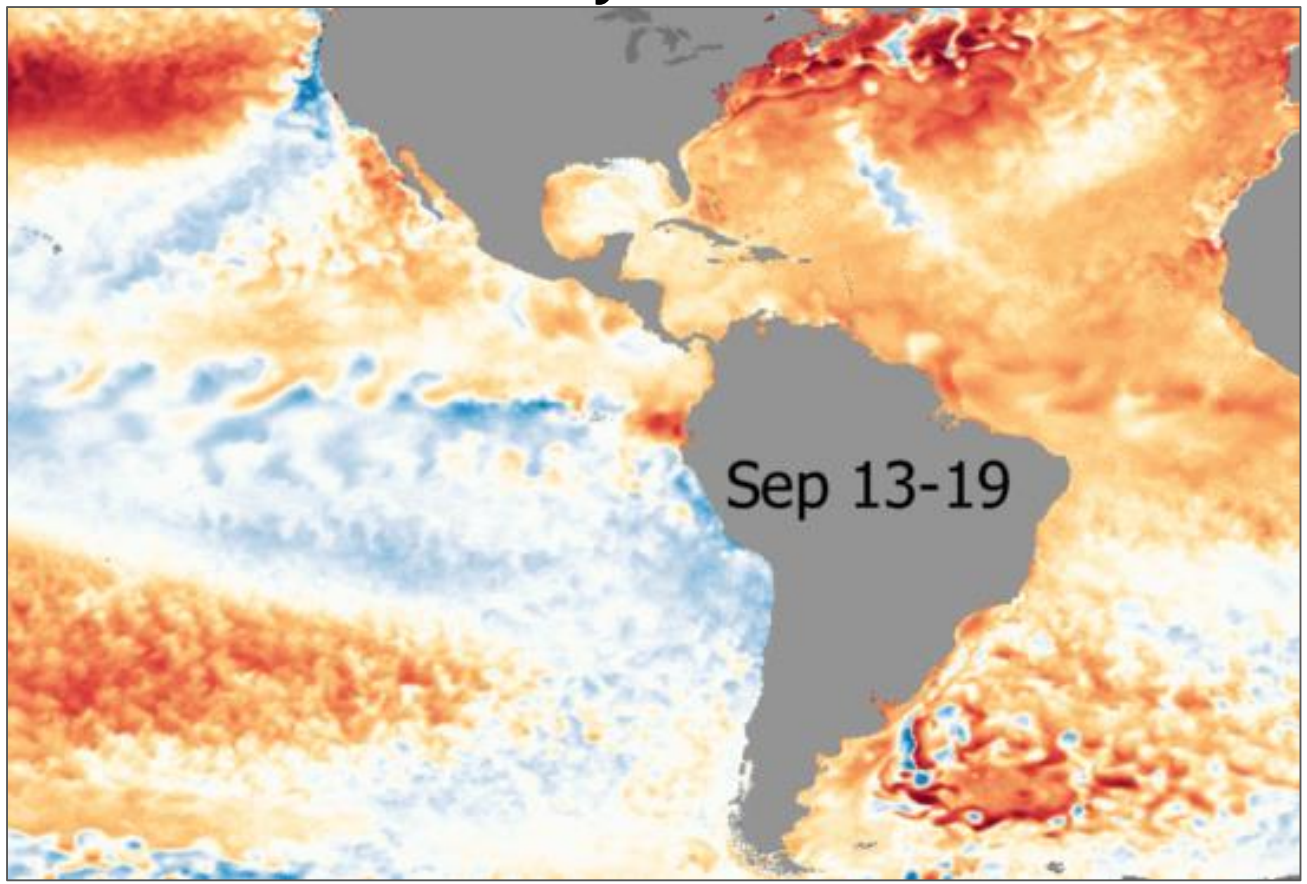
Monthly Regional Focus Group Session

Wednesday 20 October 2021

Sea Surface Temperatures

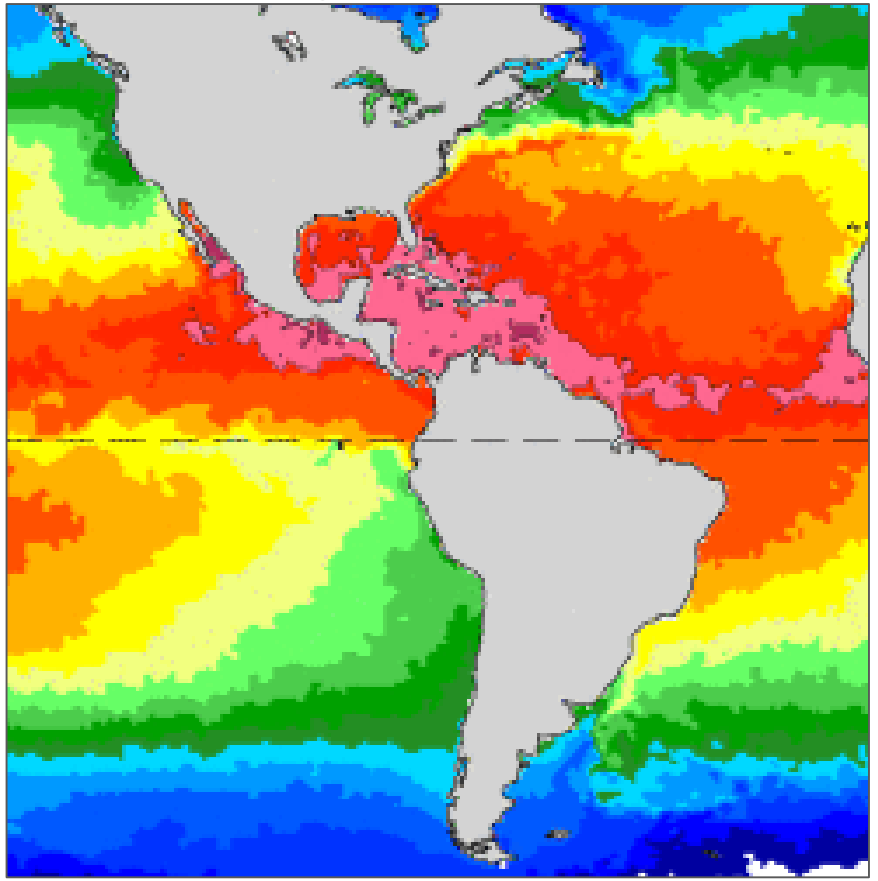
Anomaly Evolution



OISST, NOAA NNVL

