

Global Tropics Hazards And Benefits Outlook

7/2/2019

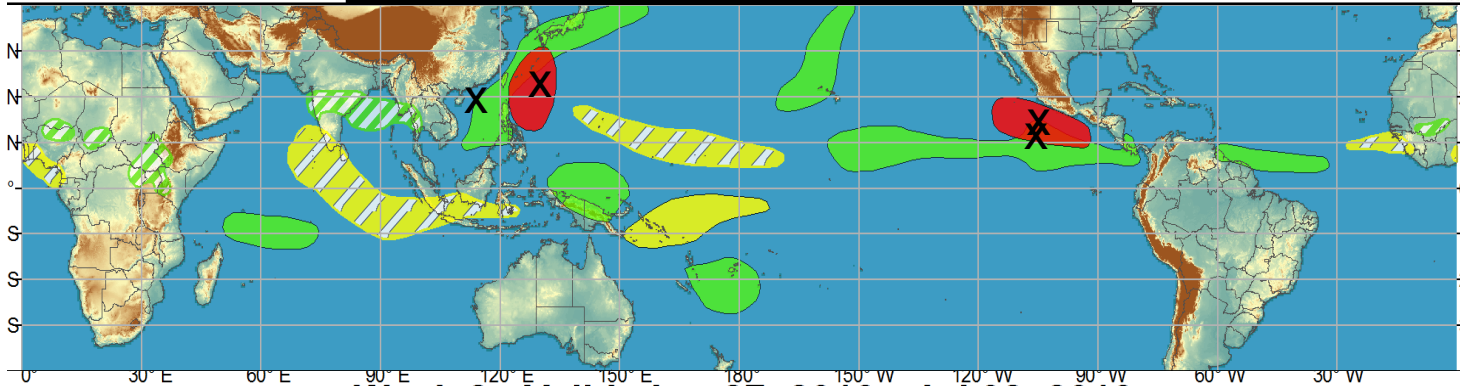
Stephen Baxter

Outline

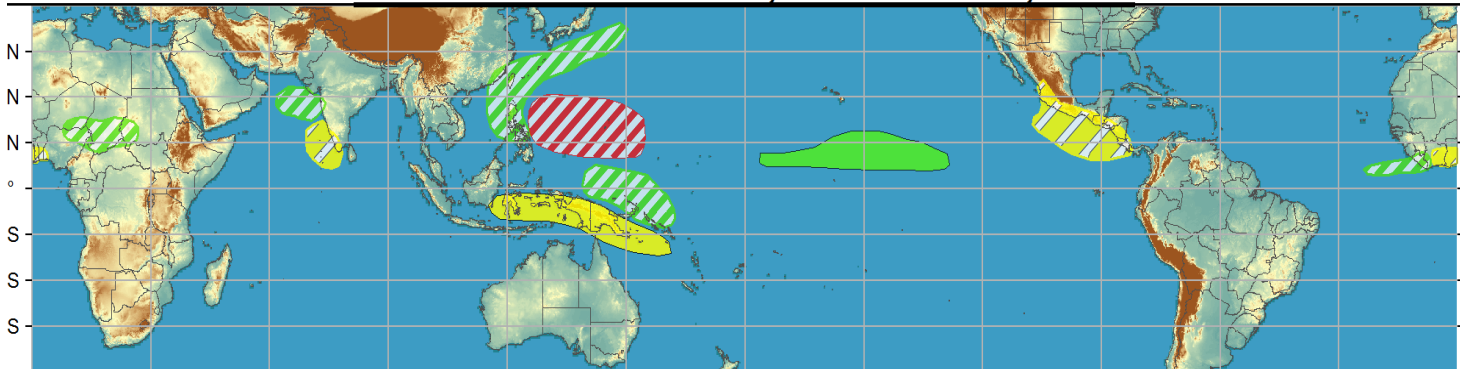
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Jun 26, 2019 - Jul 02, 2019

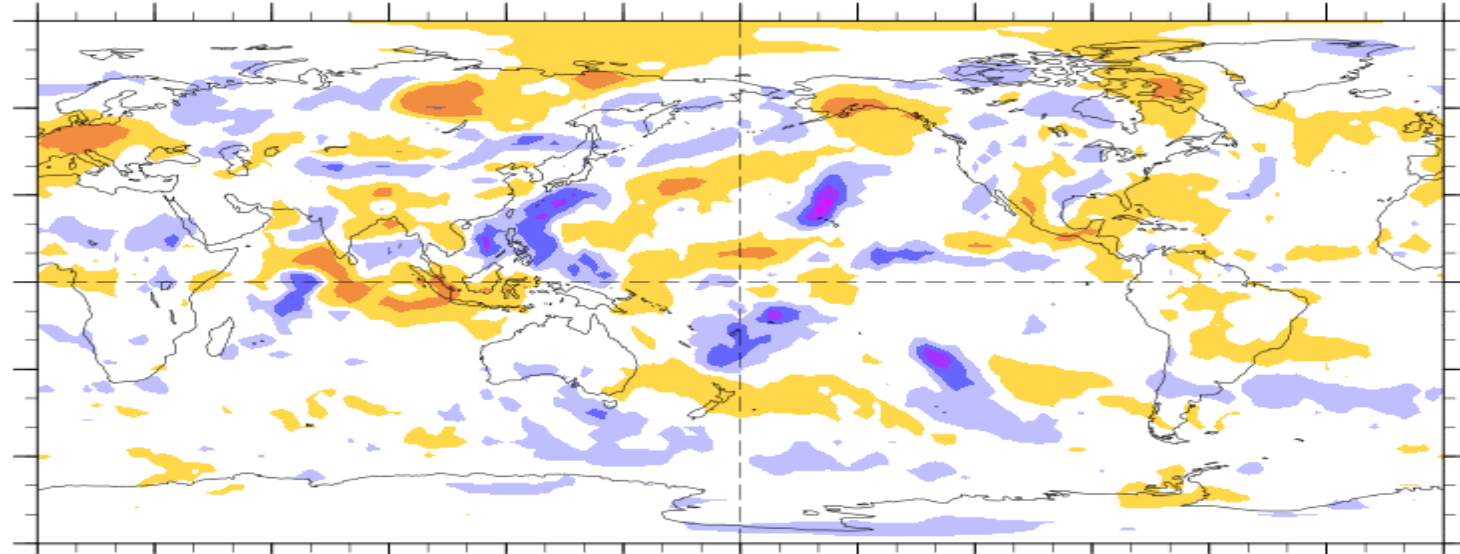


Week 2 - Valid: Jun 27, 2019 - Jul 02, 2019



7-Day Average OLR Anomaly

2019/06/24 - 2019/06/30



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO: (June 13, 2019 Update)

- ENSO Alert System Status: [El Niño Advisory](#)
- El Niño is predicted to persist through the Northern Hemisphere summer 2019 (66% chance), though there is considerable uncertainty beyond that.

MJO and other subseasonal tropical variability:

- While the MJO is fairly weak, its footprint continues to be manifest in a variety of our diagnostic data sets – the enhanced phase is now centered over the Pacific.
- Dynamical models indicate a strengthening of the MJO signal over Africa and the western Indian Ocean over the next two weeks.

