Monthly Regional Focus Group Session

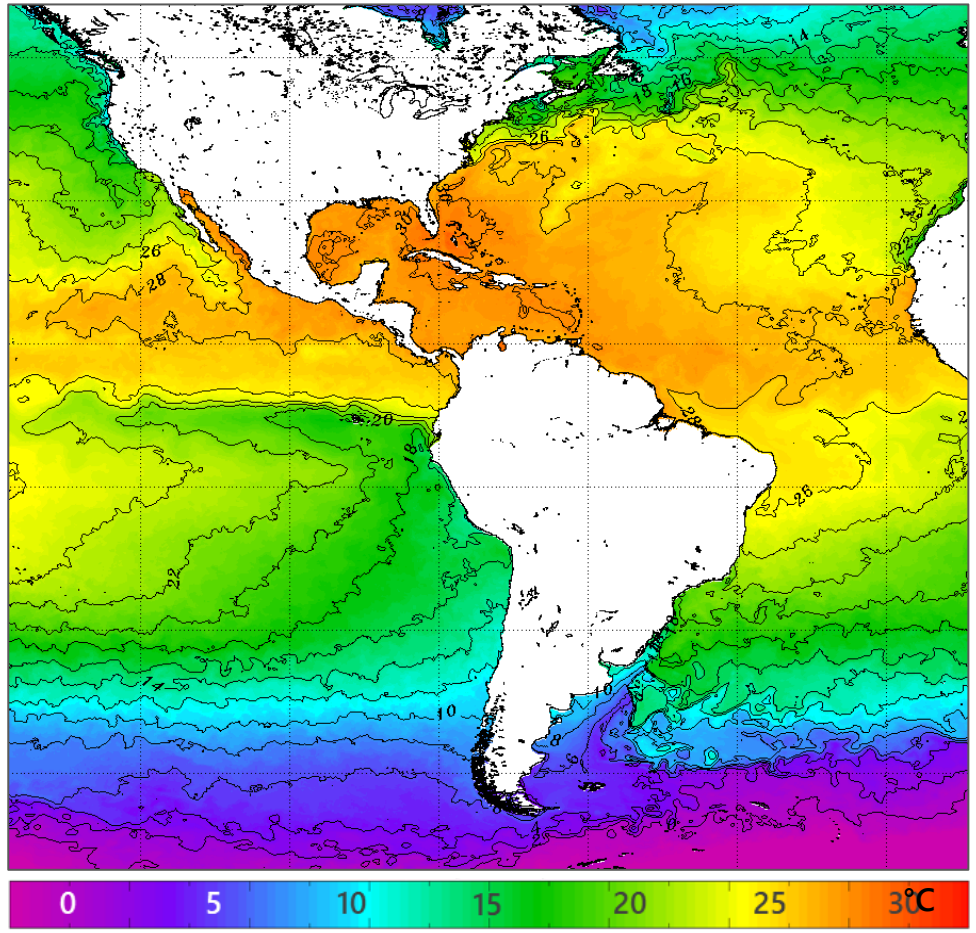
Wednesday 14 September 2022 at 15 UTC

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

Sea Surface Temperatures (SST)

