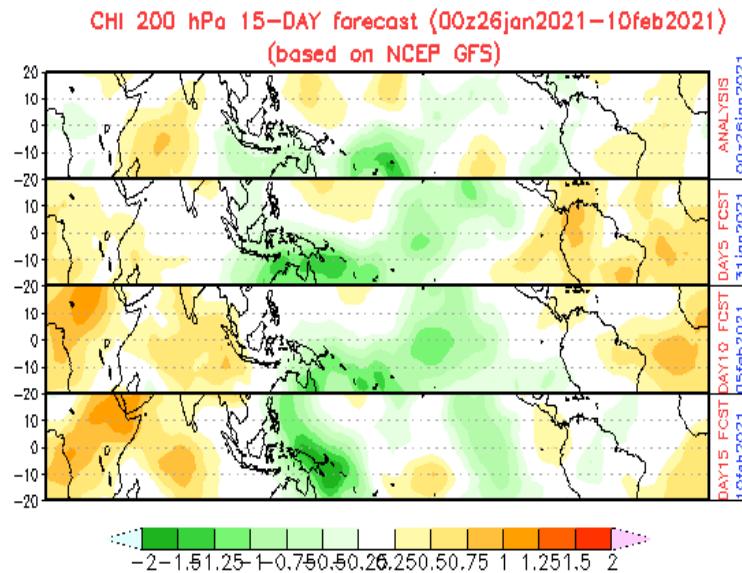
Source: CPC

Madden-Julian Oscillation (MJO)

