

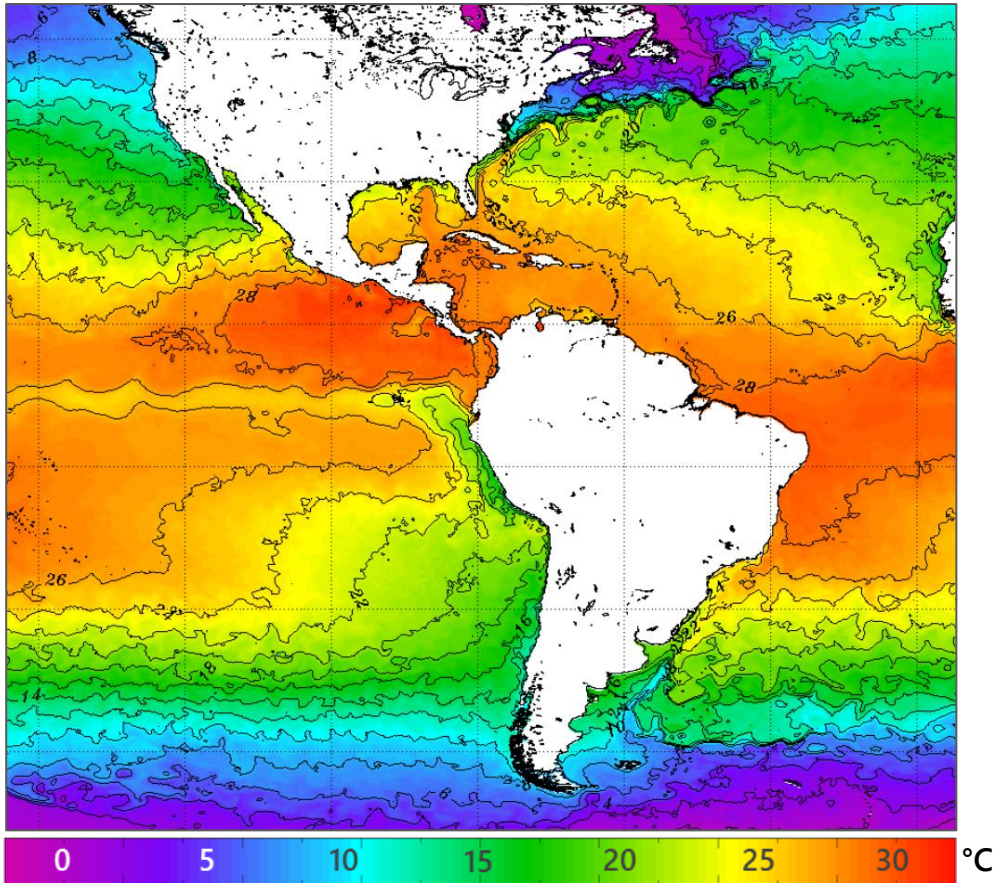
Monthly Regional Focus Group Session

Wednesday 20 April 2022 at 15 UTC

<https://rammb2.cira.colostate.edu/training/rmtc/focusgroup/>

Sea Surface Temperatures

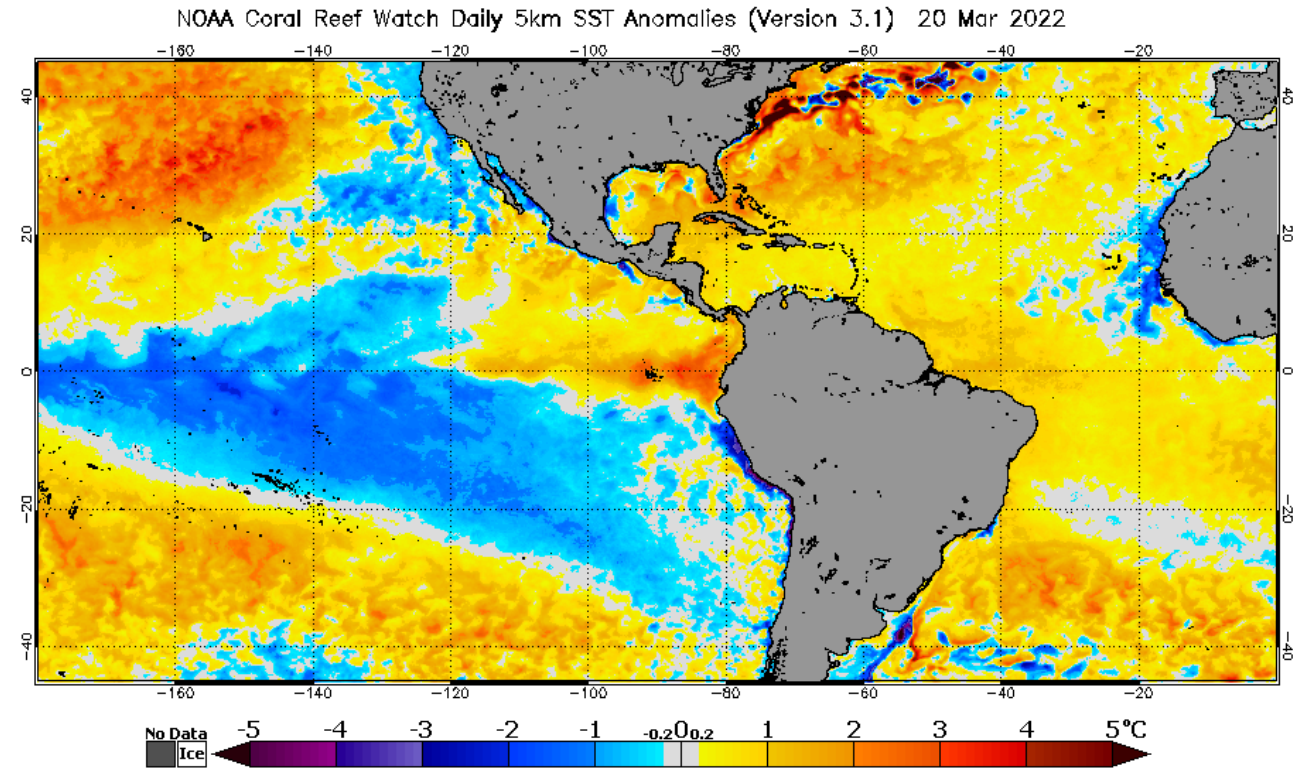
Daily SST Mar 07



NOAA OSPO

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

Anomaly Evolution



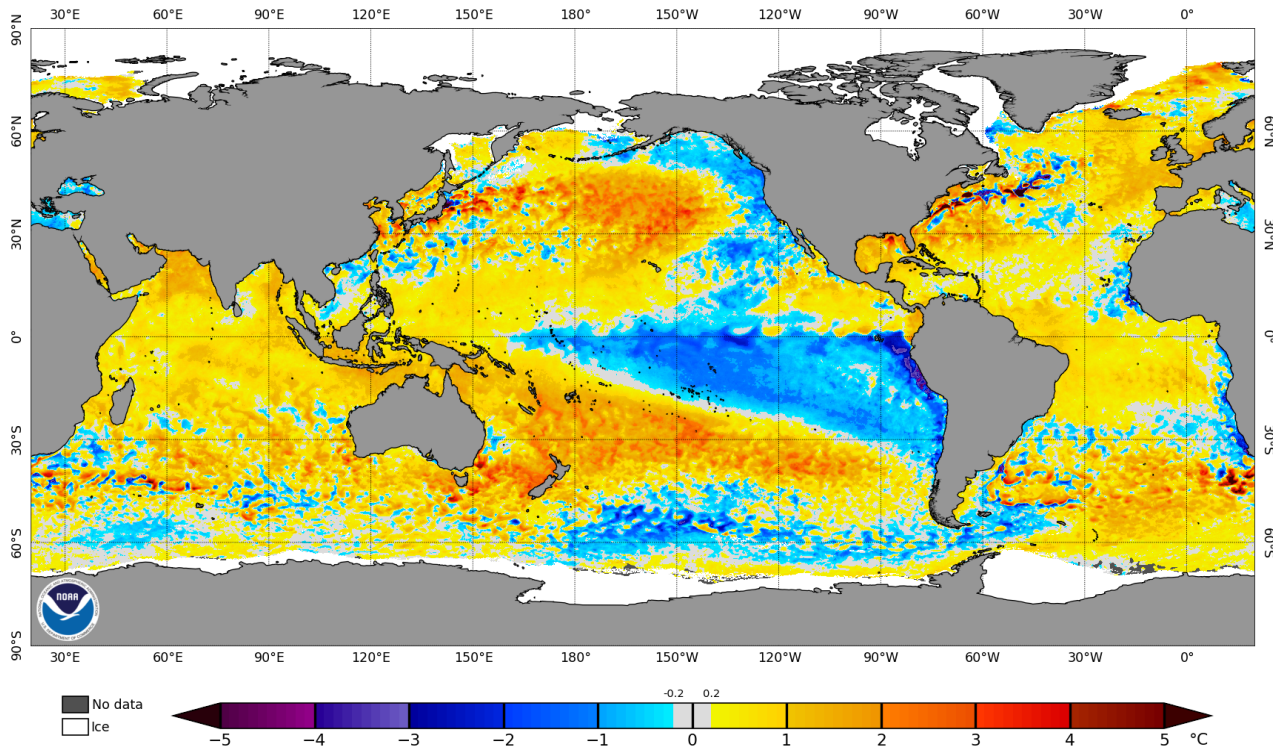
NOAA Coral Reef Watch

<https://coralreefwatch.noaa.gov/>

Are the anomalies deep?

Deep anomalies last longer, becoming useful for subseasonal forecasting.

