Weeks 2-3 Global Tropics Hazards Outlook

5/16/2023

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NWS / NCEP / Climate Prediction Center

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

- 1: Ancha, 9/30
- 2: TD 11, 10/1
- 3: Leslie, 10/2
- 4: Milton, 10/5
- 5: TD 21W, 10/6
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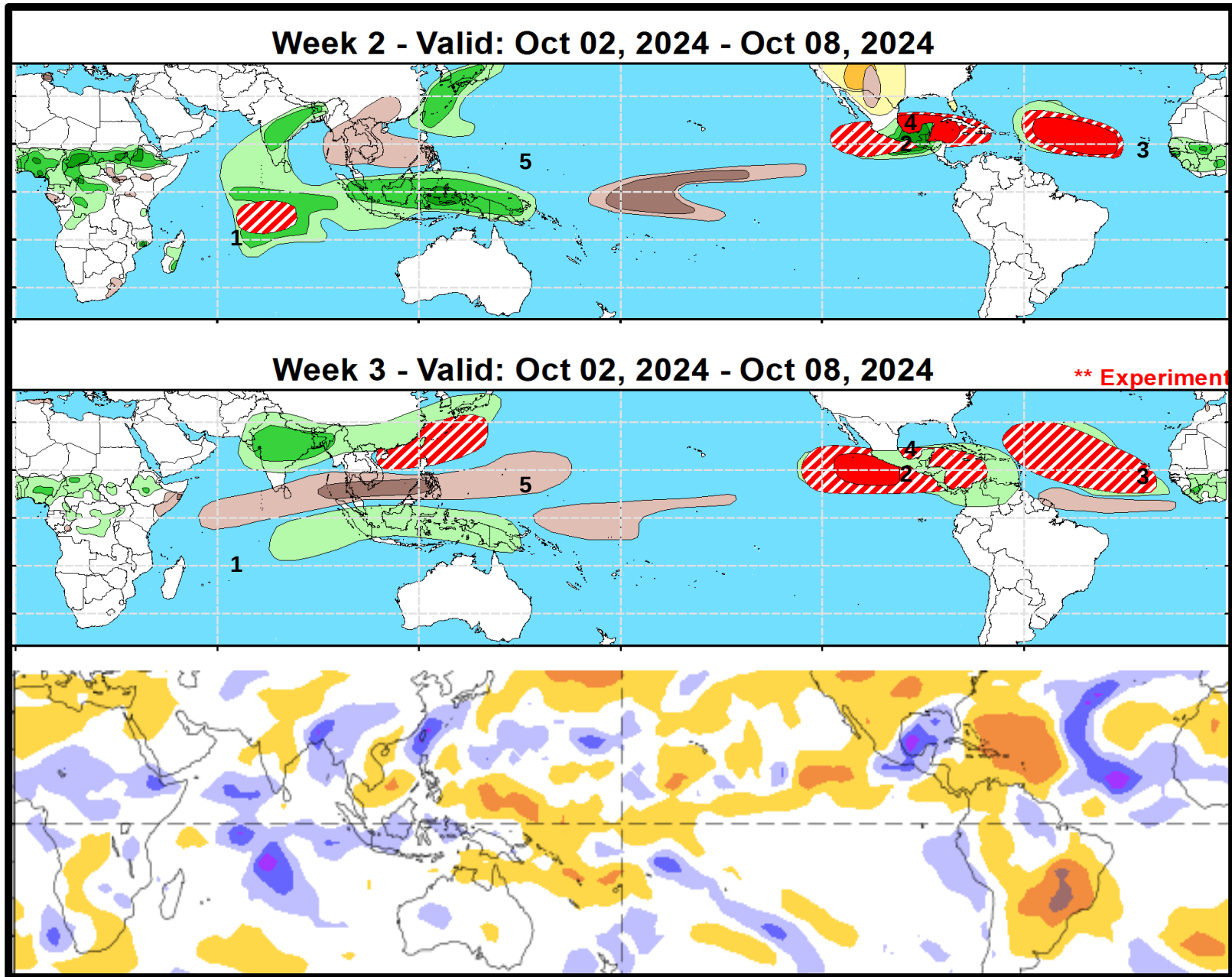


Synopsis of Climate Modes:

ENSO: (Sep 12, 2024 Update) ***next update on Thursday, Oct 10th***

- ENSO Alert System Status: La Niña Watch

- La Niña is favored to emerge in September-November (71% chance) and is expected to persist through January-March 2025.

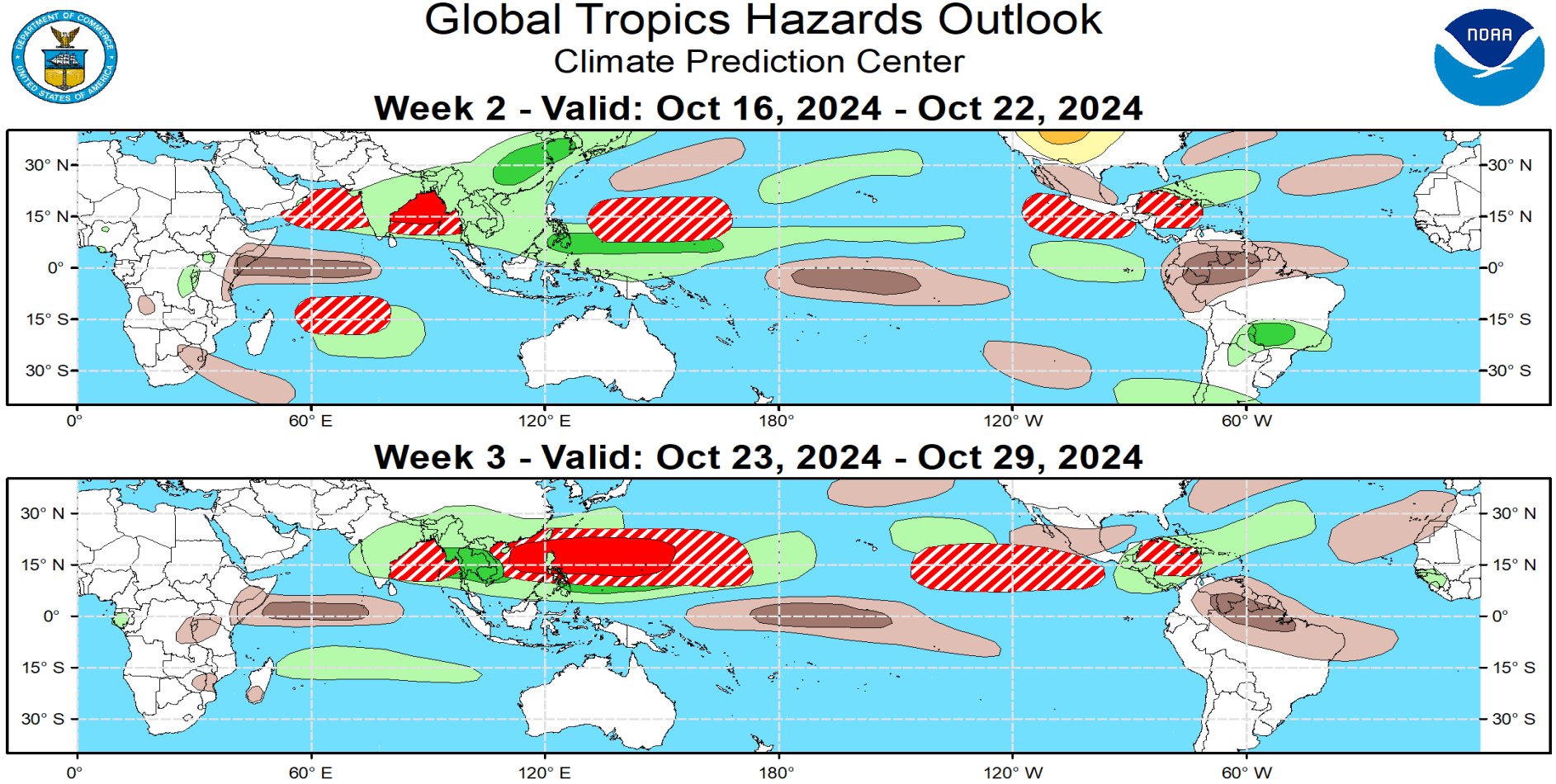
MJO and other subseasonal tropical variability:

•The MJO continues to be a significant player in the global tropics. The RMM index currently places the enhanced convective envelope over the Indian Ocean.

•Dynamical model MJO forecasts depict eastward propagation of the intraseasonal signal into the Maritime Continent and Western Pacific during the next several weeks, with a more suppressed convective pattern developing across North America in the wake of the MJO.

•Tropical cyclone (TC) activity is favored to be greatest over the Indian Ocean and Western Pacific during weeks 2 and 3. The suppressed phase of the MJO is depicted over the Americas during this period which would tend to inhibit TC formation, however potential destructive Kelvin wave interference leads to lingering chances for TC activity on either side of Central America throughout the forecast period.

GTH Outlook:



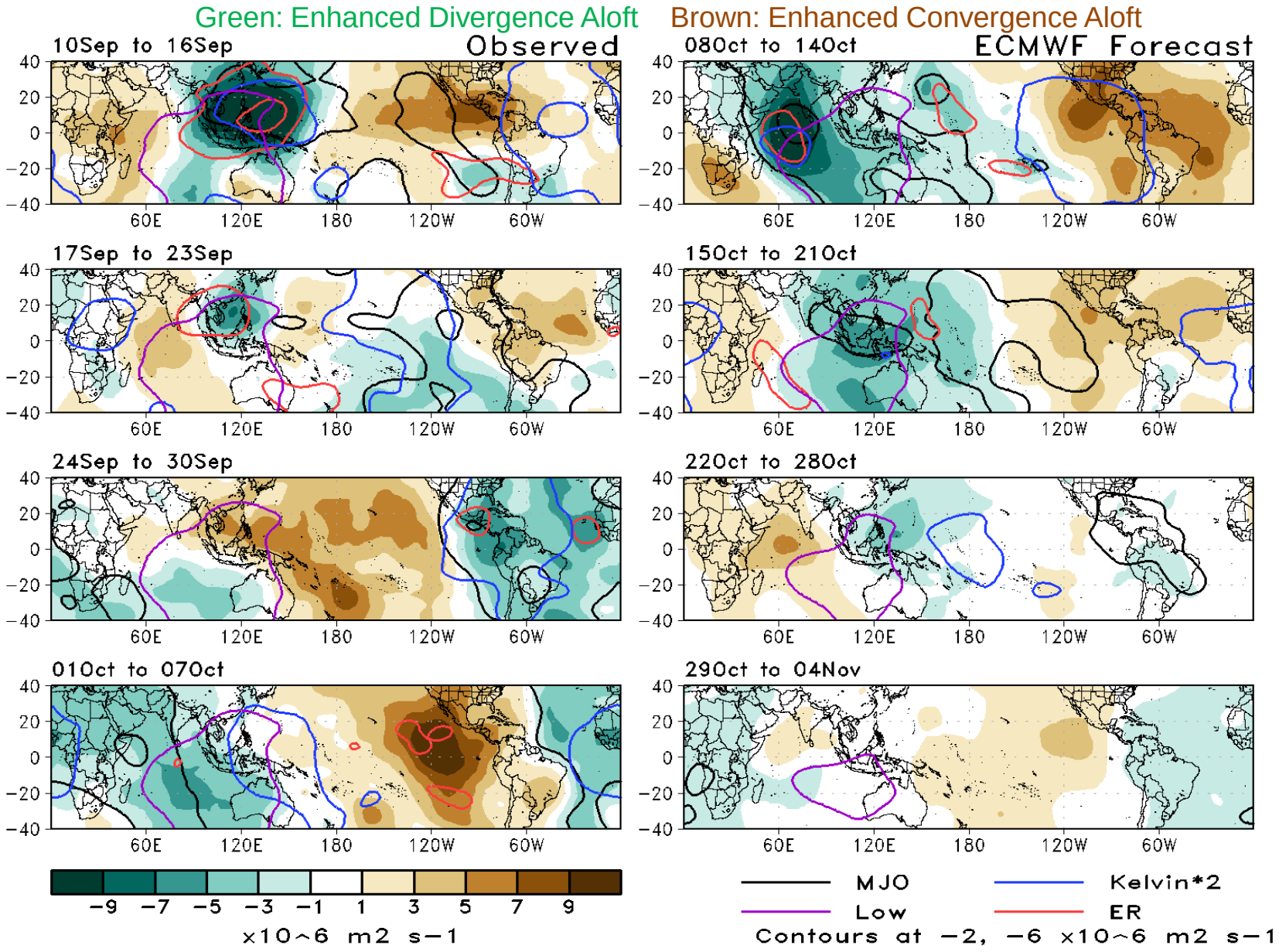
Issued: 10/08/2024

Forecaster: Barandiaran

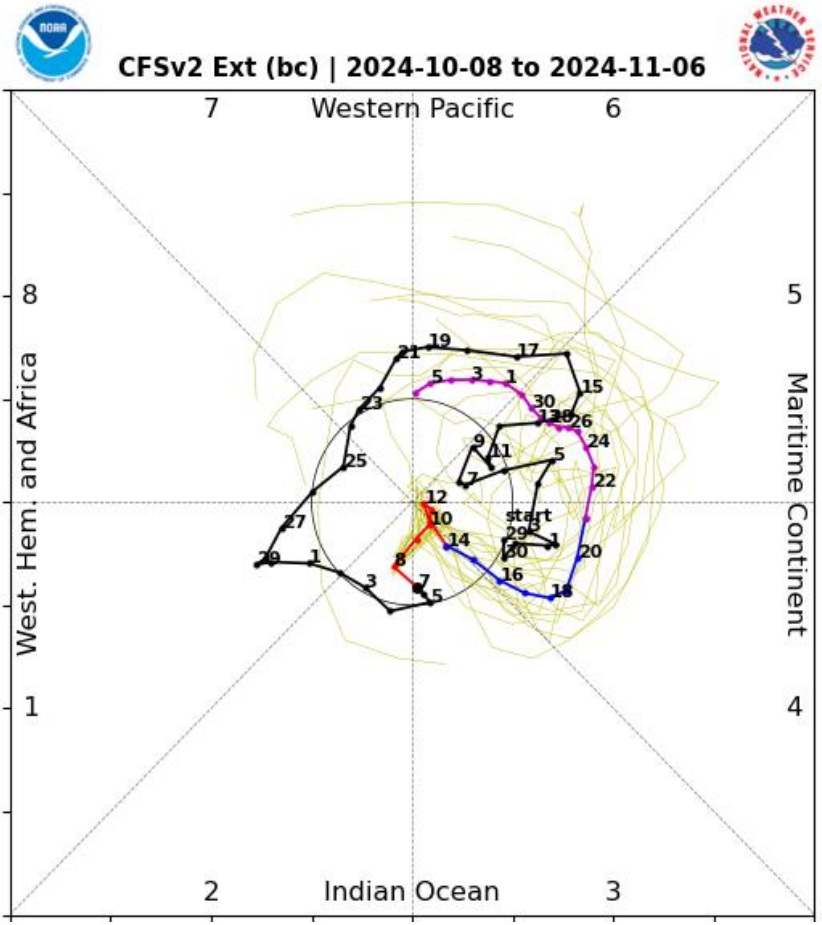
This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only.
Consult your local responsible forecast agency.

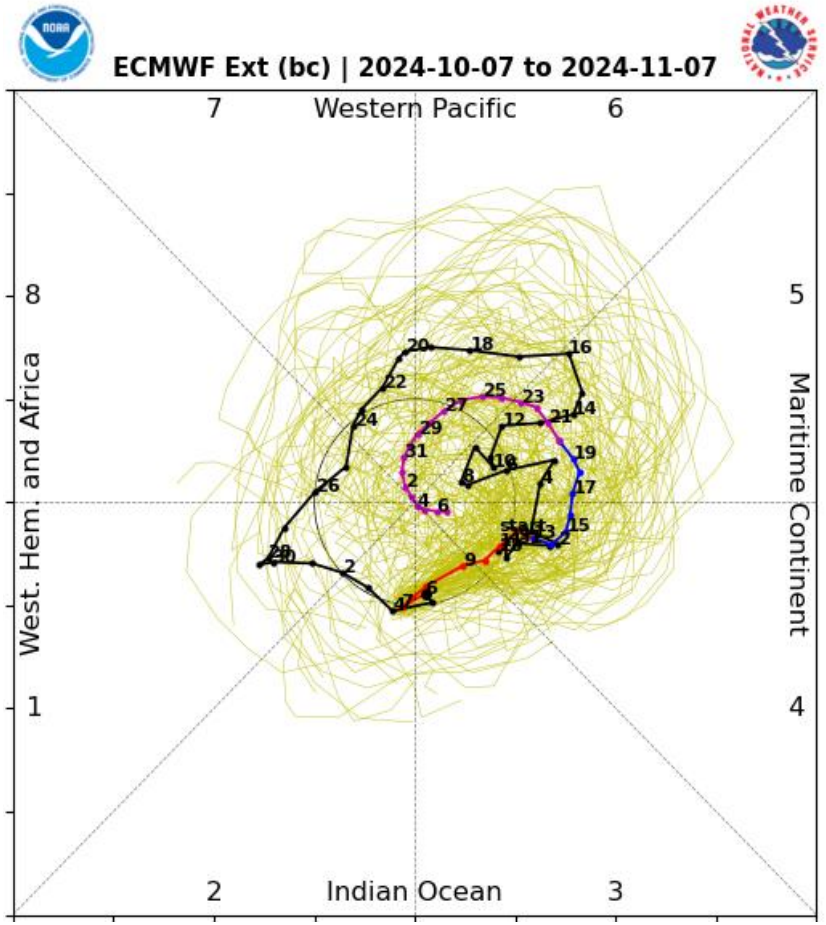
200-hPa Velocity Potential Anomaly Maps:

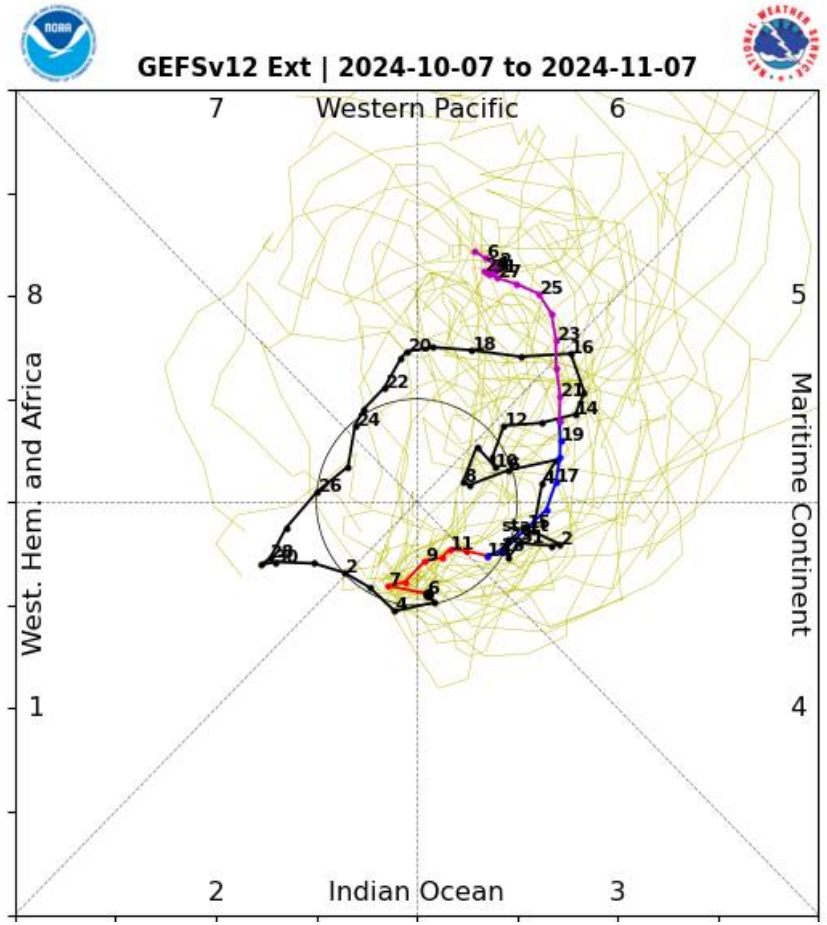
- The MJO has become more coherent lately, and over the coming weeks the enhanced convective envelope will be moving over the Indian Ocean and the Maritime Continent.
- Suppressed convection over the Americas may potentially reduce the amount of TC activity in the Western Hemisphere after a very active period.



RMM Index Observations & Forecasts:

