

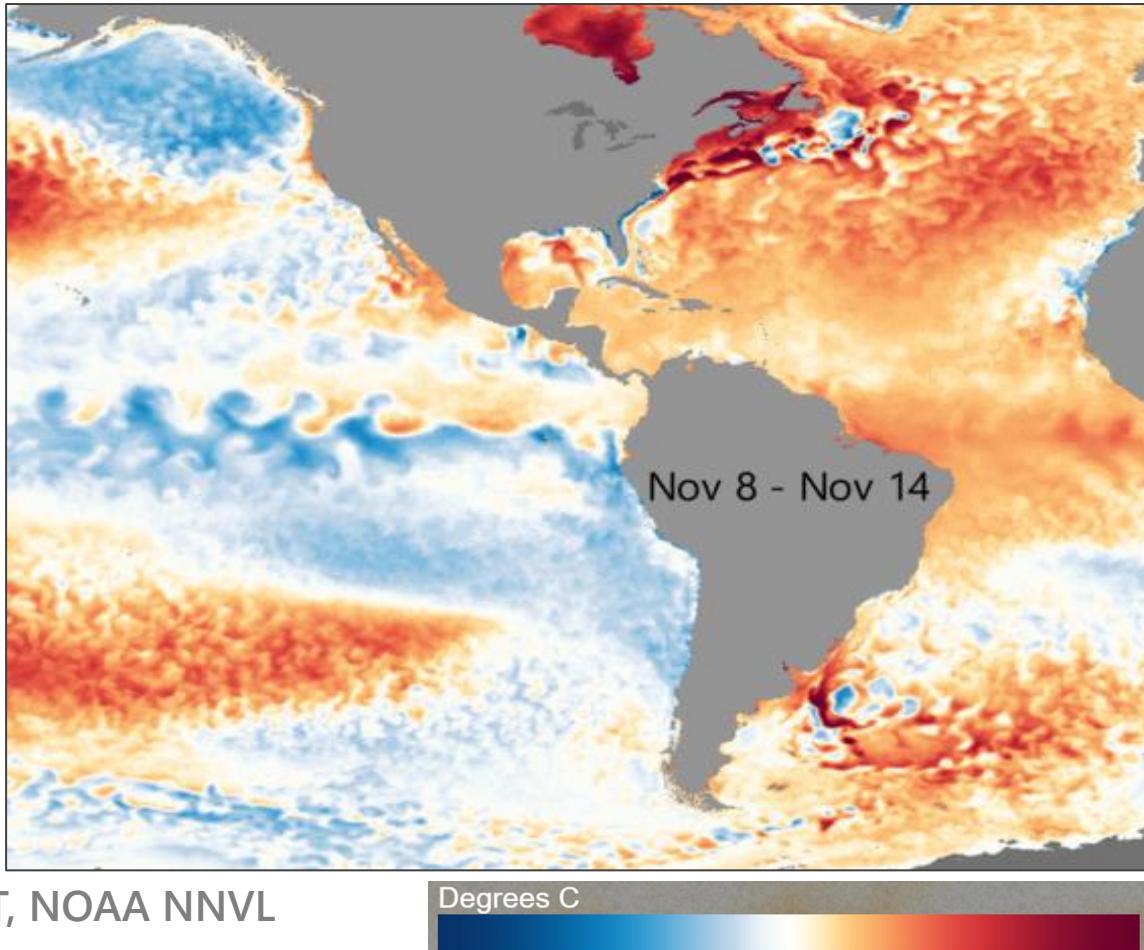


Monthly Regional Focus Group Session

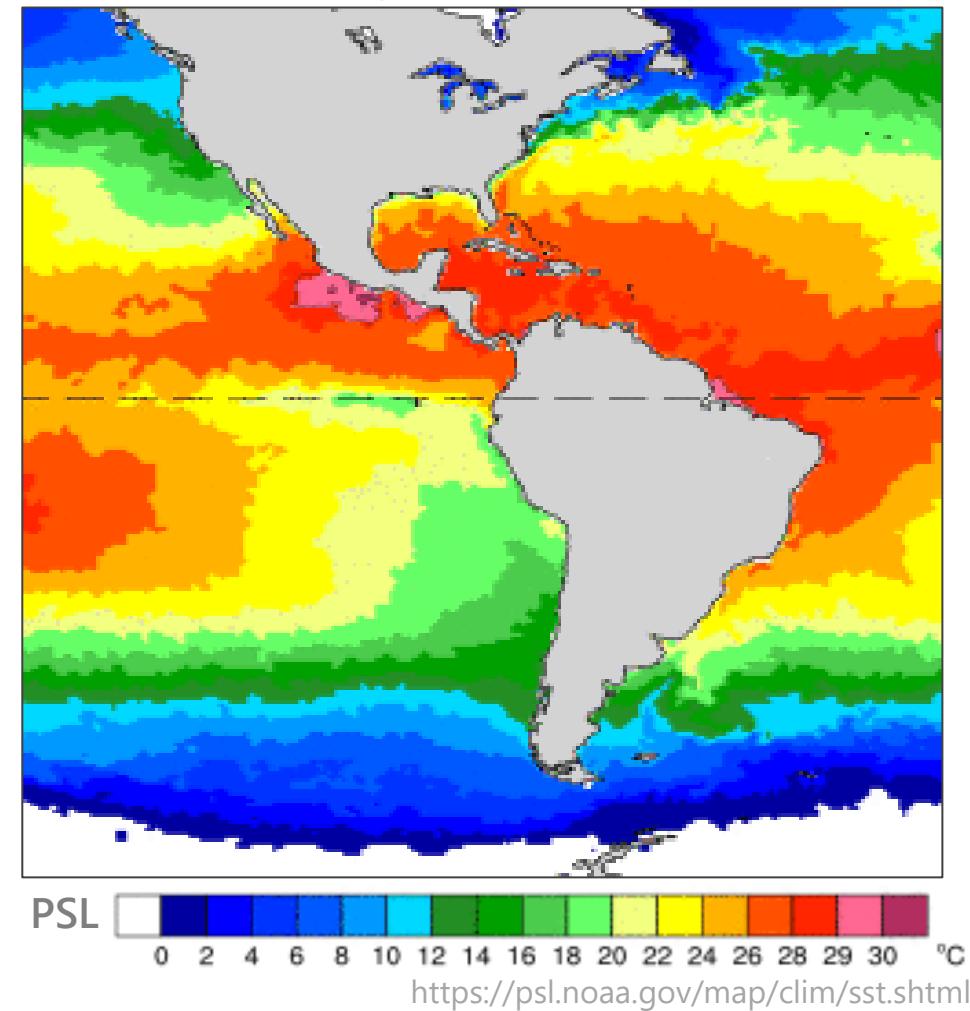
Wednesday 15 December 2021

Sea Surface Temperatures

Anomaly Evolution

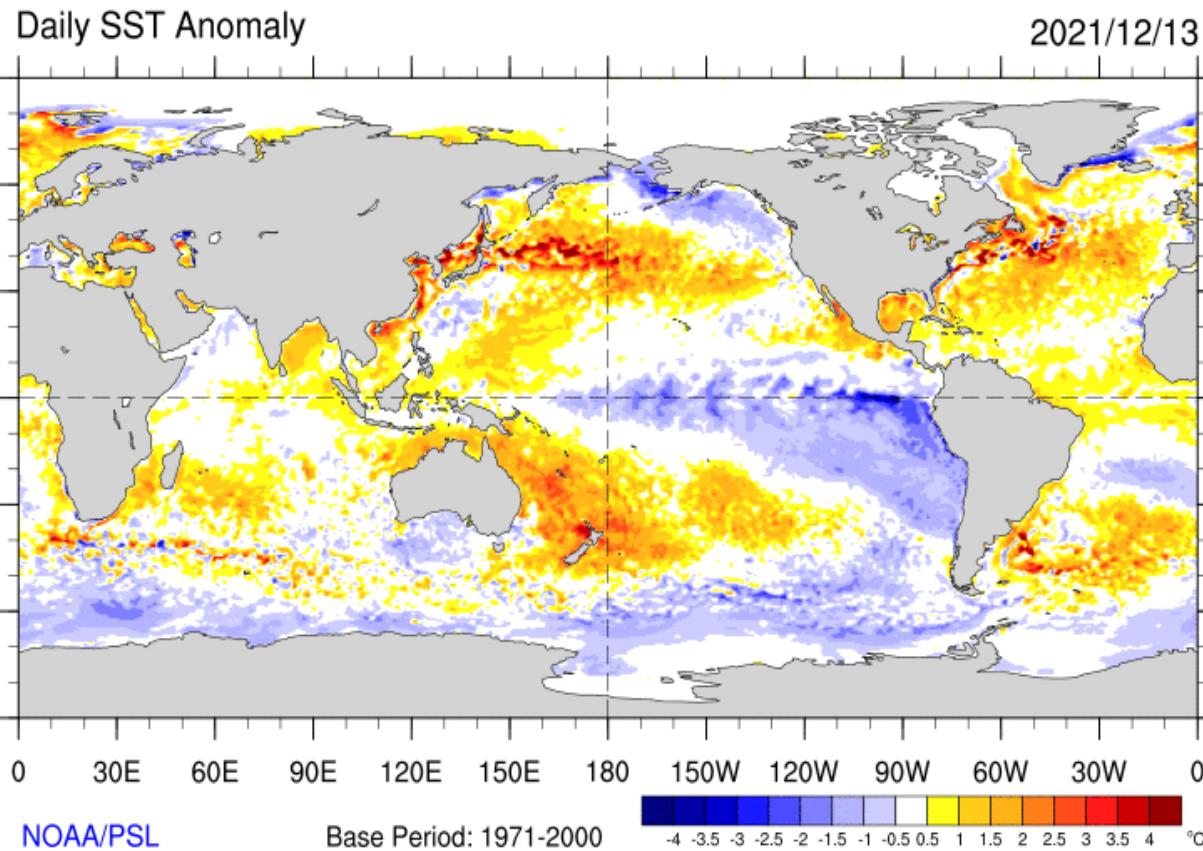


Daily SST Nov 22



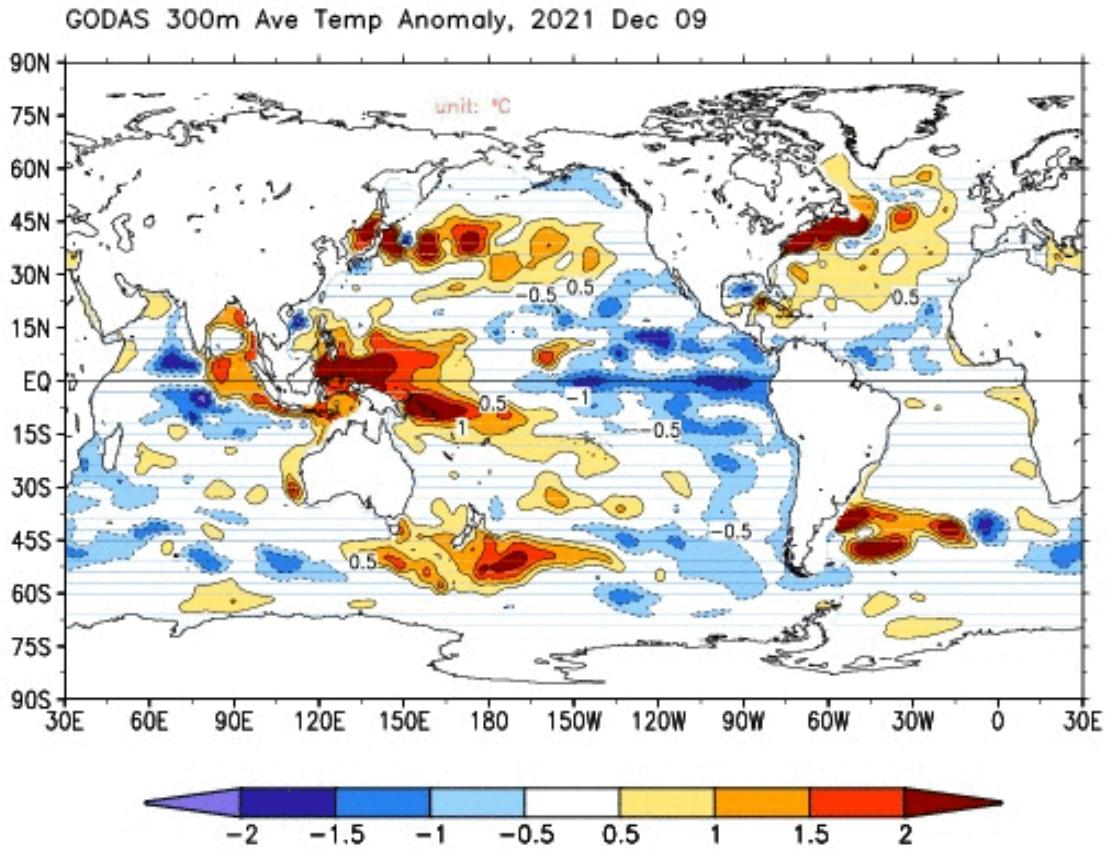