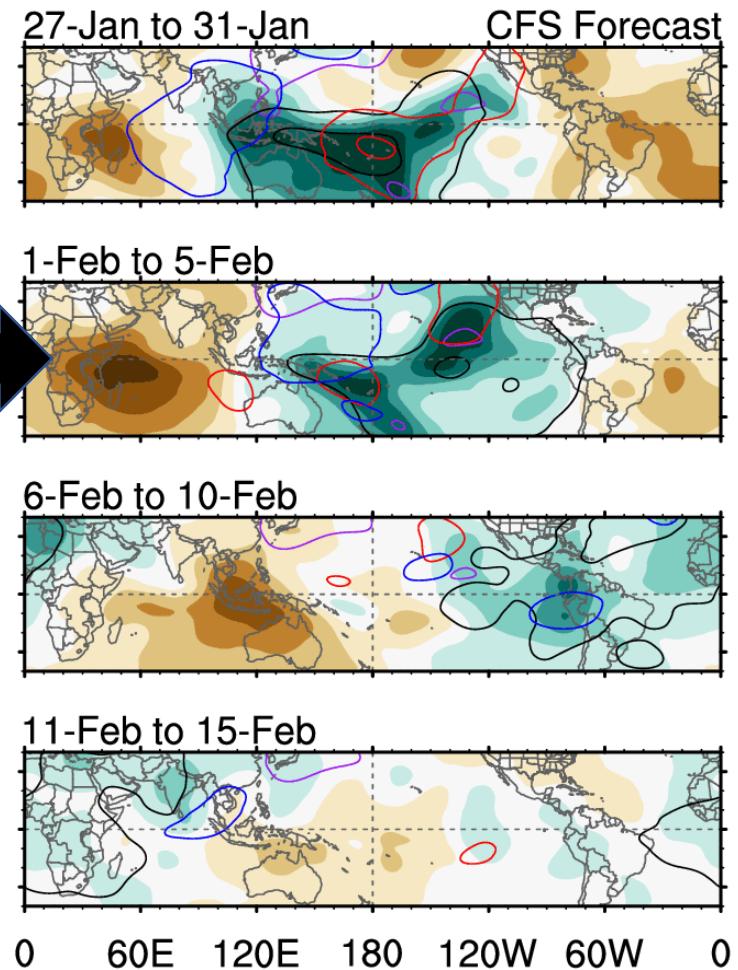


MJO Forecasts

GFS



CFS



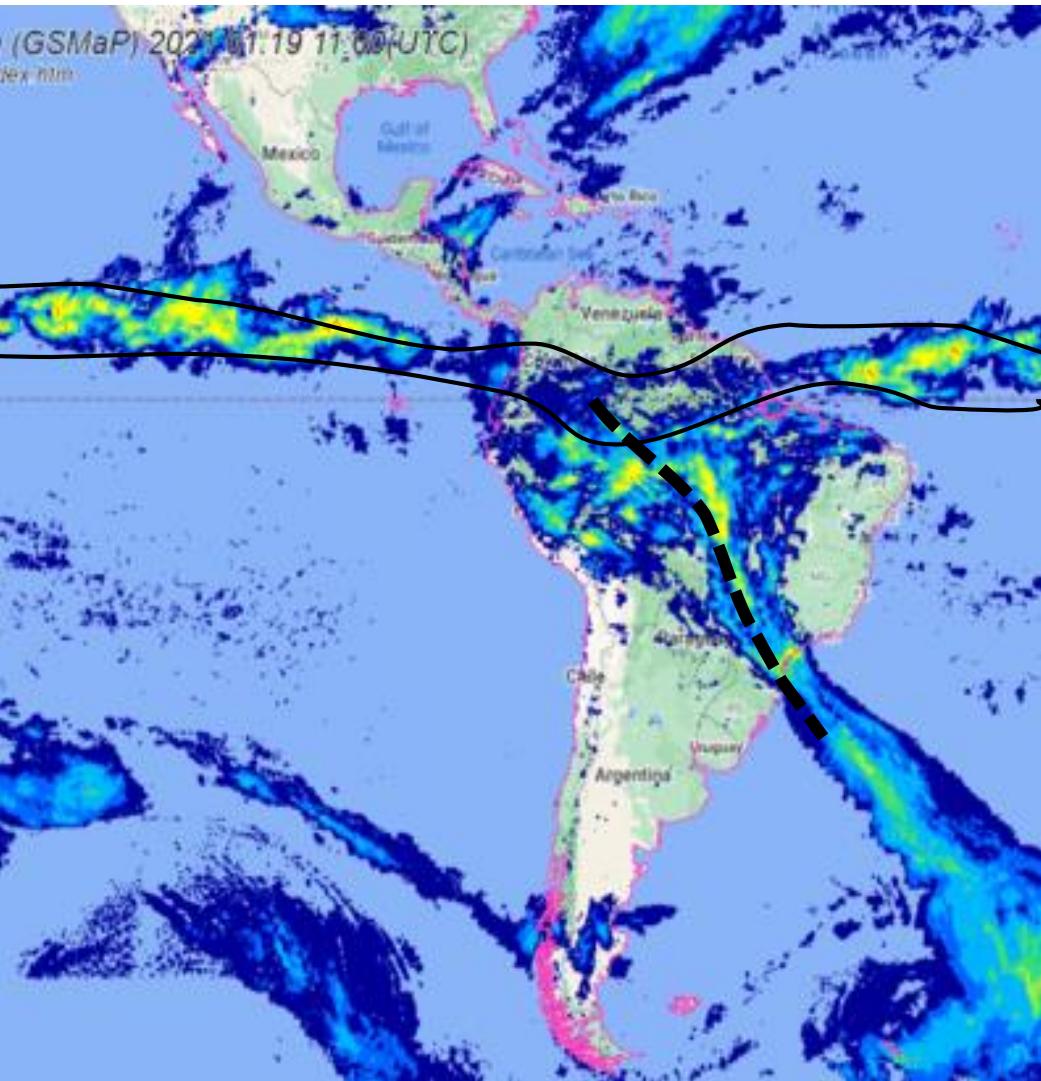
ncics.org/mjo

7-day CHI200 with CFS forecasts
Wed 2020-09-16 1018 UTC

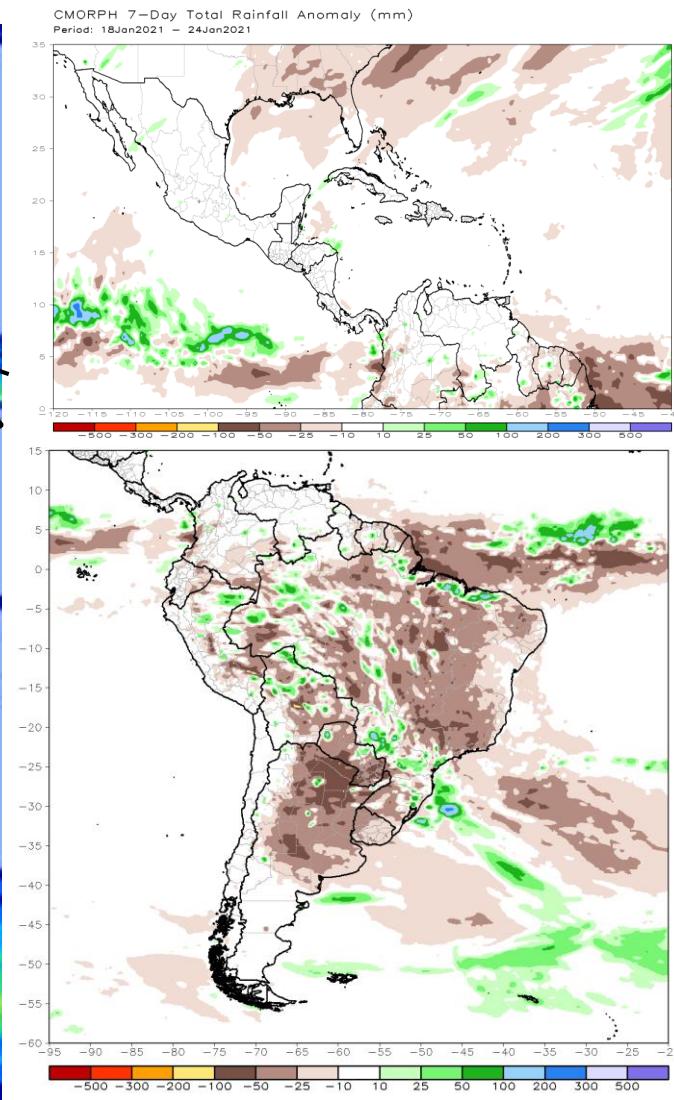
MJO Kelvin x2
Low ER
Contours at $-2, -6 \times 10^6 \text{ m}^2 \text{ s}^{-1}$
Carl Schreck
carl_schreck@ncsu.edu

