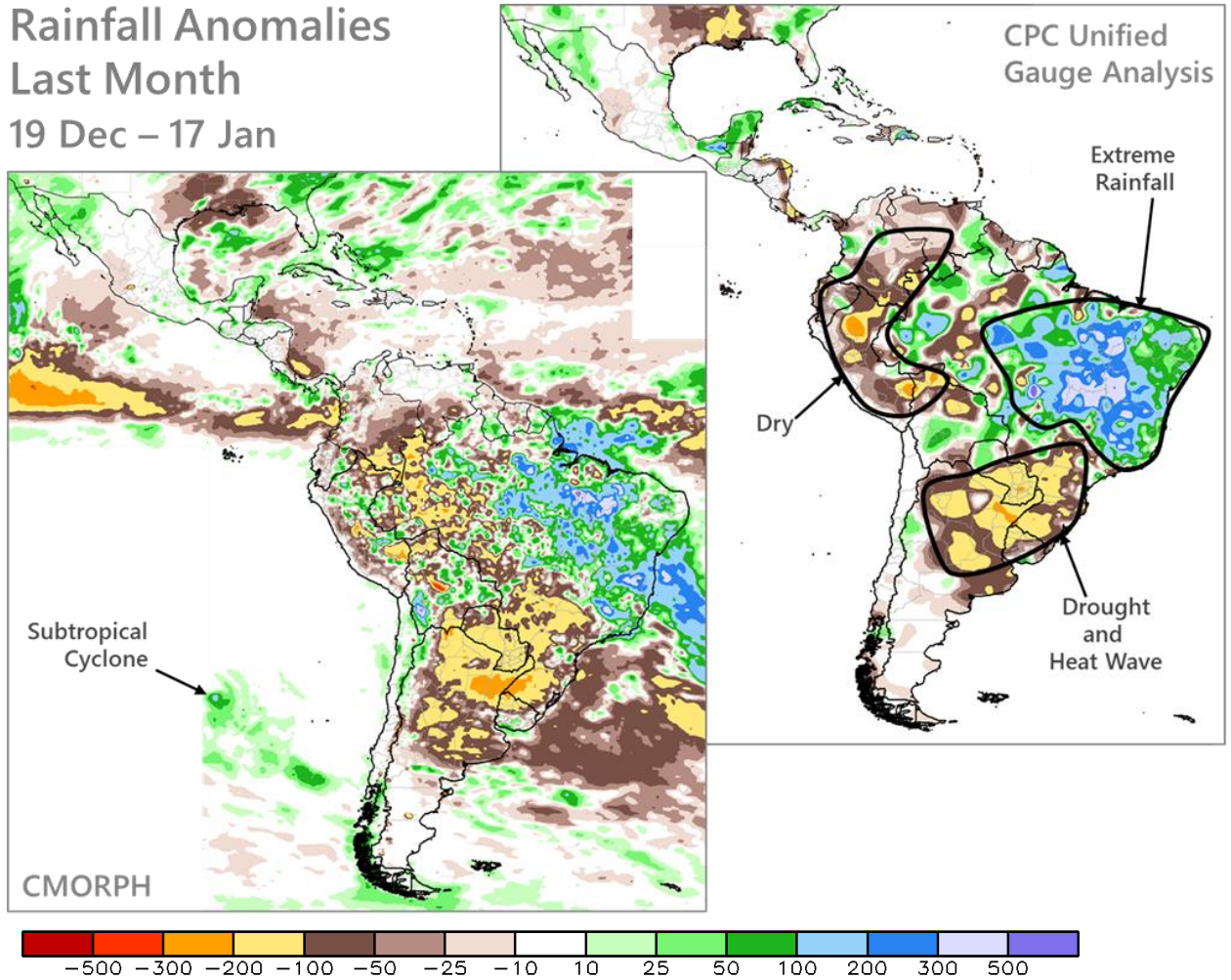
Monthly Regional Focus Group Session

Wednesday 17 January 2022

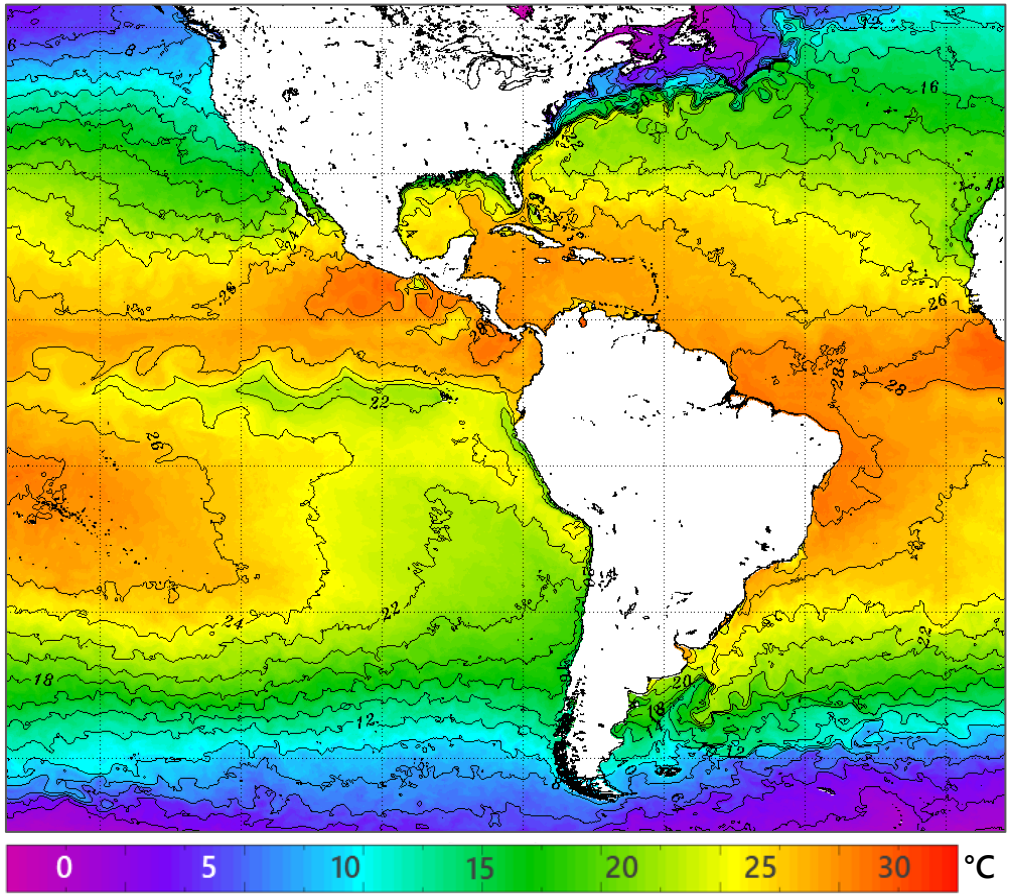
Too many topics to address during this session:

Dec 30	Fires in Colorado
Dec 23 -Jan 11	Extreme Rainfall in Brasil, persistent SACZ events
Jan 10-17	Heat wave amid drought in the Parana/La Plata Basin
Jan 11-12	Subtropical Cyclone off the coast of Chile
Jan 15	Tonga Volcano Explosion