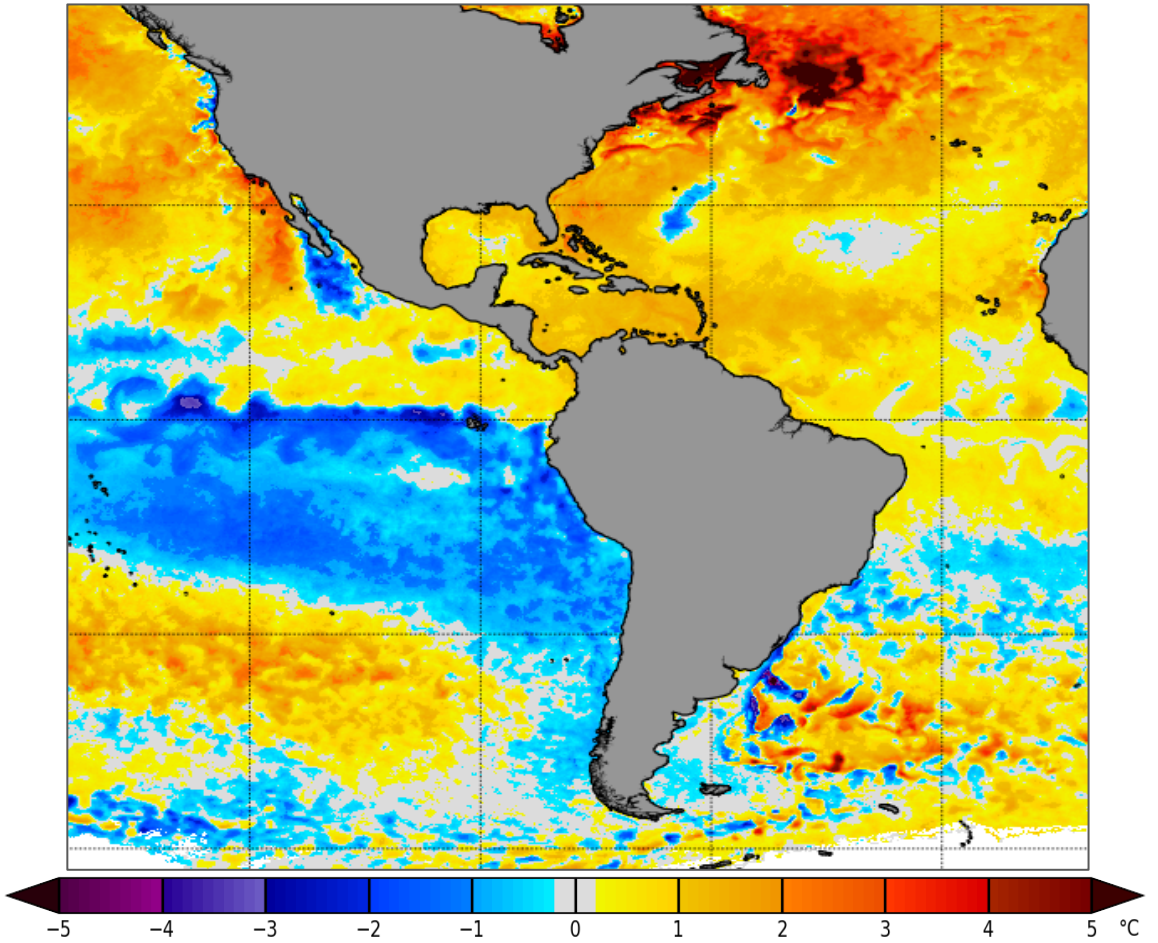
September 12th

SST



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

Anomaly

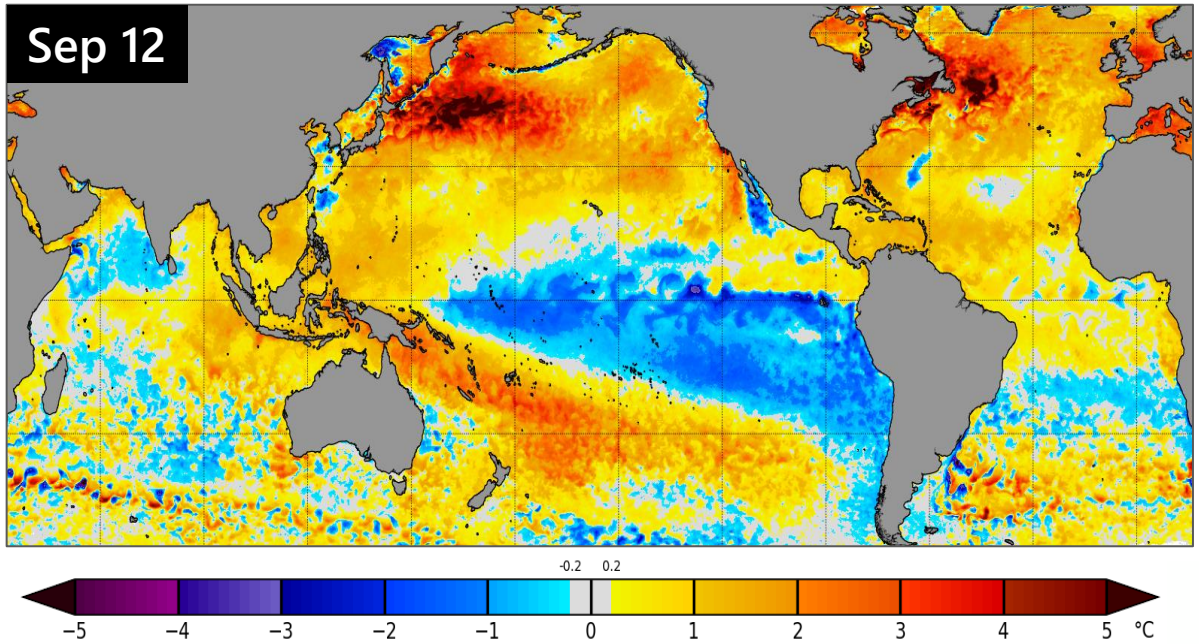


NOAA Coral Reef Watch
https://coralreefwatch.noaa.gov/product/5km/index_5km_ssta.php

Sea Temperature Anomalies in top layer

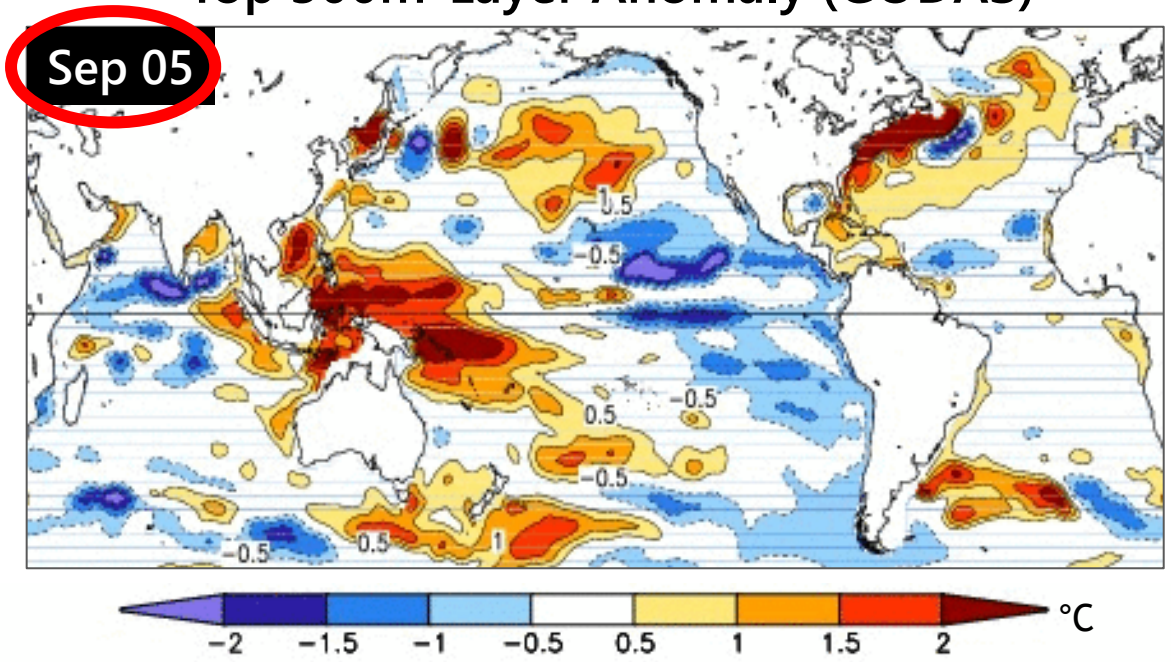
DEEP ANOMALIES LAST LONGER, THUS USEFUL FOR SUBSEASONAL FORECASTING

Surface Anomaly



NOAA Coral Reef Watch
https://coralreefwatch.noaa.gov/product/5km/index_5km_ssta.php

Top 300m-Layer Anomaly (GODAS)

