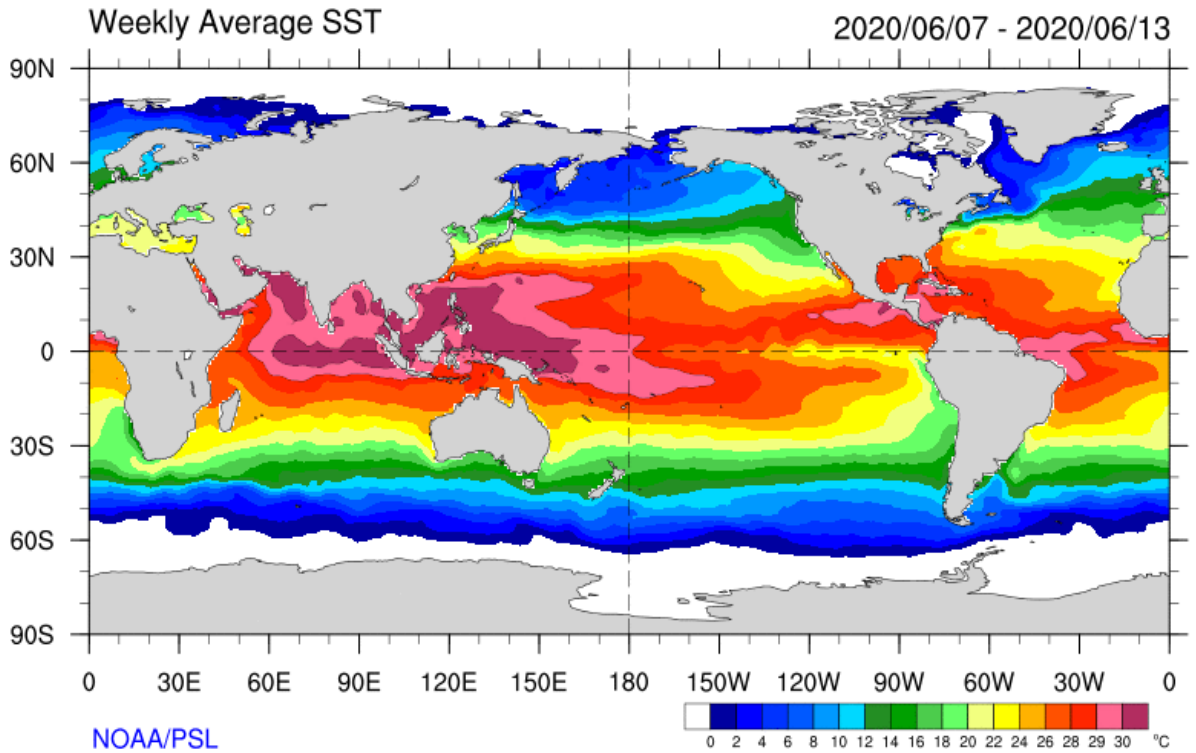
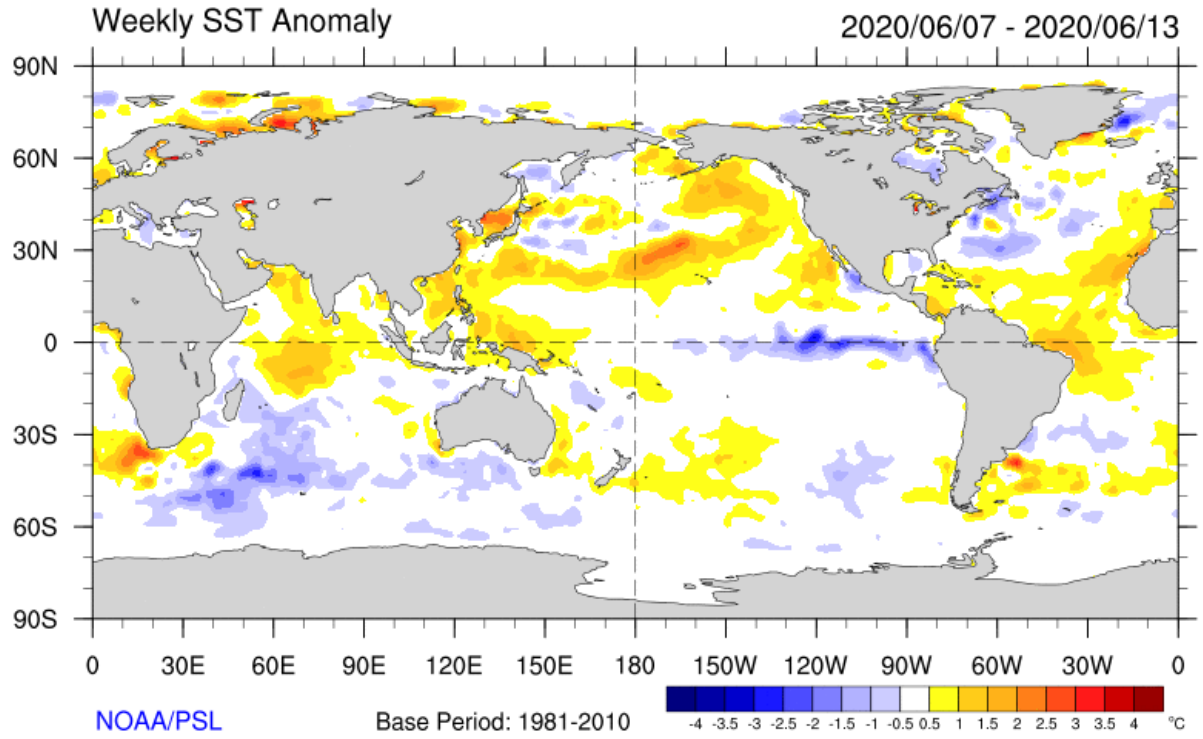
Monthly Regional Focus Group Session

Wednesday 17 June 2020

Sea Surface Temperature Anomalies (Last Week)

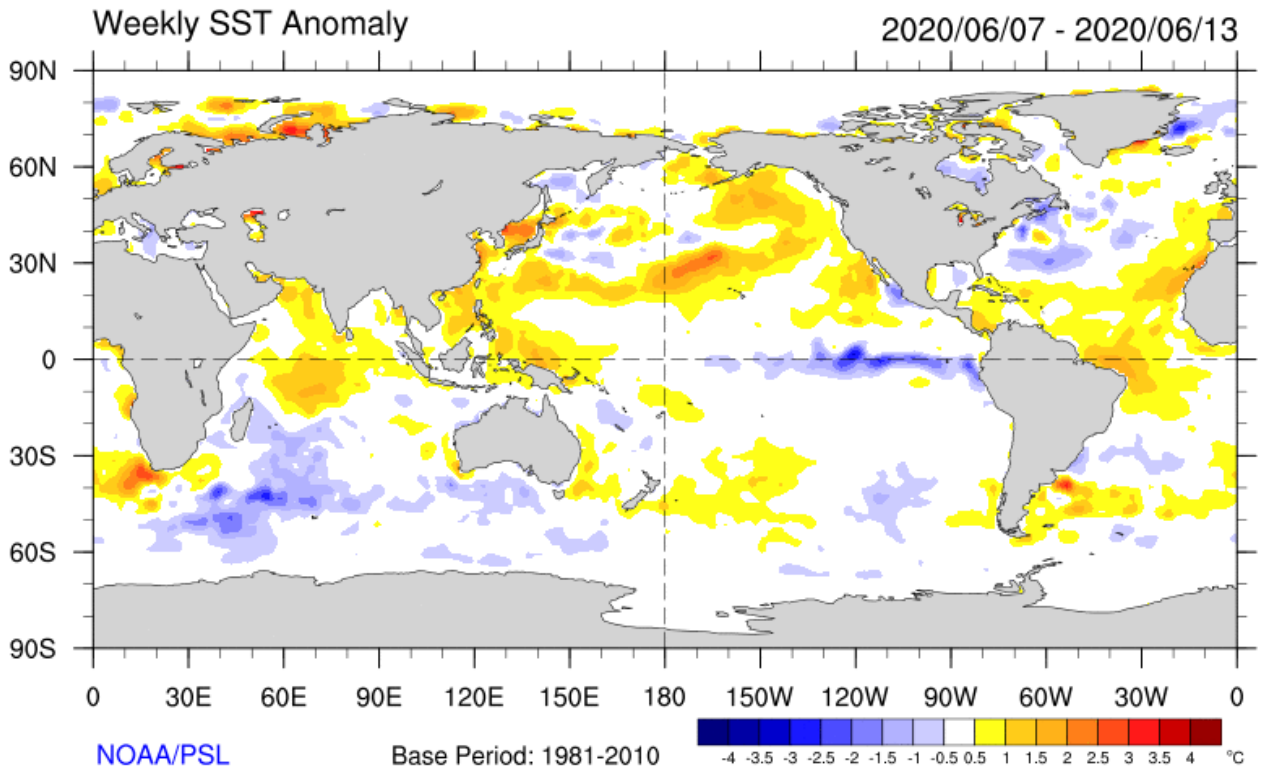




Are the Surface Anomalies Deep?

