Weeks 2-3 Global Tropics Hazards Outlook

8/29/2023

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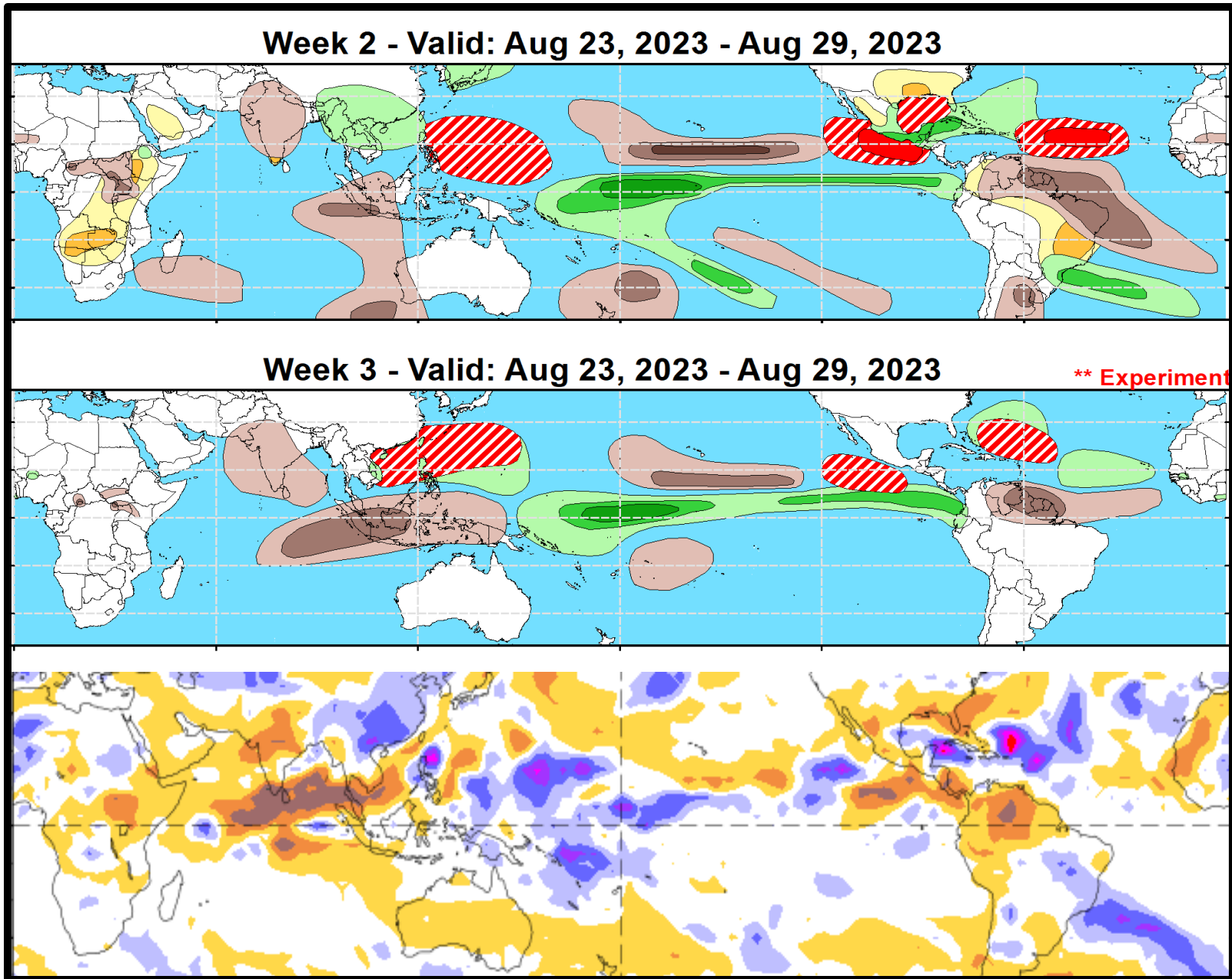
NWS / NCEP / Climate Prediction Center

Outlook Review: TC development & anomalous precipitation during the past week

- Atlantic: Harold, Idalia, TD-11
- East Pacific: Irwin
- West Pacific: Saola, Haikui



Synopsis of Climate Modes:

ENSO: (Aug 10, 2023 Update) ***next update on Thursday, Sep 14th***

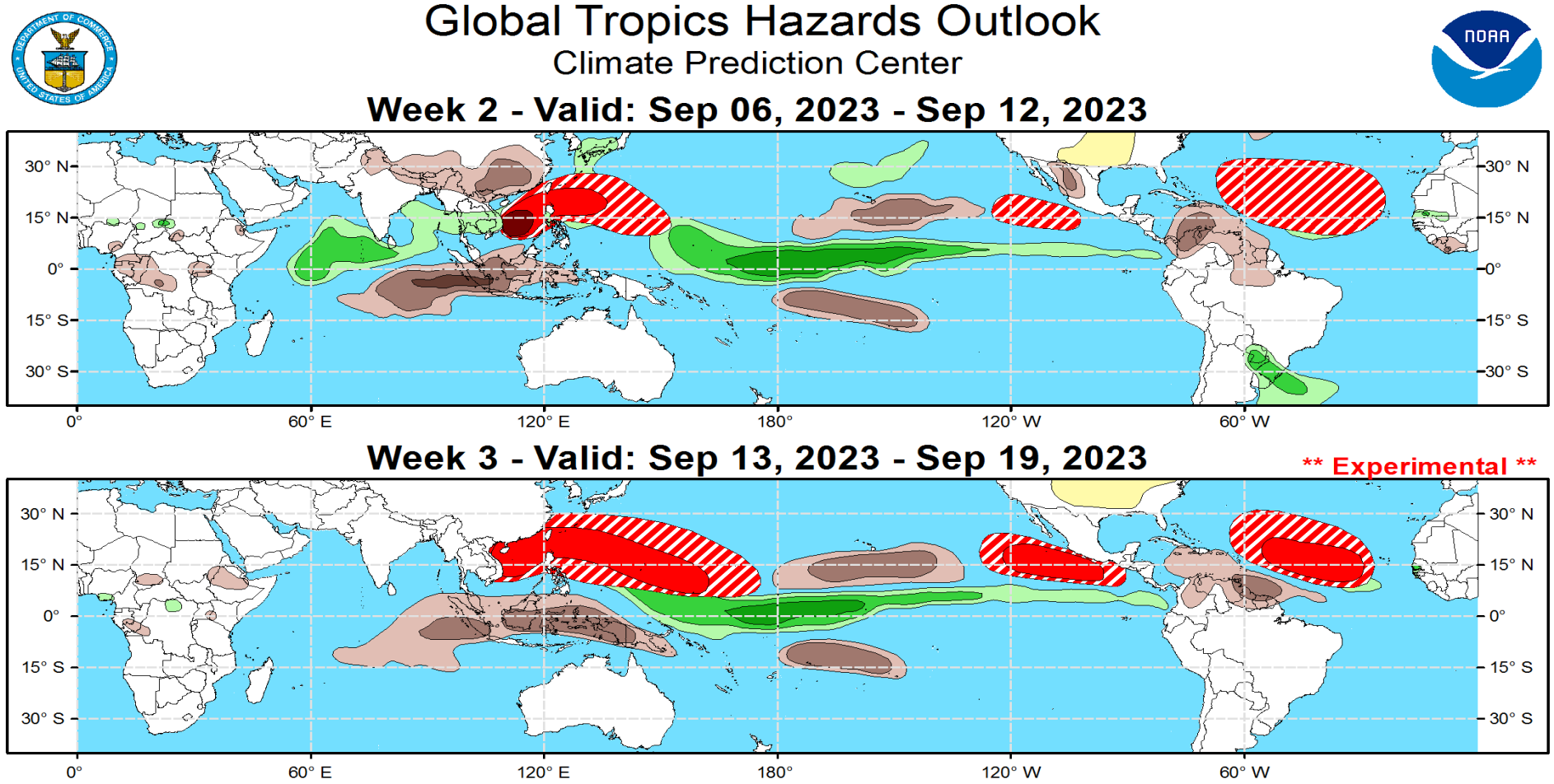
- ENSO Alert System Status: El Niño Advisory

- El Niño is anticipated to continue through the Northern Hemisphere winter (95% chance during DJF)

MJO and other subseasonal tropical variability:

- An active MJO signal is apparent in the upper-level velocity potential field, with some signal also apparent in the wind field.
- Little MJO activity is apparent in the OLR field due to destructive interference with the ongoing El Niño.
- Dynamical model MJO index forecasts favor increasingly coherent MJO activity, with the enhanced phase propagating across the Maritime Continent during Week-2, and the West Pacific during Week-3.
- The MJO supports increased chances for tropical cyclone development over the South China Sea and Northwest Pacific (spreading southeast with time), and decreased activity over the East Pacific and Atlantic basins during Weeks 2-3.
- Despite the broader unfavorability, the climatological peak of tropical cyclone activity plus unusually warm ocean temperatures maintains a potential for tropical cyclone development during the outlook period.

GTH Outlook:


Global Tropics Hazards Outlook
Climate Prediction Center
Week 2 - Valid: Sep 06, 2023 - Sep 12, 2023
30° N
15° N
0°
15° S
30° S
0°
60° E
120° E
180°
120° W
60° W
Week 3 - Valid: Sep 13, 2023 - Sep 19, 2023
** Experimental **
Tropical Cyclone (TC) Formation Probability
>20% >40% >60%
Tropical Depression (TD) or greater strength
Above-Average Rainfall Probability
>50% >65% >80%
Weekly total rainfall in the Upper third of the historical range
Below-Average Rainfall Probability
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Weekly total rainfall in the Lower third of the historical range
Above-Average Temperatures Probability
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7-day max temperatures in the Upper third of the historical range
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Issued: 08/29/2023
Forecaster: Allgood
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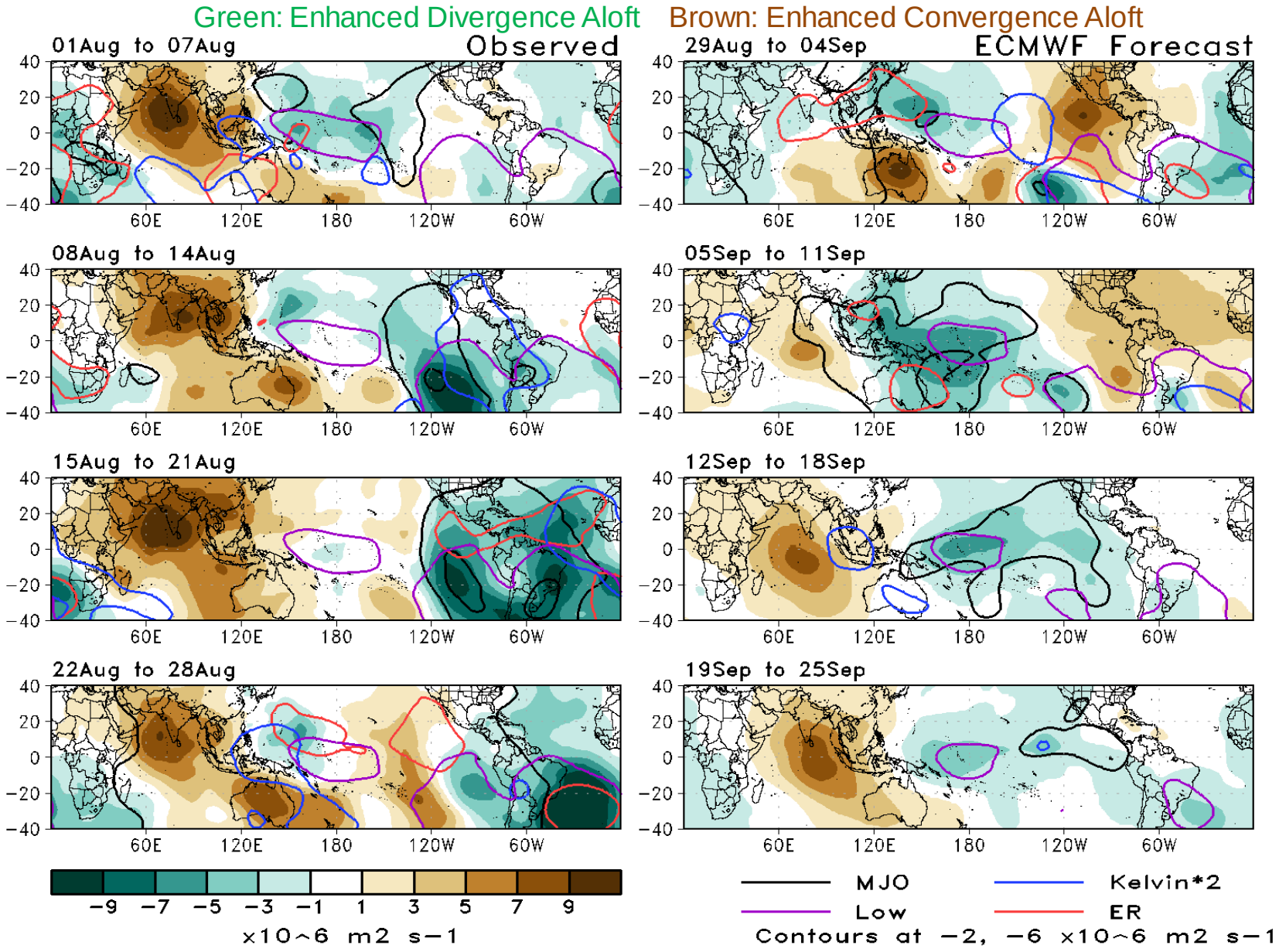
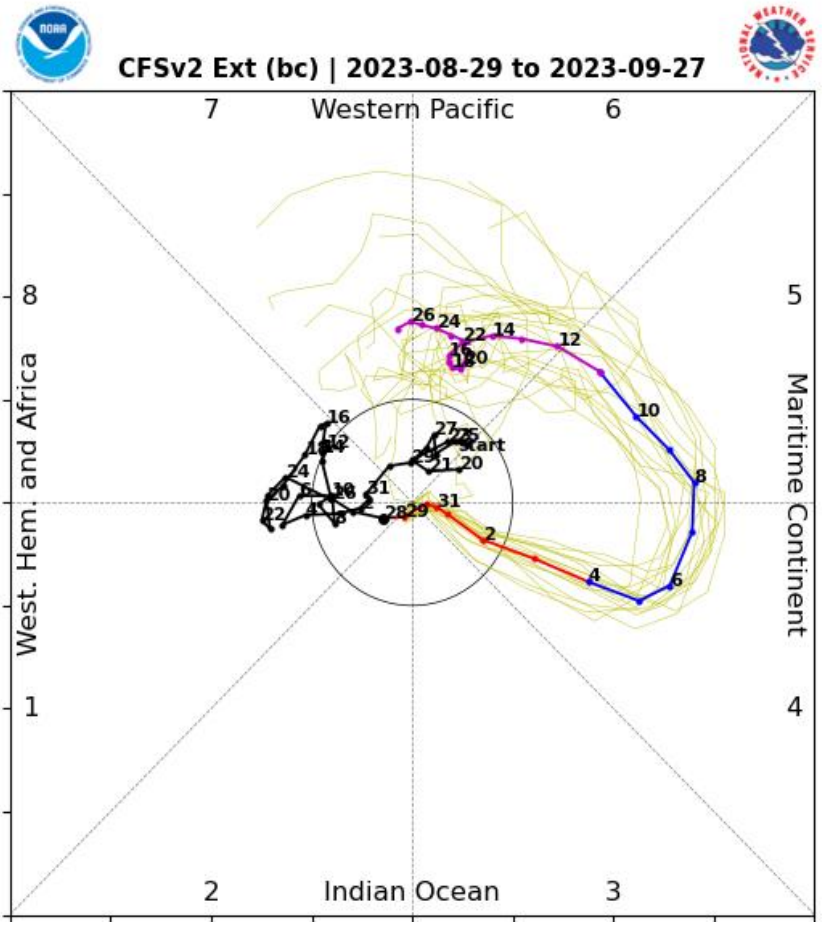
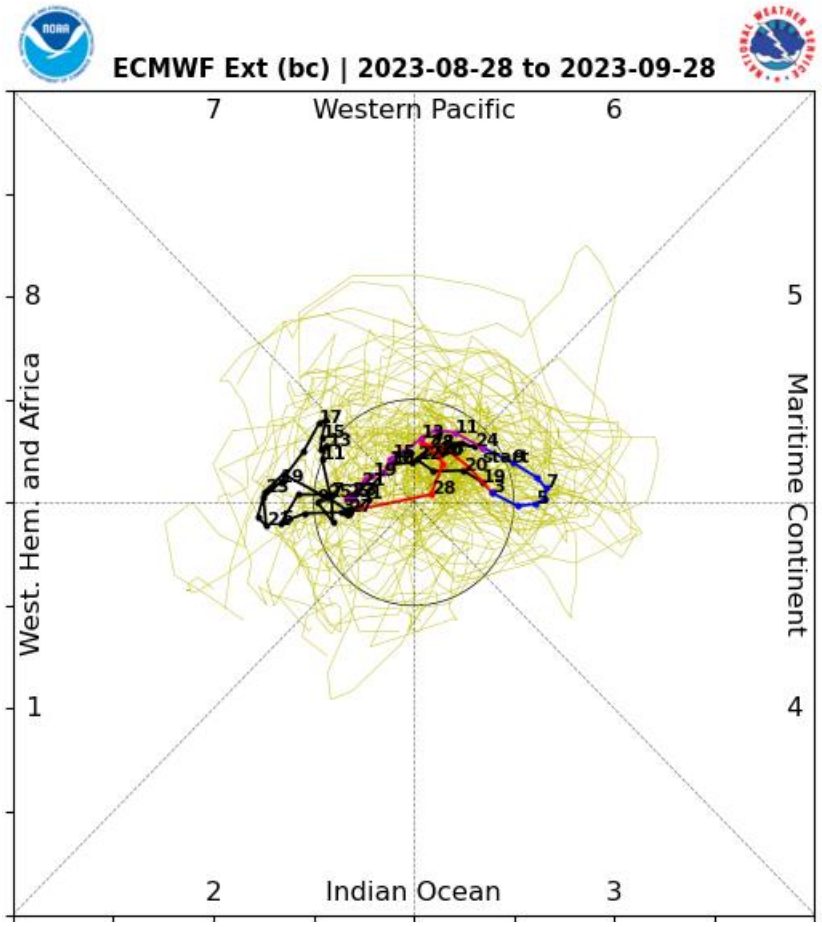
200-hPa Velocity Potential Anomaly Maps:

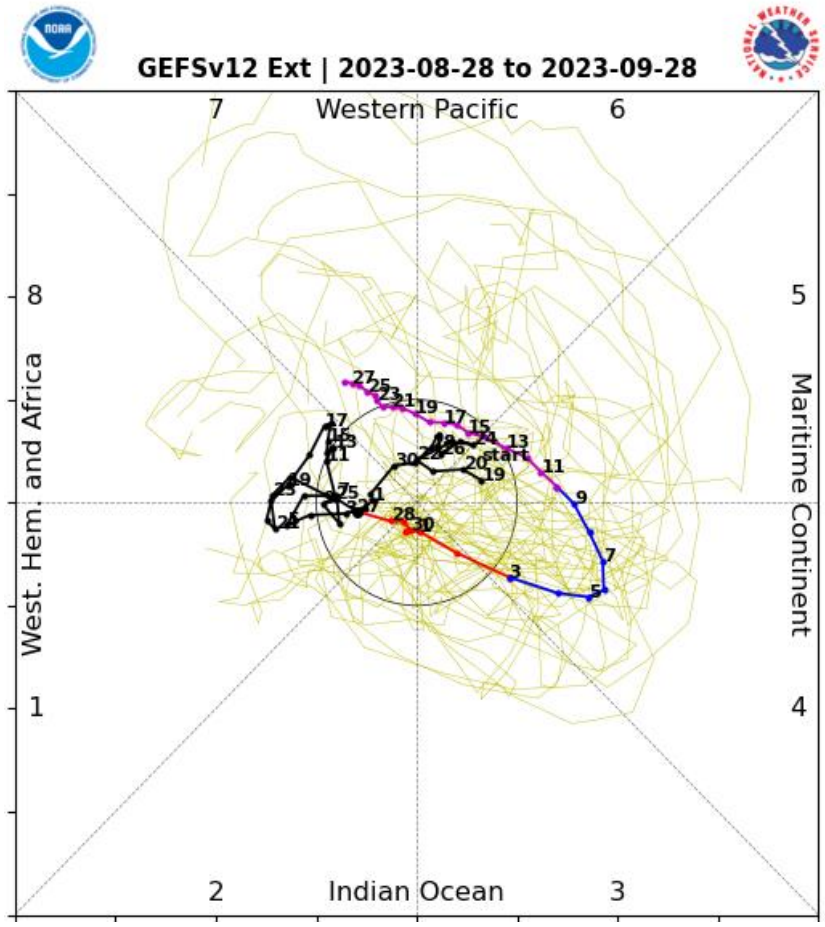
- Eastward propagation of an enhanced signal is apparent over the Western Hemisphere
- A more stationary suppressed signal over the IO and MT, as well as enhancement near the Date Line, are associated with El Niño.
- ECMWF forecasts show more robust MJO activity over the next 4 weeks.