https://www.nnvl.noaa.gov/view/globaldata.html#SSTA

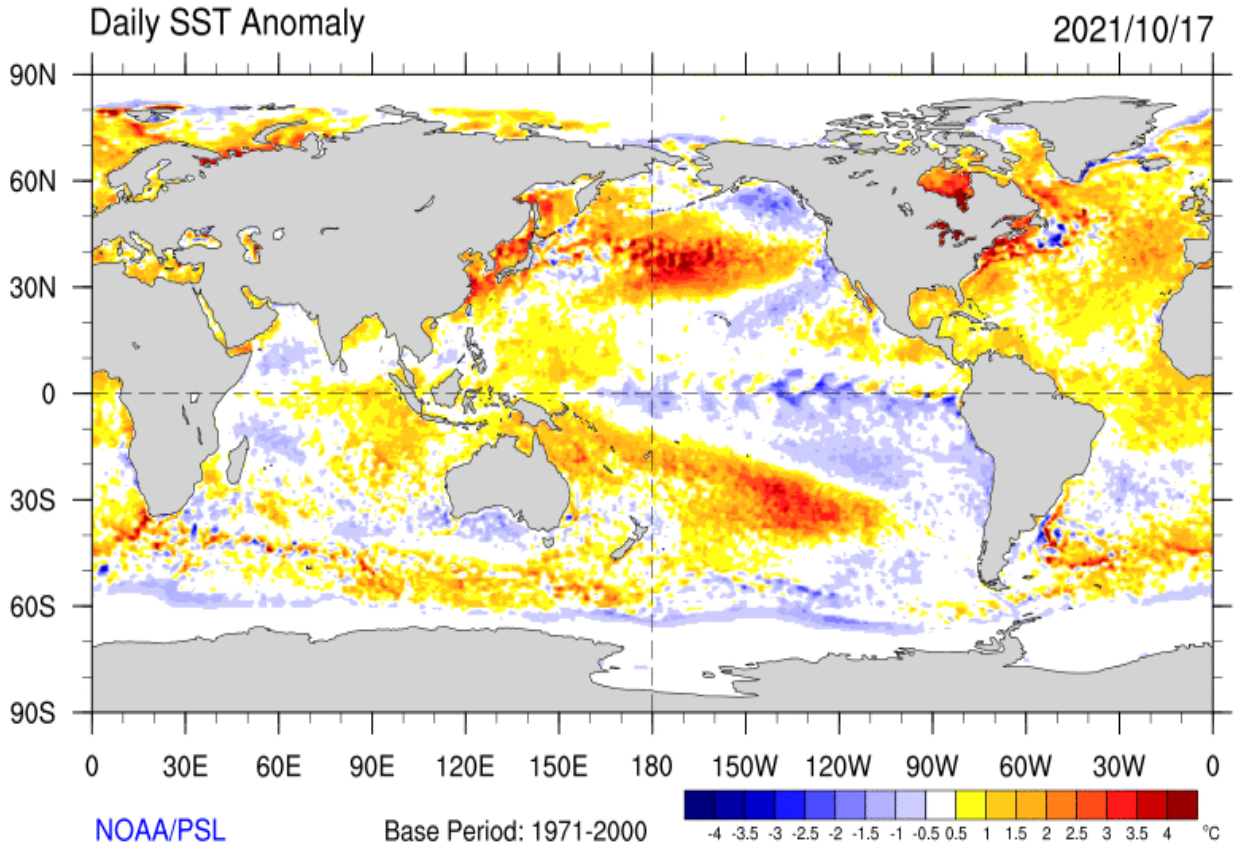
Daily SST Oct 17



https://psl.noaa.gov/map/clim/sst.shtml

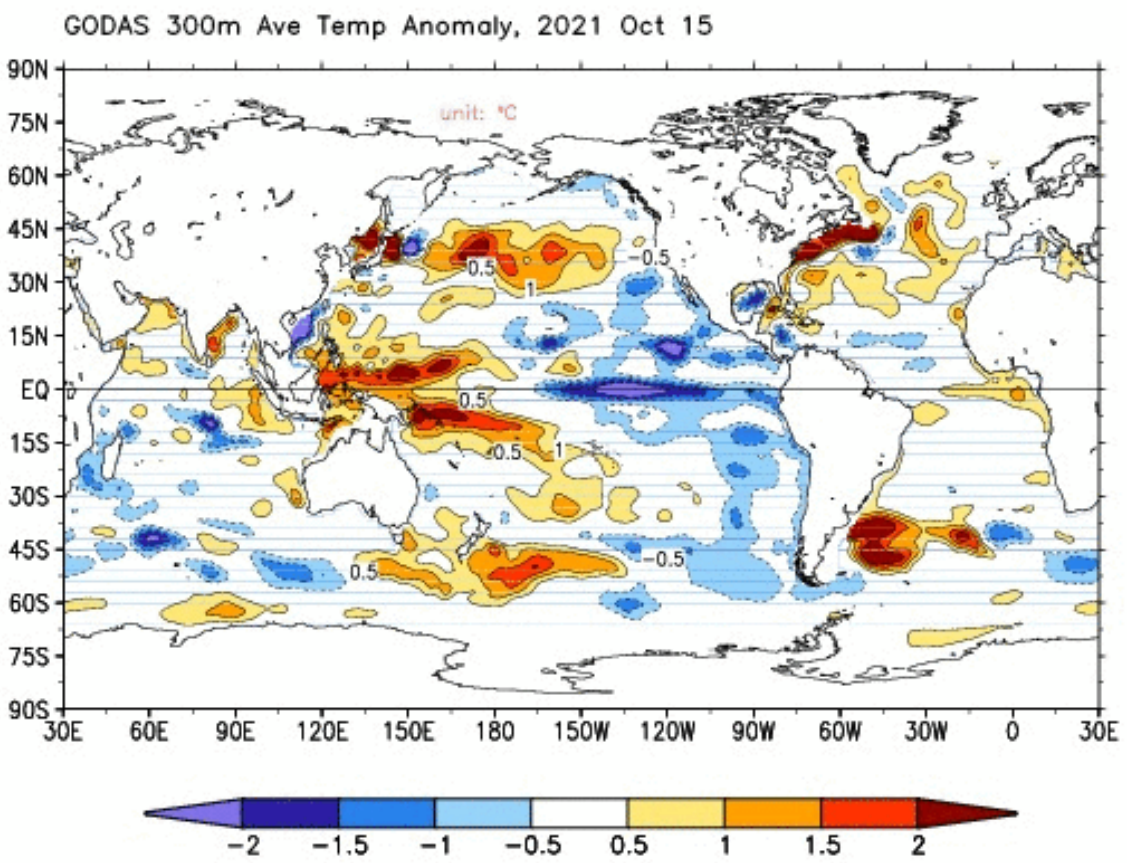
Are the anomalies deep?