Rainfall patterns last week

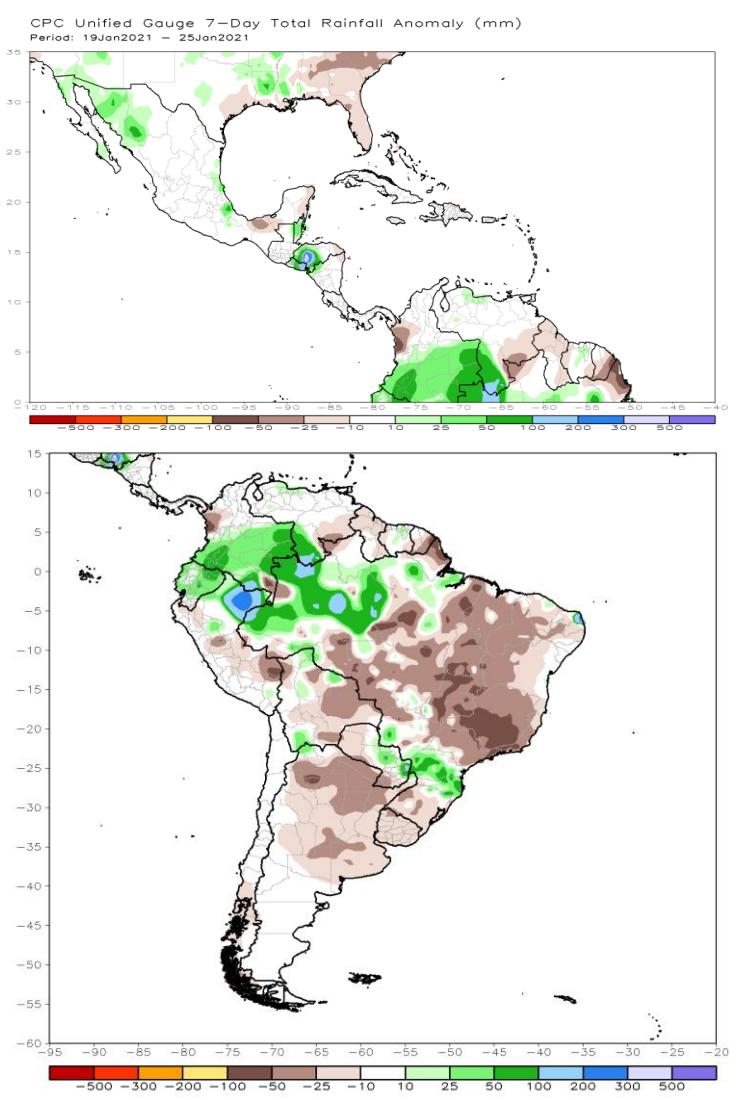
JAXA GsMaP Estimated Rainfall from Satellites



