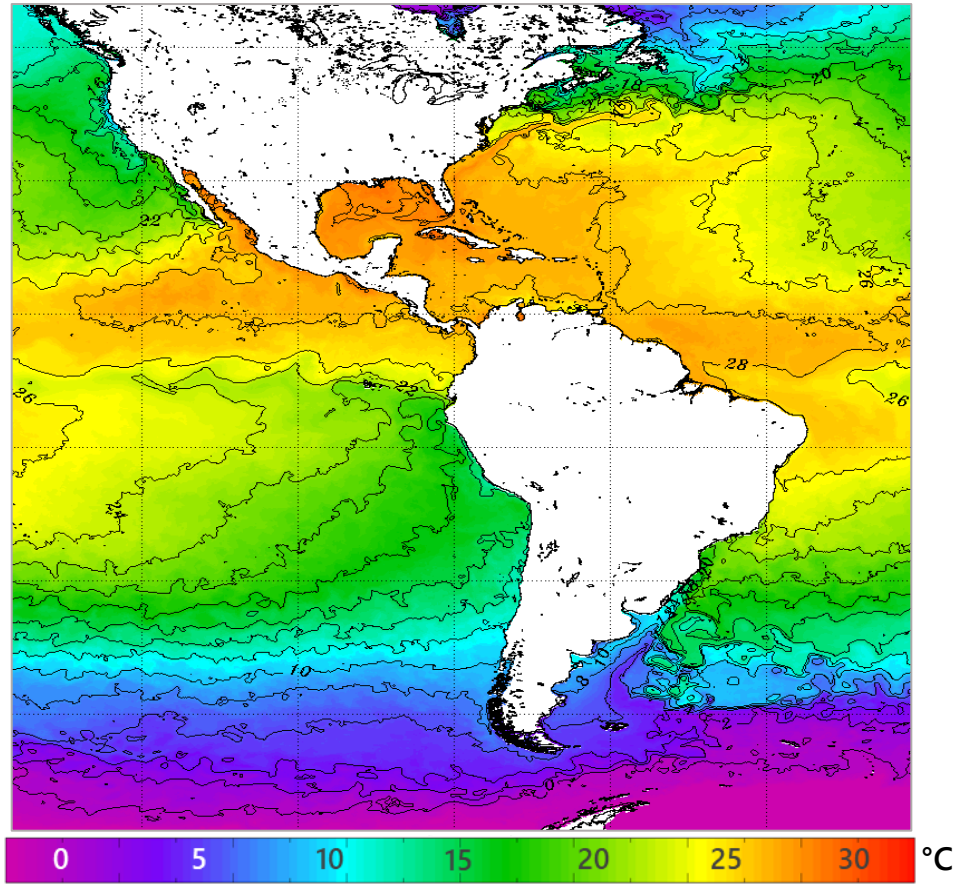
Monthly Regional Focus Group Session

Wednesday 20 July 2022 at 15 UTC

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

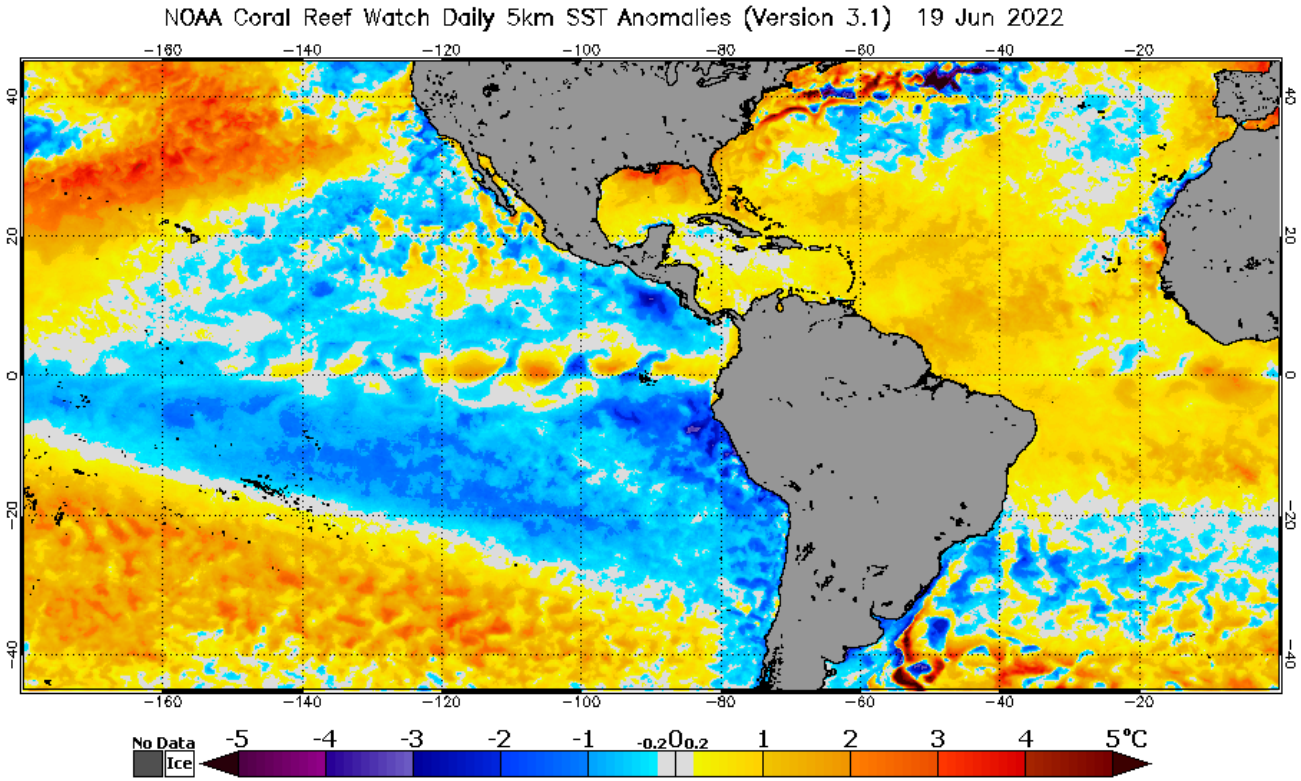
Sea Surface Temperatures (SST)

