



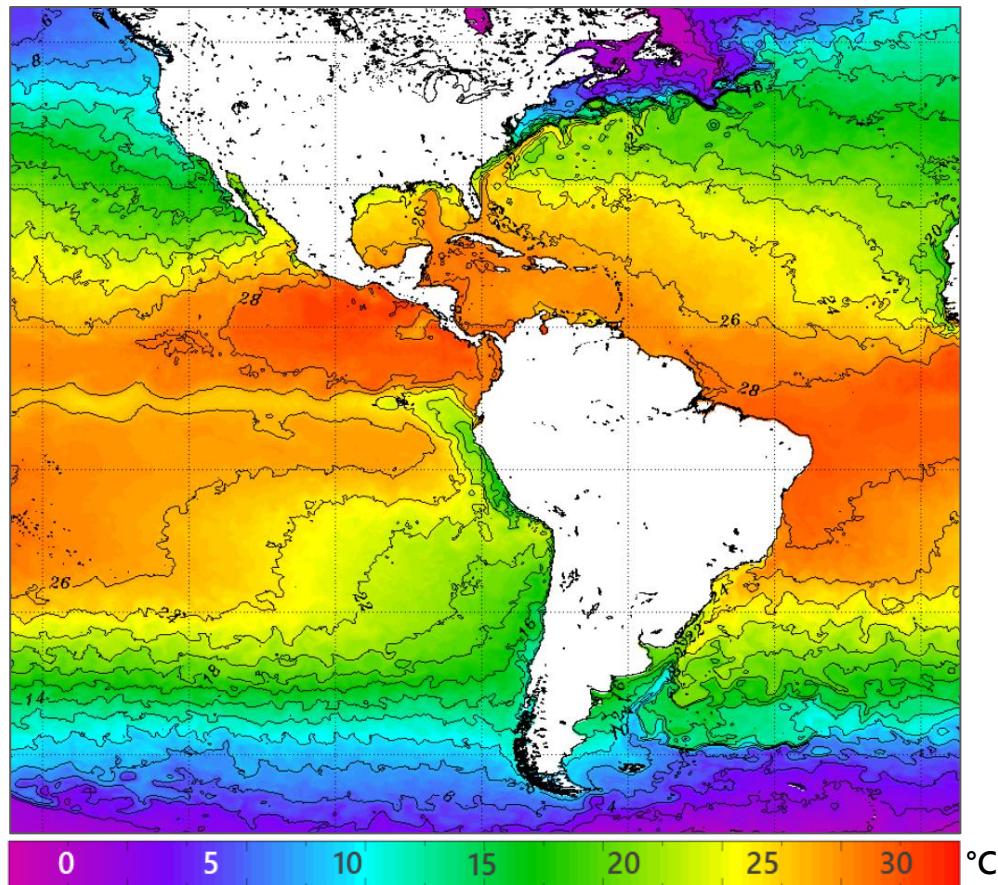
# Monthly Regional Focus Group Session

Wednesday 20 April 2022 at 15 UTC

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

# Sea Surface Temperatures

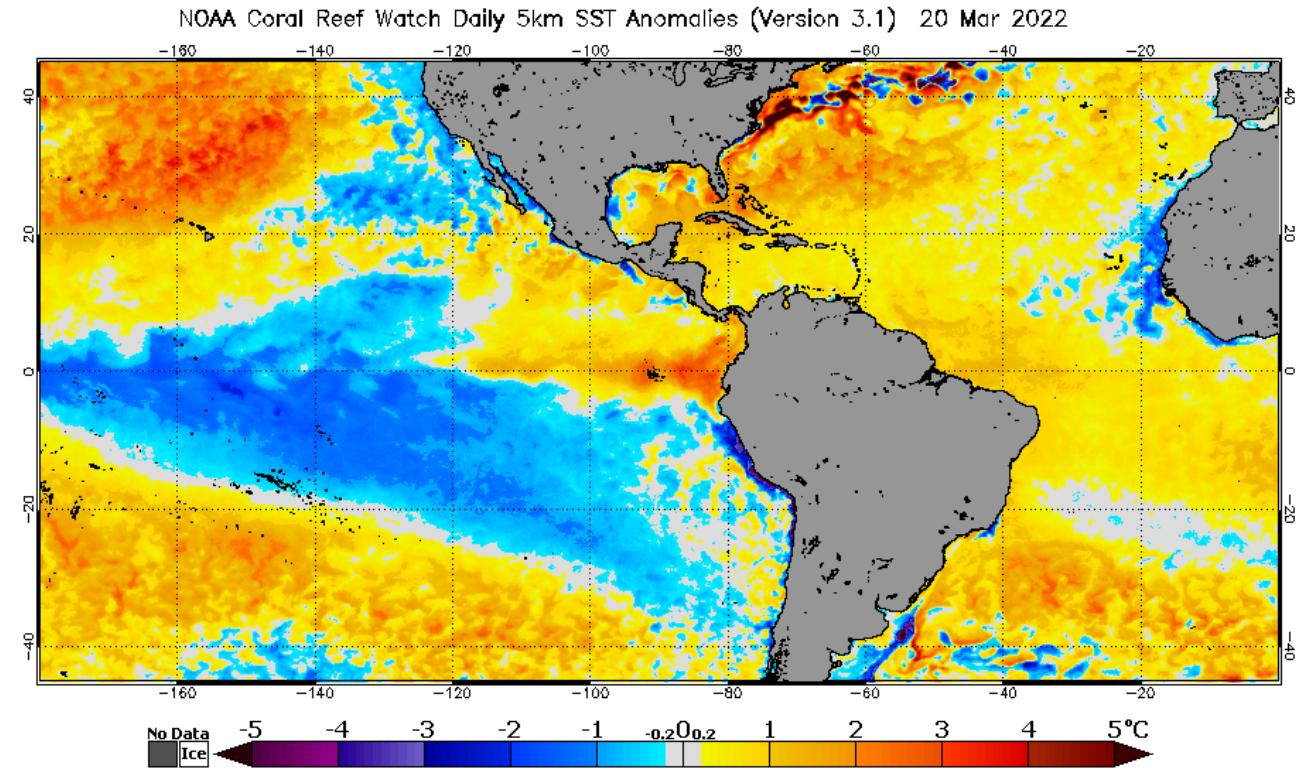
Daily SST Mar 07



NOAA OSPO

[https://www.ospo.noaa.gov/data/sst/contour/global\\_small.c.gif](https://www.ospo.noaa.gov/data/sst/contour/global_small.c.gif)