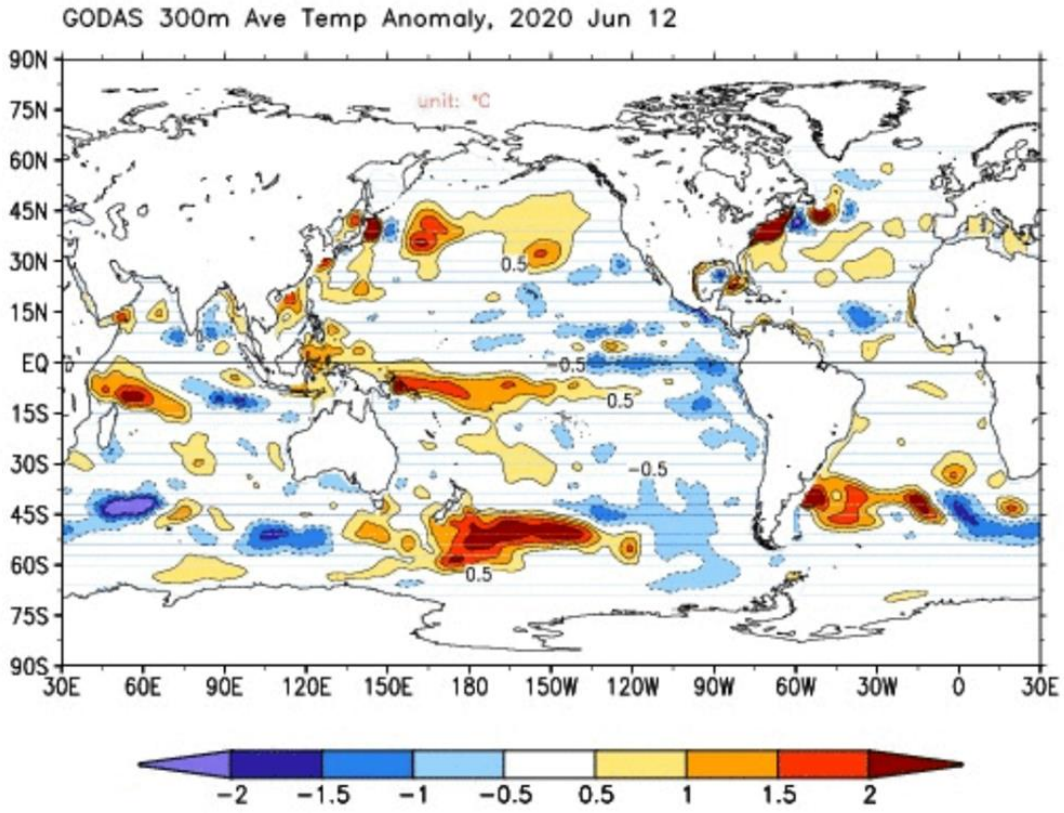
Sea Surface Temperature Anomaly

07-13 June 2020



Top 300-m Sea Temperature Anomaly

12 June 2020

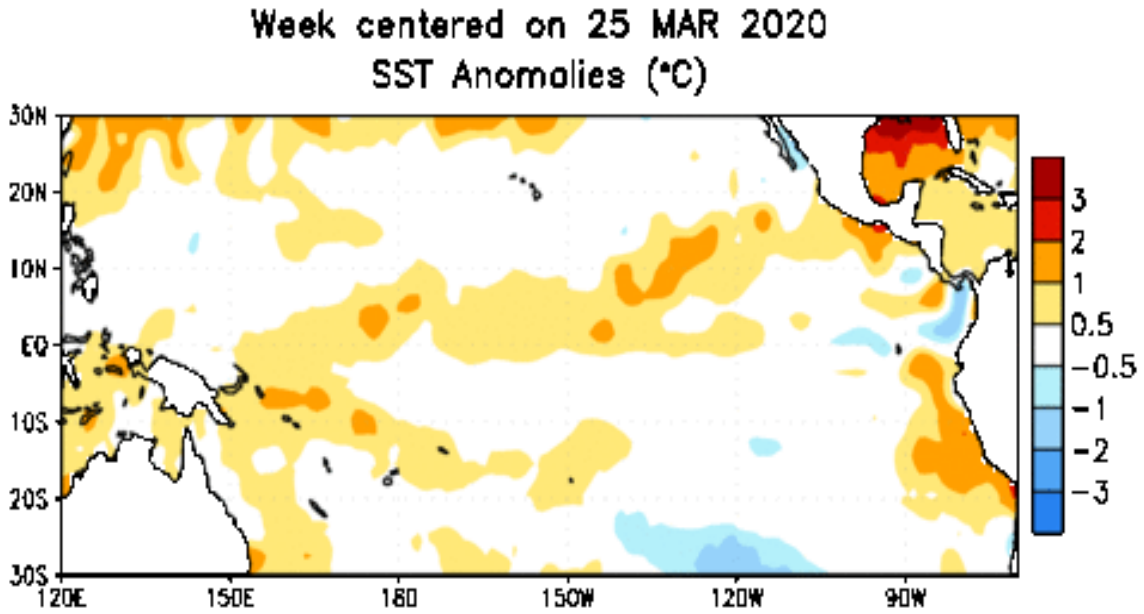


Source: GODAS, CPC

ENSO
Neutral

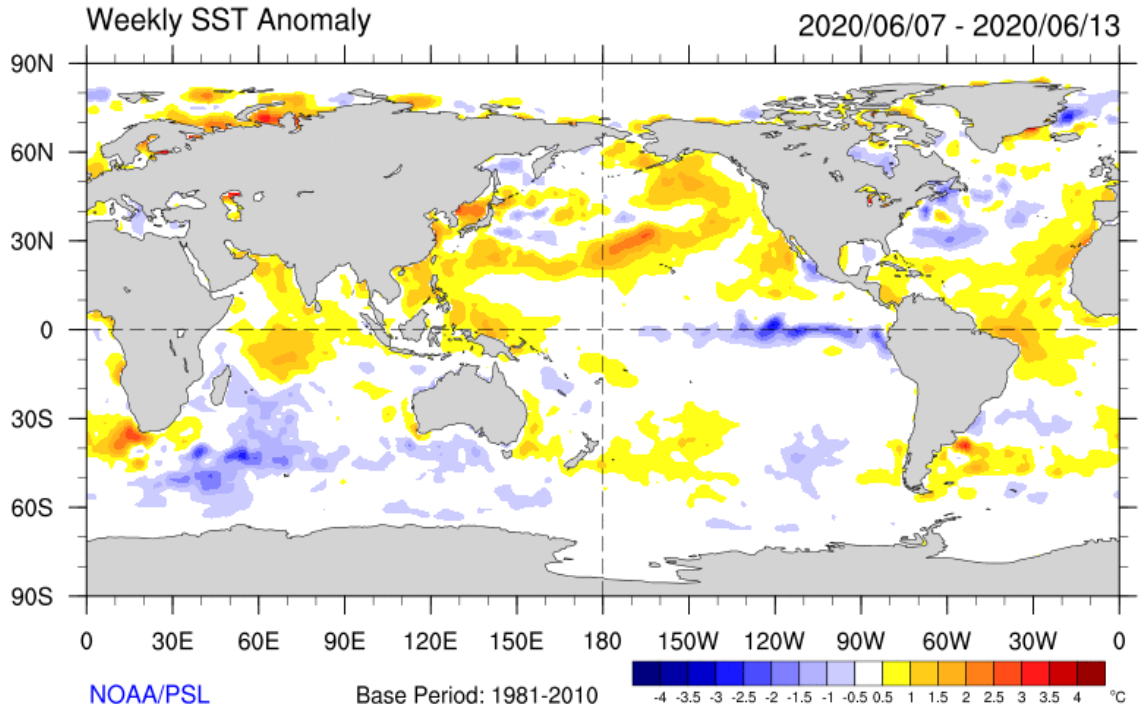
- Neutral conditions are present.
- East-Central Equatorial Pacific SSTs are near-to-below average.
- The tropical atmospheric circulation is generally consistent.