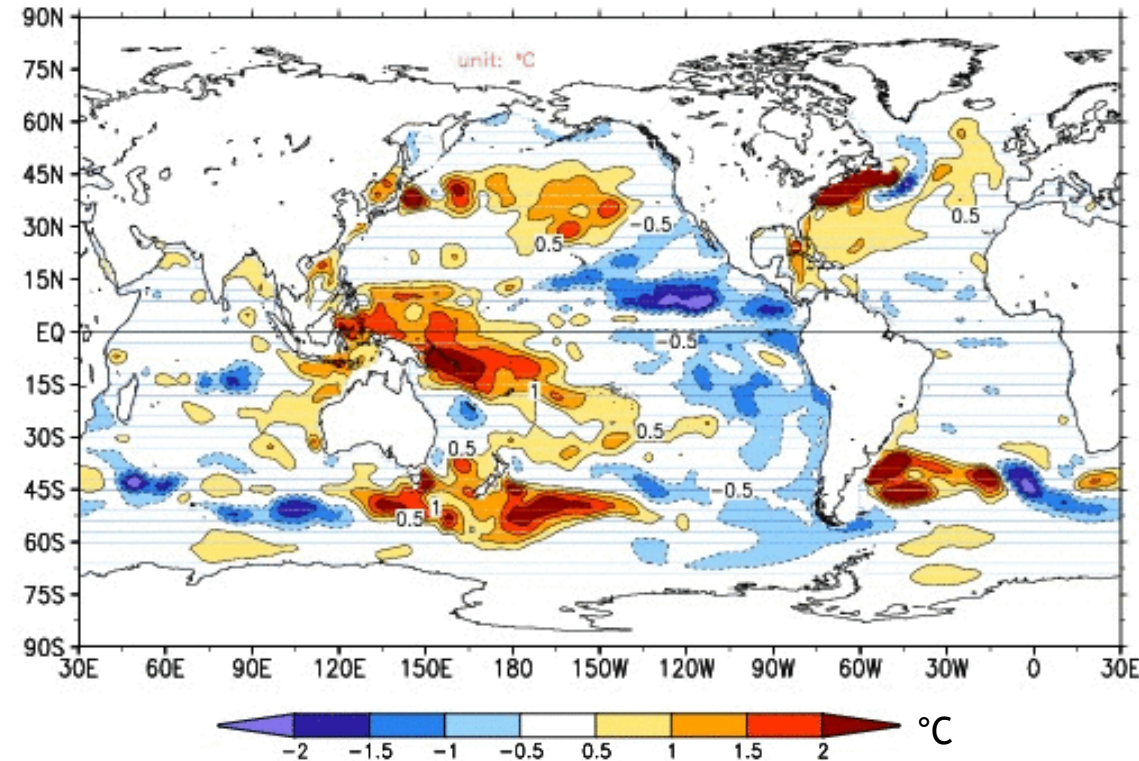
SST Anomaly - Apr 18



NOAA Coral Reef Watch

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

Top 300m-Layer Anomaly (GODAS) - Apr 13



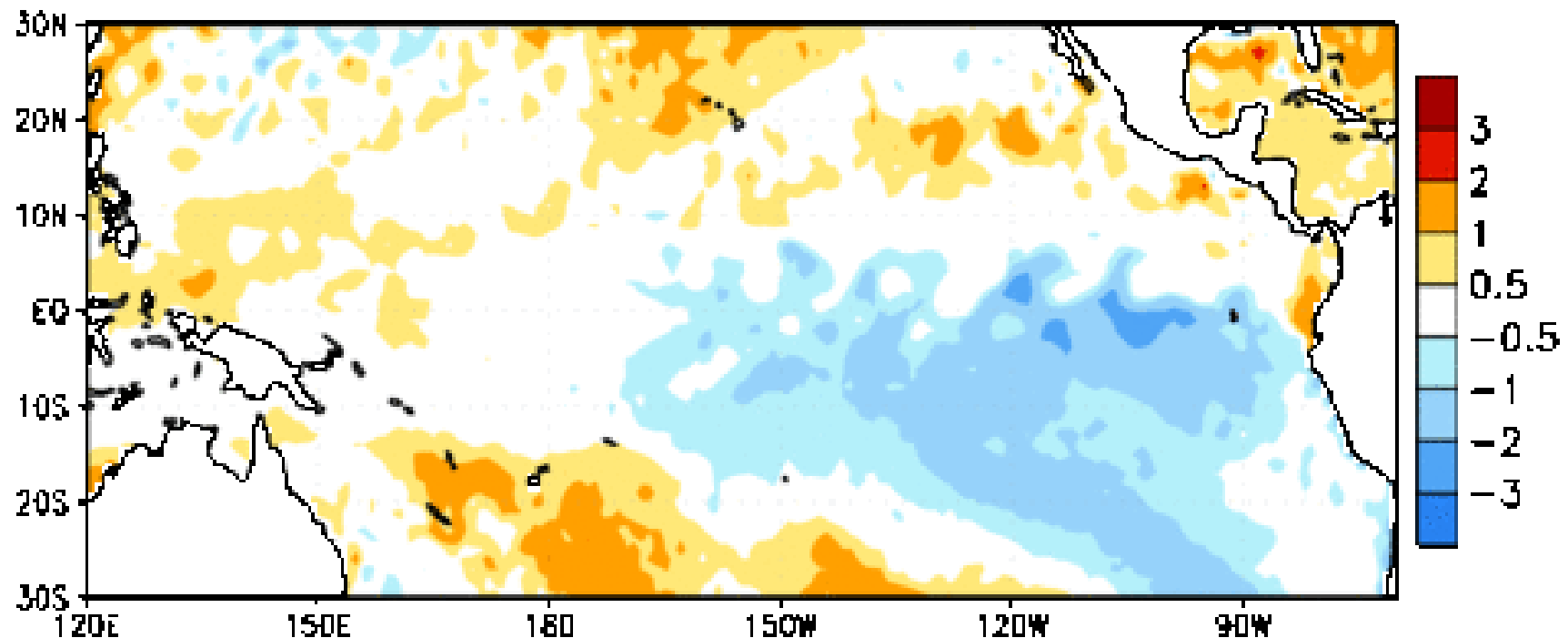
NOAA CPC

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