Are the anomalies deep?

Deep anomalies tend to last longer, becoming useful for subseasonal forecasting.



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

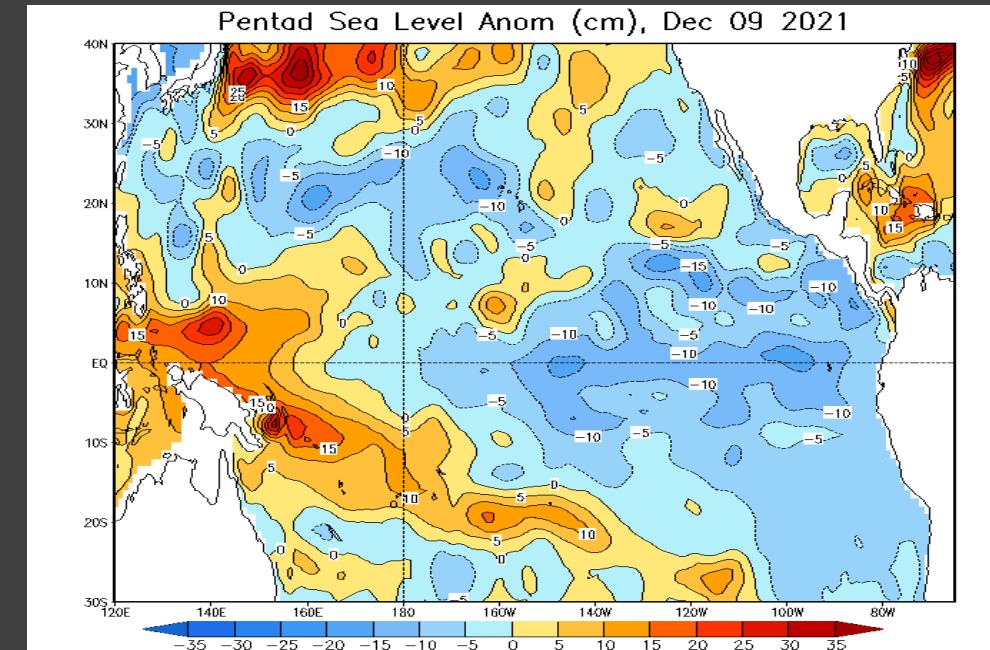
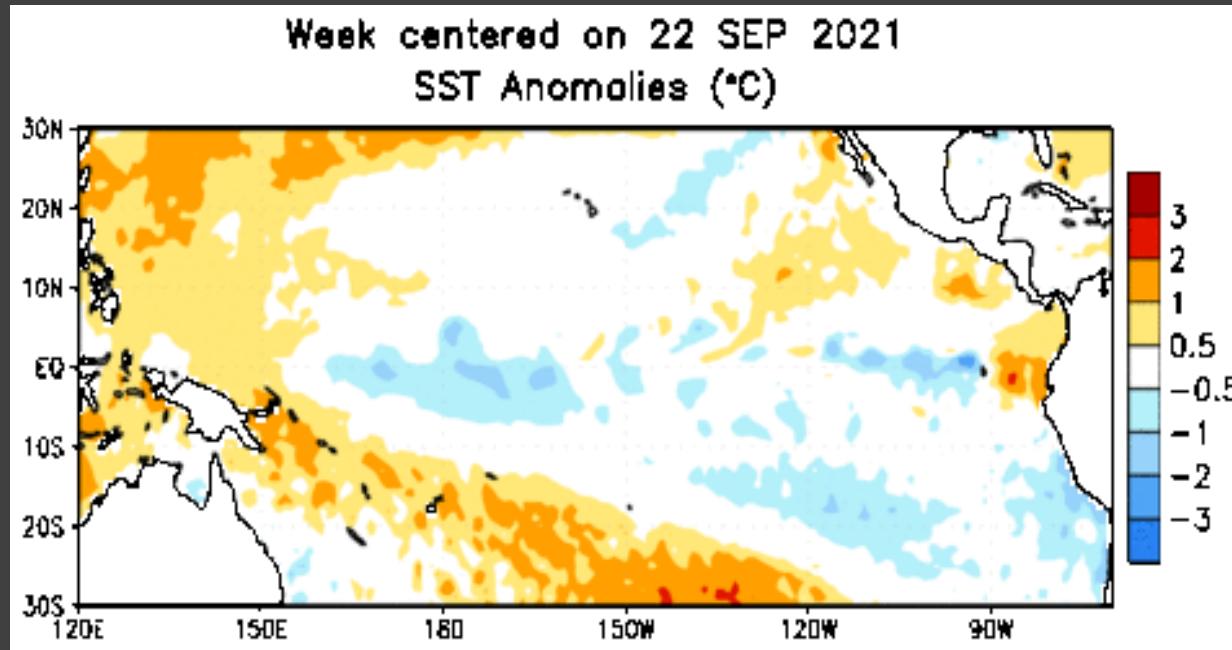
Top 300m Layer Anomaly