Evolution since March 25th



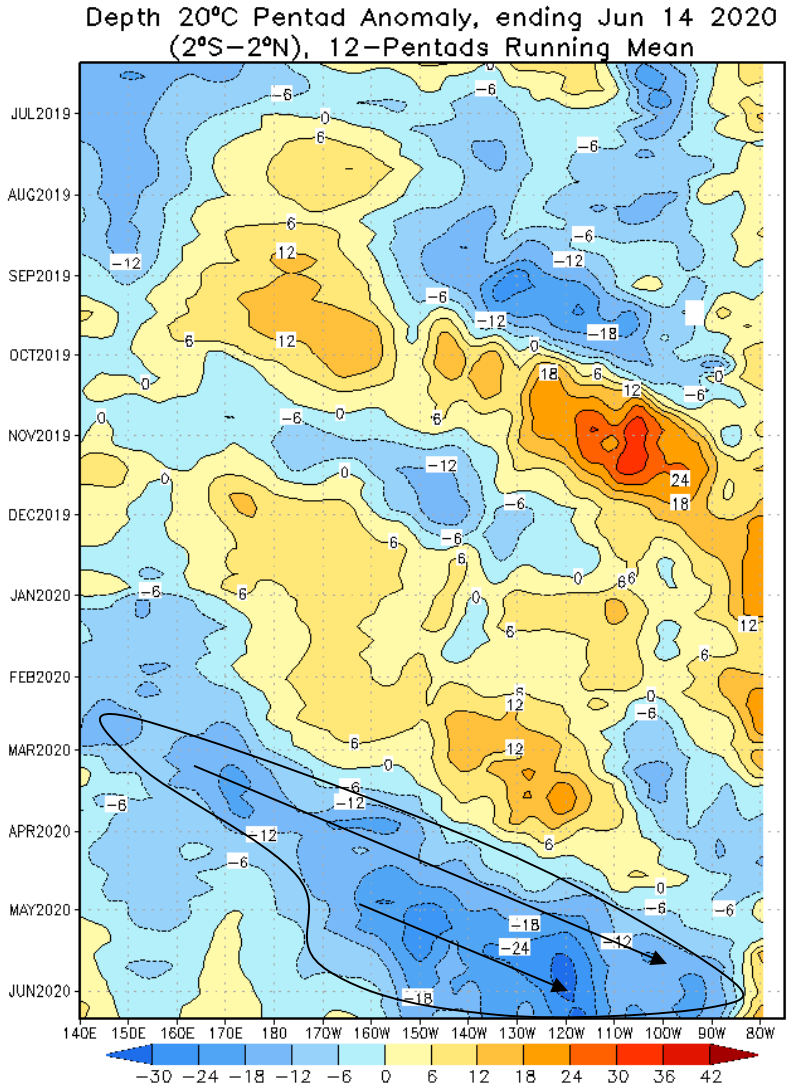
Source: CPC

Last week's anomalies



Source: Physical Sciences Laboratory (PSL)

ENSO Hovmöller of thermocline depth anomalies



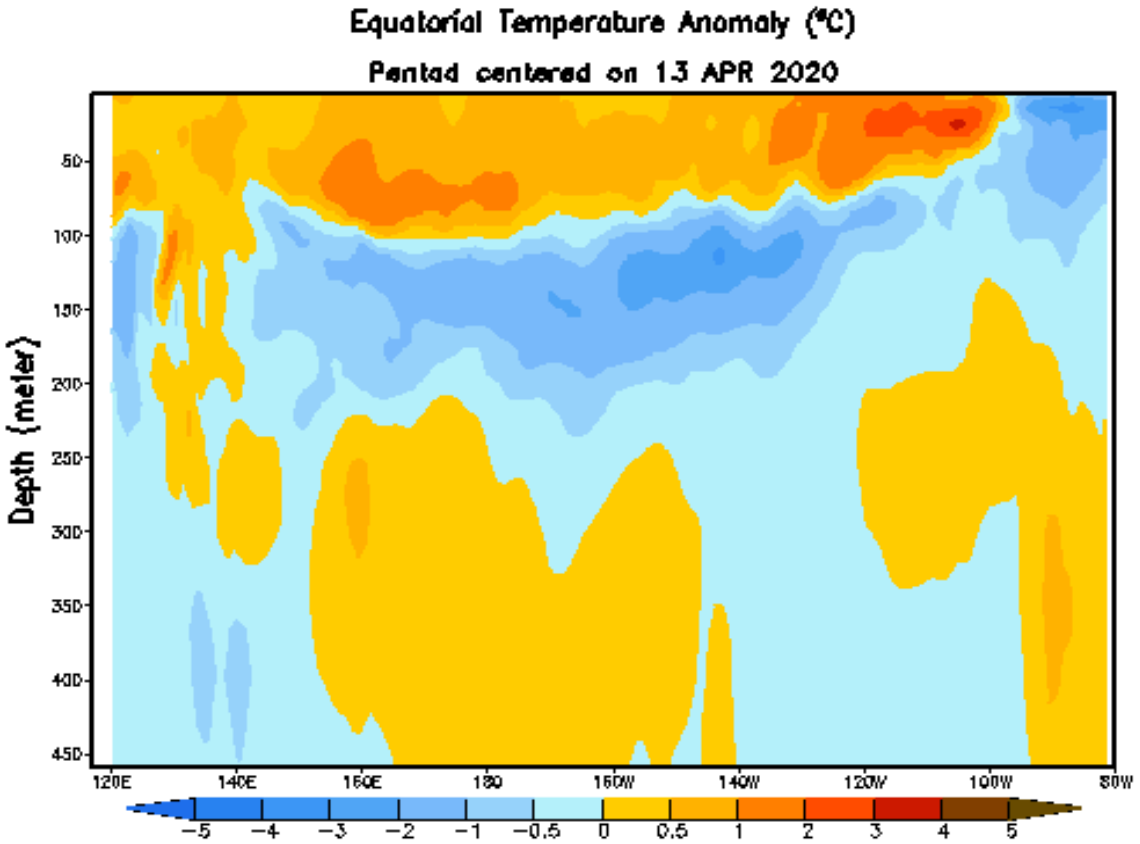
Shows upwelling (cool) Kelvin Wave propagating

- Blues: Thermocline anomalous depth shows negative values (blue)
- More cool anomalies are triggered by anomalous easterlies in the equatorial Pacific.
- Forecast: Cooling trend of the Eastern Pacific to continue at least over the next 2 months.

ENSO

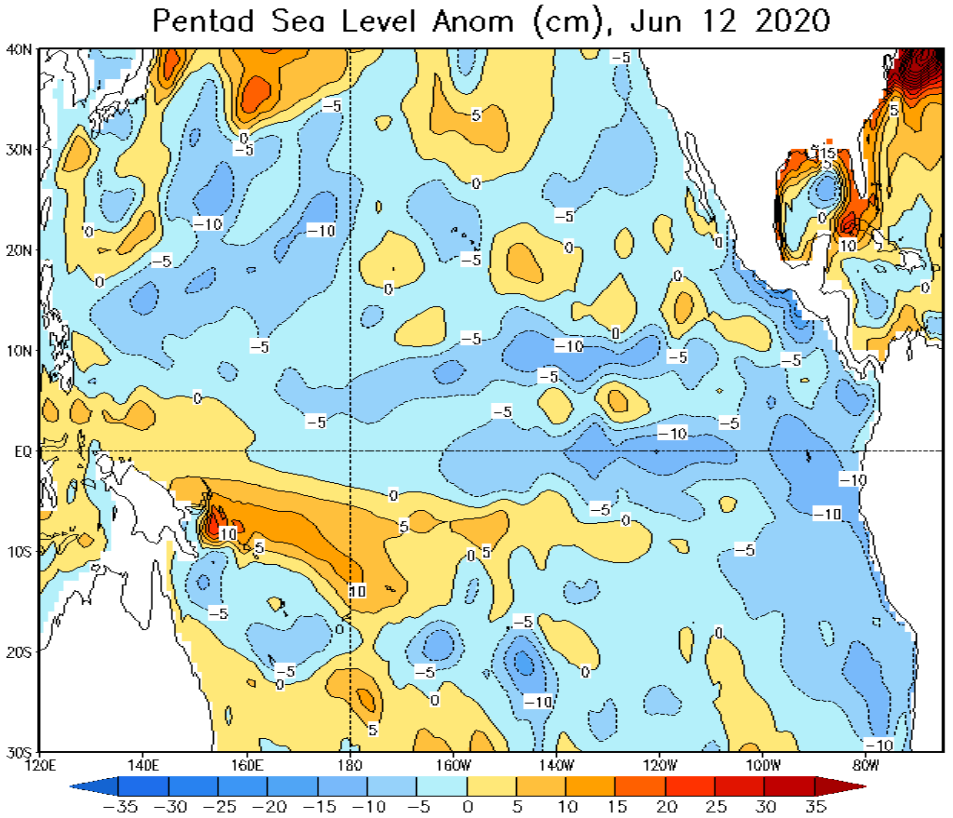
Temperature Anomaly Cross Section and Sea Level Anomalies