ENSO: La Niña

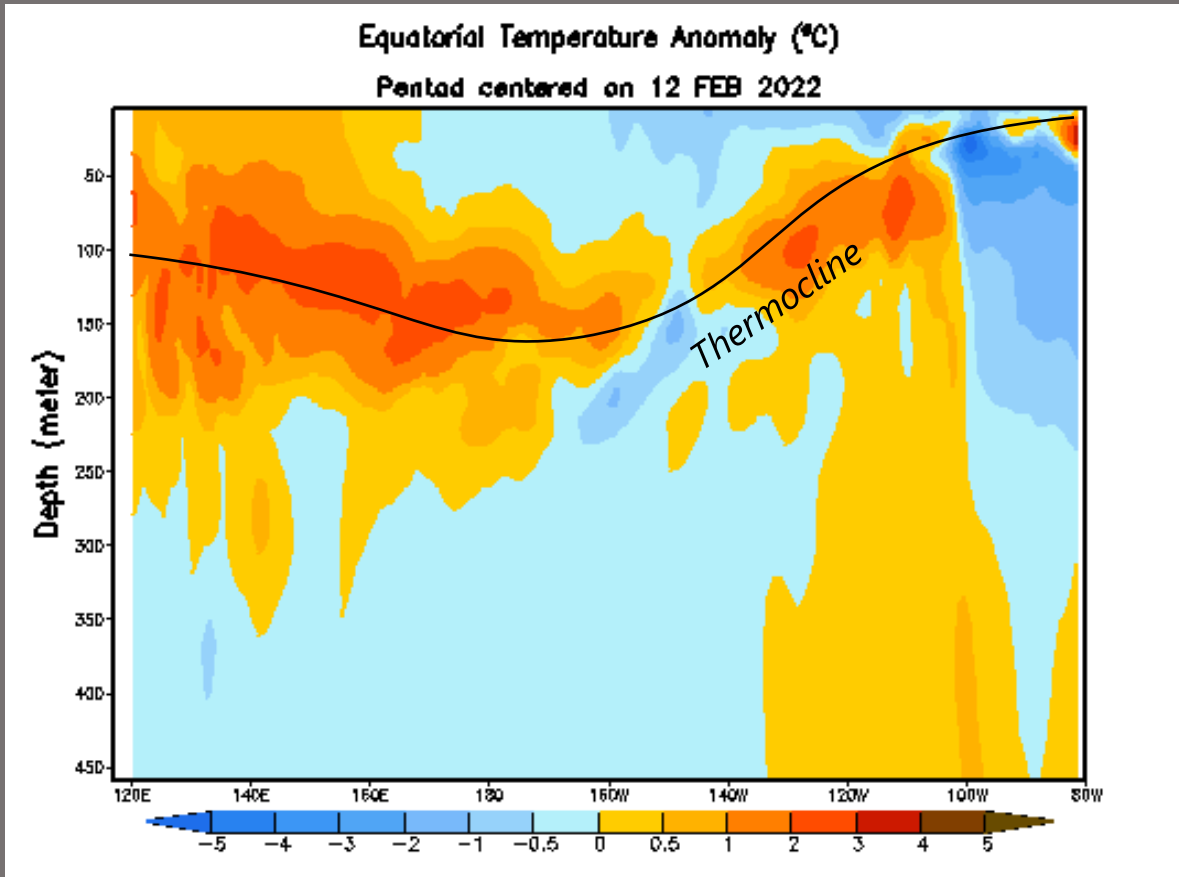
- ☯ La Niña is present.*
- ☯ Equatorial sea surface temperatures (SSTs) are below average across the east-central and eastern Pacific Ocean.
- ☯ The tropical Pacific atmosphere is consistent with La Niña.