RMM Index Observations & Forecasts:

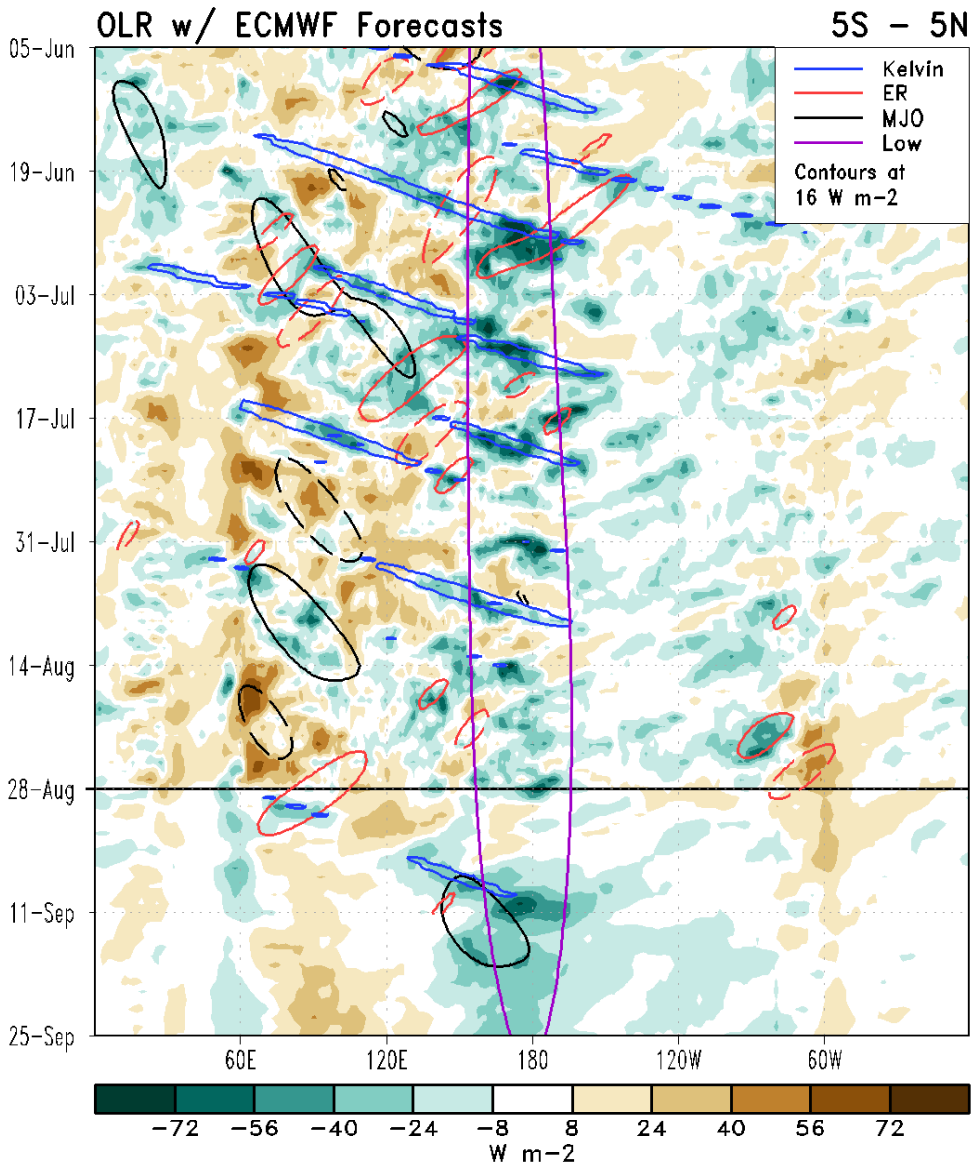


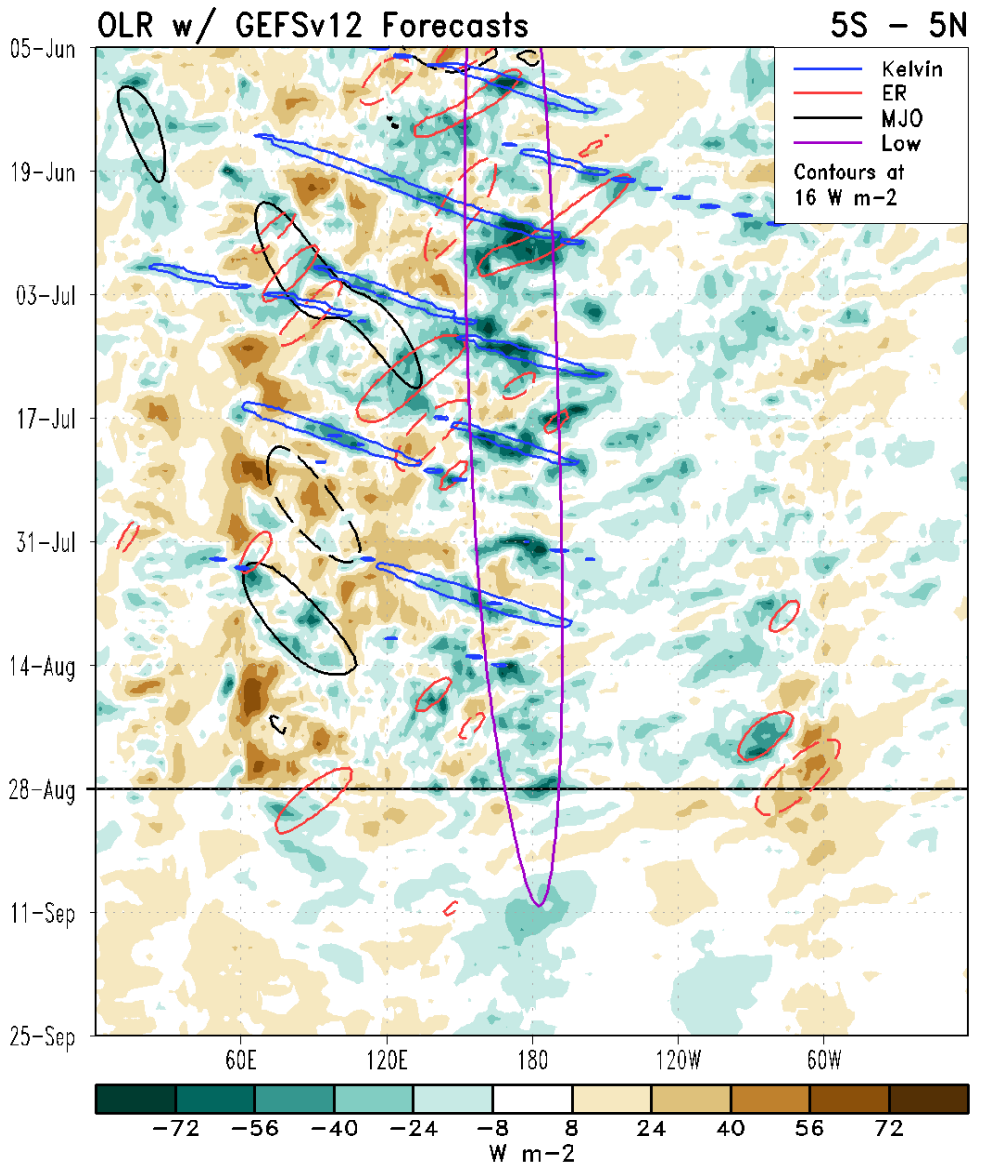




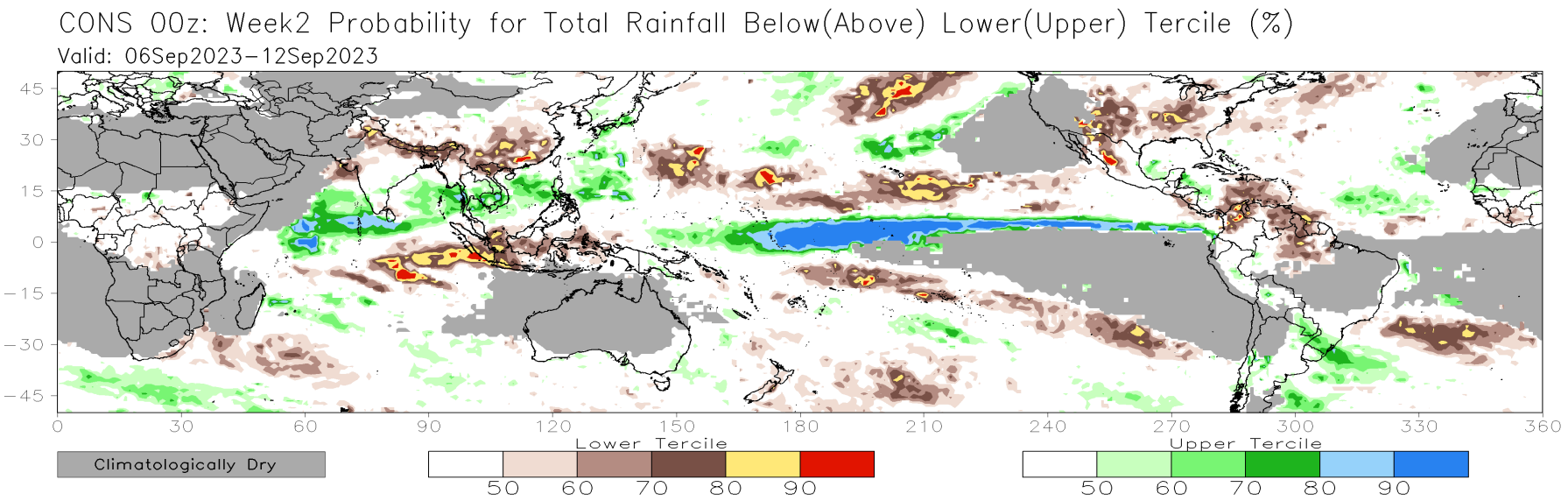
- The GEFS and CFS favor robust MJO activity over the next few weeks.
- The ECMWF also favors eastward propagation, albeit with a weaker signal.

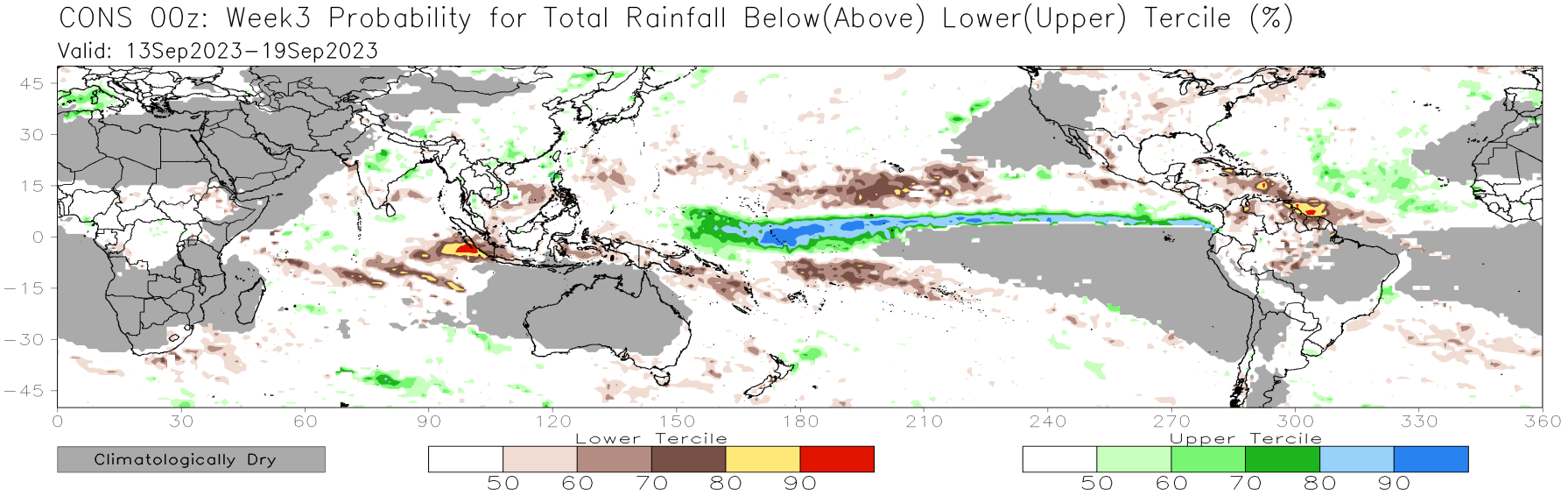
Outgoing Longwave Radiation (OLR) Anomaly Time/Lon Plots:



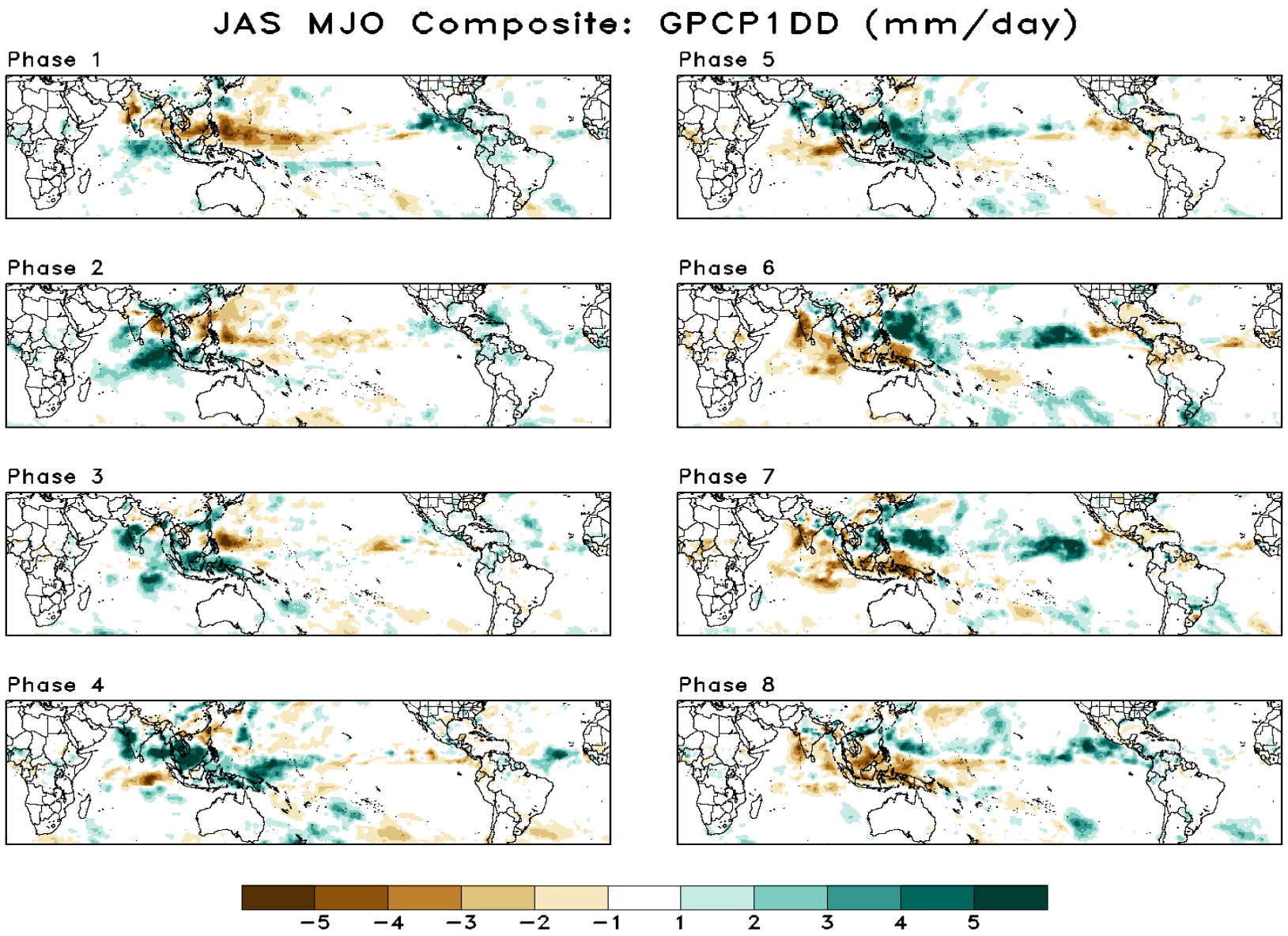


Consolidated Probabilistic Precipitation: Weeks 2 & 3

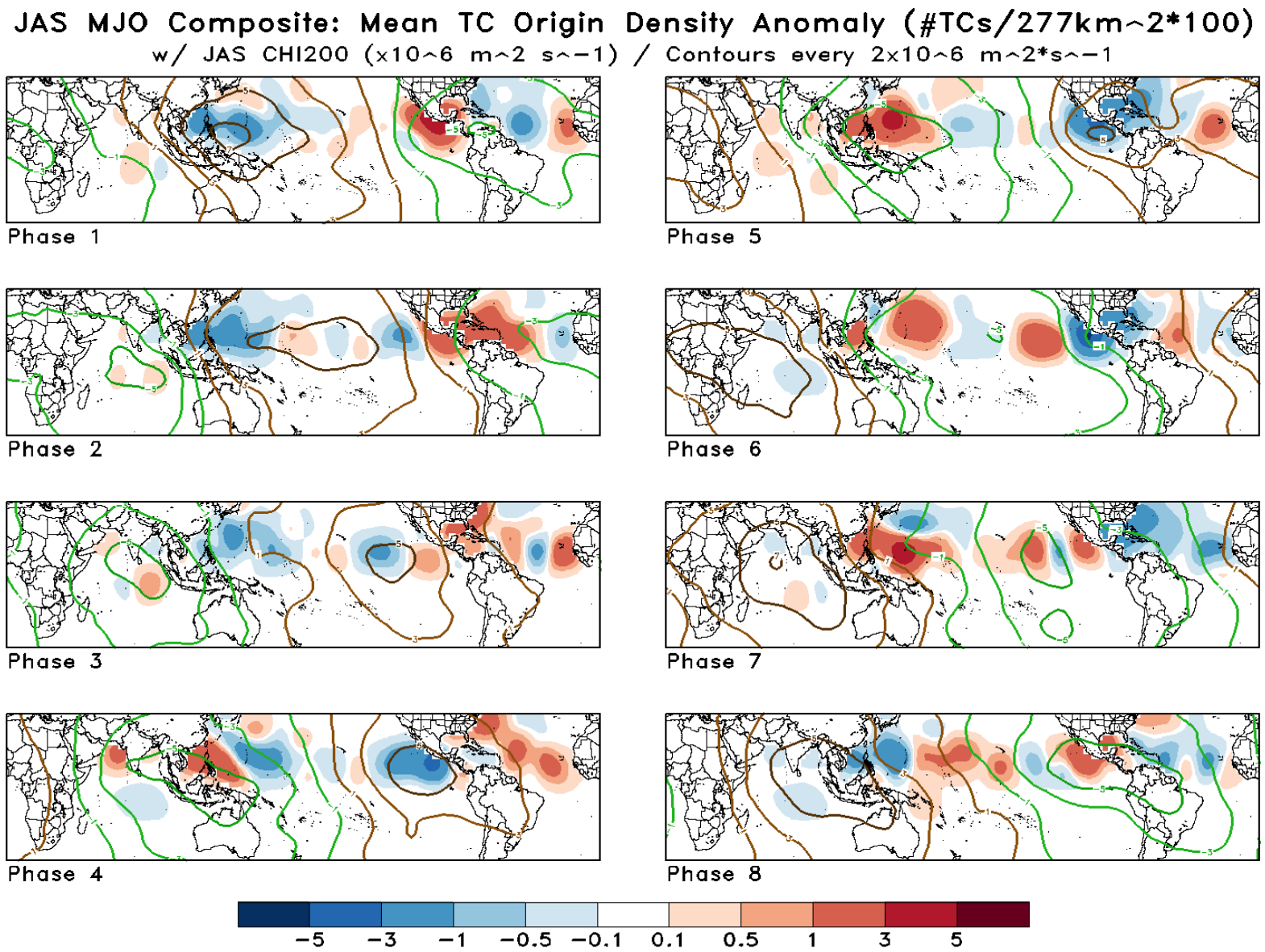


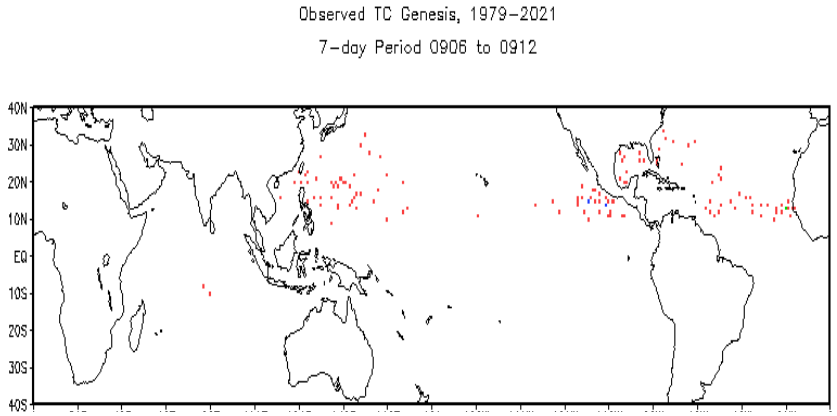


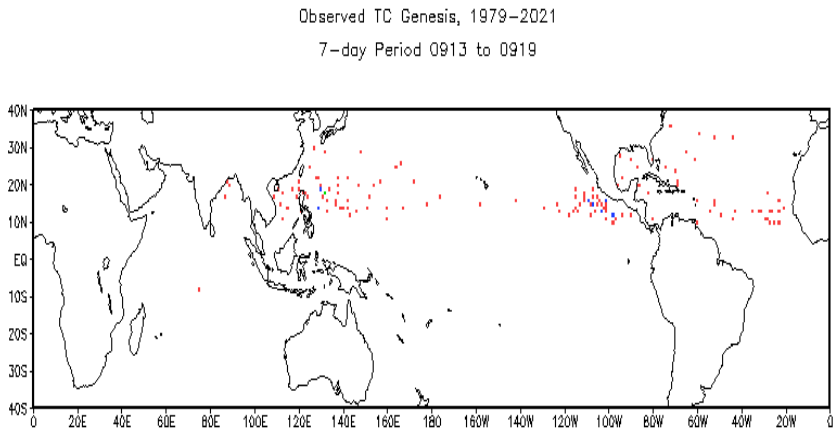
Historical Precipitation Anomalies By MJO Phase:



Historical TC Origin Anomalies By MJO Phase & Weeks 2+3 Genesis Climo:

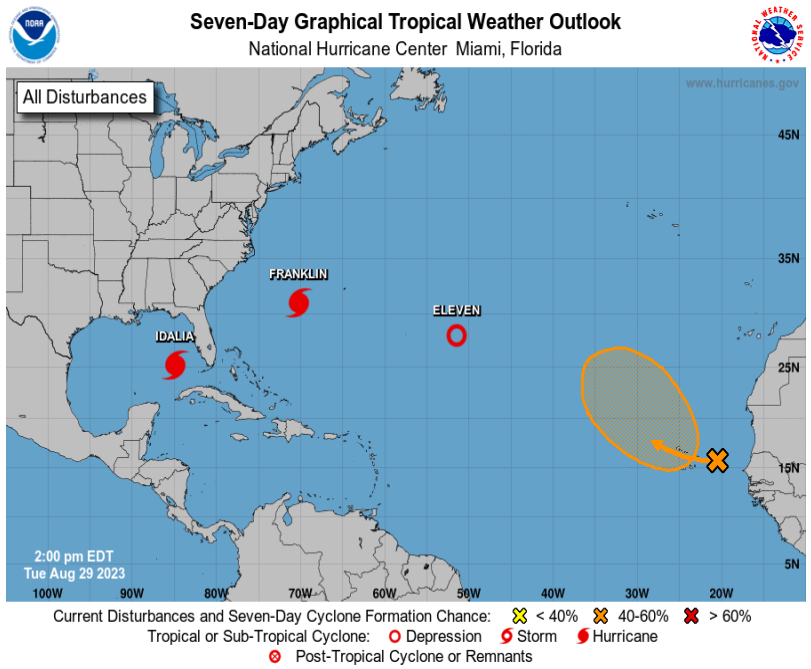


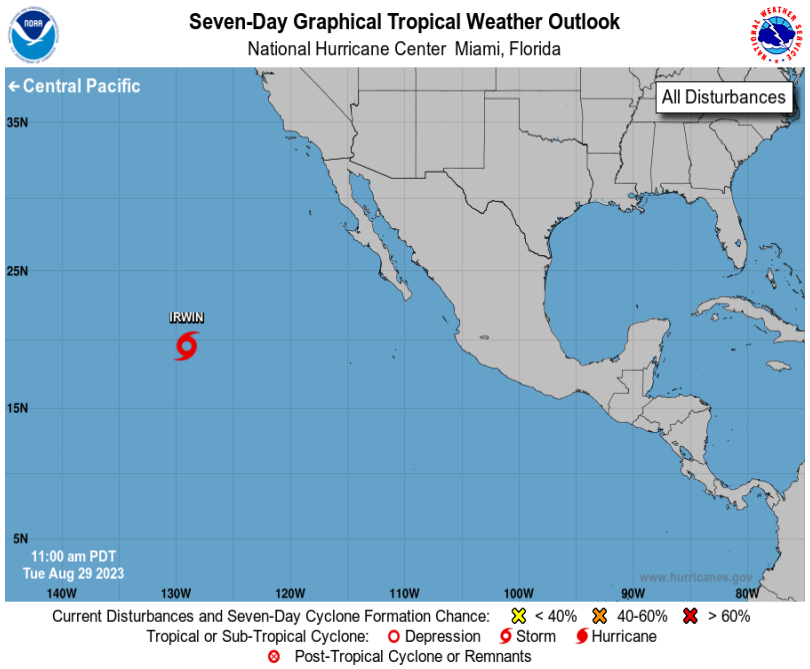


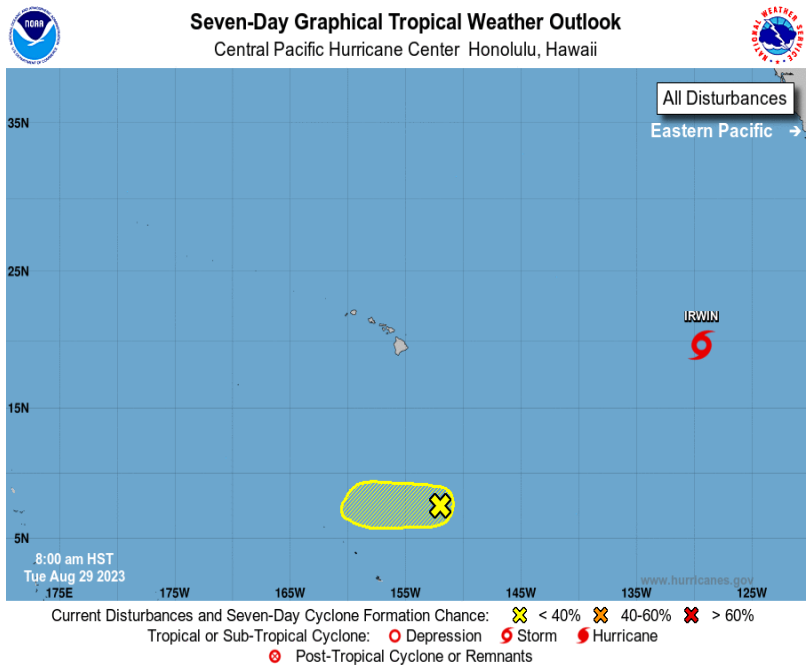


Experimental

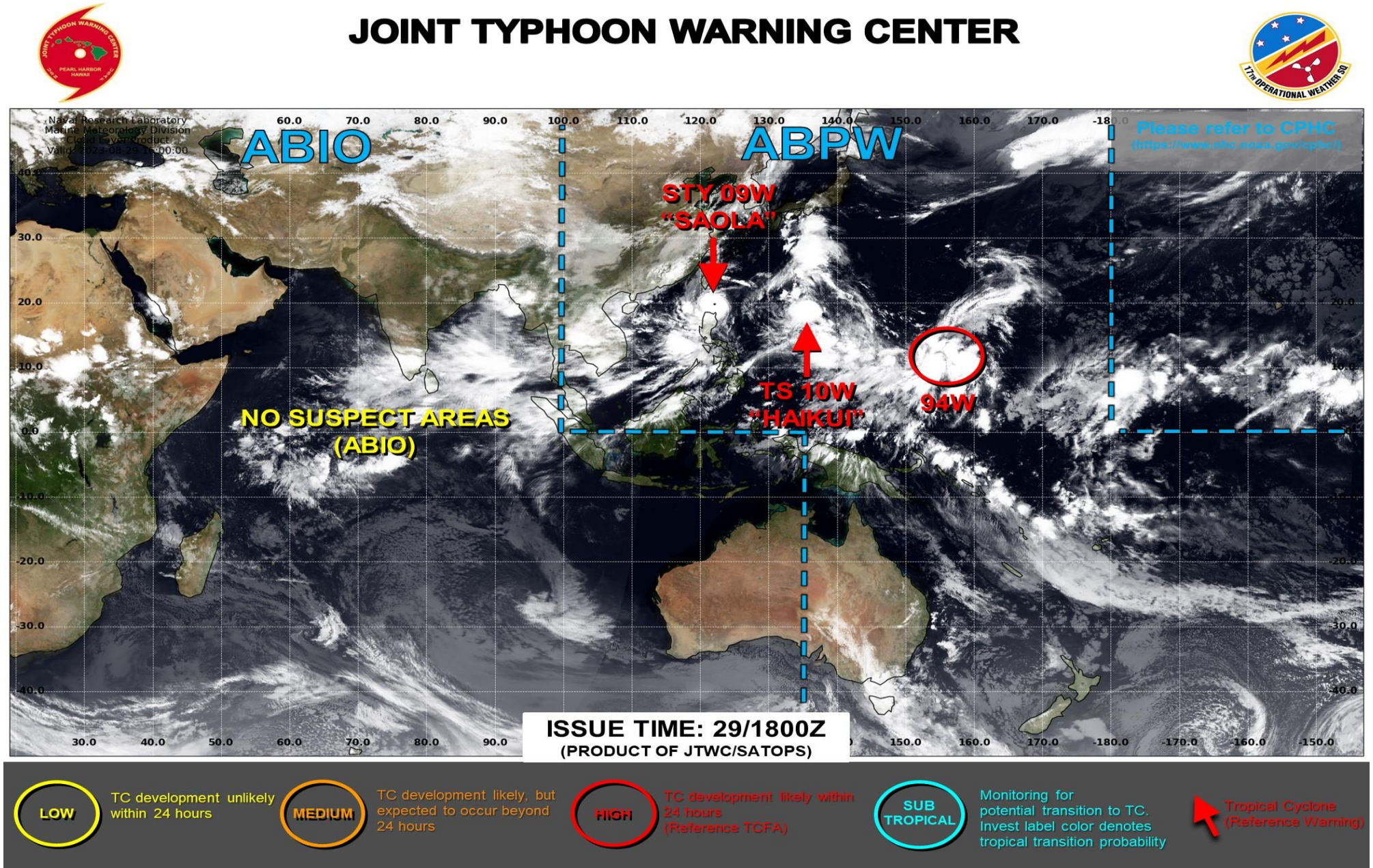
Tropical Cyclone Monitoring/Forecast: NHC / CPHC