Anomaly Evolution

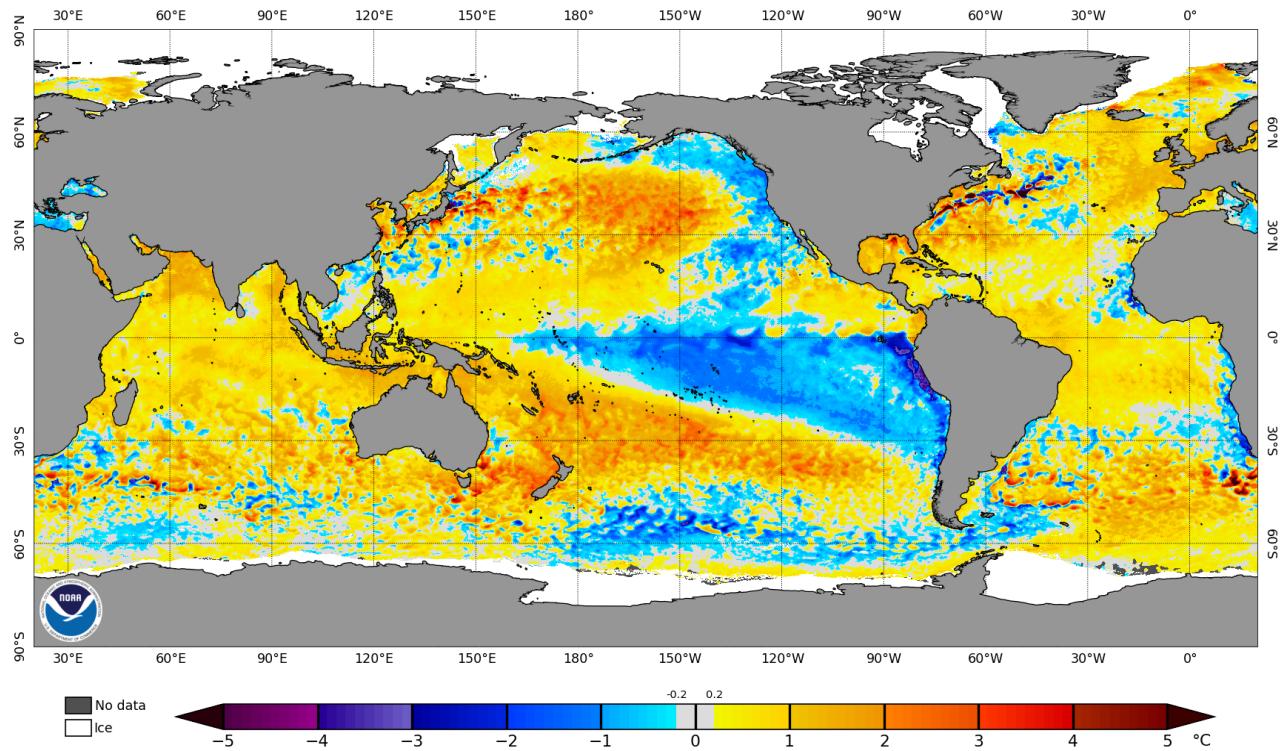


NOAA Coral Reef Watch  
<https://coralreefwatch.noaa.gov/>

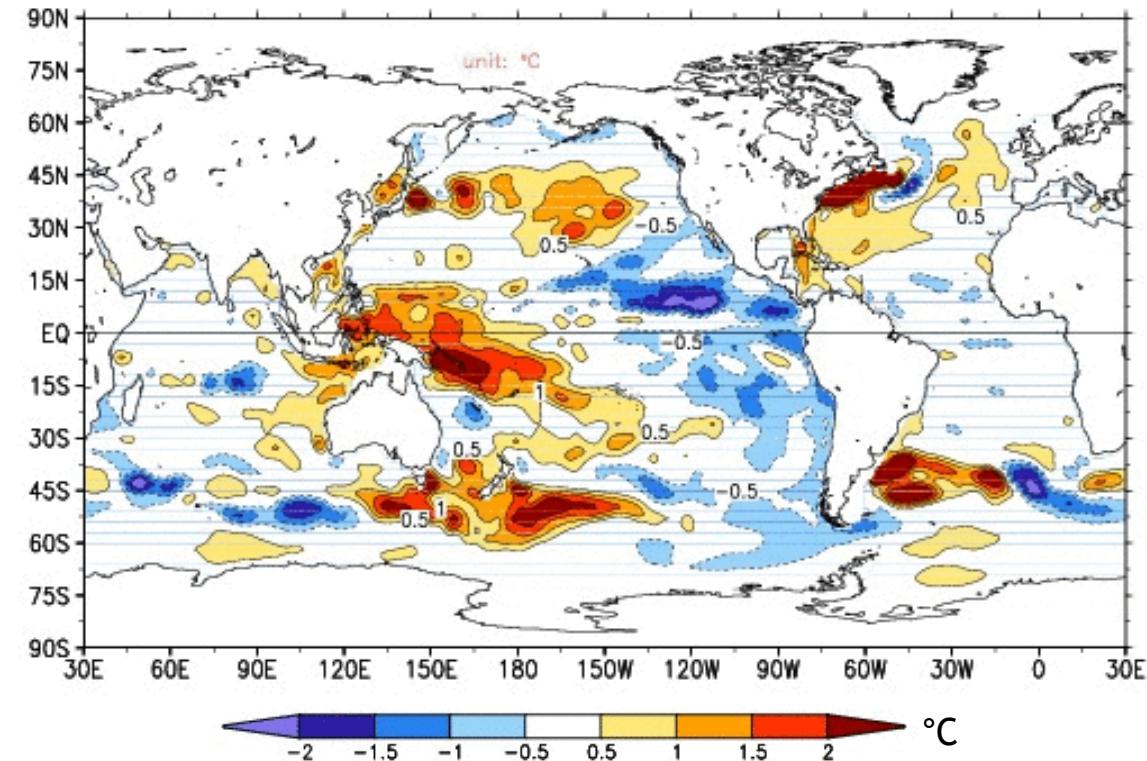
# Are the anomalies deep?

Deep anomalies last longer, becoming useful for subseasonal forecasting.