Week centered on 26 JAN 2022
SST Anomalies (°C)



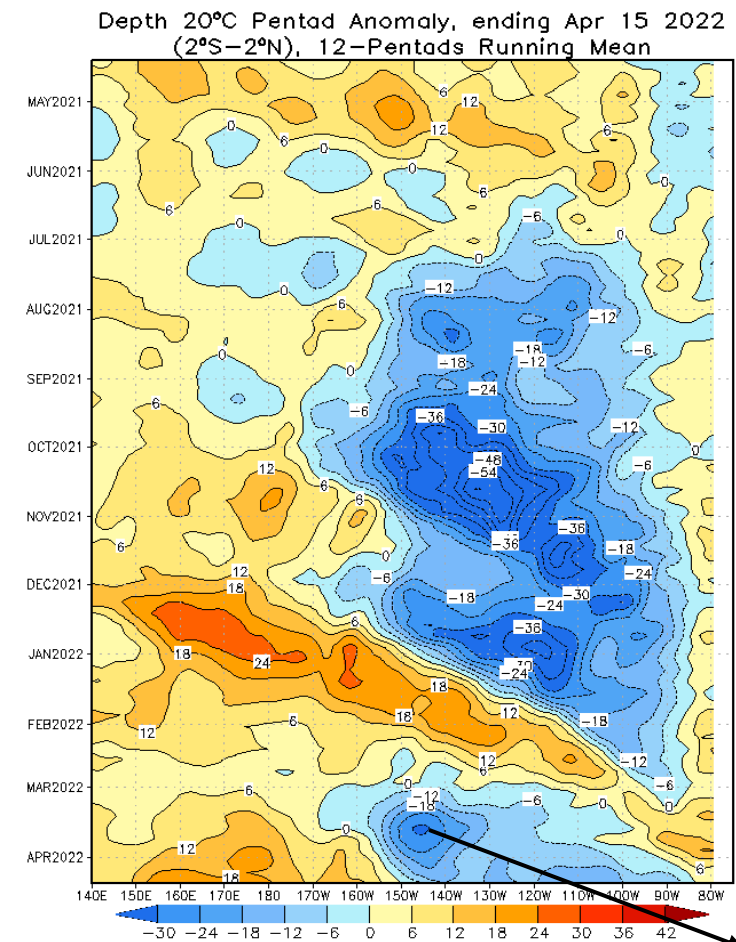
ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomaly Cross Section



Source: CPC

Heat Content Hovmöller



Cooling developing for South America peaking in Early May.

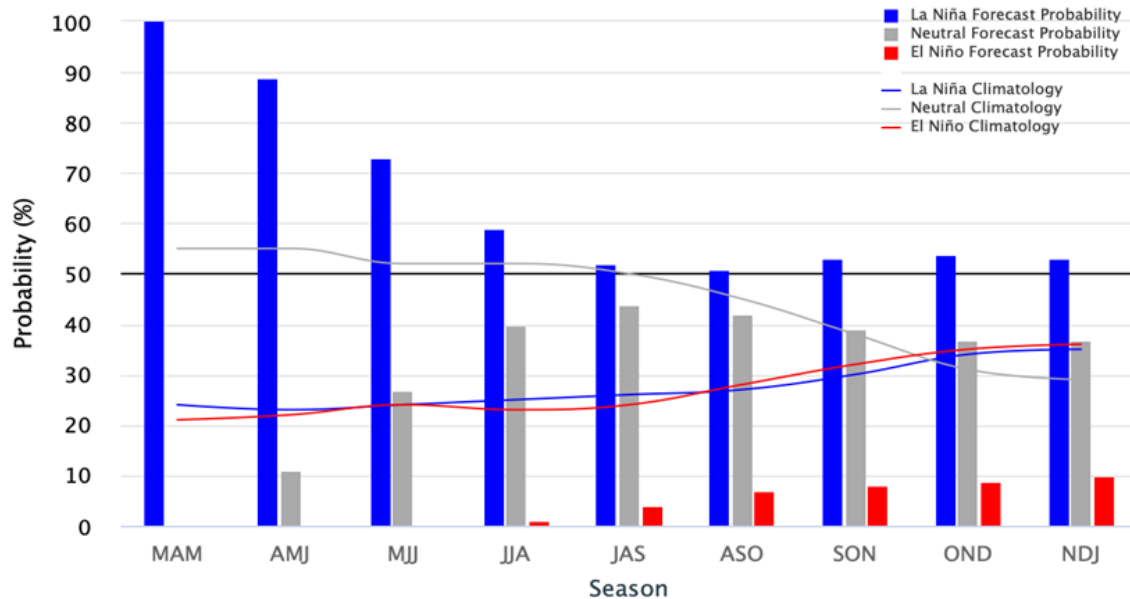
ENSO Outlook

La Niña is favored to continue through the Northern Hemisphere summer (59% chance during June-August 2022), with a 50-55% chance through the fall.*