Daily SST July 18



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

Anomaly Evolution

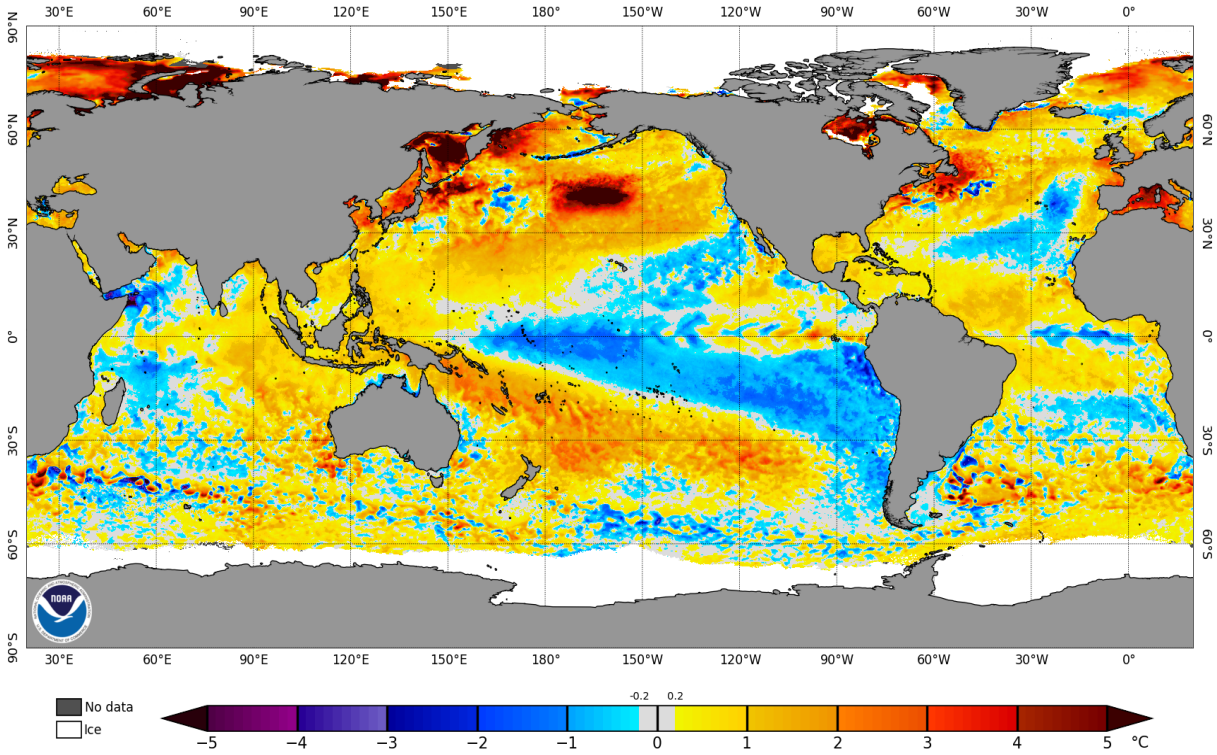


NOAA Coral Reef Watch
https://coralreefwatch.noaa.gov/

Are sea temperature anomalies deep?

Deep anomalies last longer, becoming useful for subseasonal forecasting.