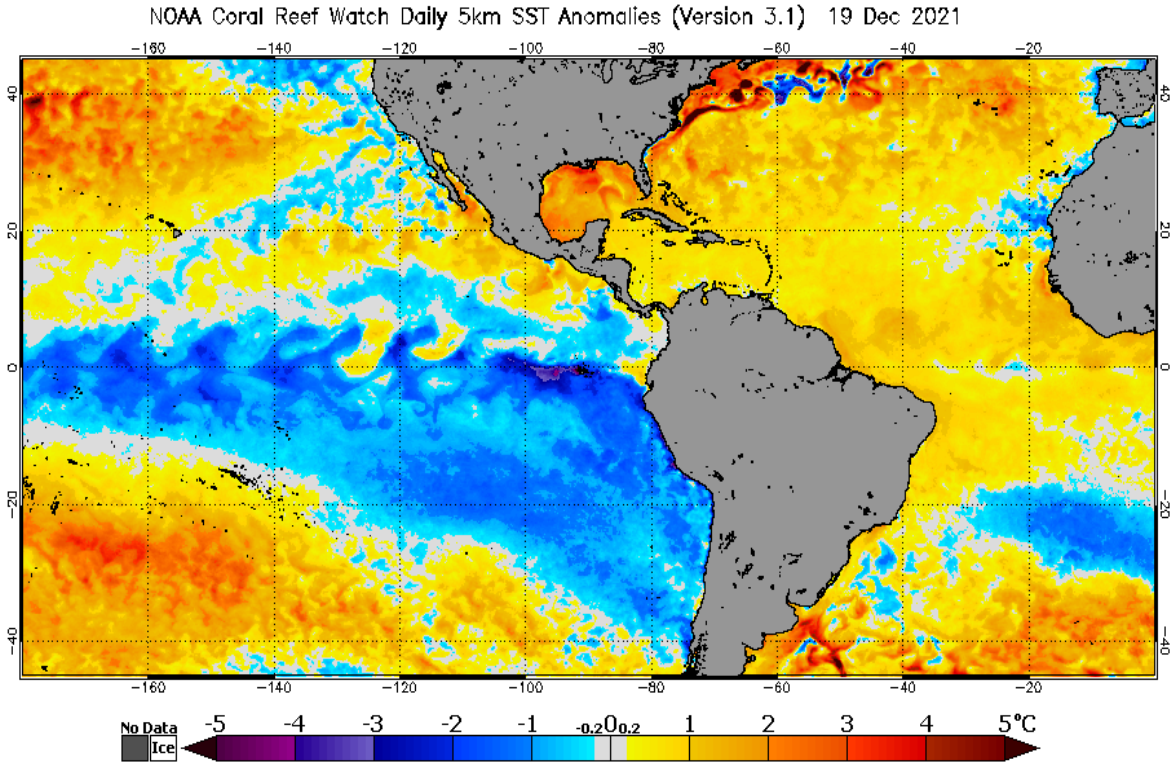
Sea Surface Temperatures

Daily SST Jan 17



NOAA OSPO
https://www.ospo.noaa.gov/data/sst/contour/global_small.c.gif

Anomaly Evolution

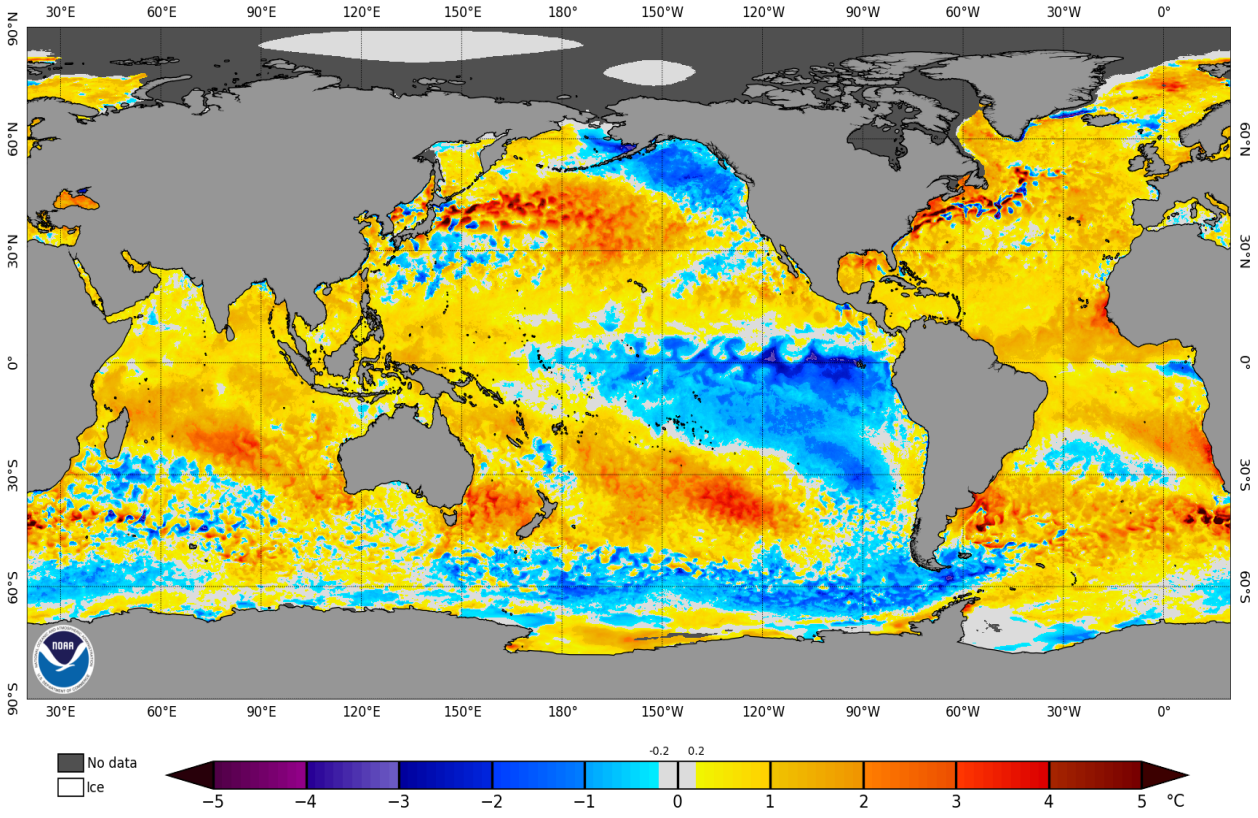


NOAA Coral Reef Watch
https://coralreefwatch.noaa.gov/

Are the anomalies deep?

Deep anomalies last longer, becoming useful for subseasonal forecasting.