SST Anomaly - Apr 18

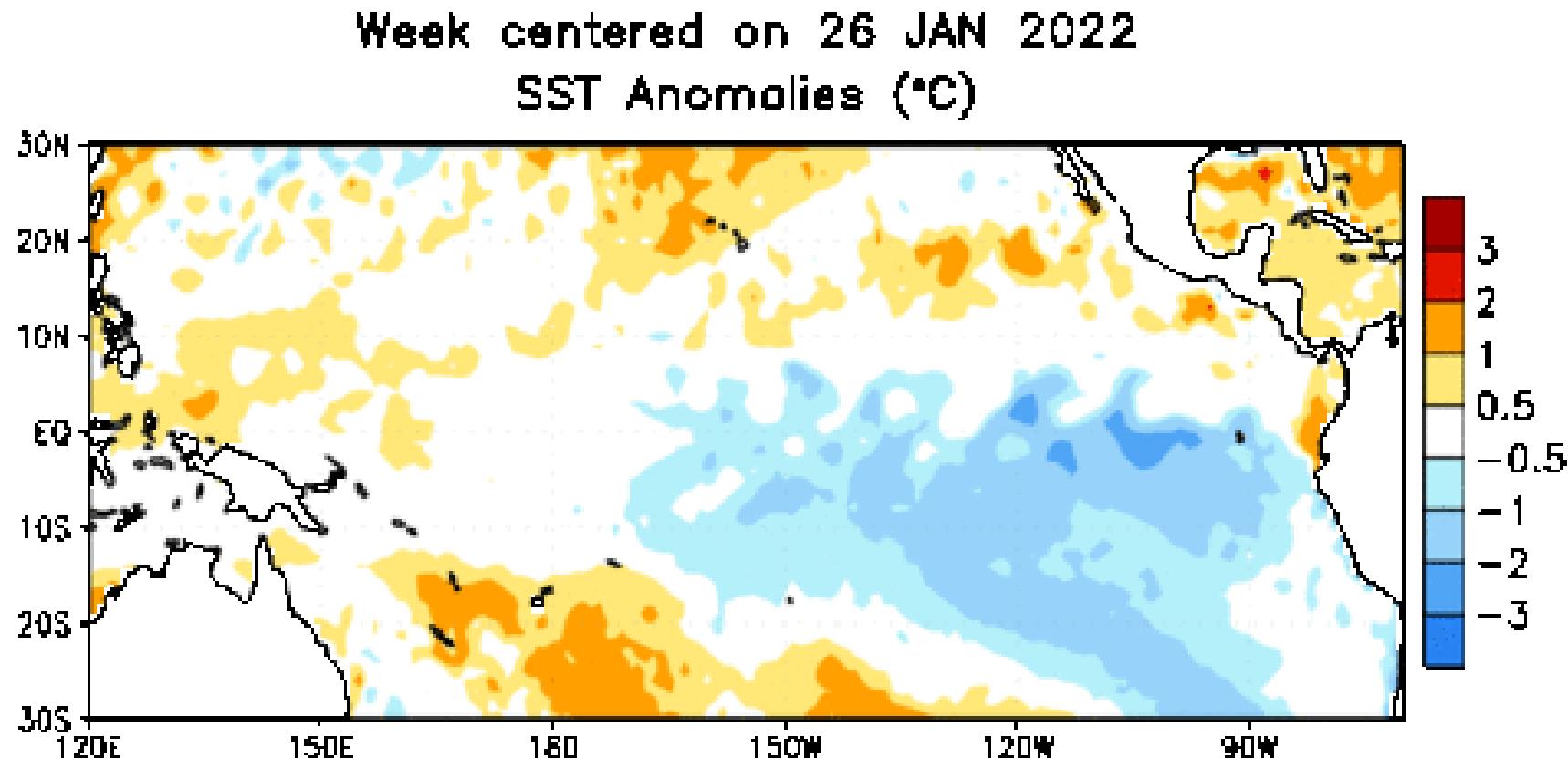


Top 300m-Layer Anomaly (GODAS) - Apr 13



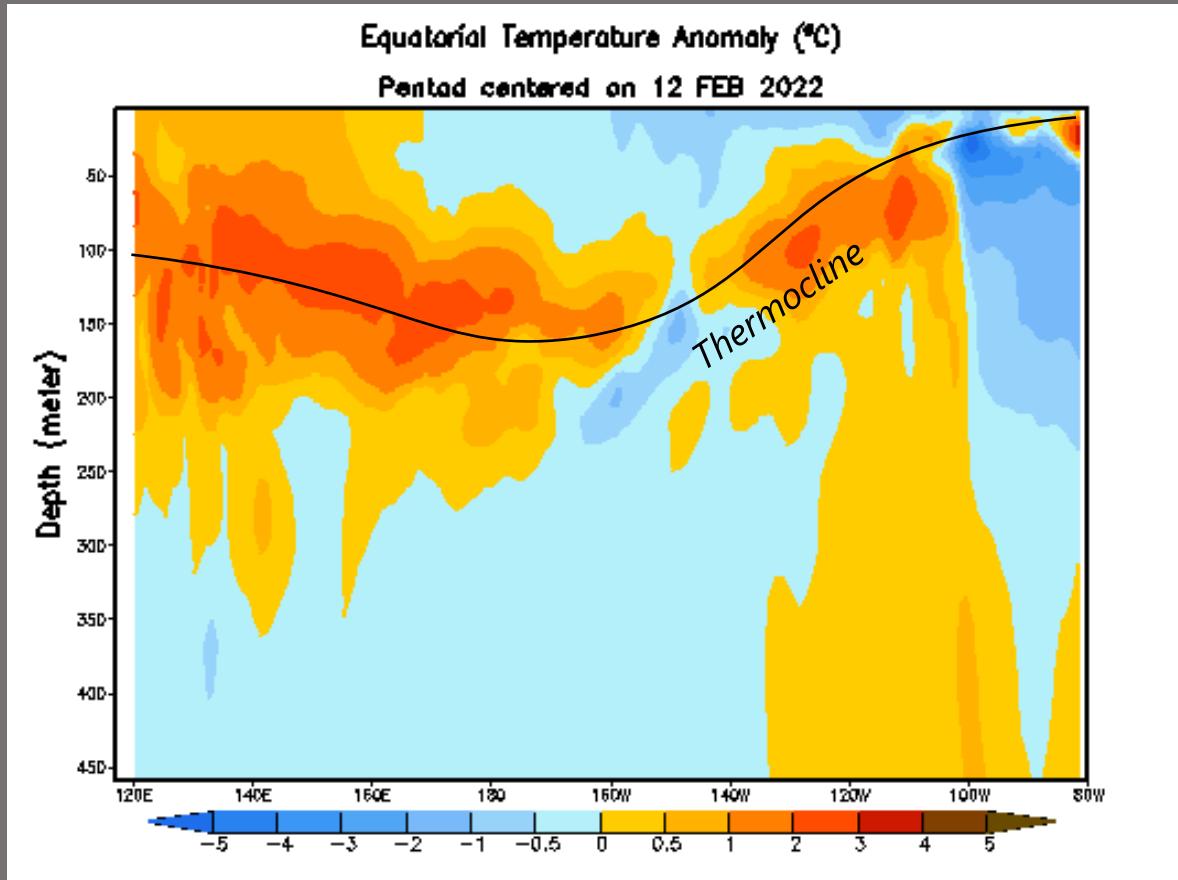
# ENSO: La Niña

- ❖ 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.