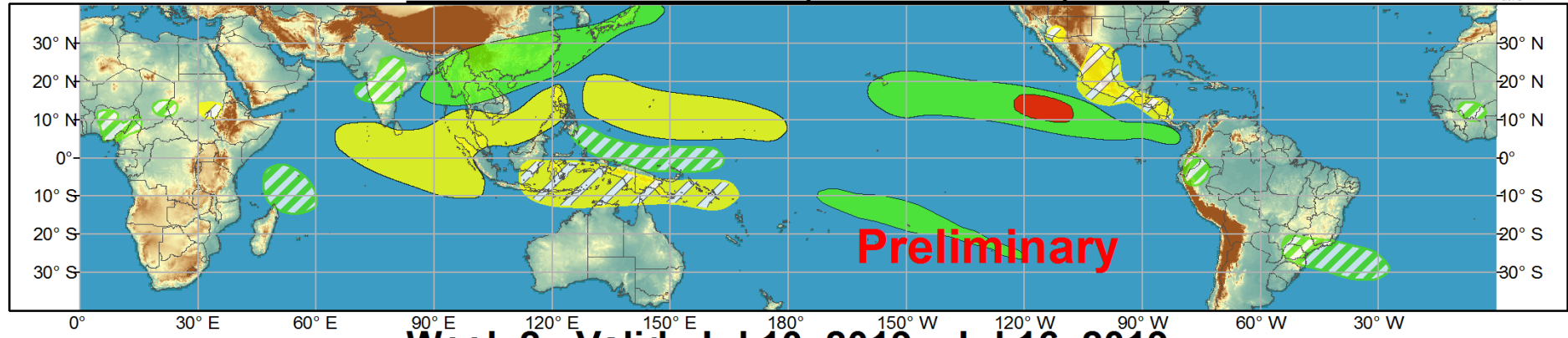
Impacts:

- The MJO supports tropical cyclogenesis over the East Pacific during Week-2 and is broadly consistent with a quiet West Pacific basin as well.

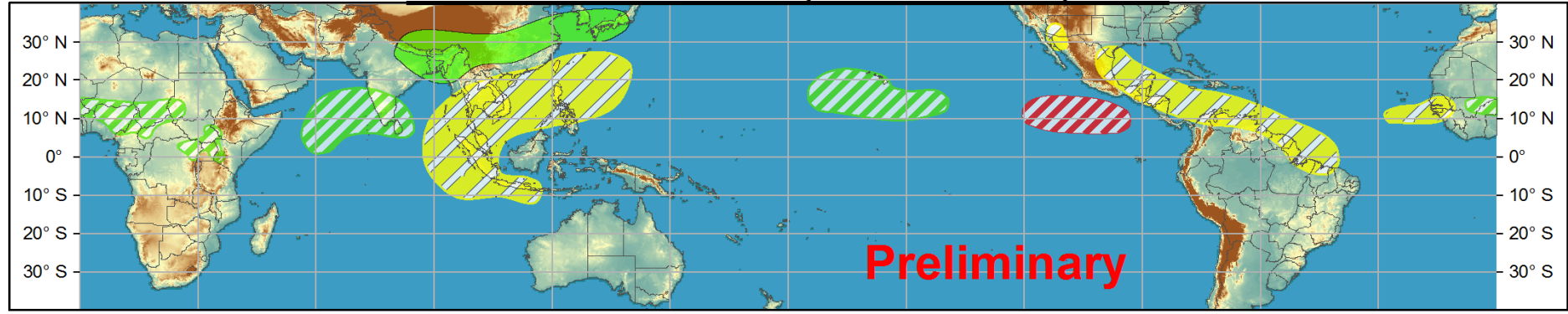


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 03, 2019 - Jul 09, 2019



Week 2 - Valid: Jul 10, 2019 - Jul 16, 2019



Produced: 07/02/2019
Forecaster: Baxter

Confidence		
High	Moderate	
		Tropical Cyclone Formation: Development of a tropical cyclone (tropical depression - TD, or greater strength).
		Above-average rainfall: Weekly total rainfall in the upper third of the historical range.
		Below-average rainfall: Weekly total rainfall in the lower third of the historical range.
		Above-normal temperatures: 7-day mean temperatures in the upper third of the historical range.
		Below-normal temperatures: 7-day mean temperatures in the lower third of the historical range.

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IR Satellite & 200-hpa Velocity Potential Anomalies

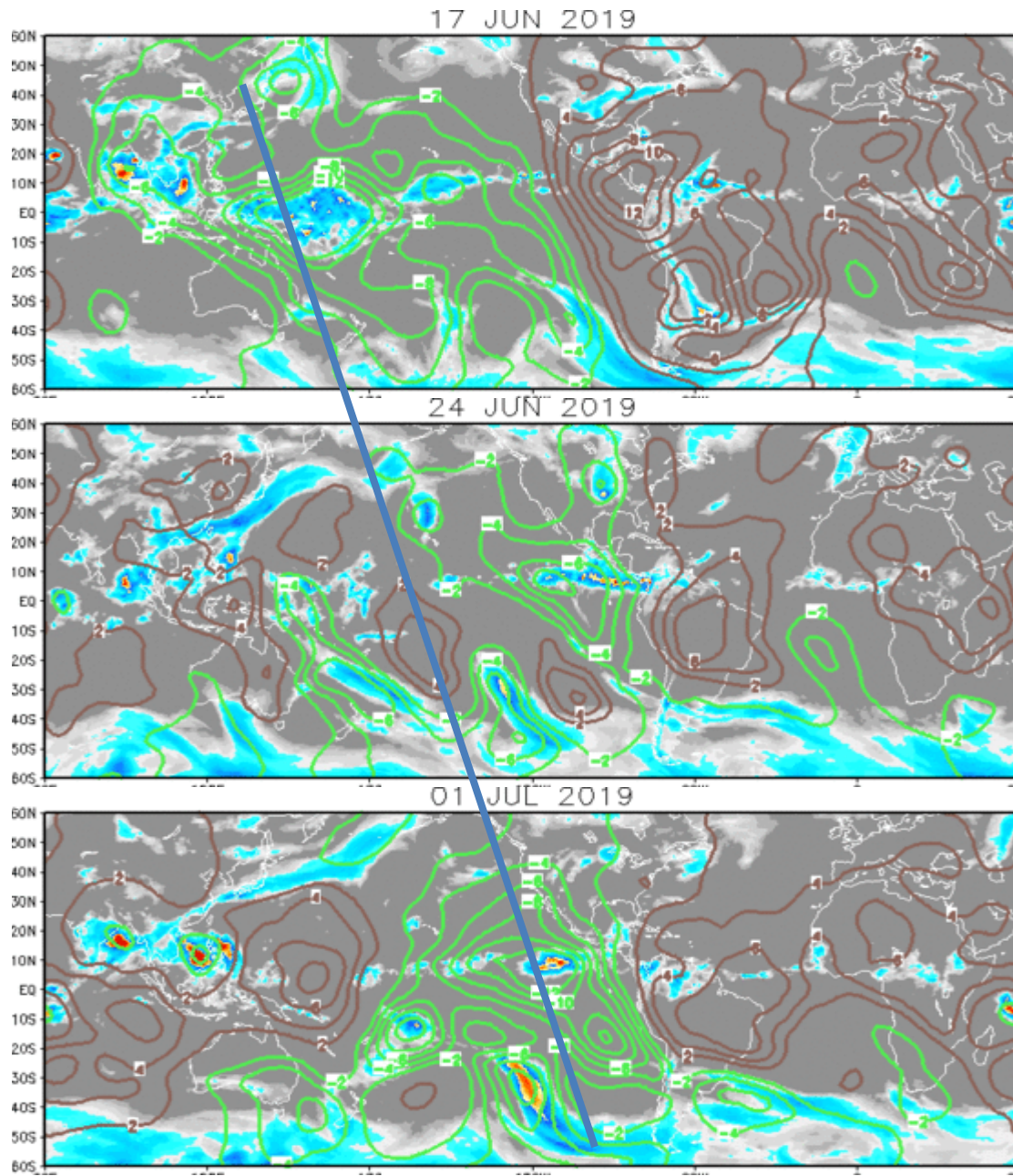
Green: Enhanced Divergence

Brown: Enhanced Convergence

Robust Wave-1 signature as the MJO moved over the eastern Maritime Continent.

Broad features are still present, but interference from other modes is apparent.

Enhanced phase is currently centered over the Pacific Ocean.