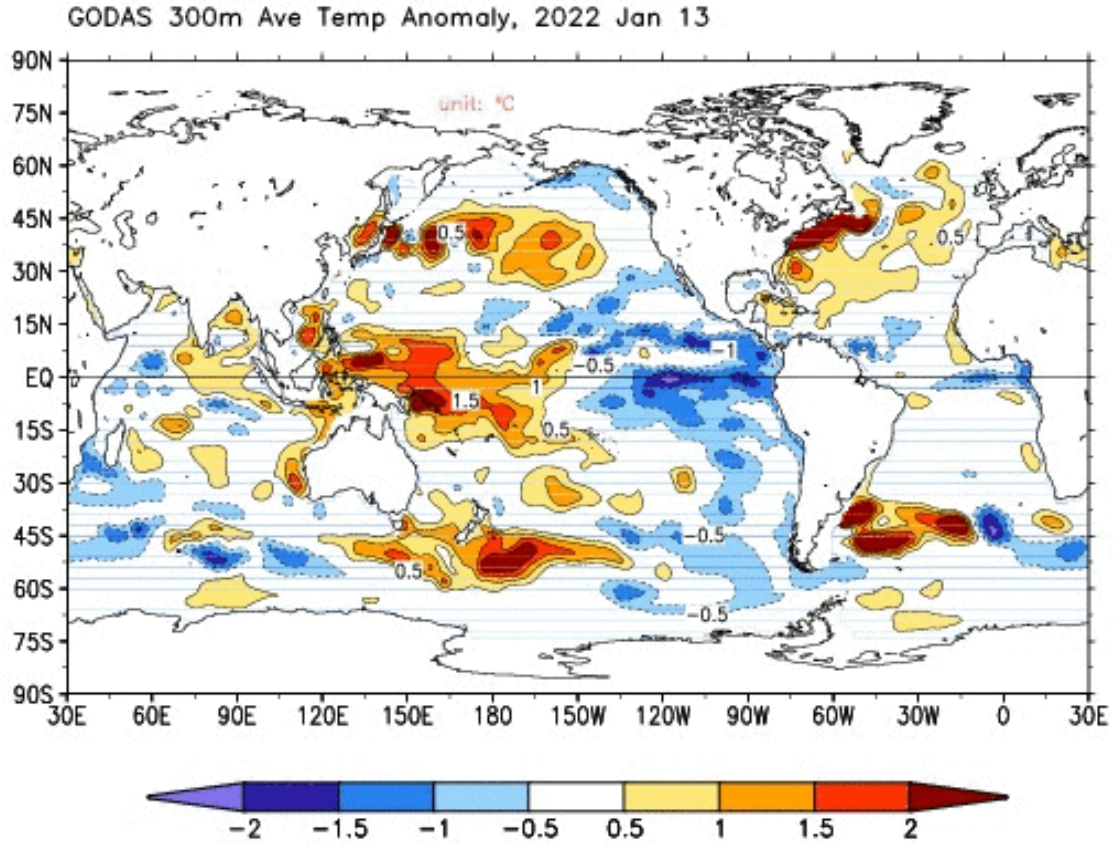
Jan 17 SST Anomalies



NOAA Coral Reef Watch

Source: https://coralreefwatch.noaa.gov/product/5km/index_5km_ssta.php

Top 300m Layer Anomaly

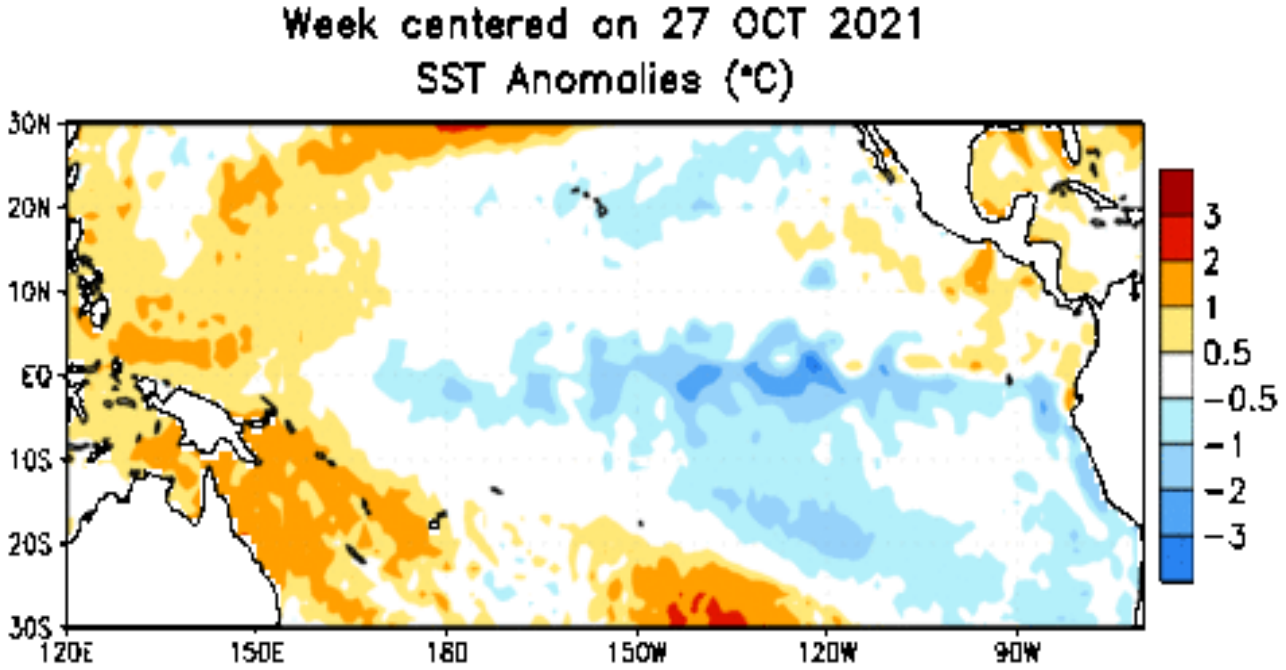


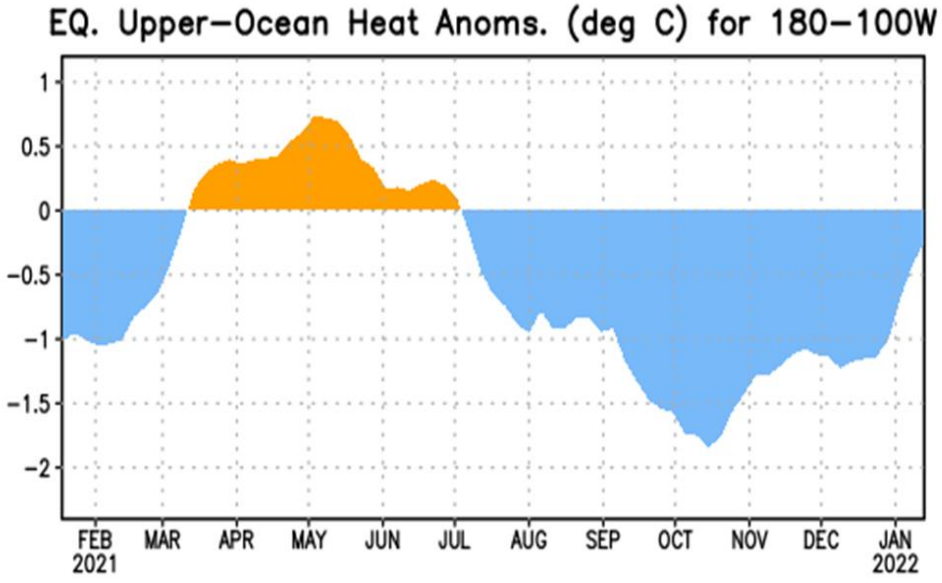
NOAA CPC

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

ENSO: La Niña

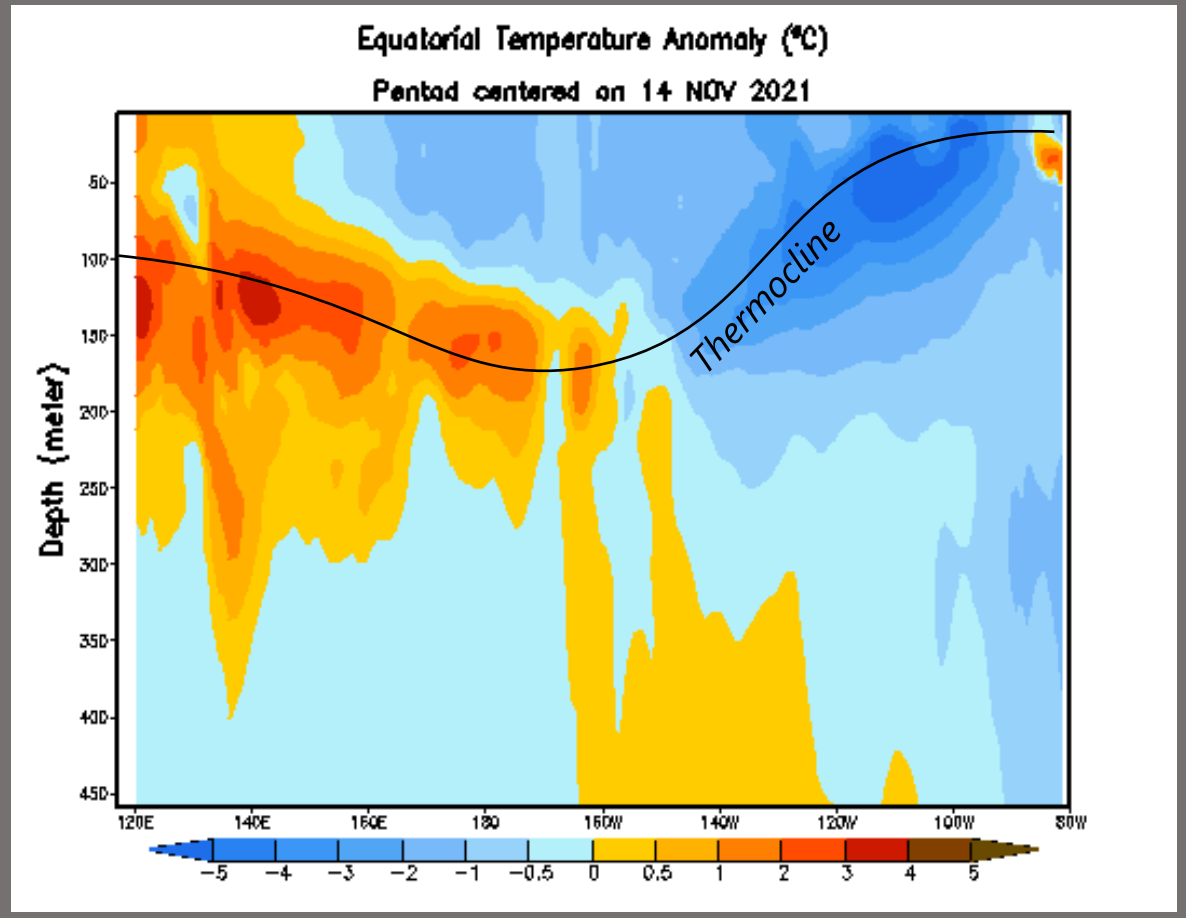
- La Niña is present.
- Equatorial sea surface temperatures (SSTs) are below average across the east-central and eastern Pacific Ocean.
- The tropical Pacific atmosphere is consistent with La Niña.