CMORPH Anomalies



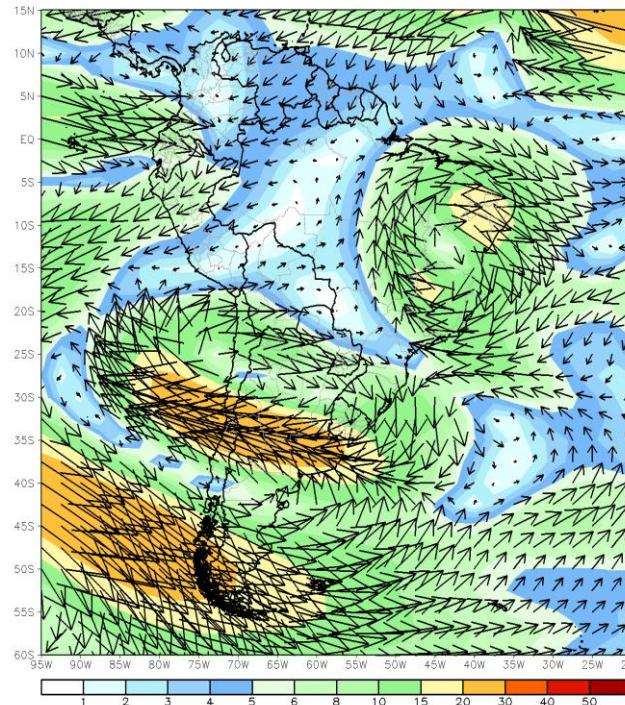
Gauge Anomalies



Last week's anomalies for South America

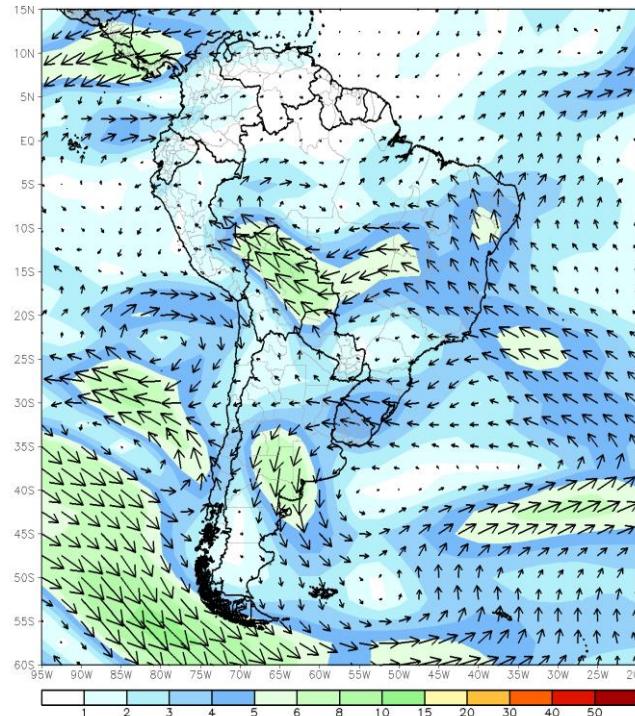
200 hPa Flow

CDAS 200mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 18Jan2021 - 24Jan2021



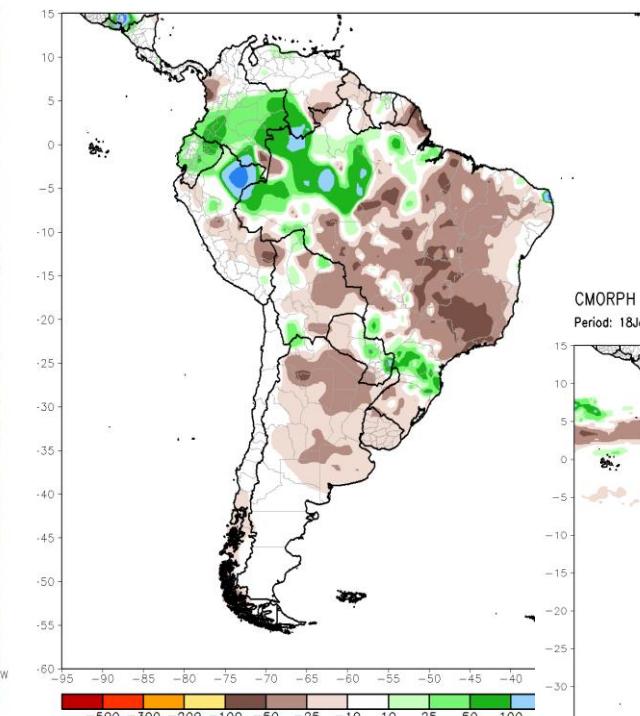
850 hPa Flow

CDAS 850mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 18Jan2021 - 24Jan2021