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



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

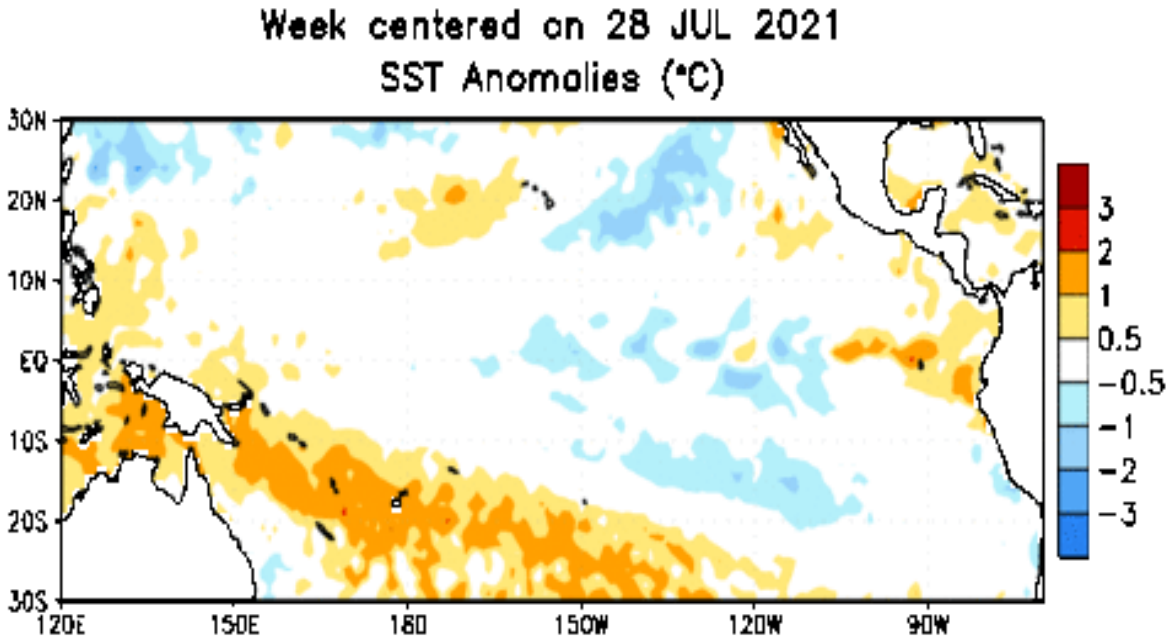
Top 300m Layer Anomaly

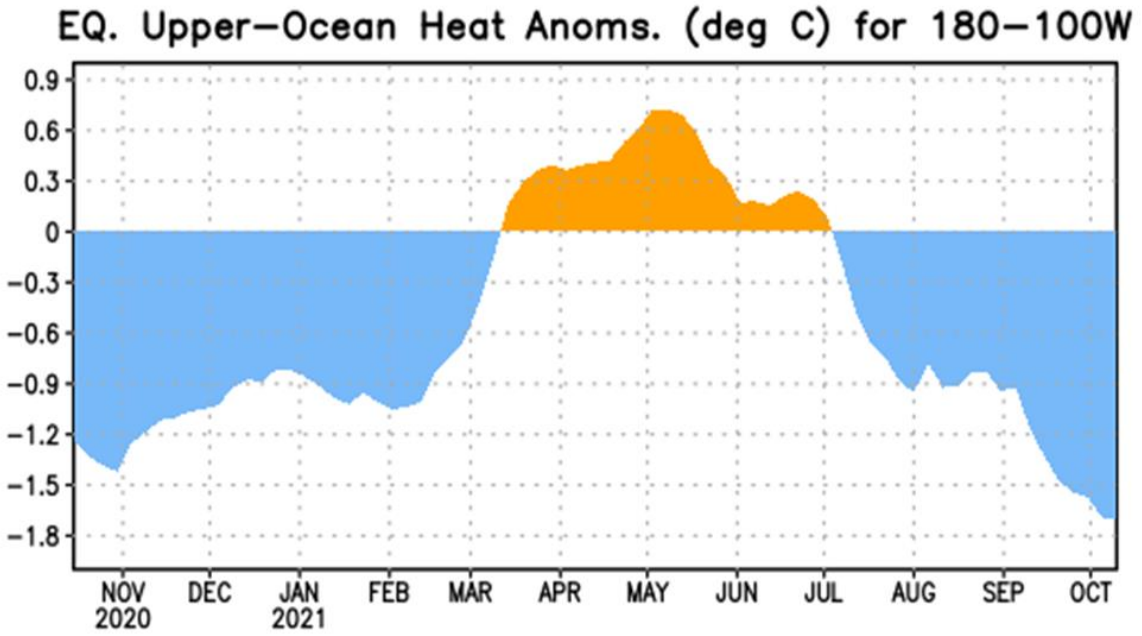


Source: CPC GODAS, https://www.cpc.ncep.noaa.gov/products/GODAS/

ENSO: La Niña

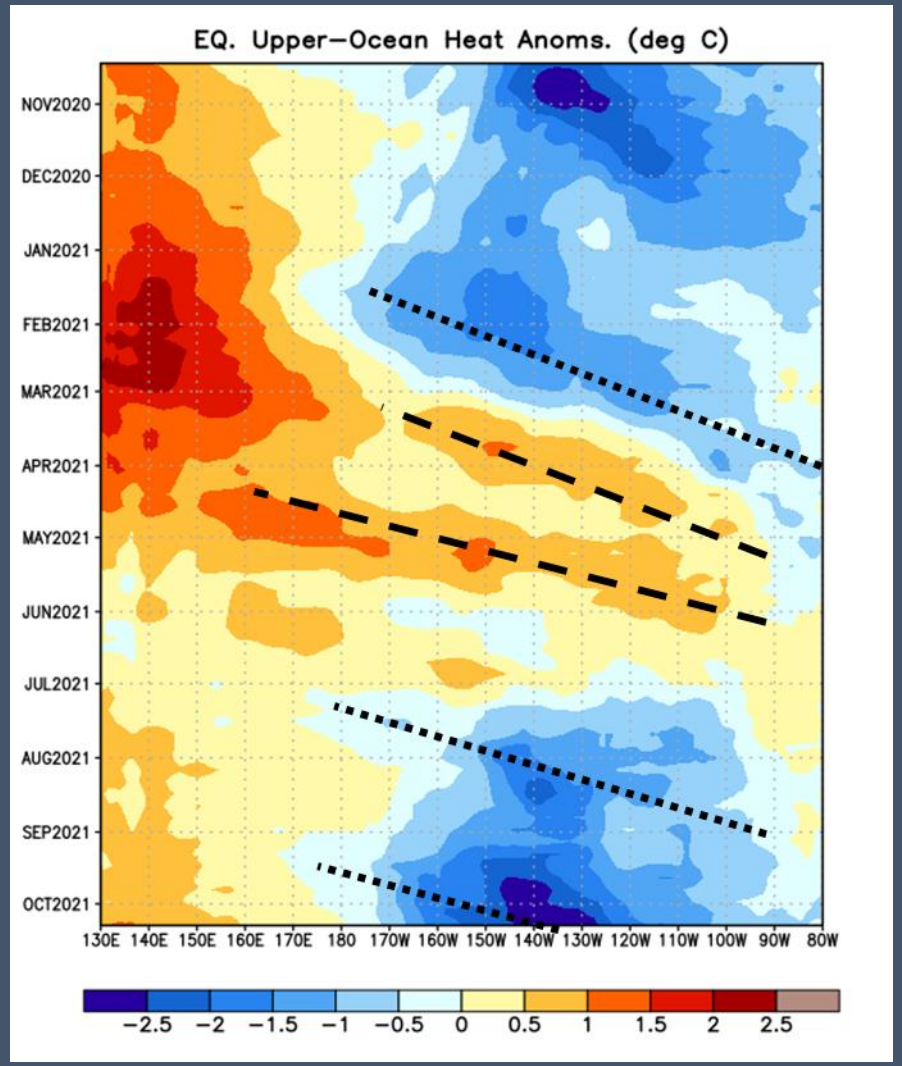
- Status: La Niña Advisory
- La Niña conditions have developed.
- Equatorial SSTs are below average across the central and east-central Pacific Ocean.
- The tropical Pacific atmosphere is consistent with La Niña.