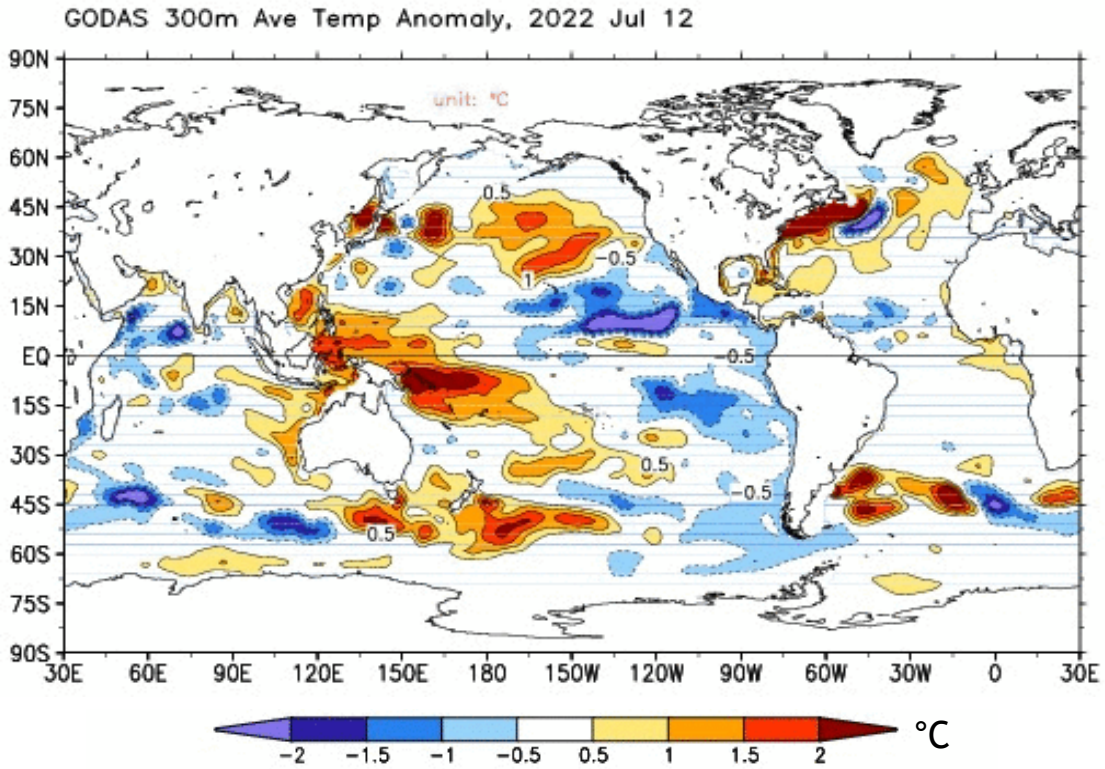
SST Anomaly – 18 July



NOAA Coral Reef Watch

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

Top 300m-Layer Anomaly – 12 July



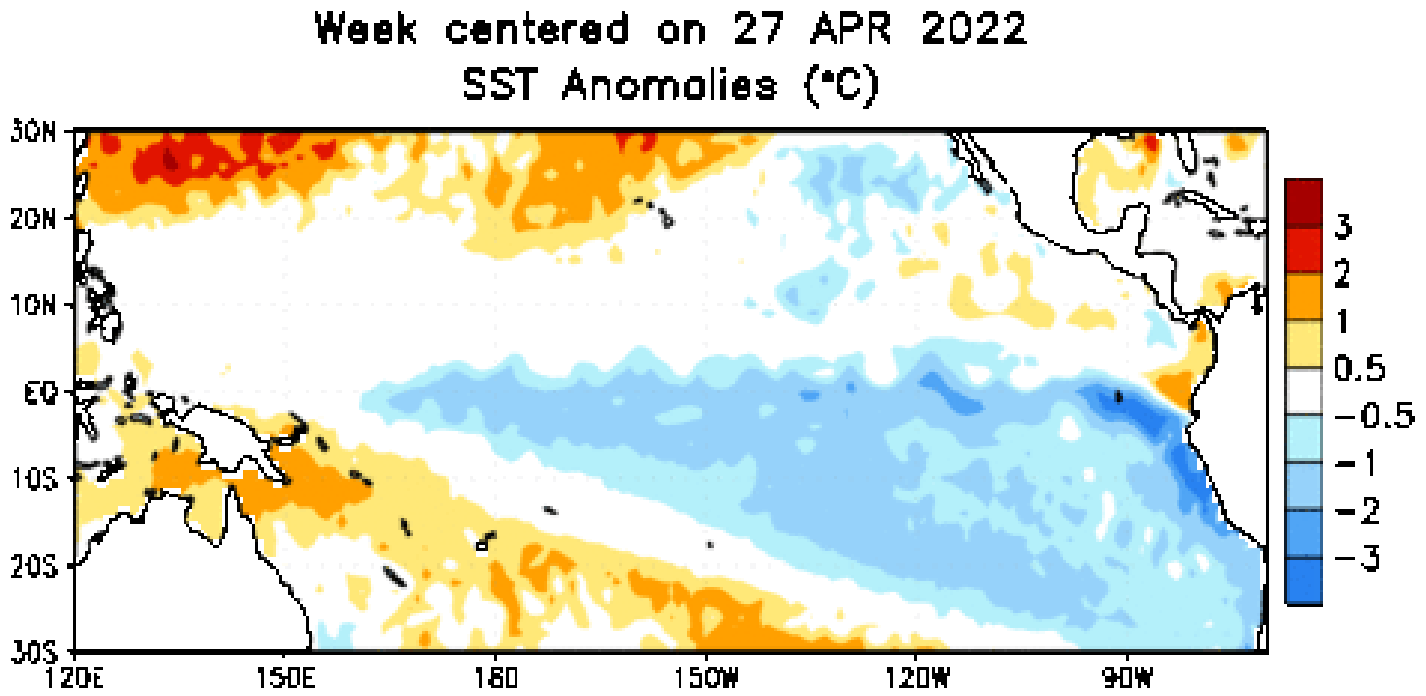
NOAA CPC

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

ENSO: La Niña

(no changes since April)

- La Niña is present.*
- Equatorial SSTs are below average across most of the Pacific Ocean.
- The tropical Pacific atmosphere is consistent with La Niña.



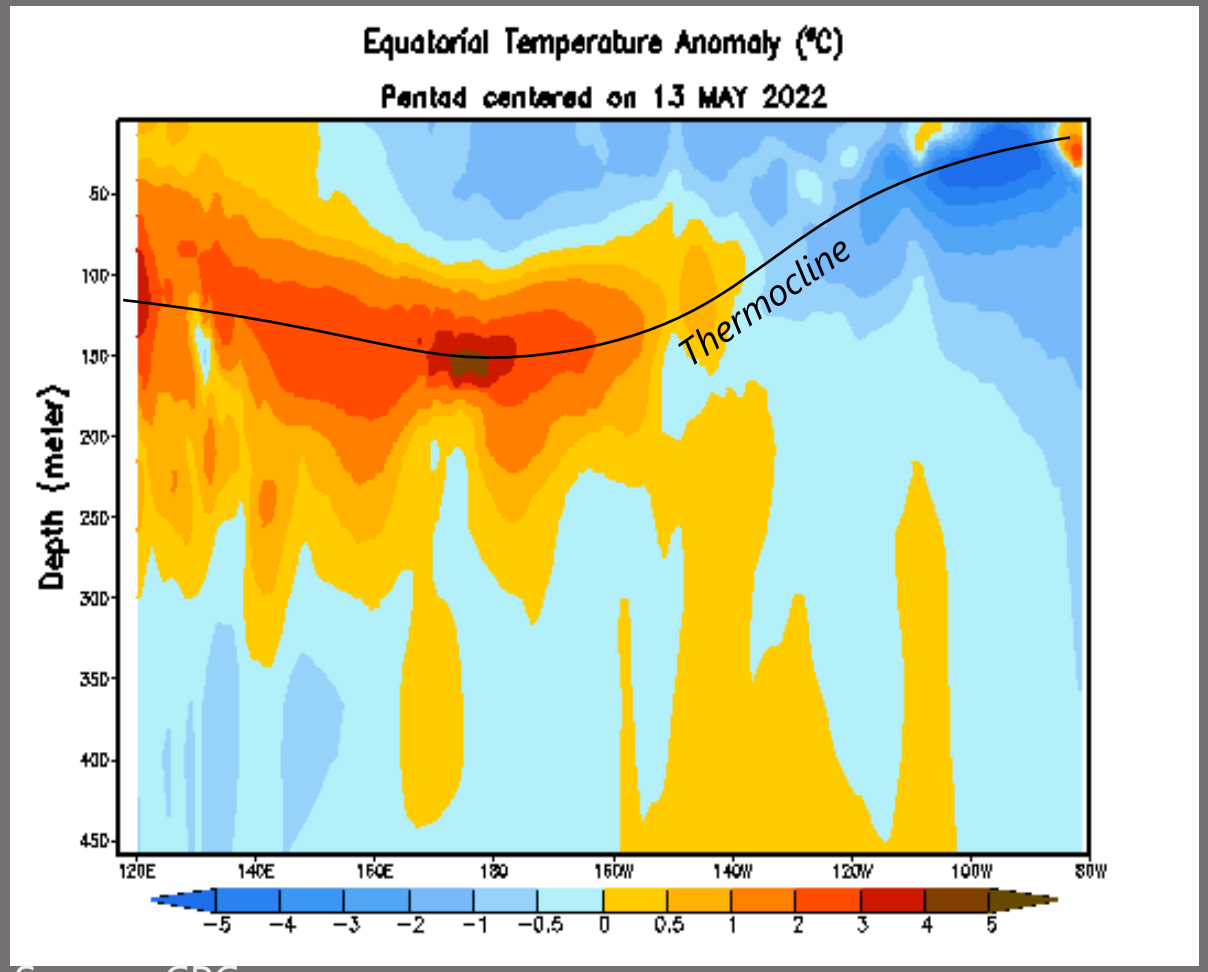
Oceanic Niño Index (ONI)

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2020	0.5	0.5	0.4	0.2	-0.1	-0.3	-0.4	-0.6	-0.9	-1.2	-1.3	-1.2
2021	-1.0	-0.9	-0.8	-0.7	-0.5	-0.4	-0.4	-0.5	-0.7	-0.8	-1.0	-1.0
2022	-1.0	-0.9	-1.0	-1.1	-1.0							