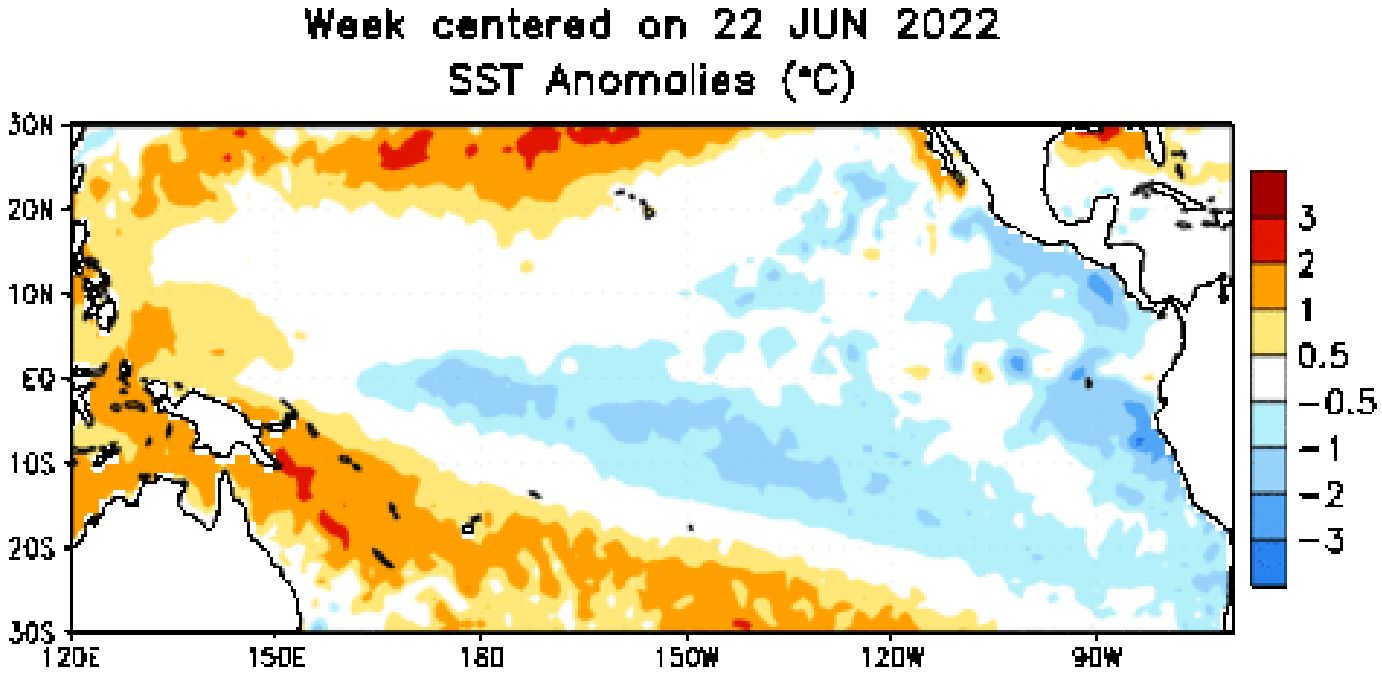


NOAA CPC
Source: CPC GODAS, https://www.cpc.ncep.noaa.gov/products/GODAS/

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.

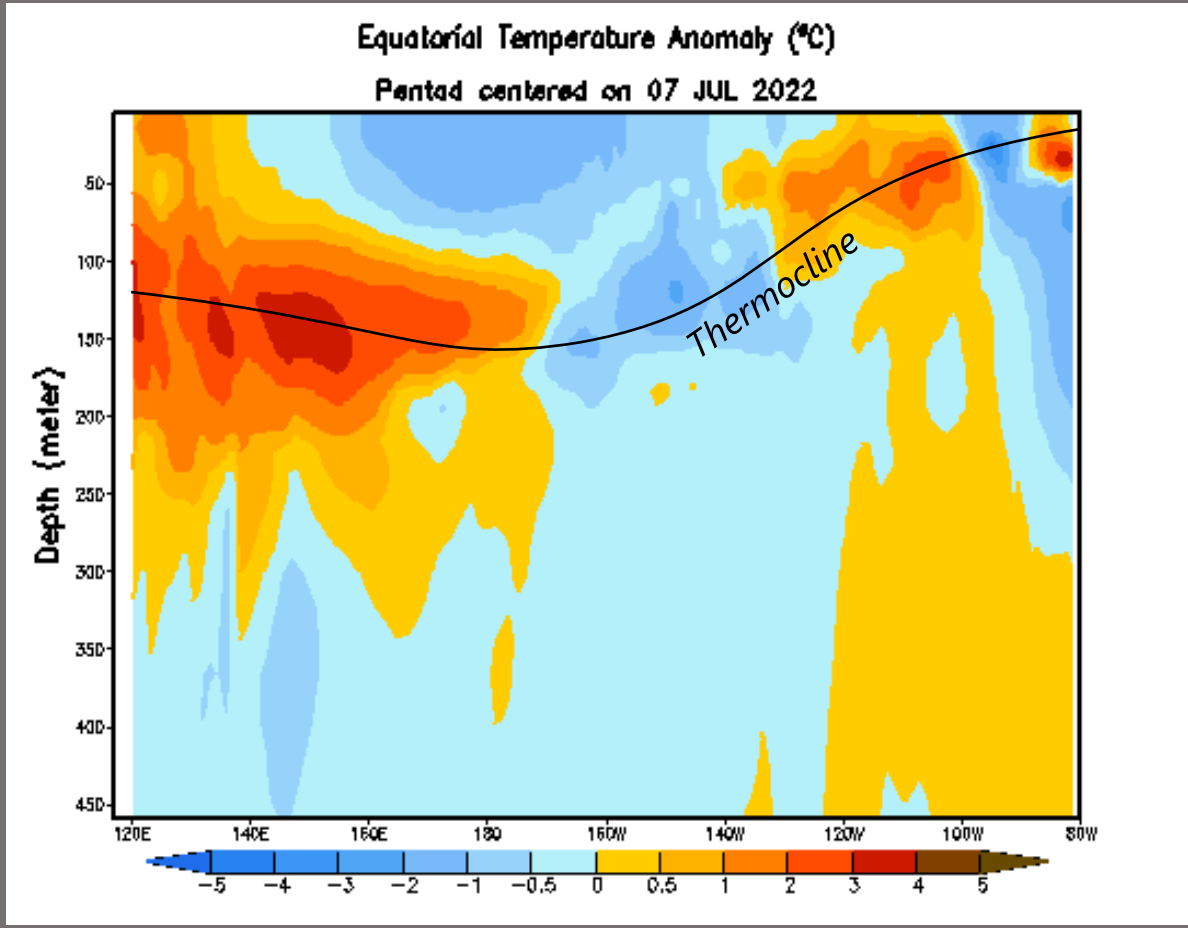


ONI

Year	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA	JAS	ASO	SON	OND	NDJ
2019	0.7	0.7	0.7	0.7	0.5	0.5	0.3	0.1	0.2	0.3	0.5	0.5
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	-0.9	-0.8					