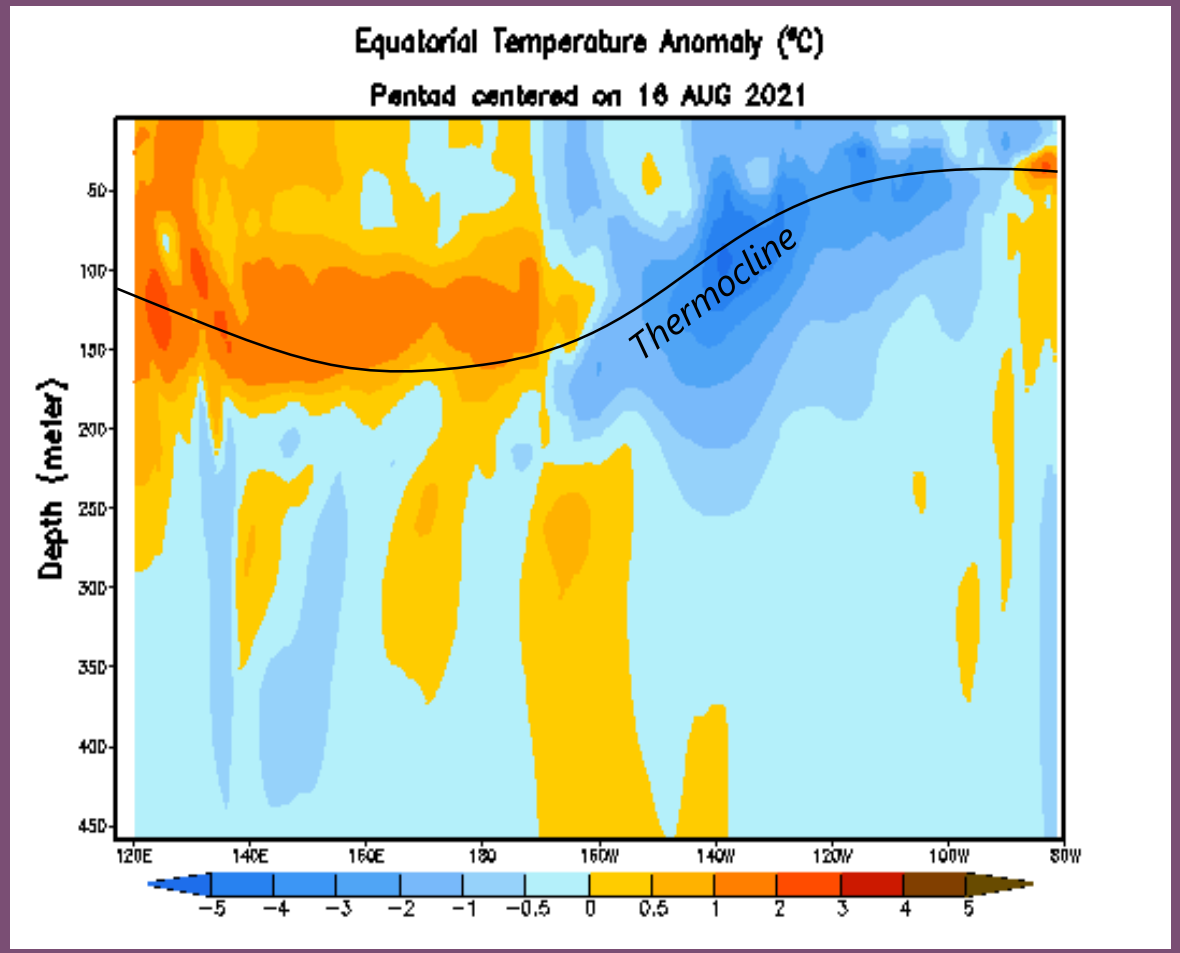
ENSO: Oceanic Kelvin Waves

Heat Content Hovmöller



Source: CPC

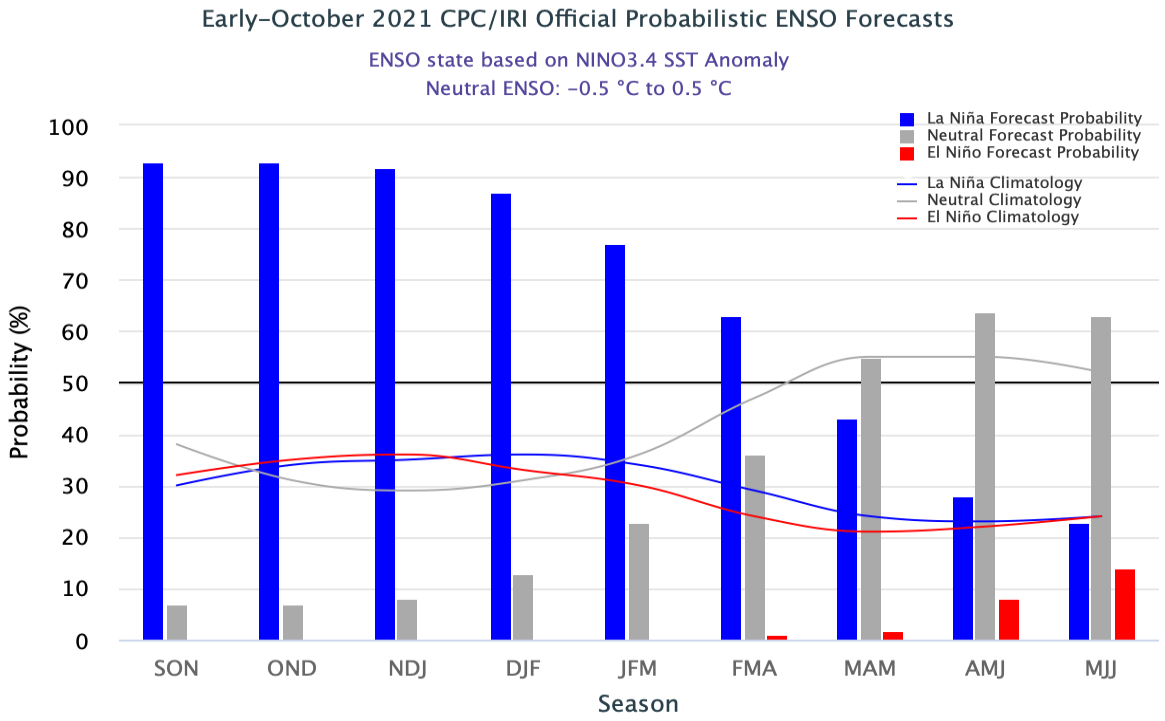
Equatorial Pacific Temp. Anomaly



ENSO Outlook

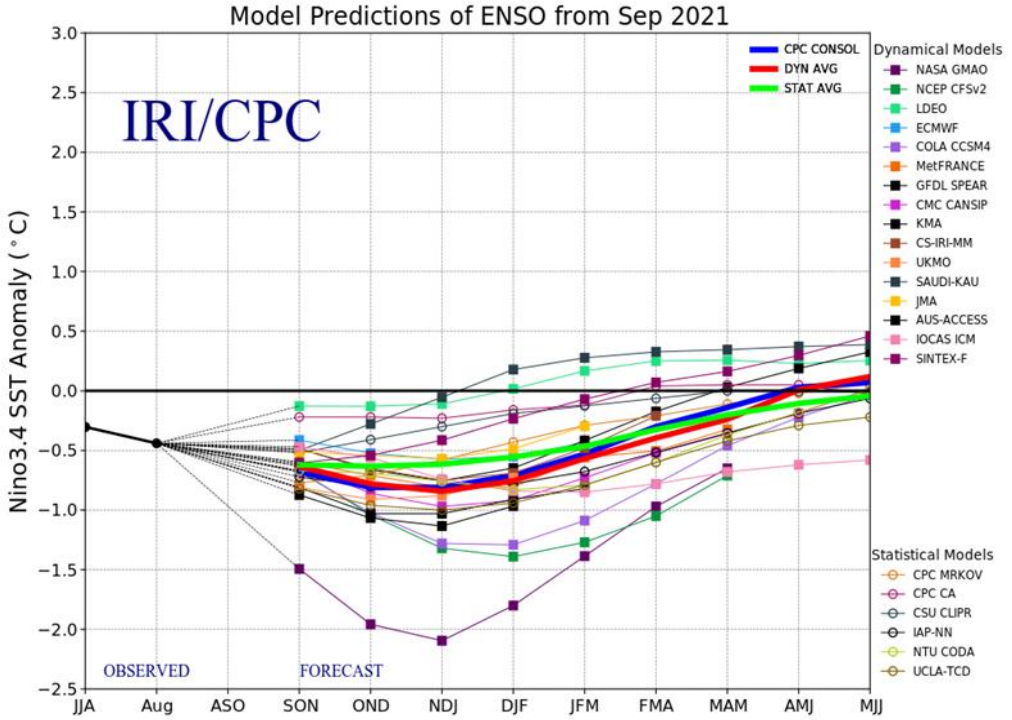
La Niña is expected to continue with an 87% chance in December 2021- February 2022.*