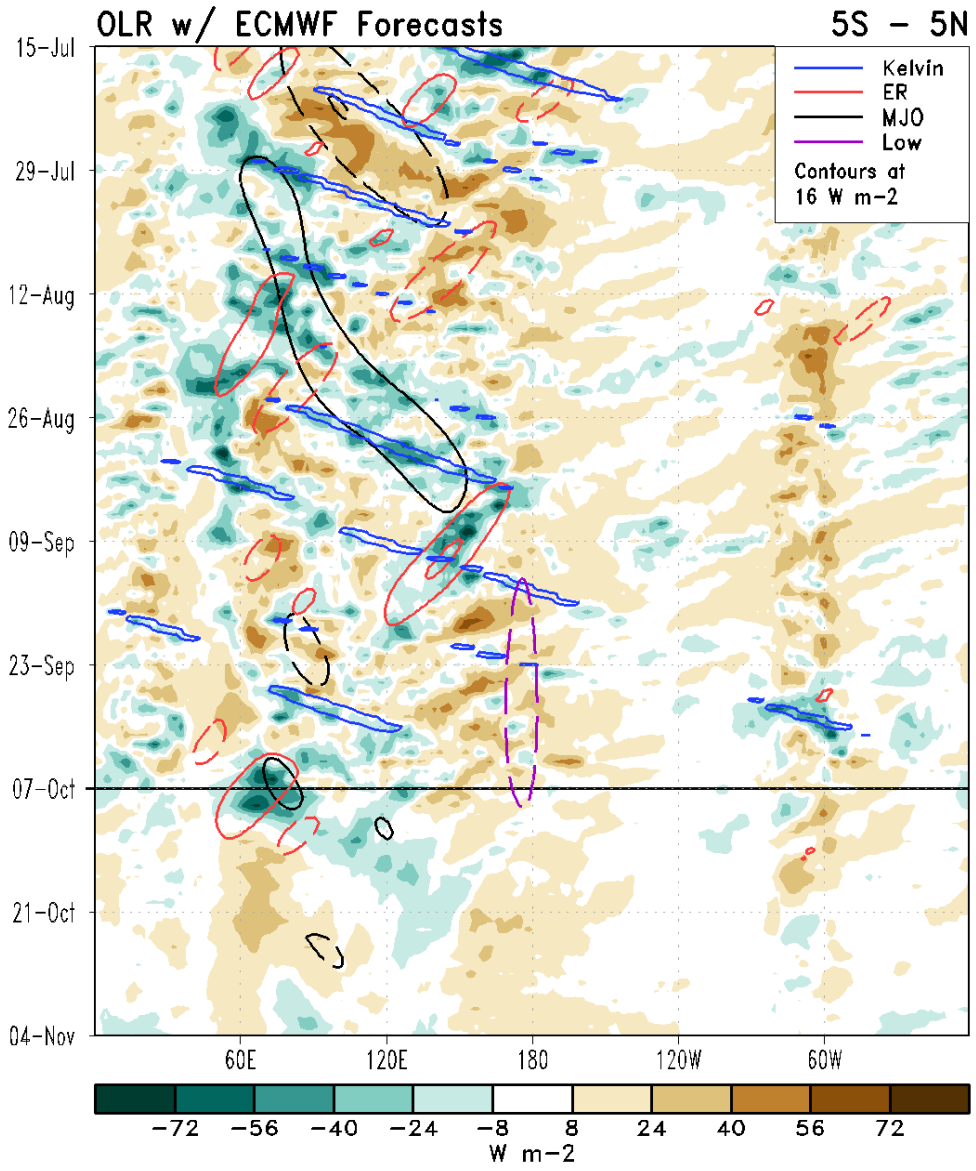


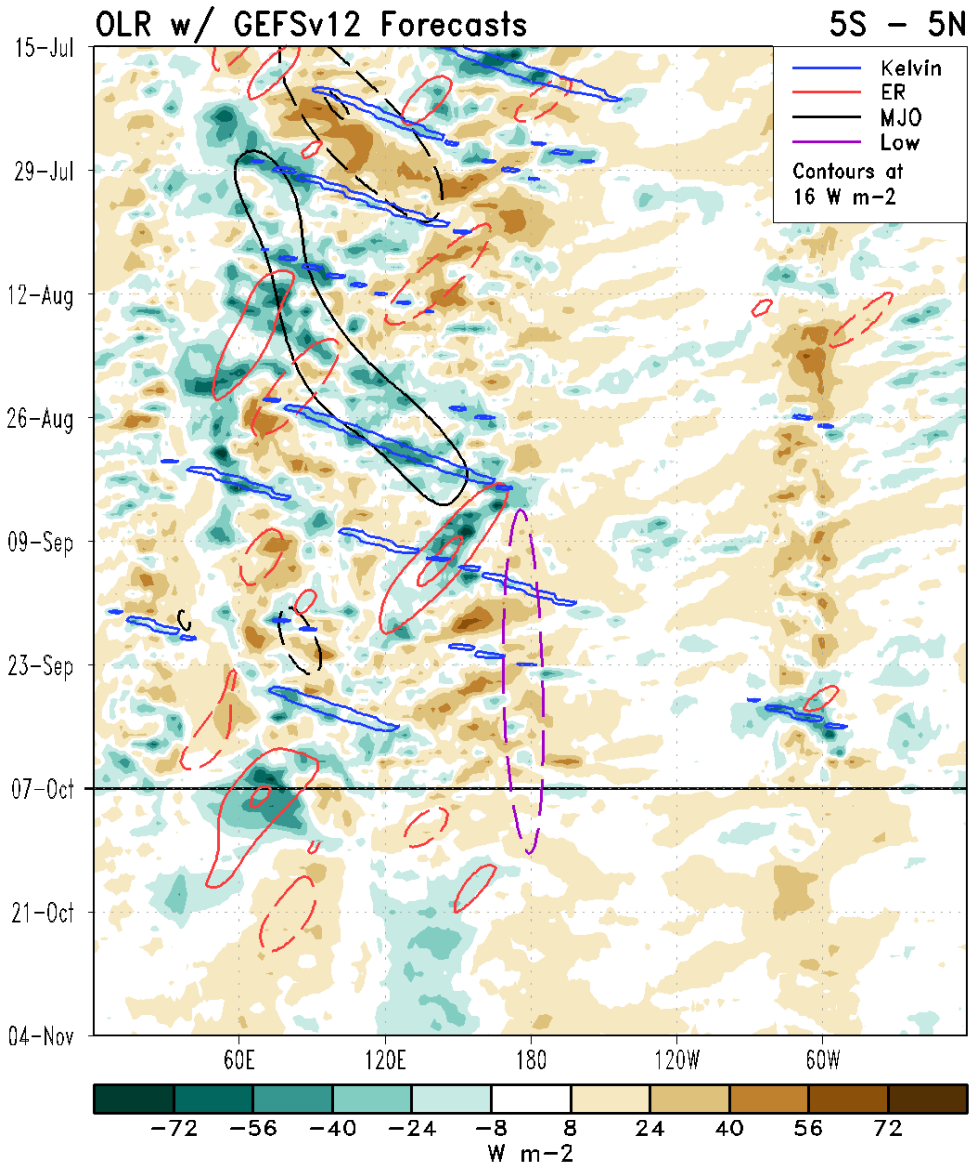




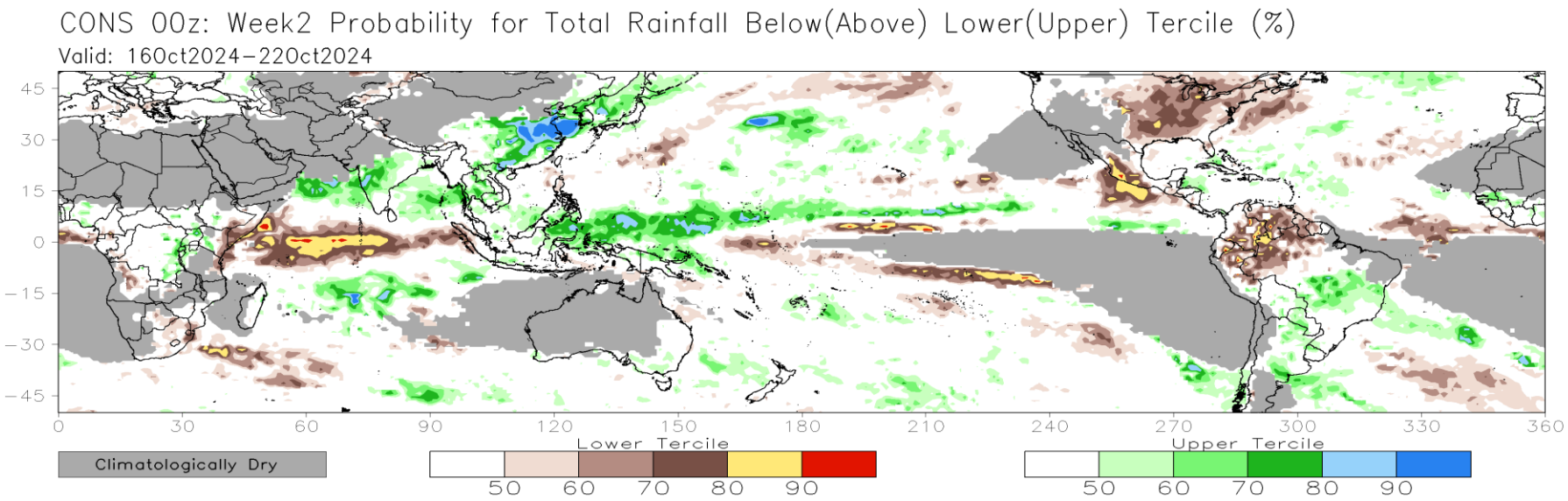
- Dynamical models are in pretty good agreement on the future evolution of the MJO, with RMM forecasts almost universally depicting an orderly propagation of the MJO signal for the next several weeks. The GEFS favors a highly amplified signal by the end of week-3, but other models suggest a weaker MJO.

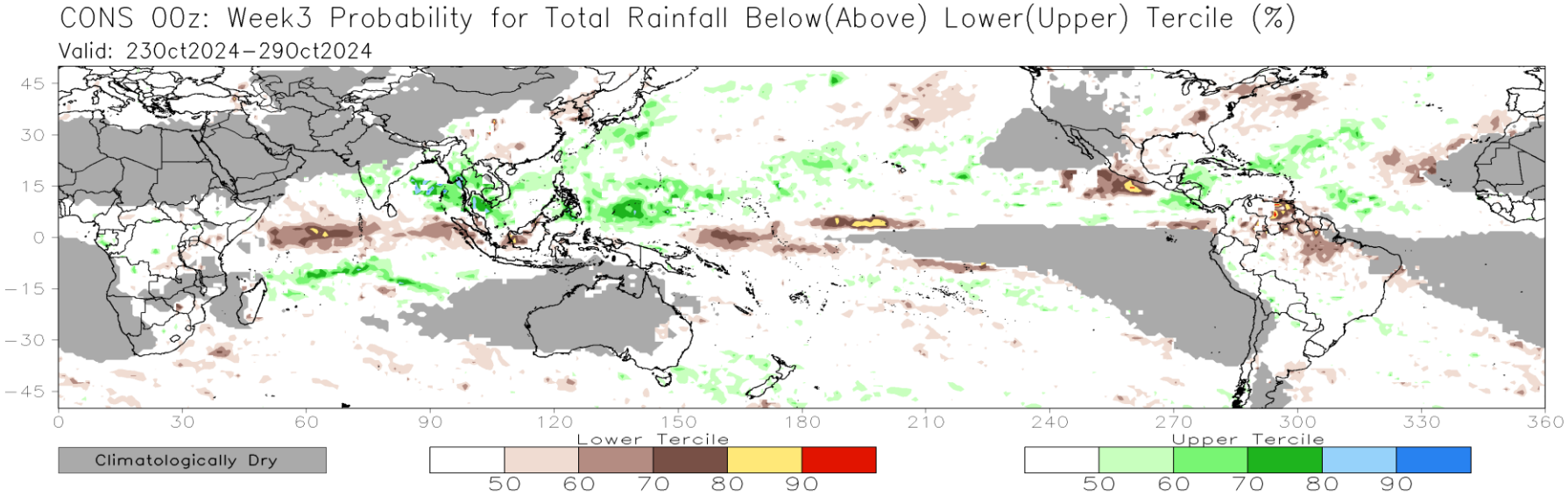
Outgoing Longwave Radiation (OLR) Anomaly Time/Lon Plots:



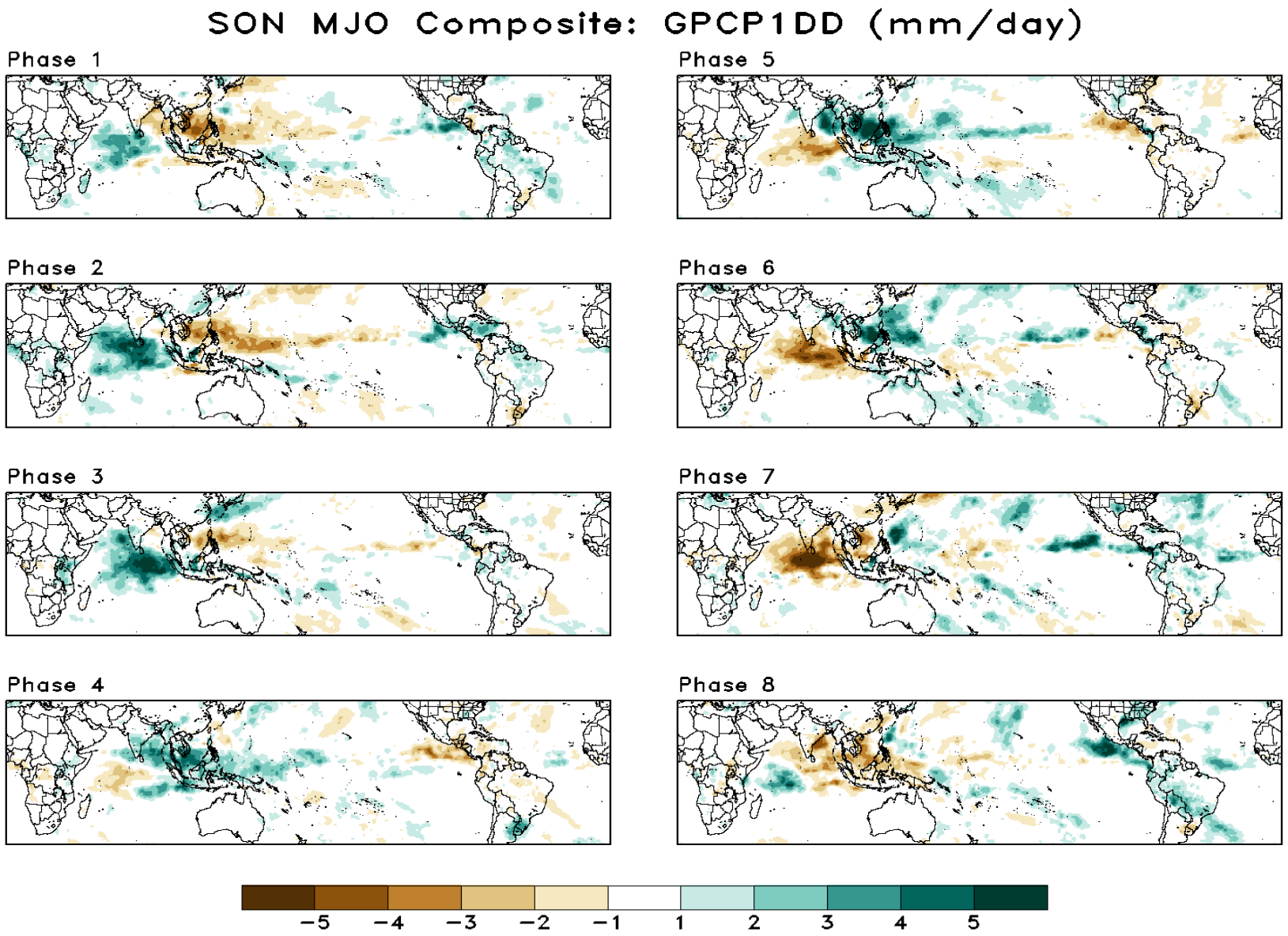


Consolidated Probabilistic Precipitation: Weeks 2 & 3

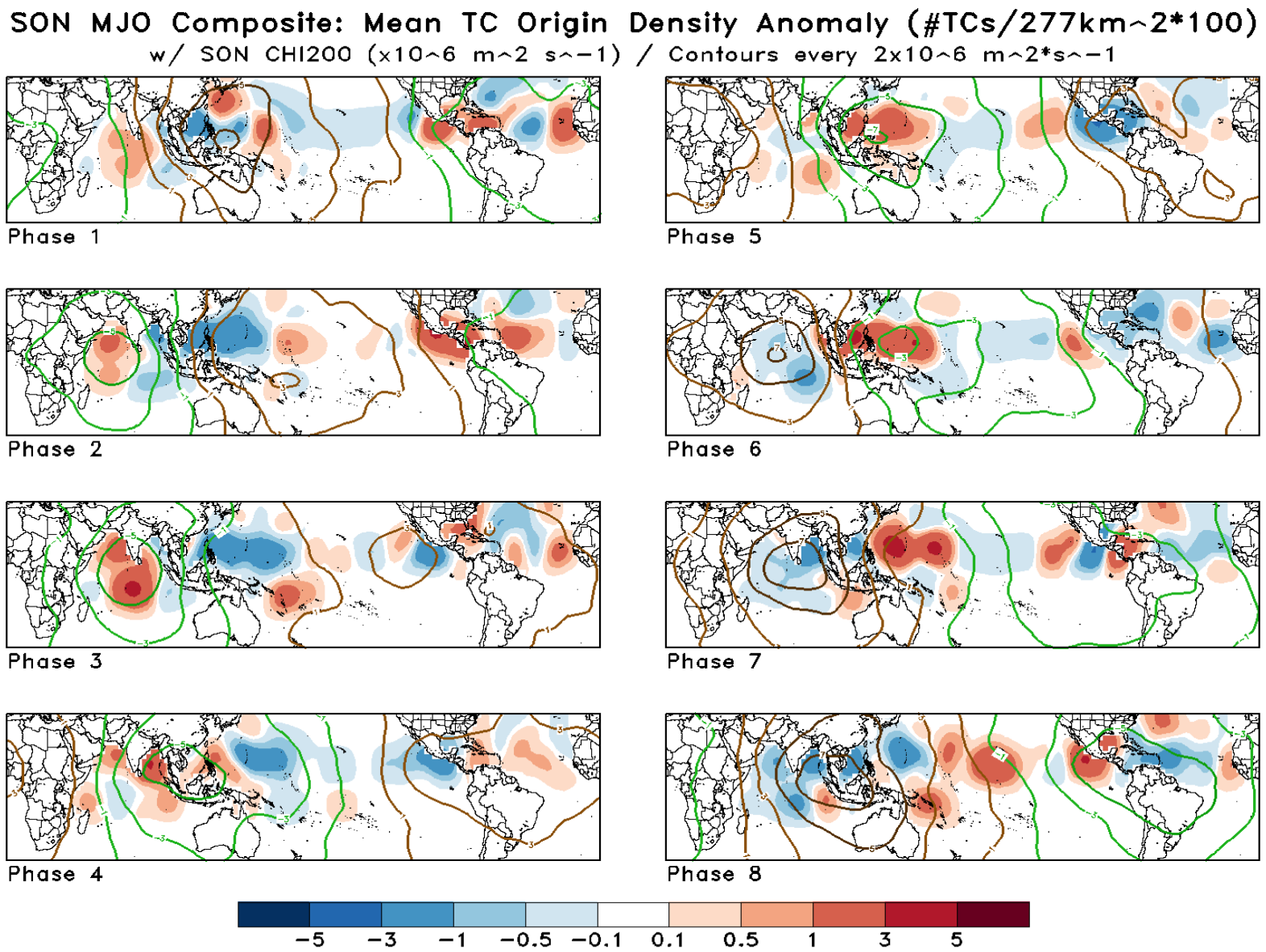


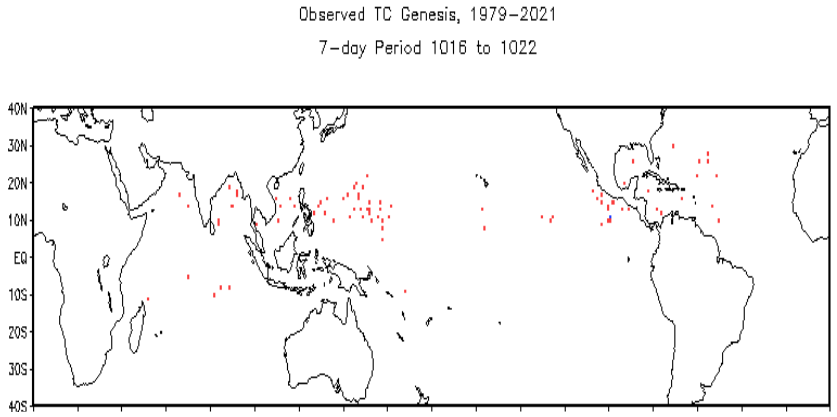


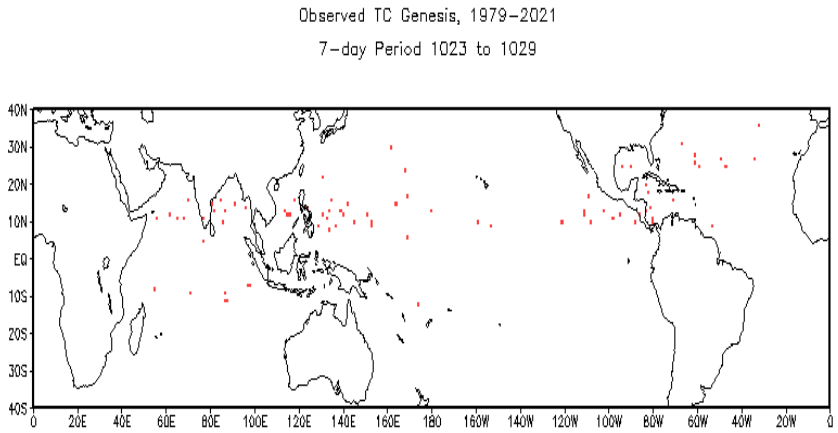
Historical Precipitation Anomalies By MJO Phase:



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

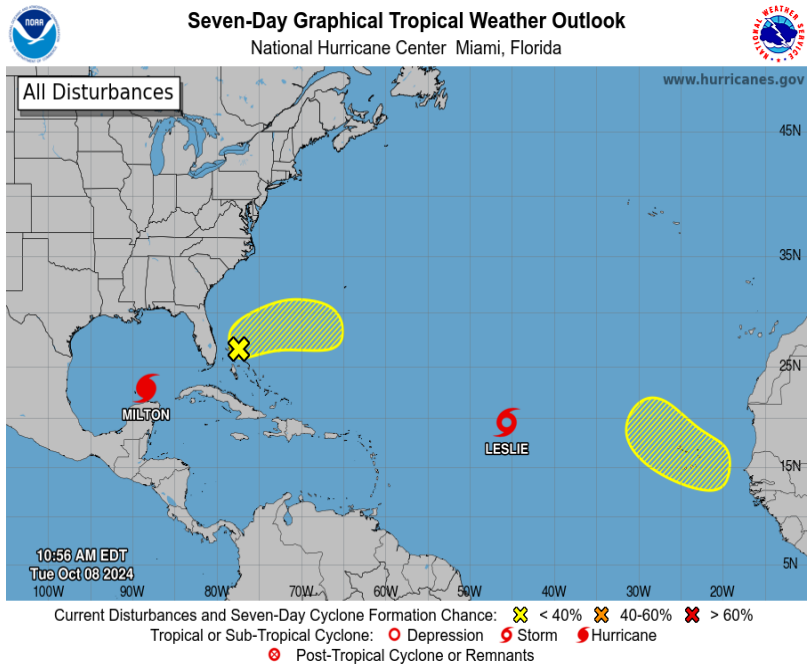


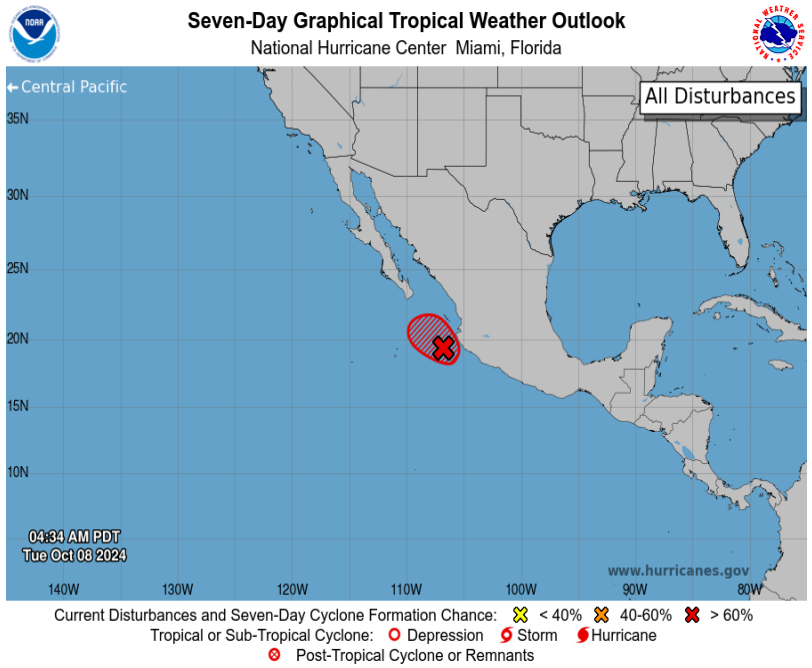


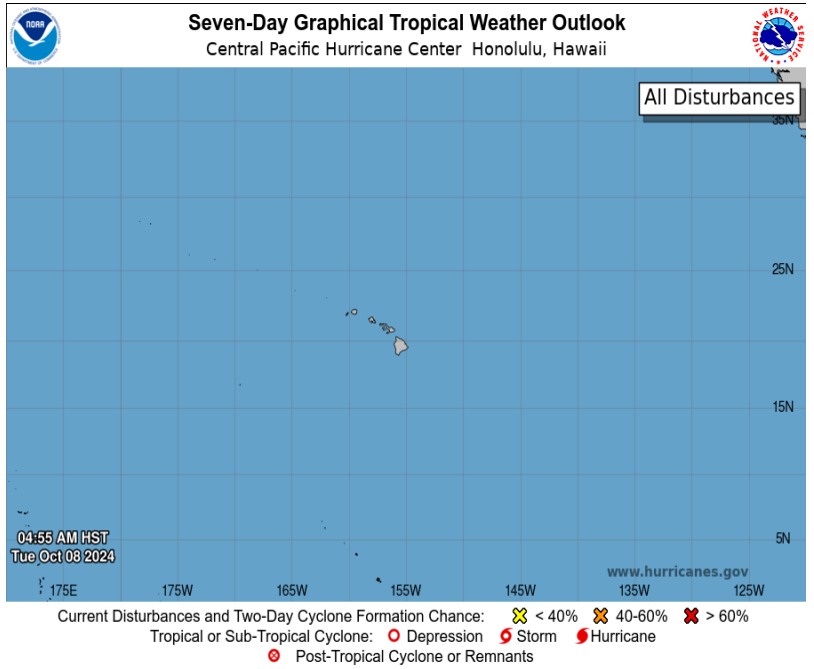


Experimental

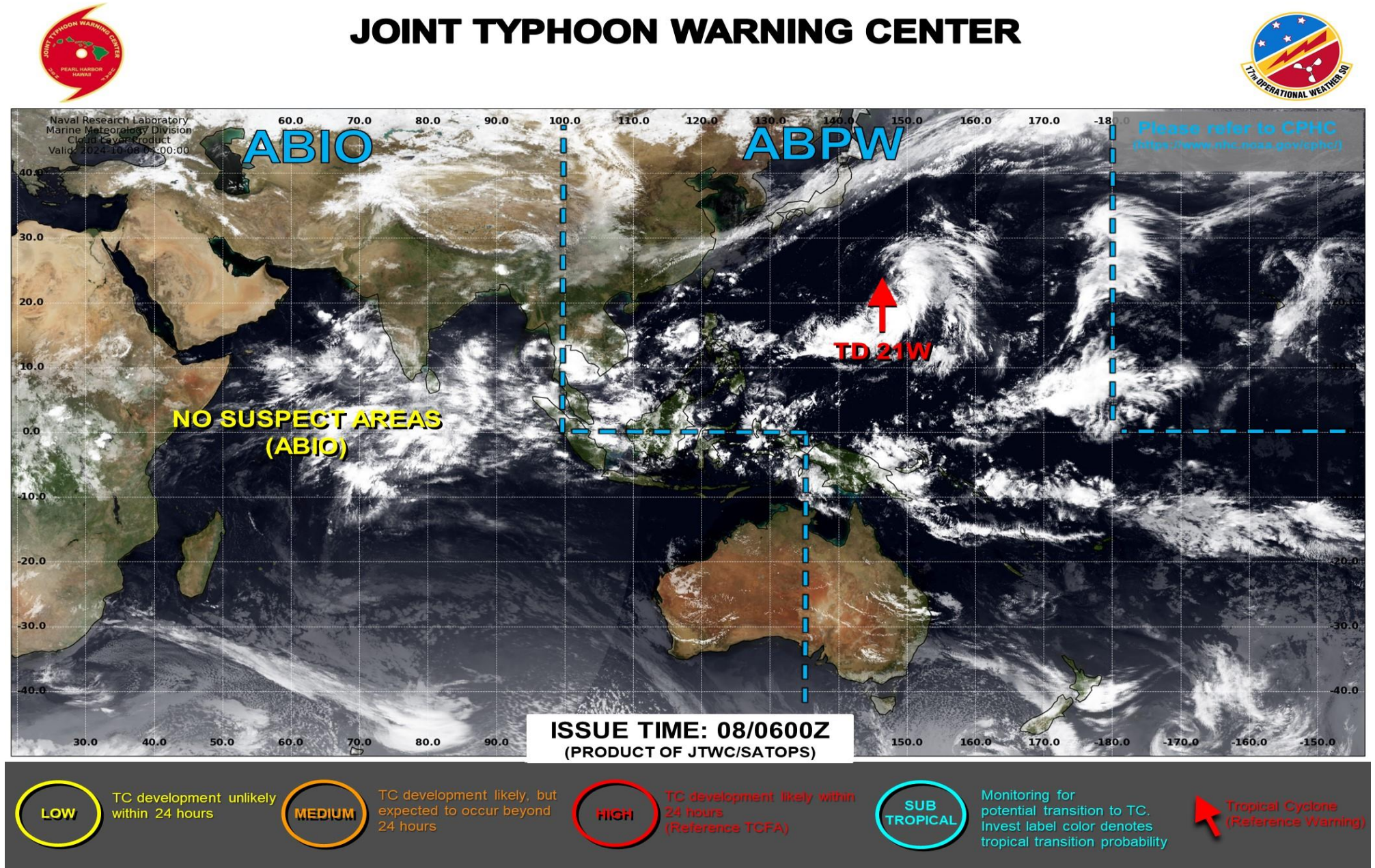
Tropical Cyclone Monitoring/Forecast: NHC / CPHC