< -0.5

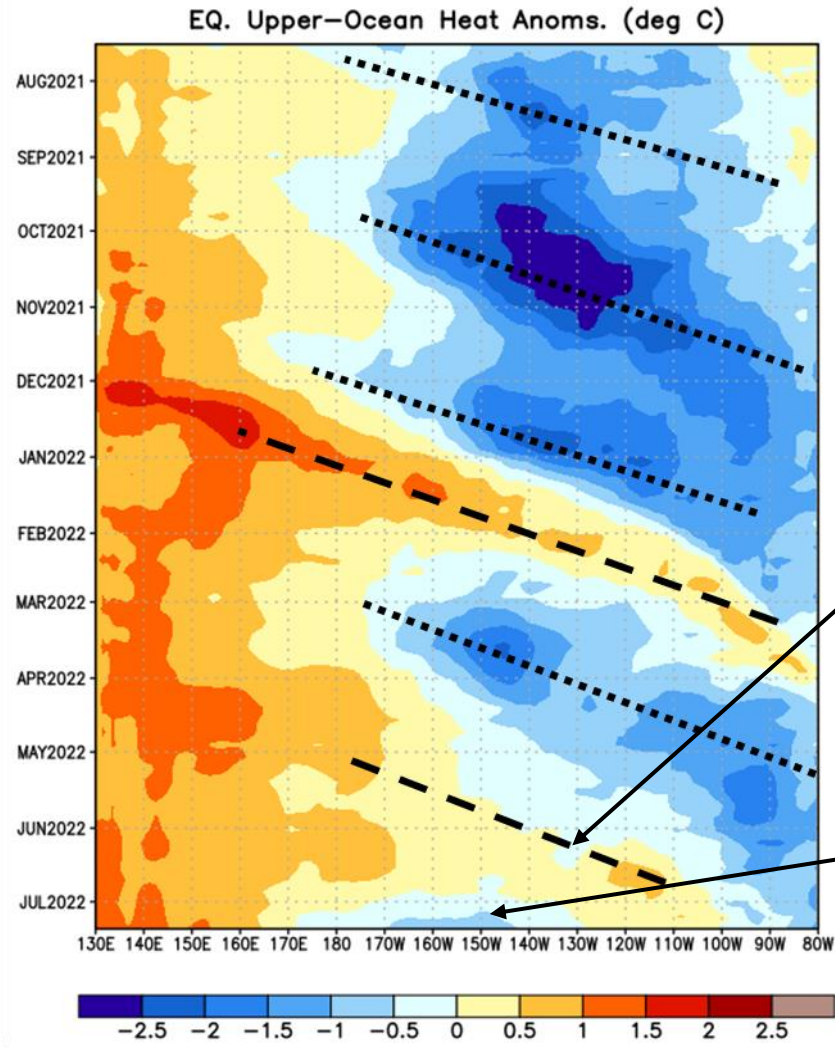
ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomaly Cross Section



Source: CPC

Heat Content Hovmöller



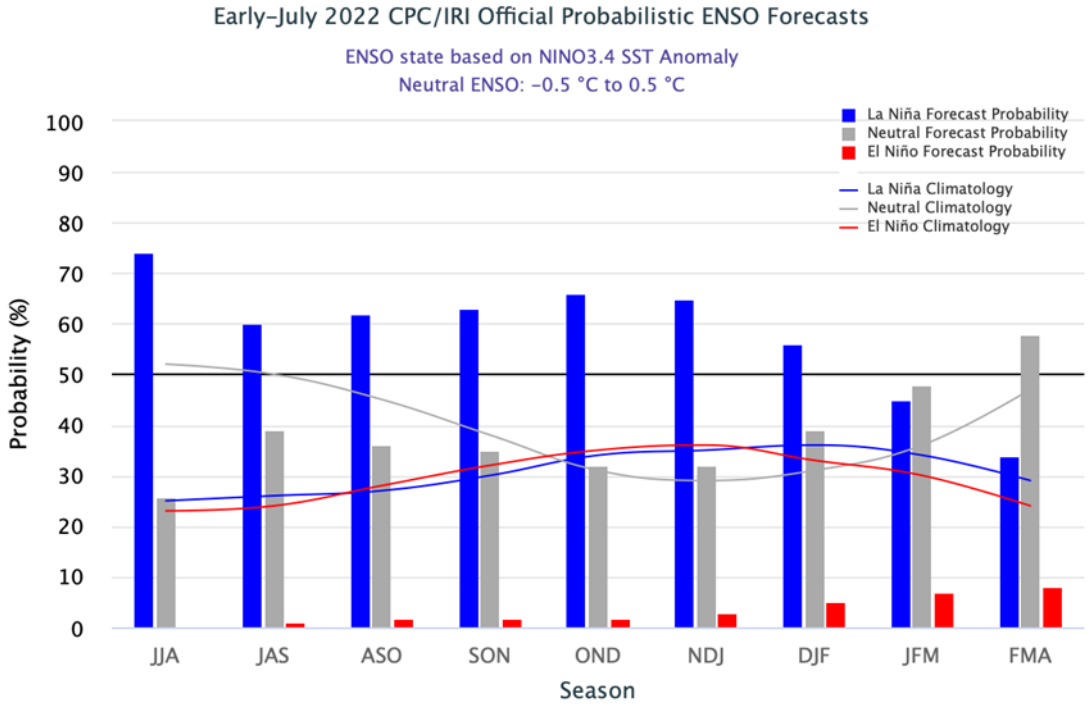
Weak warm Kelvin Wave arriving now

Negative SST Anoms developing. Approaching South America in late September?

ENSO Outlook

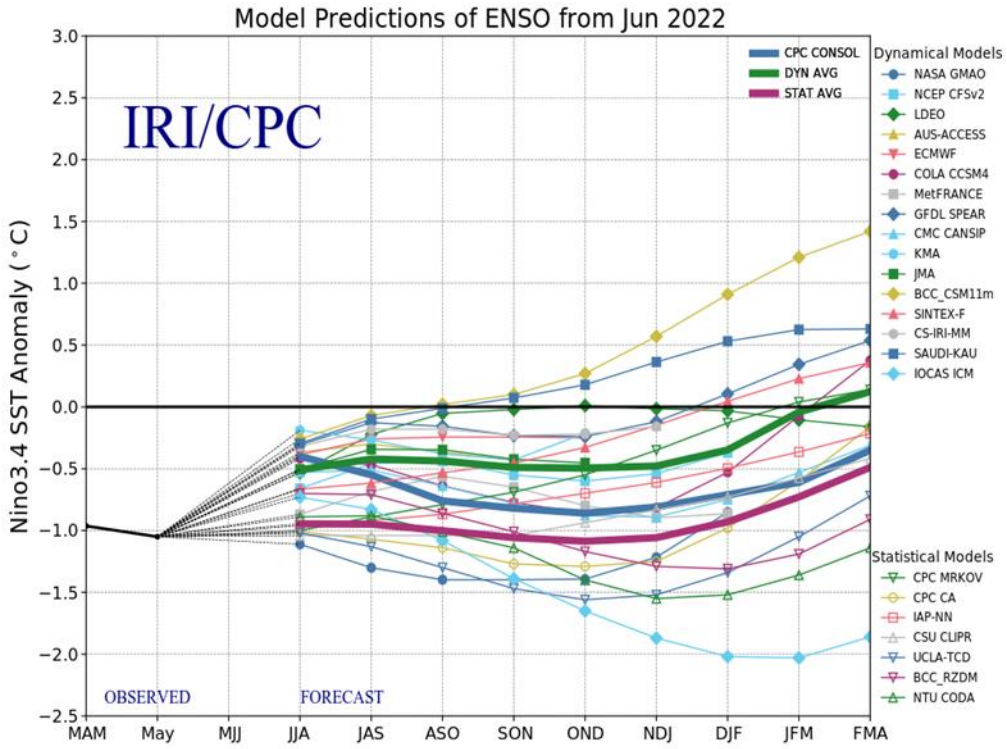
La Niña is favored to continue through 2022 with the odds for La Niña decreasing into the Northern Hemisphere late summer (60% chance in July-September 2022) before increasing through the Northern Hemisphere fall and early winter 2022 (62-66% chance).*