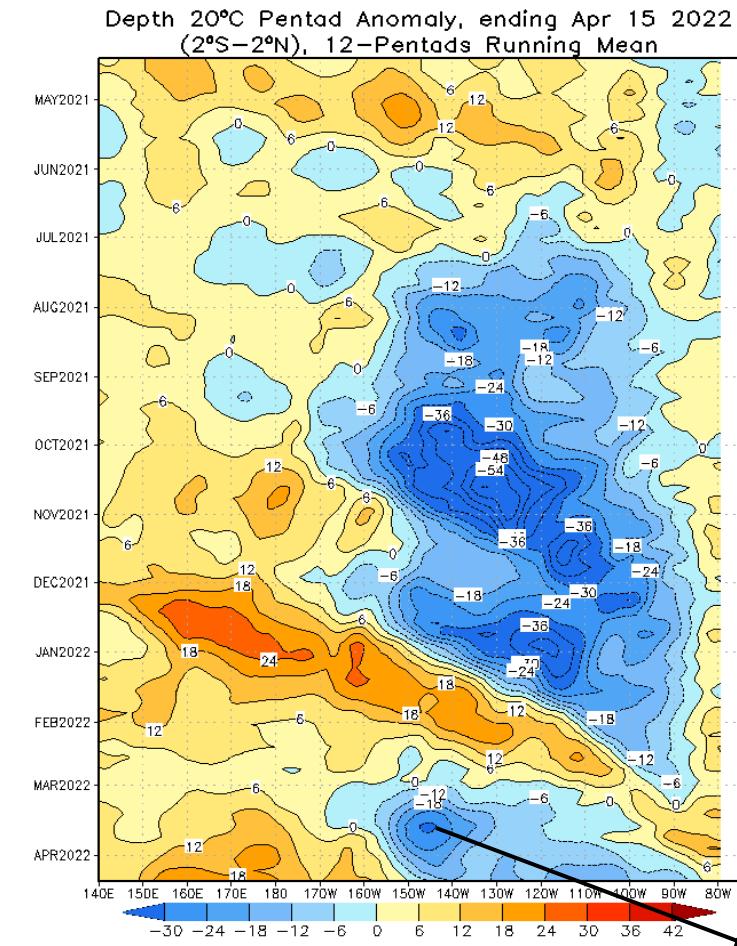
# ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomaly Cross Section



Source: CPC

Heat Content Hovmöller

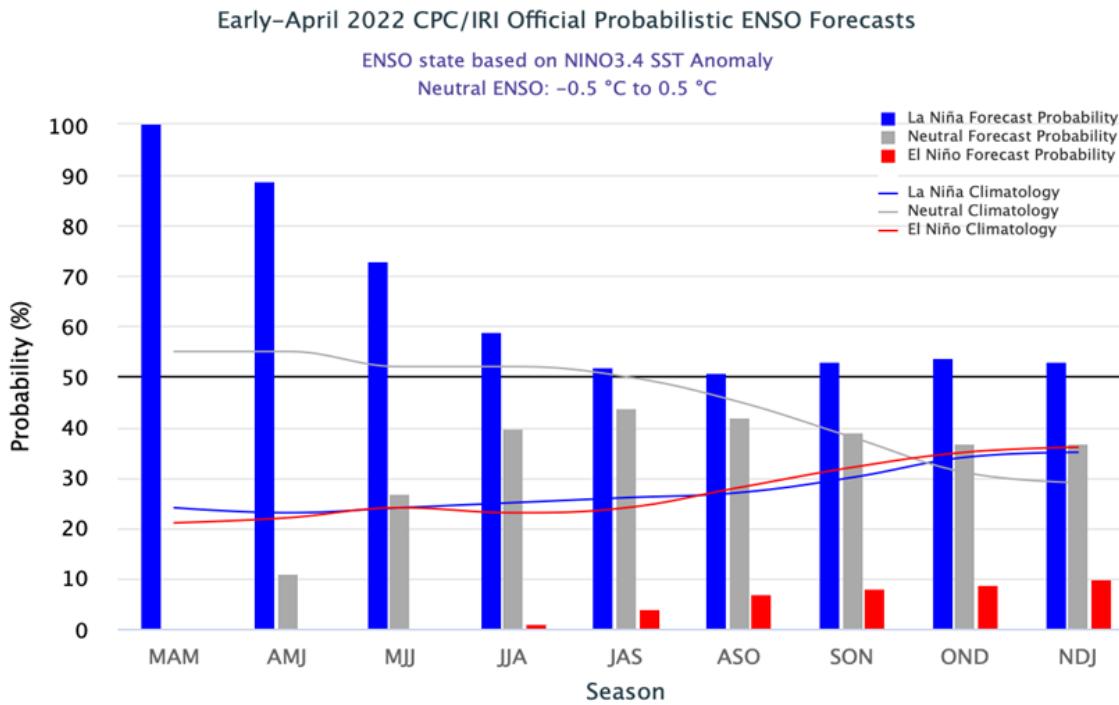


Cooling developing  
for South America  
peaking in Early May.

# ENSO Outlook

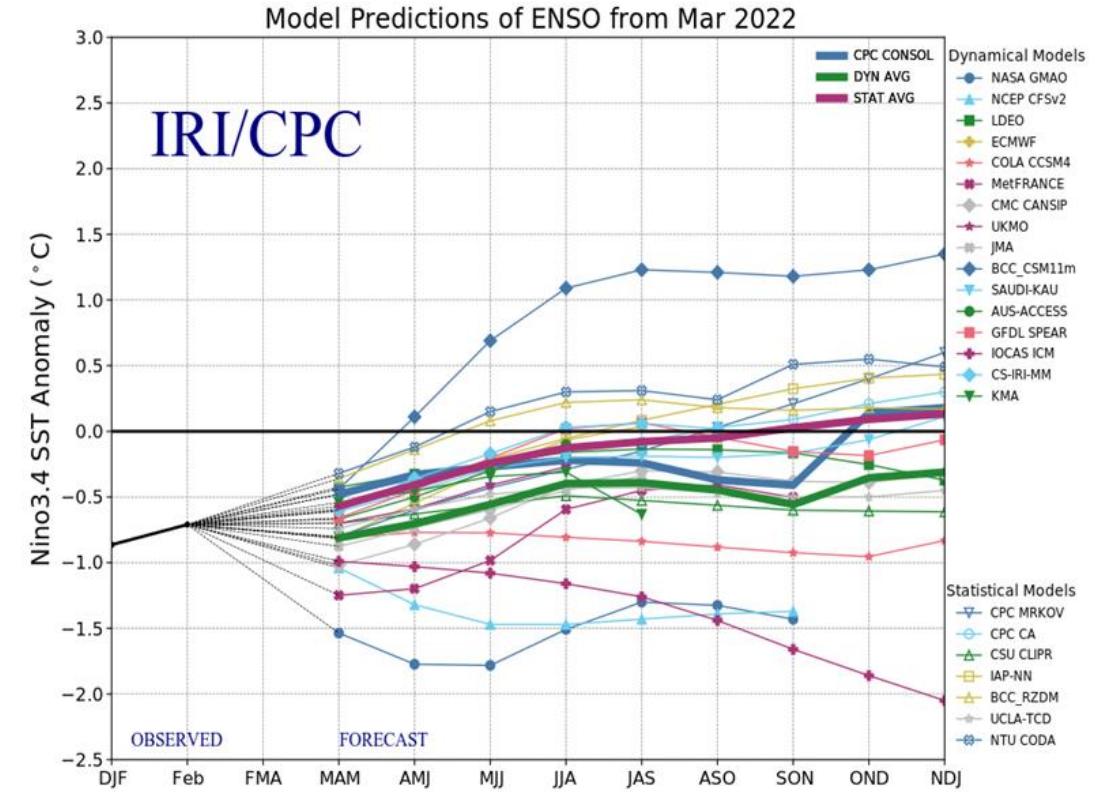
La Niña is favored to continue through the Northern Hemisphere summer (59% chance during June-August 2022), with a 50-55% chance through the fall.\*