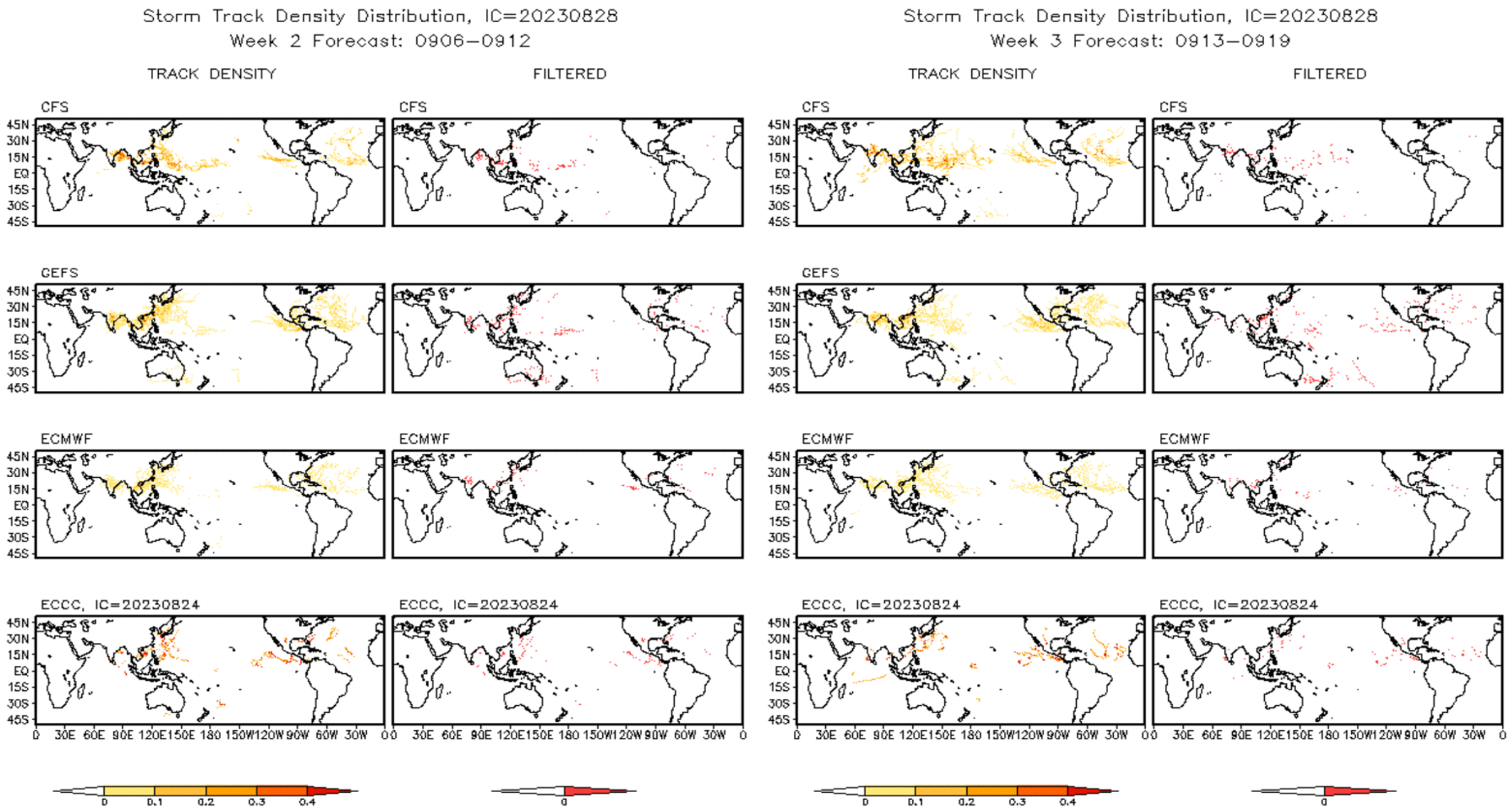




Tropical Cyclone Monitoring/Forecast: JTWC

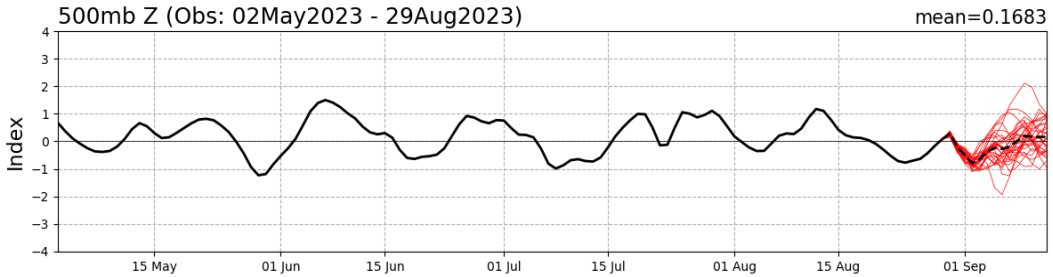


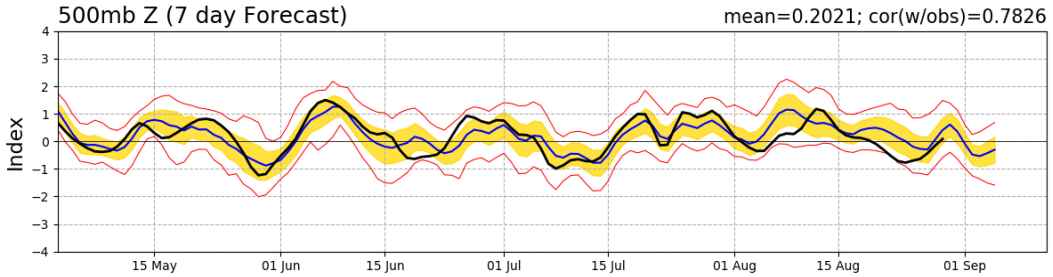
Multi-Model TC Track Densities: Weeks 2+3

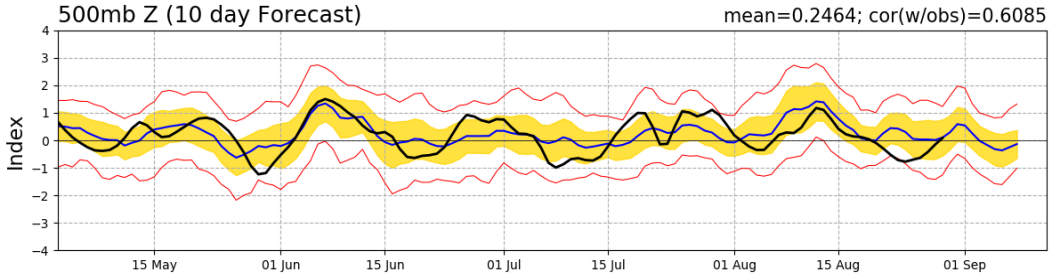


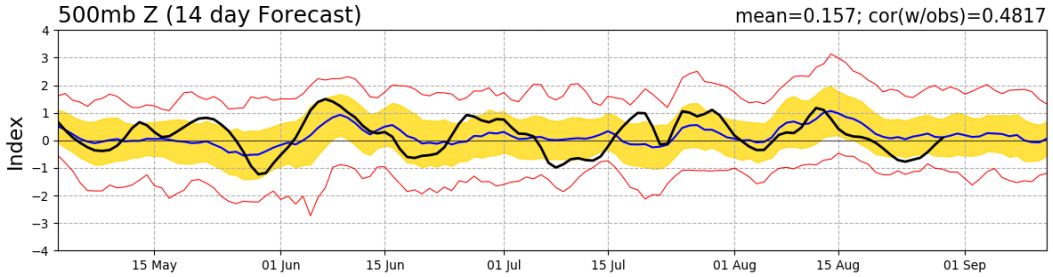
Teleconnection Indices: PNA / AO:

PNA Index: Observed & GEFS Forecasts

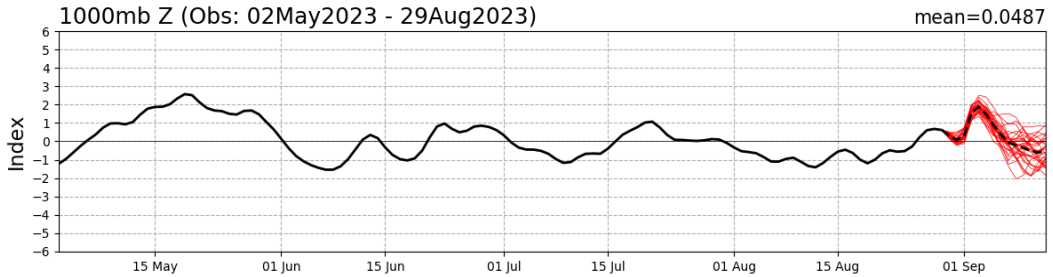


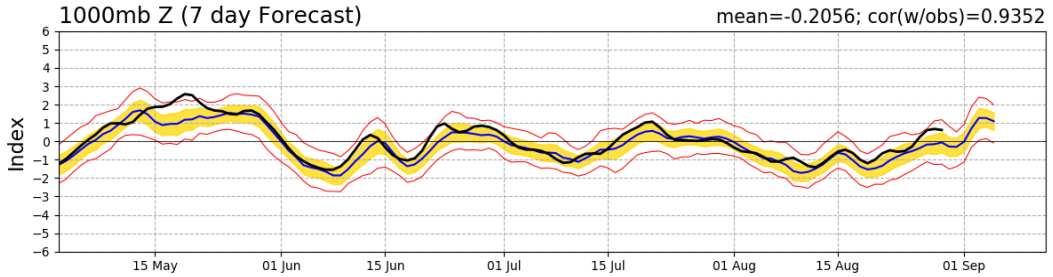


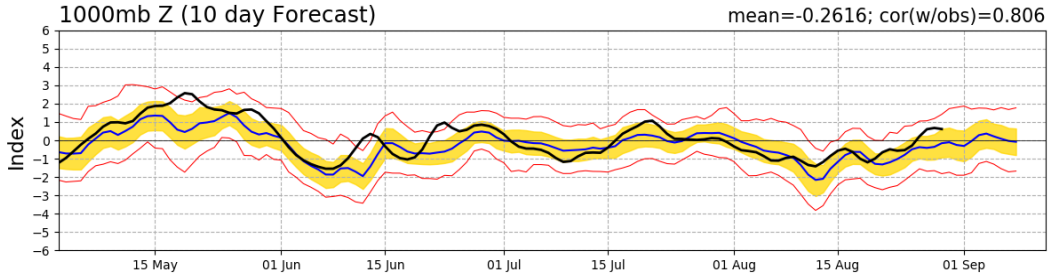


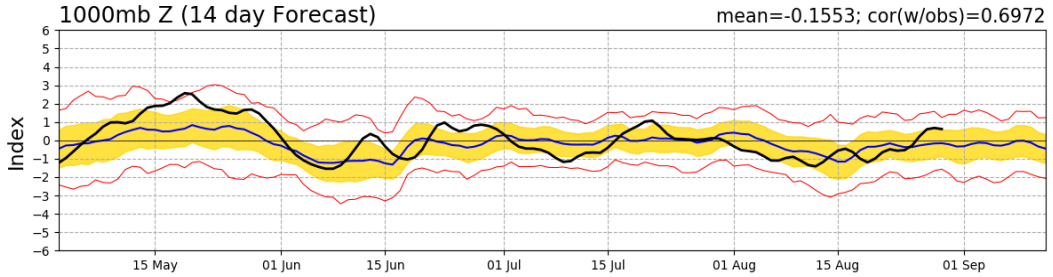


AO Index: Observed & GEFS Forecasts

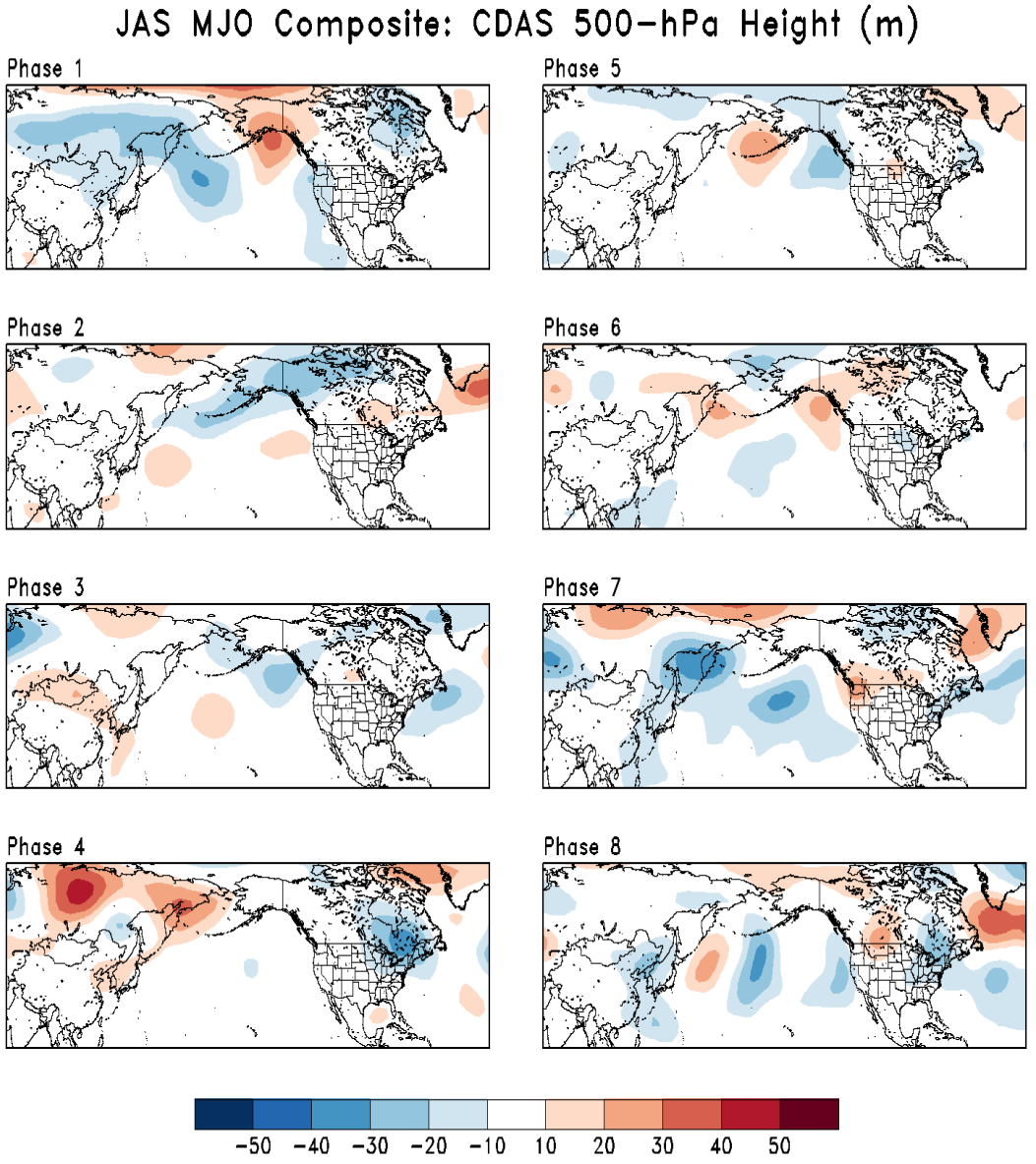


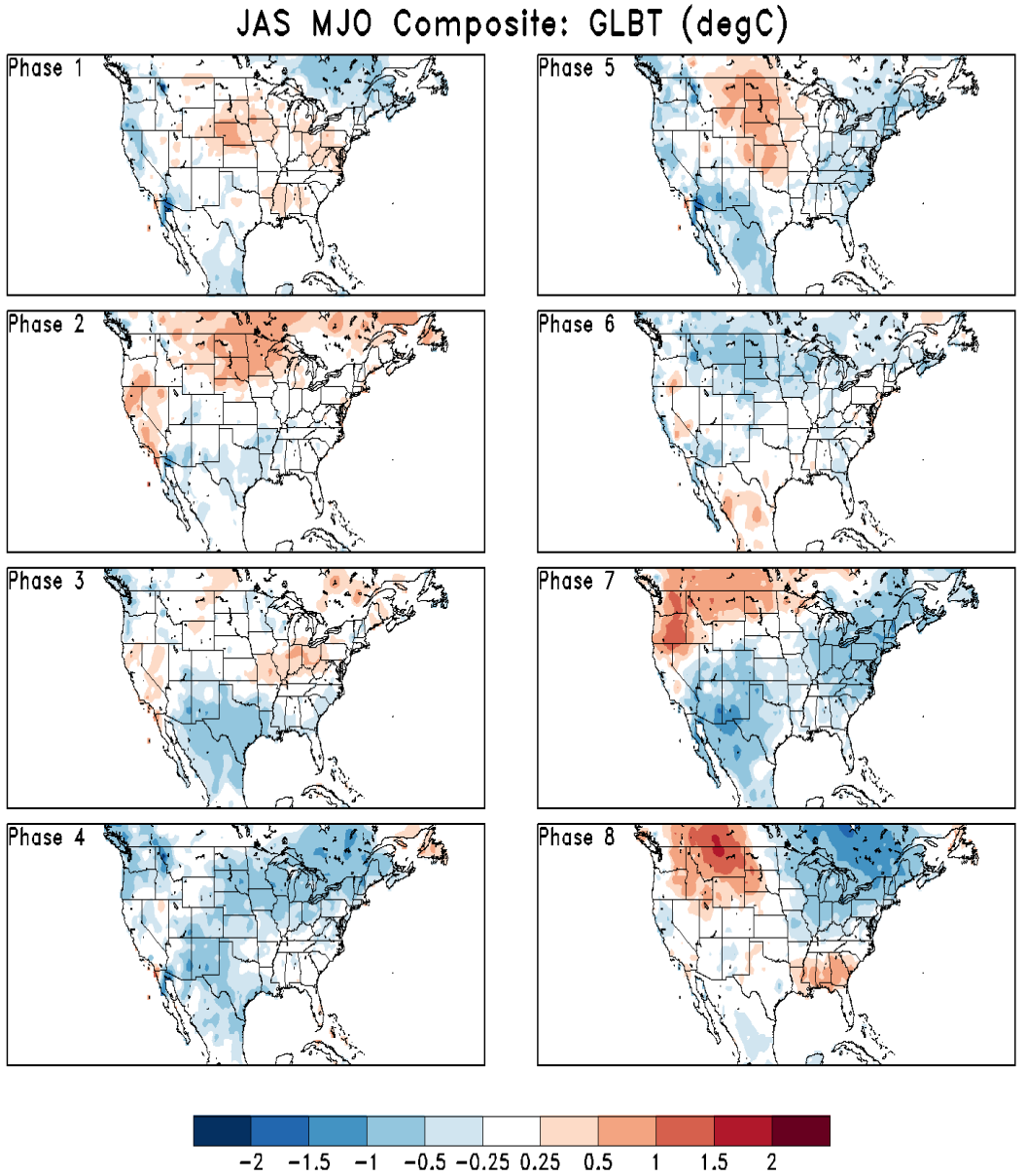




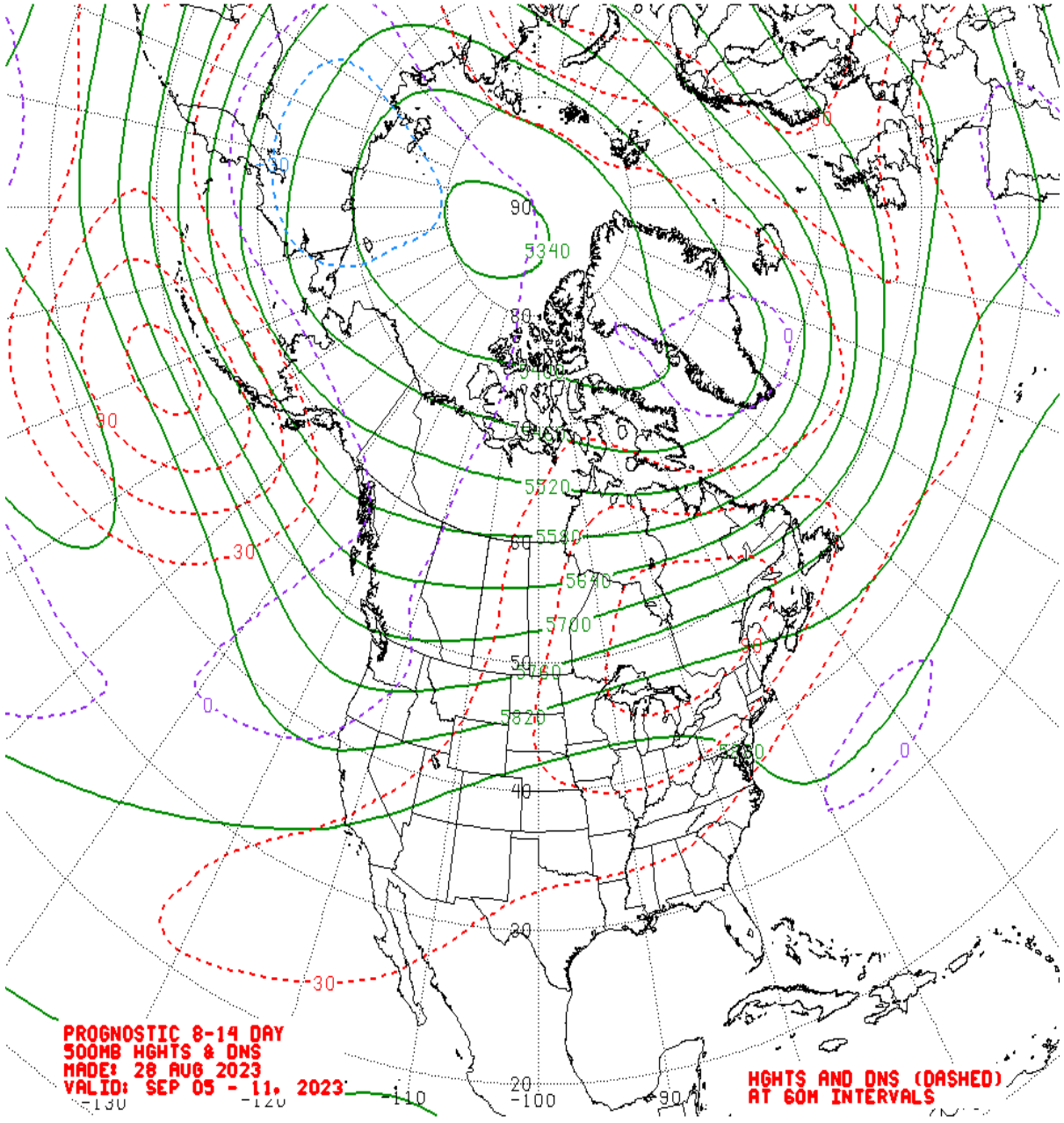


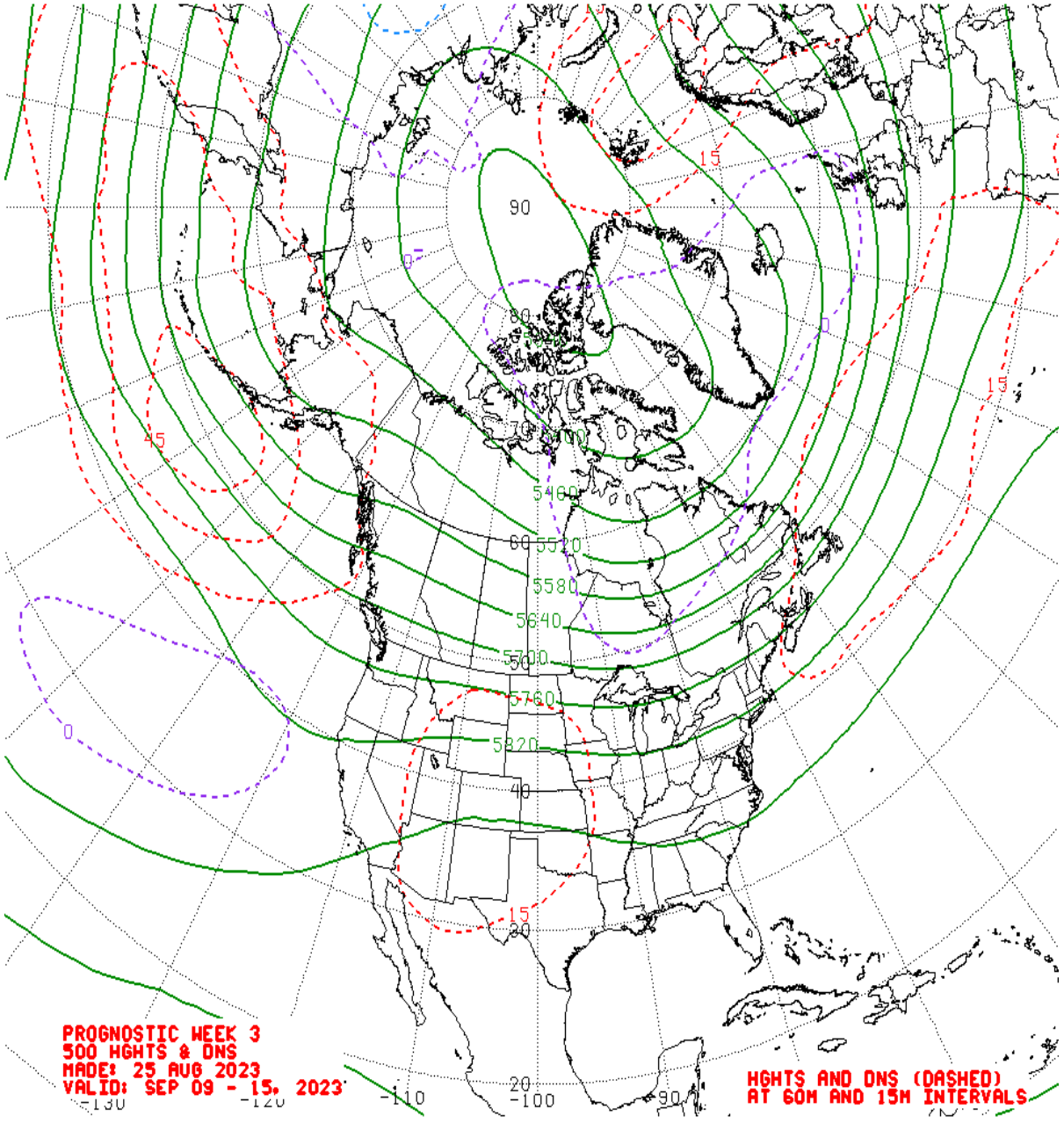
Historical 500-hPa Height & U.S. Temperatures By MJO Phase:



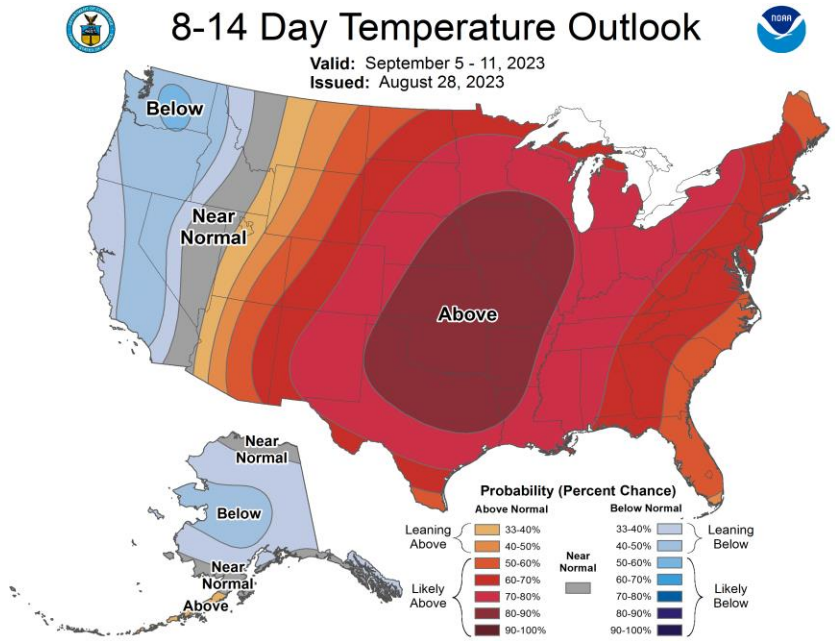


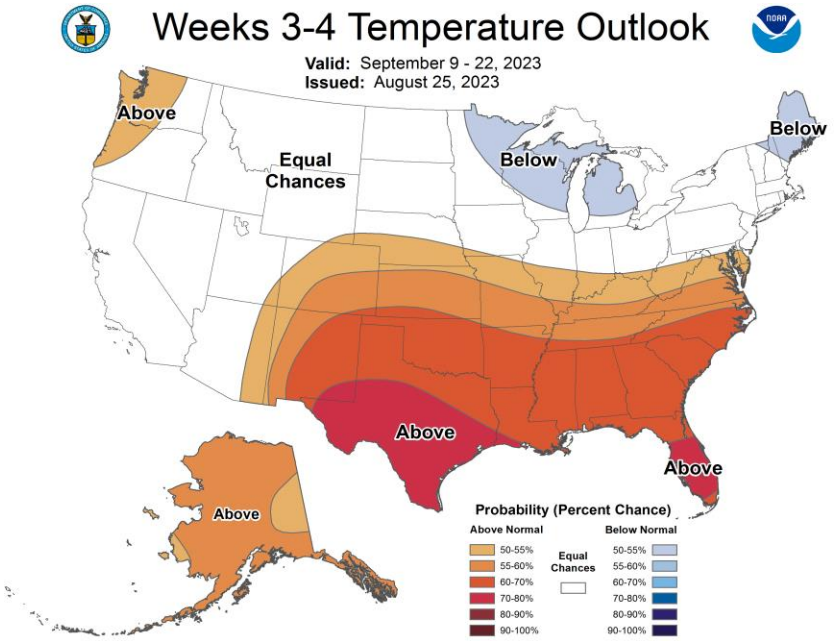
Mean 500-hPa Height Anomaly Forecasts: Weeks 2+3

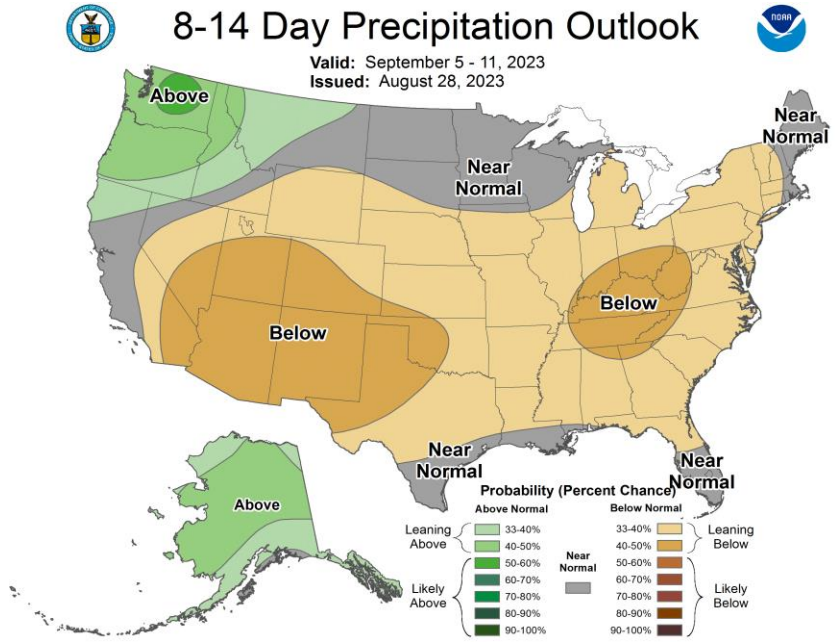


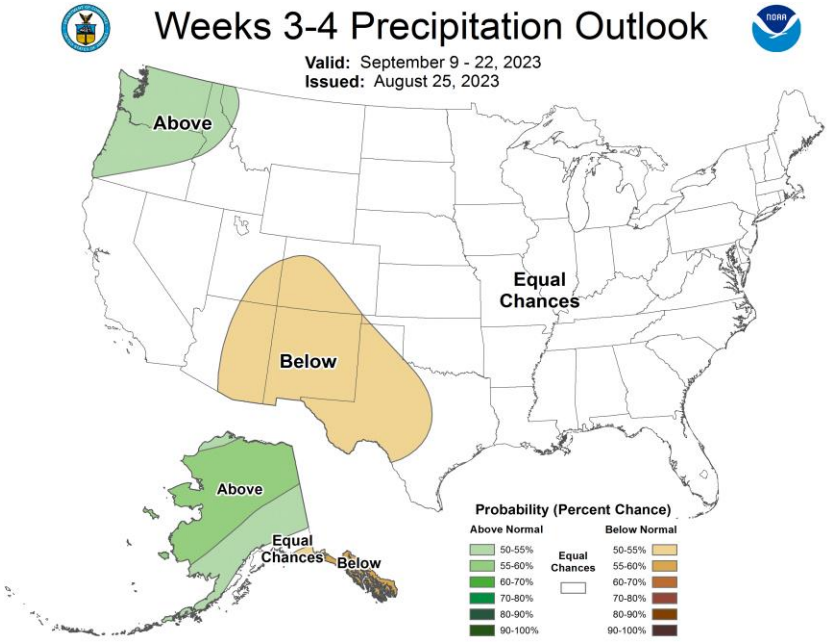


Official Temperature & Precipitation Forecasts:









Global Tropics Hazards Outlook

Climate Prediction Center

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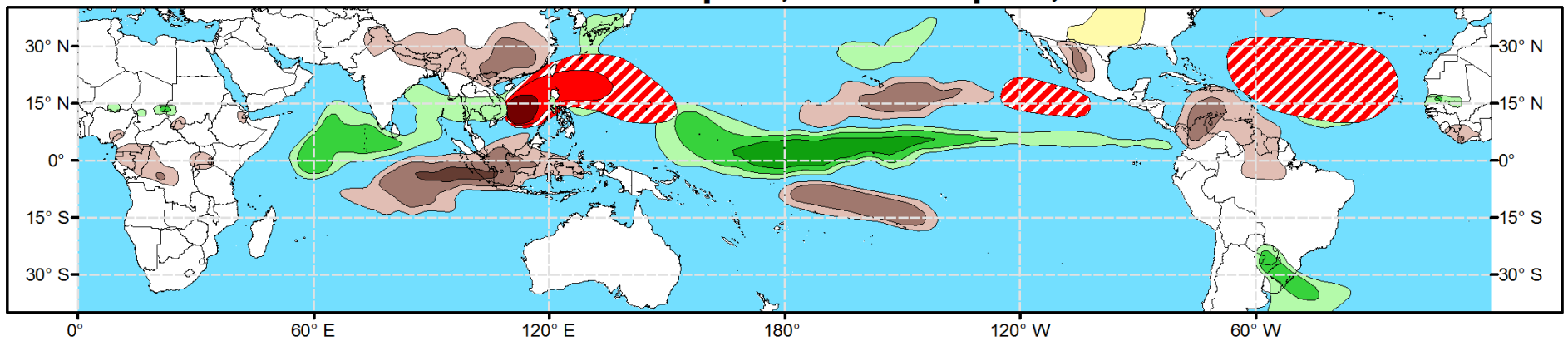

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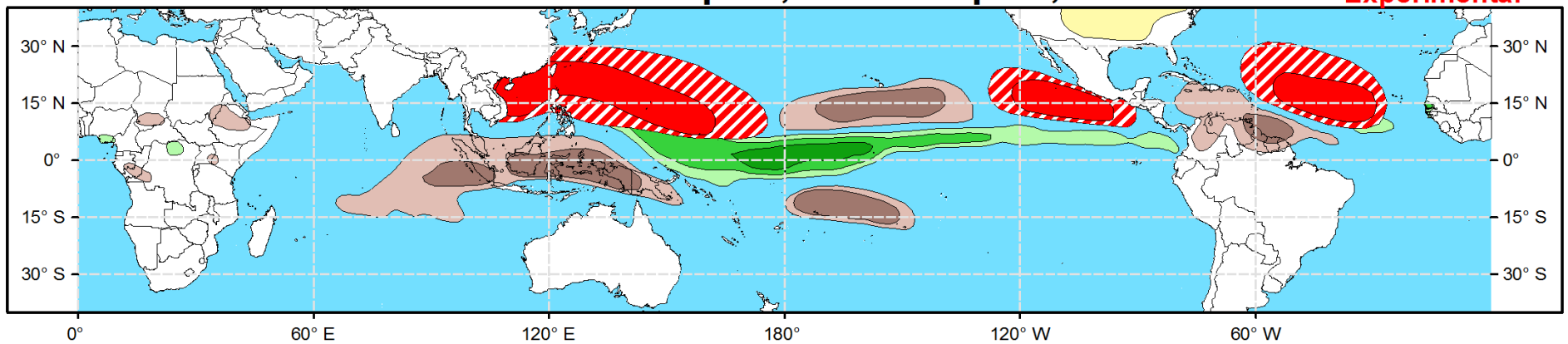

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