Weeks 2-3 Global Tropics Hazards Outlook

11/29/2022

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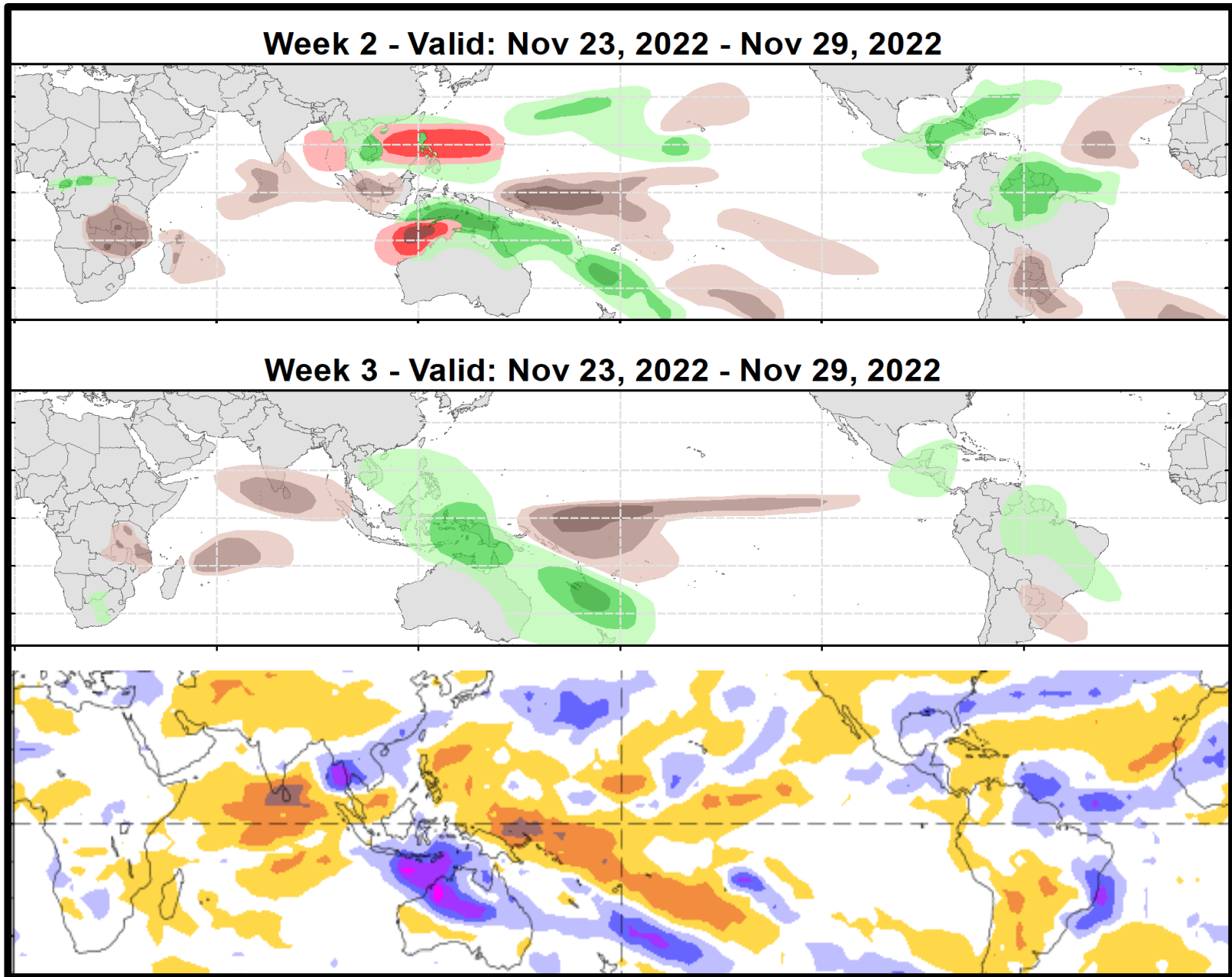
NWS / NCEP / Climate Prediction Center

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

- No TCs in the last week, organized convection occurred over Western Pacific, Bay of Bengal and Southern Indian Ocean



Synopsis of Climate Modes:

ENSO: (Nov 10, 2022 Update) ***next update on Thursday, Dec 8th***

- ENSO Alert System Status: La Niña Advisory

- La Niña is expected to continue, with chances for La Niña gradually decreasing from 76% in the coming season to 57% of ENSO-neutral during Feb-Apr 2022-23.

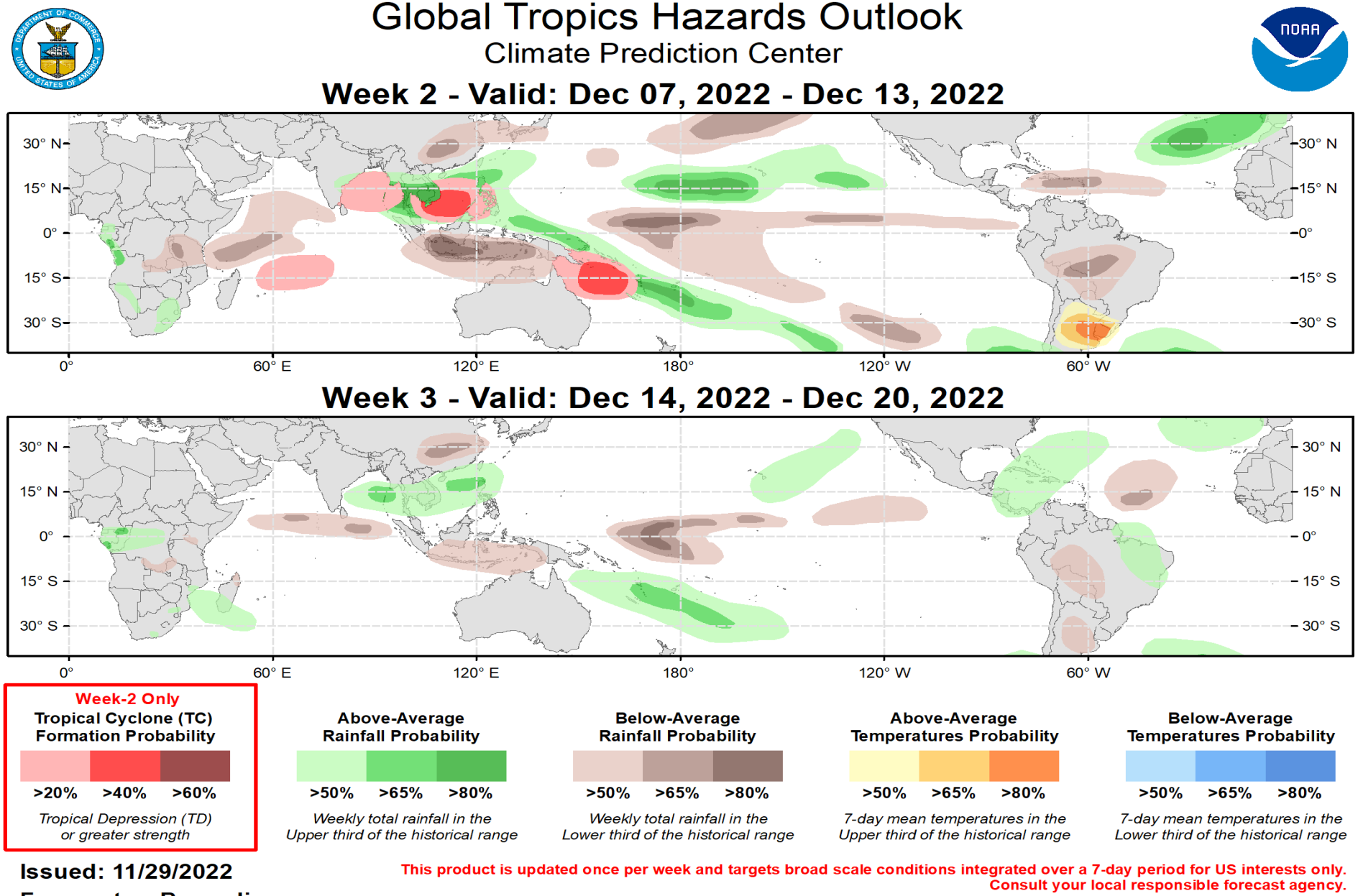
MJO and other subseasonal tropical variability:

•The RMM index indicates the MJO has increased in amplitude over the last week and the signal has continued to steadily propagate eastward across the Western Pacific.

•There is generally good agreement among the dynamical model RMM forecasts favoring the MJO to remain coherent but weaken as it moves across the Western Hemisphere and into the Indian Ocean during week 2. Model solutions diverge considerably in phase speed and amplitude at the week 3 timeframe.

•Strong La Nina base state will continue provide a favorable environment for tropical cyclone (TC) genesis around the Maritime Continent for both weeks 2 and 3.

GTH Outlook:


Global Tropics Hazards Outlook
Climate Prediction Center
Week 2 - Valid: Dec 07, 2022 - Dec 13, 2022
Week 3 - Valid: Dec 14, 2022 - Dec 20, 2022
30° N
15° N
0°
15° S
30° S
0°
60° E
120° E
180°
120° W
60° W
Week-2 Only
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>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
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7-day mean temperatures in the Upper third of the historical range
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Forecaster: Barandiaran
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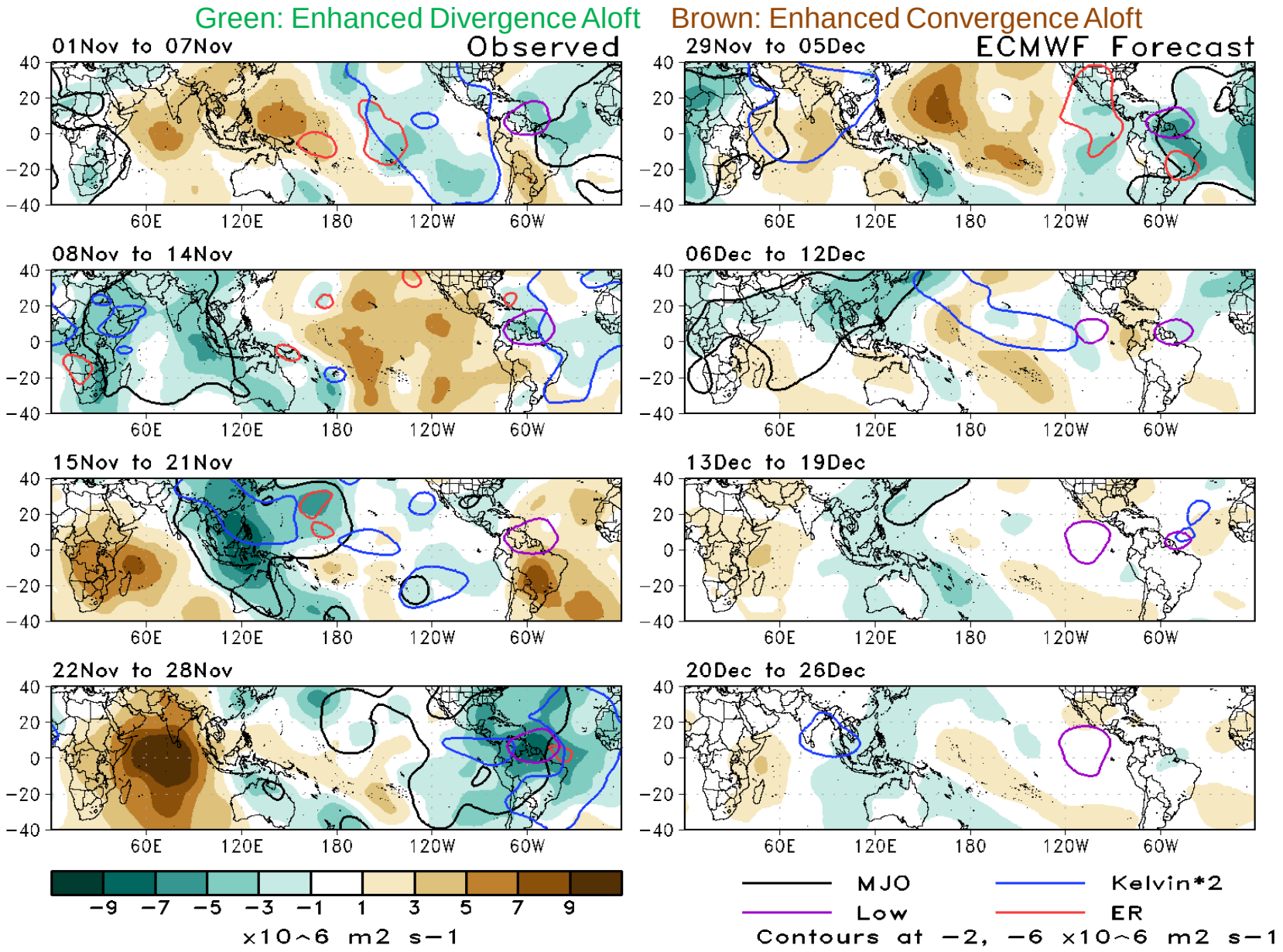
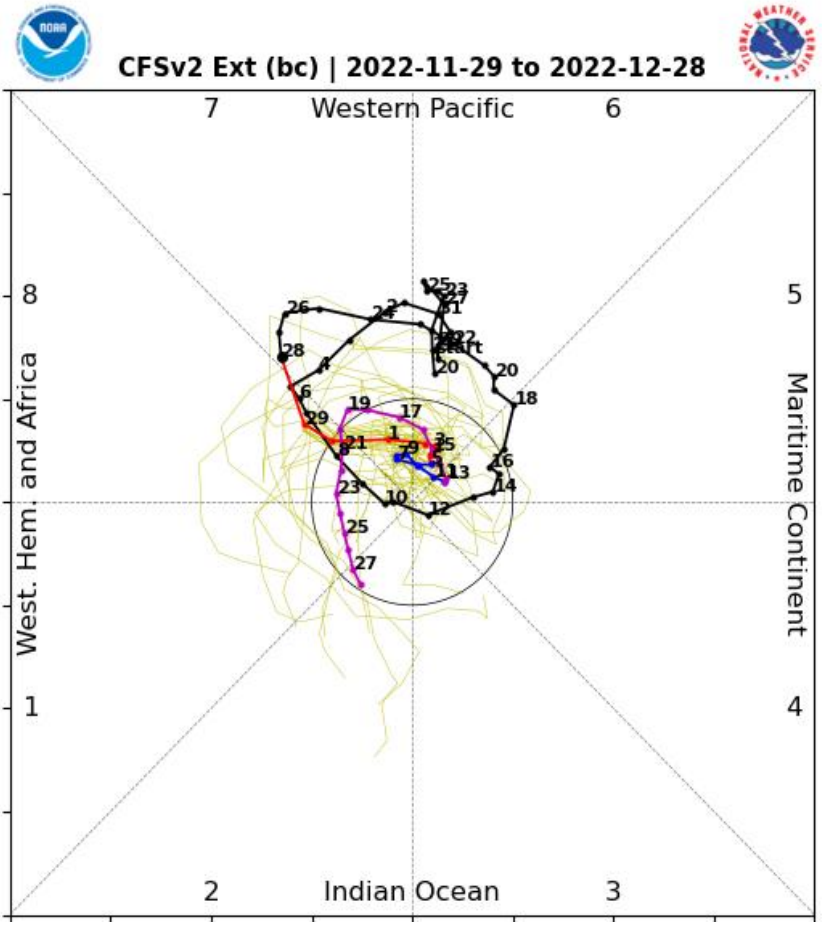
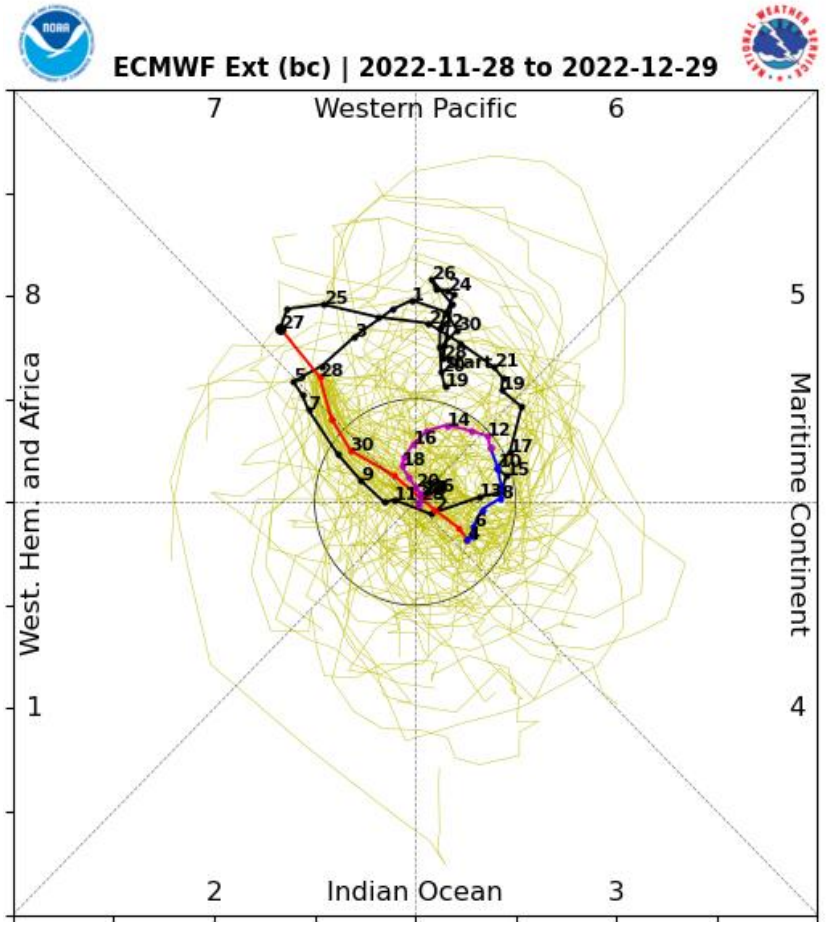
200-hPa Velocity Potential Anomaly Maps:

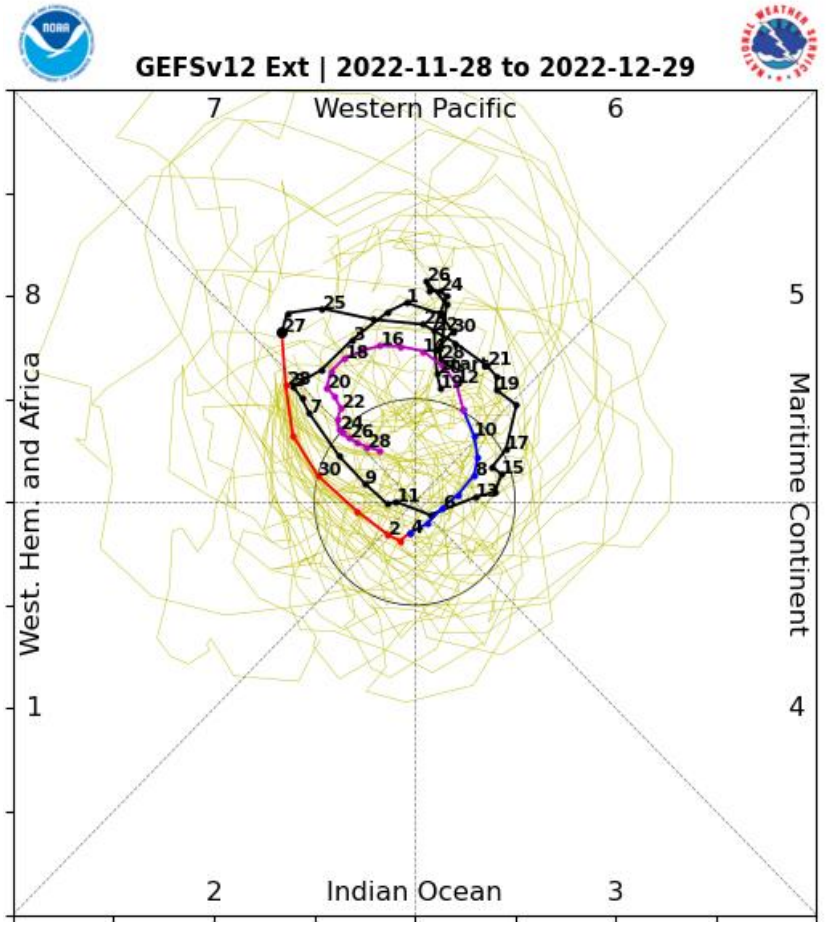
- Convective envelope moves over Atlantic Ocean during week-1, while suppressed convection covers much of the Pacific.
- Enhanced convection continues eastward propagation during weeks 2 and 3, albeit weaker compared to week 1.



RMM Index Observations & Forecasts:

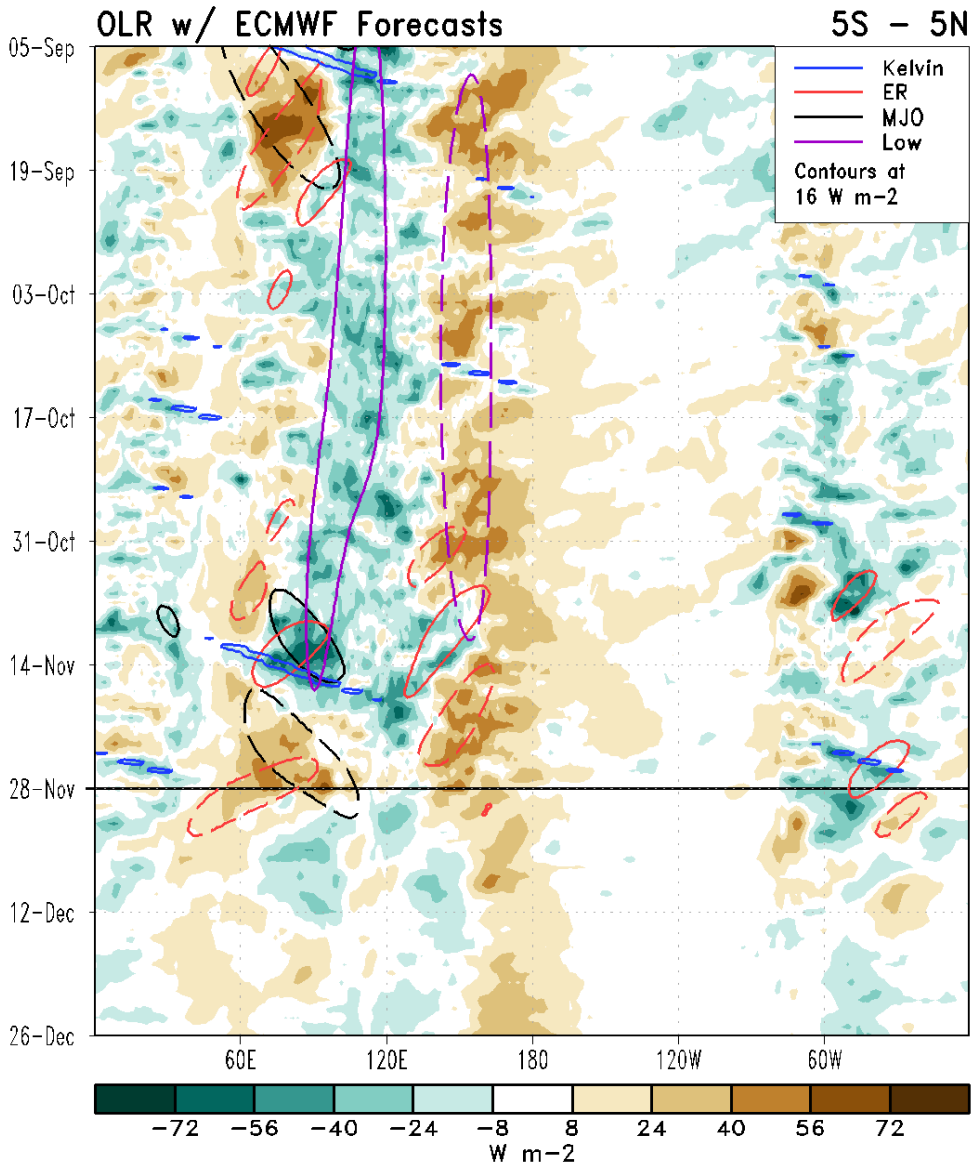


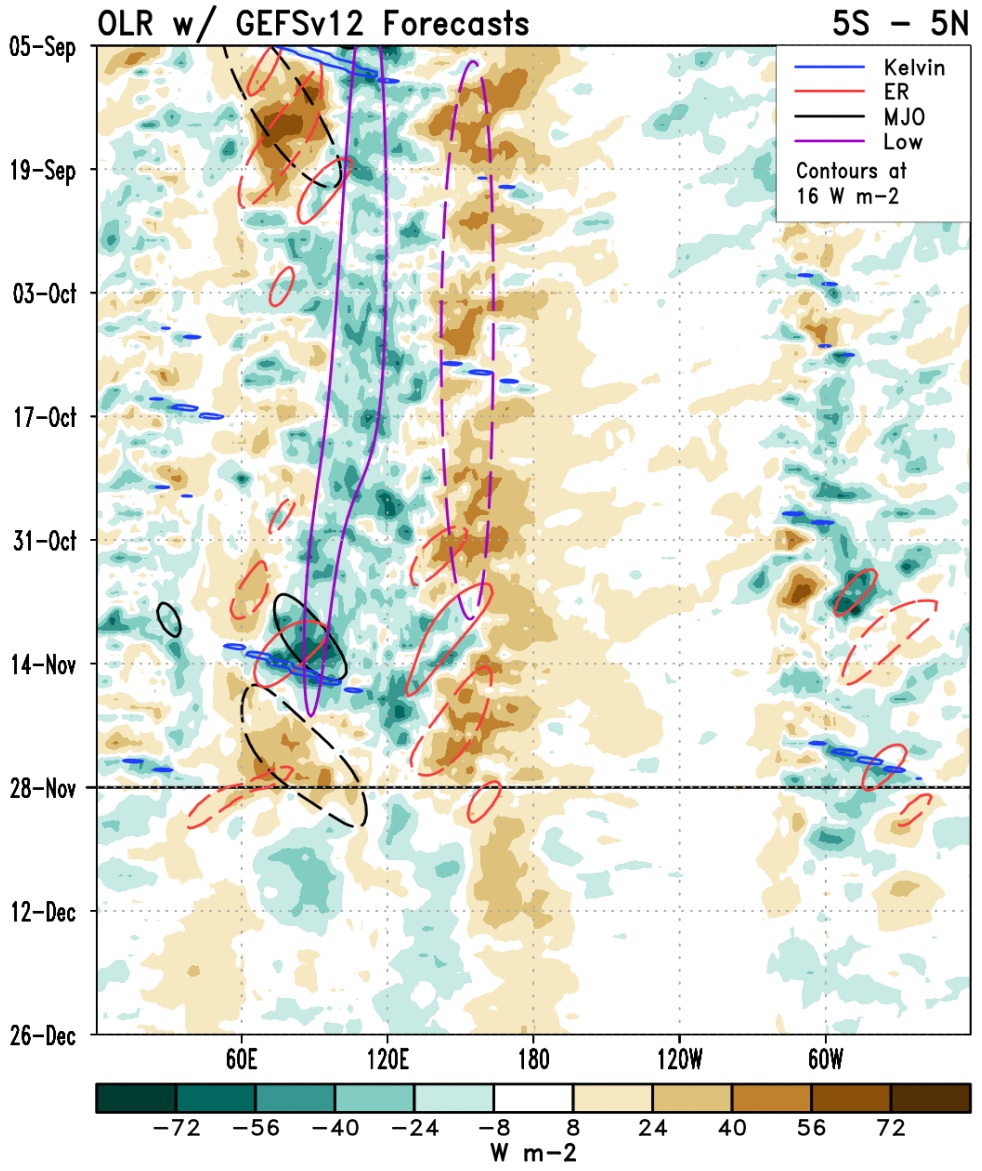




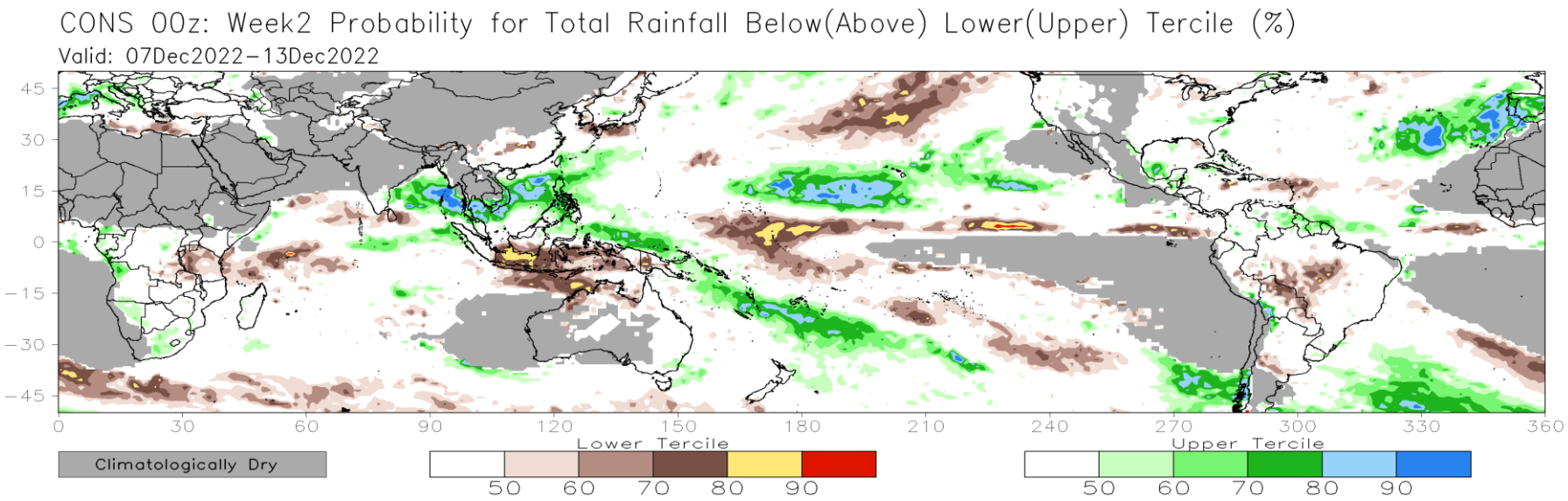
- Majority of dynamical models decrease amplitude of RMM index substantially during week 1 as convective envelope moves towards Africa.
- GEFS and BOMM (not pictured) both favor continued eastward propagation of RMM signal in weeks 2 and 3, while other models diverge on phase speed and amplitude after week 1.

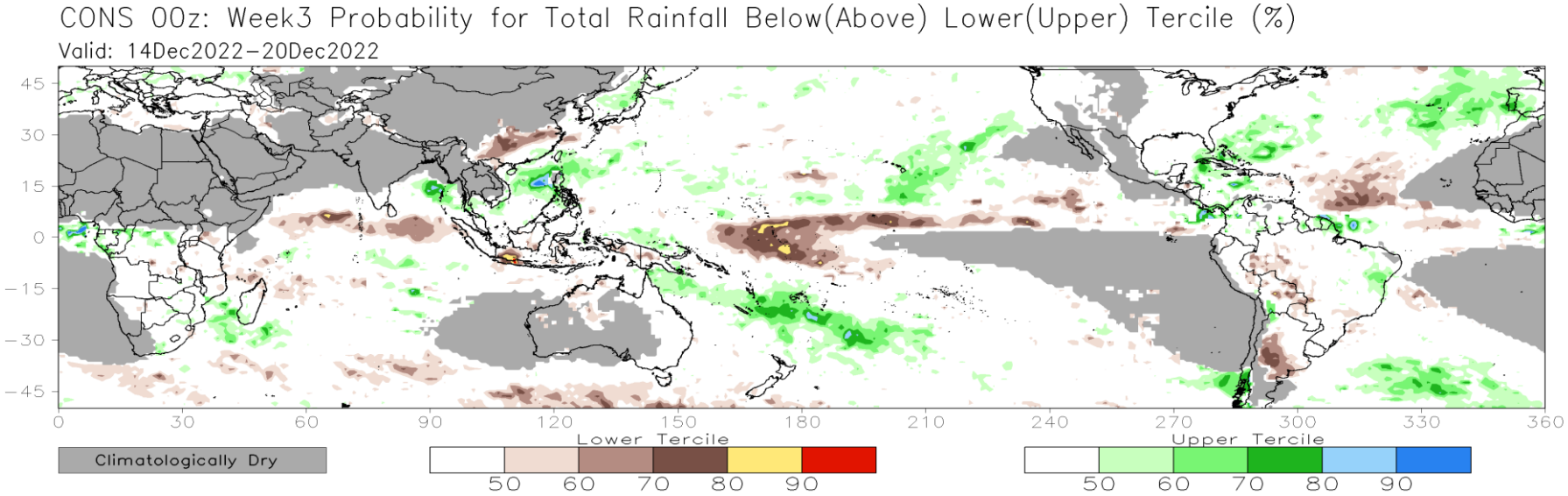
Outgoing Longwave Radiation (OLR) Anomaly Time/Lon Plots:



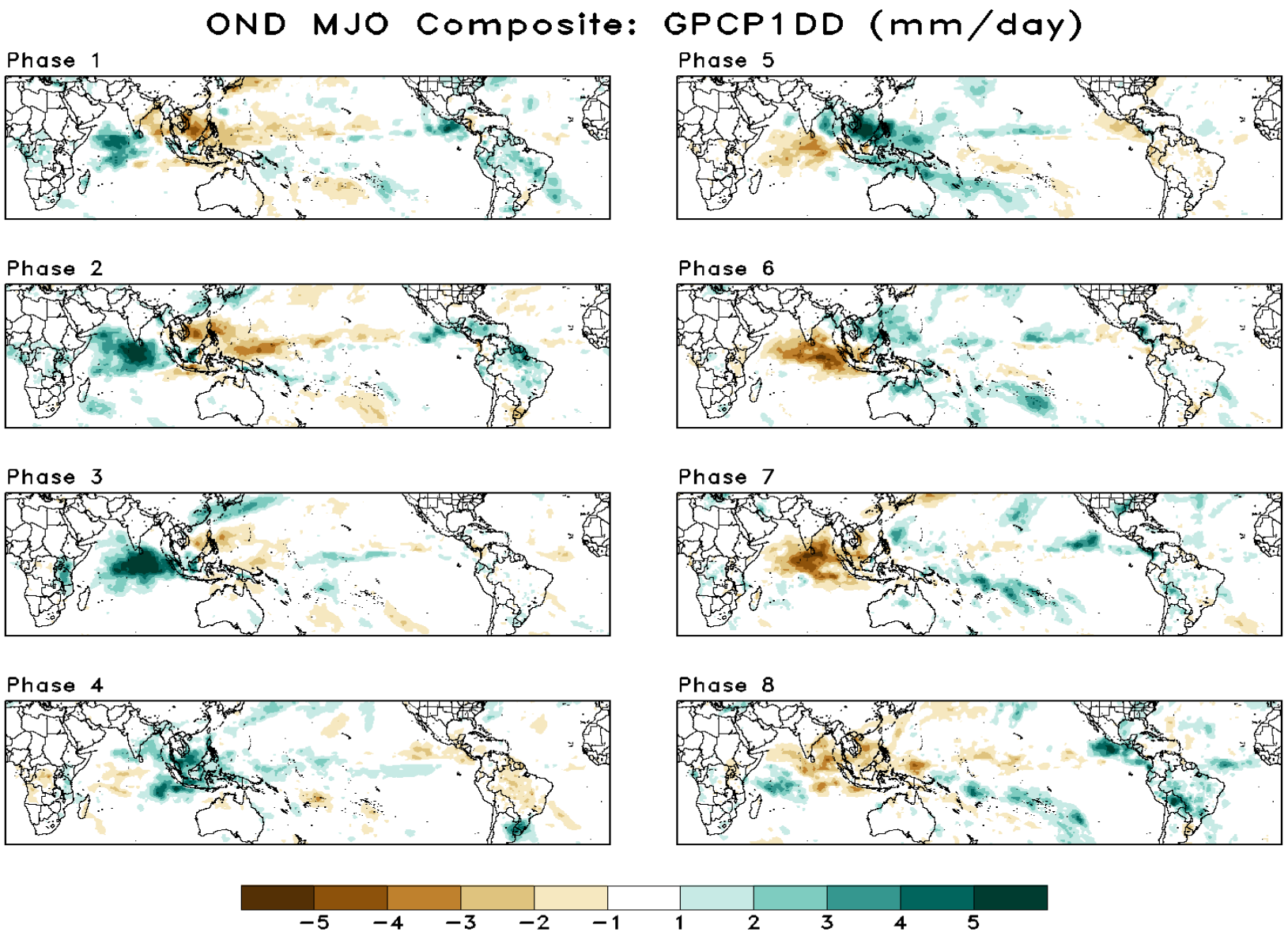


Consolidated Probabilistic Precipitation: Weeks 2 & 3

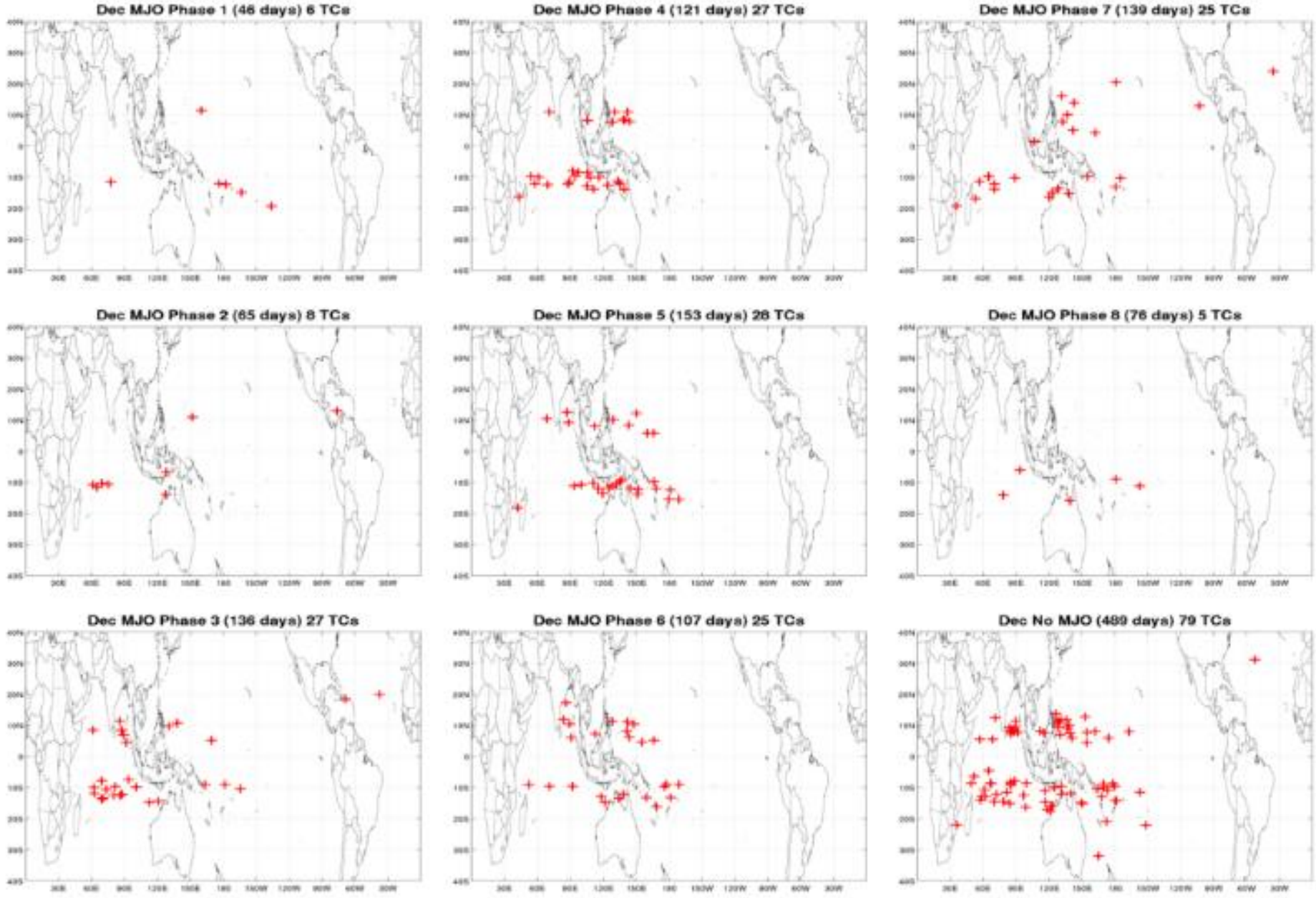




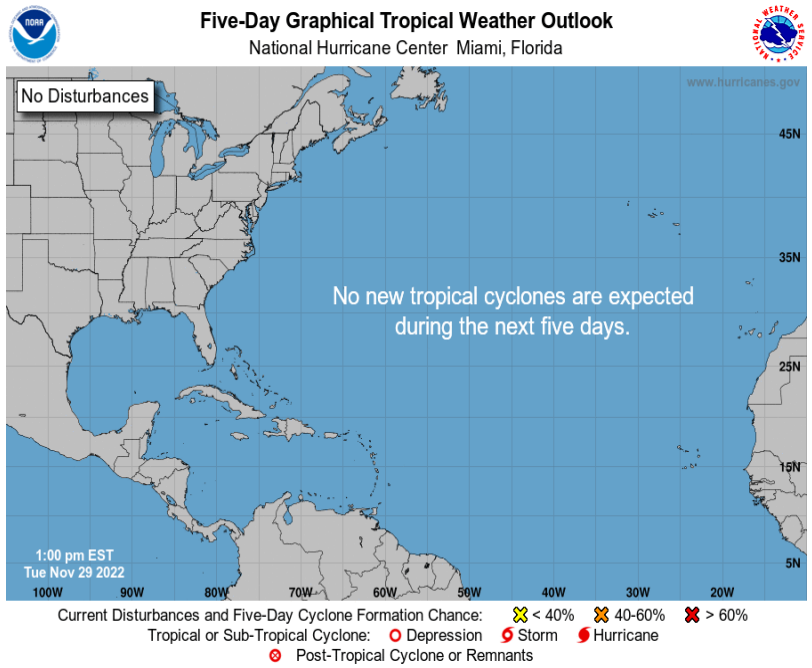
Historical Precipitation Anomalies By MJO Phase:

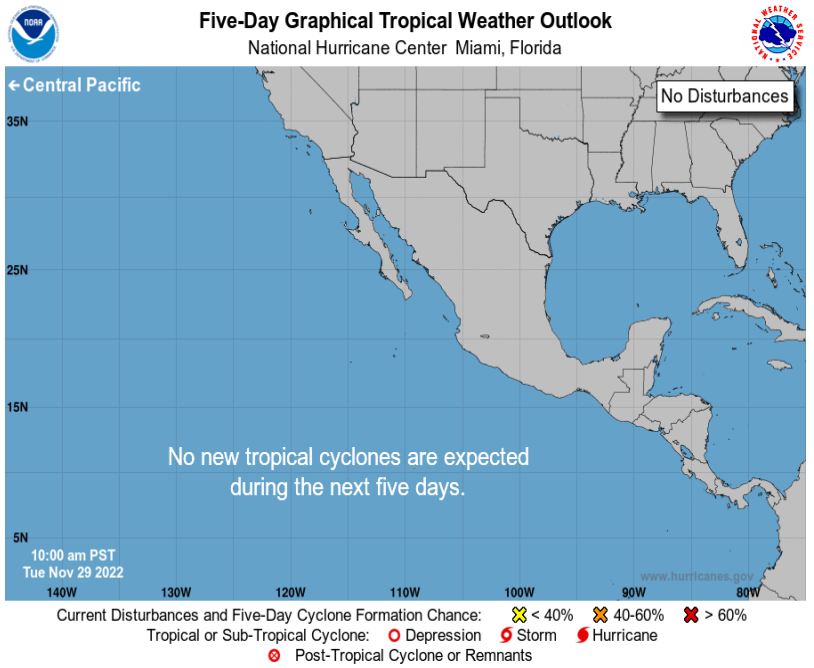


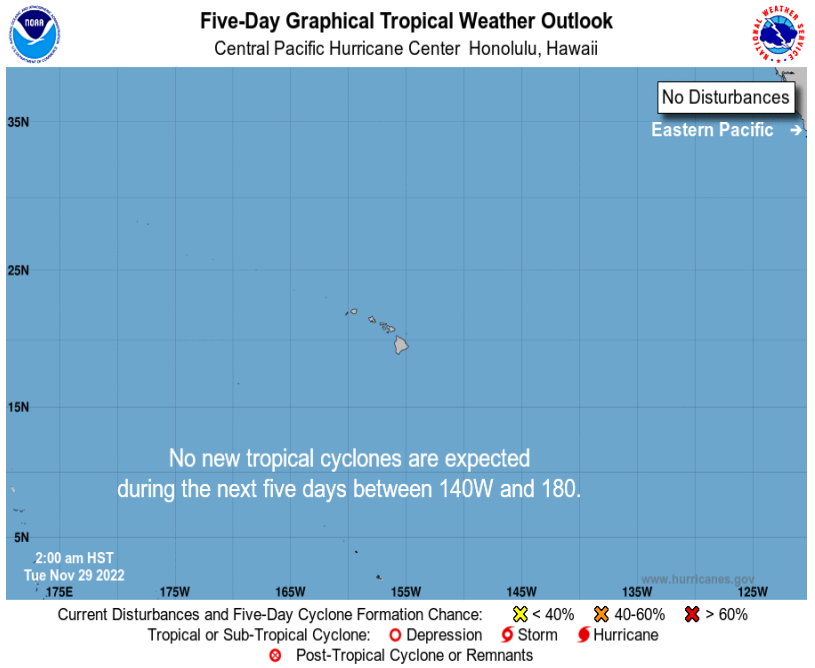
Historical TC Genesis Origins By MJO Phase:



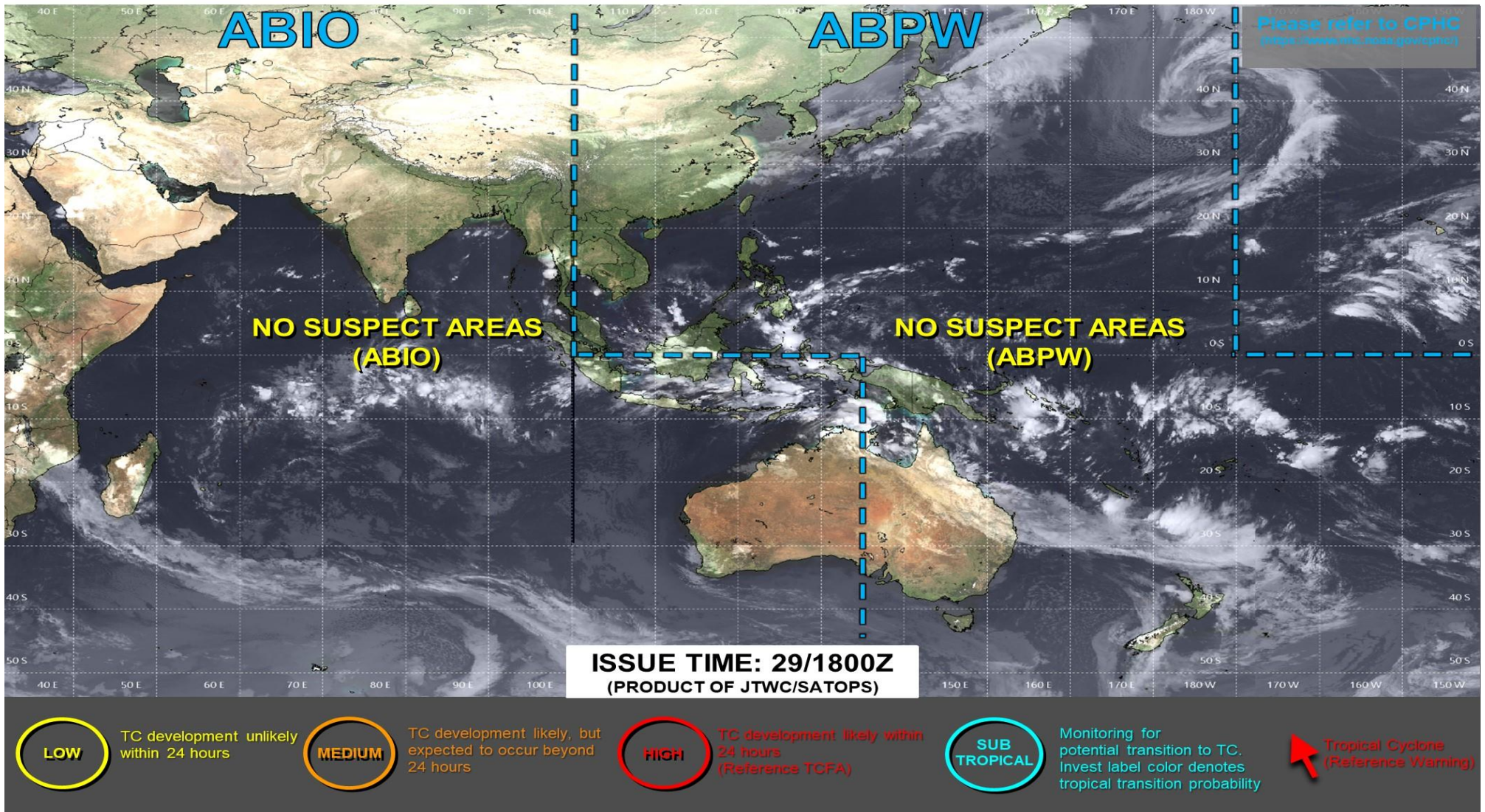
Tropical Cyclone Monitoring/Forecast: NHC