## CPC/IRI Probabilistic Forecast



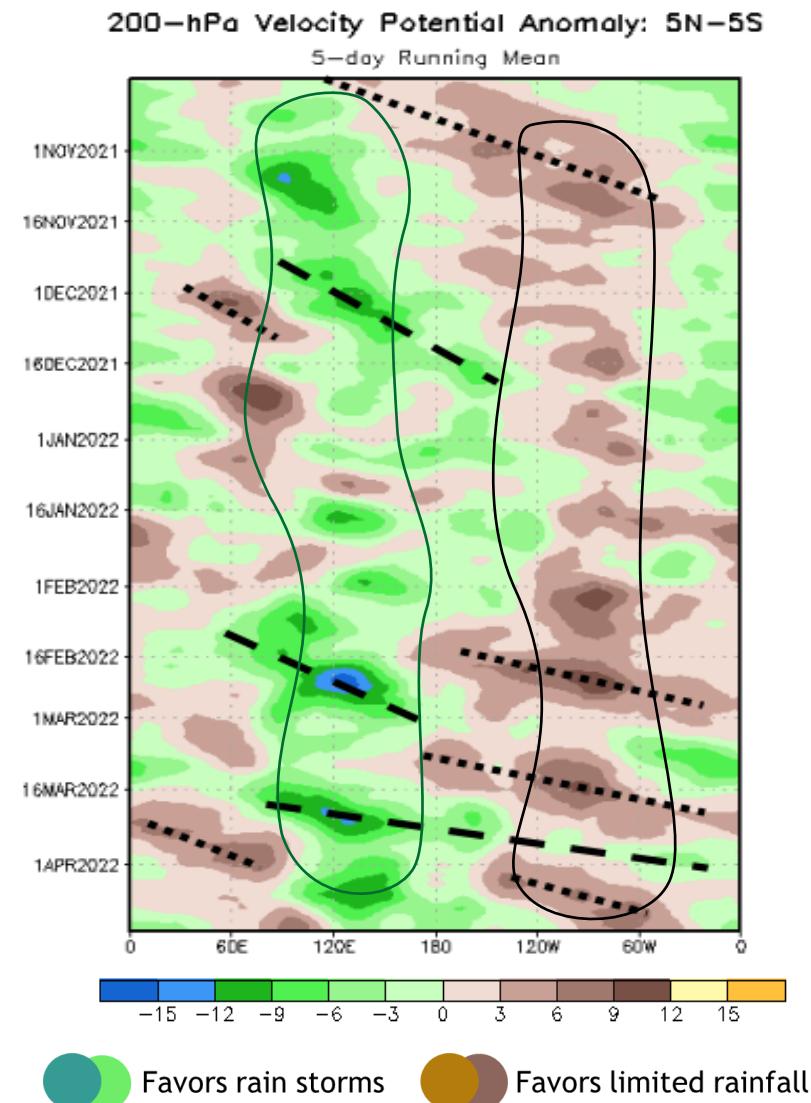
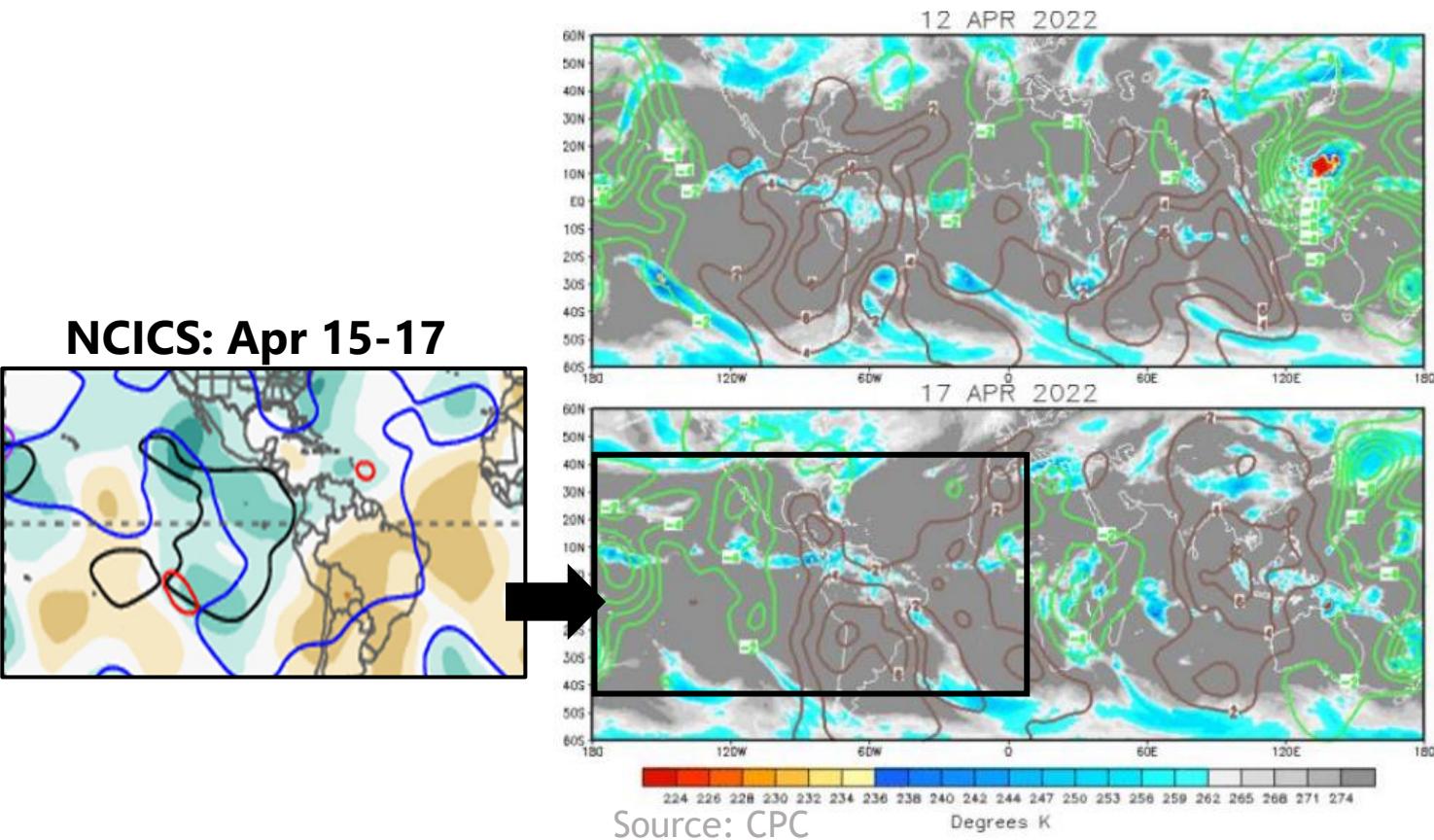
Source: CPC