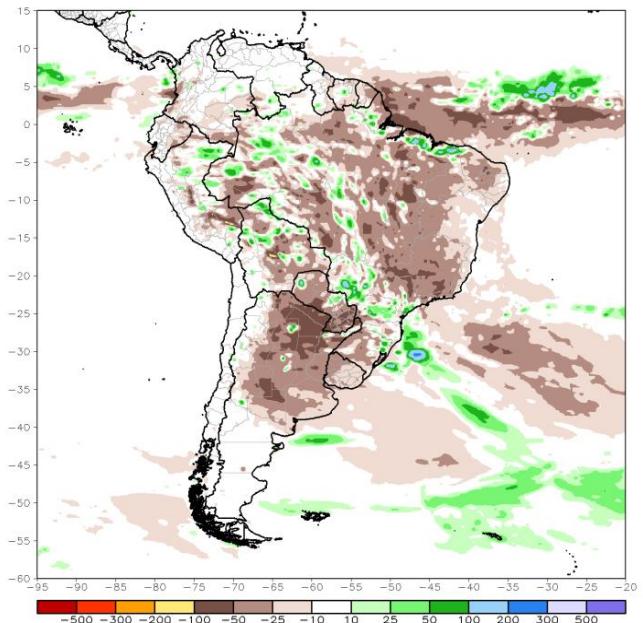


Rainfall

CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)
Period: 19Jan2021 - 25Jan2021



CMORPH 7-Day Total Rainfall Anomaly (mm)
Period: 18Jan2021 - 24Jan2021

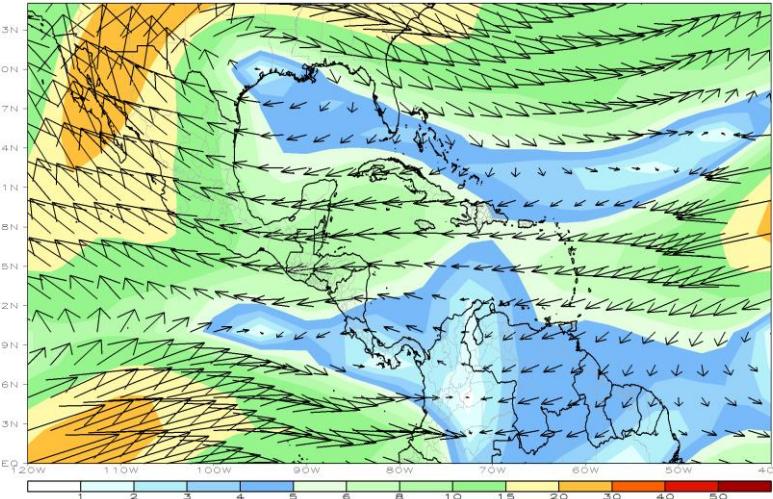


CMORPH: CPC Morphing Technique
https://www.cpc.ncep.noaa.gov/products/janowiak/cmorph_description.html

Last Week's anomalies for the Tropical Americas

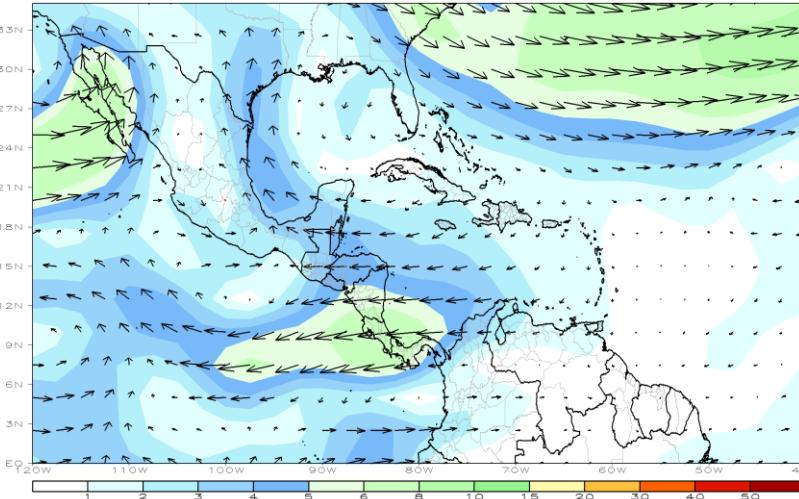
200 hPa Flow

CDAS 200mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 18Jan2021 – 24Jan2021



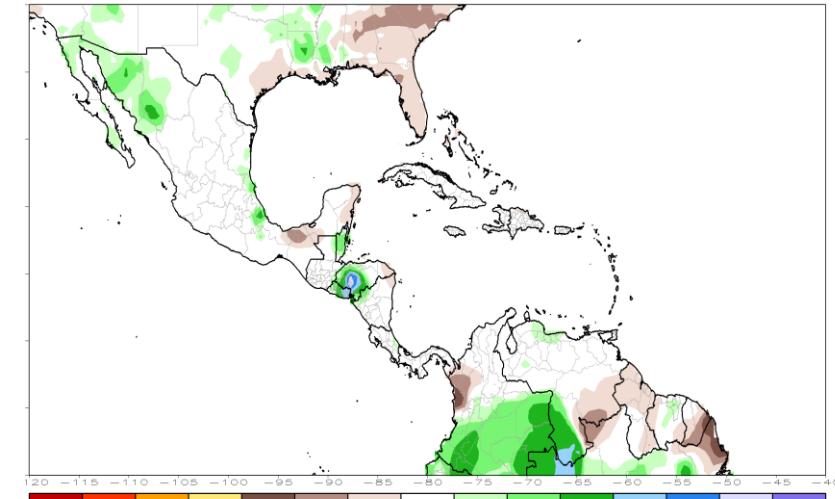
850 hPa Flow

CDAS 850mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 18Jan2021 – 24Jan2021