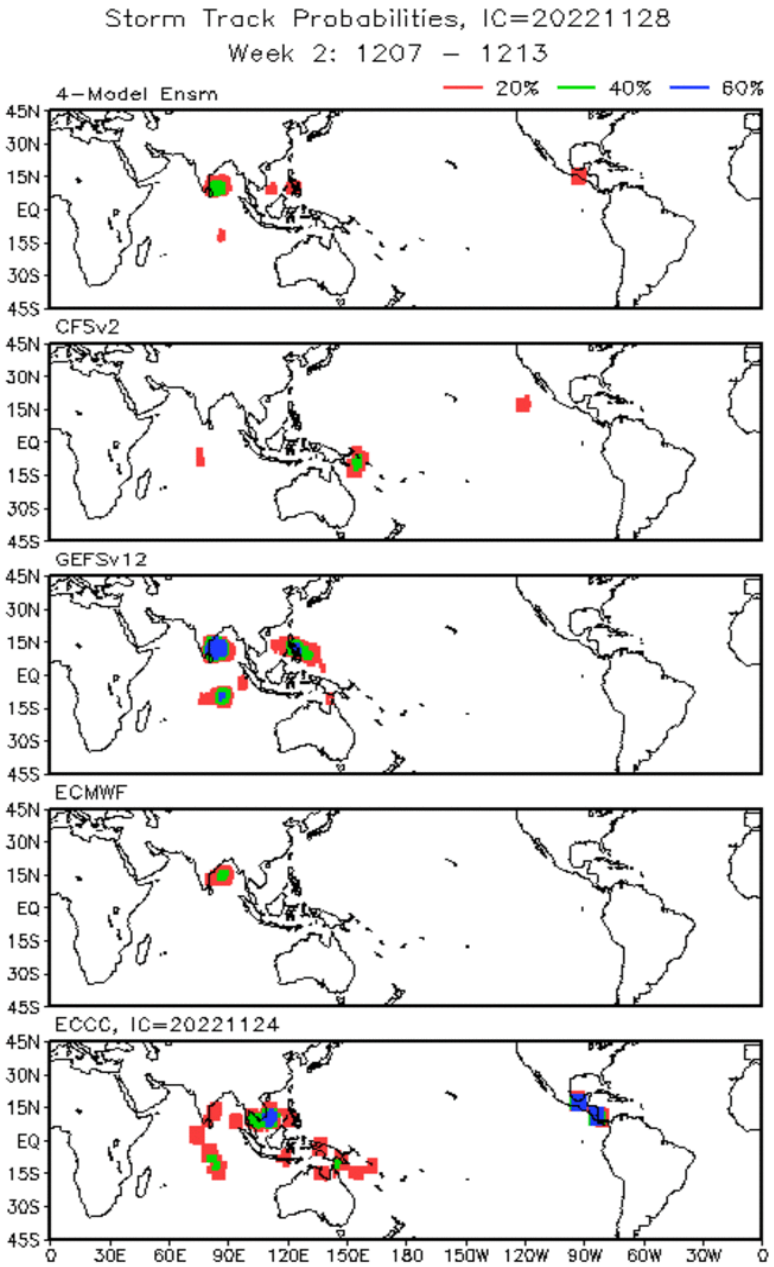


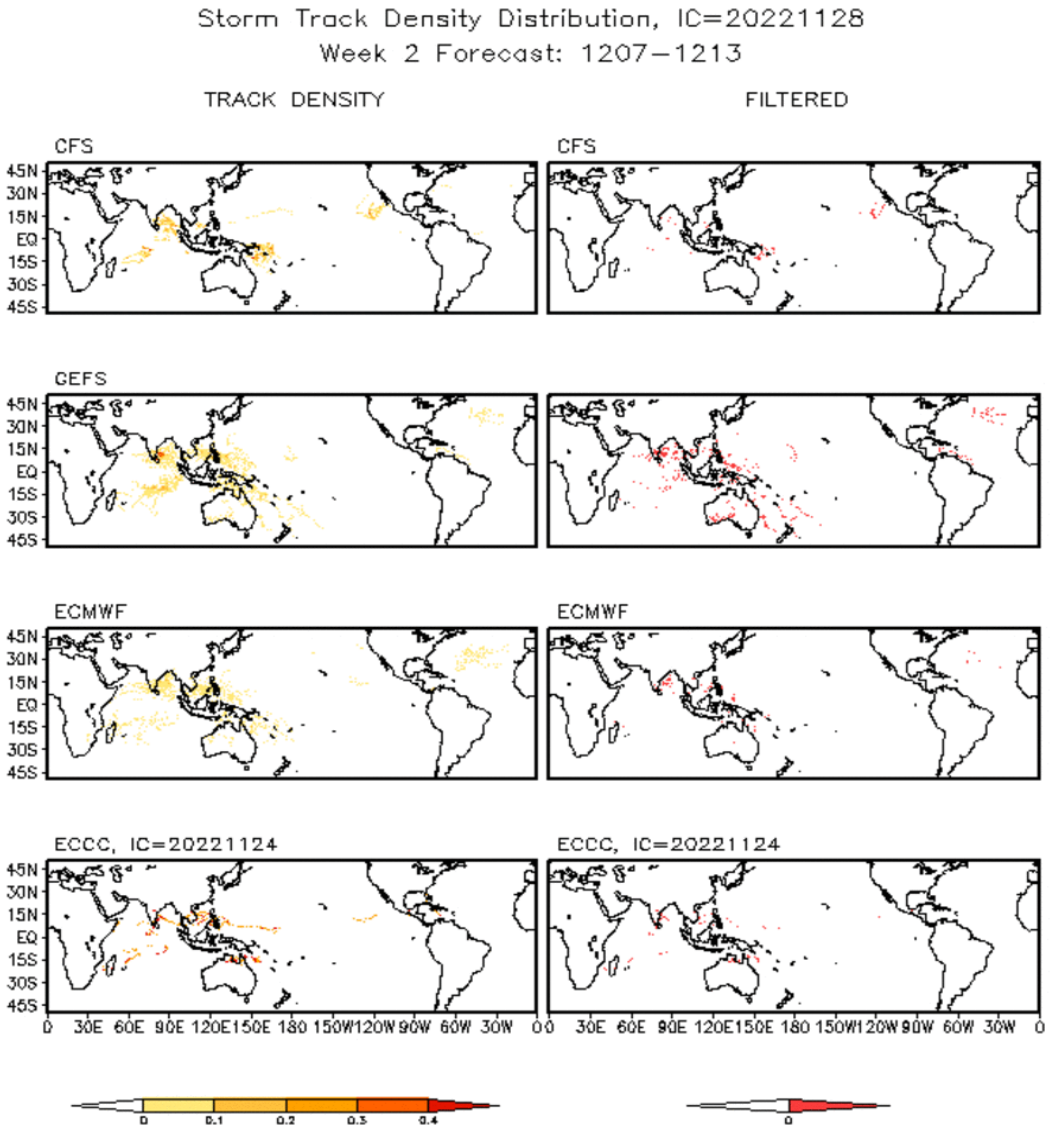


Tropical Cyclone Monitoring/Forecast: JTWC

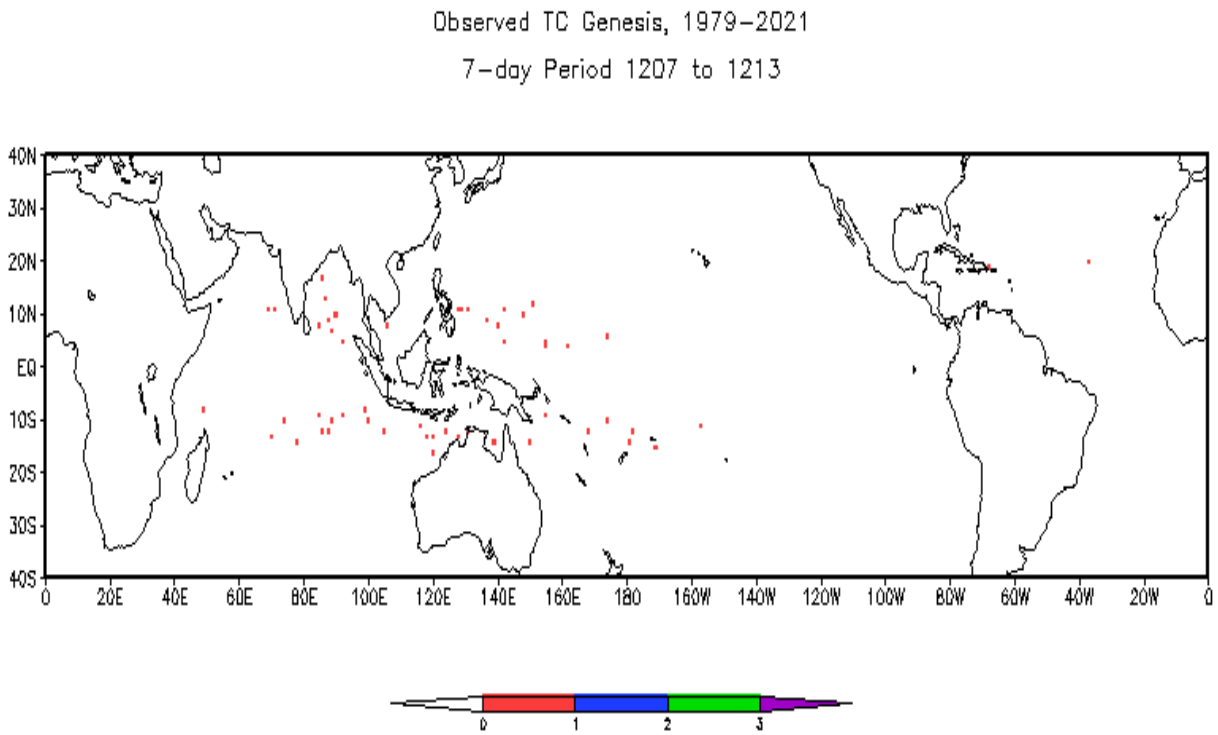


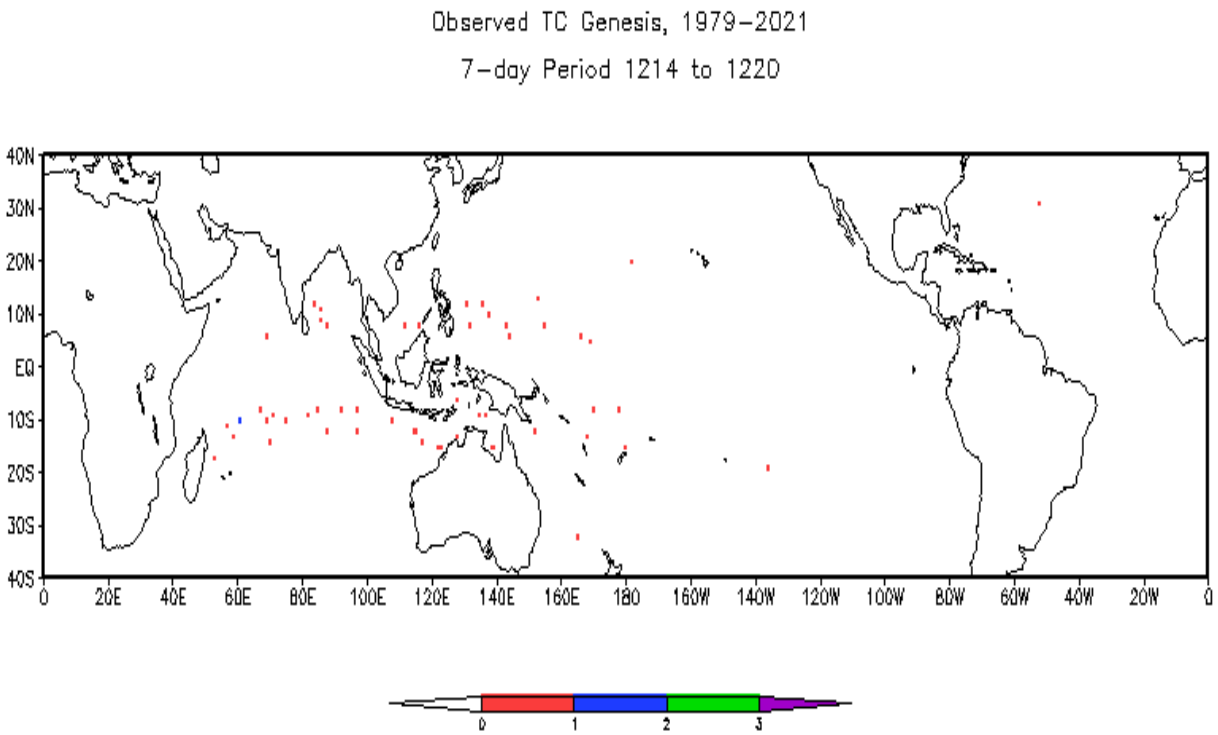
Multi-Model TC Track Probabilities/Densities: Week-2





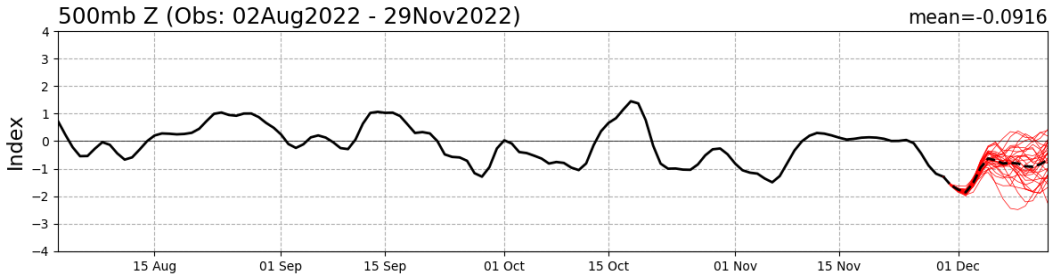
TC Climatological Genesis: Weeks 2 & 3

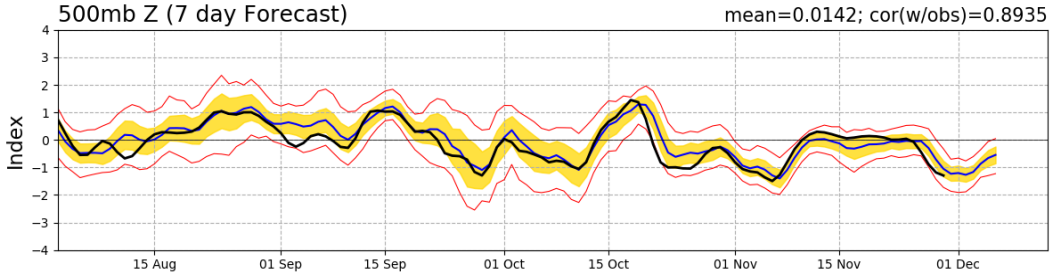


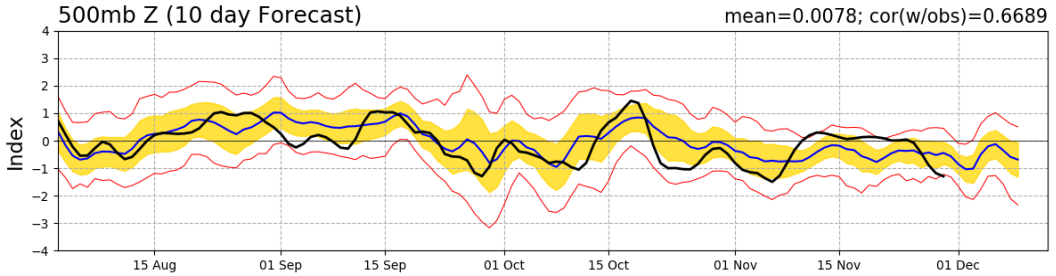


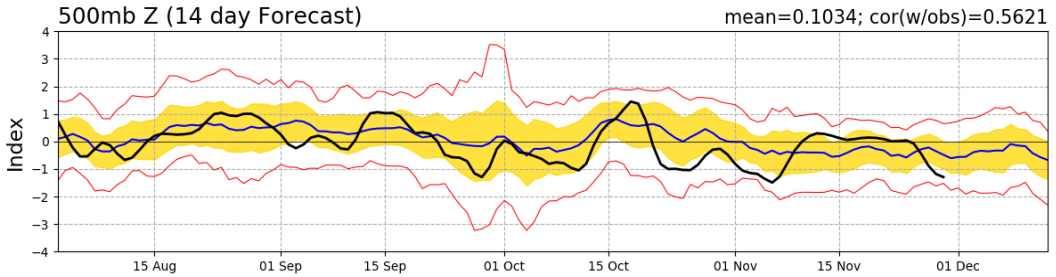
Teleconnection Indices: PNA / AO:

PNA Index: Observed & GEFS Forecasts

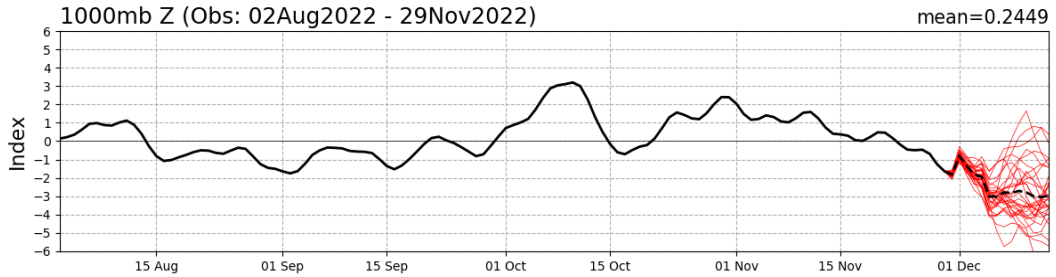


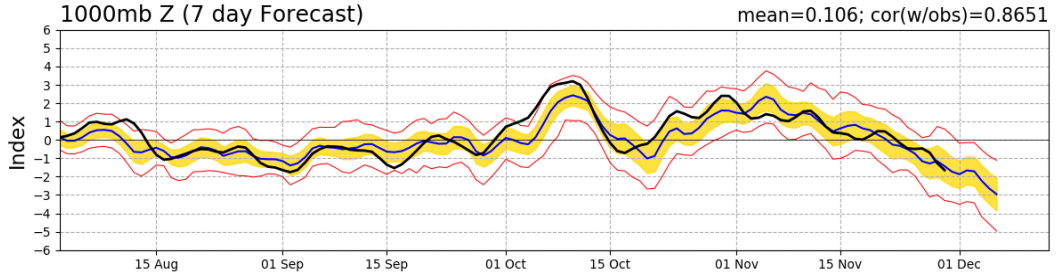


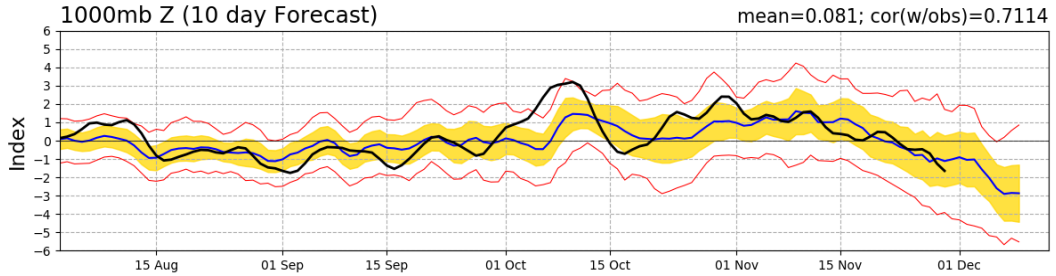


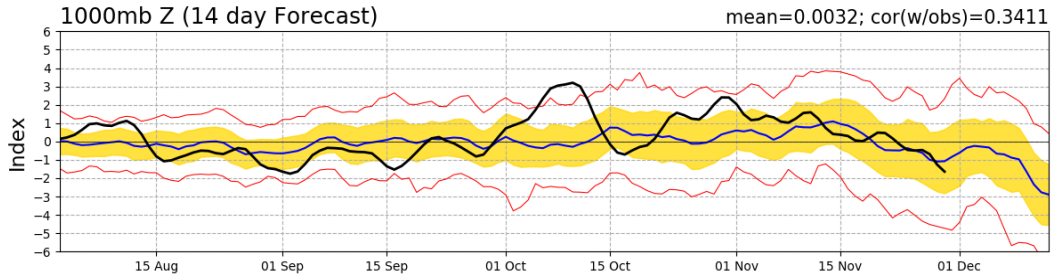


AO Index: Observed & GEFS Forecasts