## IRI/CPC Dynamic Models

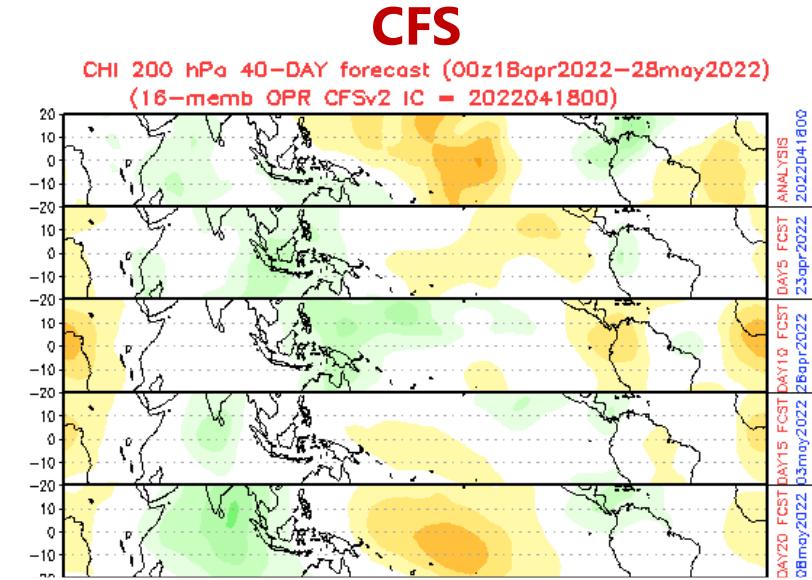
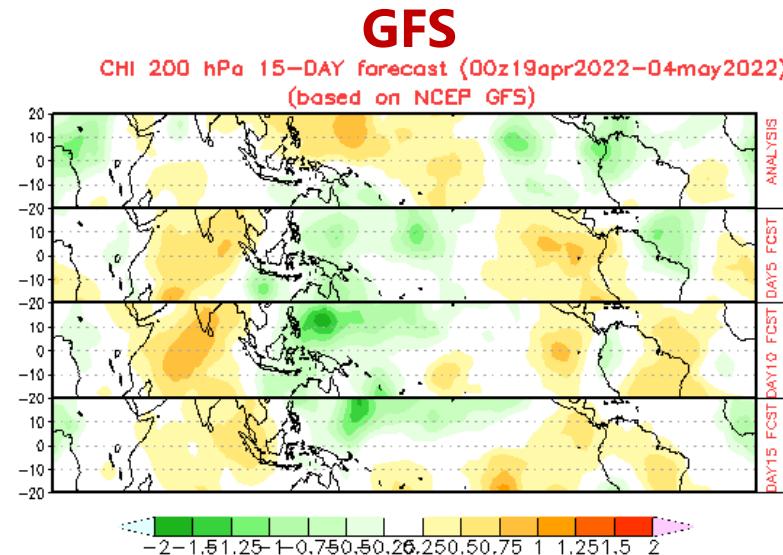
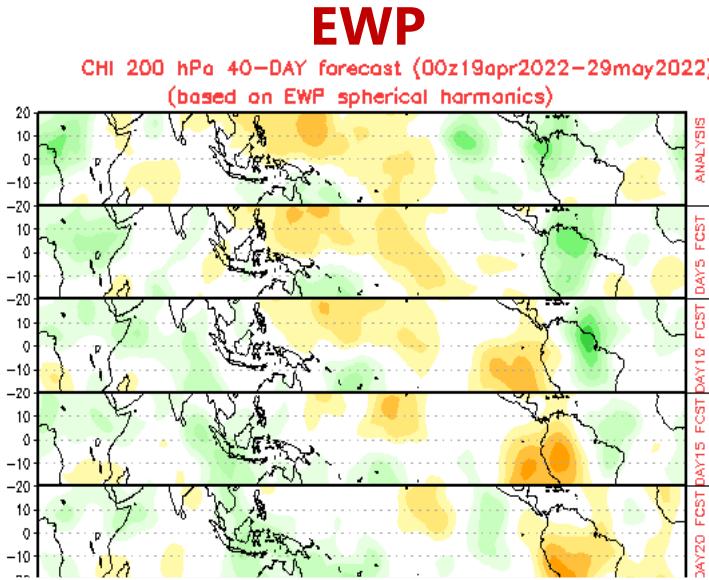


# Madden-Julian Oscillation (MJO)

- 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.