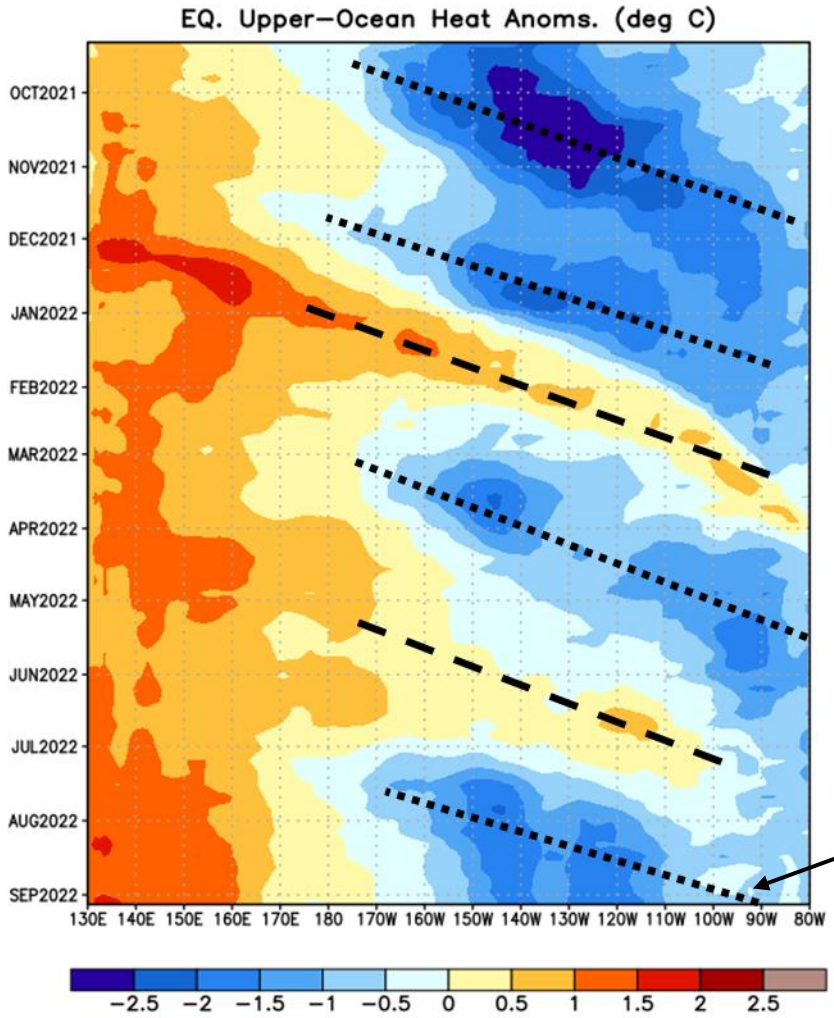
ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomaly Cross Section



Source: CPC

Heat Content Hovmöller

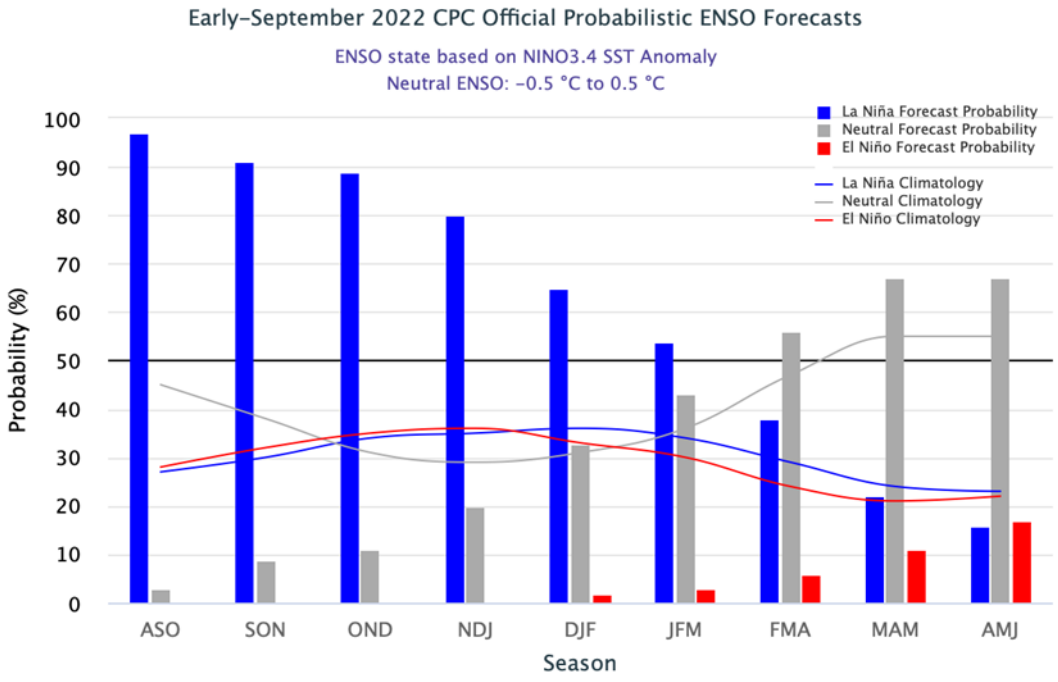


Cold Kelvin to arrive in South America in mid-September

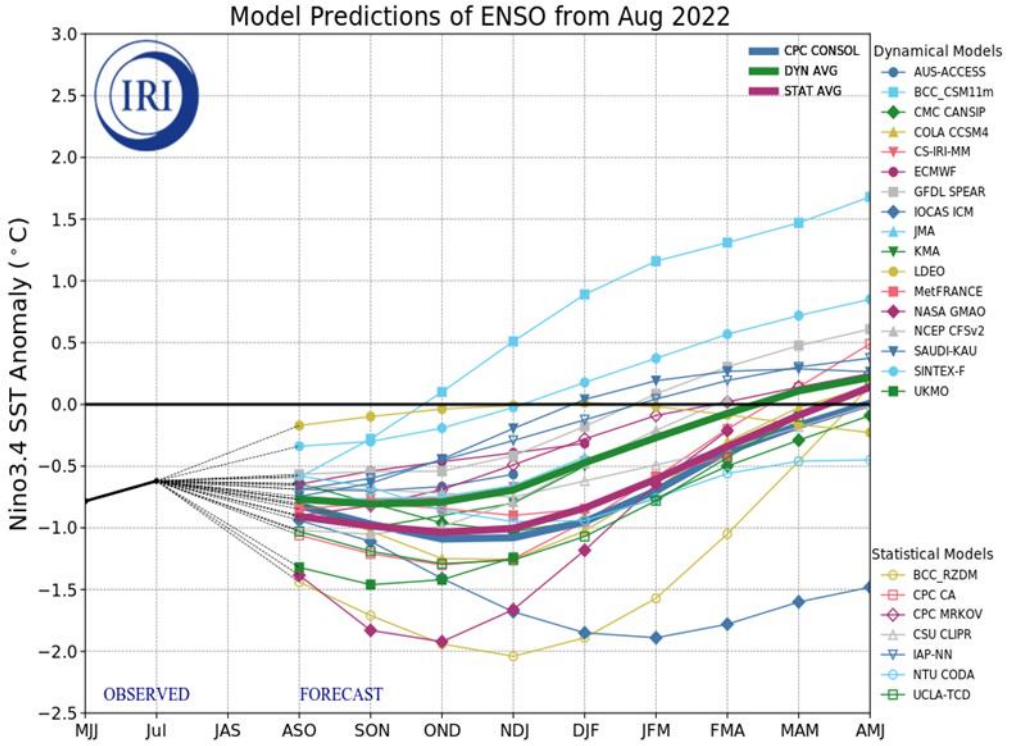
ENSO Outlook

La Niña is favored to continue through Northern Hemisphere winter 2022-23, with a 91% chance in September-November, decreasing to a 54% chance in January-March 2023.*