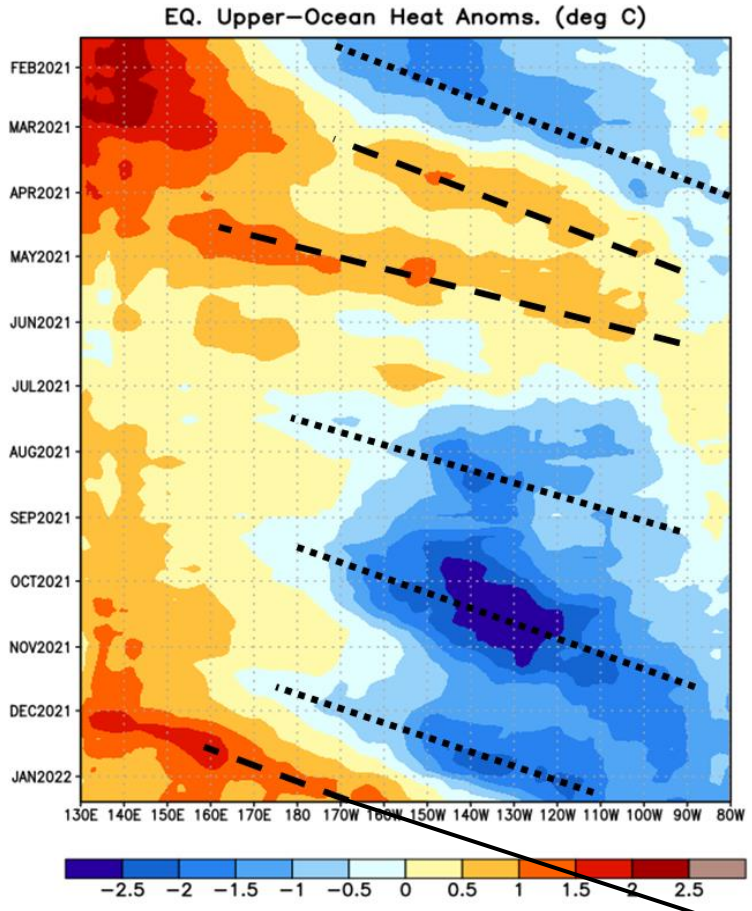
ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomalies



Source: CPC

Heat Content Hovmöller

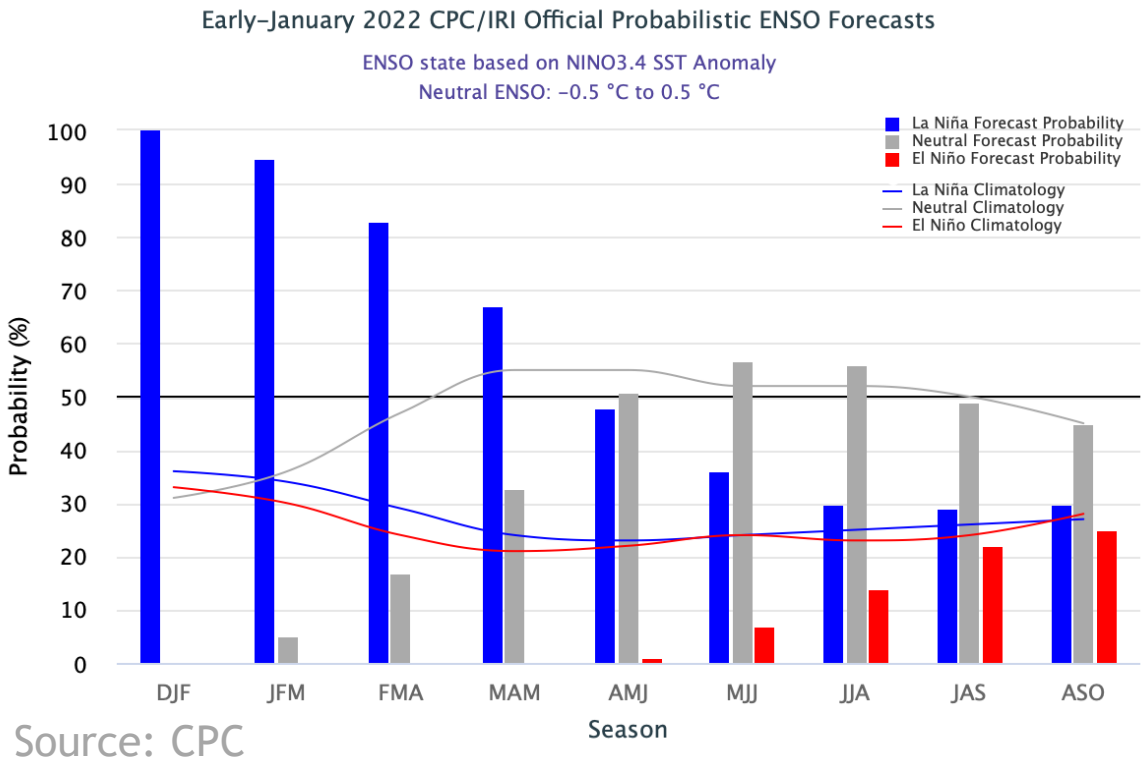


Warming in South America in Mid March?

ENSO Outlook

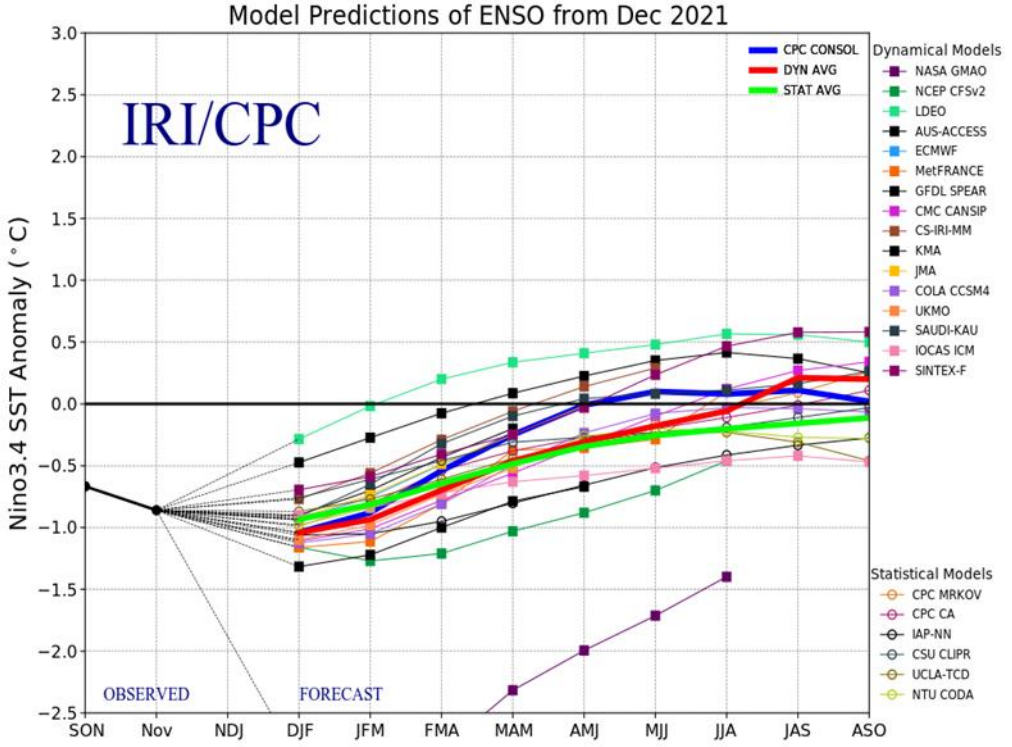
La Niña is likely to continue into the Northern Hemisphere spring (67% chance during March-May 2022) and then transition to ENSO-neutral (51% chance during April-June 2022).*

