



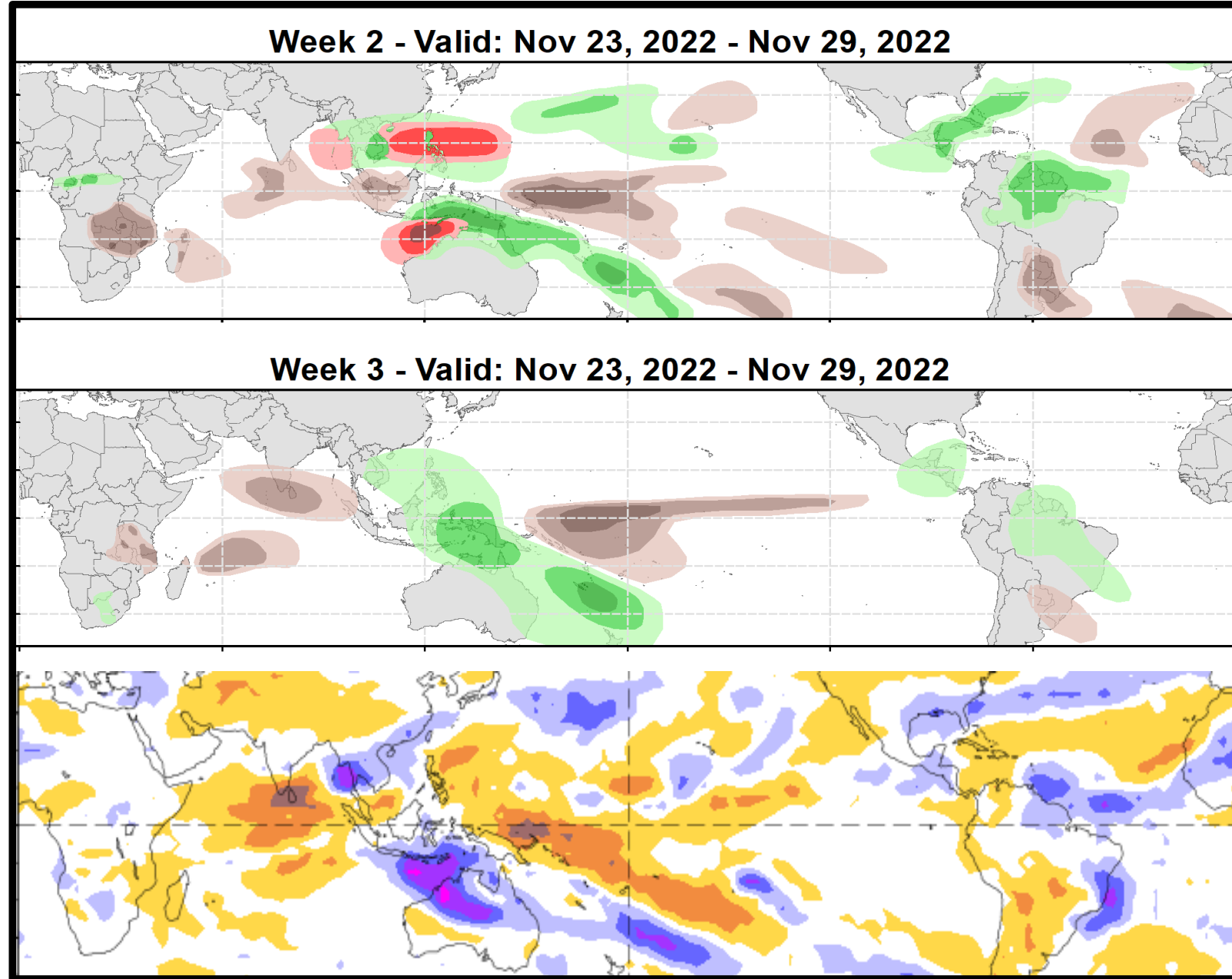
Weeks 2-3 Global Tropics Hazards Outlook

11/29/2022

Danny Barandiaran
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.