CPC/IRI Probabilistic Forecast



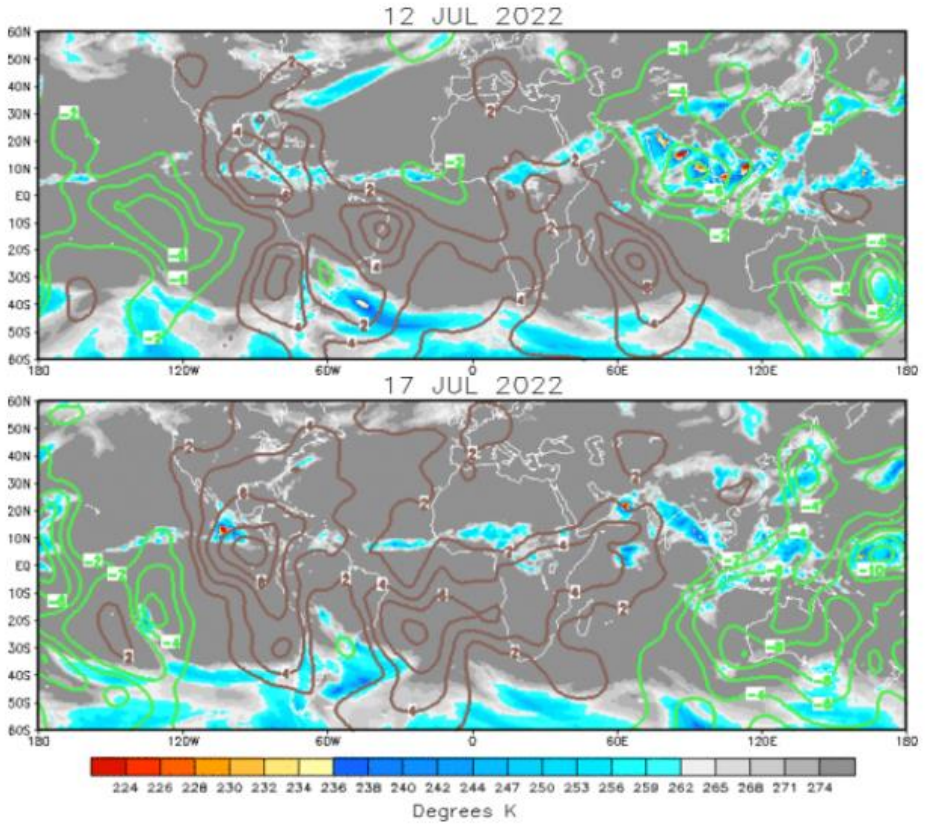
Source: CPC

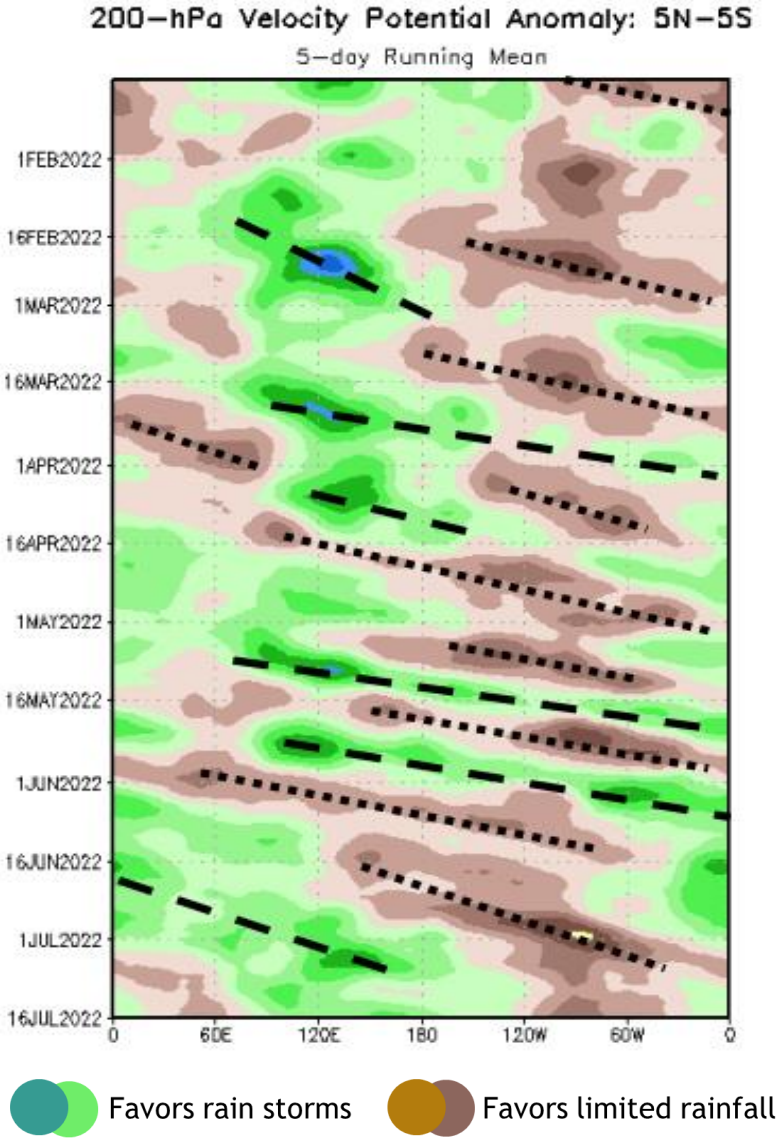
IRI/CPC Dynamic Models



Madden-Julian Oscillation (MJO)