CPC/IRI Probabilistic Forecast



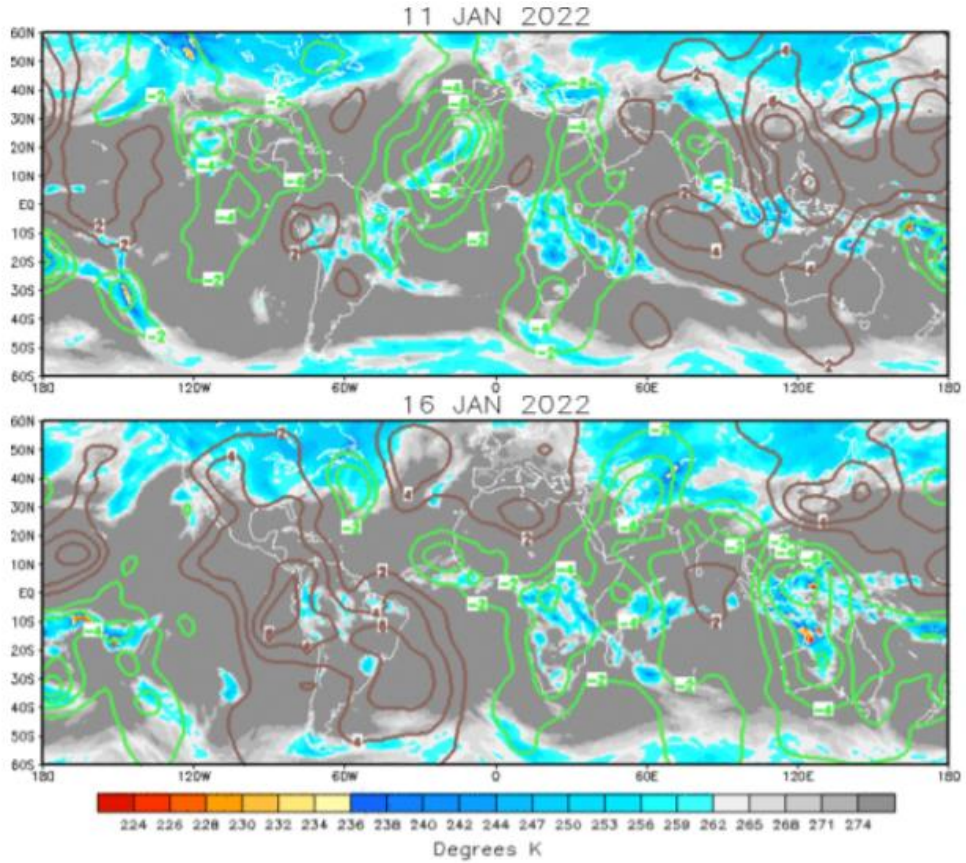
Source: CPC

IRI/CPC Dynamic Models

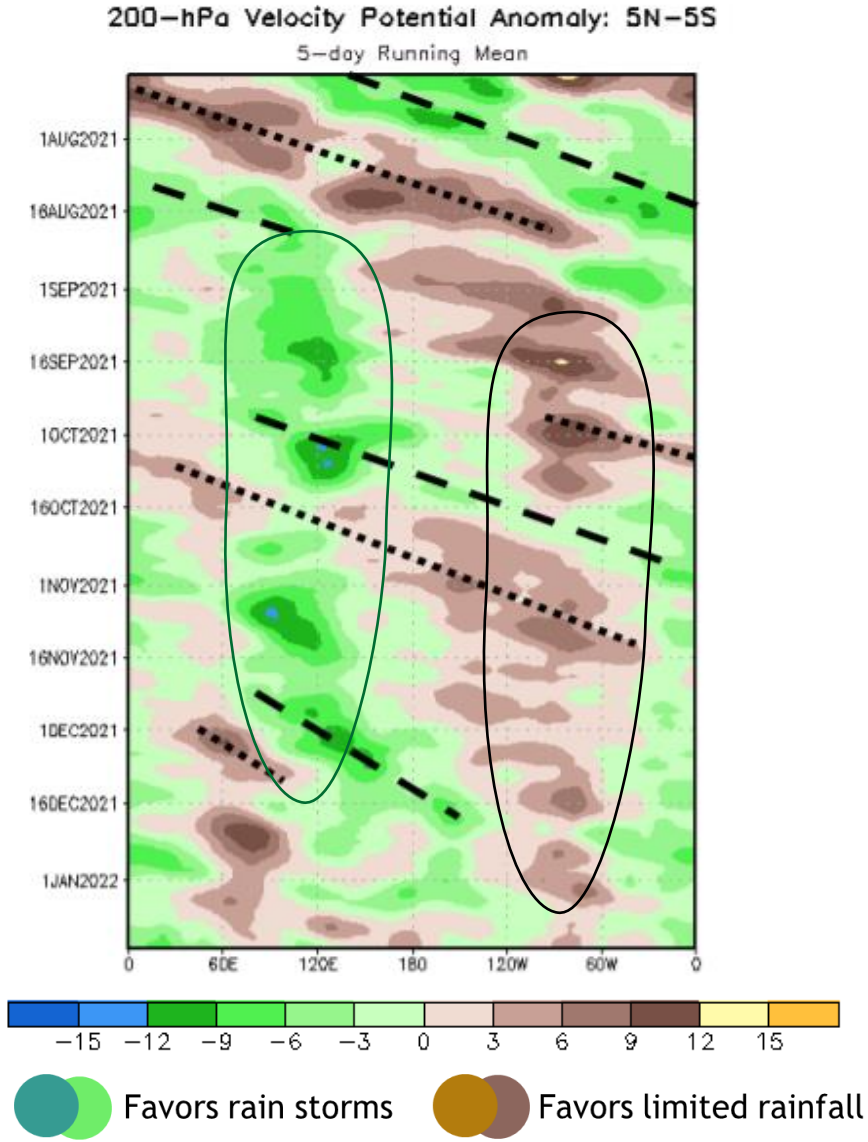


Madden-Julian Oscillation (MJO)

- Disorganized
- Ill-defined propagation
- Low frequency anomalies are dissipating