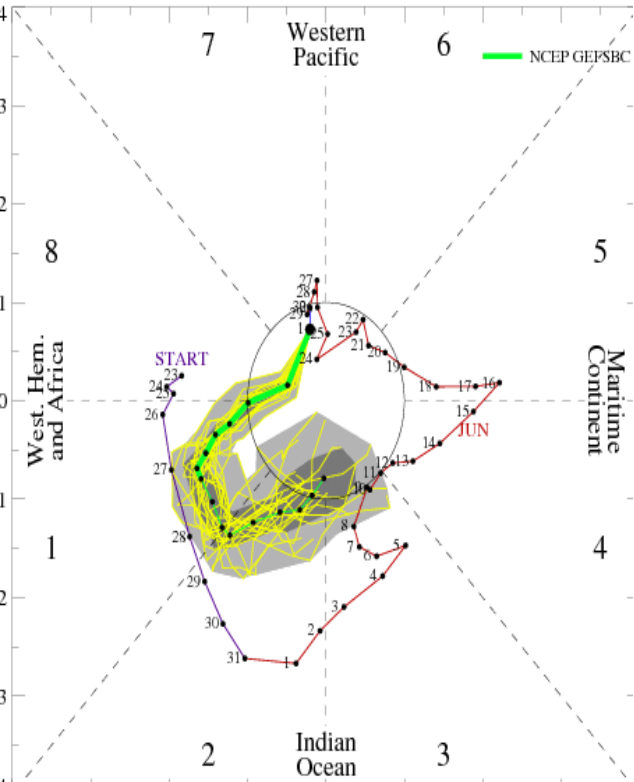


MJO Observation/Forecast

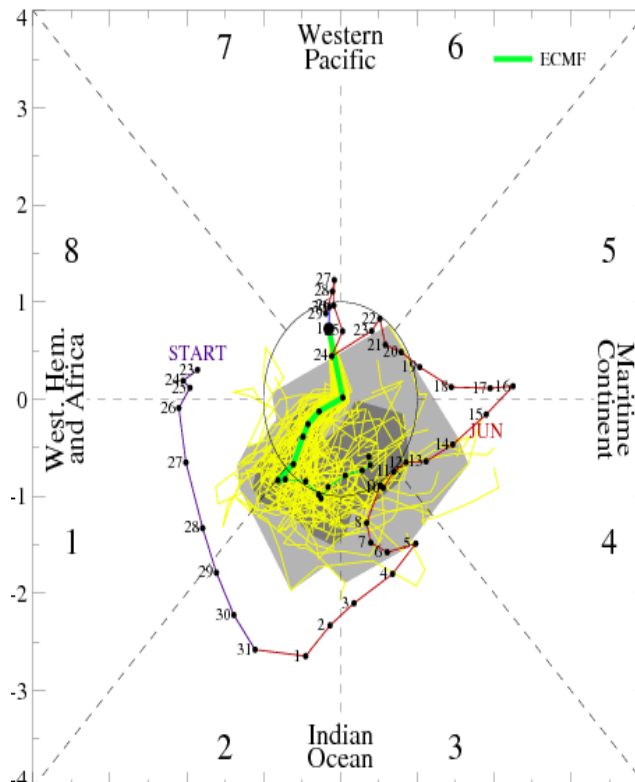
[RMM1, RMM2] forecast for Jul-02-2019 to Jul-16-2019

MJO Index Forecast for 02Jul2019-16Jul2019

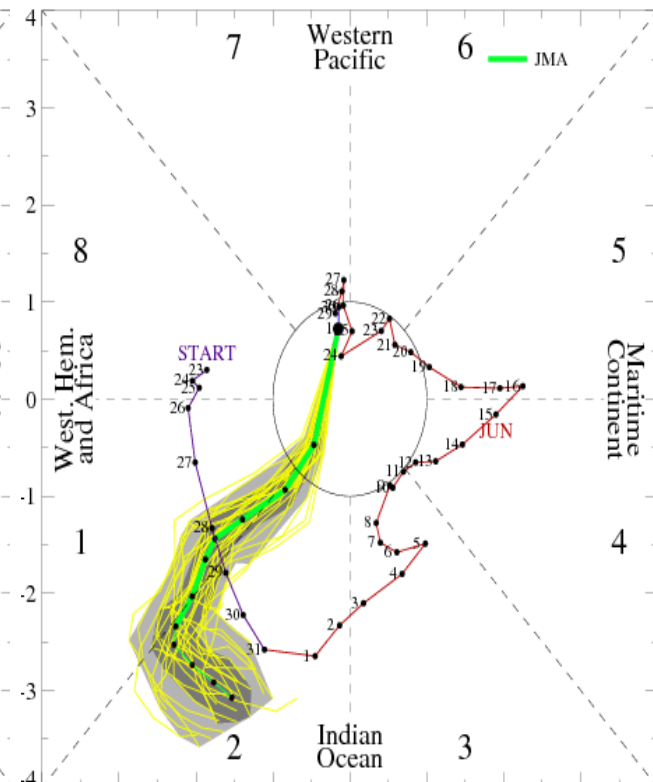
MJO Index Forecast for 02Jul2019-10Jul2019



GEFS



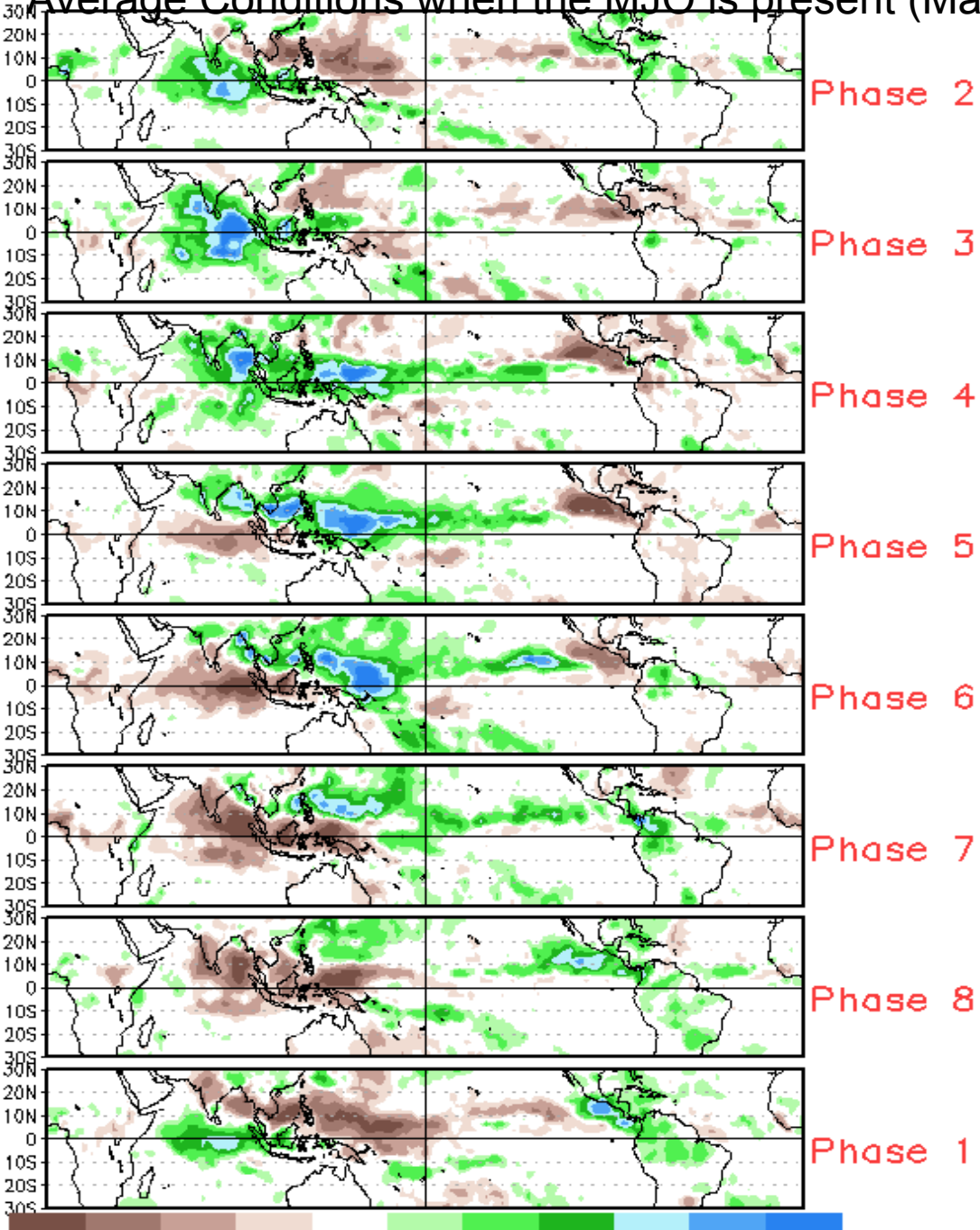
ECMWF



JMA

Ensemble means from all three models indicate a more coherent signal reemerging over Africa and the western Indian Ocean.