CPC/IRI Probabilistic Forecast

Early-April 2022 CPC/IRI Official Probabilistic ENSO Forecasts

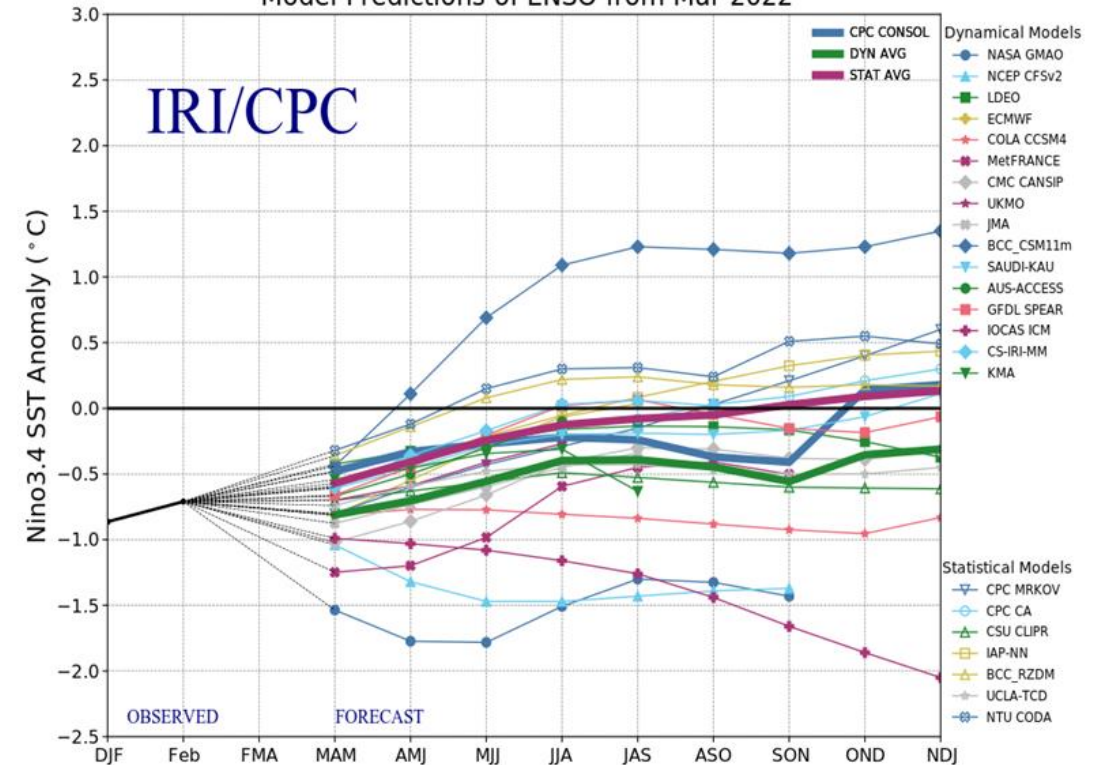
ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5 °C to 0.5 °C



Source: CPC

IRI/CPC Dynamic Models

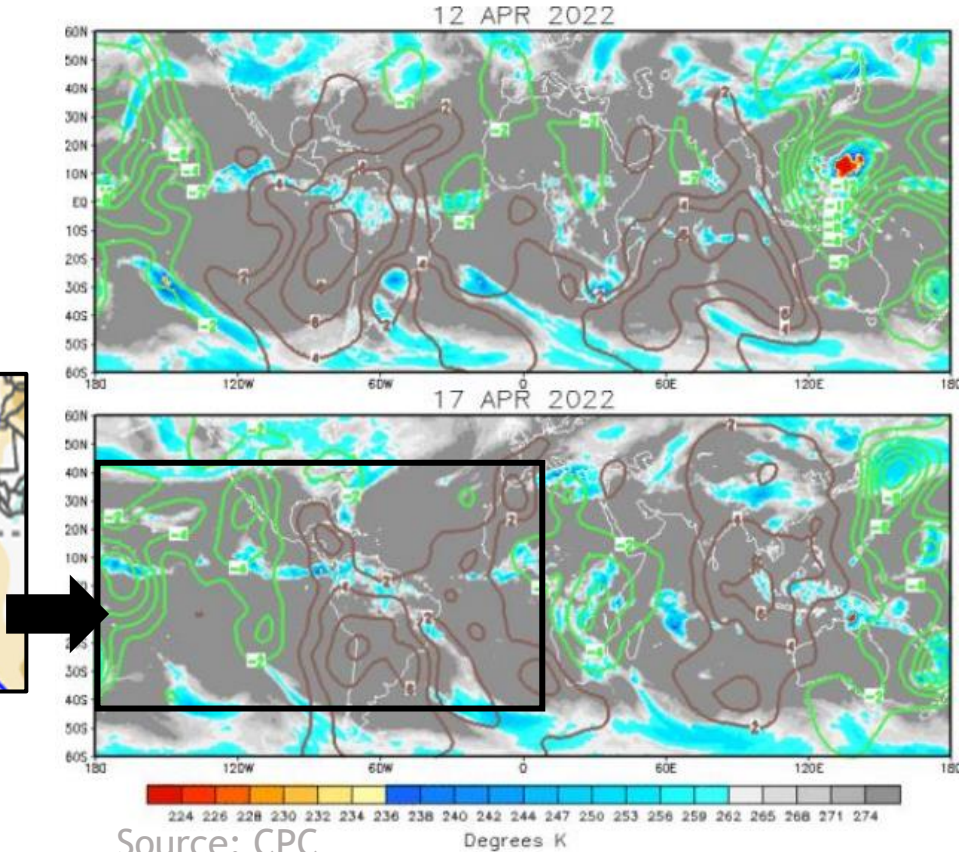
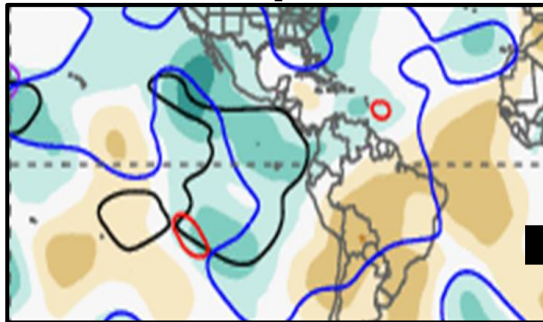
Model Predictions of ENSO from Mar 2022