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

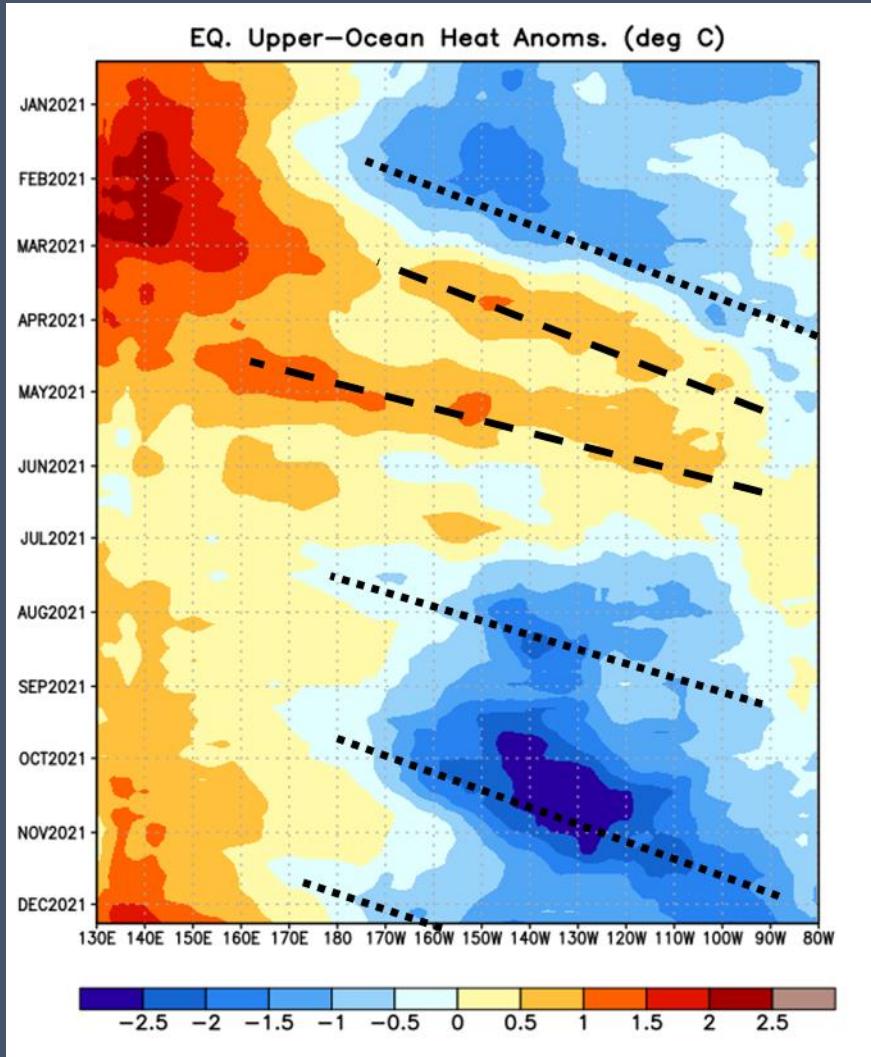
ENSO: La Niña

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

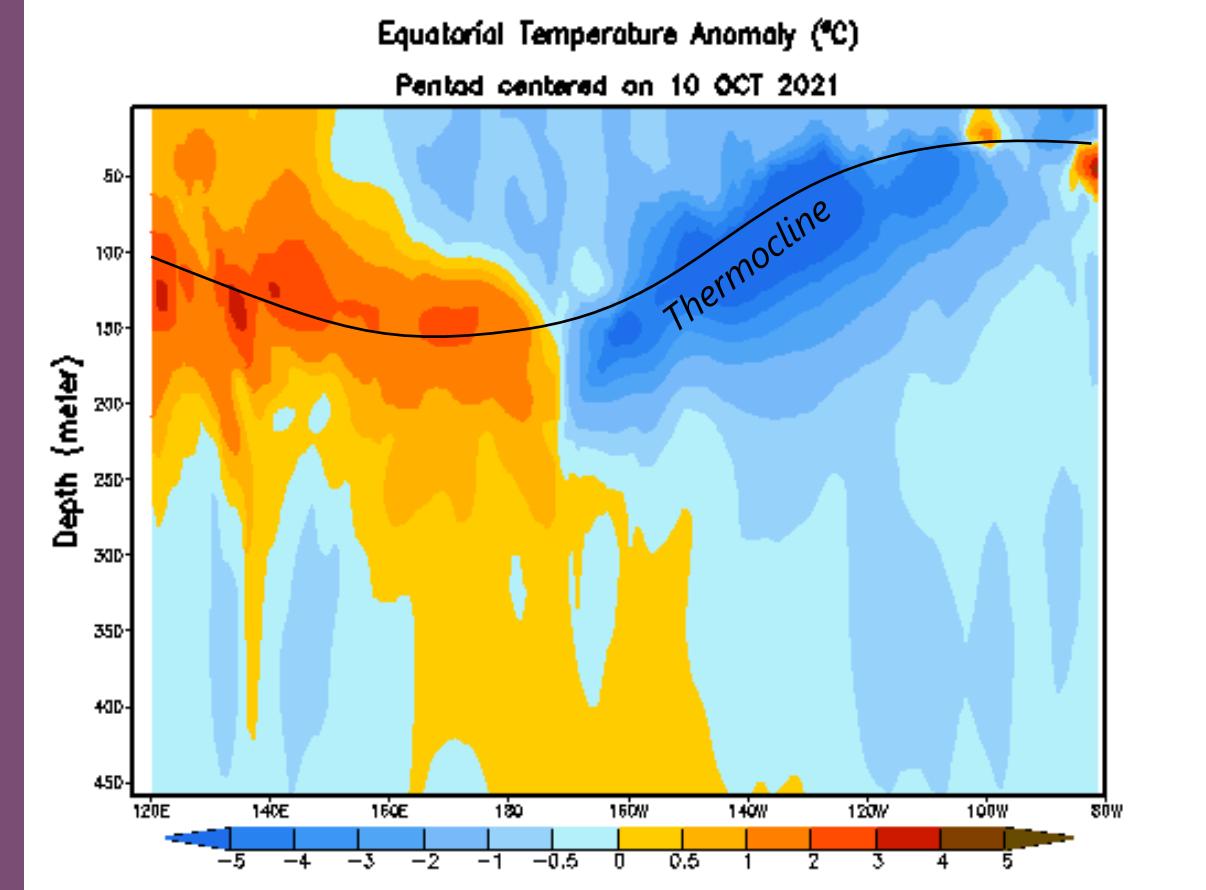


ENSO: Oceanic Kelvin Waves

Heat Content Hovmöller



Equatorial Pacific Temp. Anomaly