# MJO Forecasts for the Americas



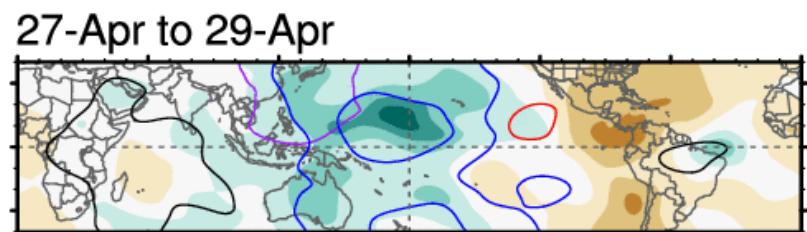
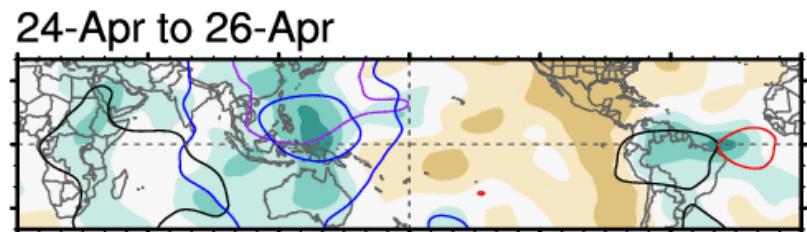
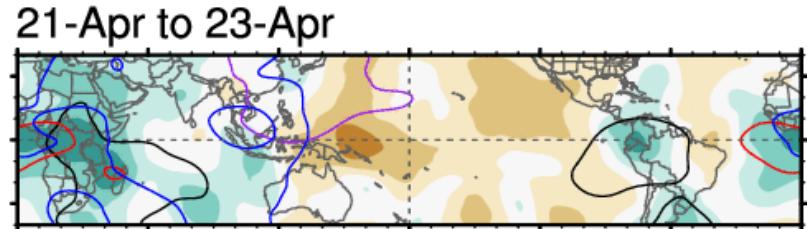
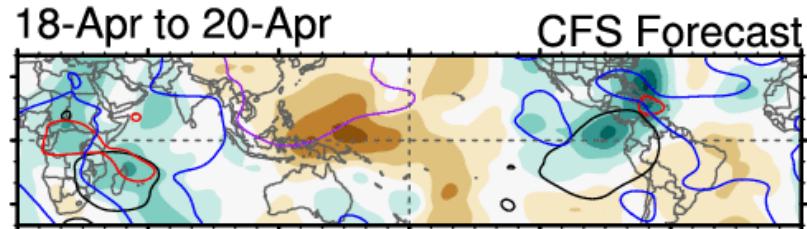
- **Wet MJO Phase:** Currently crossing the basin.
- **Dry MJO Phase:** End of April-early May, not pronounced.
- Seasonal trend: Becoming less organized. Confidence decreases after.