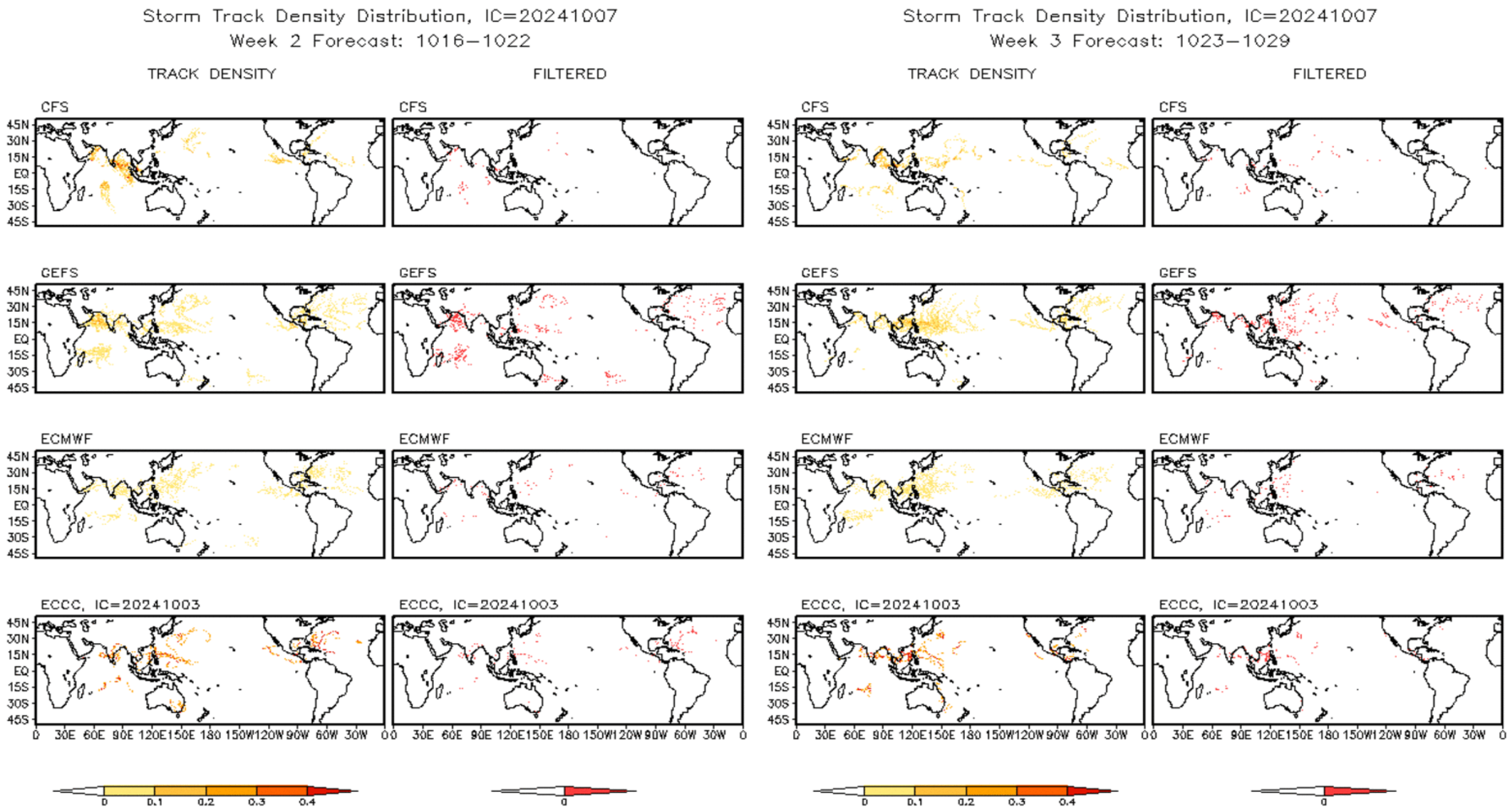




Tropical Cyclone Monitoring/Forecast: JTWC

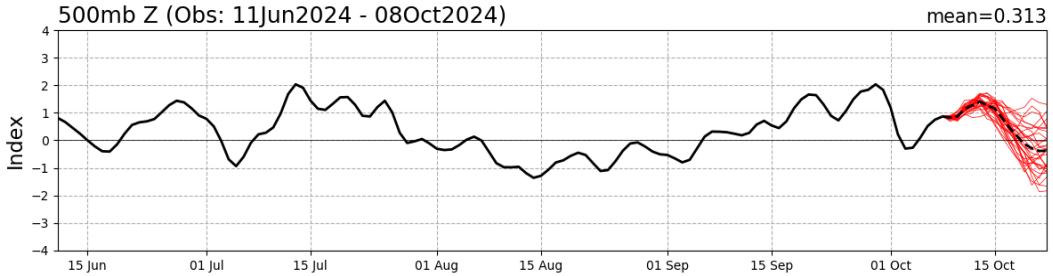


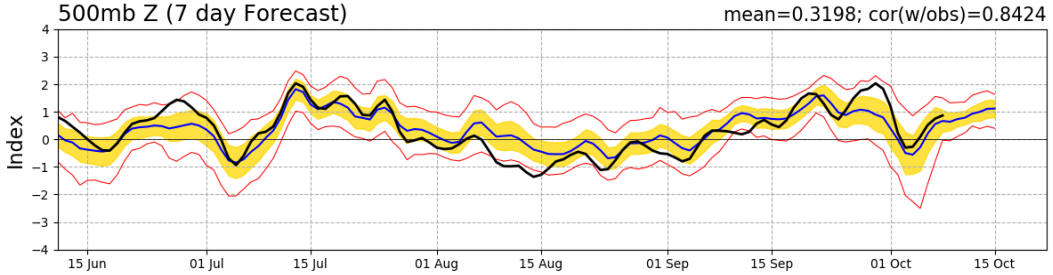
Multi-Model TC Track Densities: Weeks 2+3

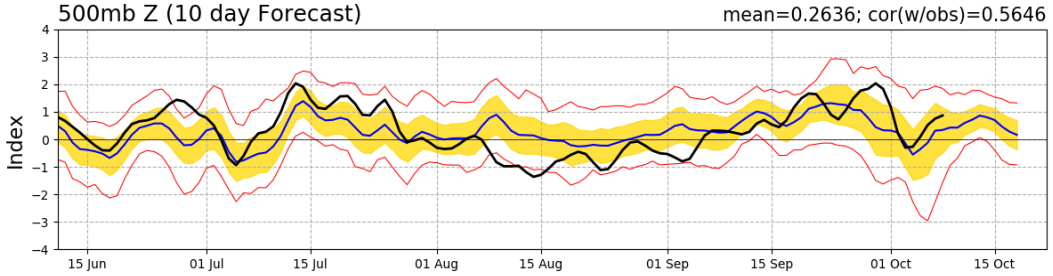


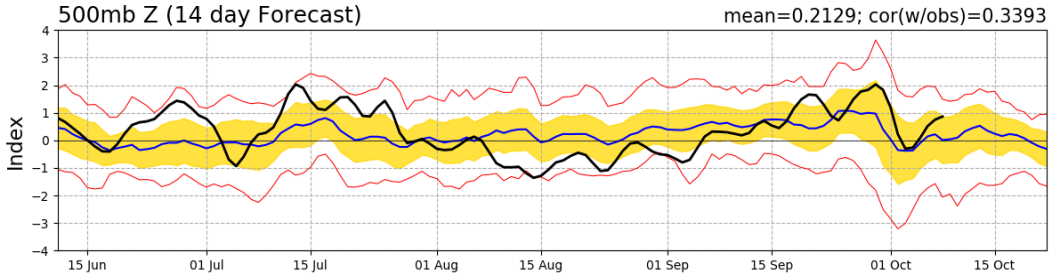
Teleconnection Indices: PNA / AO:

PNA Index: Observed & GEFS Forecasts

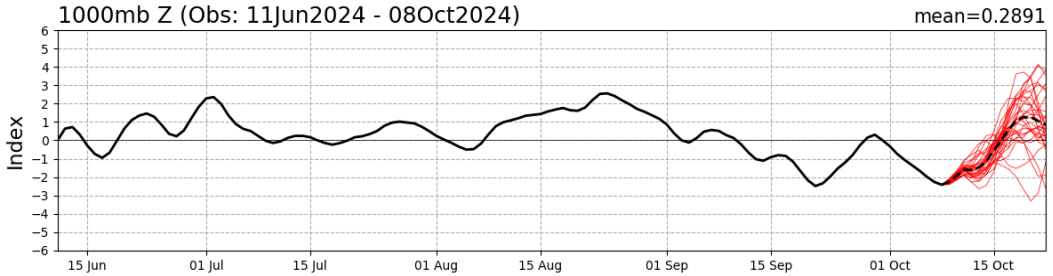


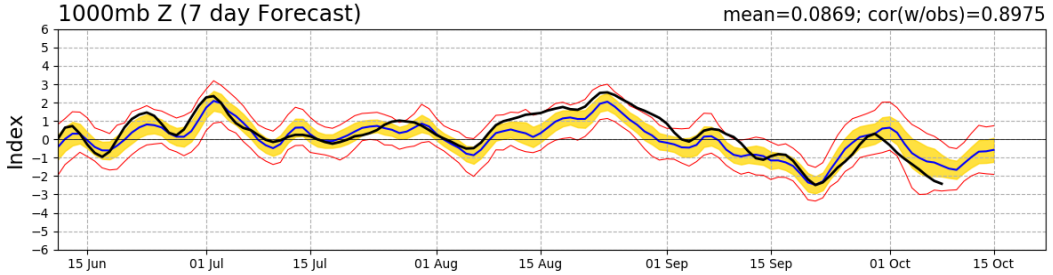


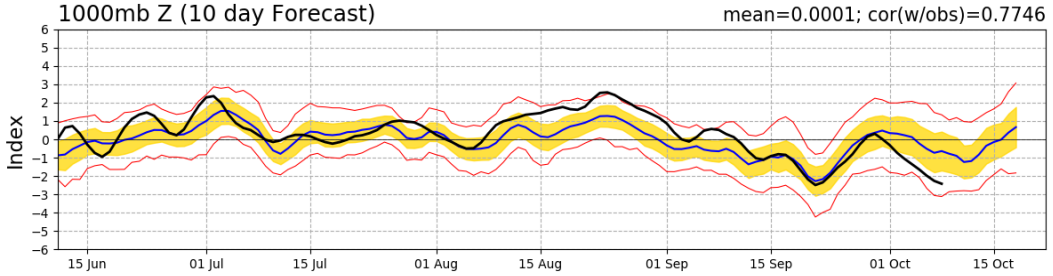


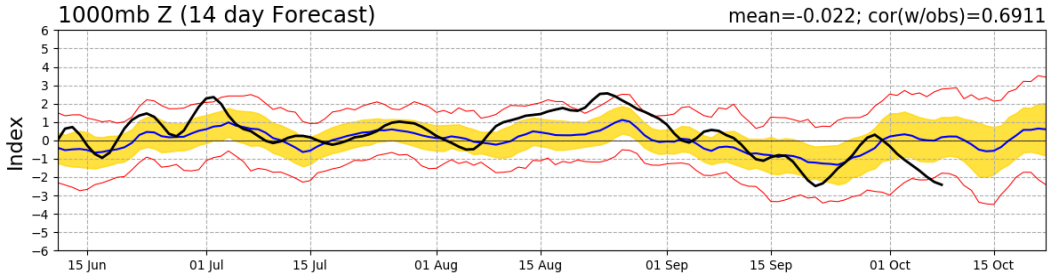


AO Index: Observed & GEFS Forecasts

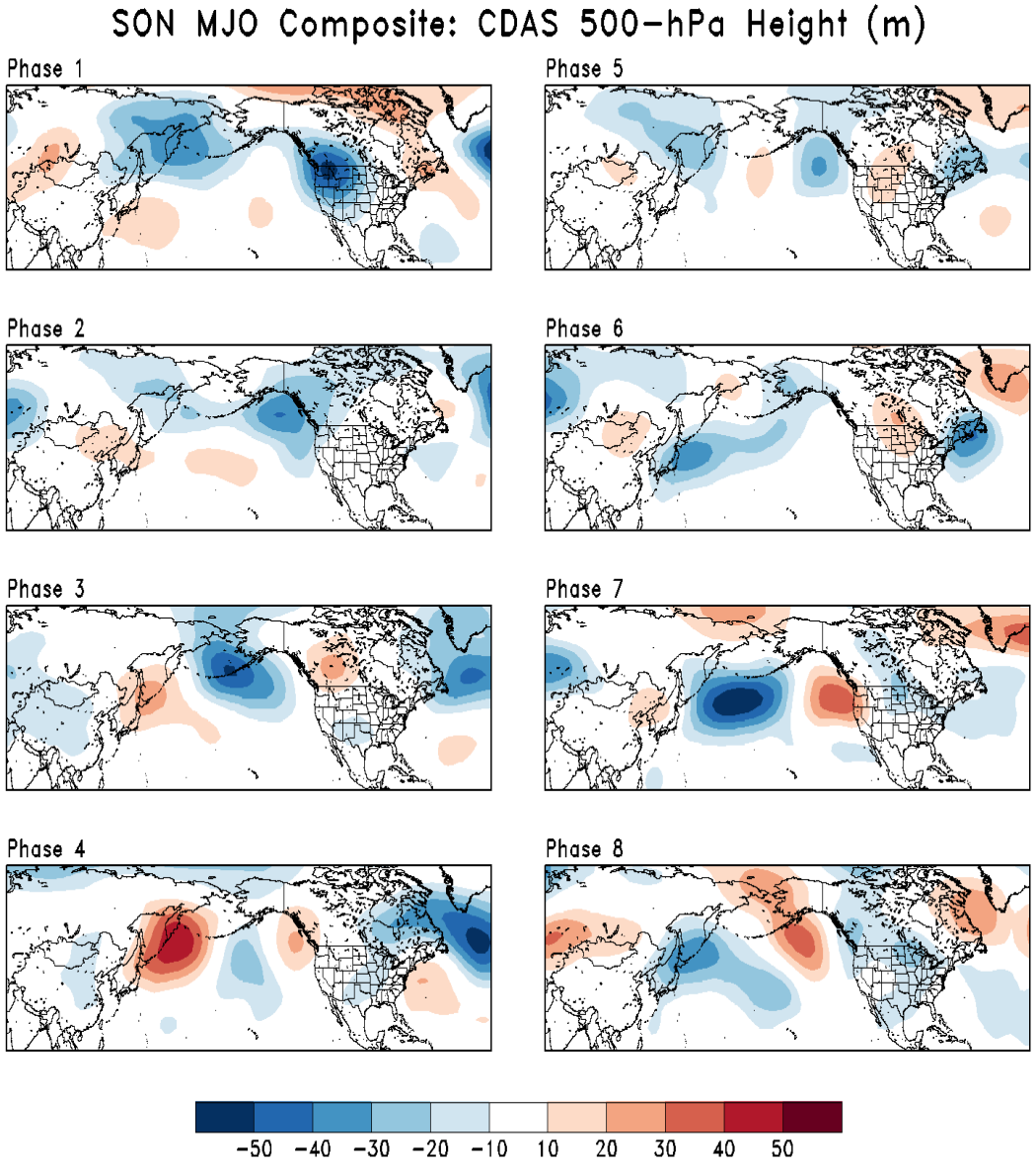


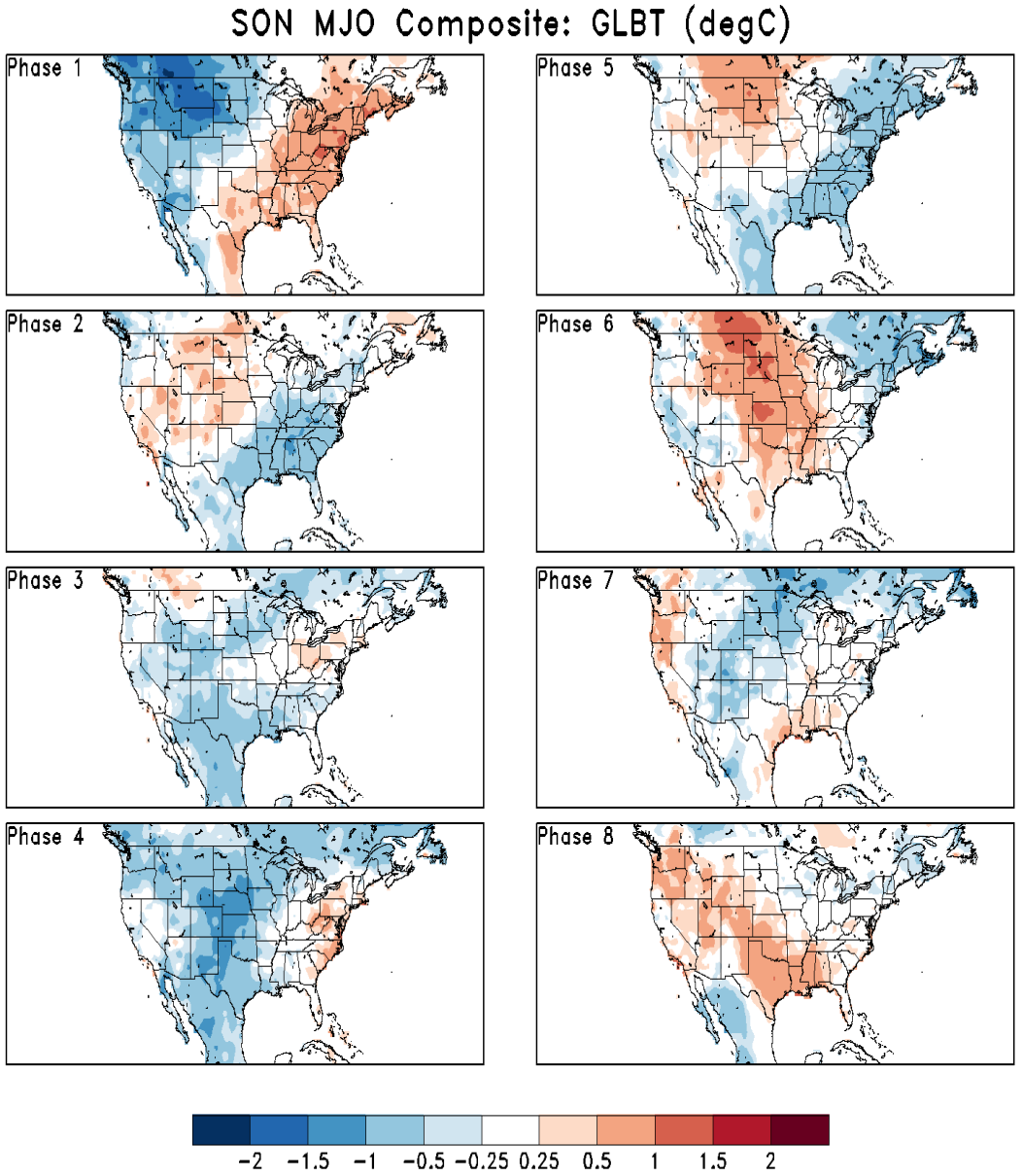




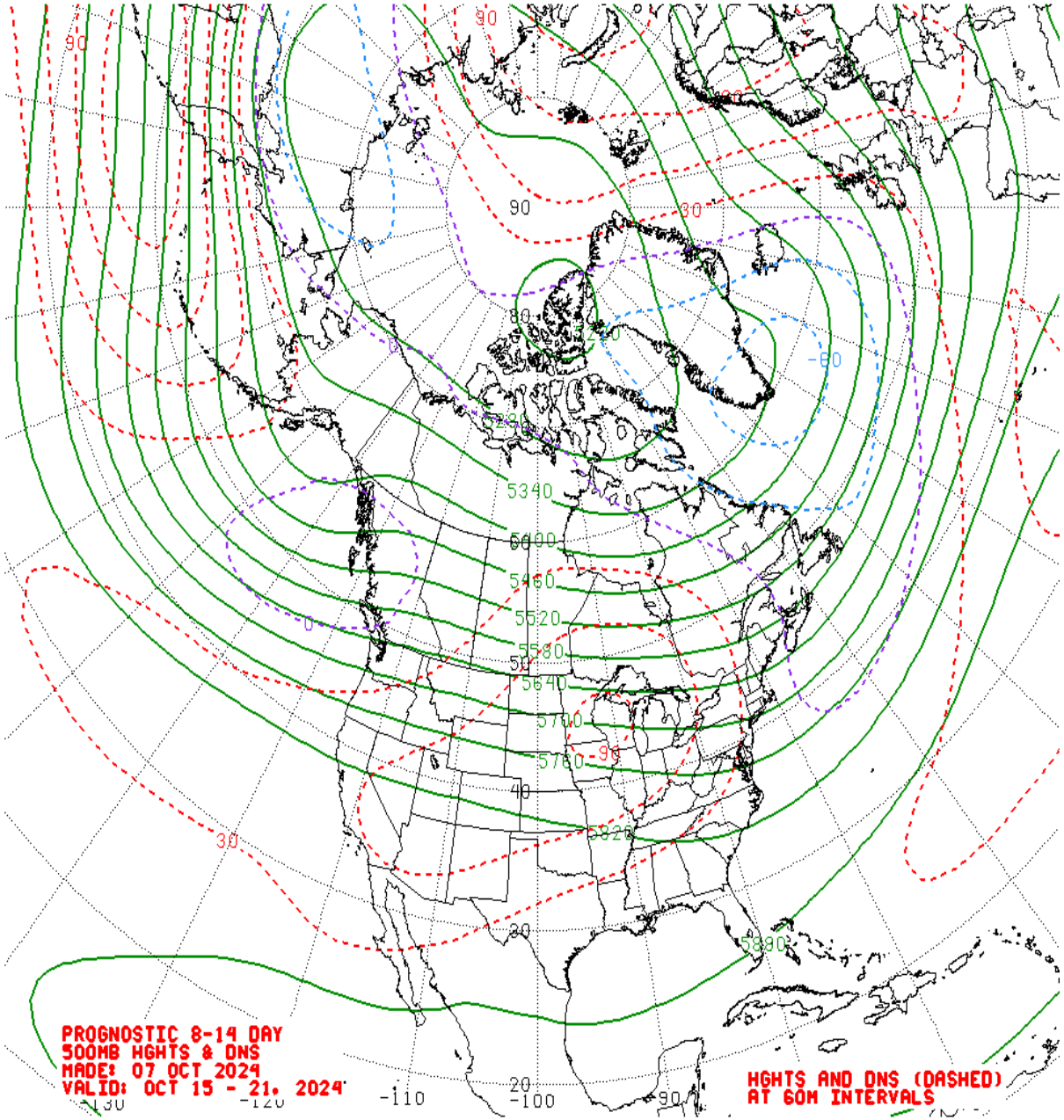


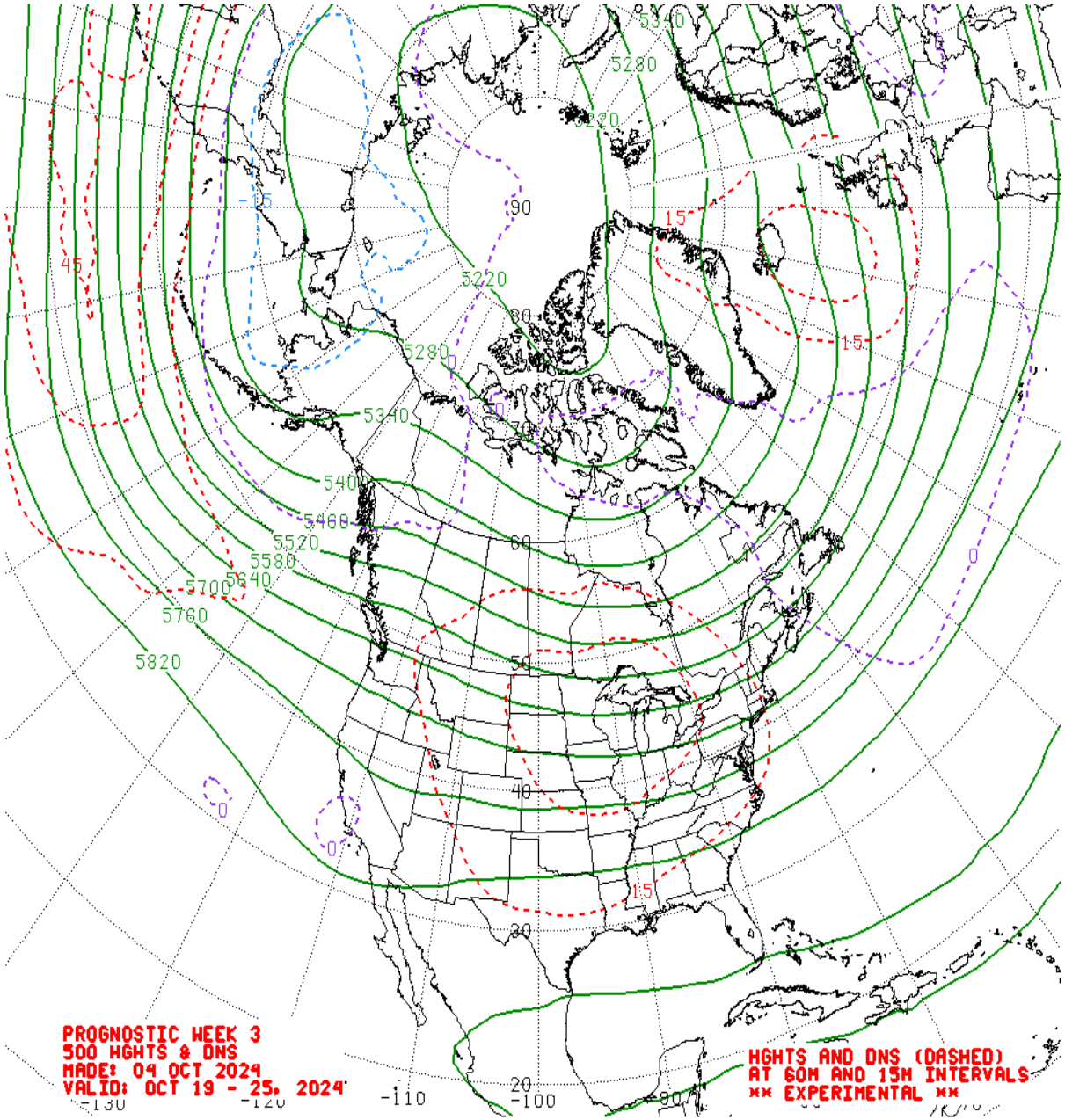
Historical 500-hPa Height & U.S. Temperatures By MJO Phase:



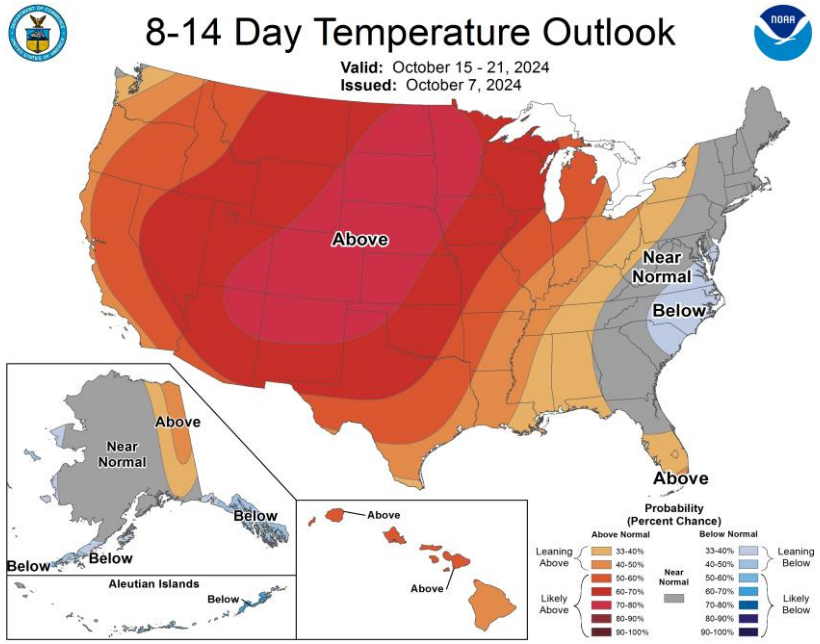


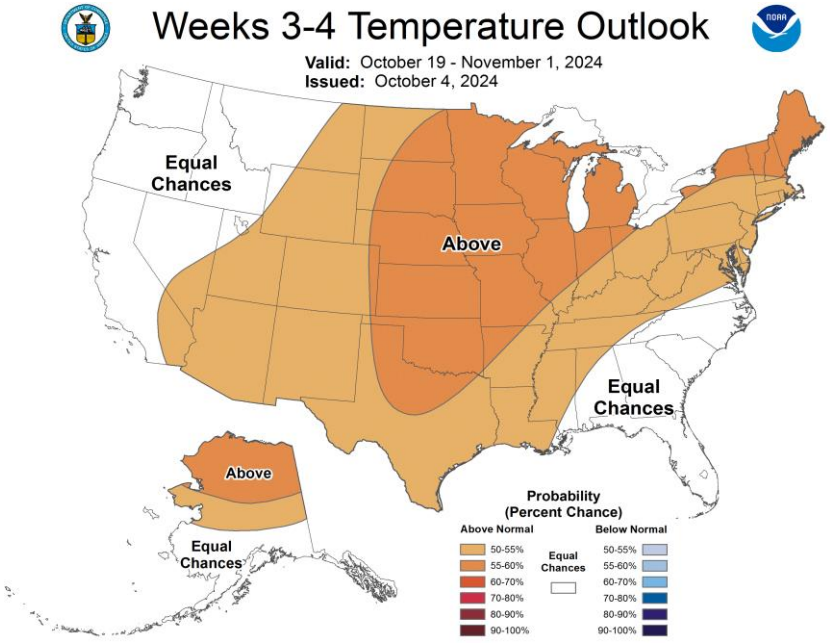
Mean 500-hPa Height Anomaly Forecasts: Weeks 2+3

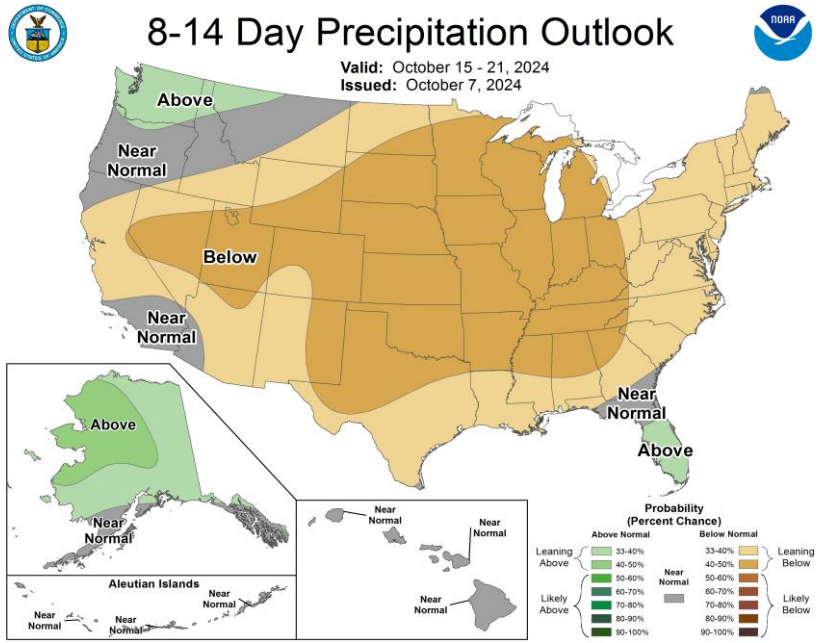


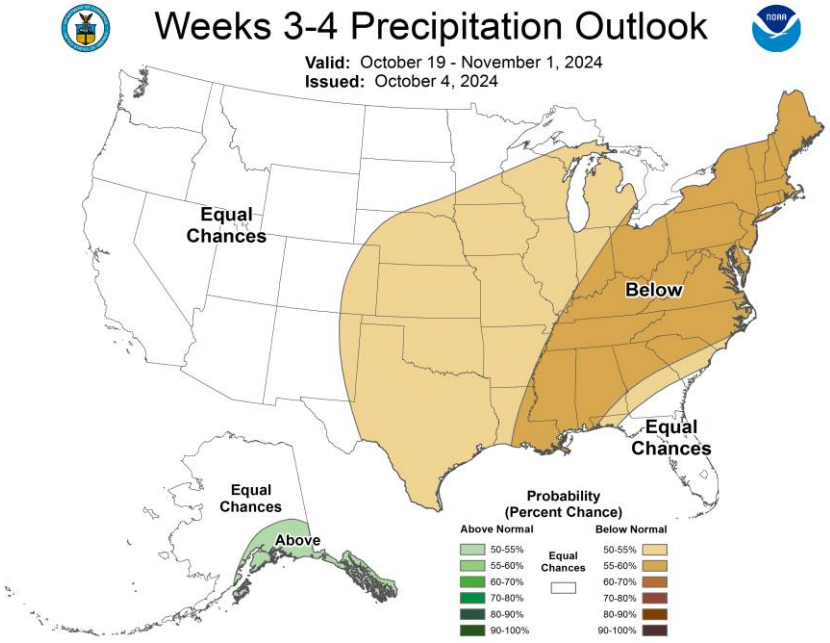


Official Temperature & Precipitation Forecasts:





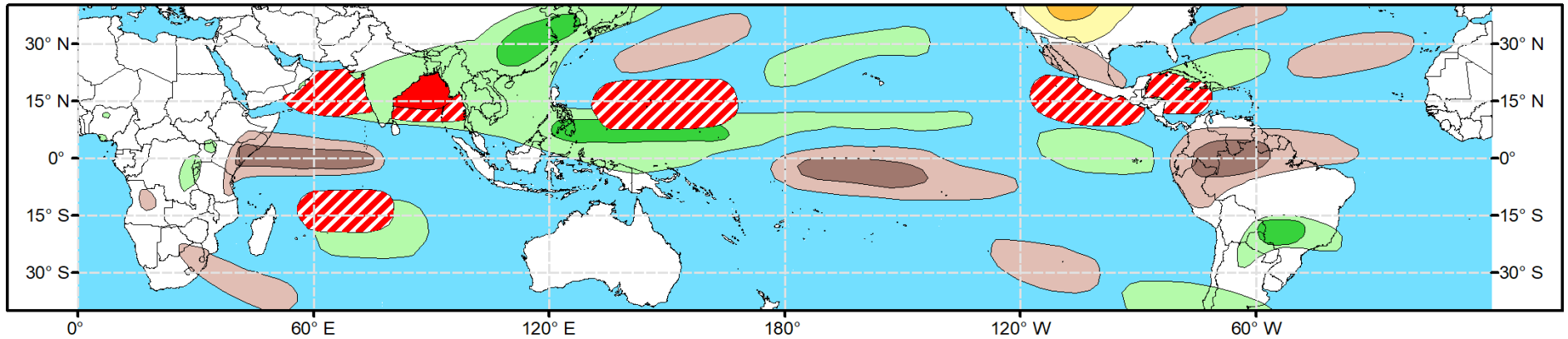




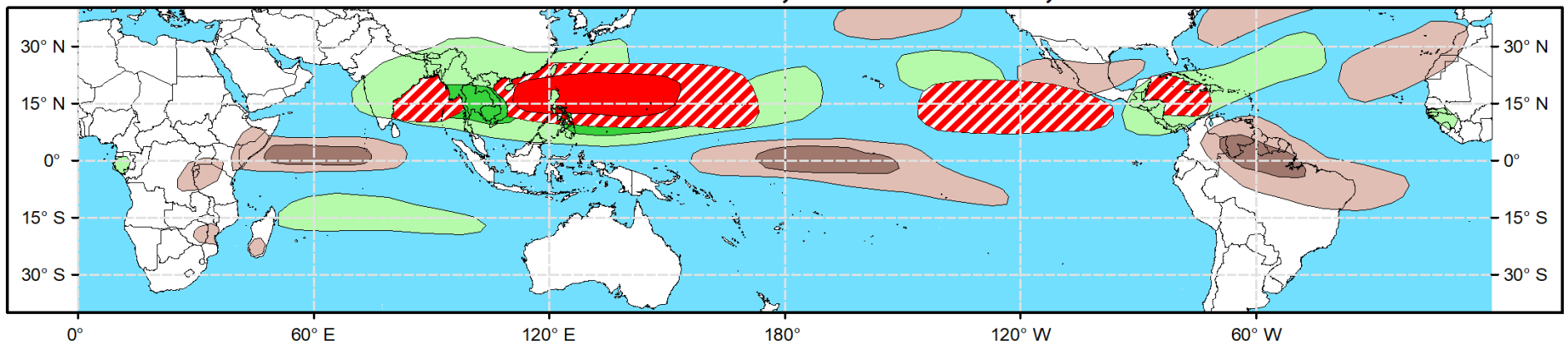
Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Oct 16, 2024 - Oct 22, 2024



Week 3 - Valid: Oct 23, 2024 - Oct 29, 2024



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

>50% >65% >80%

Weekly total rainfall in the Lower third of the historical range

Above-Average Temperatures Probability

>50% >65% >80%

7-day max temperatures in the Upper third of the historical range

Below-Average Temperatures Probability

>50% >65% >80%

7-day min temperatures in the Lower third of the historical range

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