Temperature Anomaly Cross Section



Source: CPC

Sea Level Anomalies

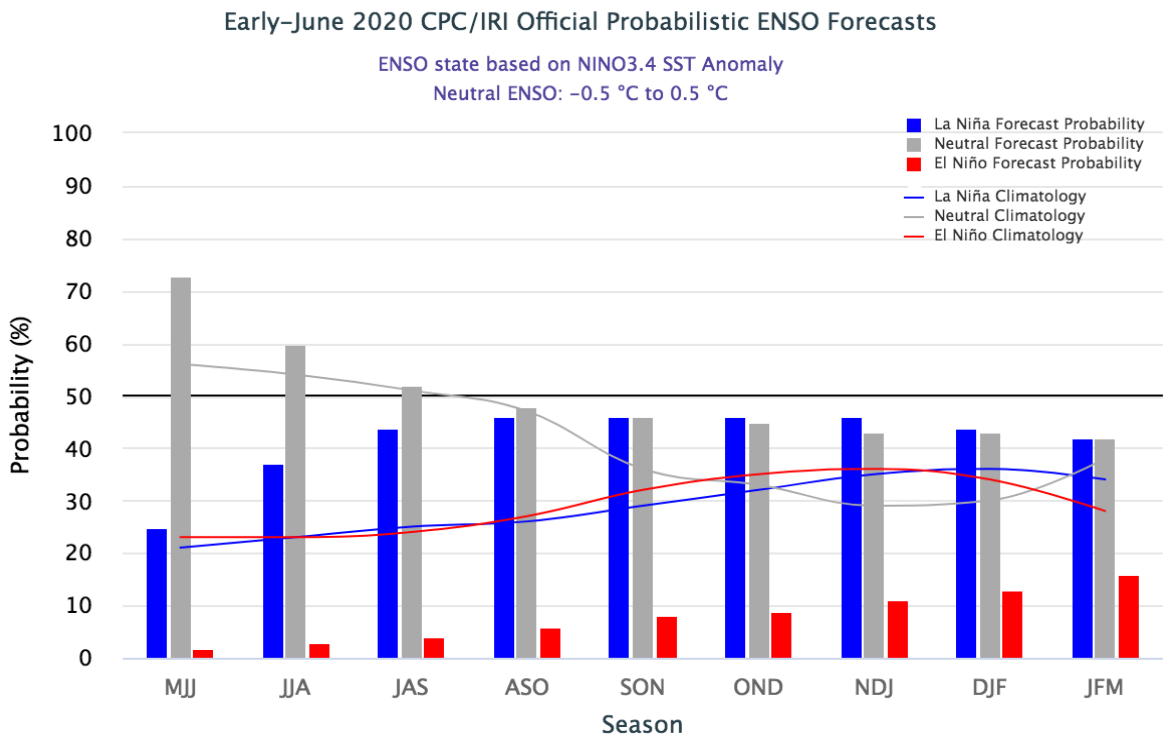


Source: CPC

ENSO Outlook

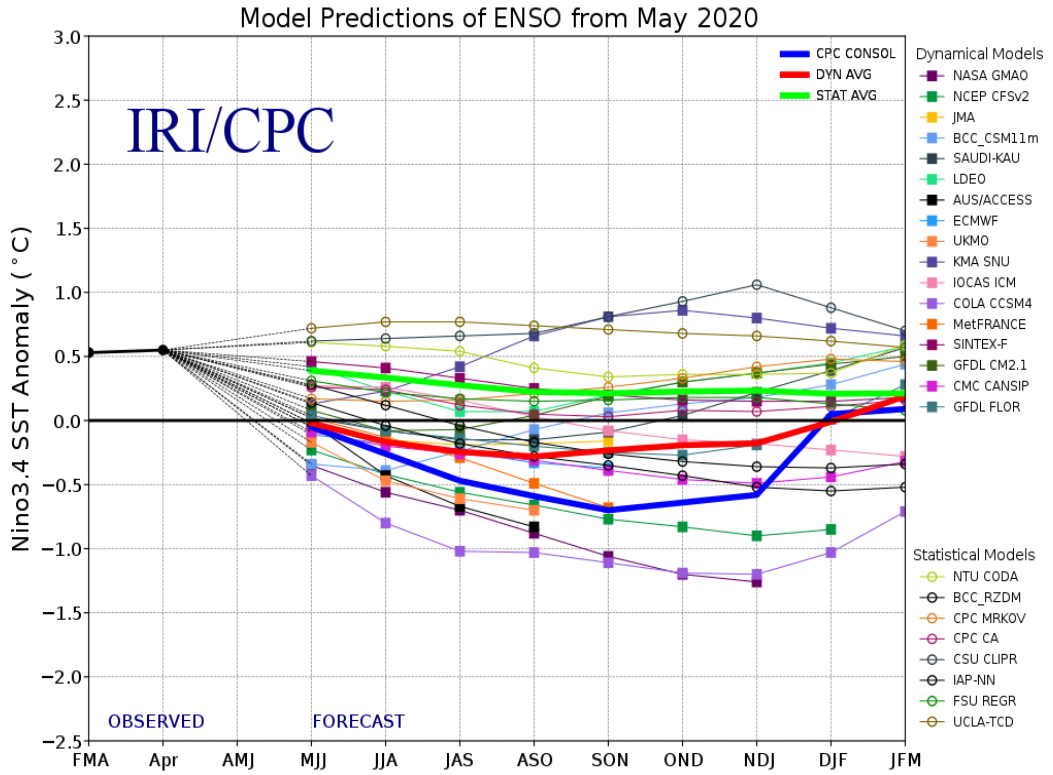
~60% chance of ENSO-neutral during Northern Hemisphere summer. Roughly equal chances (~40-50%) of La Niña or ENSO-neutral during the autumn and winter 2020-21.*

CPC/IRI Probabilistic Forecast



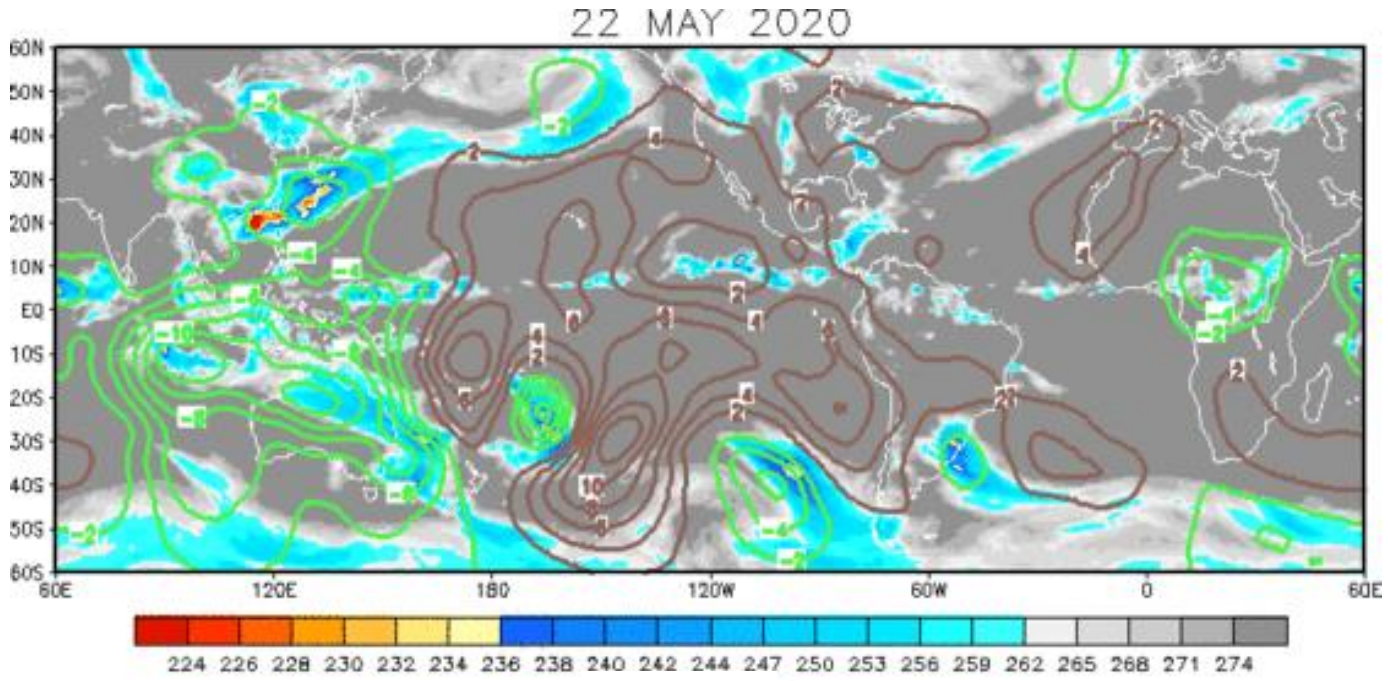
Source: CPC

IRI/CPC Dynamic Models



Madden-Julian Oscillation (MJO)