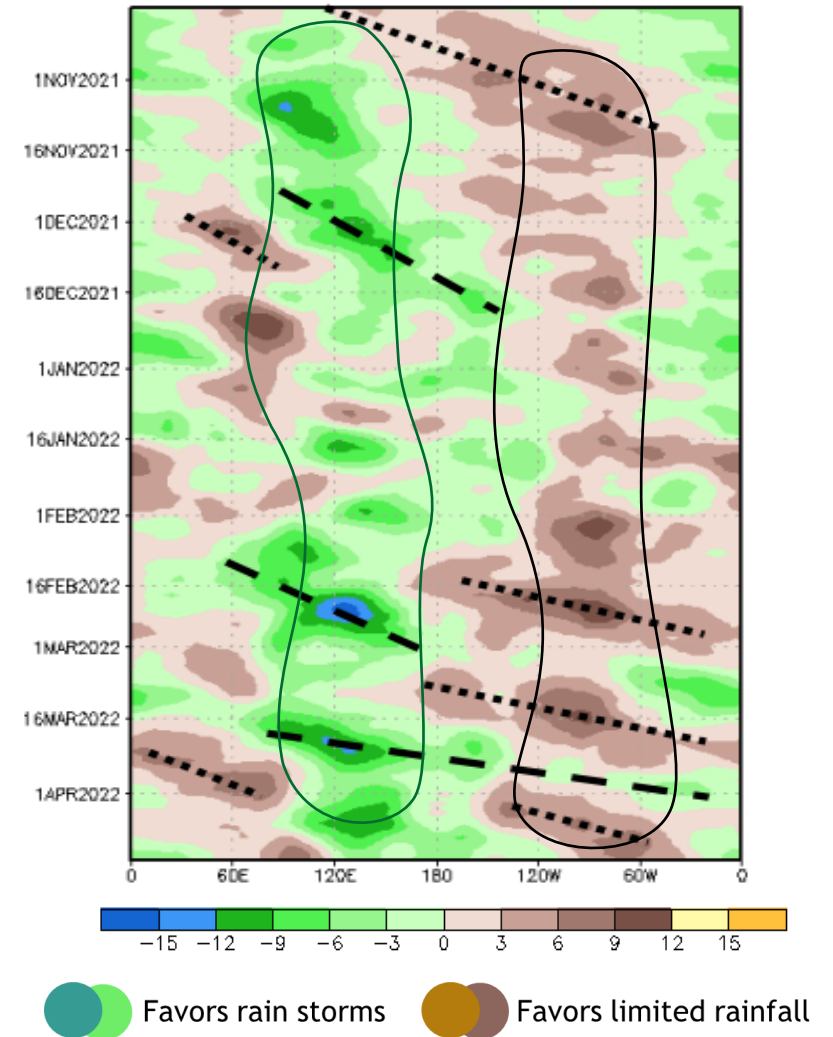
Madden-Julian Oscillation (MJO)

- Weak wet pulse crossing the Americas, but Kelvin wave activity has been pronounced since the weekend.
- Wave-2 pattern becoming more pronounced.
- La Niña Low-frequency signal still dominant.

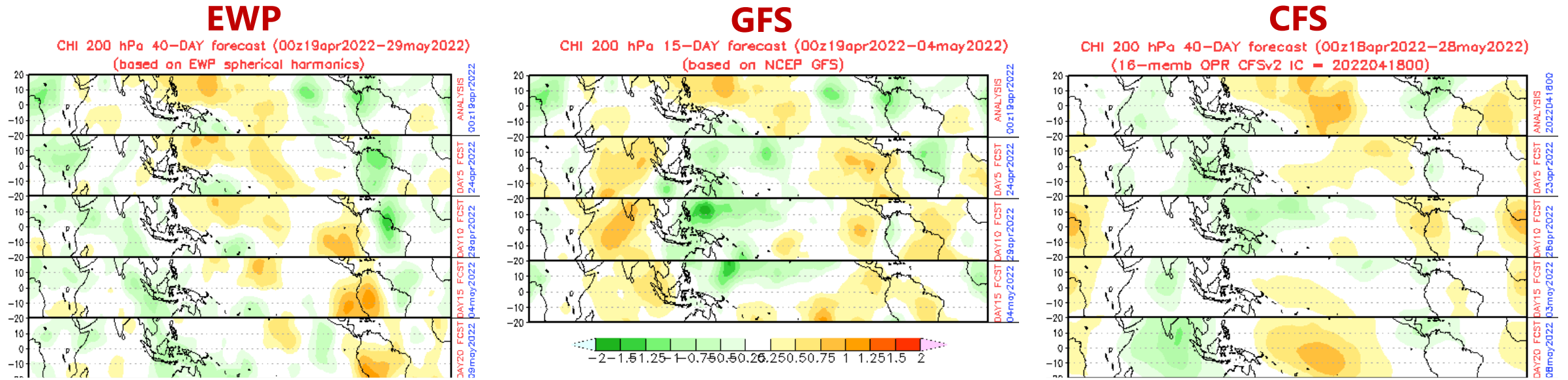
NCICS: Apr 15-17



200-hPa Velocity Potential Anomaly: 5N-5S
5-day Running Mean



MJO Forecasts for the Americas



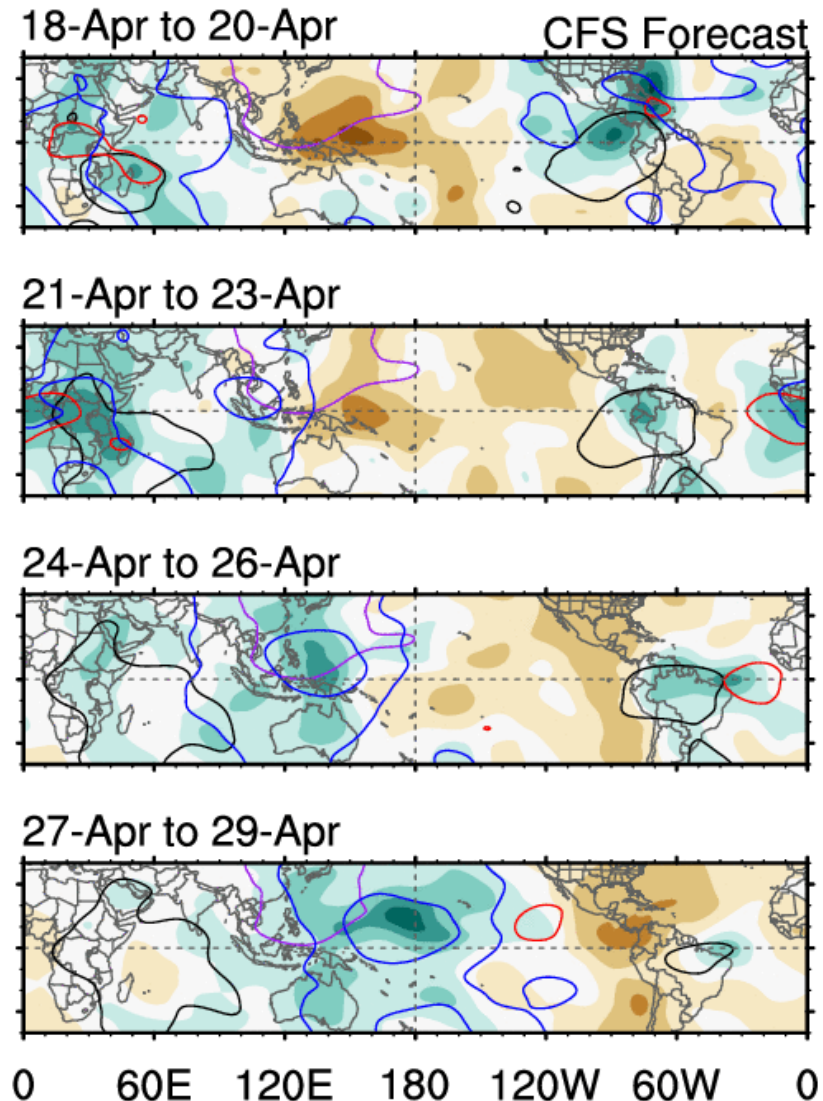
- **Wet MJO Phase:** Currently crossing the basin.
- **Dry MJO Phase:** End of April-early May, not pronounced.
- Seasonal trend: Becoming less organized. Confidence decreases after.