CPC/IRI Probabilistic Forecast



Source: CPC

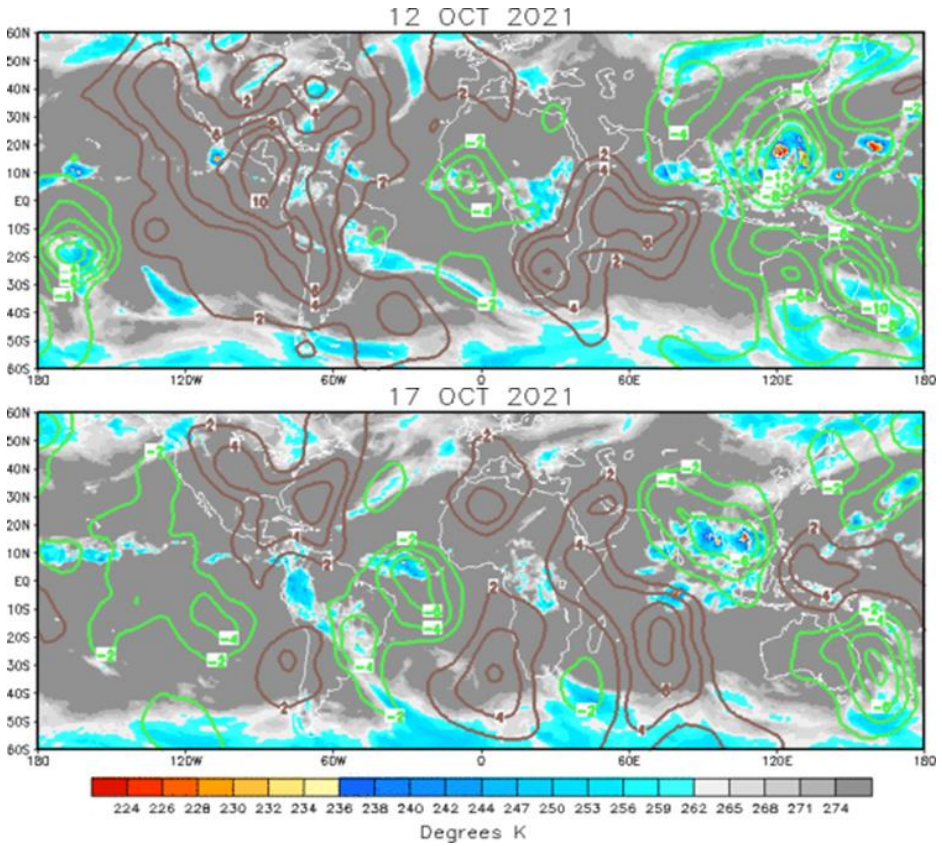
IRI/CPC Dynamic Models



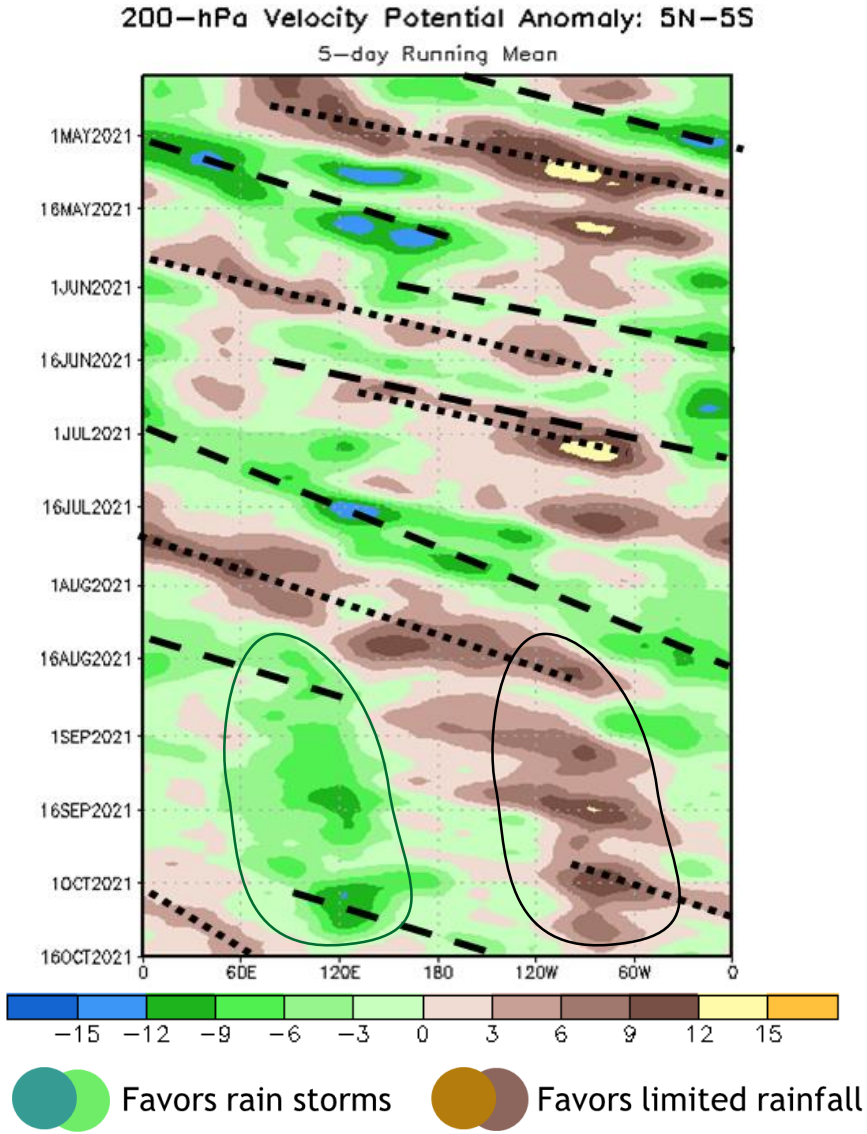
Madden-Julian Oscillation (MJO)

CPC Analysis:

- A stationary pattern continues since mid-August
- Wave 1 pattern has dissapeared
- Upper divergent (wet) shifting east from the dateline, slowly
- Upper convergent (dry) low frequency signal over the Americas