CPC/IRI Probabilistic Forecast



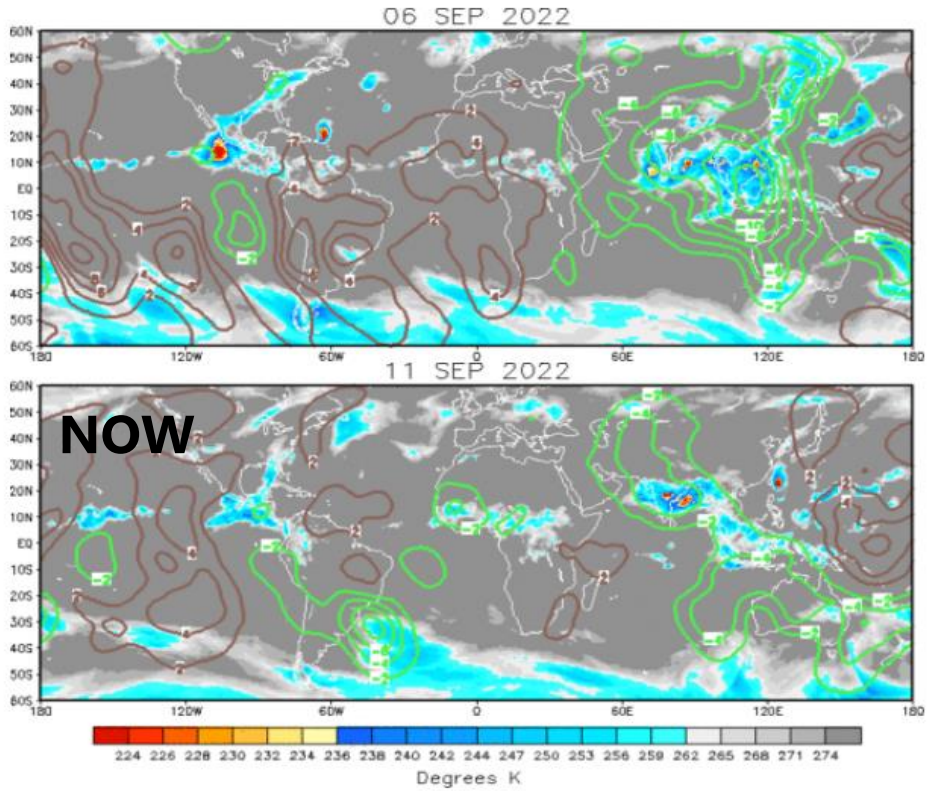
IRI/CPC Dynamic Models

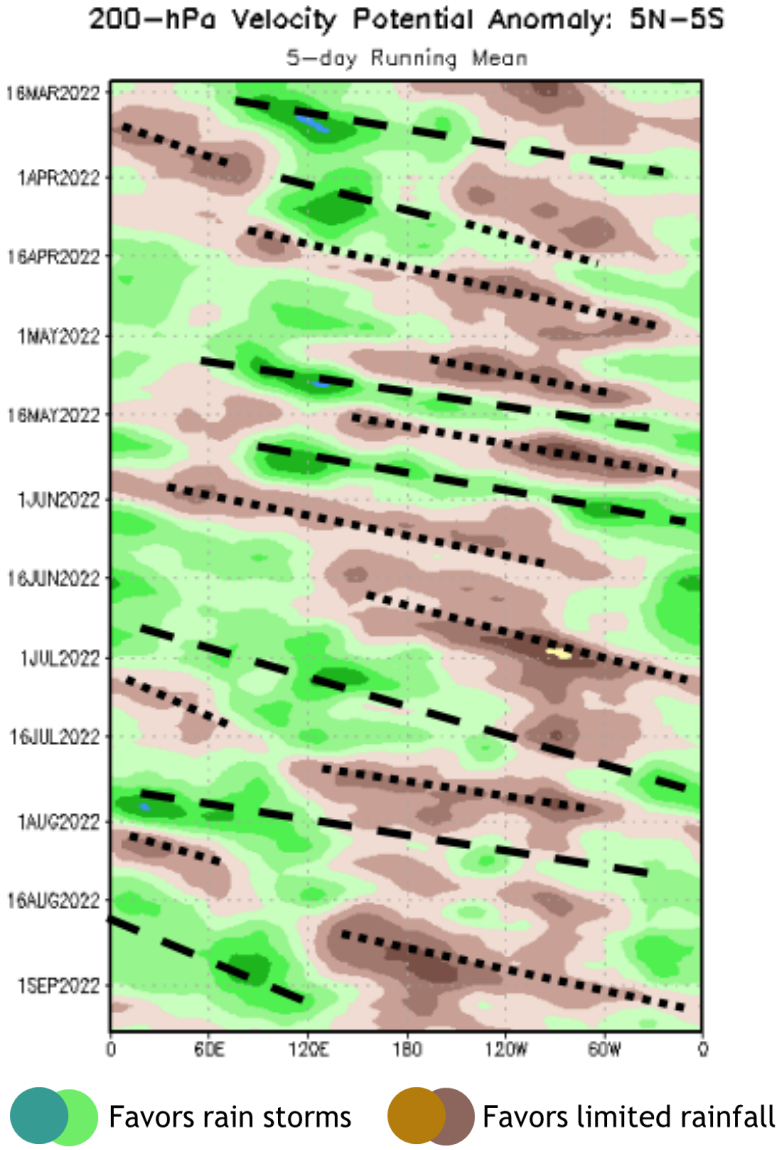


Source: CPC

Madden-Julian Oscillation (MJO)

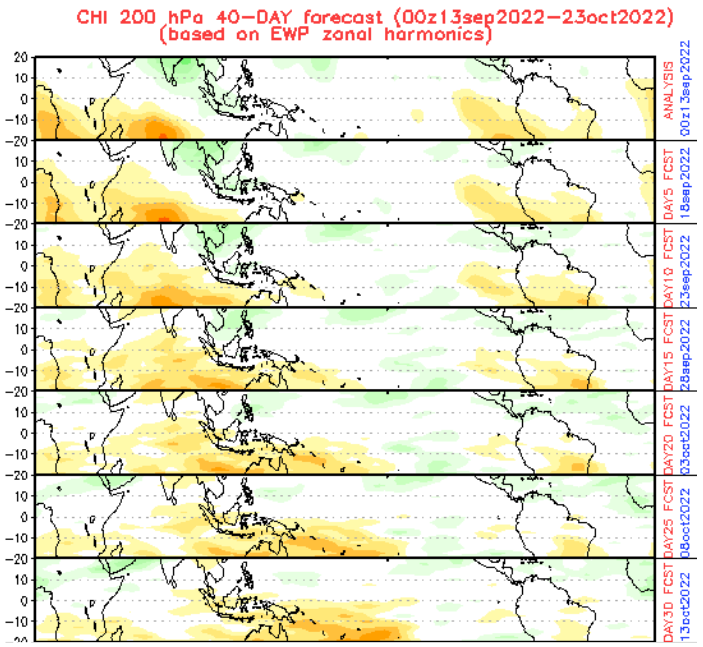
- The MJO is extremely disorganized.
- The incoherent pattern is a challenge for forecasting.
- Wet conditions tend to persist in the Maritime Continent.