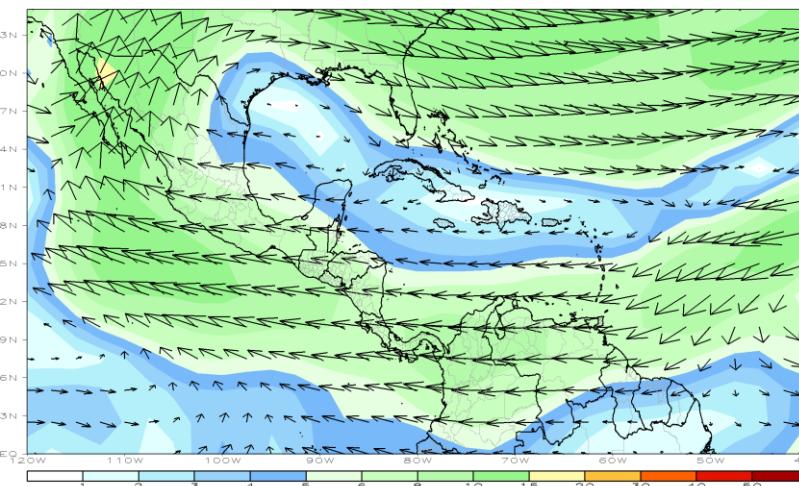
Rainfall

CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)
Period: 19Jan2021 – 25Jan2021

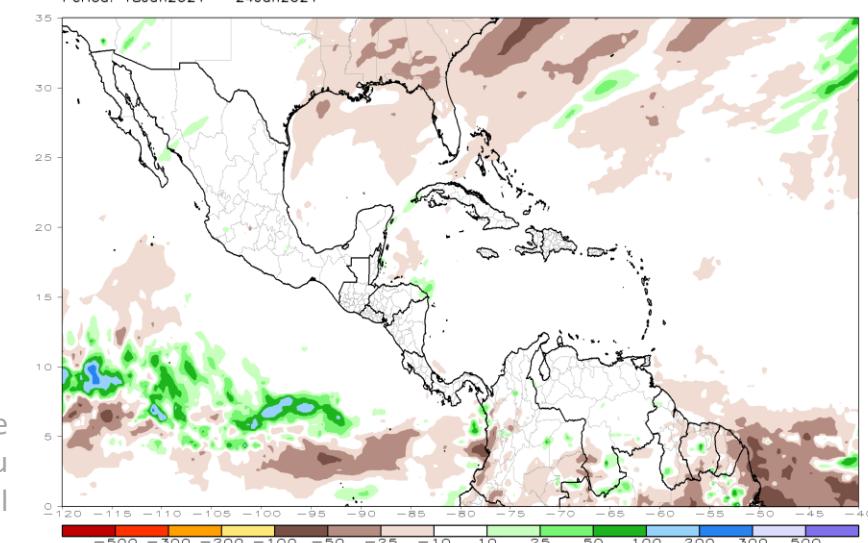


500 hPa Flow

CDAS 500mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 18Jan2021 – 24Jan2021