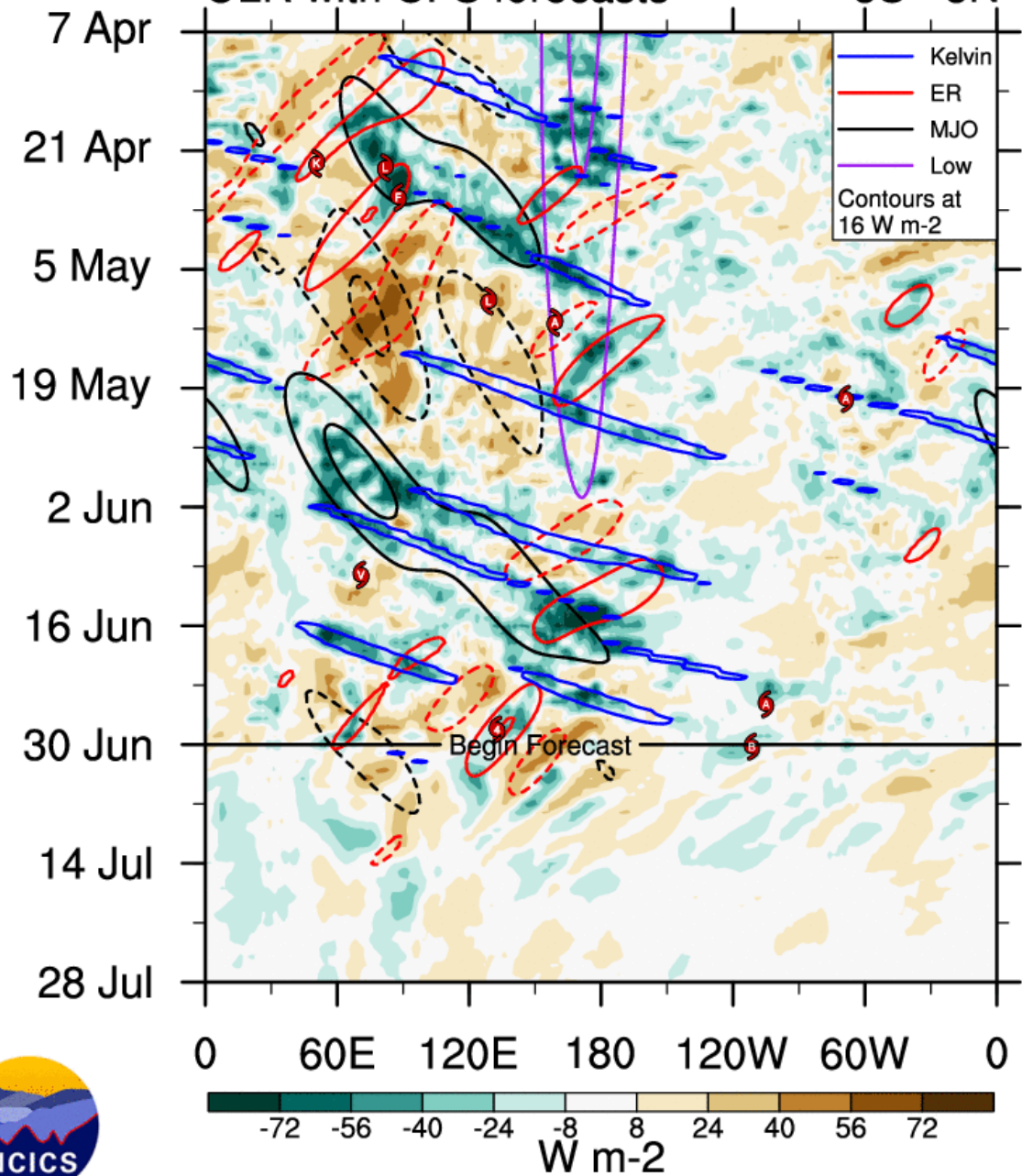
Average Conditions when the MJO is present (May – Sep)



CAVEAT: These panels are representative of robust MJO events.

OLR with CFS forecasts

5S - 5N

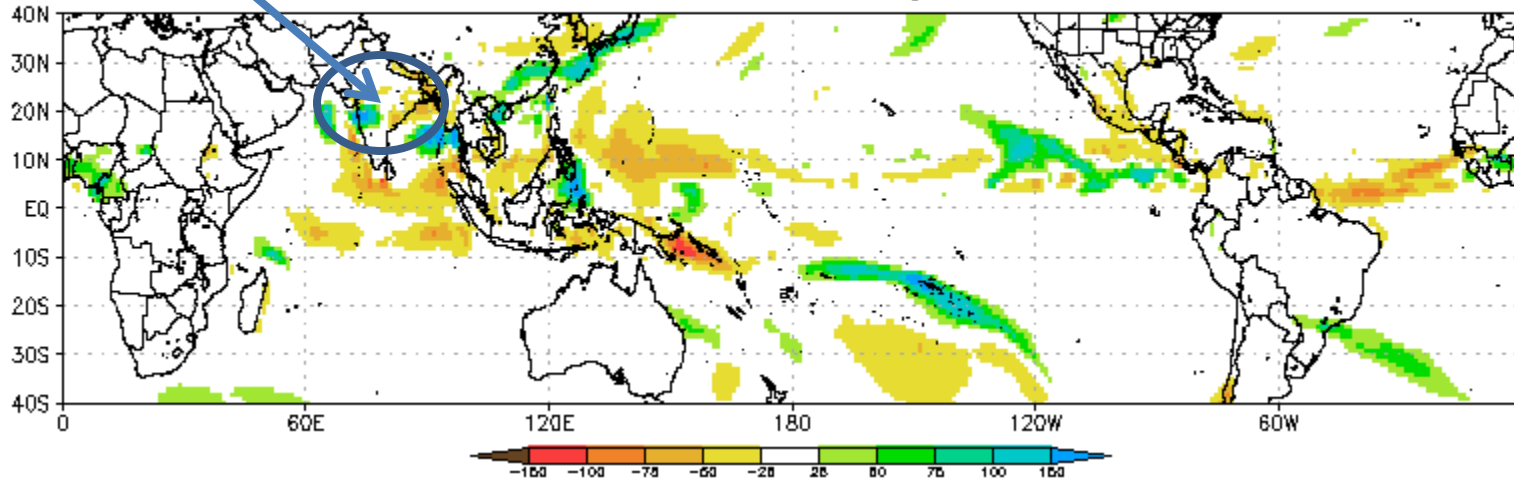


Destructive interference between the **MJO** and the suppressed phase of a **Rosby wave** is apparent.