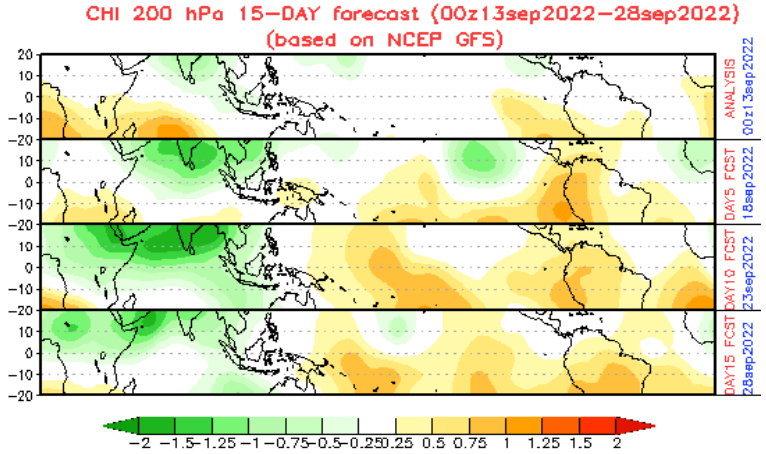


MJO Forecasts for the Americas

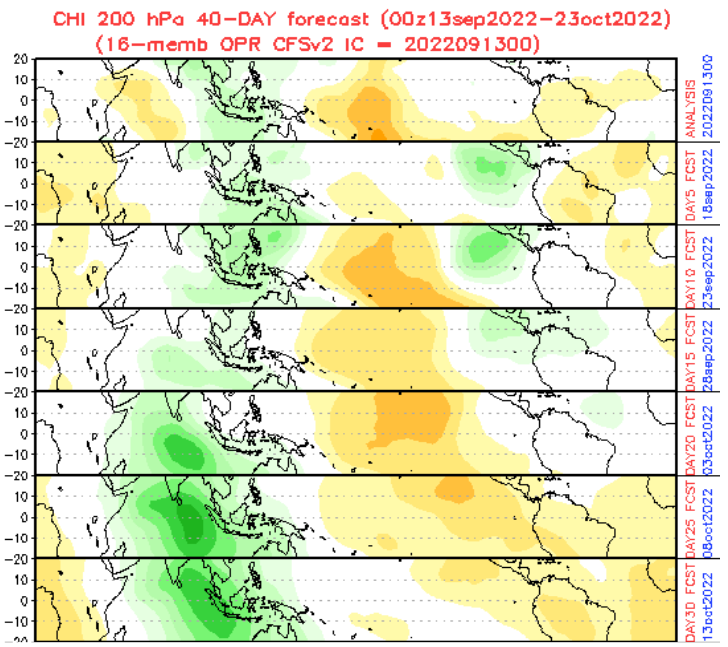
EWP



GFS

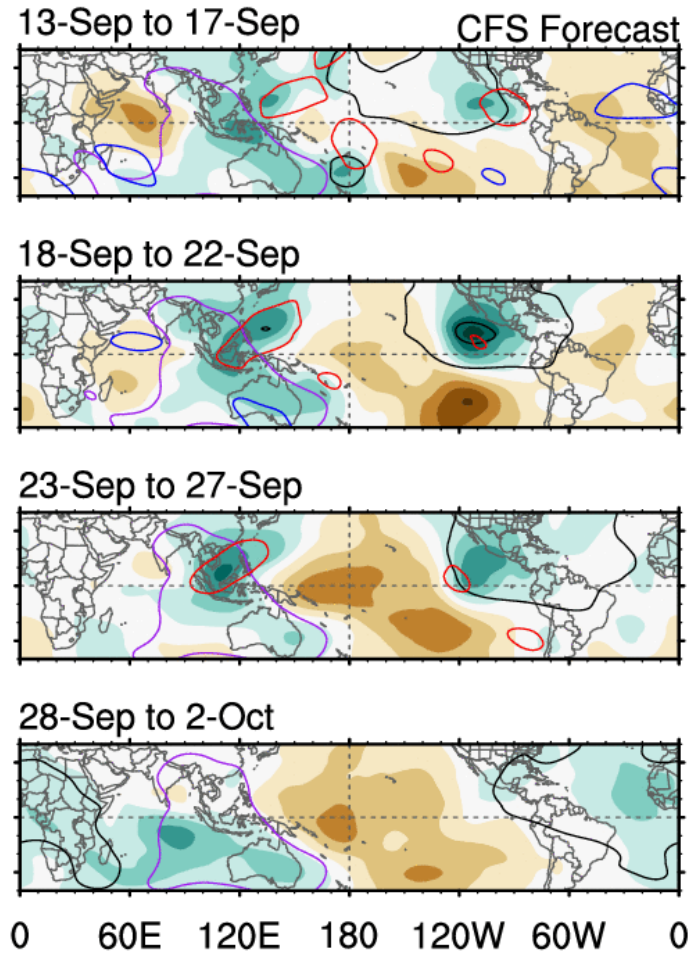


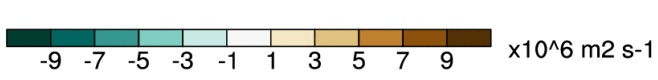
CFS



- Not coherent, hard to forecast.
- A few divergent pulses from Sep 16 through Sep 26
- Convergent again in early October?