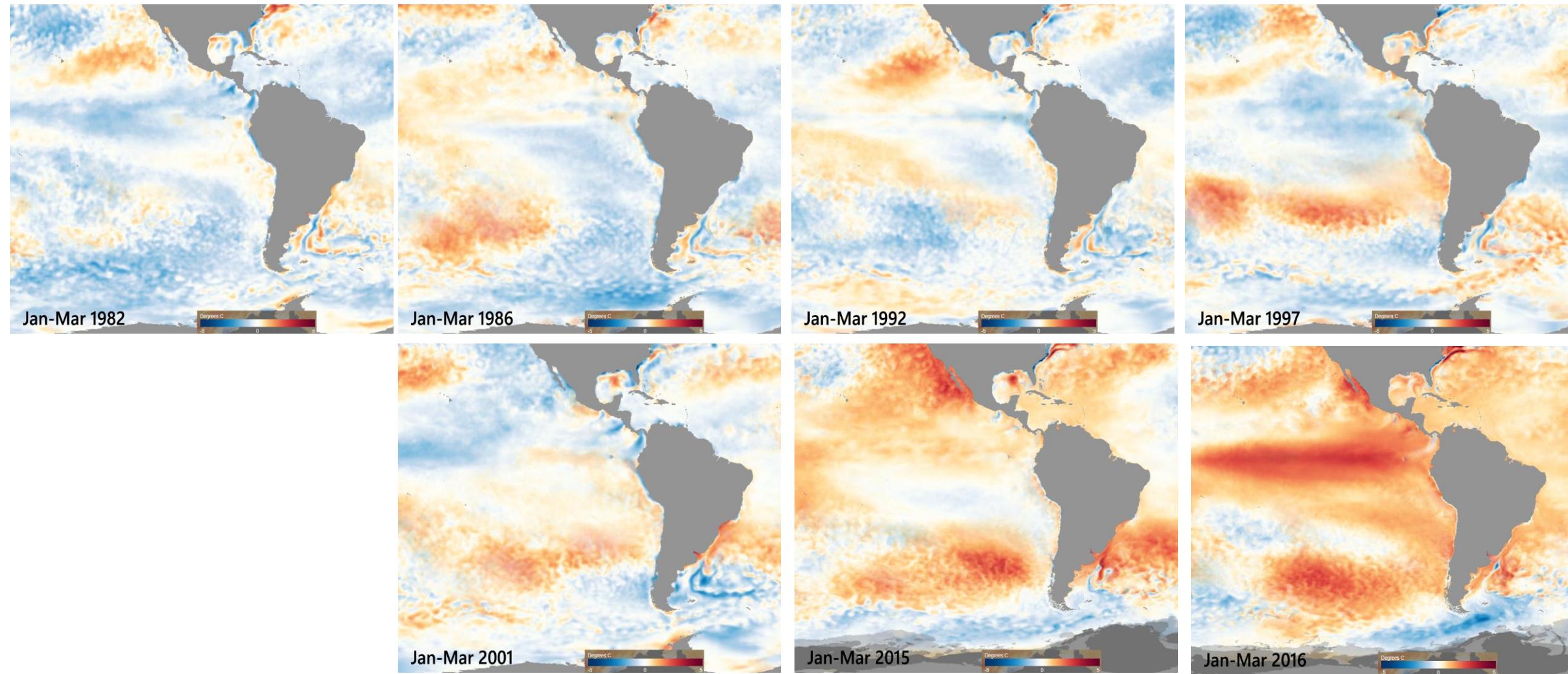


CMORPH: CPC Morphing Technique
https://www.cpc.ncep.noaa.gov/products/janowiak/cmorph_description.html