Tropospheric Equatorial Waves

➤ Wet MJO: Over the Tropical Americas

- Through Apr 25-28th
- Impacts: Northern South America
 - Northern Colombia/Venezuela
 - Guianas starting on Thursday

➤ Upper convergent (dry): Early May



ncics.org/mjo



7-day CHI200 with CFS forecasts

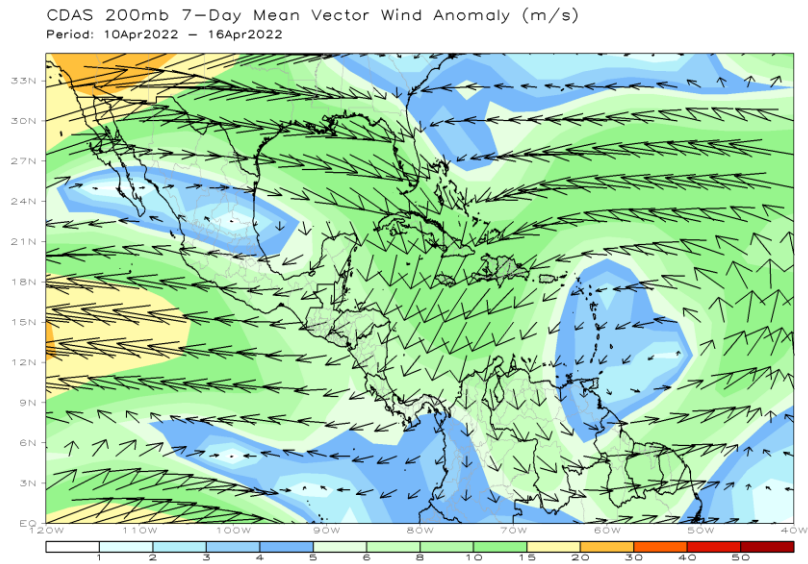
Wed 2020-09-16 10:18 UTC

— MJO — Kelvin x2
— Low — ER

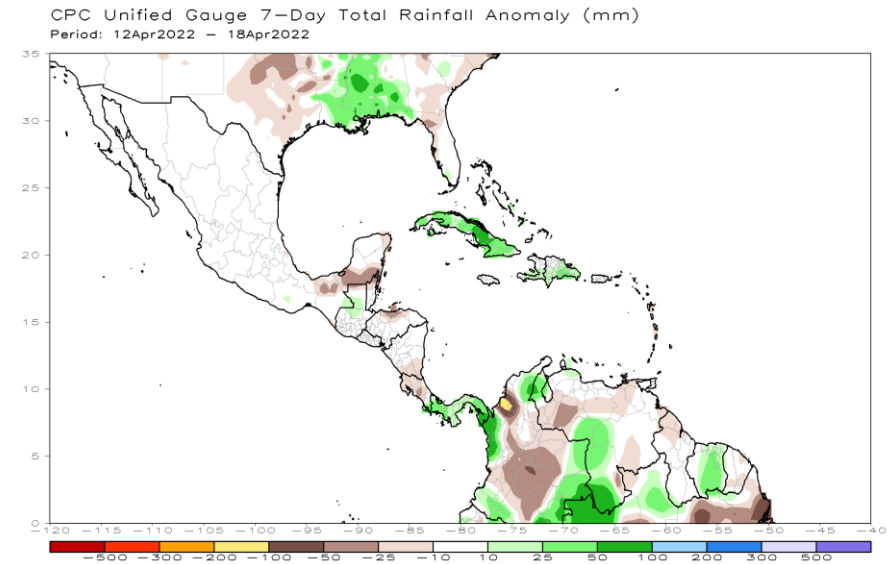
Contours at -2, -6 $\times 10^6$ m2 s-1
Carl Schreck
carl_schreck@ncsu.edu