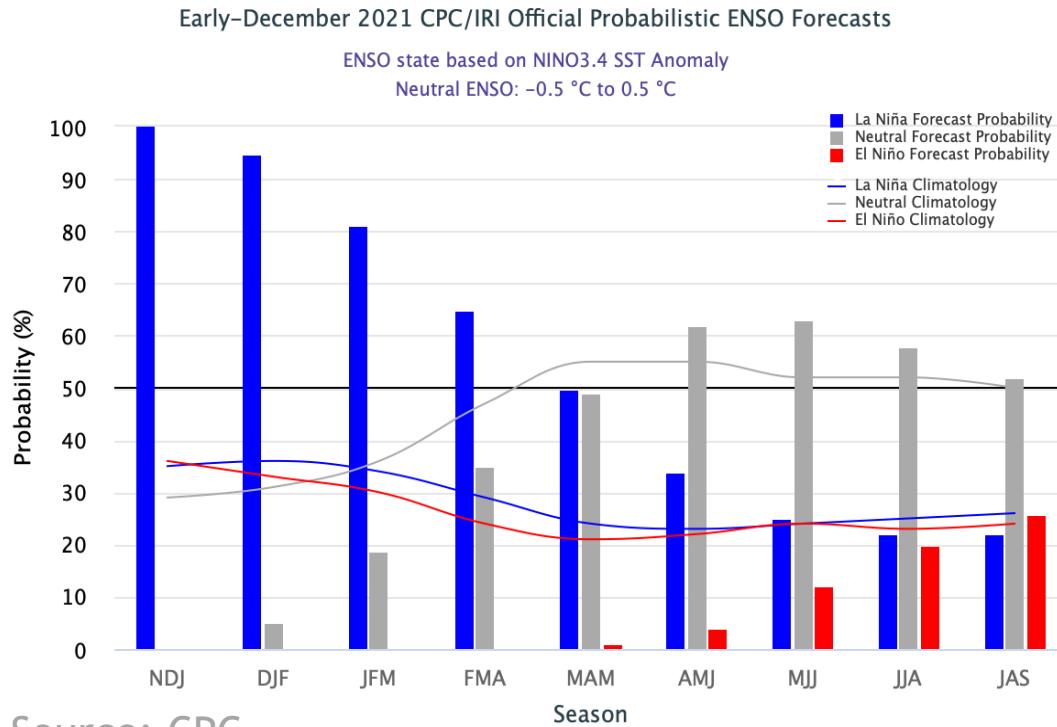


Source:
CPC

ENSO Outlook

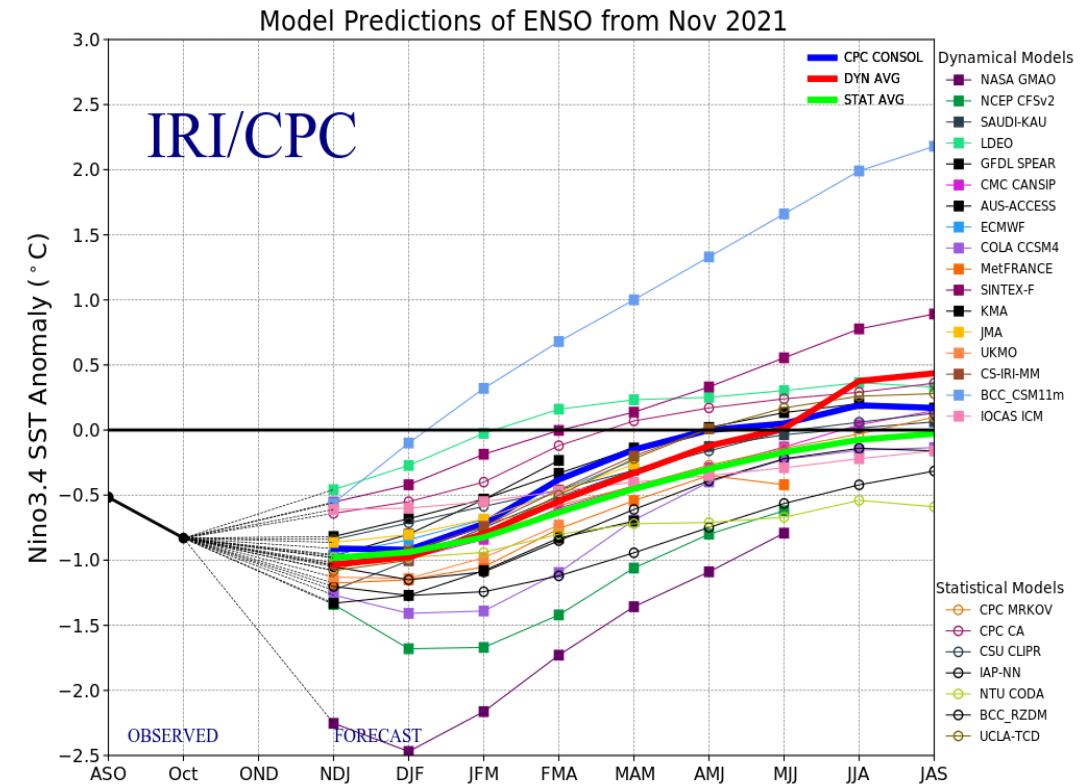
La Niña is favored to continue through the Northern Hemisphere winter 2021-22 (~95% chance) and transition to ENSO-neutral during the spring 2022 (~60% chance during April-June).*