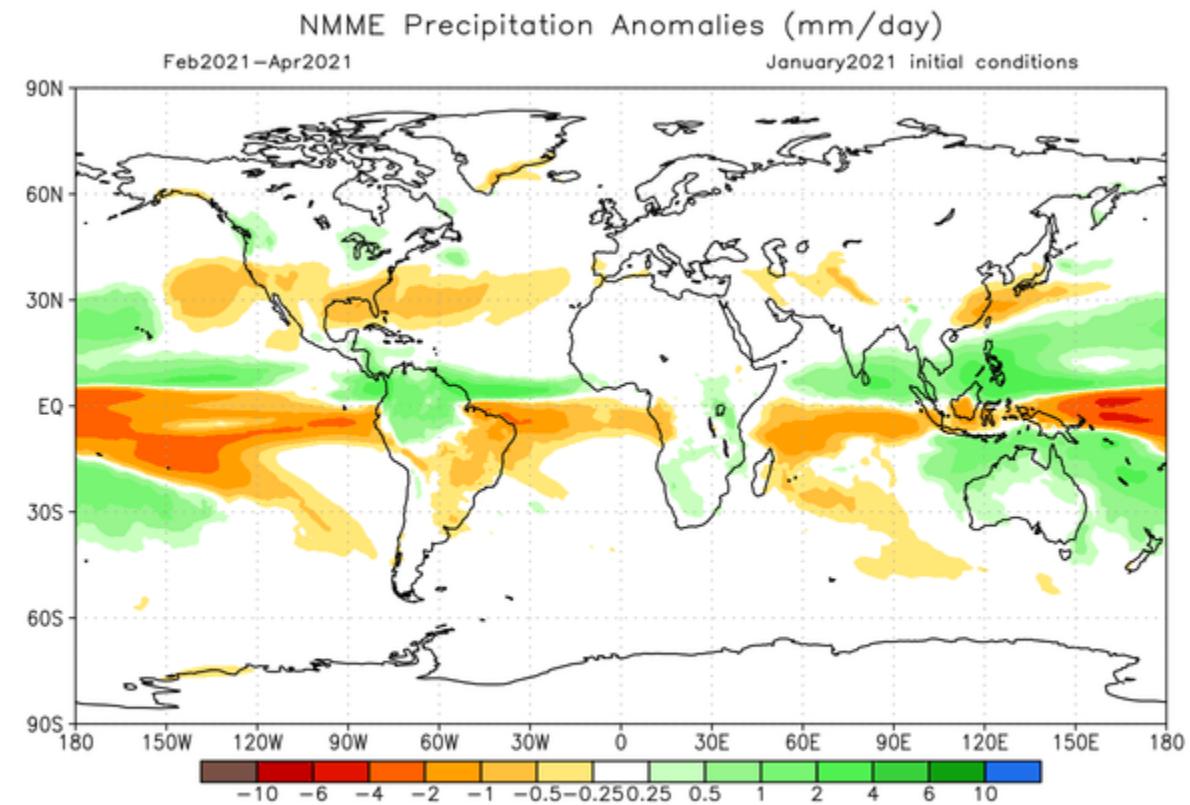
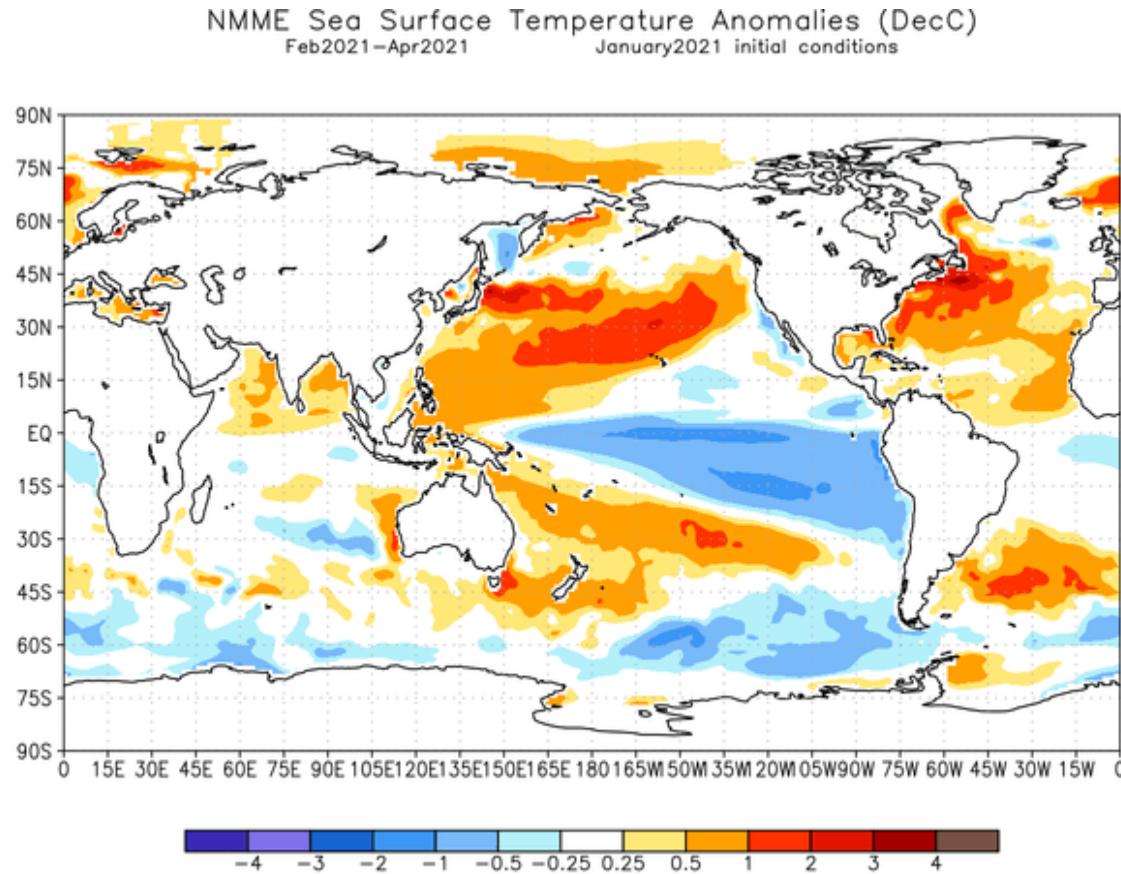


Seasonal Outlook

Jan-Mar SST Anomalies before an ENSO



NMME Seasonal Forecasts



¡Gracias!

Thank you!