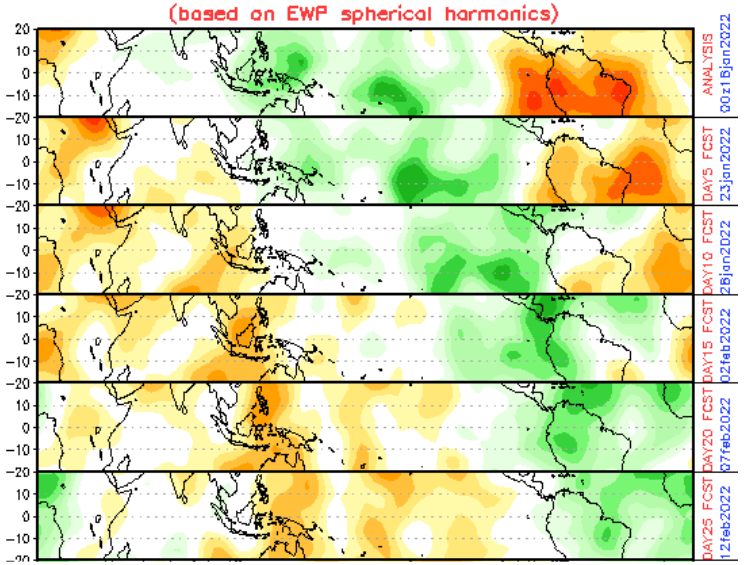


Source: CPC

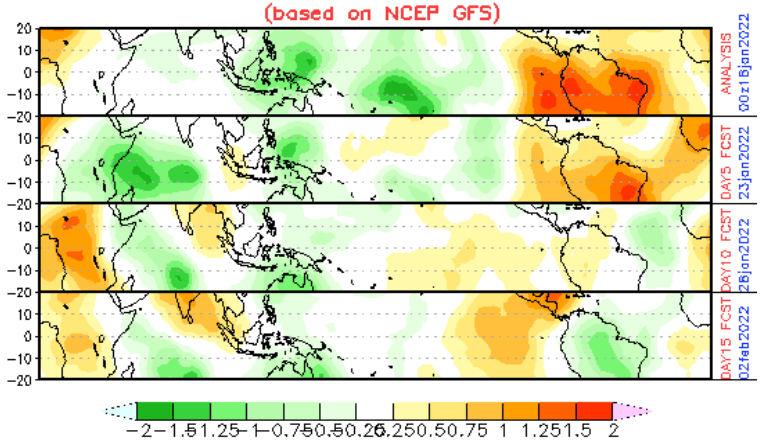


MJO Forecasts for the Americas

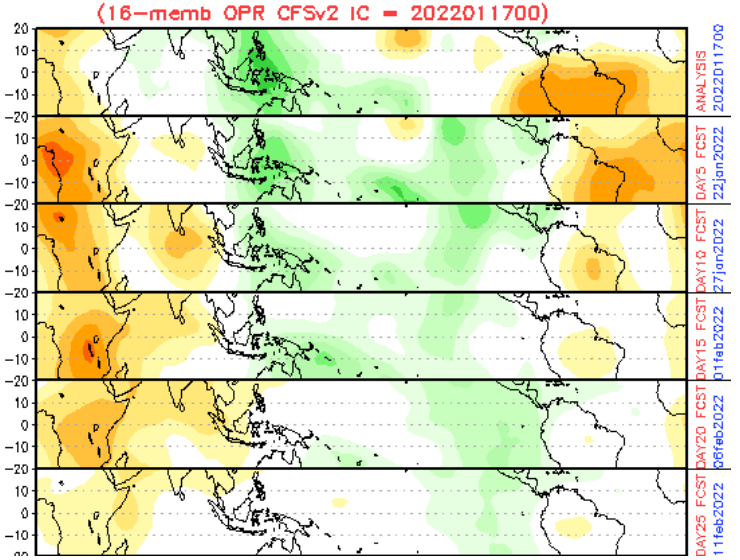
EWP



GFS



CFS

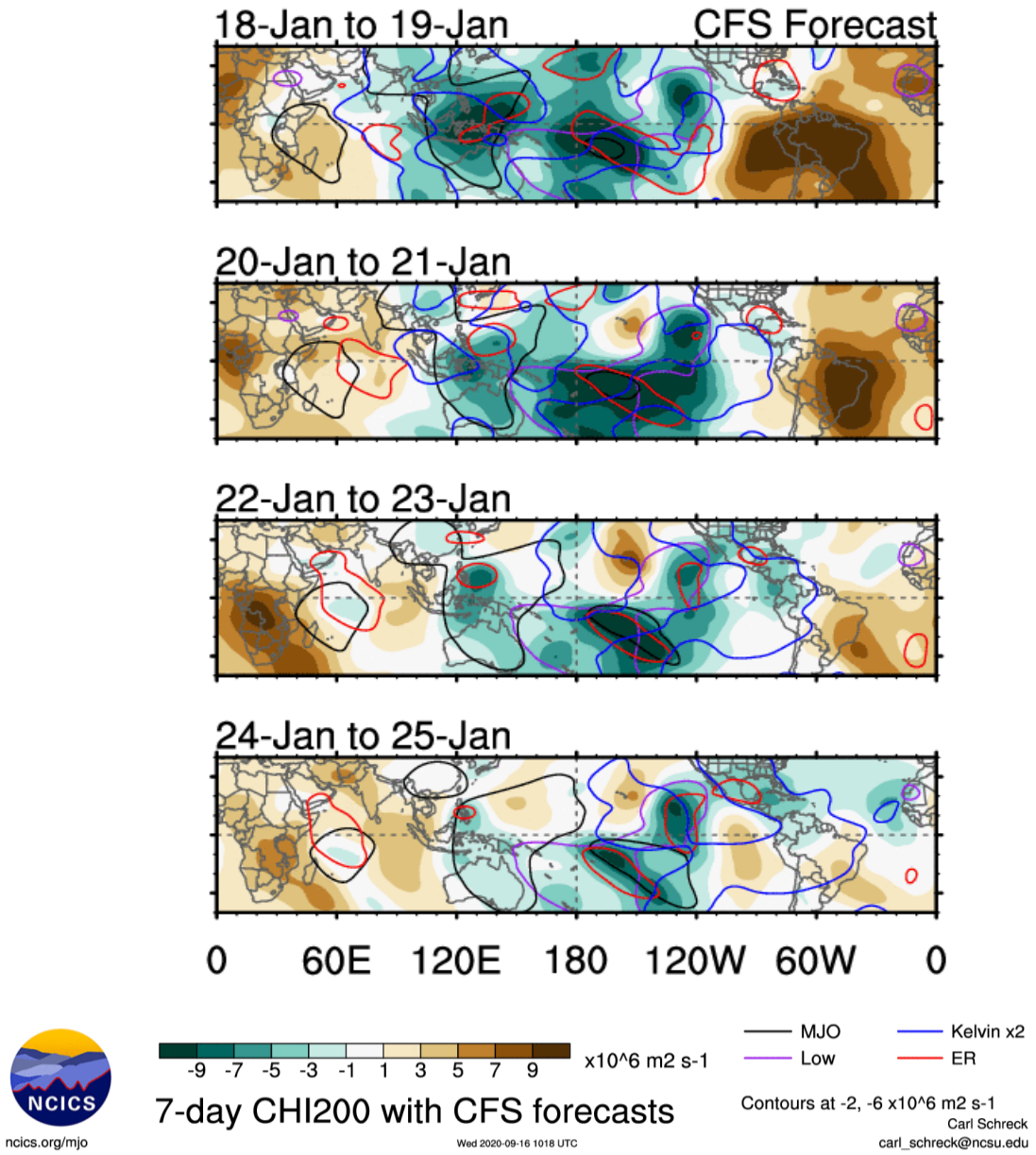


- Discrepancies in models (consistent with observations) = lower confidence forecast
- Upper convergent (dry) through the weekend
- Upper divergent (wetter) the first half of February