CPC/IRI Probabilistic Forecast



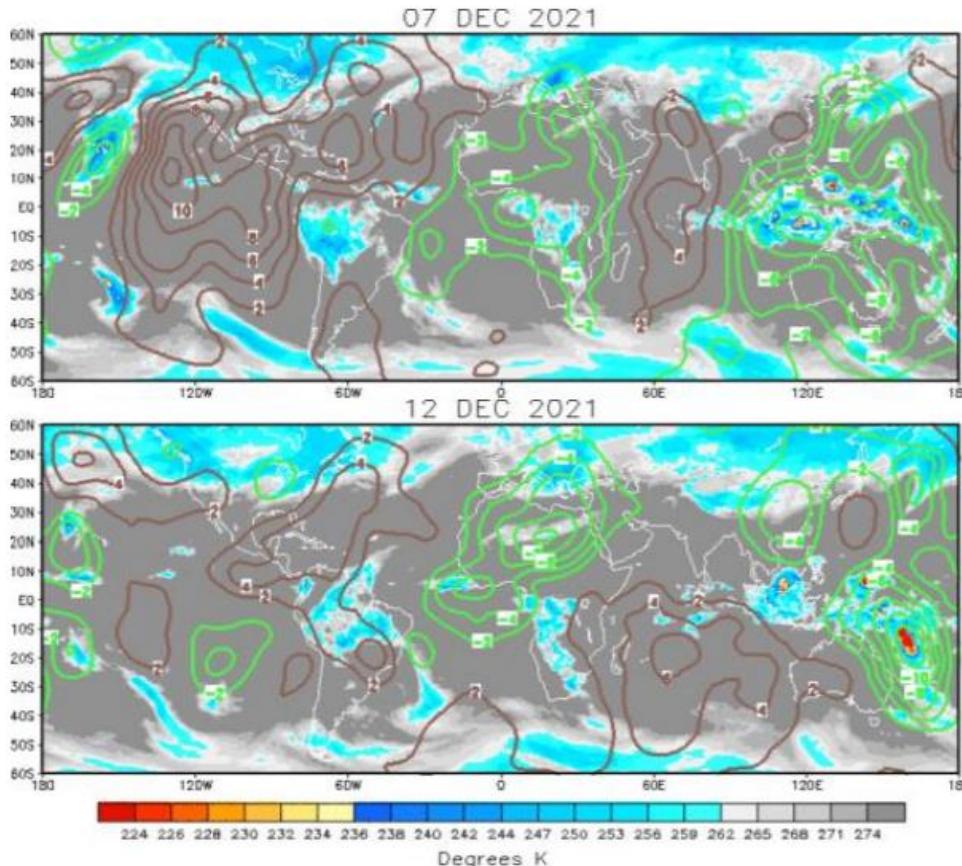
Source: CPC

IRI/CPC Dynamic Models

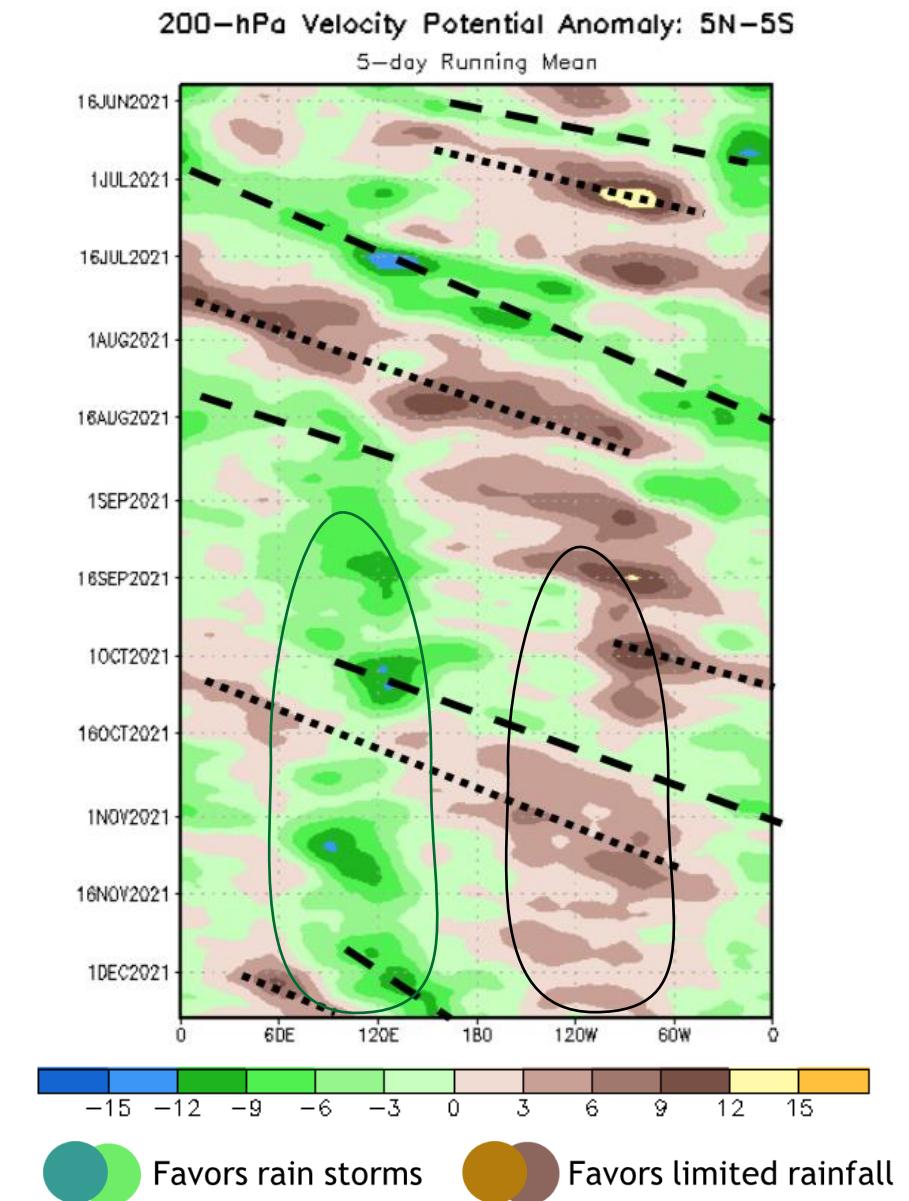


Madden-Julian Oscillation (MJO)

- Wave 2 velocity pattern is observed
- Suppressed convection over the Americas
- Propagation slightly better organized, but not too much.