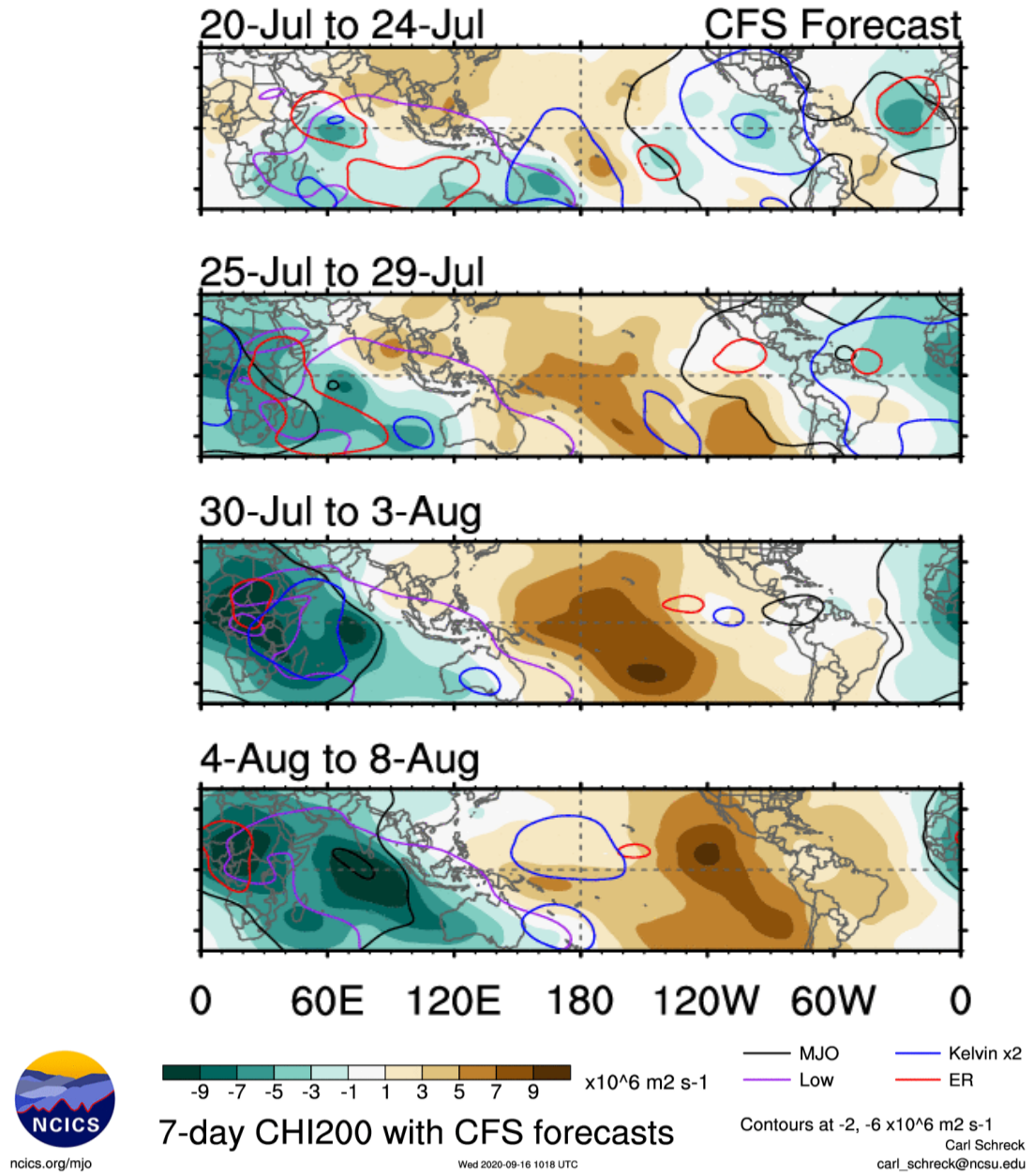
- Wave #1 Mode, slowing down due to interference with systems in the Maritime Continent.
- Currently: over the Pacific.
- Low frequency mode present (dry over the Americas)





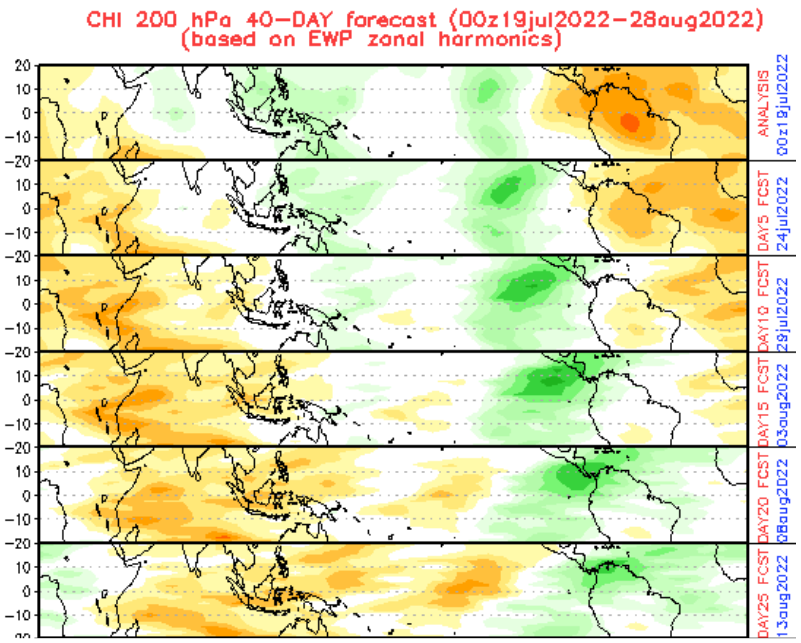
Tropospheric Equatorial Waves

- Wet Kelvin: July 23-27
- Weak wet MJO: Jul 24 – Aug 1 ?
- Upper convergent (dry) after Aug 1.