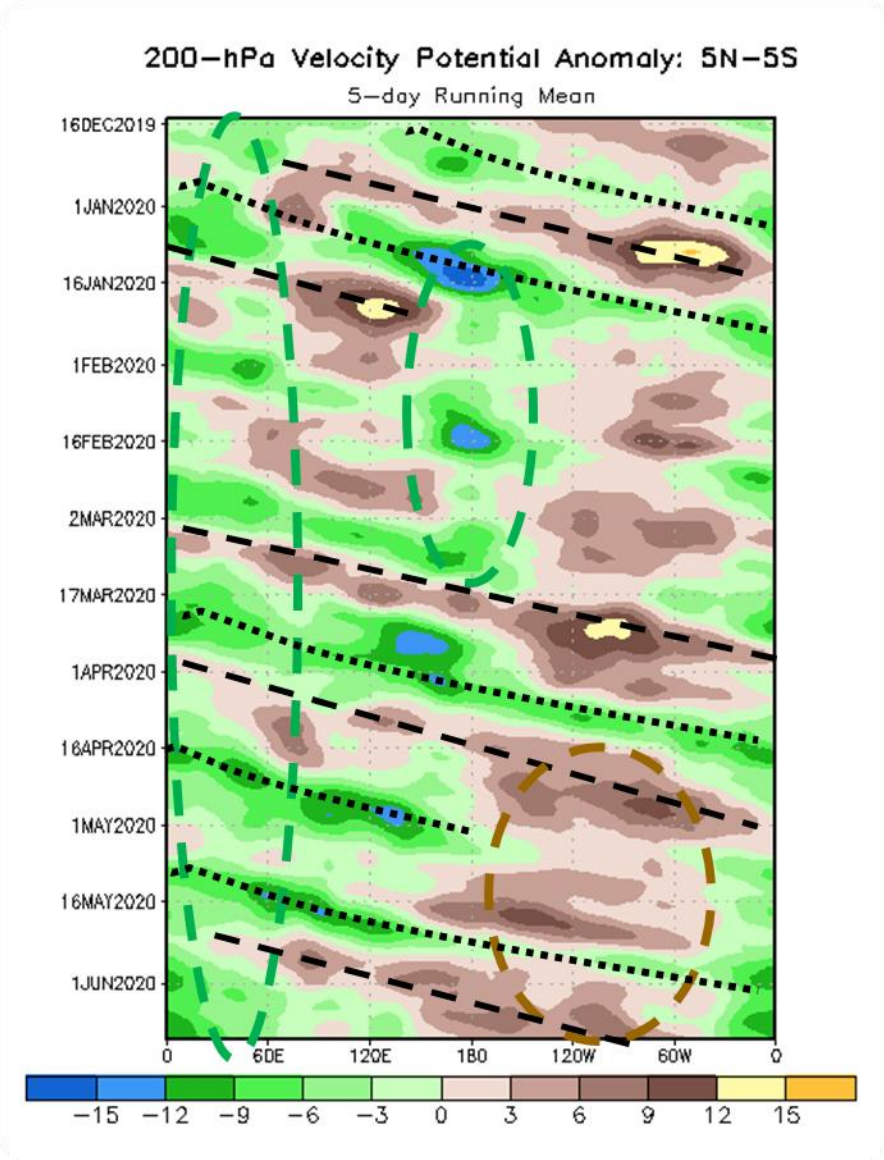
200 hPa Velocity Potential (CHI) and OLR Daily Anomalies