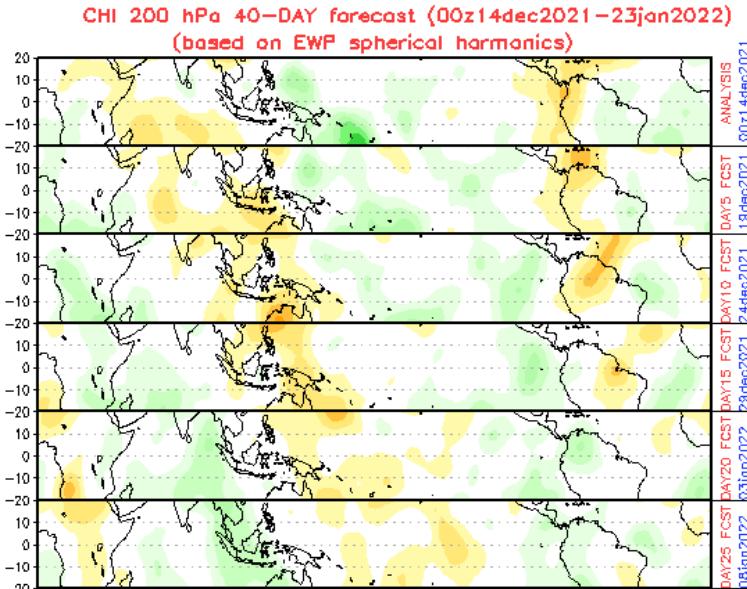


Source: CPC

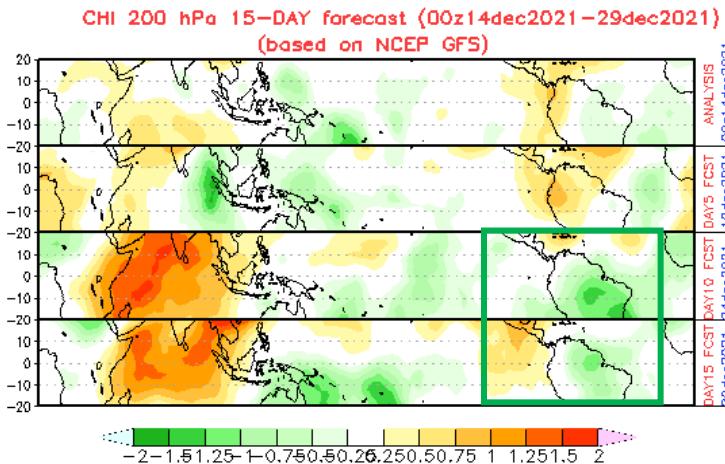


MJO Forecasts

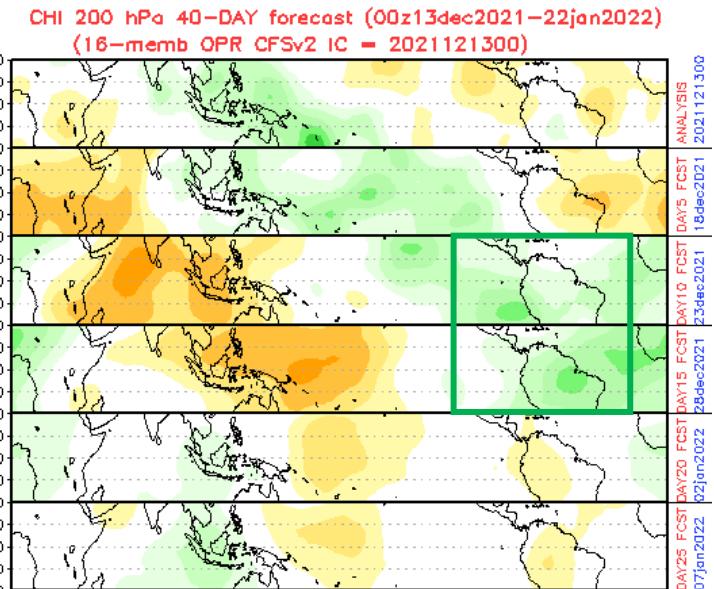
EWP



GFS



CFS



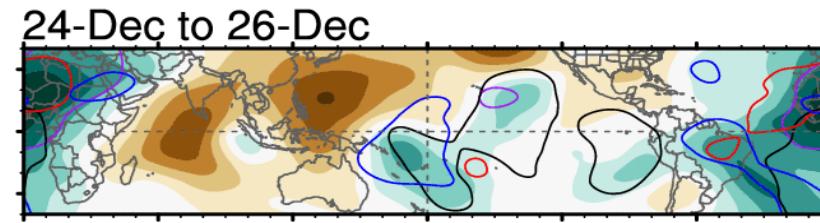
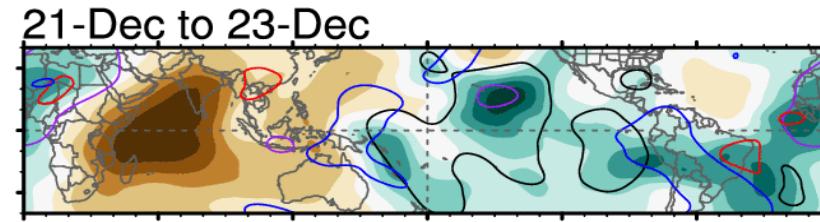
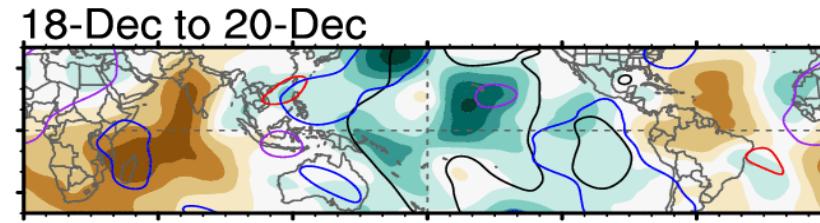
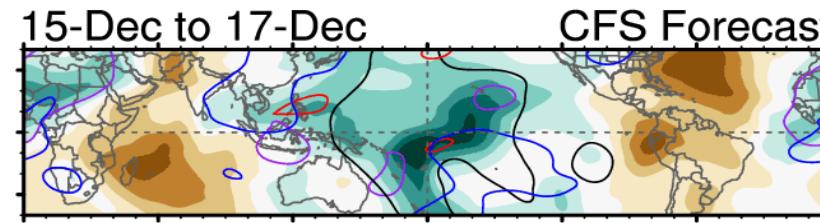
Dec 23

Dec 28

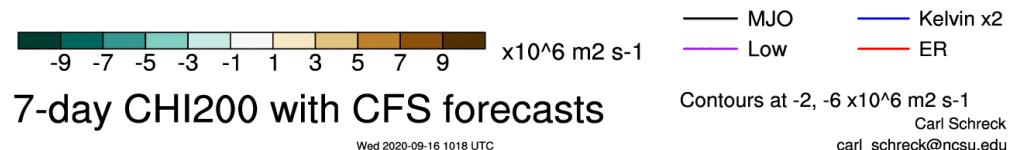
- Weak MJO signature
- Slightly wetter (more upper divergent) on the first week of December
- Dec 1-10 signal might be more pronounced in the Southern Hemisphere

Tropospheric Equatorial Waves

- Weak convergence through Dec 20
- Kelvin Wave Dec 20-26, South America
 - Monitor for impacts in Eastern and Central Brasil

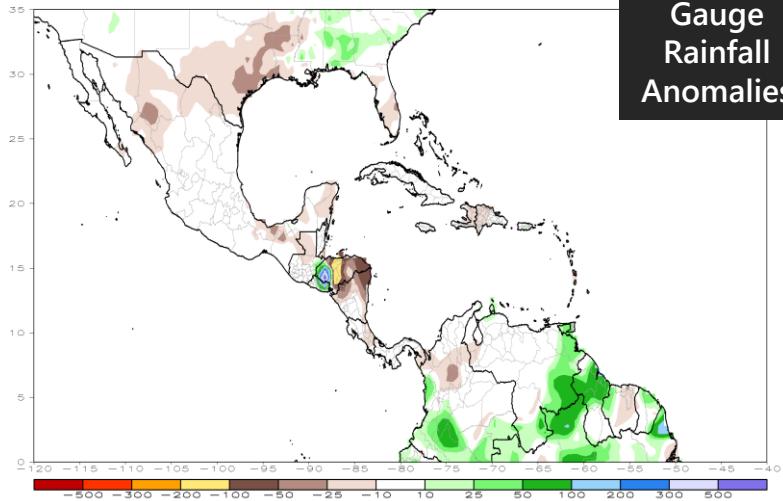


0 60E 120E 180 120W 60W 0

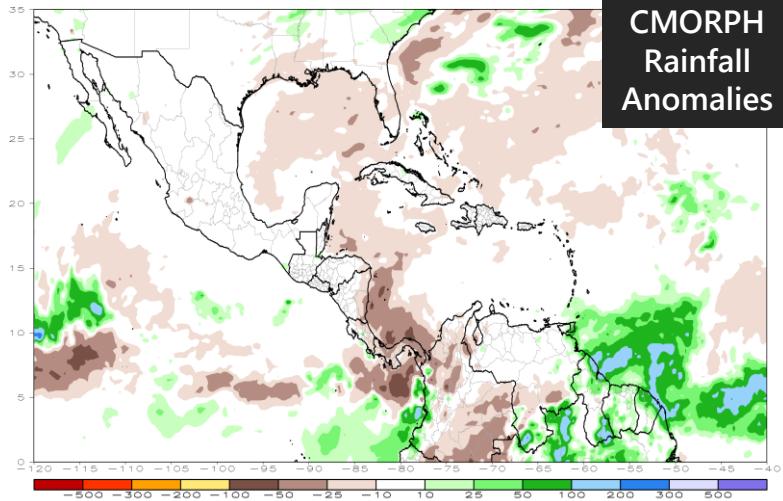


Tropical Americas: Last 7 Days

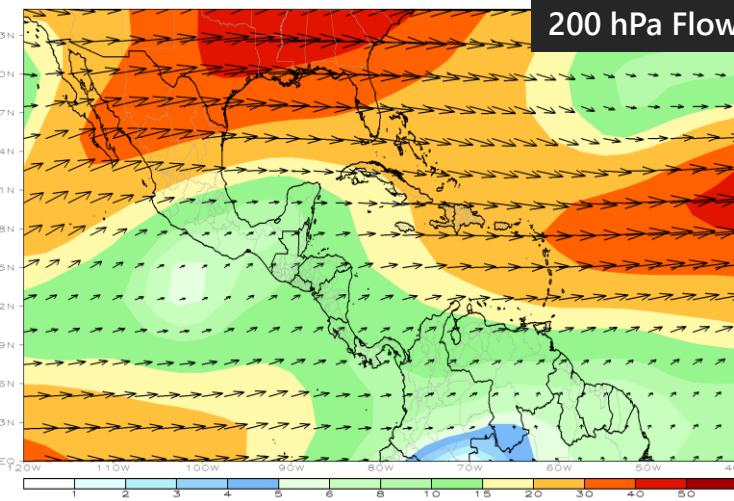
CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)
Period: 07Dec2021 – 13Dec2021