Flow and Rainfall Anomalies, Last 7 Days

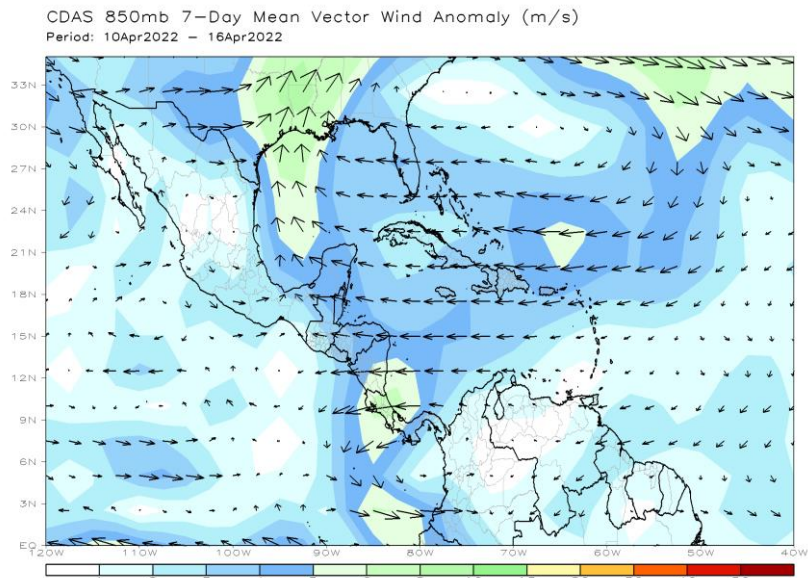
200 hPa Flow
Anomalies



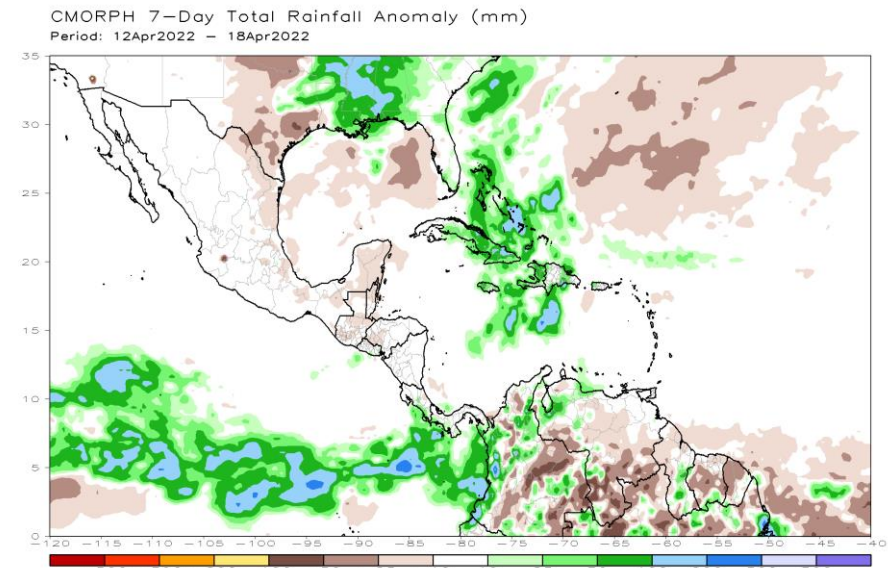
Gauges



850 hPa Flow
Anomalies

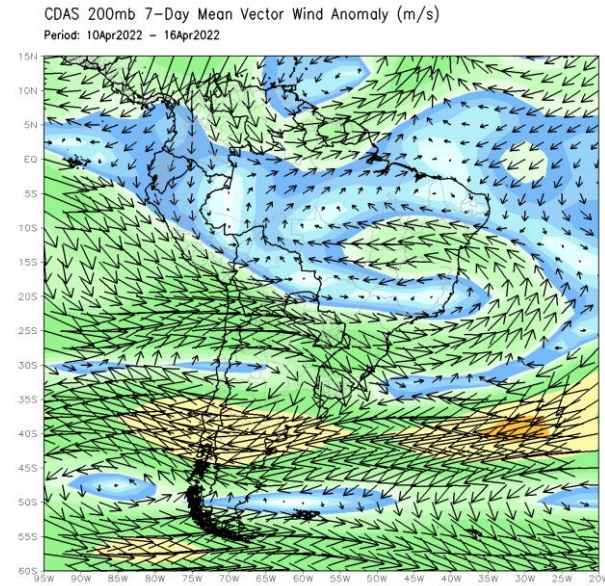


CMORPH

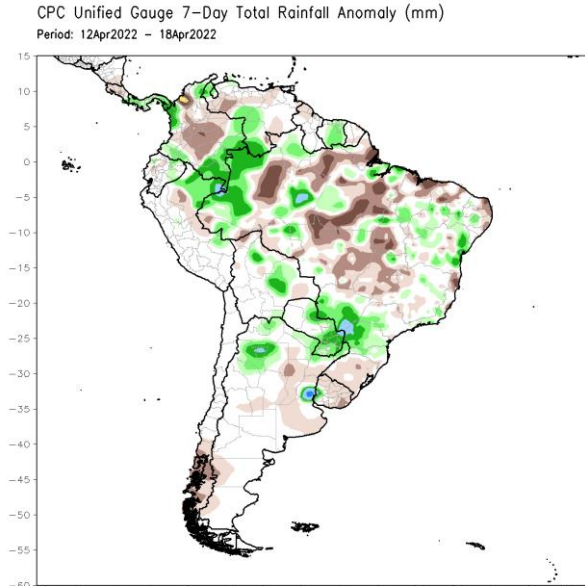


Flow and Rainfall Anomalies, Last 7 Days

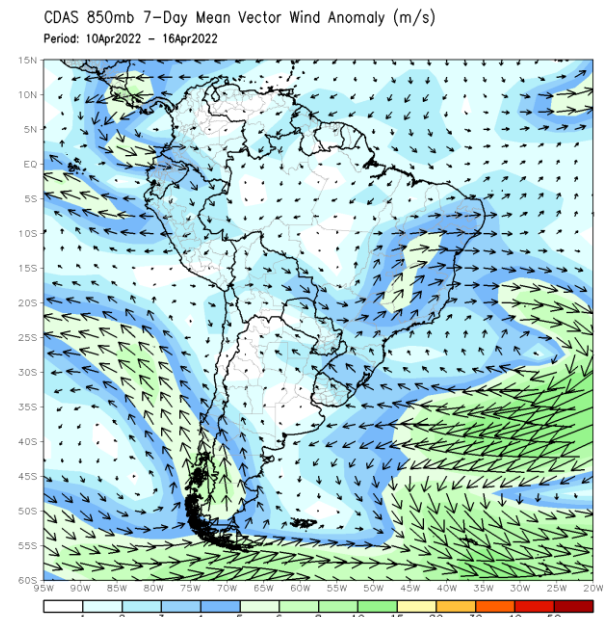
200 hPa Flow
Anomalies



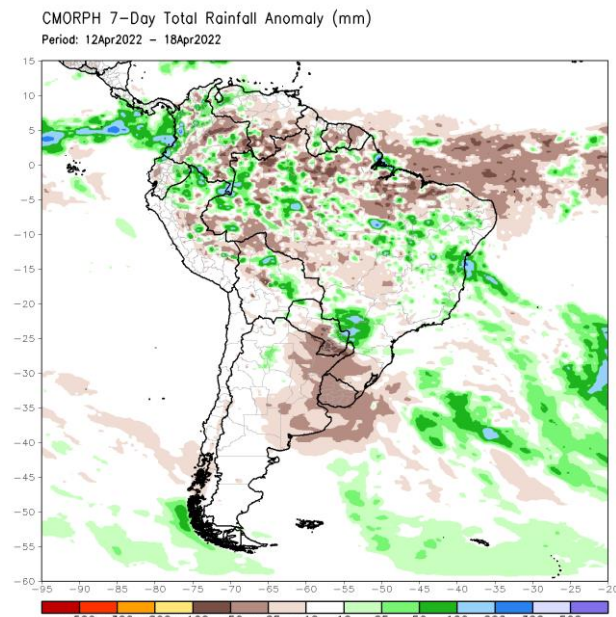
Gauges



850 hPa Flow
Anomalies



CMORPH



¡Gracias! Thank you!

Next session: 11 May 2022 at 15 UTC

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