Tropospheric Equatorial Waves





7-day CHI200 with CFS forecasts

Wed 2020-09-16 1018 UTC

MJO
Low
Kelvin x2
ER

Contours at -2, -6 x10^6 m2 s-1

Carl Schreck
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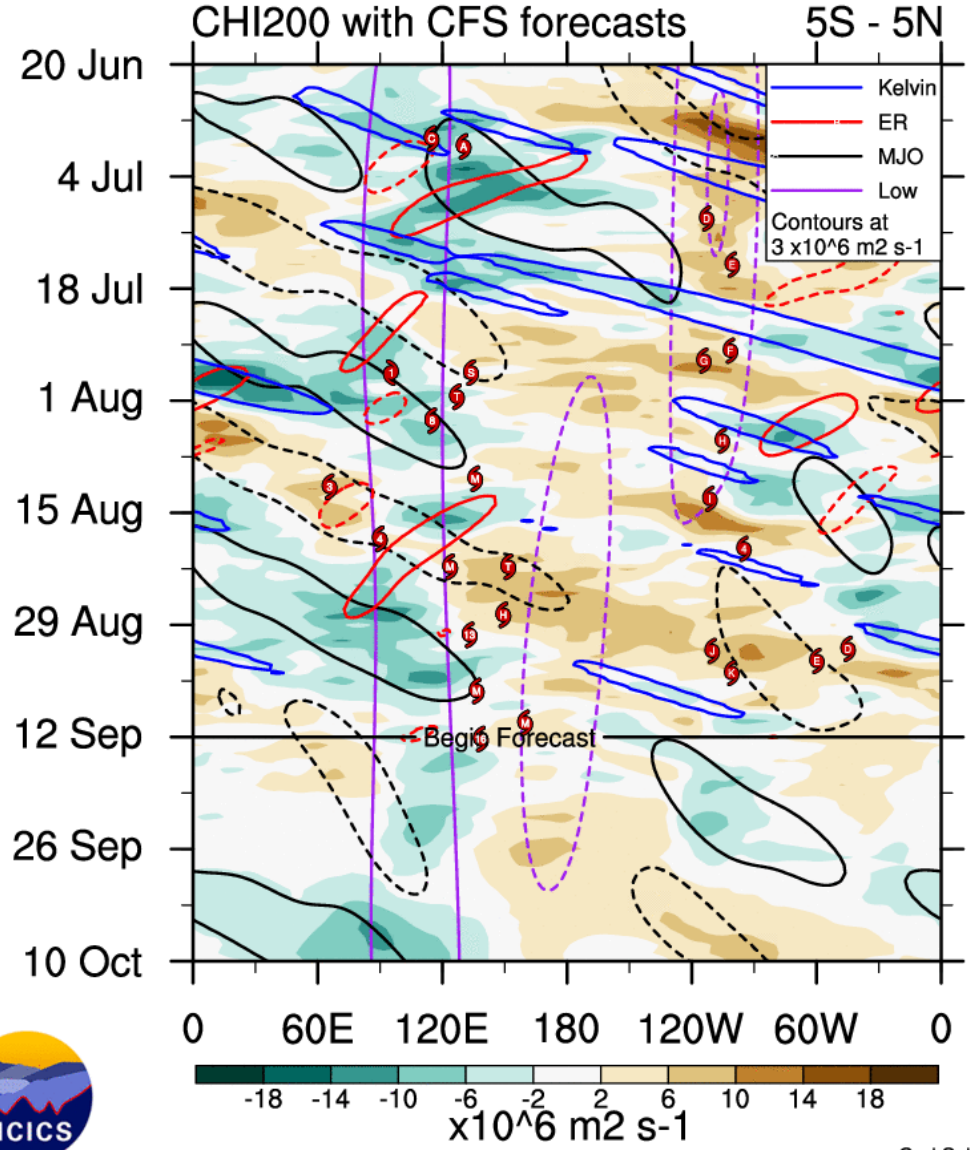
ncics.org/mjo