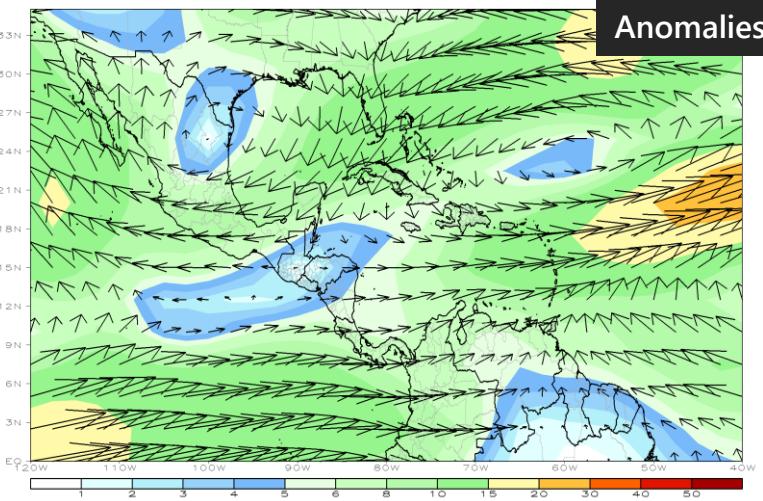
CMORPH 7-Day Total Rainfall Anomaly (mm)
Period: 07Dec2021 – 13Dec2021



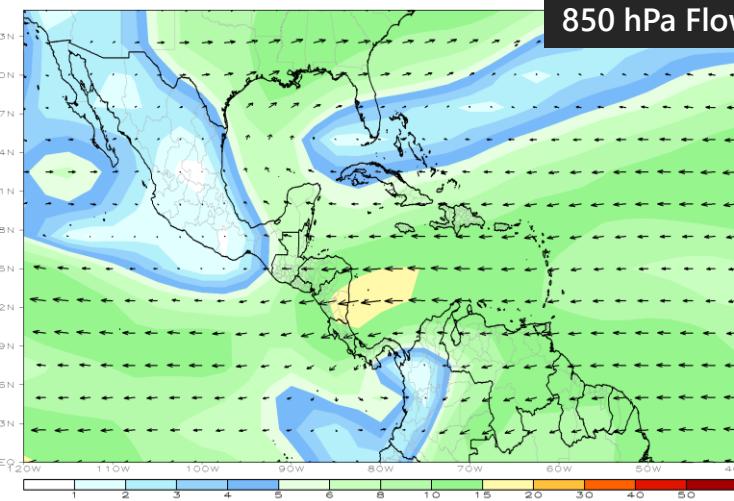
CDAS 200mb 7-Day Mean Vector Wind Total (m/s)
Period: 06Dec2021 – 12Dec2021



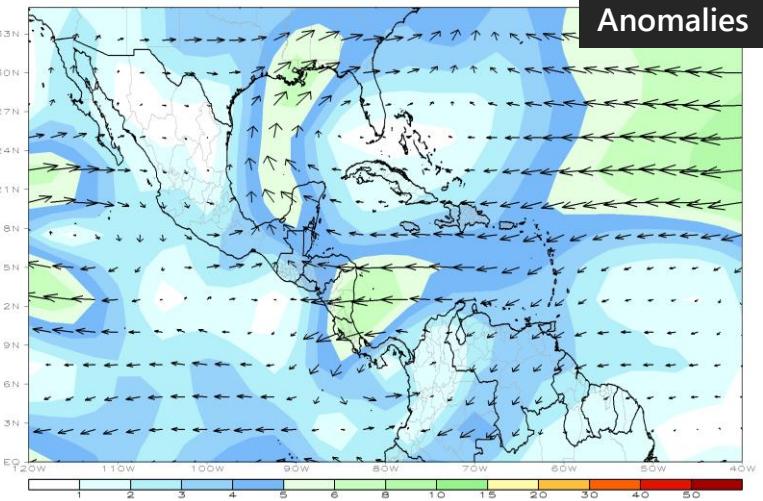
CDAS 200mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 06Dec2021 – 12Dec2021



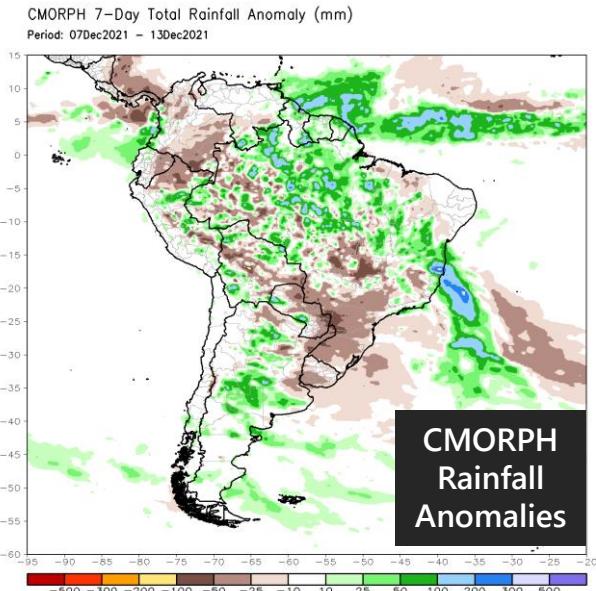
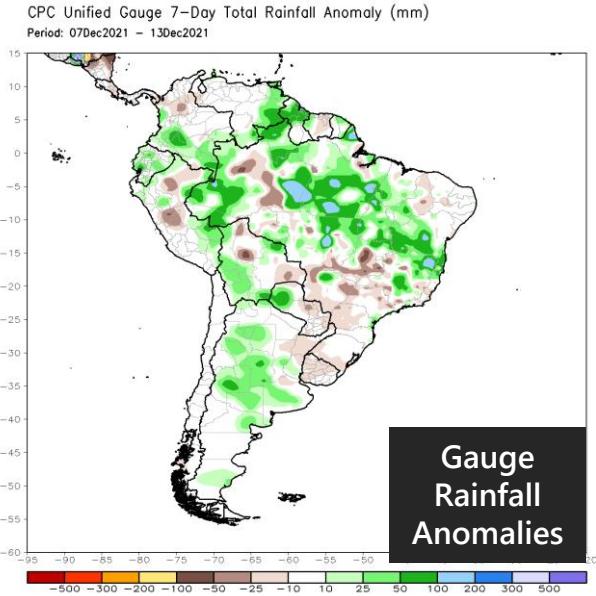
CDAS 850mb 7-Day Mean Vector Wind Total (m/s)
Period: 06Dec2021 – 12Dec2021



CDAS 850mb 7-Day Mean Vector Wind Anomaly (m/s)
Period: 06Dec2021 – 12Dec2021

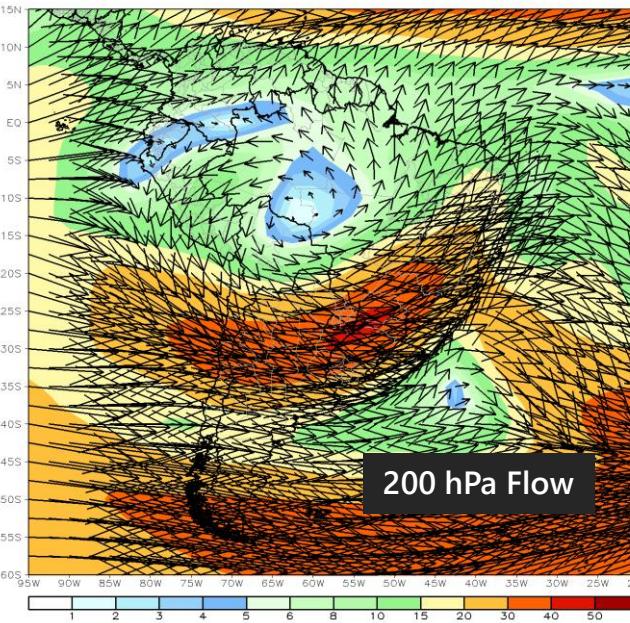


South America: Last 7 Days



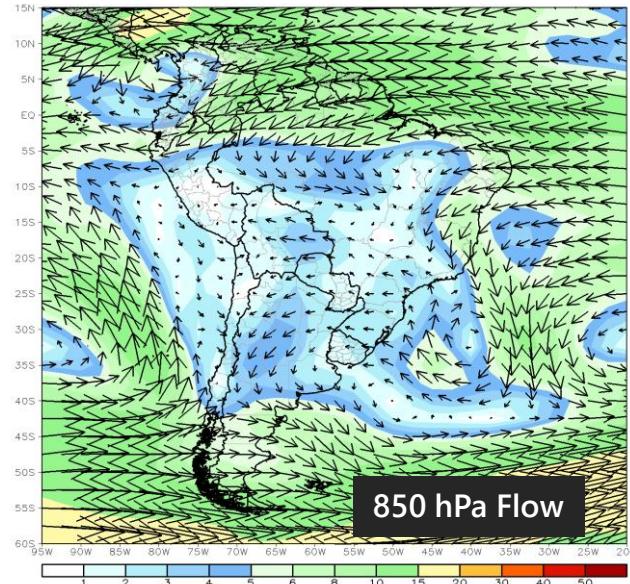
CDAS 200mb 7-Day Mean Vector Wind Total (m/s)