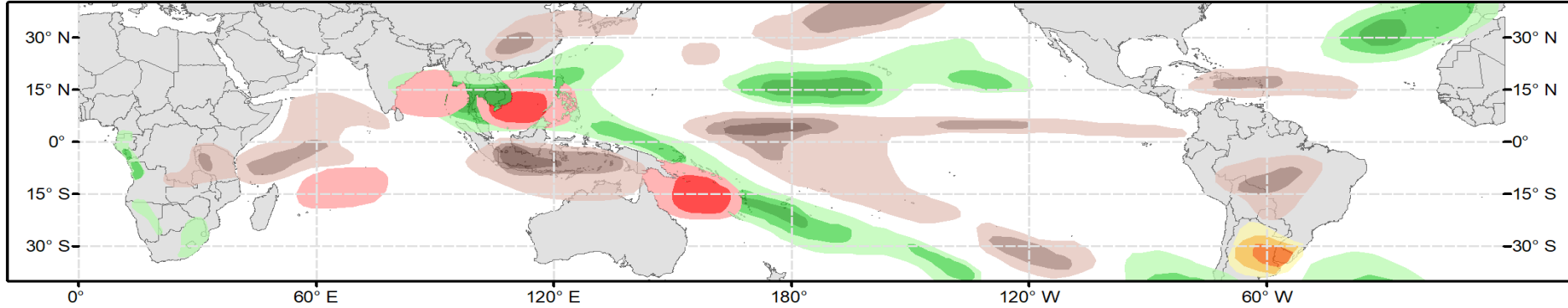
GTH Outlook:



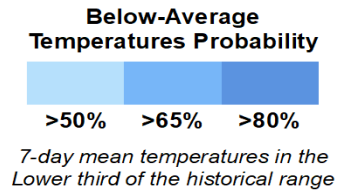
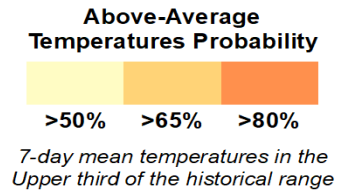
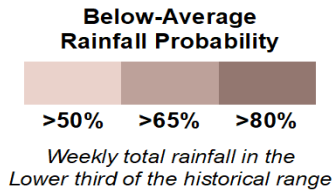
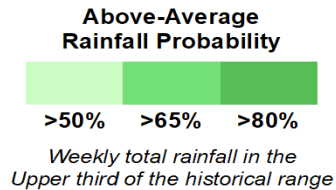
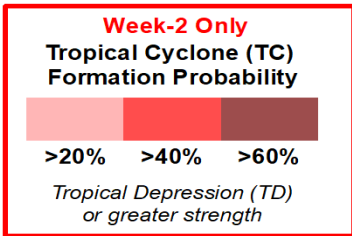
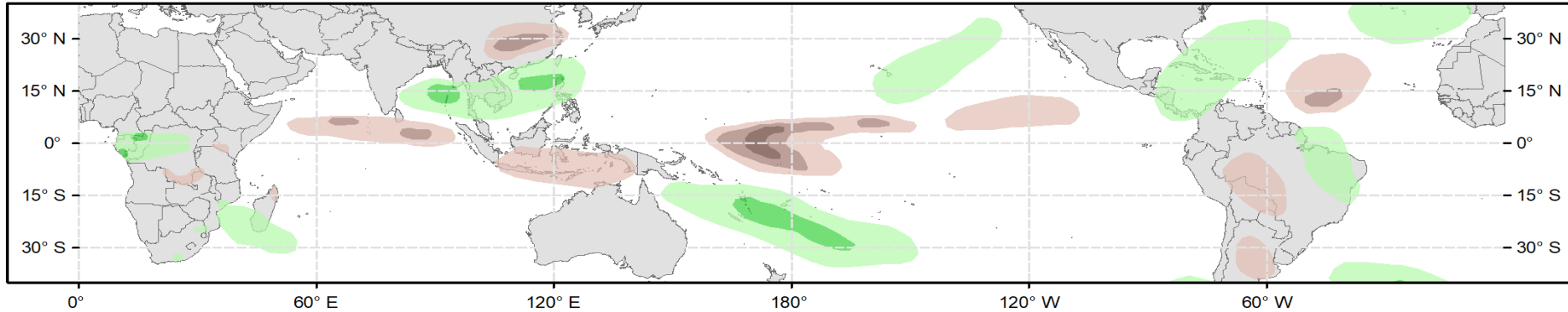
Global Tropics Hazards Outlook Climate Prediction Center