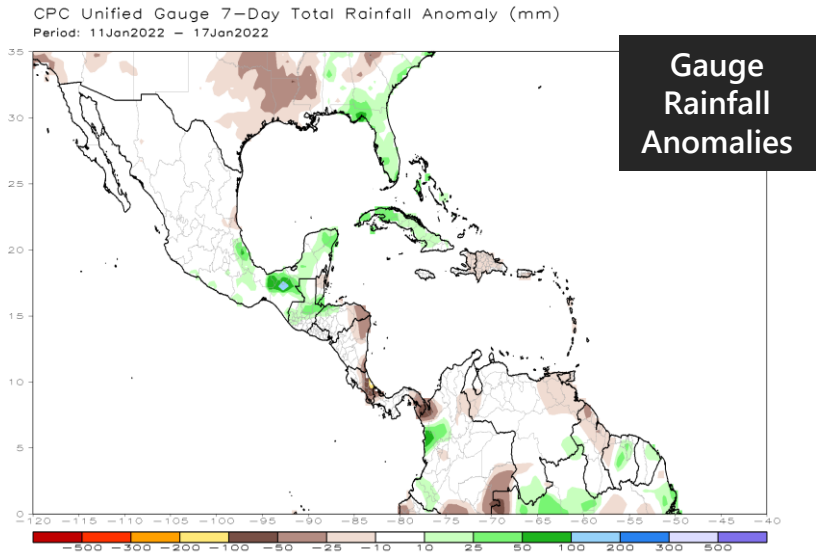
Tropospheric Equatorial Waves

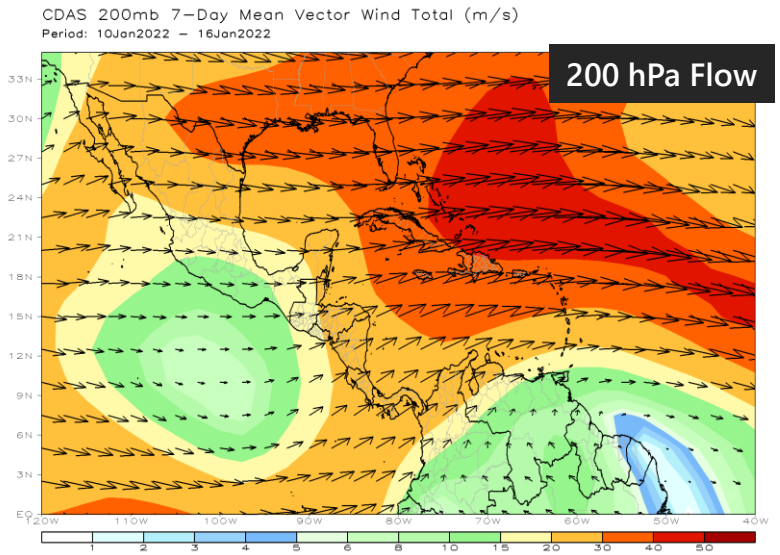
➢Kelvin (wet) on Jan 23-26

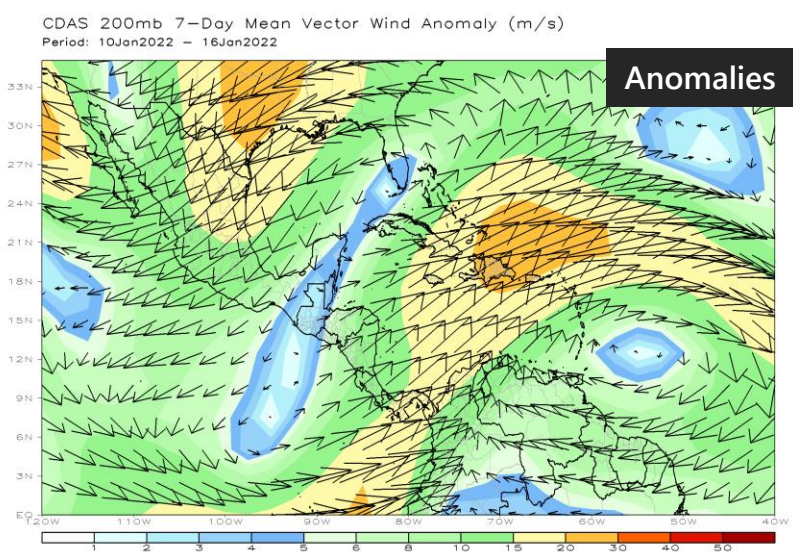
- Impacts mostly in the NW Caribbean
- To monitor:
  - Mid-latitude cyclones and fronts in the Gulf of Mexico
  - Rainfall in the Gulf of Mexico basin, Caribbean basin of northern Central America, W Cuba, NW Bahamas.

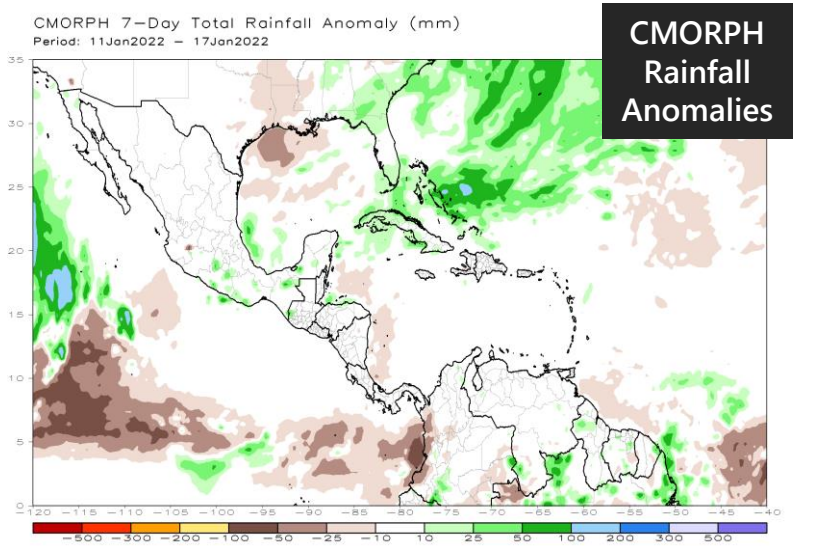


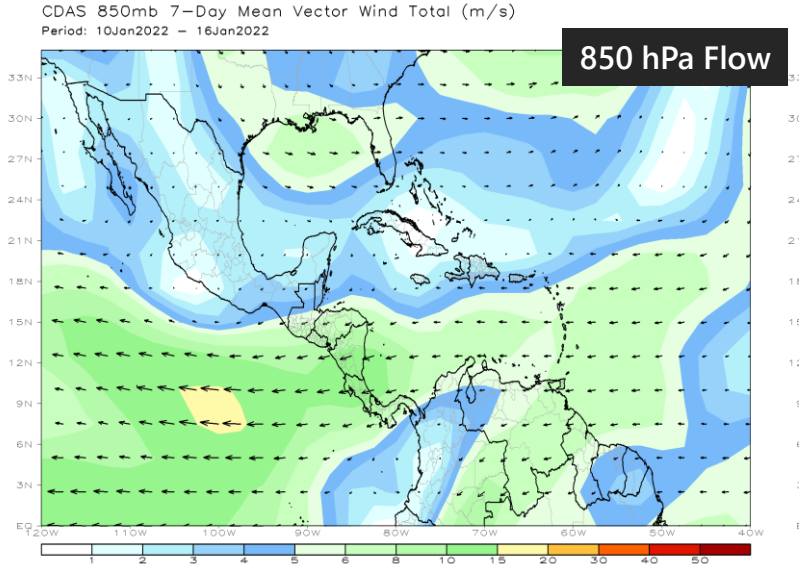
Flow and Rainfall Anomalies, Last 7 Days