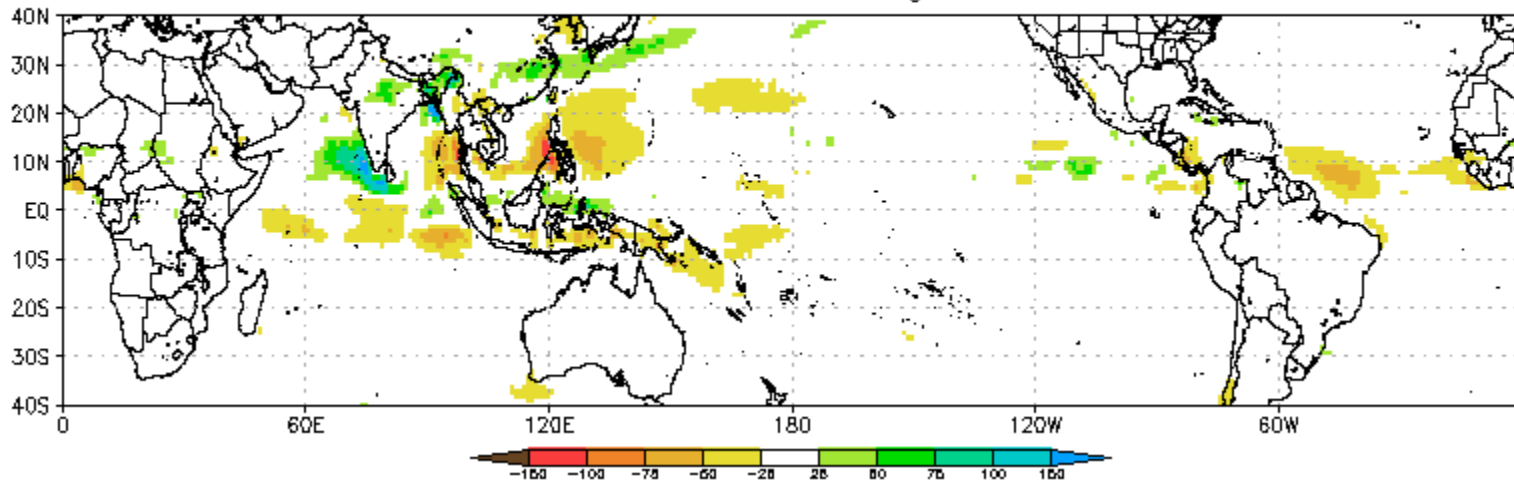


ECMWF a wetter
solution

CFS Precipitation Anomalies (mm) Issued 01Jul2019
Week-1 Forecast Ending 09Jul2019

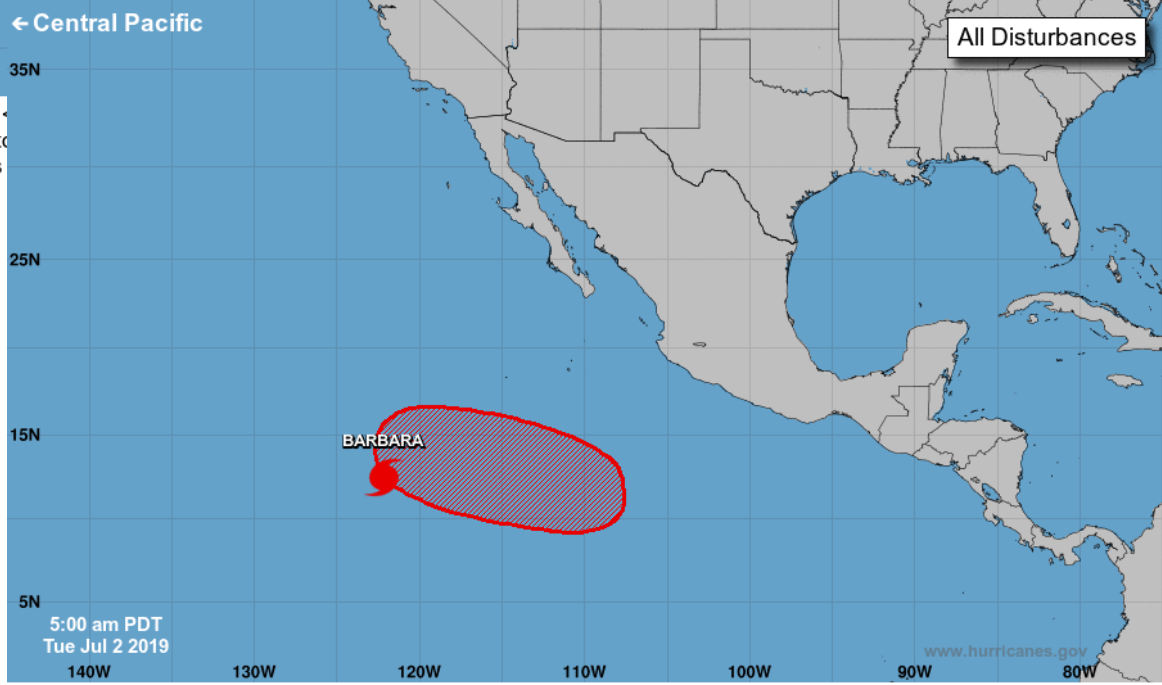


CFS Precipitation Anomalies (mm) Issued 01Jul2019
Week-2 Forecast Ending 16Jul2019












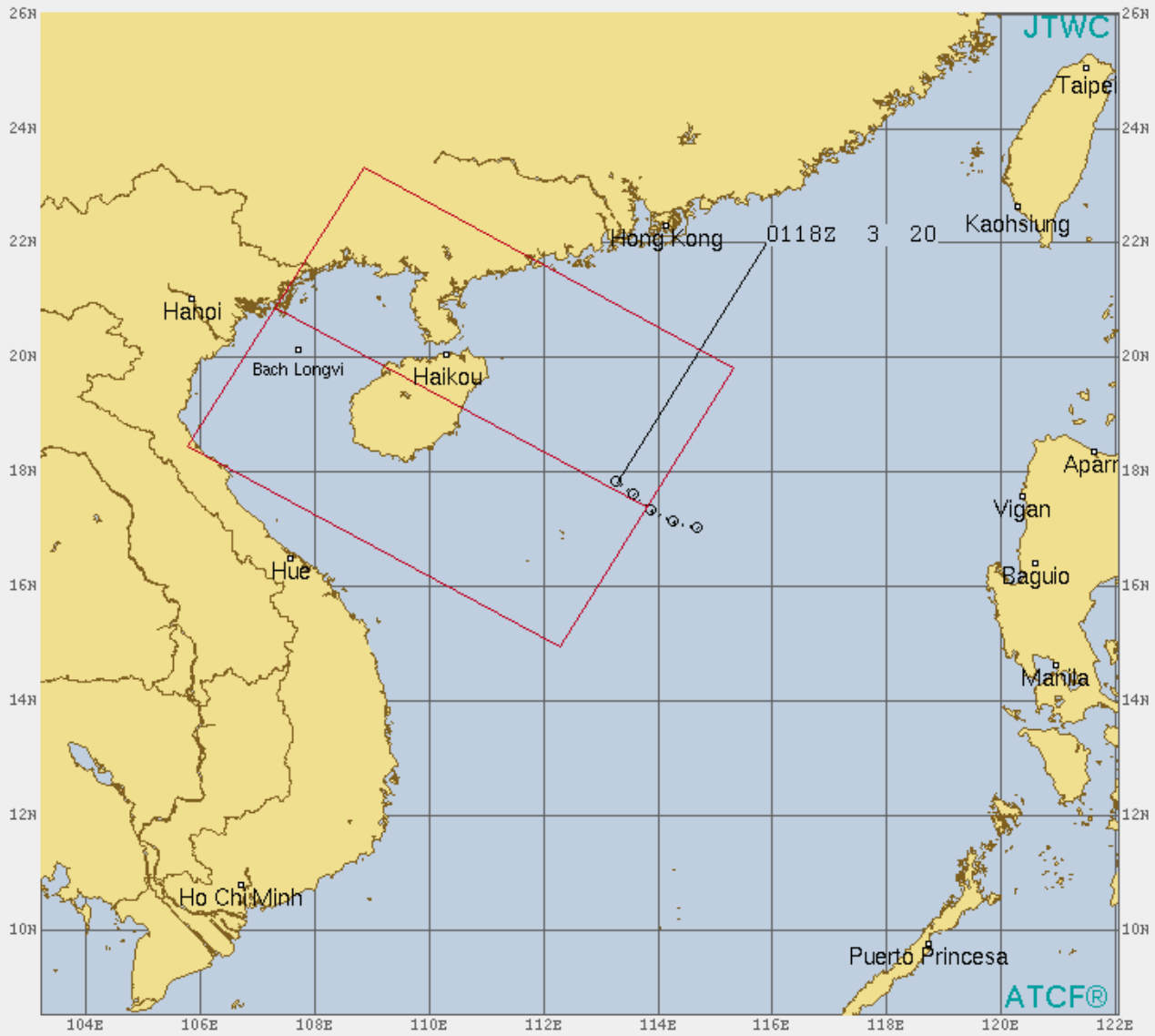
8:00 am EDT
Tue Jul 2 2019
100W 90W 80W 70W 60W 50W