Period: 06Dec2021 – 12Dec2021



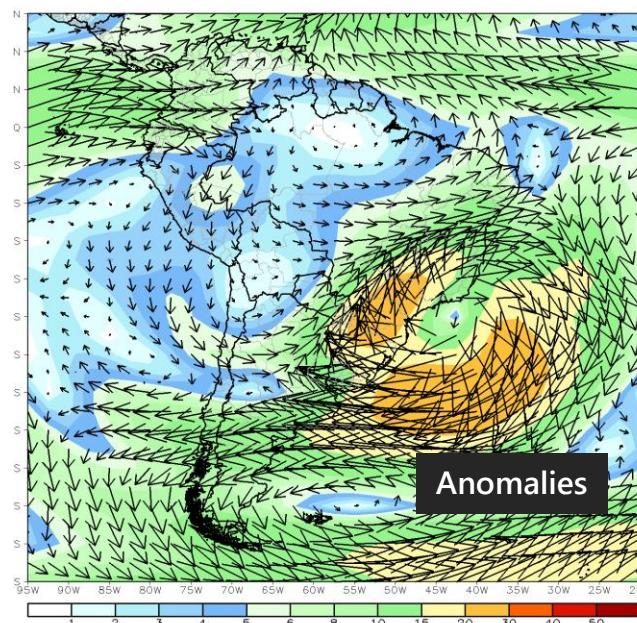
CDAS 850mb 7-Day Mean Vector Wind Total (m/s)

Period: 06Dec2021 – 12Dec2021



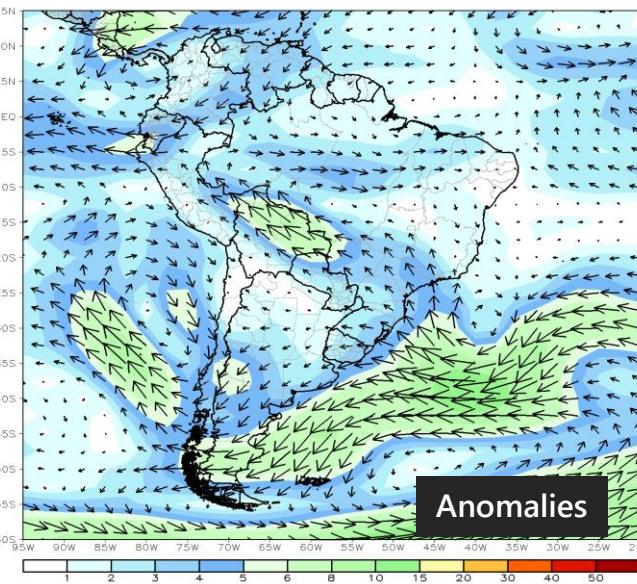
CDAS 200mb 7-Day Mean Vector Wind Anomaly (m/s)

Period: 06Dec2021 – 12Dec2021



CDAS 850mb 7-Day Mean Vector Wind Anomaly (m/s)

Period: 06Dec2021 – 12Dec2021

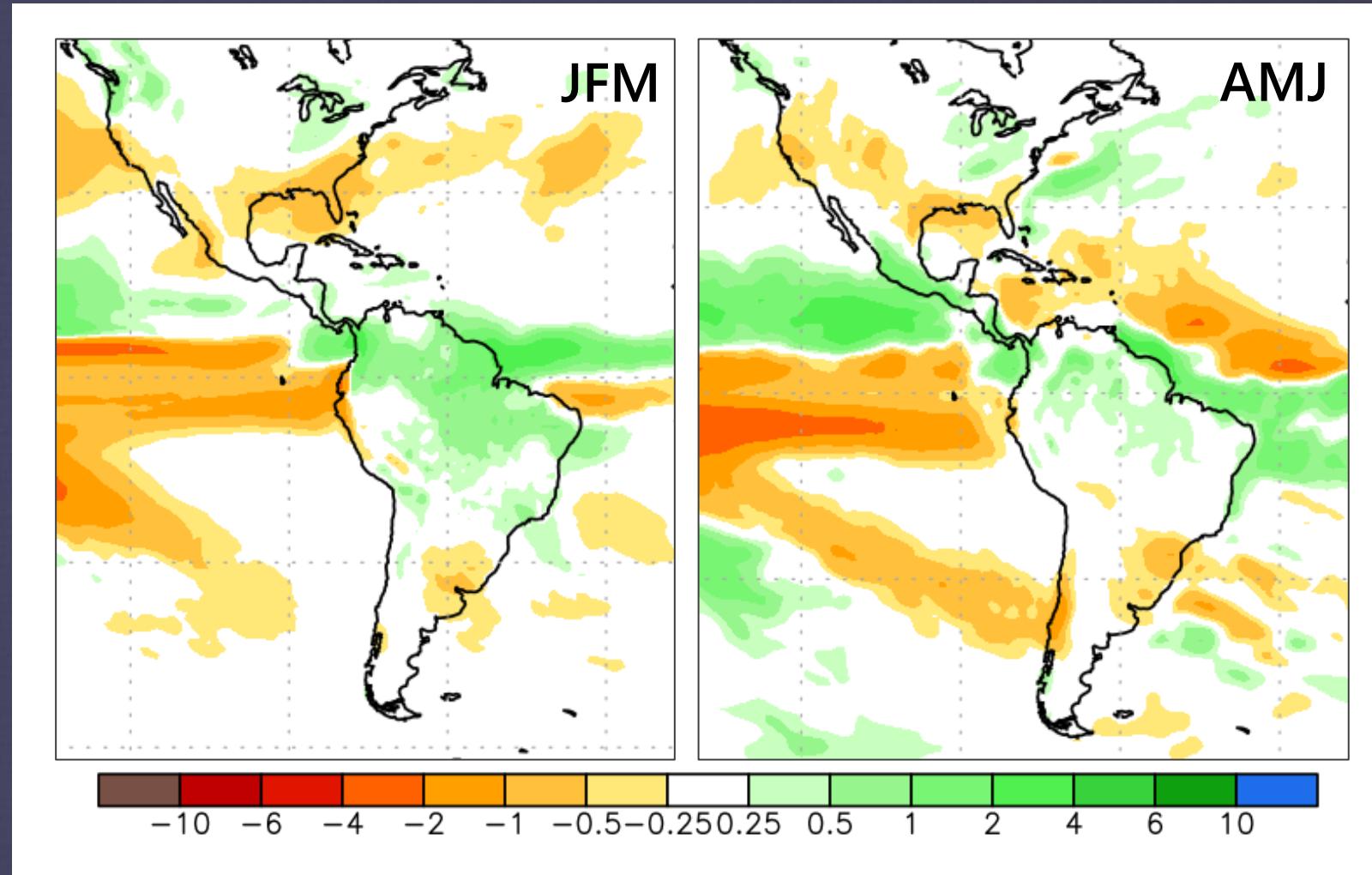


NMME Precipitation Forecasts

- NMME = North American Multi-model Ensemble.
- Output of 7 Global Models, analyzed statistically.
- Ensemble mean shows generally a La Niña Signal on Rainfall Forecasts.
- NMME References:

<https://www.ncei.noaa.gov/products/weather-climate-models/north-american-multi-model>

<https://www.cpc.ncep.noaa.gov/products/NMME/seasanom.shtml>



¡Gracias!

Thank you!