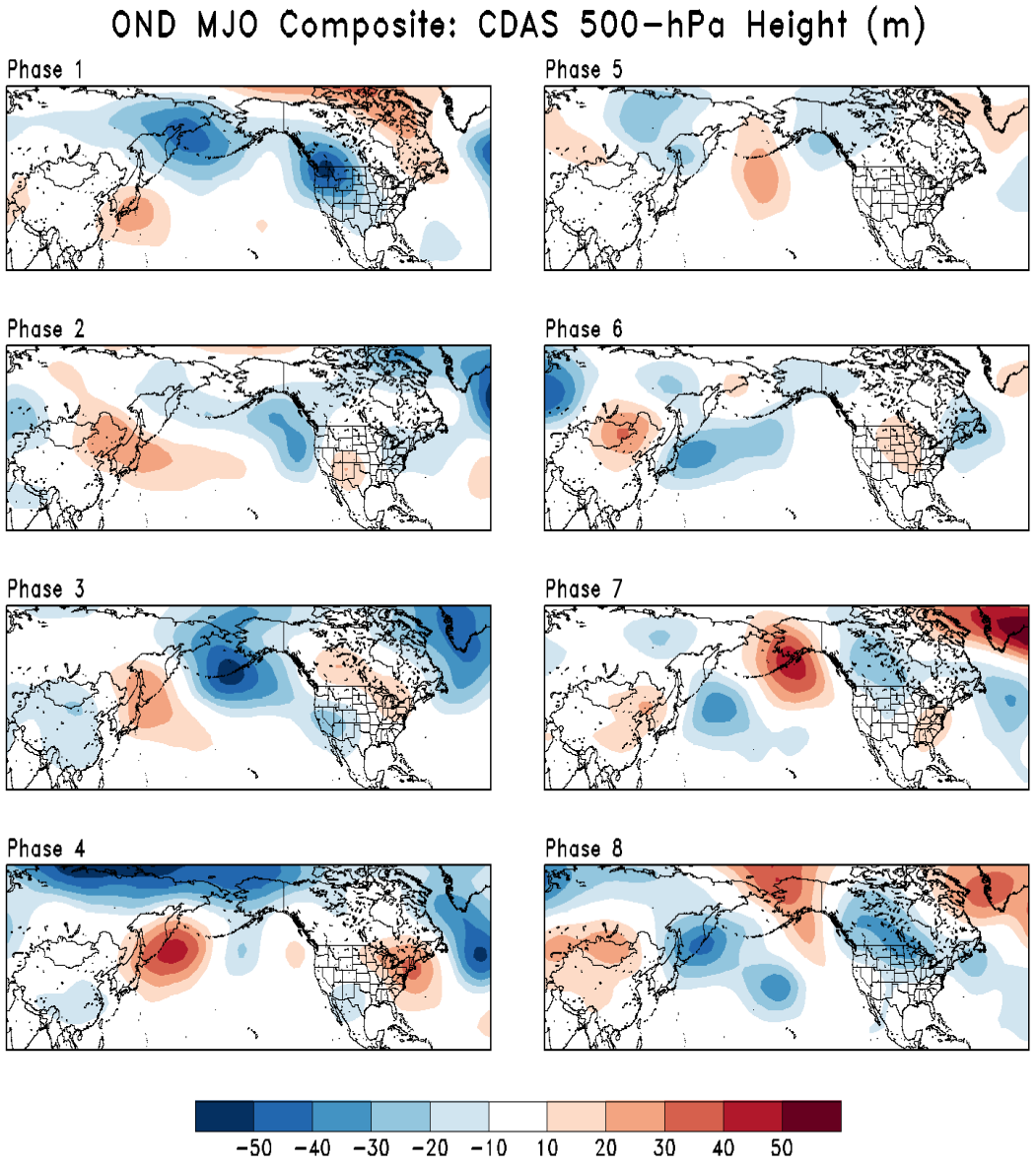


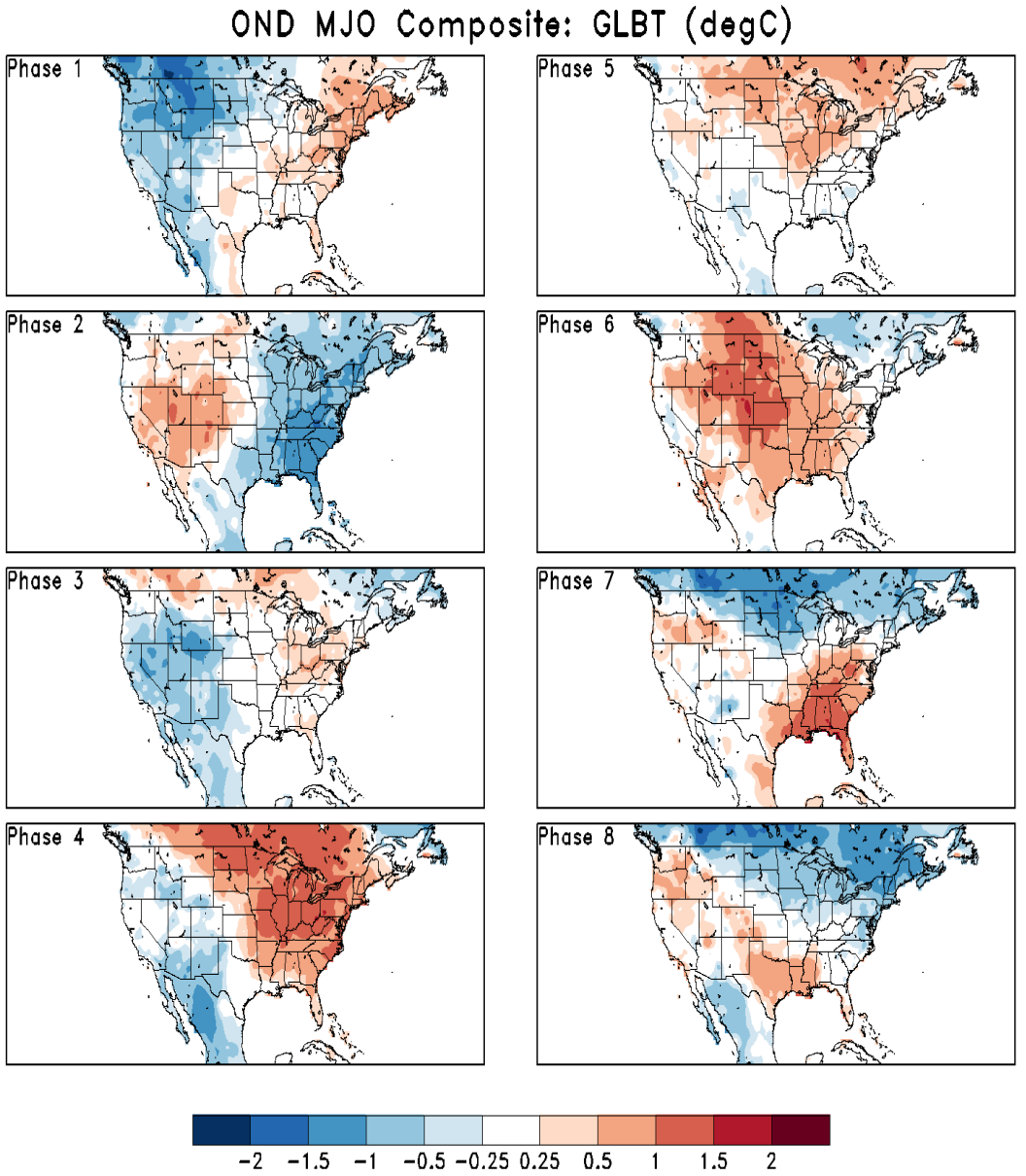




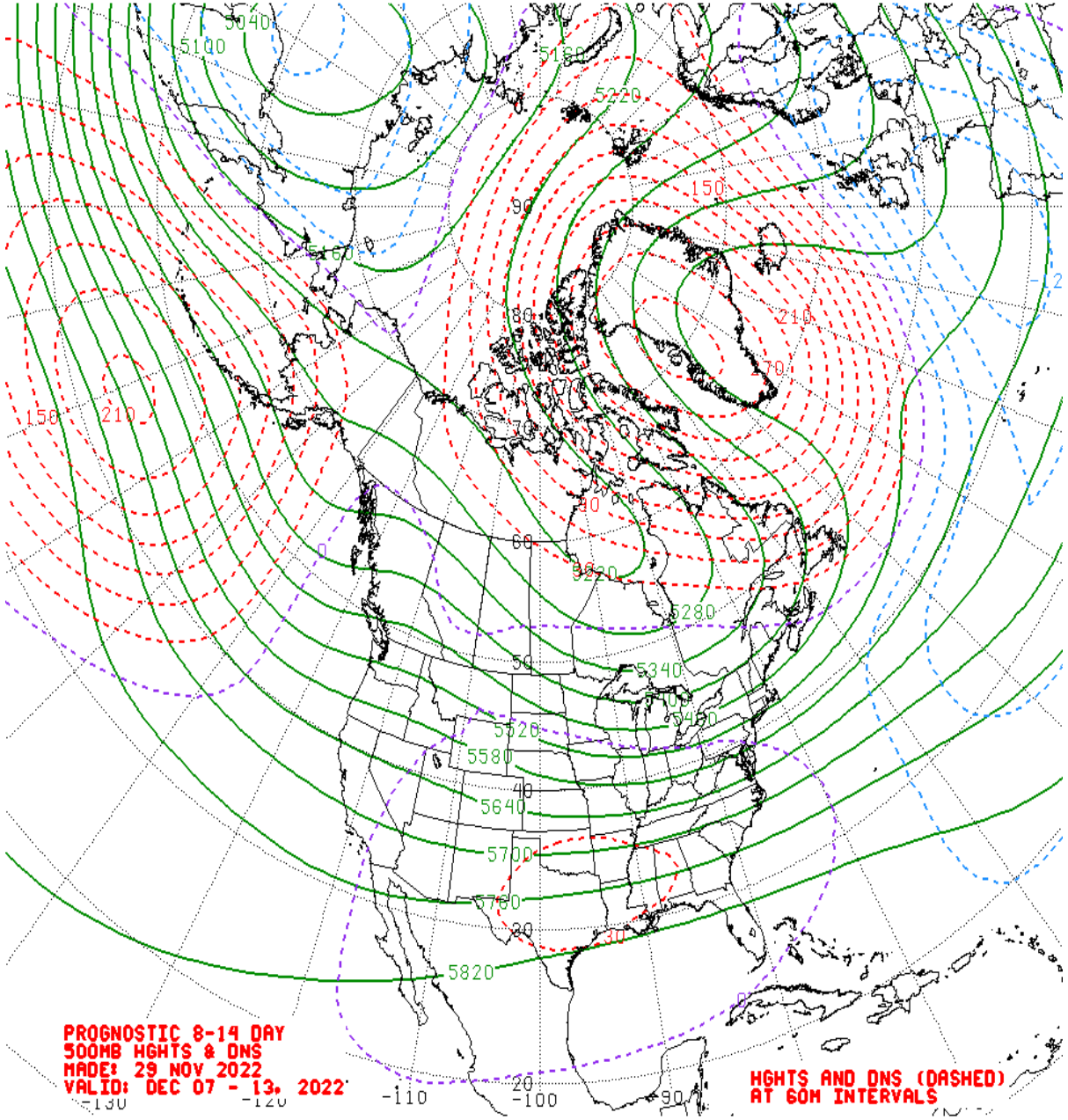


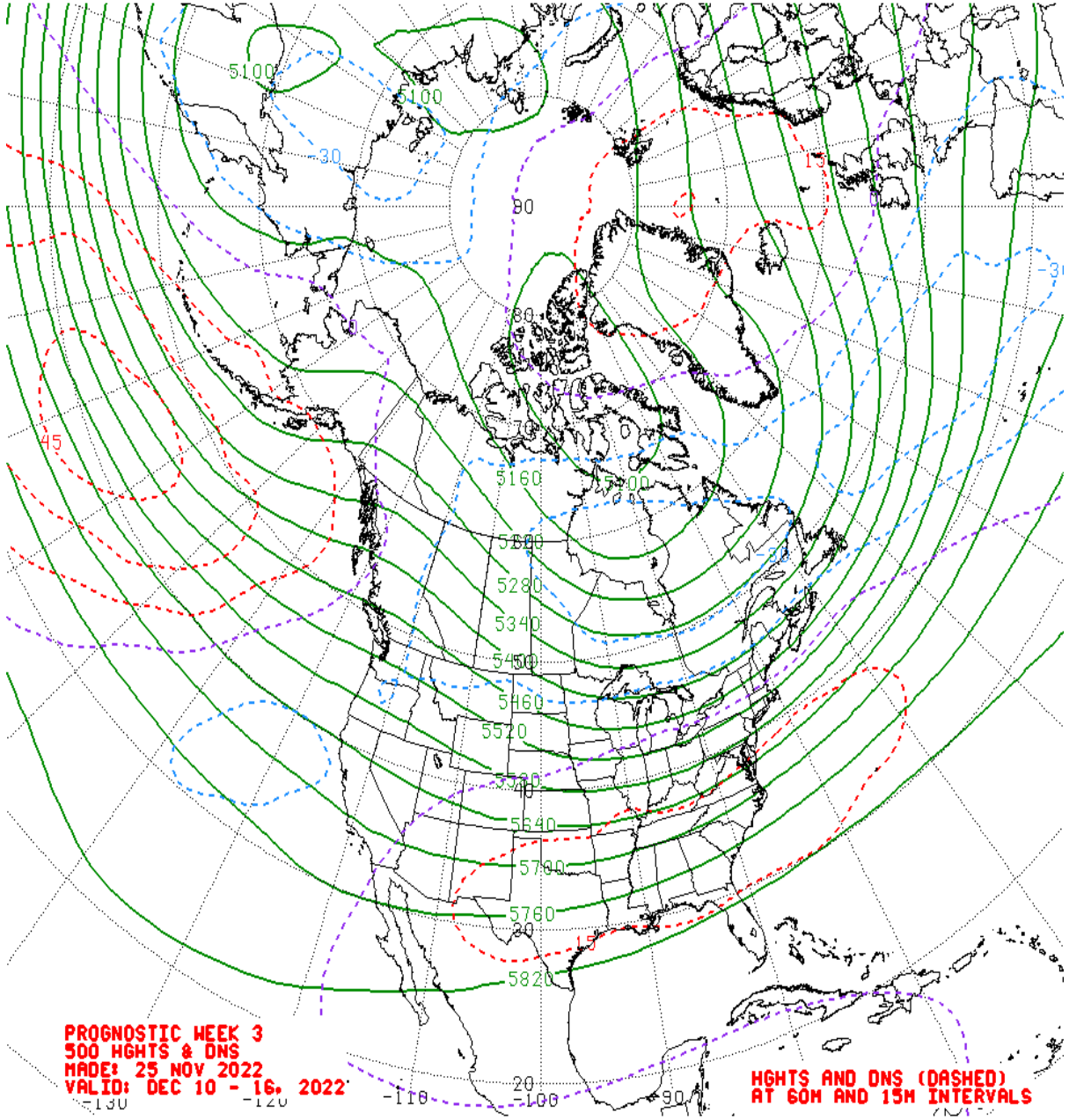
Historical 500-hPa Height & U.S. Temperatures By MJO Phase:



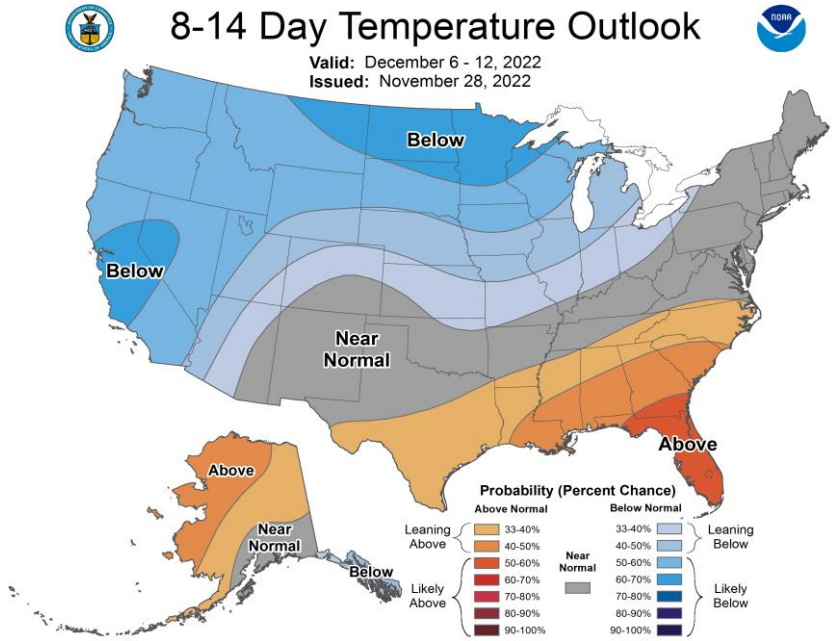


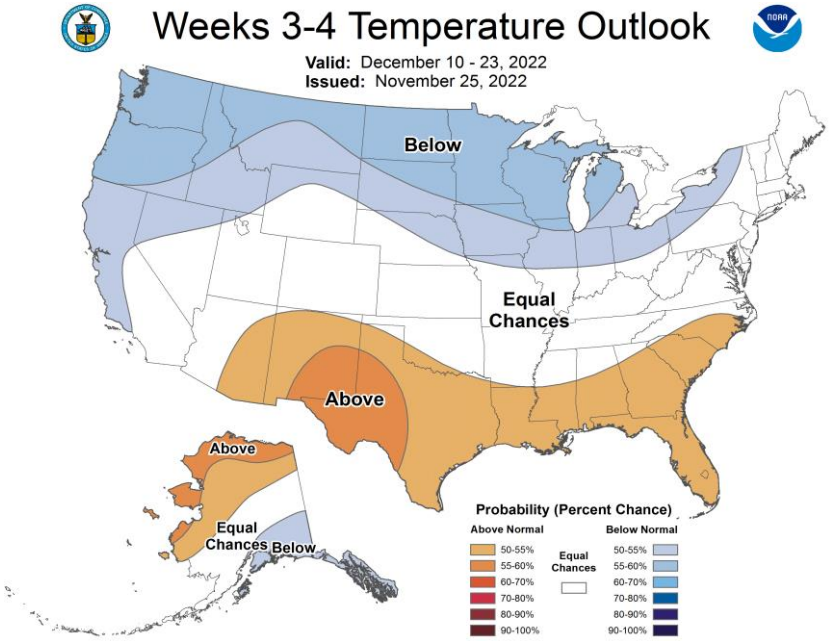
Mean 500-hPa Height Anomaly Forecasts:

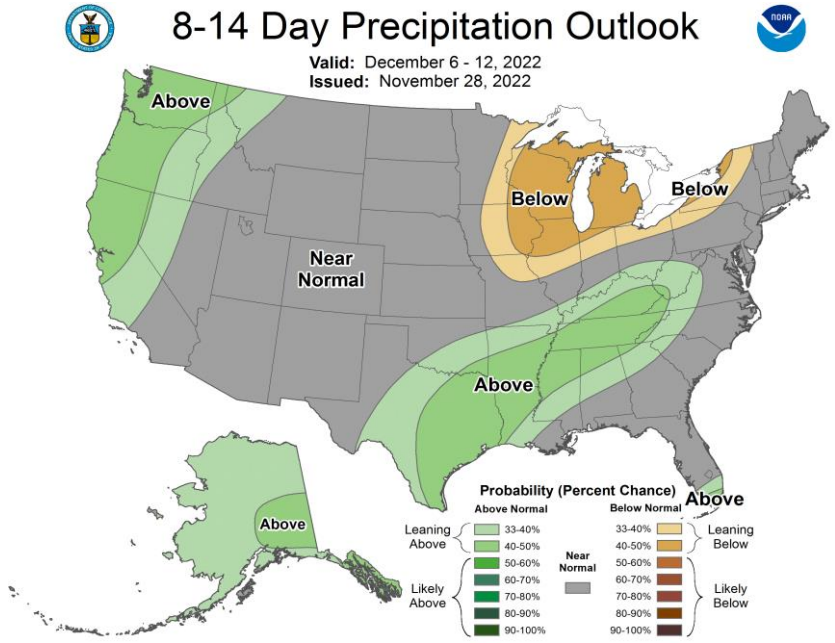


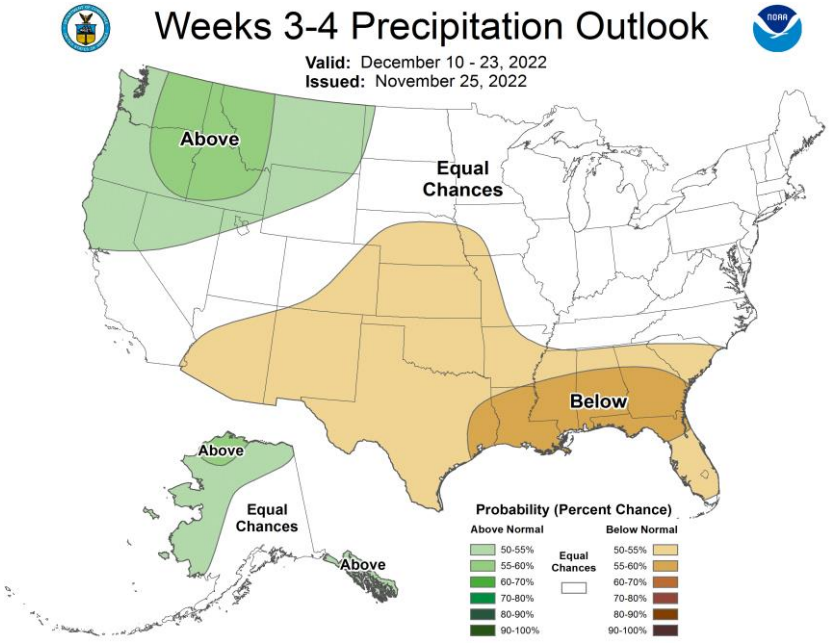


Official Temperature & Precipitation Forecasts:









Global Tropics Hazards Outlook

Climate Prediction Center

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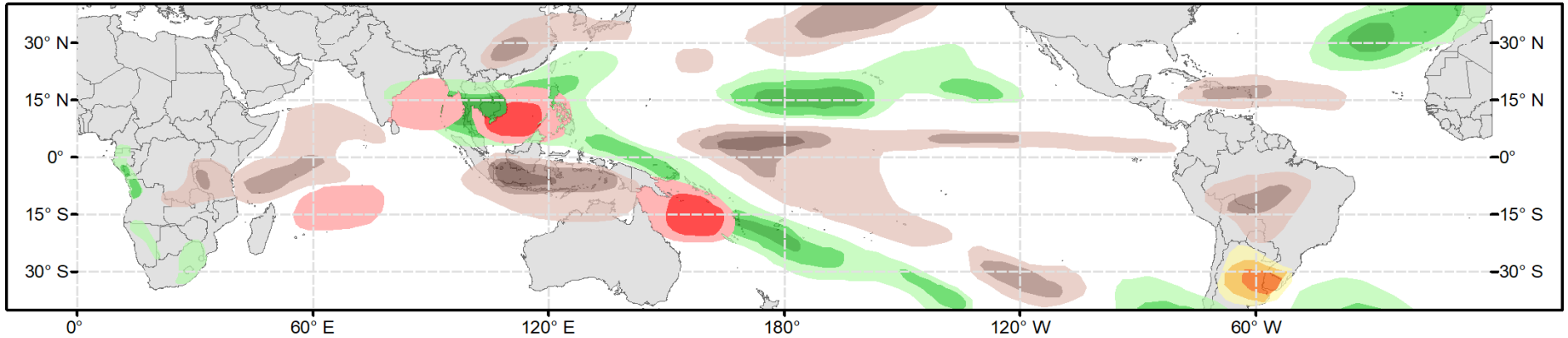
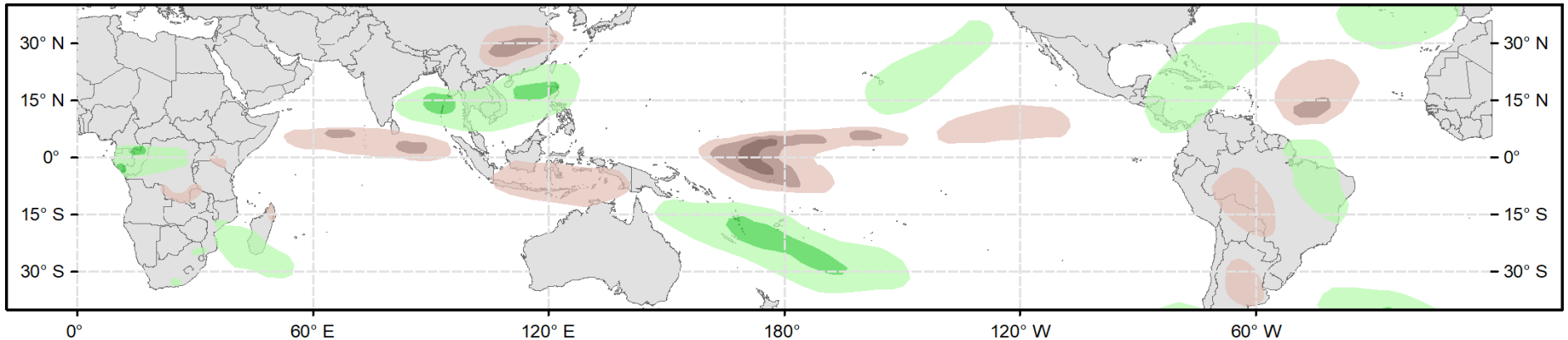


Week 3 - Valid: Dec 14, 2022 - Dec 20, 2022



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