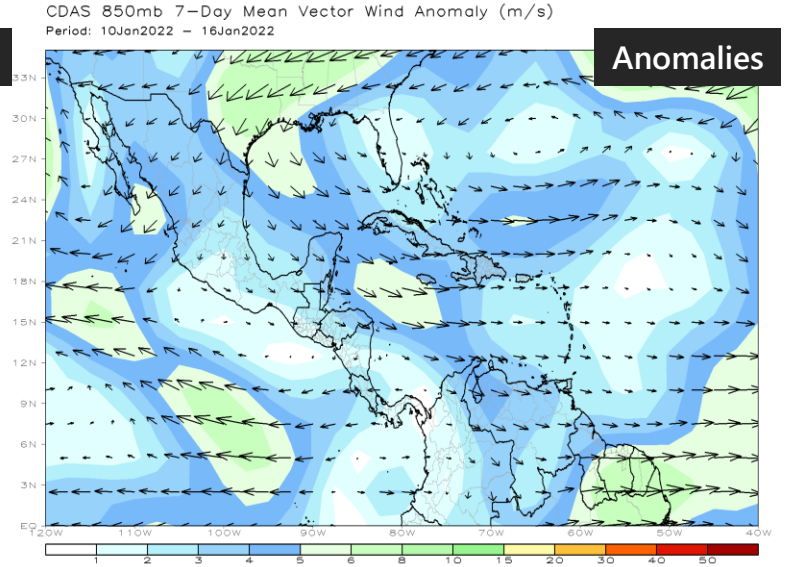




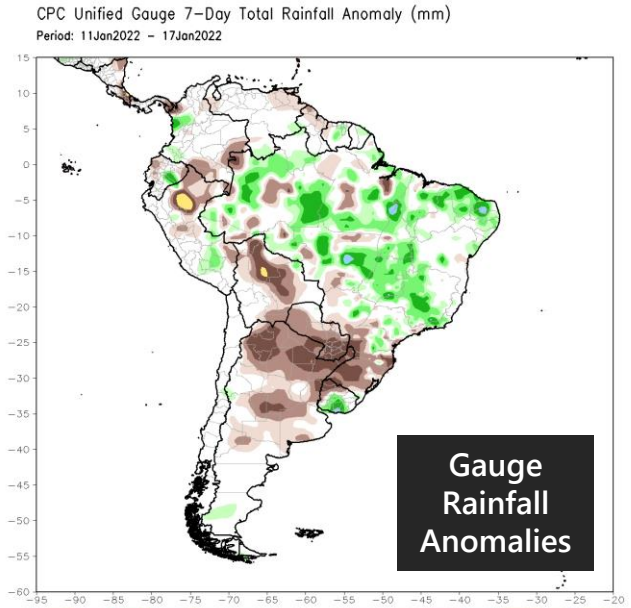


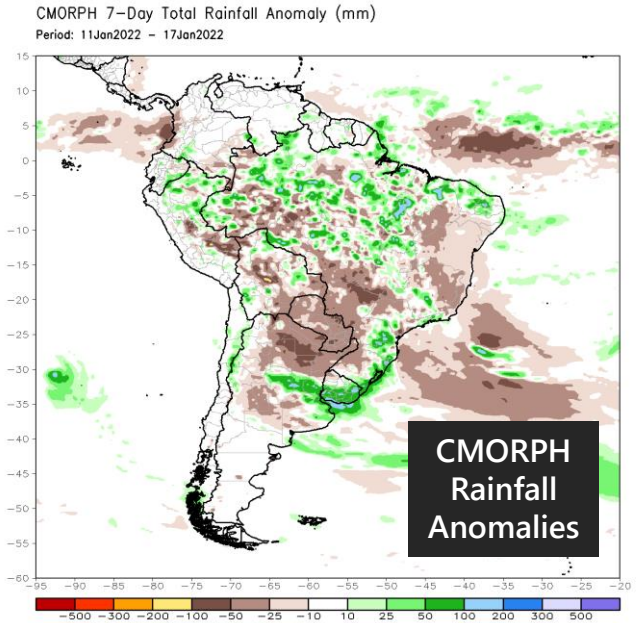




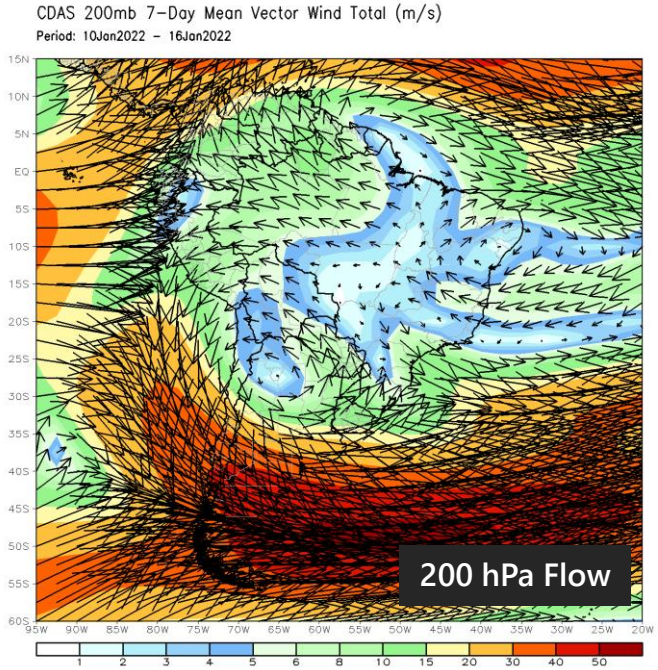


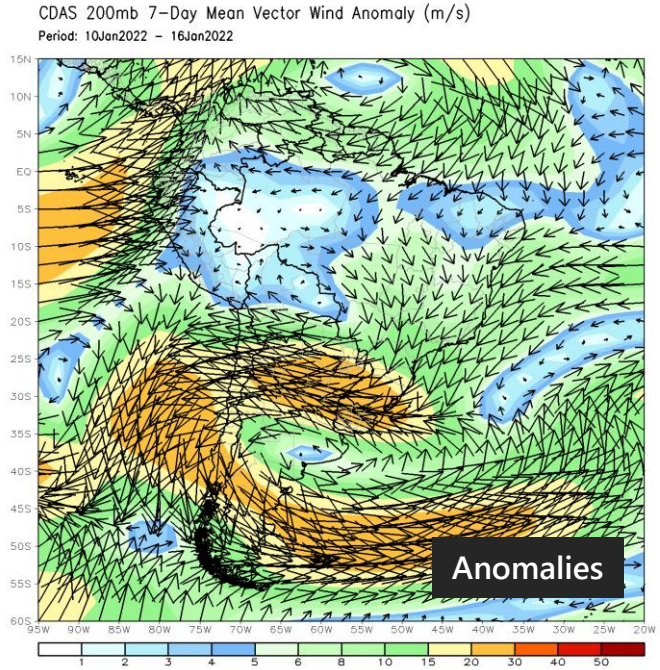
South America: Last 7 Days

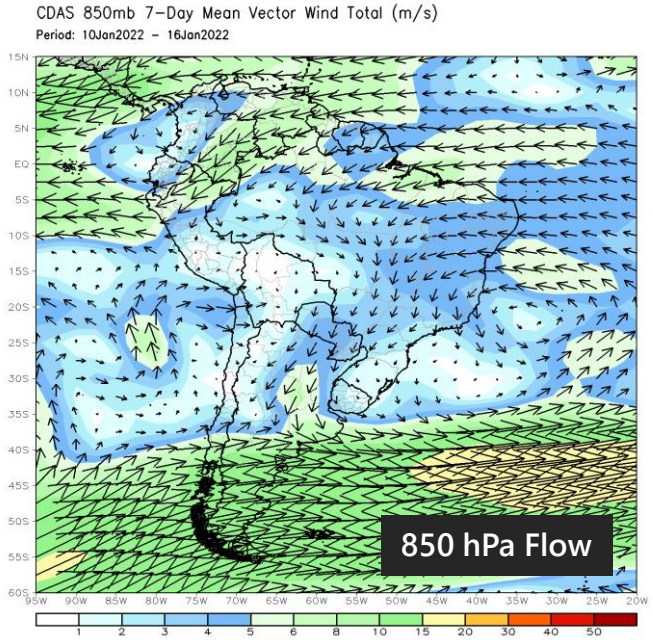


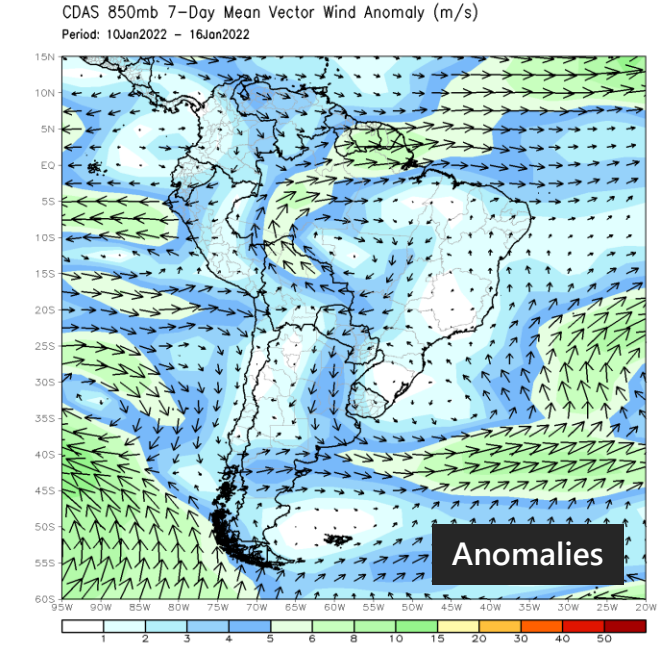


CMORPH: CPC Morphing Technique https://www.cpc.ncep.noaa.gov/products/janowiak/cmorph_description.html









¡Gracias! Thank you!

Next session:
Wednesday Feb 17 at 16 UTC