Current Disturbances and Five-Day Cyclone Formation Chance: 
Tropical or Sub-Tropical Cyclone:  Depression  Storm  Post-Tropical Cyclone or Remnants

5:00 am PDT
Tue Jul 2 2019

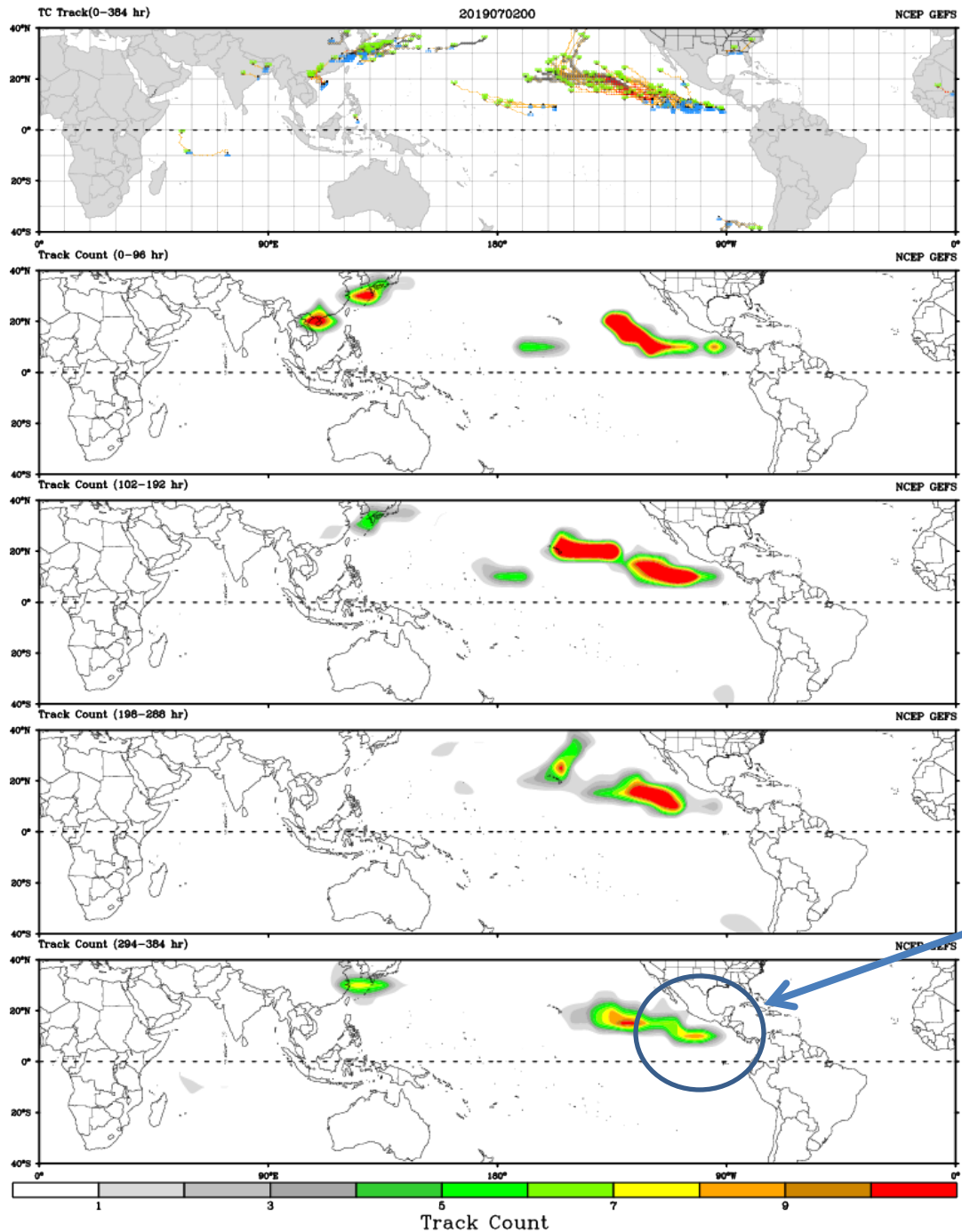
Current Disturbances and Five-Day Cyclone Formation Chance:  < 40%  40-60%  > 60%
Tropical or Sub-Tropical Cyclone:  Depression  Storm  Hurricane
 Post-Tropical Cyclone or Remnants



TROPICAL CYCLONE FORMATION ALERT
 WIPN21 PGTW 012100
 011800Z POSITION: NEAR 17.8N 113.3E
 MOVING NORTHWESTWARD AT 03 KNOTS
 MAXIMUM SUSTAINED WINDS: 18 TO 23 KNOTS



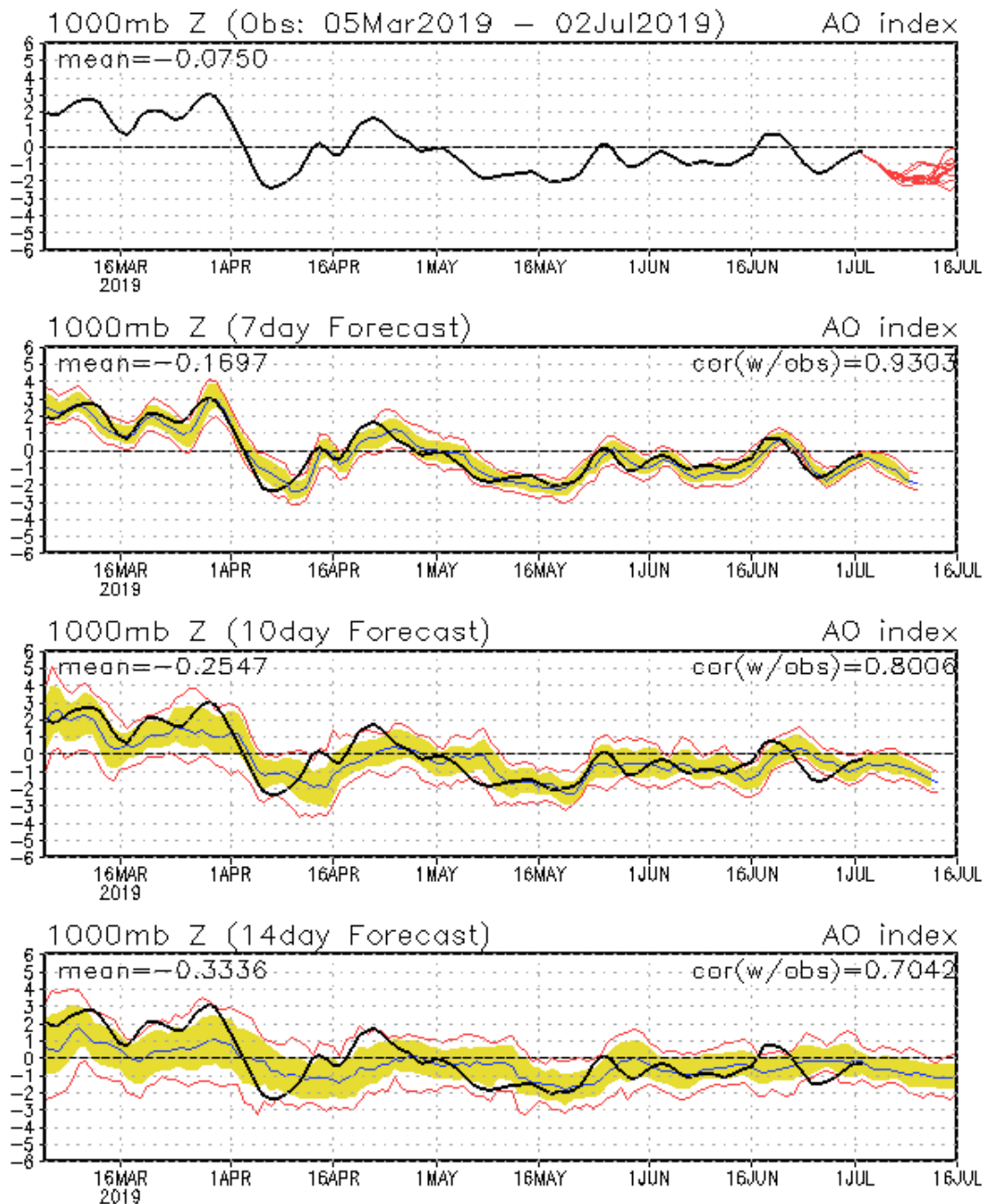
CWB TC Tracker for NCEP GEFS (Fuzzy_AllCriteria)