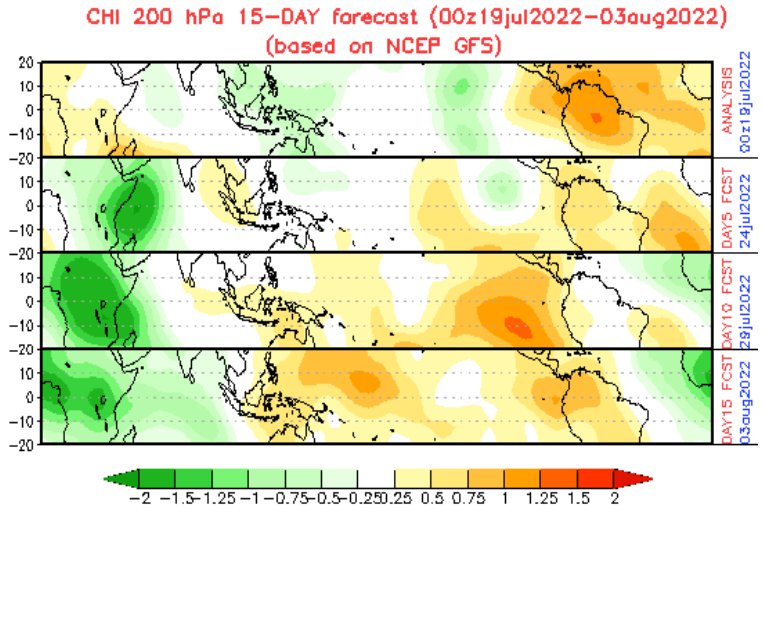


MJO Forecasts for the Americas

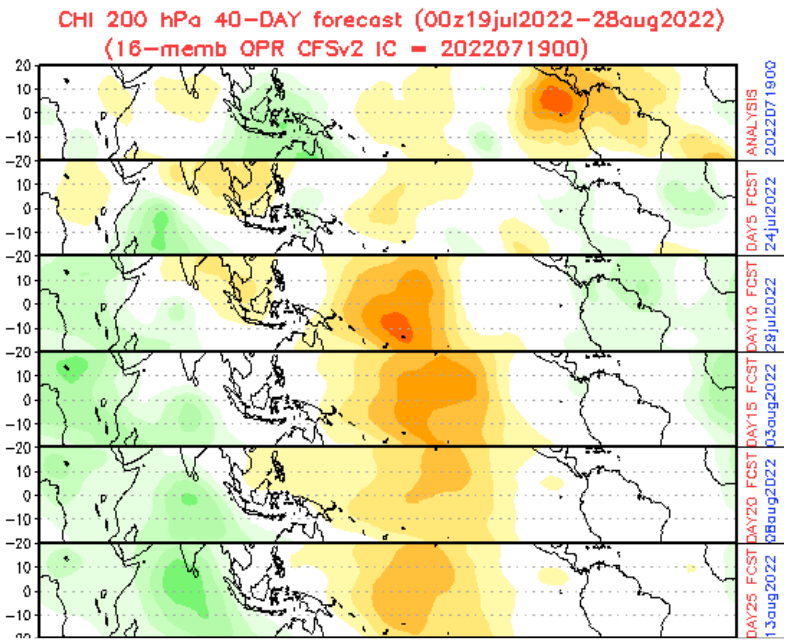
EWP



GFS



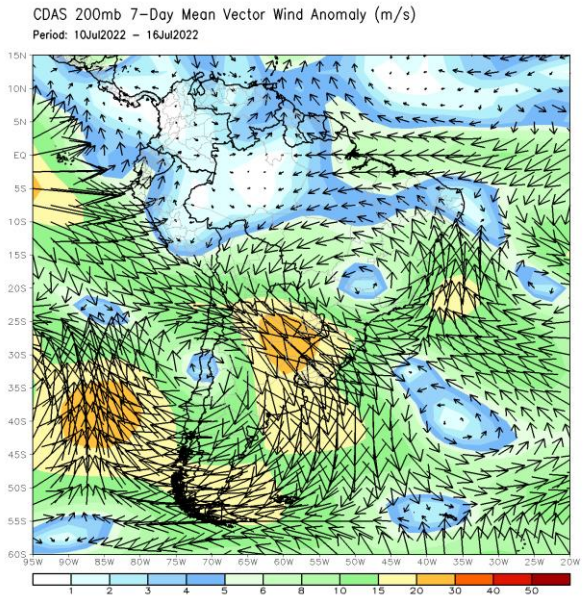
CFS

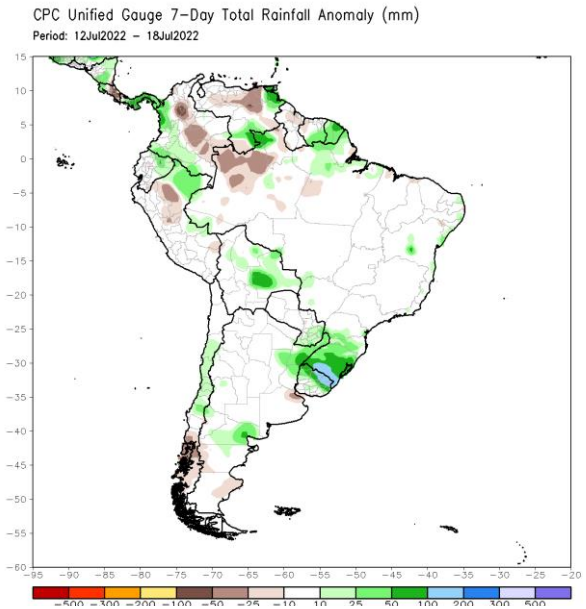


- Weak Upper divergent pulse: July 24 – Aug 1
- Potentially quiet in August
- Next wet MJO: Not clear yet, end of August?