Week 2 - Valid: Dec 07, 2022 - Dec 13, 2022



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

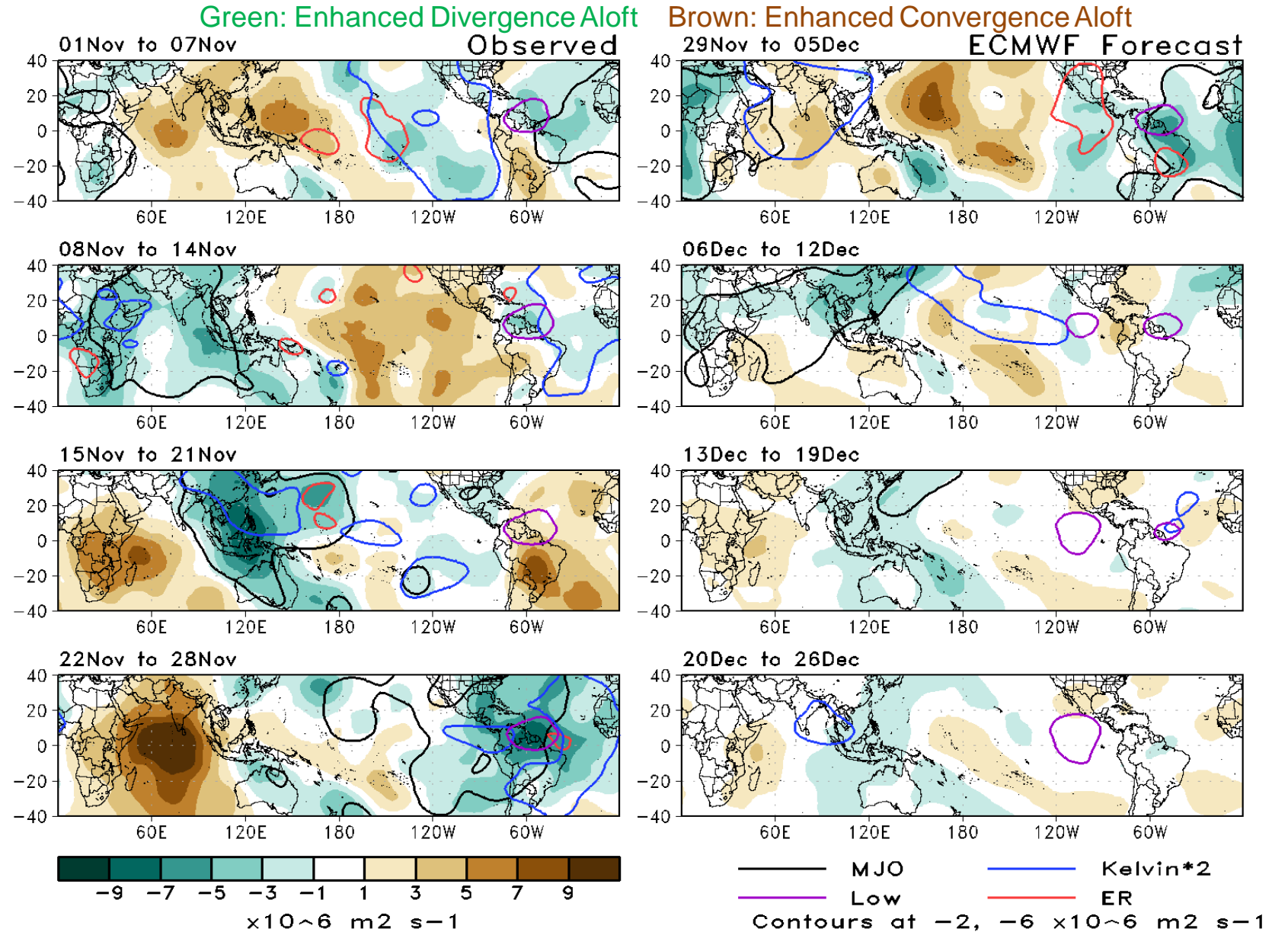


Issued: 11/29/2022
Forecaster: Barandiaran

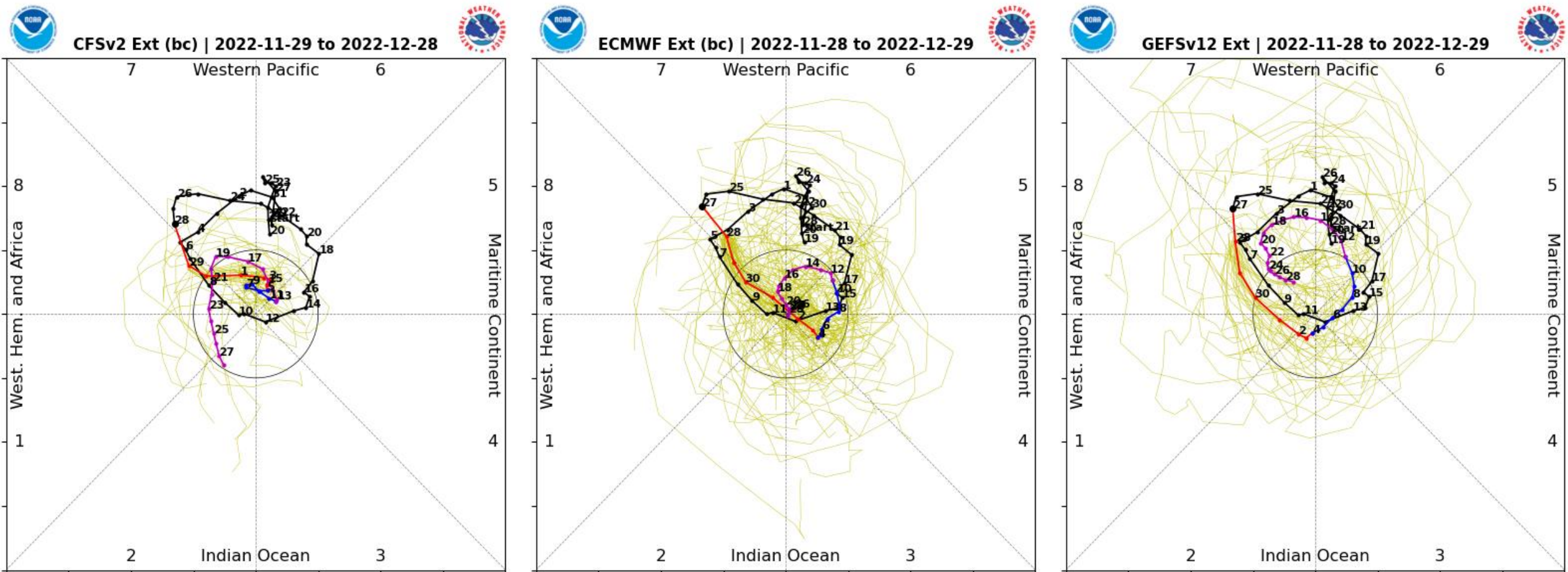
This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

200-hPa Velocity Potential Anomaly Maps:

- 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.