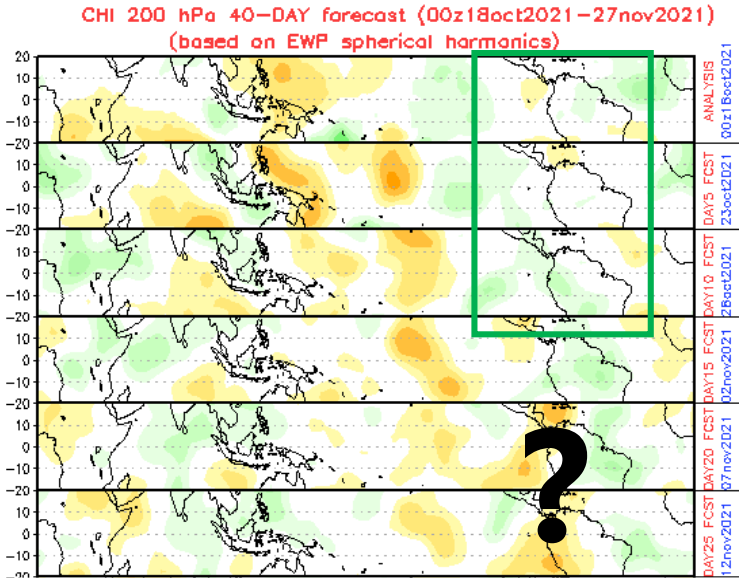


Source: CPC

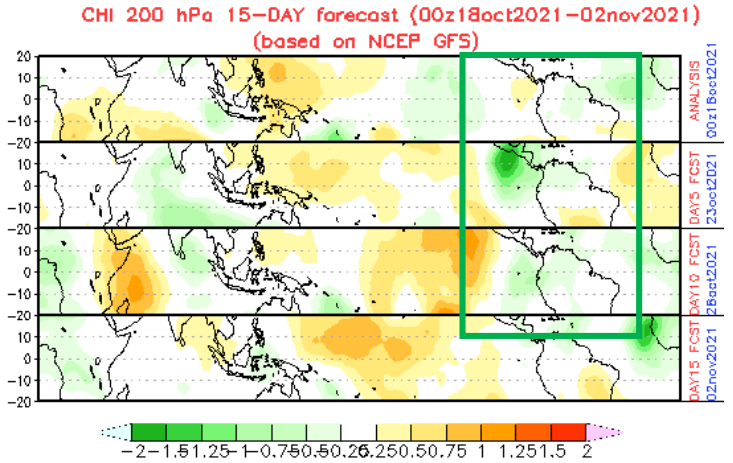


MJO Forecasts

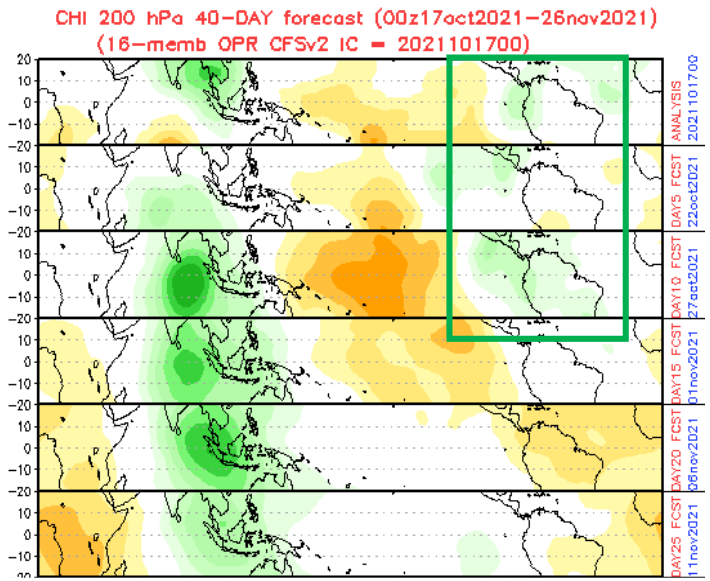
EWP



GFS



CFS



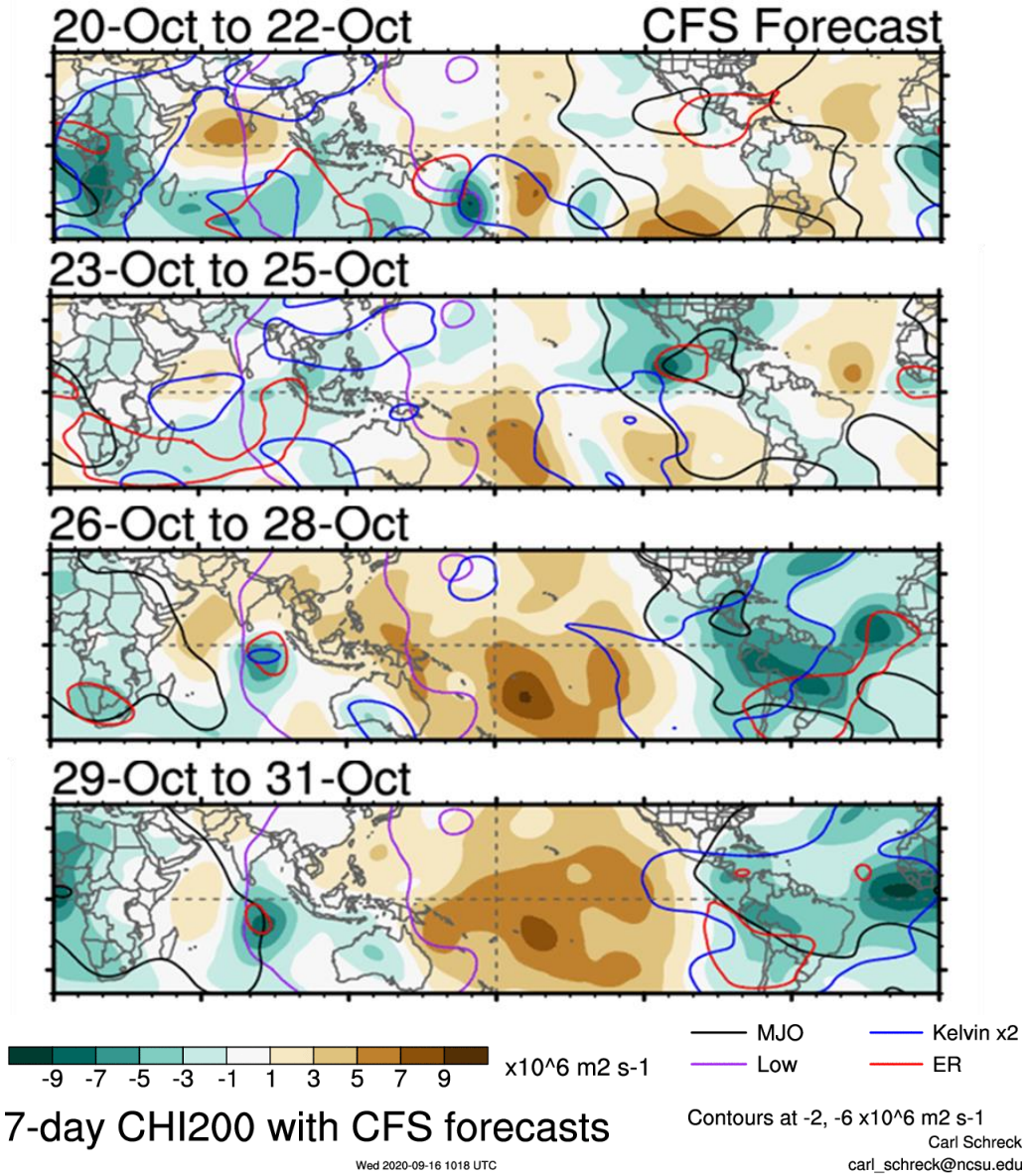
Oct 20

Nov 1

- Disorganized MJO, not very useful for forecasting
- Weak upper divergent pulses through the end of October.
- November is unclear, upper convergent possible.