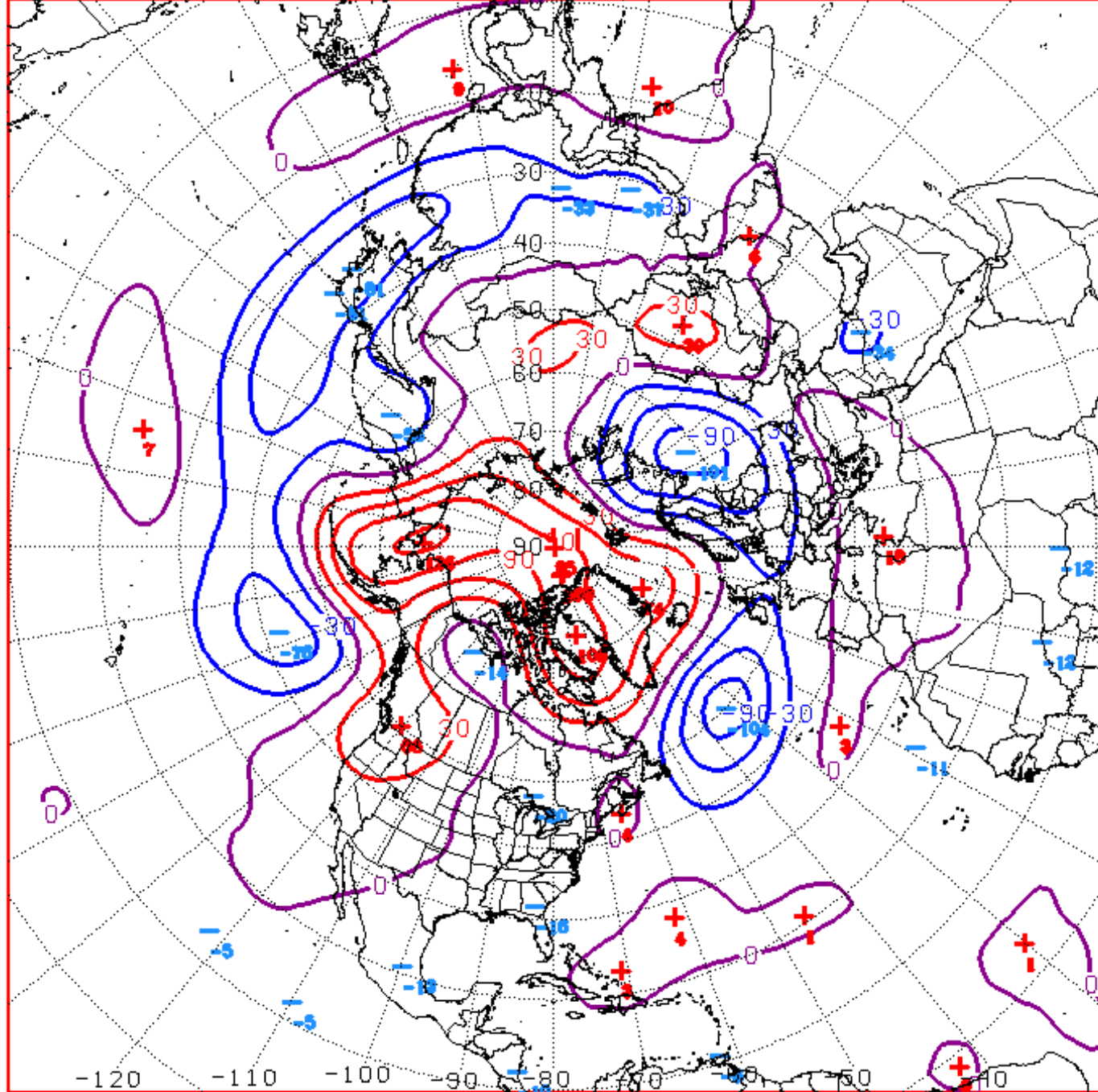


Potential
Week-2 EPac
TC

Connections to U.S. Impacts

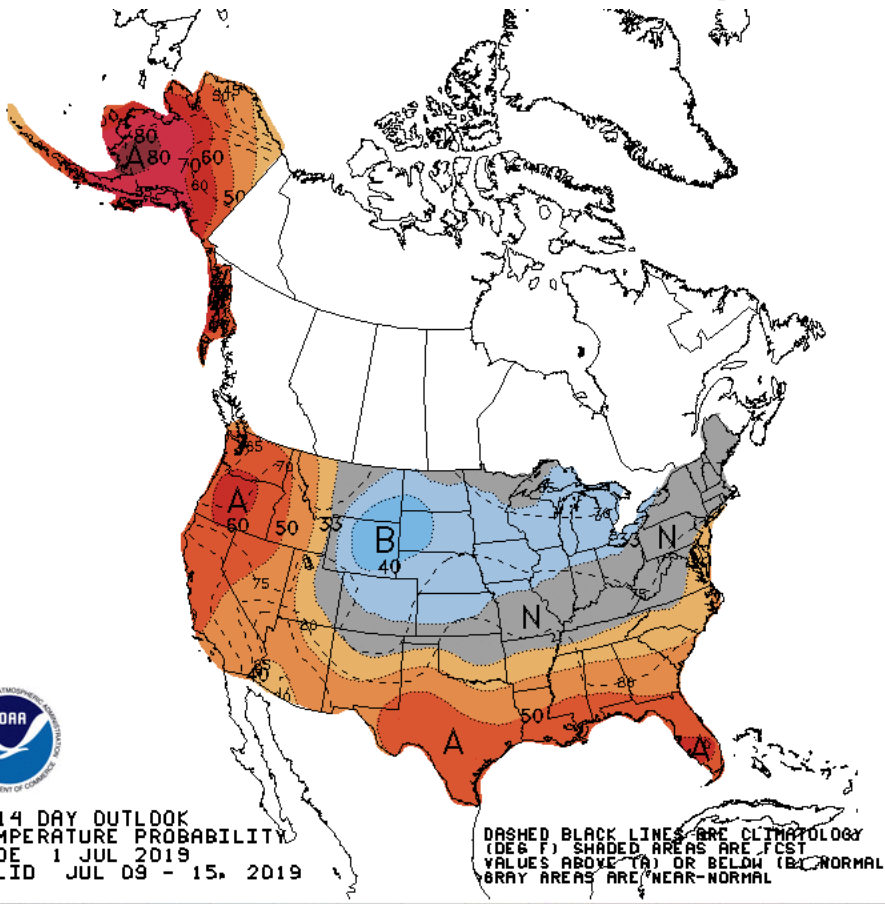
AO: Observed & ENSM forecasts





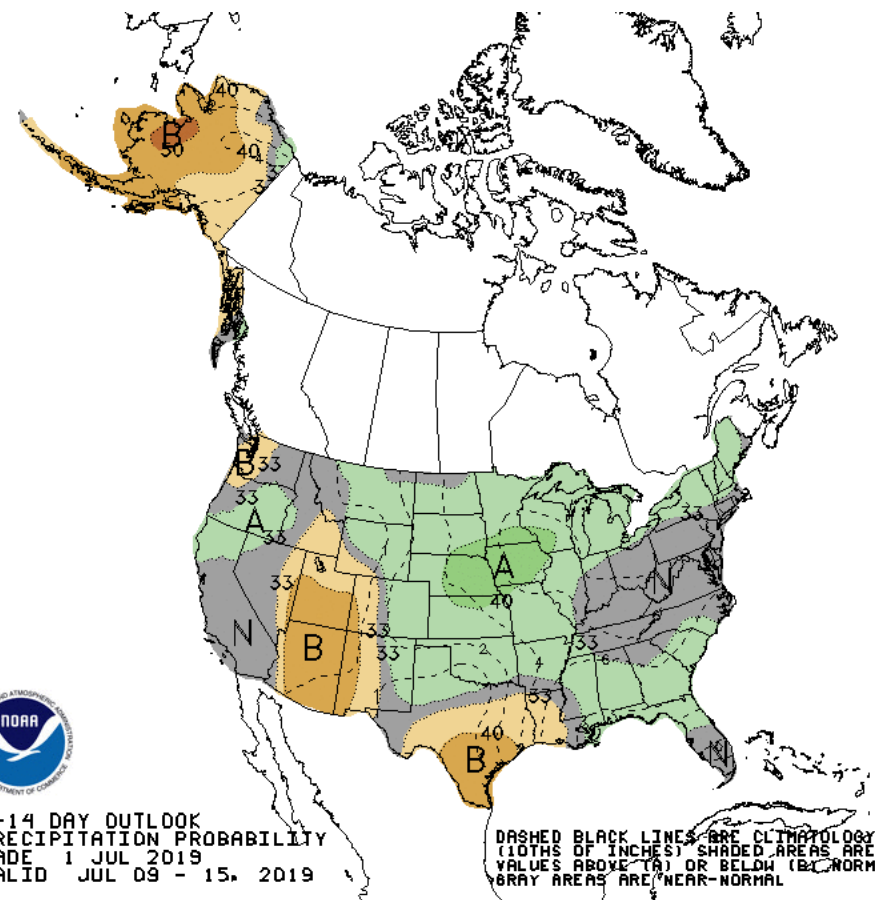
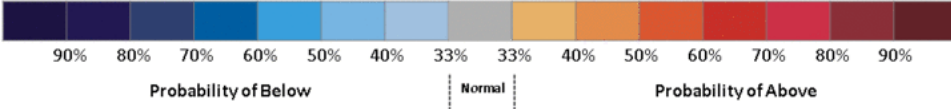
D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE JUL 02 2019 1311 UTC CNTD JUL 13 2019

Week 2 – Temperature and Precipitation



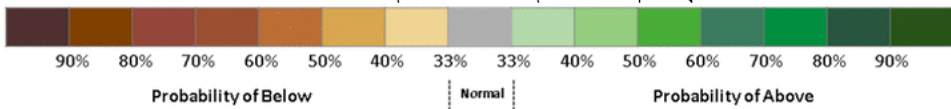