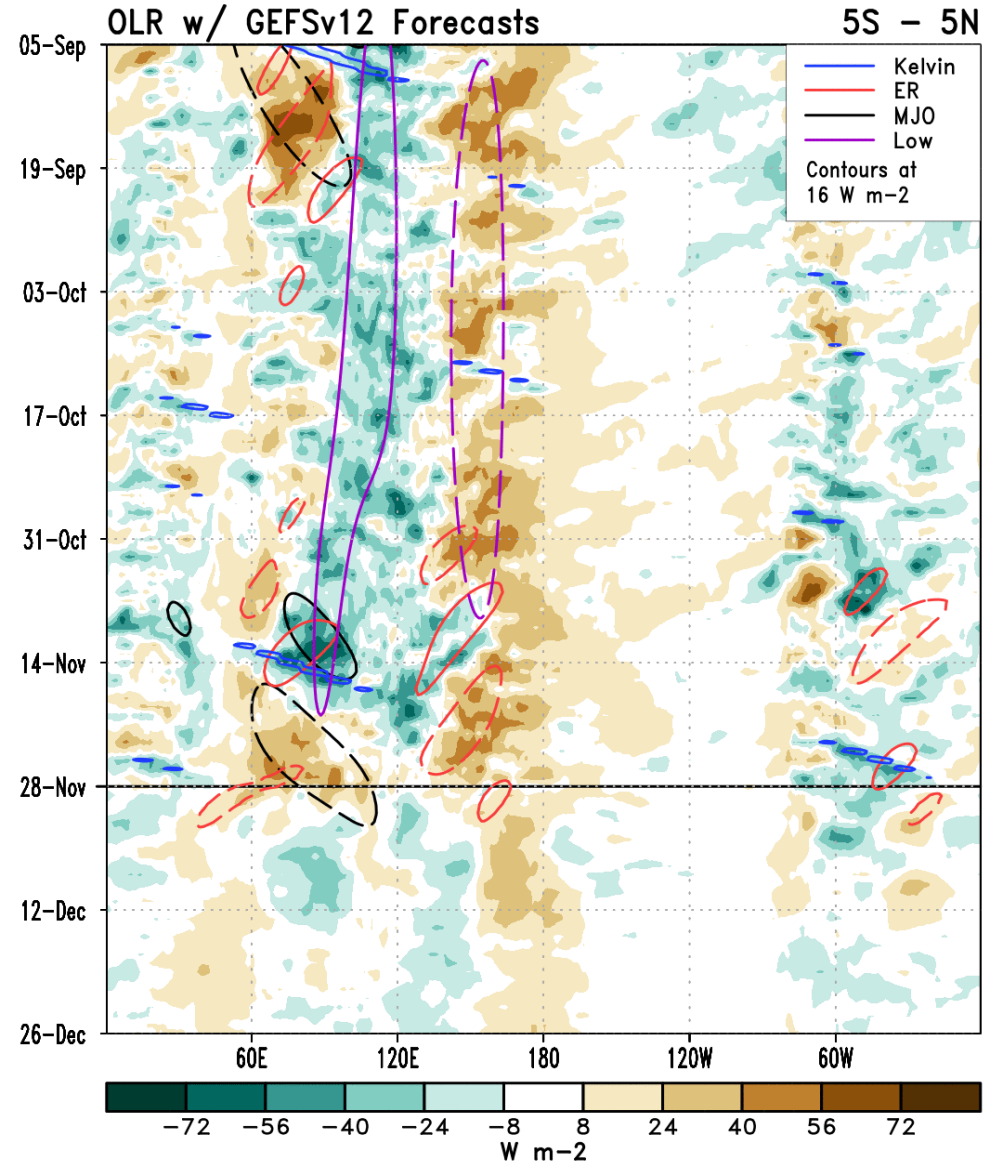