Favors rain storms

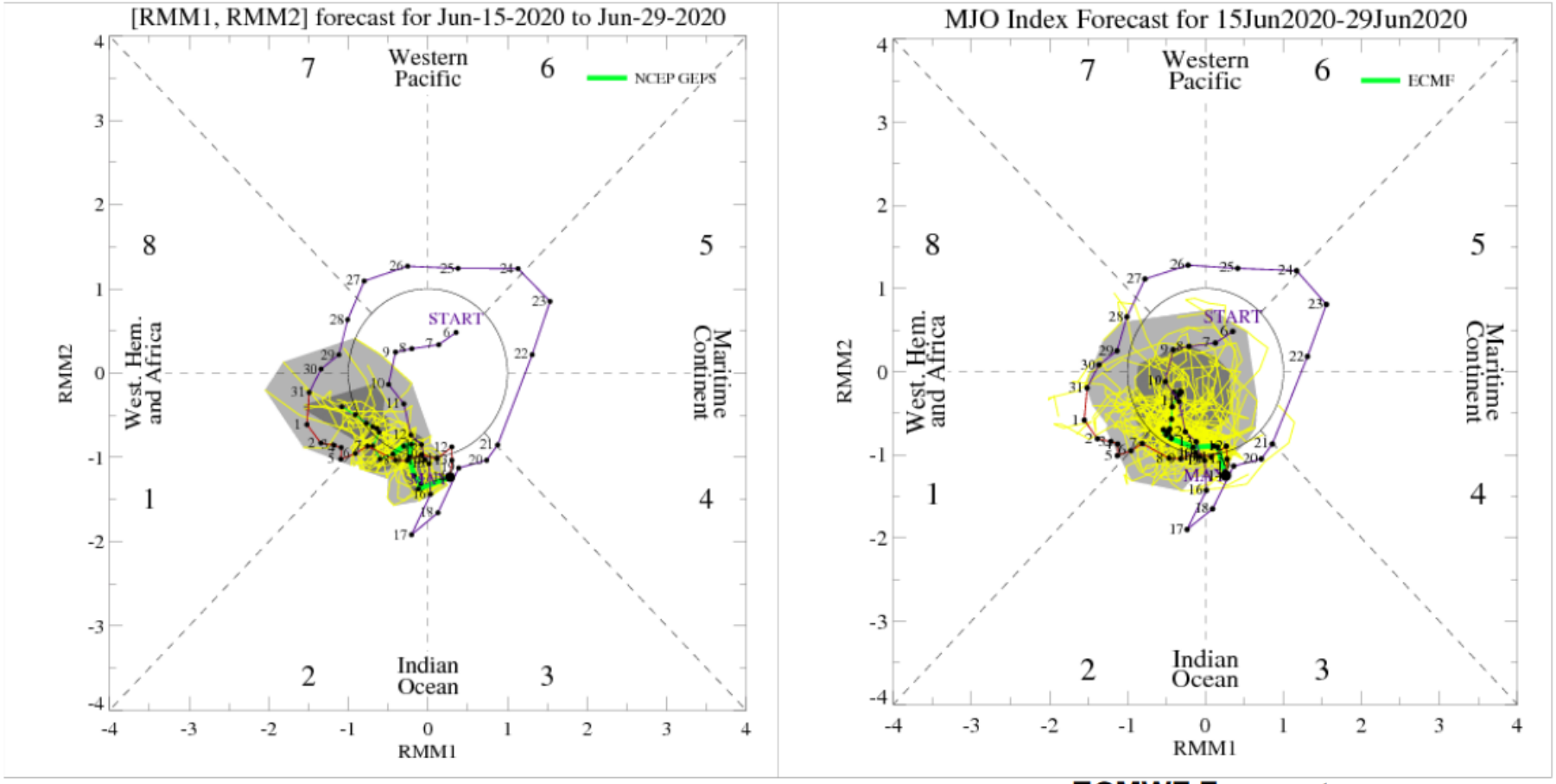
Favors limited rainfall

Source: CPC



Source: CPC

MJO Forecasts

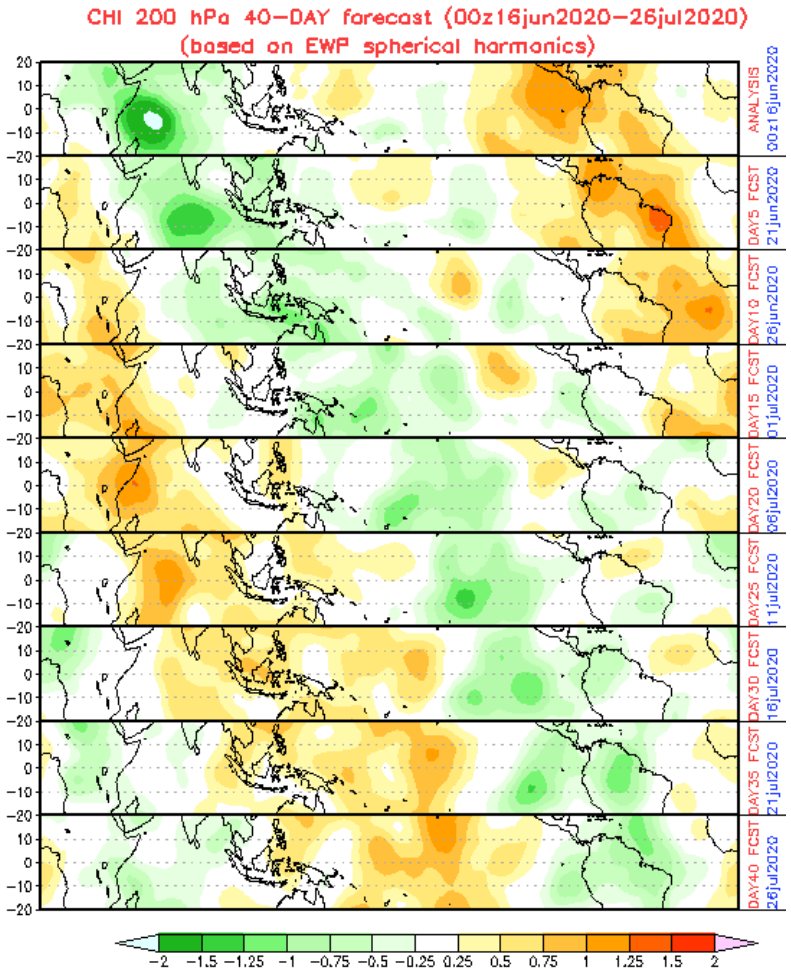


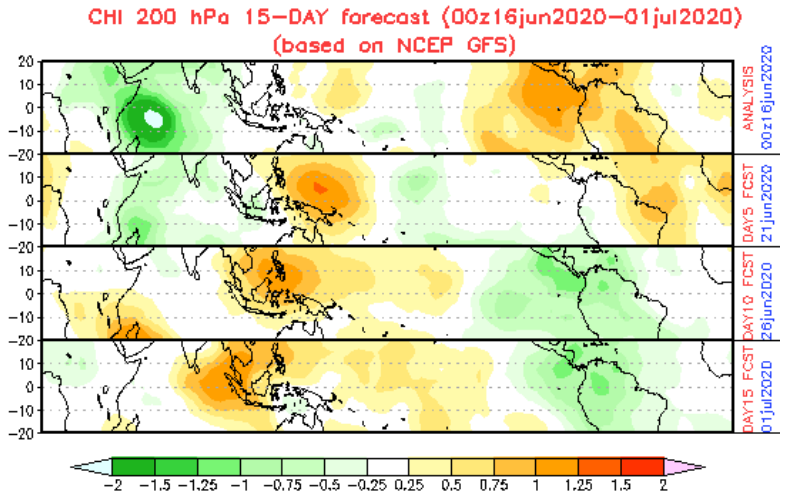
GEFS Forecast

ECMWF Forecast

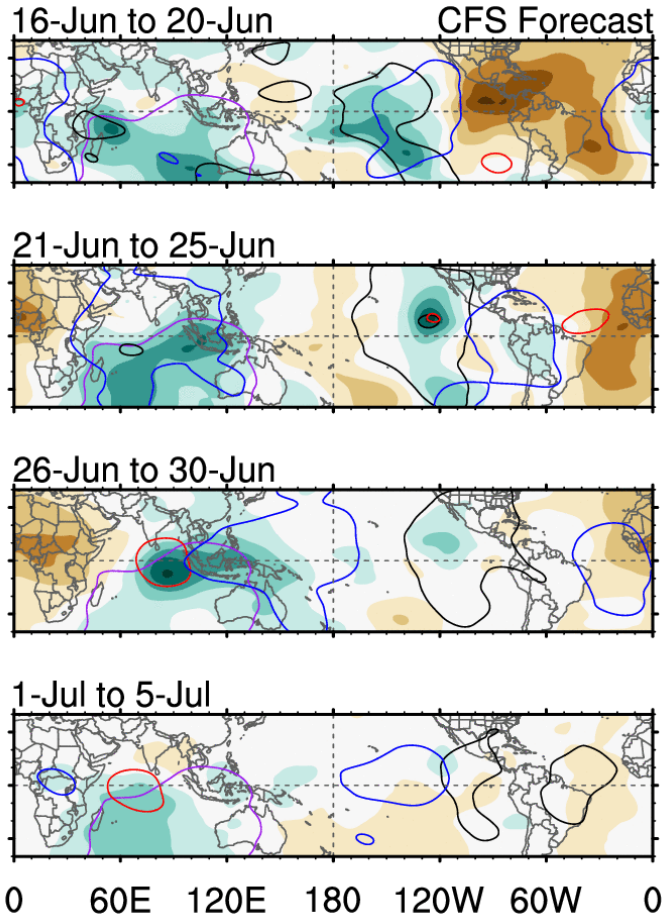
Disorganizing

MJO Forecasts

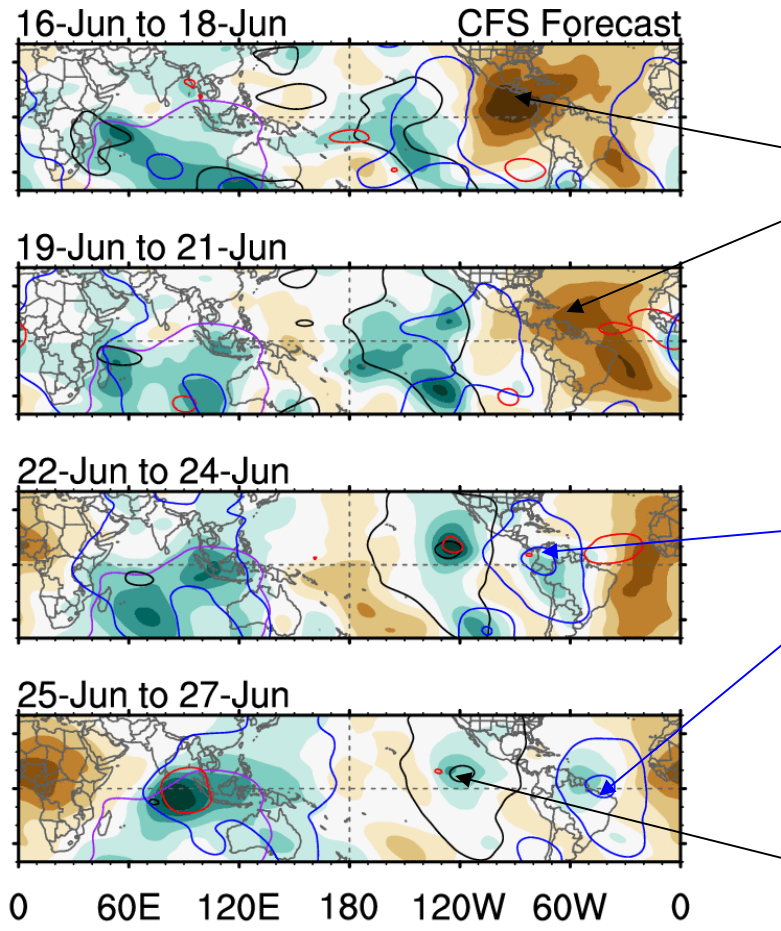


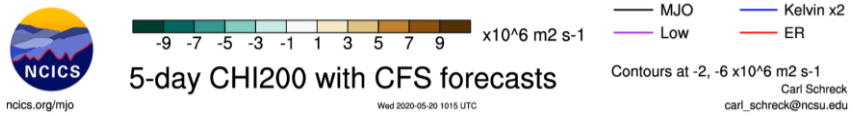


- Agreement on upper convergent (dry) pattern into early next week.
- Disagreement after: disorganized MJO.