# 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



0 60E 120E 180 120W 60W 0

-9 -7 -5 -3 -1 1 3 5 7 9  $\times 10^6 \text{ m}^2 \text{ s}^{-1}$

7-day CHI200 with CFS forecasts

Wed 2020-09-16 1018 UTC

Contours at -2, -6  $\times 10^6 \text{ m}^2 \text{ s}^{-1}$

Carl Schreck

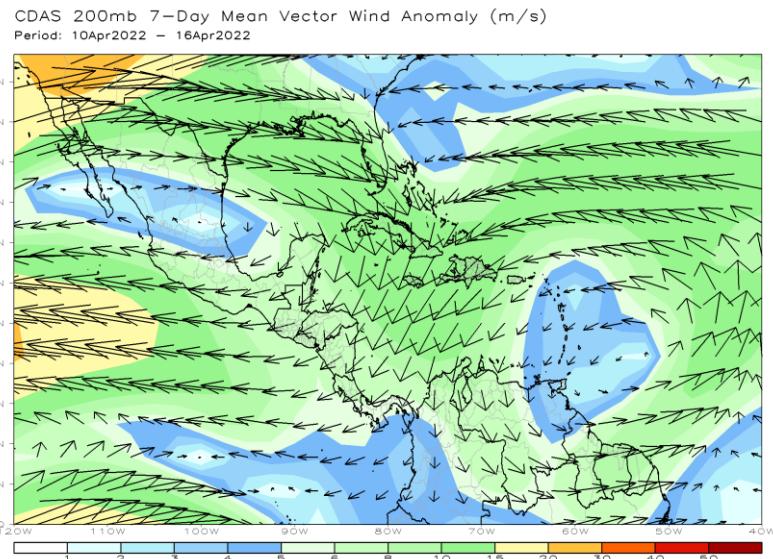
carl\_schreck@ncsu.edu



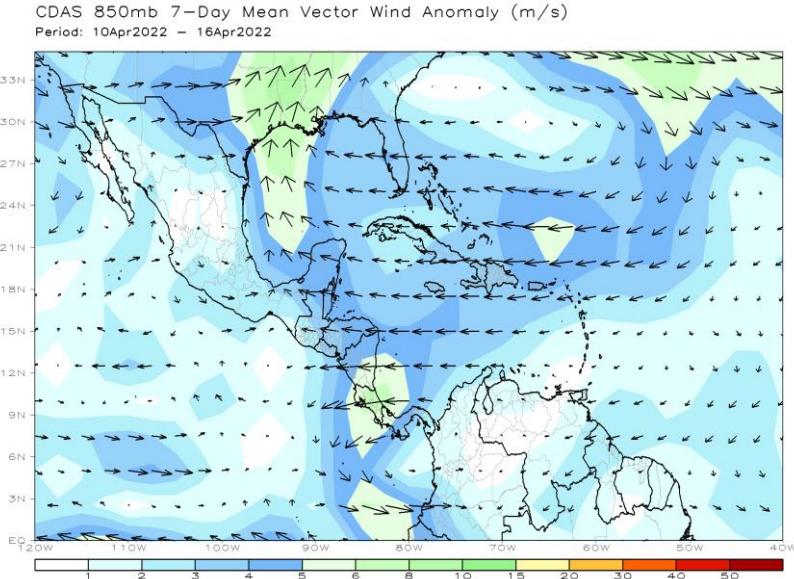
ncics.org/mjo

# Flow and Rainfall Anomalies, Last 7 Days

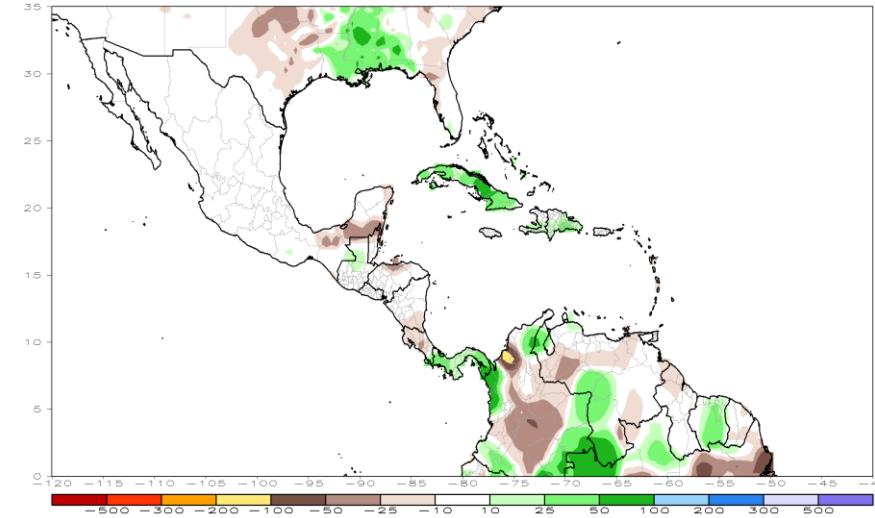
200 hPa Flow Anomalies



850 hPa Flow Anomalies

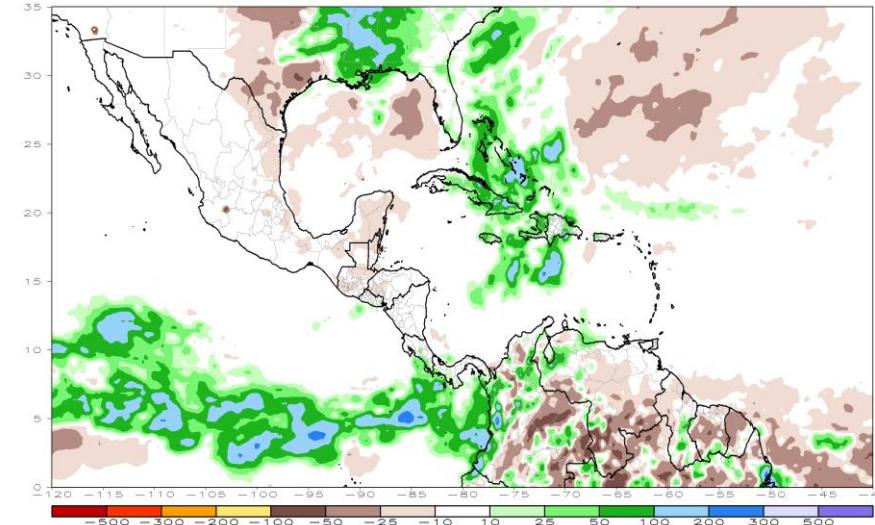


CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)  
Period: 12Apr2022 – 18Apr2022



Gauges

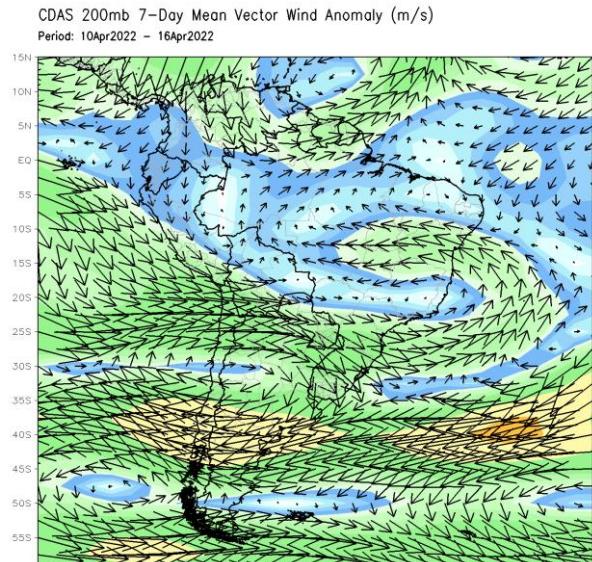
CMORPH 7-Day Total Rainfall Anomaly (mm)  
Period: 12Apr2022 – 18Apr2022



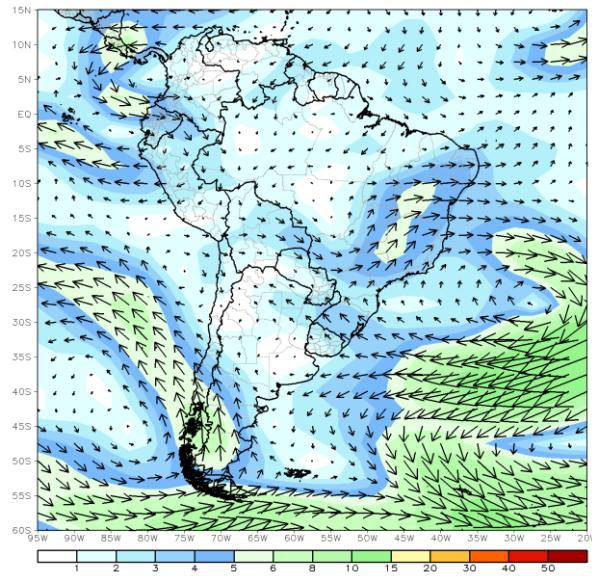
CMORPH

# Flow and Rainfall Anomalies, Last 7 Days

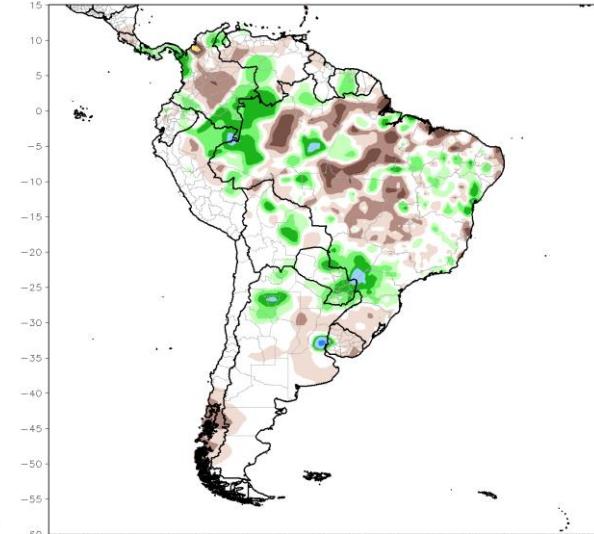
200 hPa Flow Anomalies



850 hPa Flow Anomalies

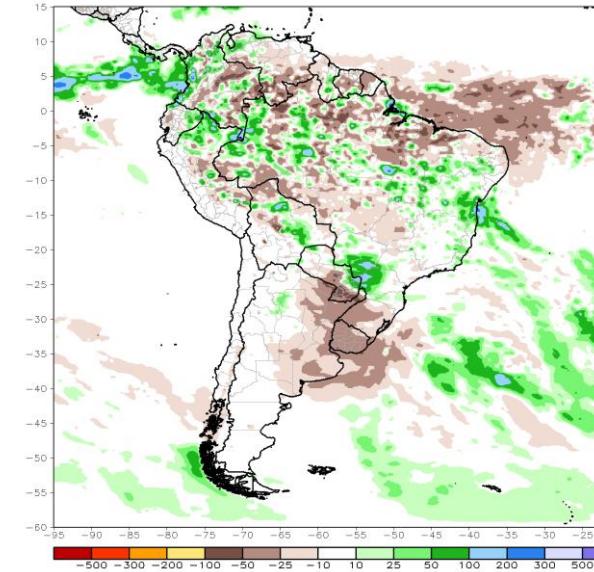


CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)  
Period: 12Apr2022 – 18Apr2022



Gauges

CMORPH 7-Day Total Rainfall Anomaly (mm)  
Period: 12Apr2022 – 18Apr2022



CMORPH

¡Gracias!      Thank you!

Next session: 11 May 2022 at 15 UTC

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