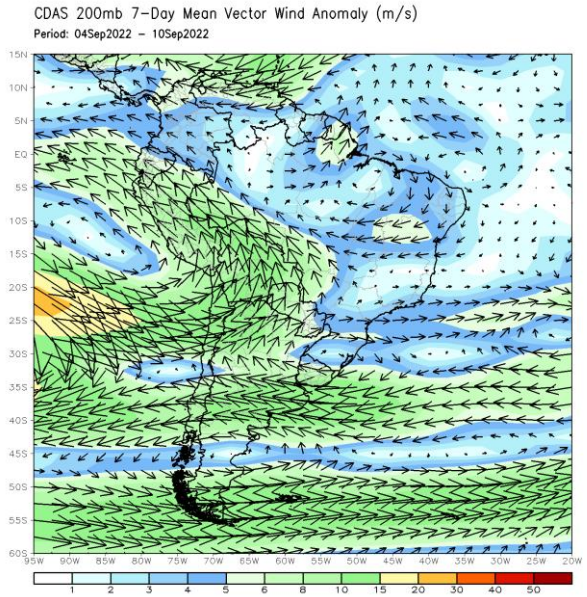
ncics.org/mjo

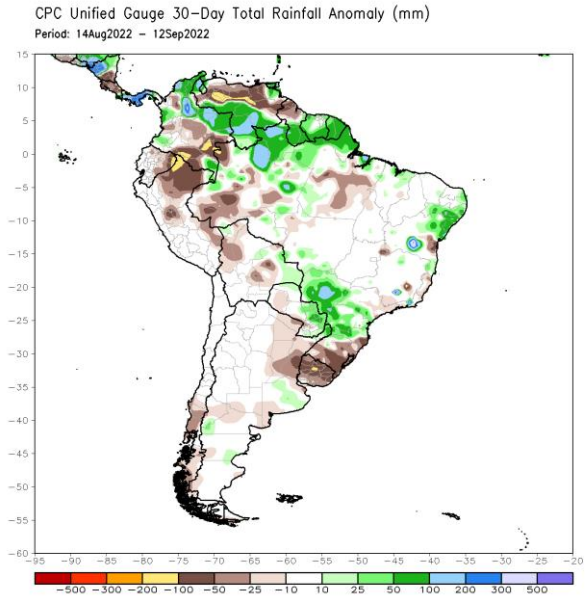
Tue 2022-09-13 1014 UTC

Carl Schreck
carl_schreck@ncsu.edu

Flow and Rainfall Anomalies, Last 7 Days

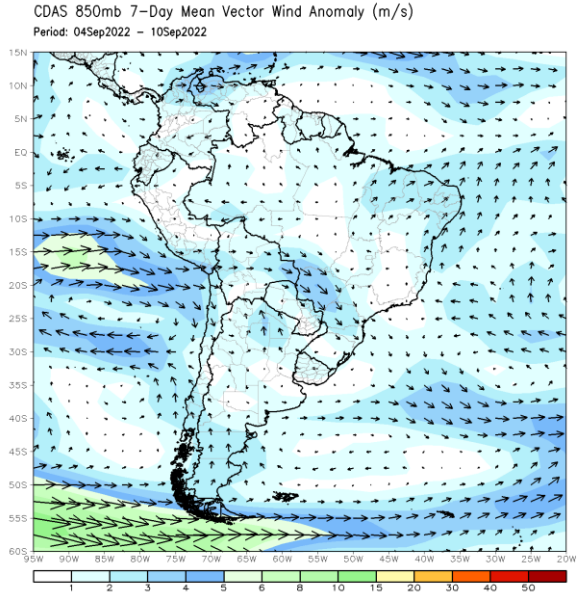
200 hPa Flow Anomalies

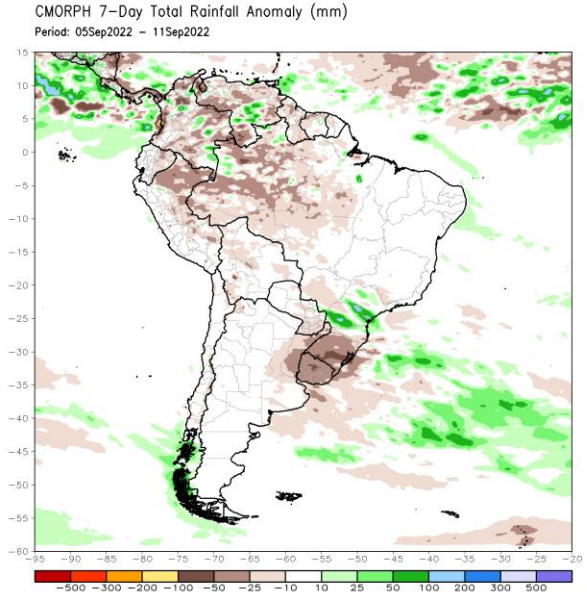




Gauges

850 hPa Flow Anomalies

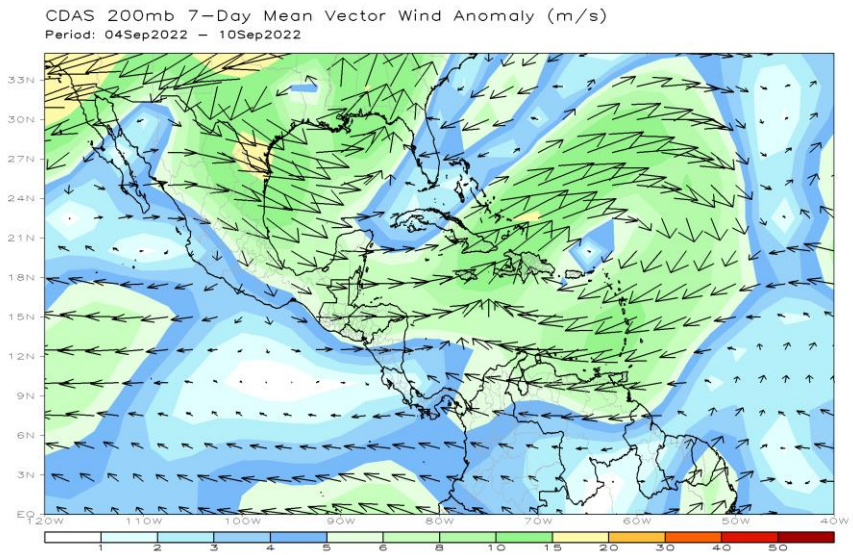




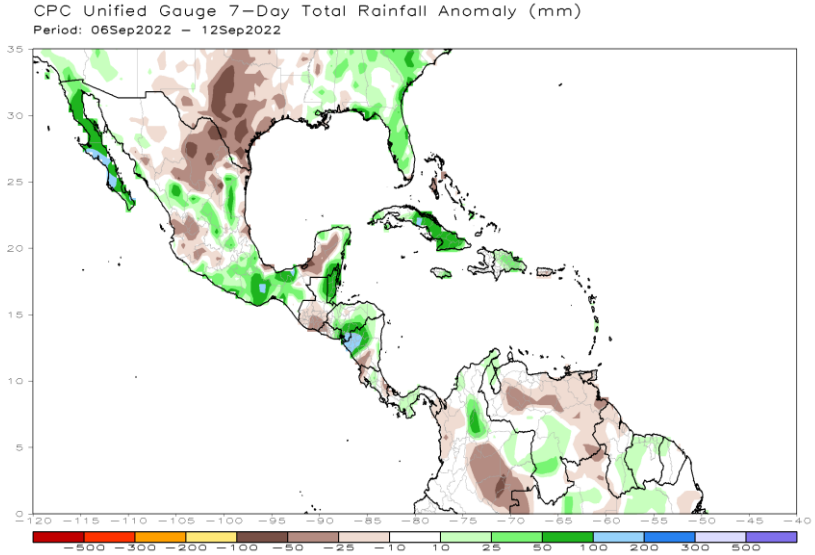
CMORPH

Flow and Rainfall Anomalies, Last 7 Days

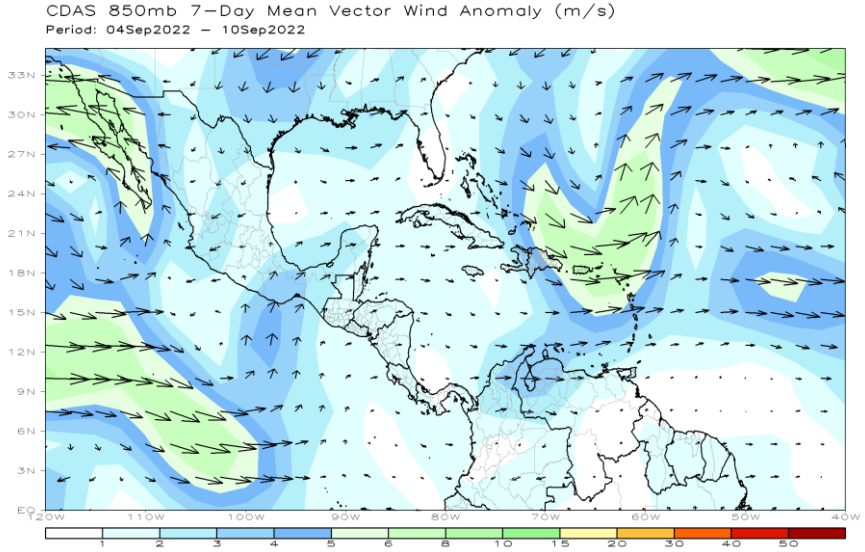
200 hPa Flow Anomalies



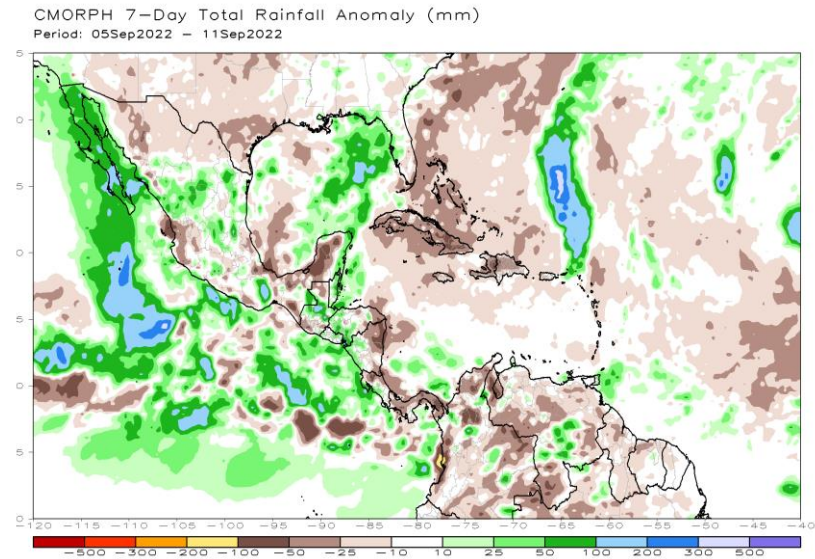
Gauges



850 hPa Flow Anomalies



CMORPH



¡Gracias!
Thank you!
¡Obrigado!

Next session: To be discussed

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