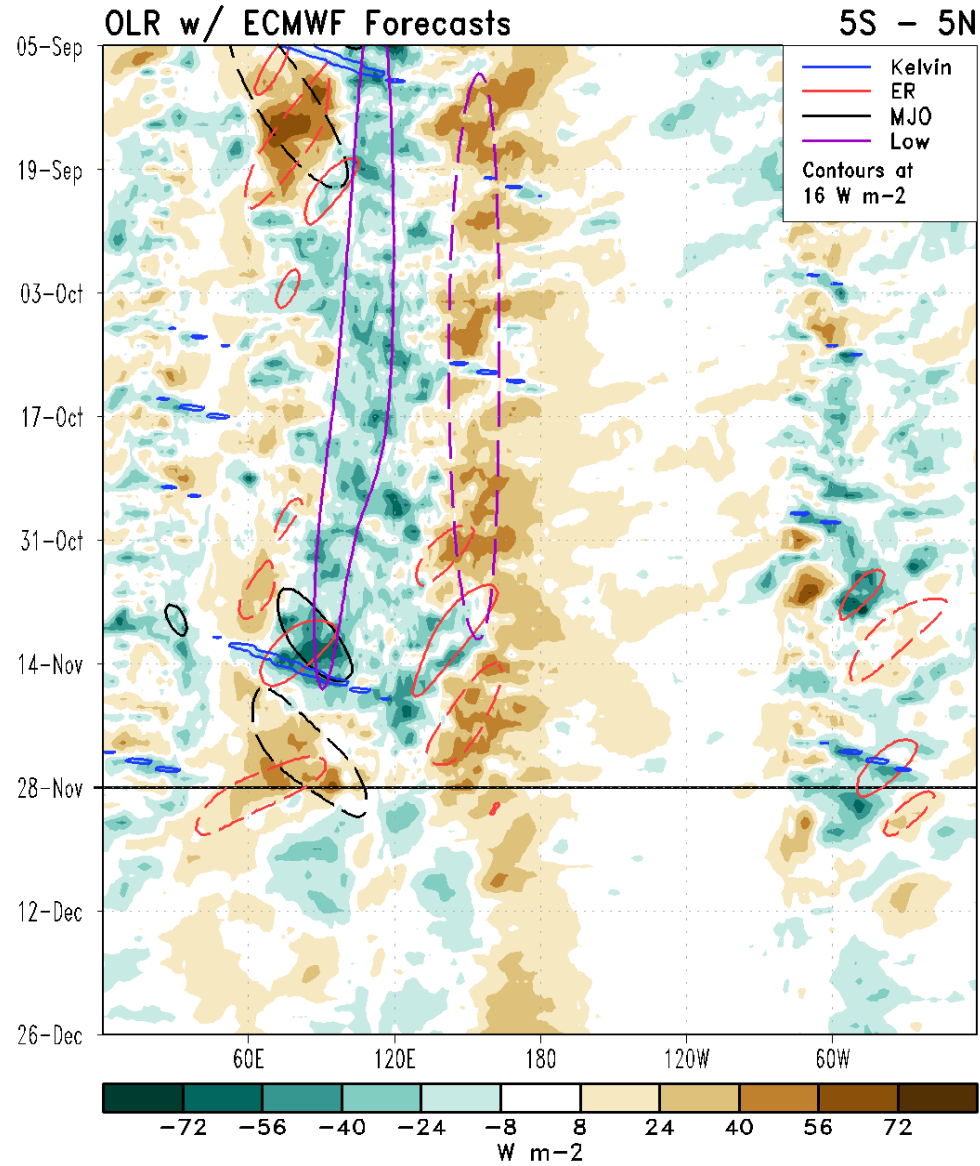