MJO and Equatorial Tropospheric Waves CFS Forecasts

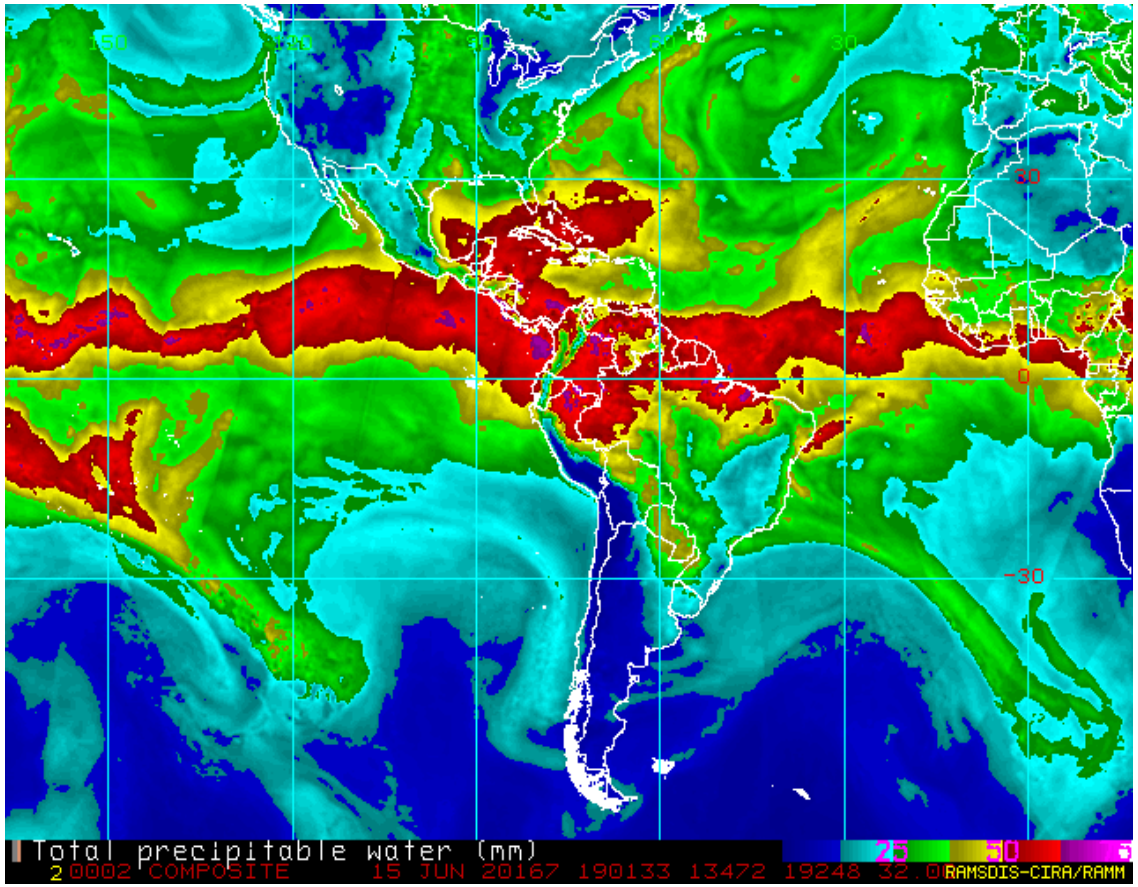


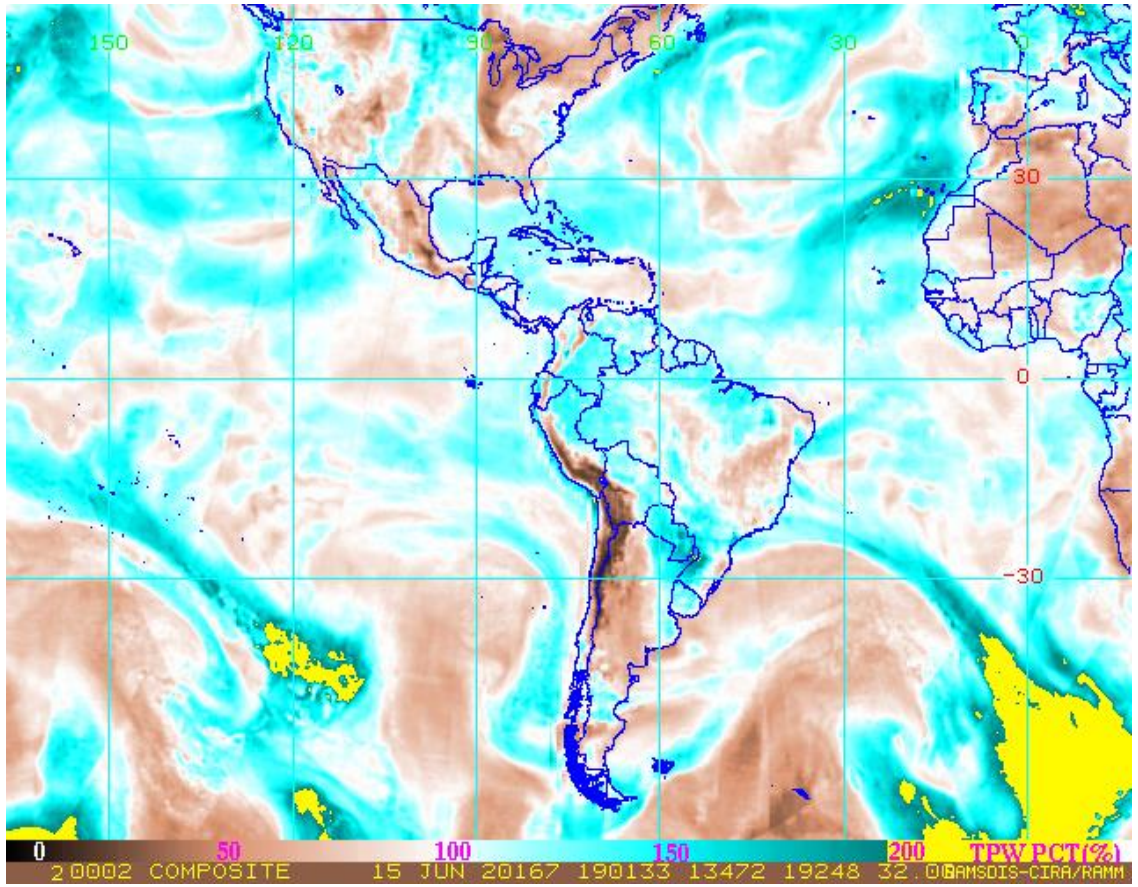


Summary

- Brown: Upper convergent pattern through early next week
  - Convection generally more isolated.
- Blue contour: Kelvin wave enhancement of convection From June 22-27.
- Black: Disorganized divergent MJO approaches by the end of the month/early July.