Flow and Rainfall Anomalies, Last 7 Days

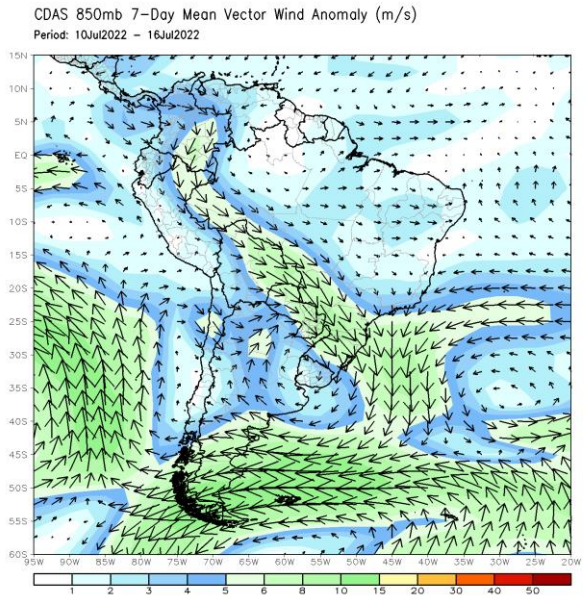
200 hPa Flow Anomalies

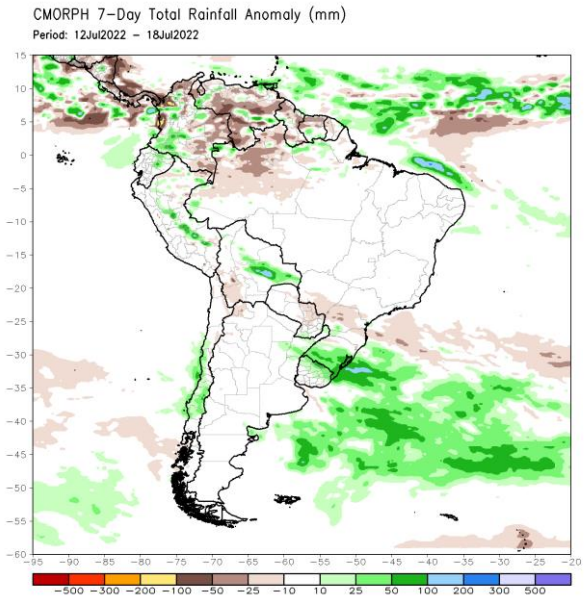




Gauges

850 hPa Flow Anomalies

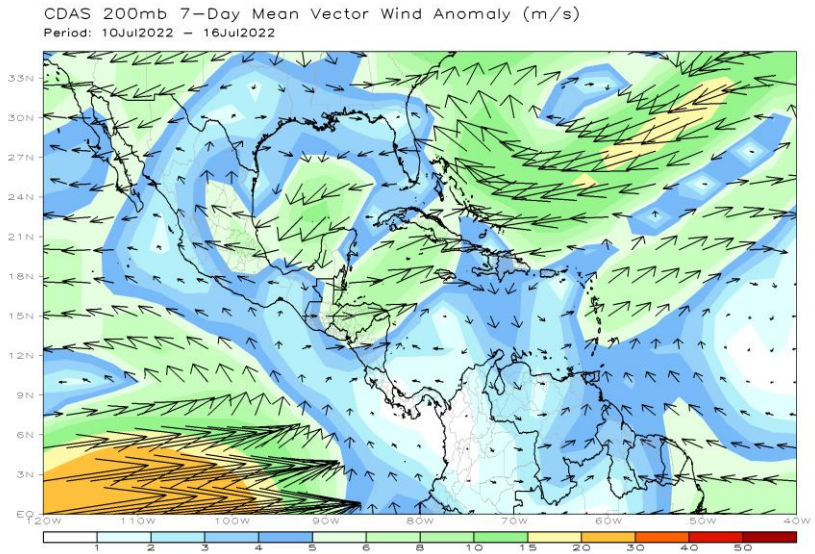




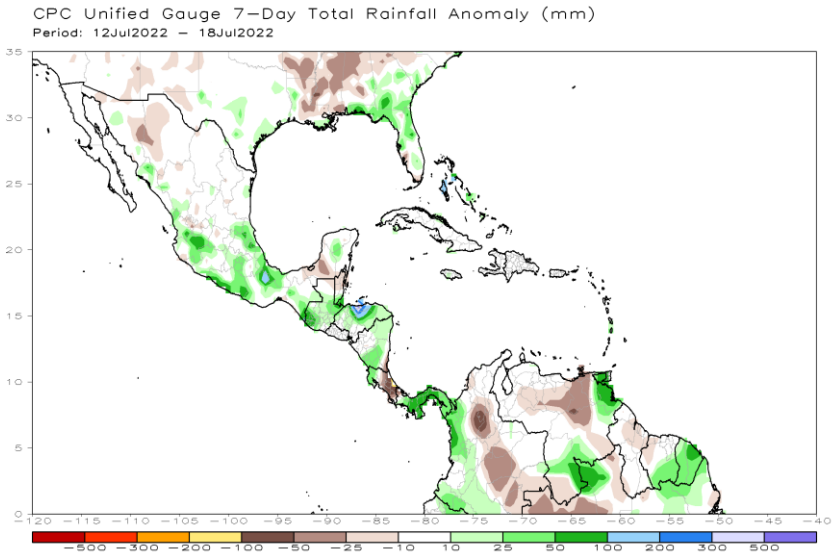
CMORPH

Flow and Rainfall Anomalies, Last 7 Days

200 hPa Flow Anomalies



Gauges



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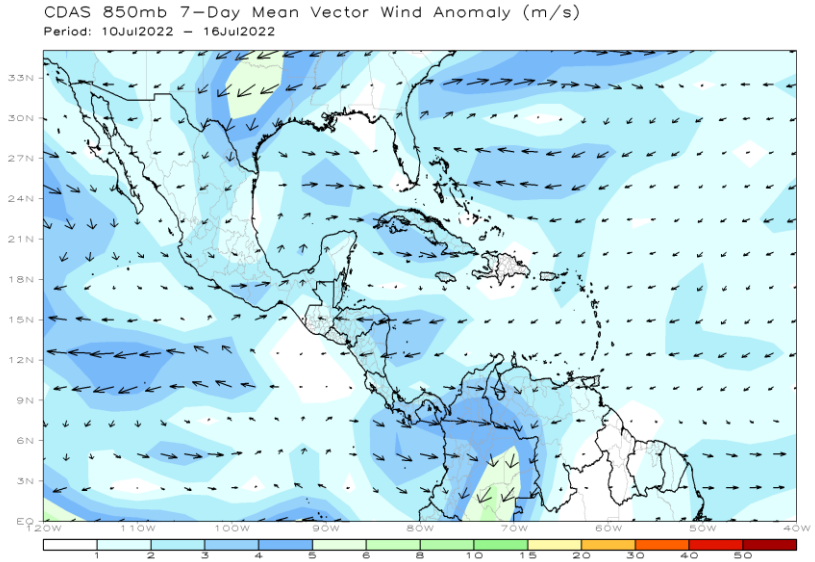

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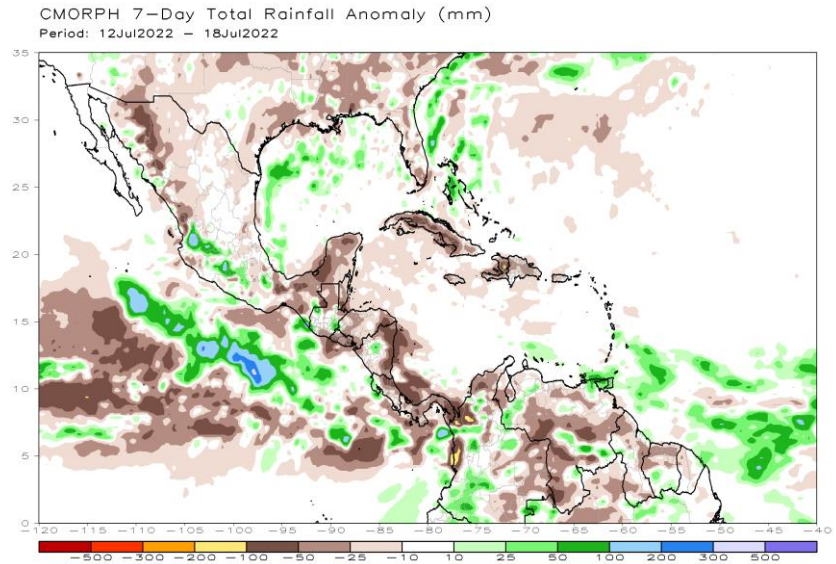

¡Gracias! Thank you!

Next session: Wed 17 August at 15 UTC

Recorded sessions and more information available at:
https://rammb2.cira.colostate.edu/training/rmtc/focusgroup/