RMM Index Observations & Forecasts:



- Majority of dynamical models decrease amplitude of RMM index substantially during week 1 as convective envelope moves towards Africa.
- GFS 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.

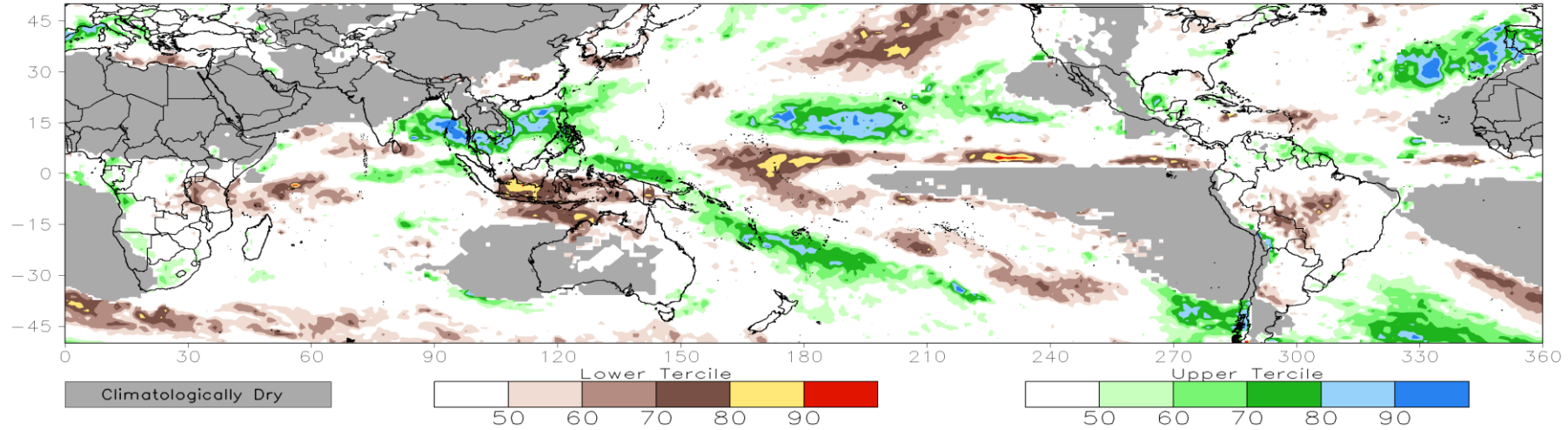
Outgoing Longwave Radiation (OLR) Anomaly Time/Lon Plots:



Consolidated Probabilistic Precipitation: Weeks 2 & 3

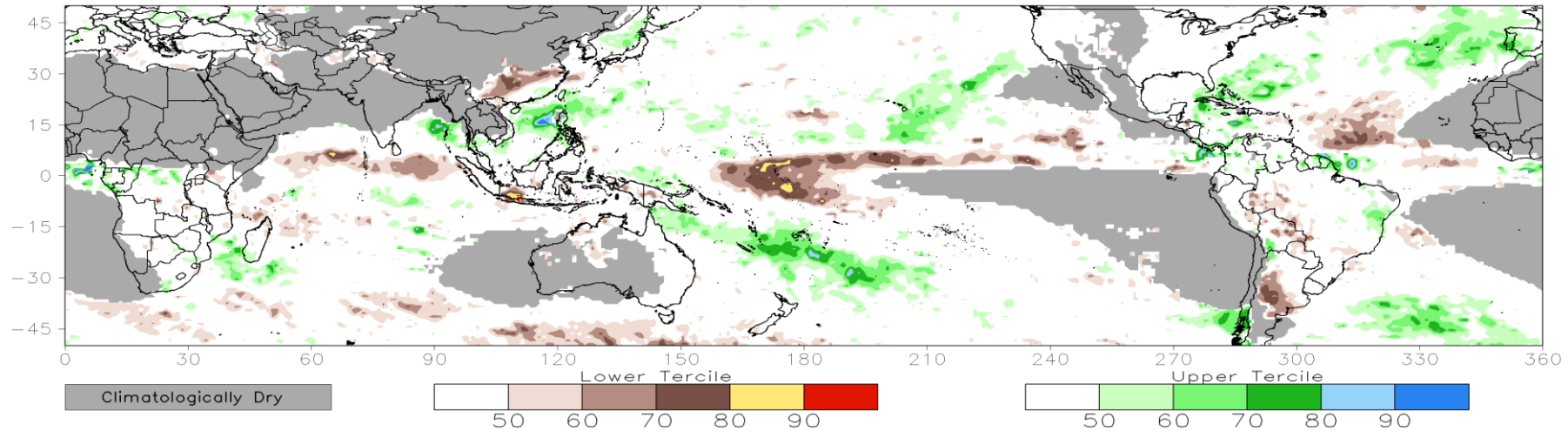
CONS 00z: Week2 Probability for Total Rainfall Below(Above) Lower(Upper) Tercile (%)

Valid: 07Dec2022–13Dec2022



CONS 00z: Week3 Probability for Total Rainfall Below(Above) Lower(Upper) Tercile (%)