OBSERVED: Precipitable water and anomalies

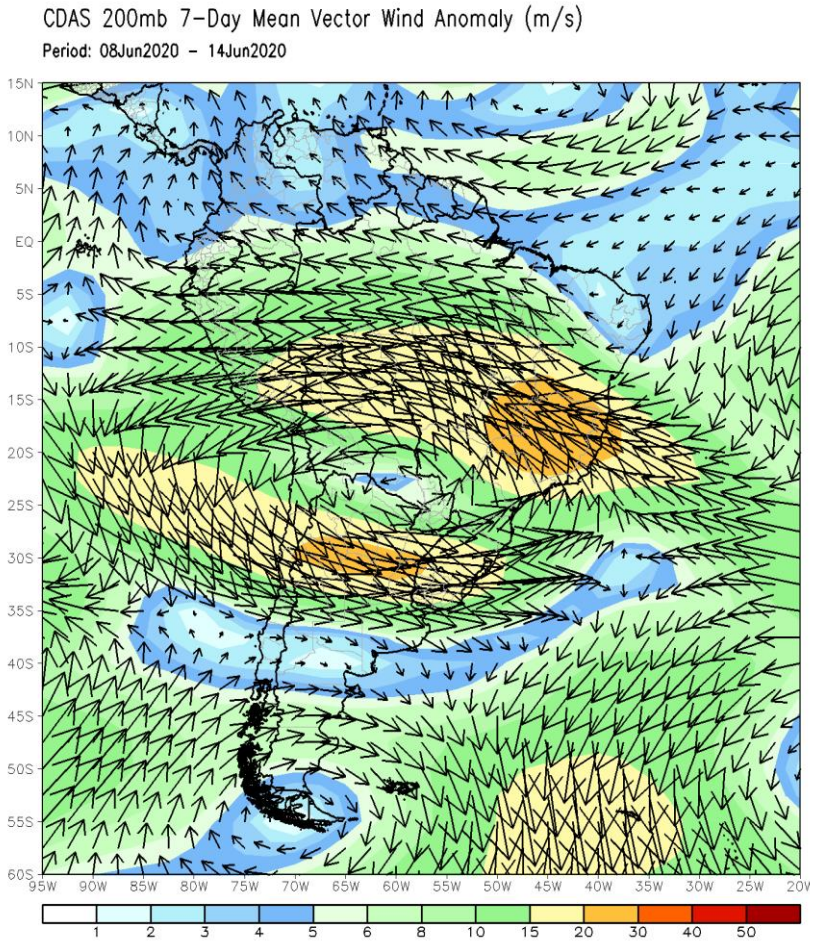




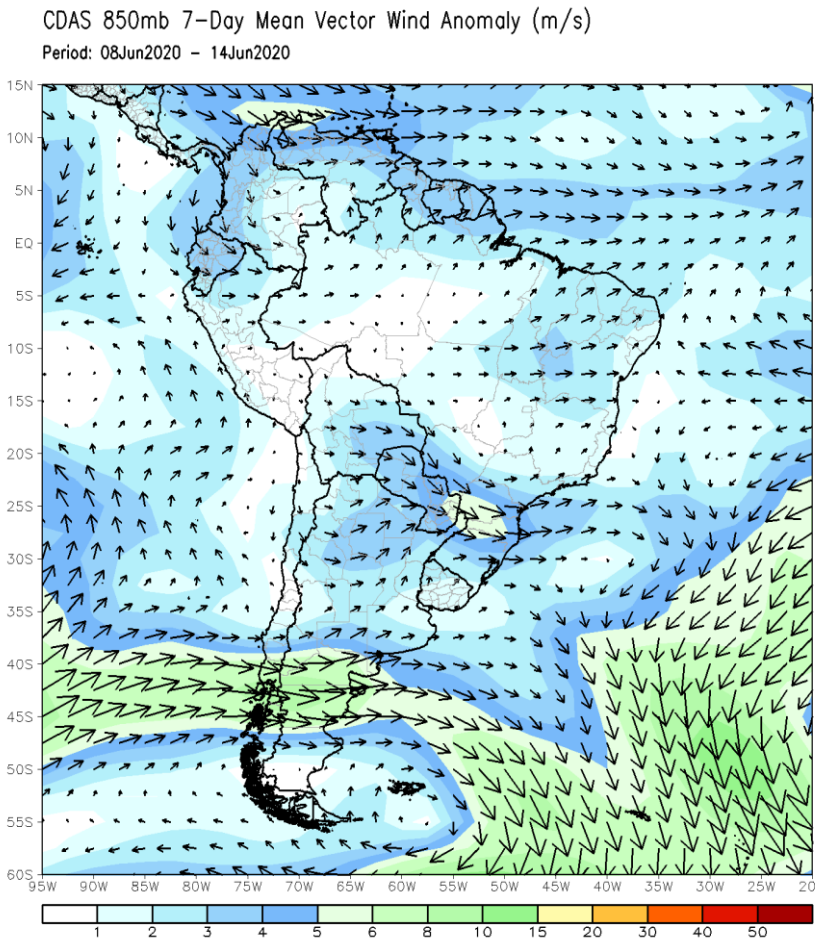
http://rammb.cira.colostate.edu/ramsdis/online/rmtc.asp

OBSERVED: Last week's anomalies for South America

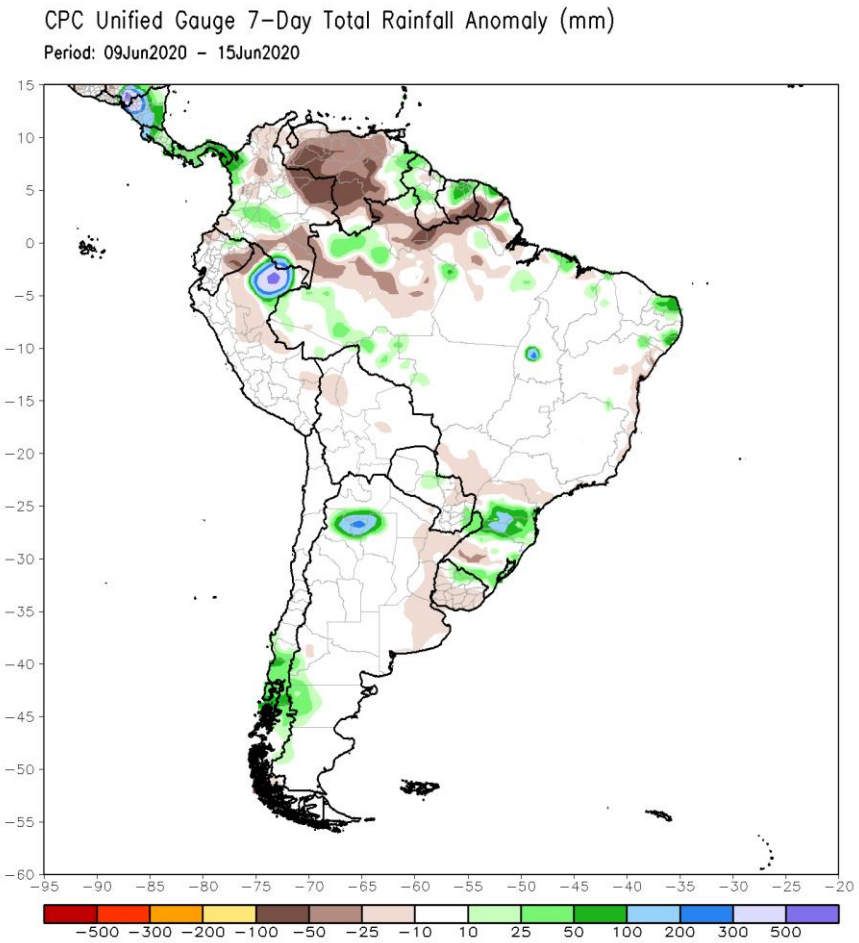
200 hPa Flow



850 hPa Flow

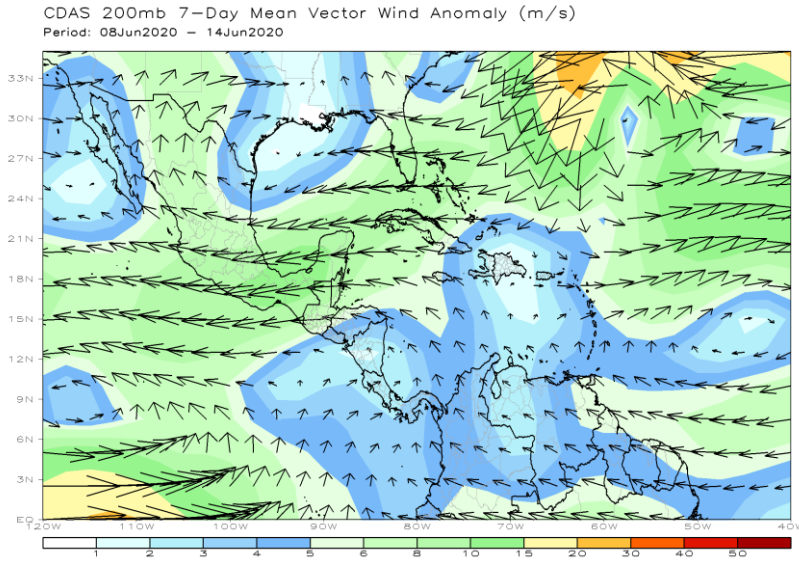


Rainfall

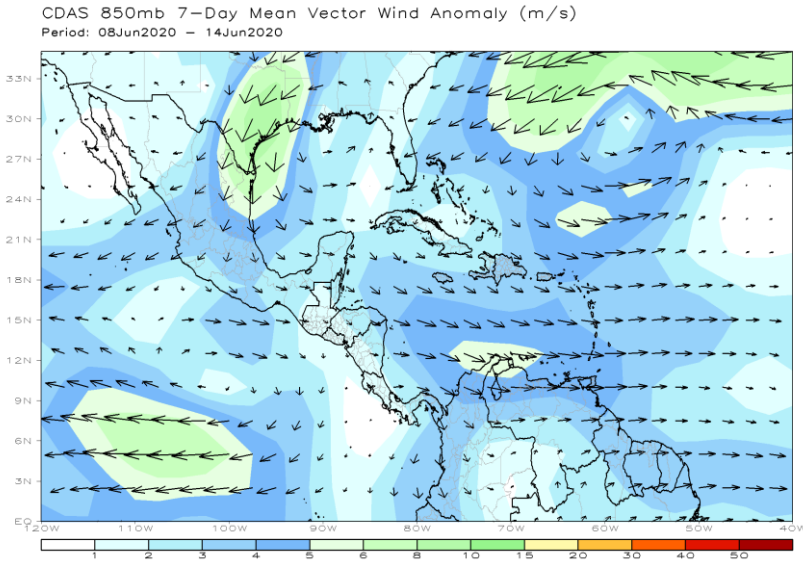


OBSERVED: Last Week's anomalies for the Tropical Americas

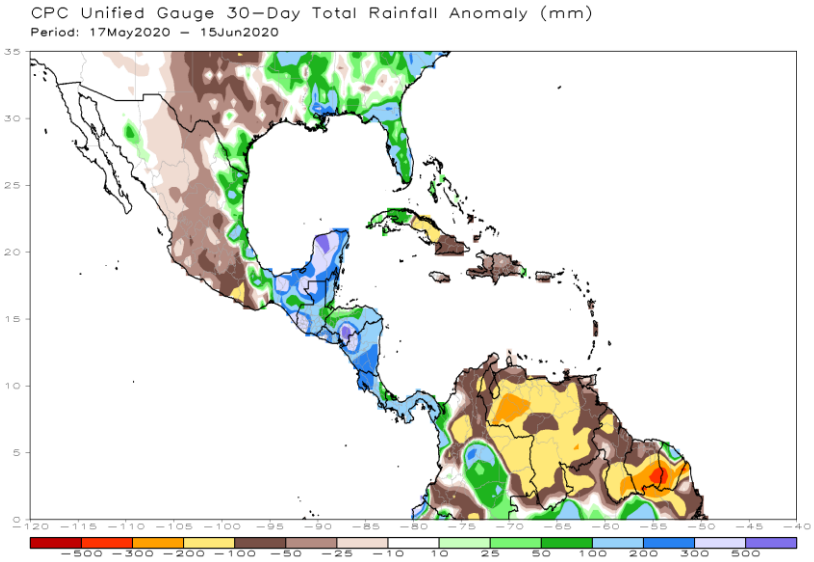
200 hPa Flow



850 hPa Flow



Rainfall



Rainfall in Central America during the CAG, TS Amanda and TS Cristóbal events.