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 1 JUL 2019
VALID JUL 09 - 15, 2019

DASHED BLACK LINES ARE CLIMATOLOGY (DEG F). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 1 JUL 2019
VALID JUL 09 - 15, 2019

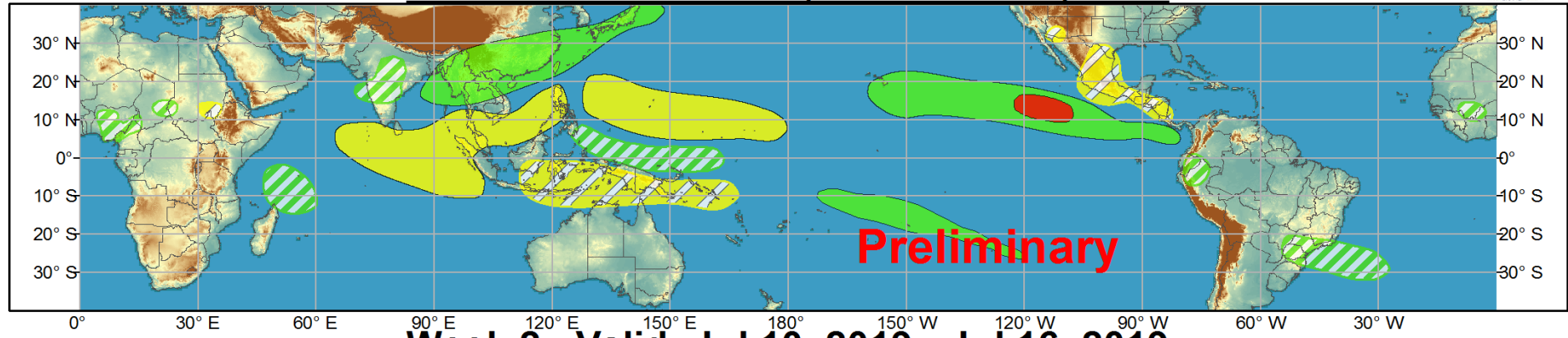
DASHED BLACK LINES ARE CLIMATOLOGY (10THS OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



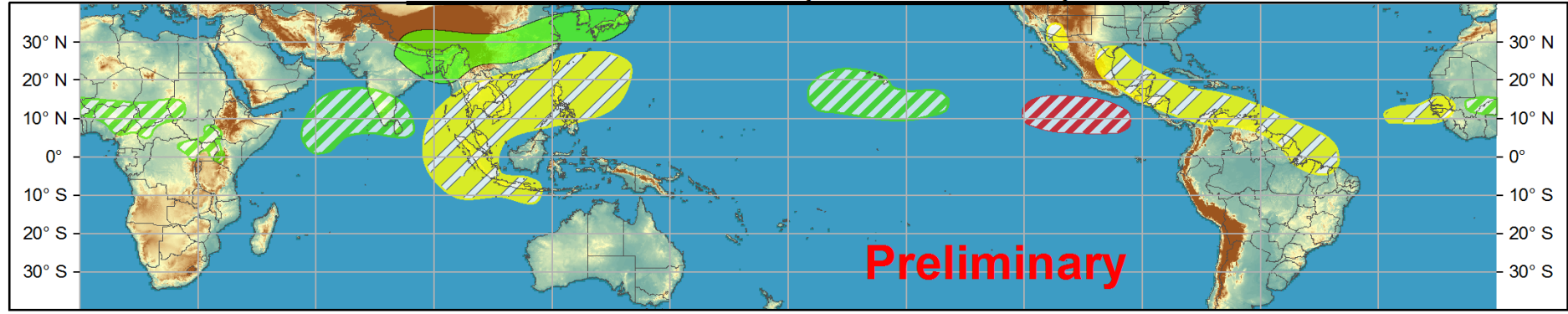


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