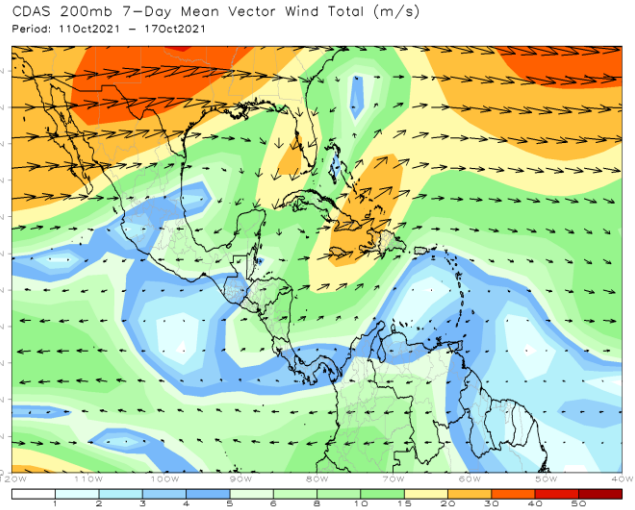
Tropospheric Equatorial Waves

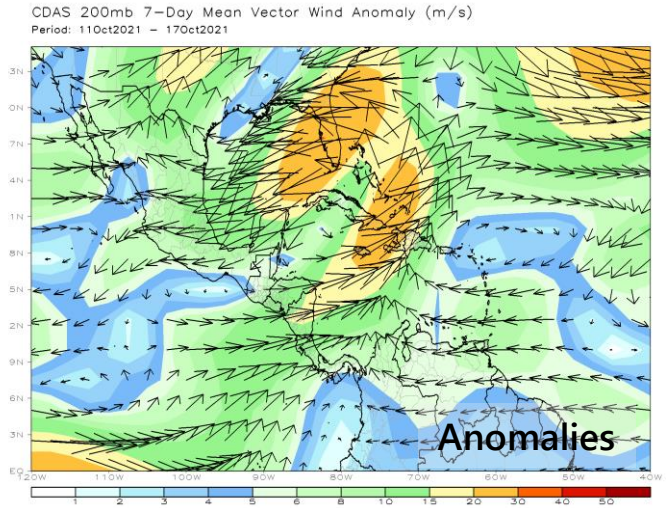
- **Wet weak MJO pulse through Nov 1**
- **Wet Kelvin Wave Oct 25-31**
- **Becoming convergent (dry) on Nov?**
  - Signature best defined on CFS
  - Upper convergence has been prevalent
- **To monitor:**
  - Potential Trop. Cyclone in Mexico's Pacific (Oct 23-28)
  - MCS Paraguay/NE Argentina/S Brasil (Oct 23-25)
  - Intensification of Panamanian Low and Upper trough in Eastern Caribbean. Rains in Colombia/Venezuela/Guyana during weekend and next week. Confidence still low.



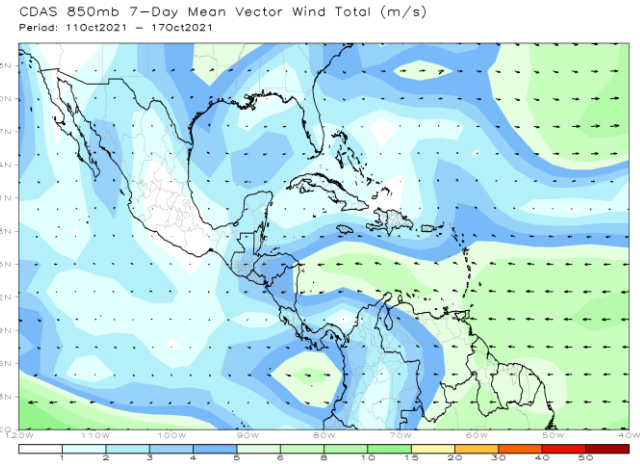
Last Week's Circulation and Rainfall – Tropical Americas

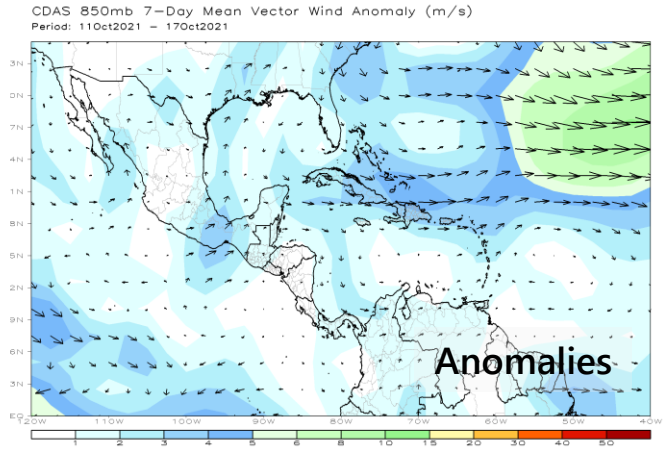
200 hPa



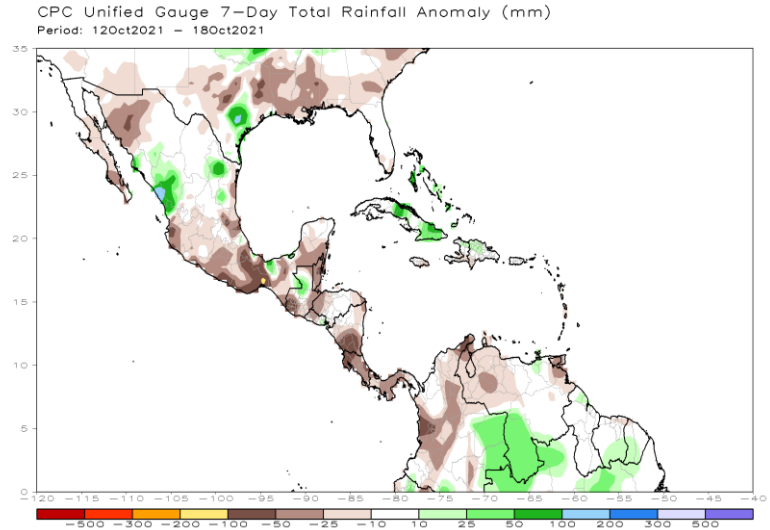


850 hPa

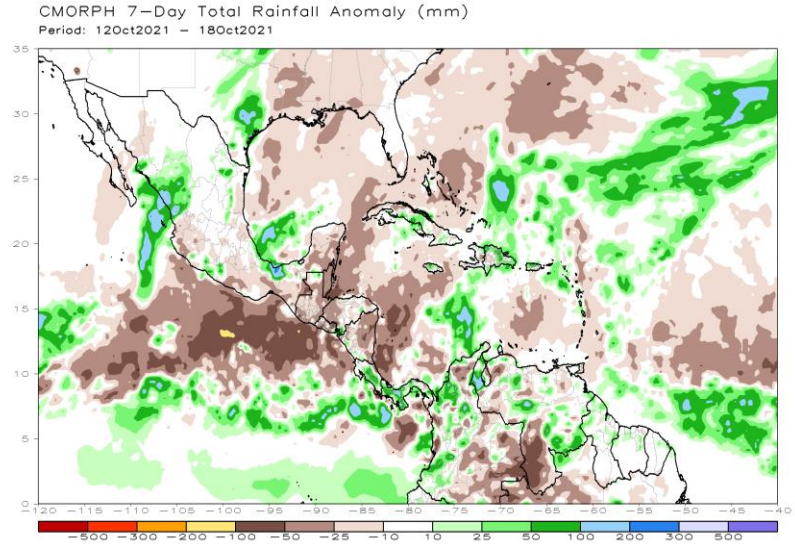




Rainfall

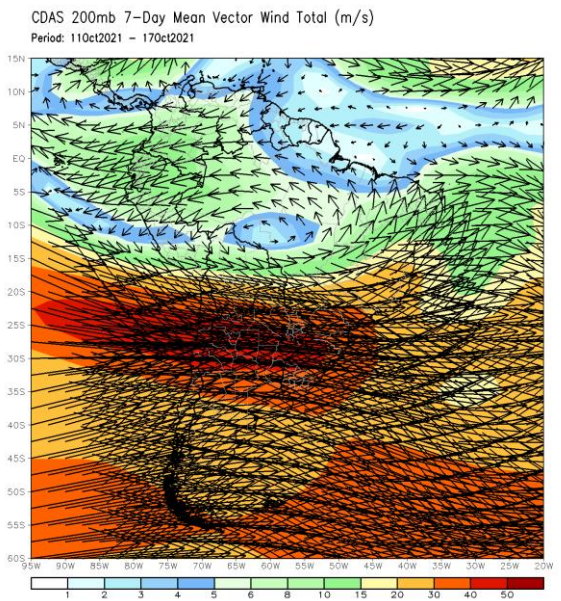


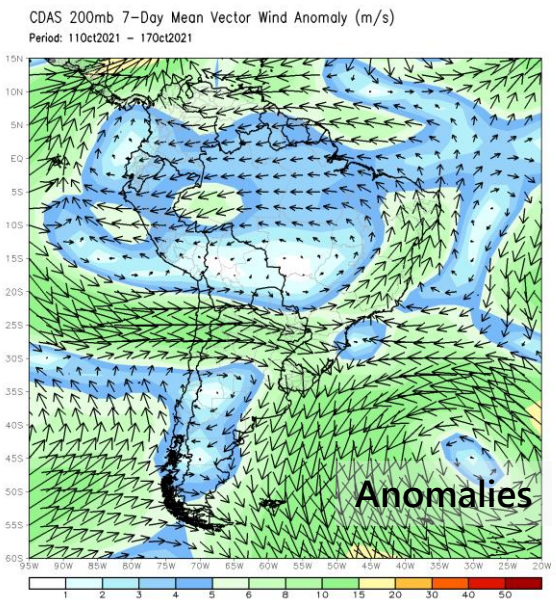
CMORPH: CPC Morphing Technique https://www.cpc.ncep.noaa.gov/products/janowiak/cmorph_description.htm



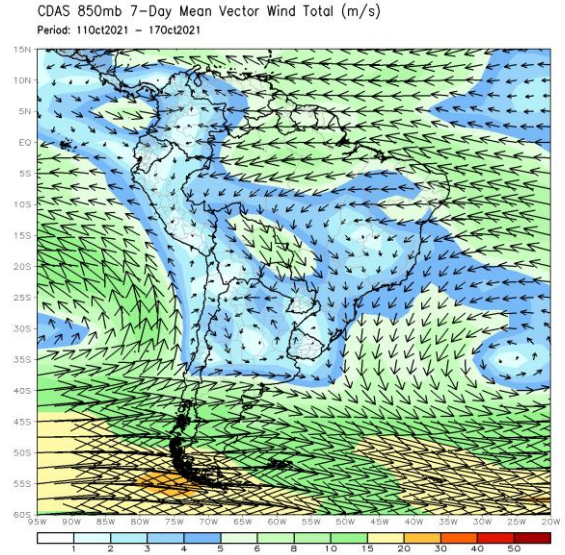
Last Week's Circulation and Rainfall – South America

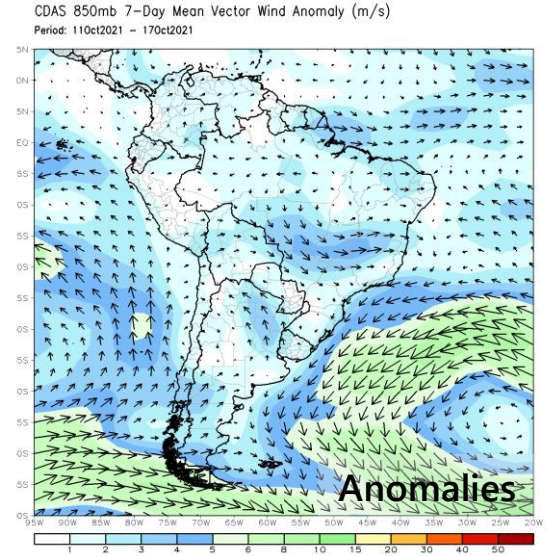
200 hPa



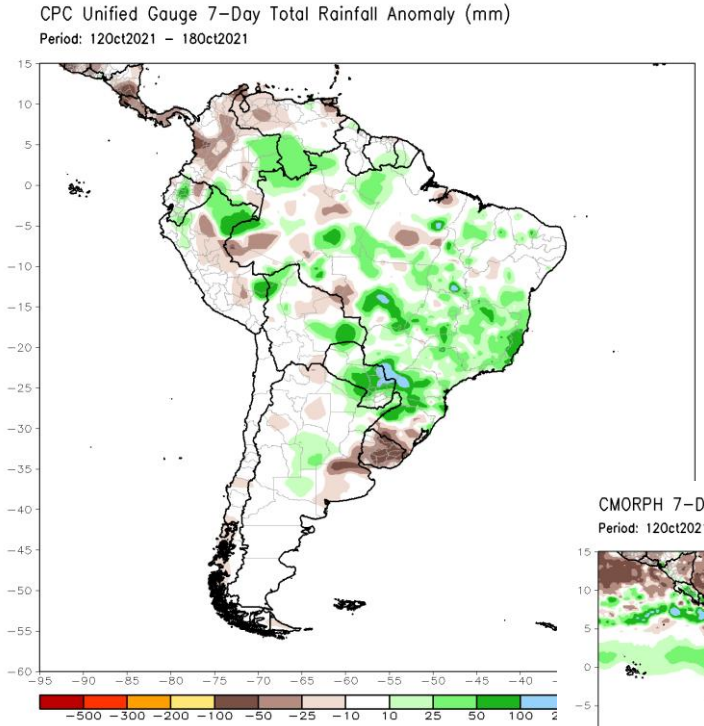


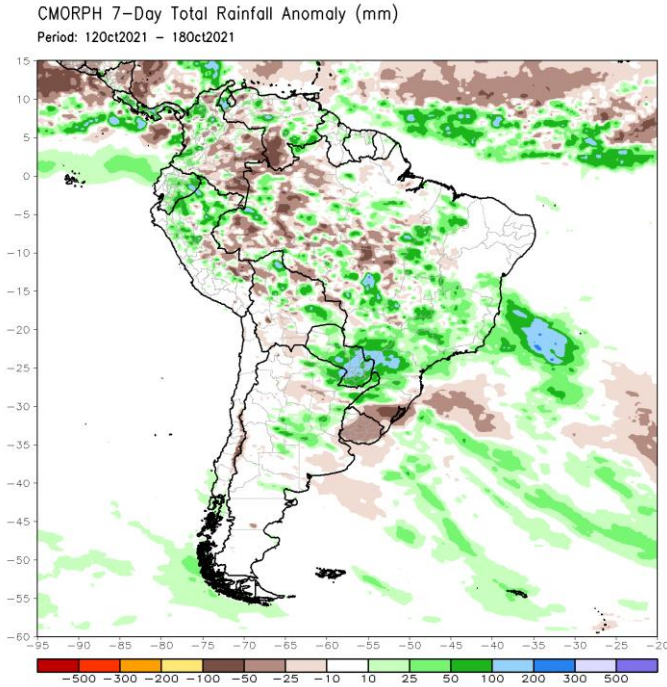
850 hPa





Rainfall





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¡Gracias!

Thank you!