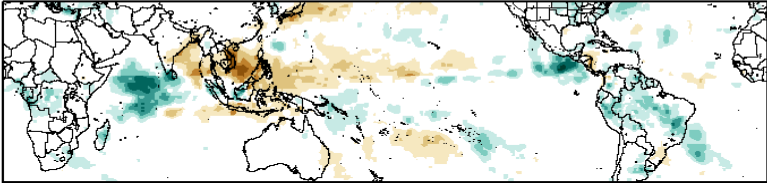
Valid: 14Dec2022–20Dec2022



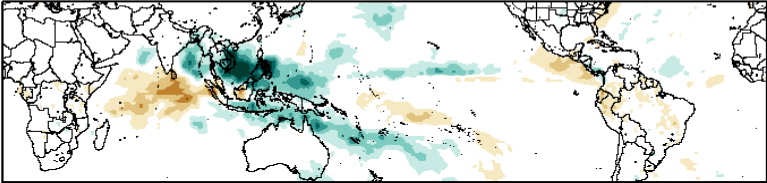
Historical Precipitation Anomalies By MJO Phase:

OND MJO Composite: GPCP1DD (mm/day)

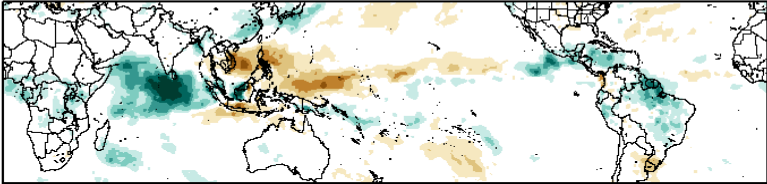
Phase 1



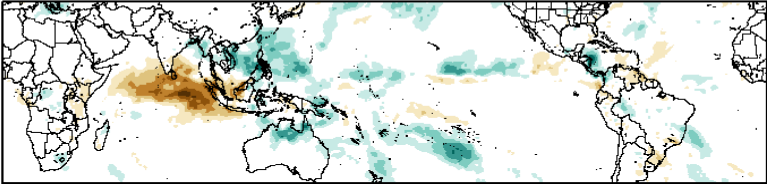
Phase 5



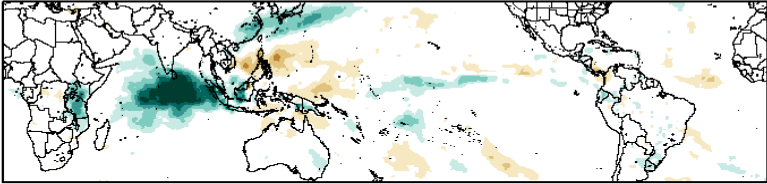
Phase 2



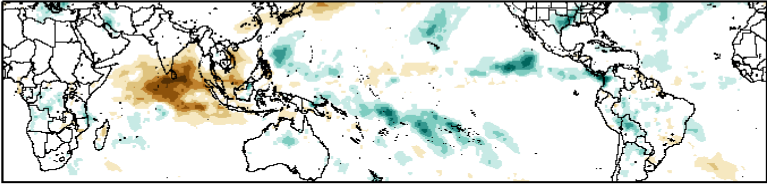
Phase 6



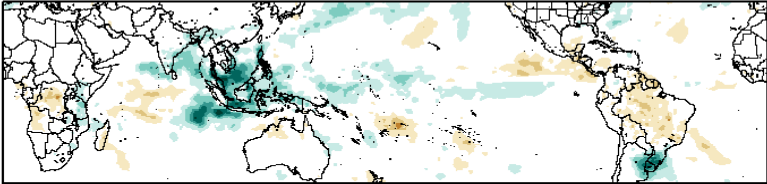
Phase 3



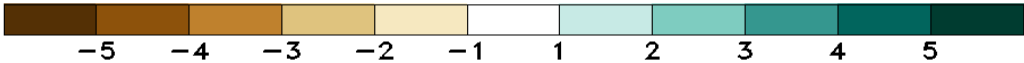
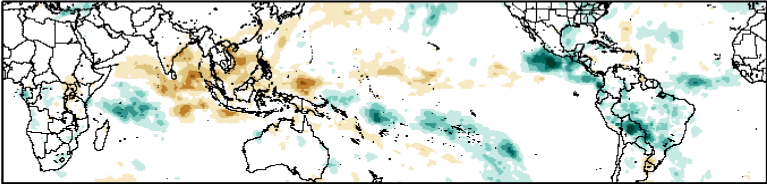
Phase 7



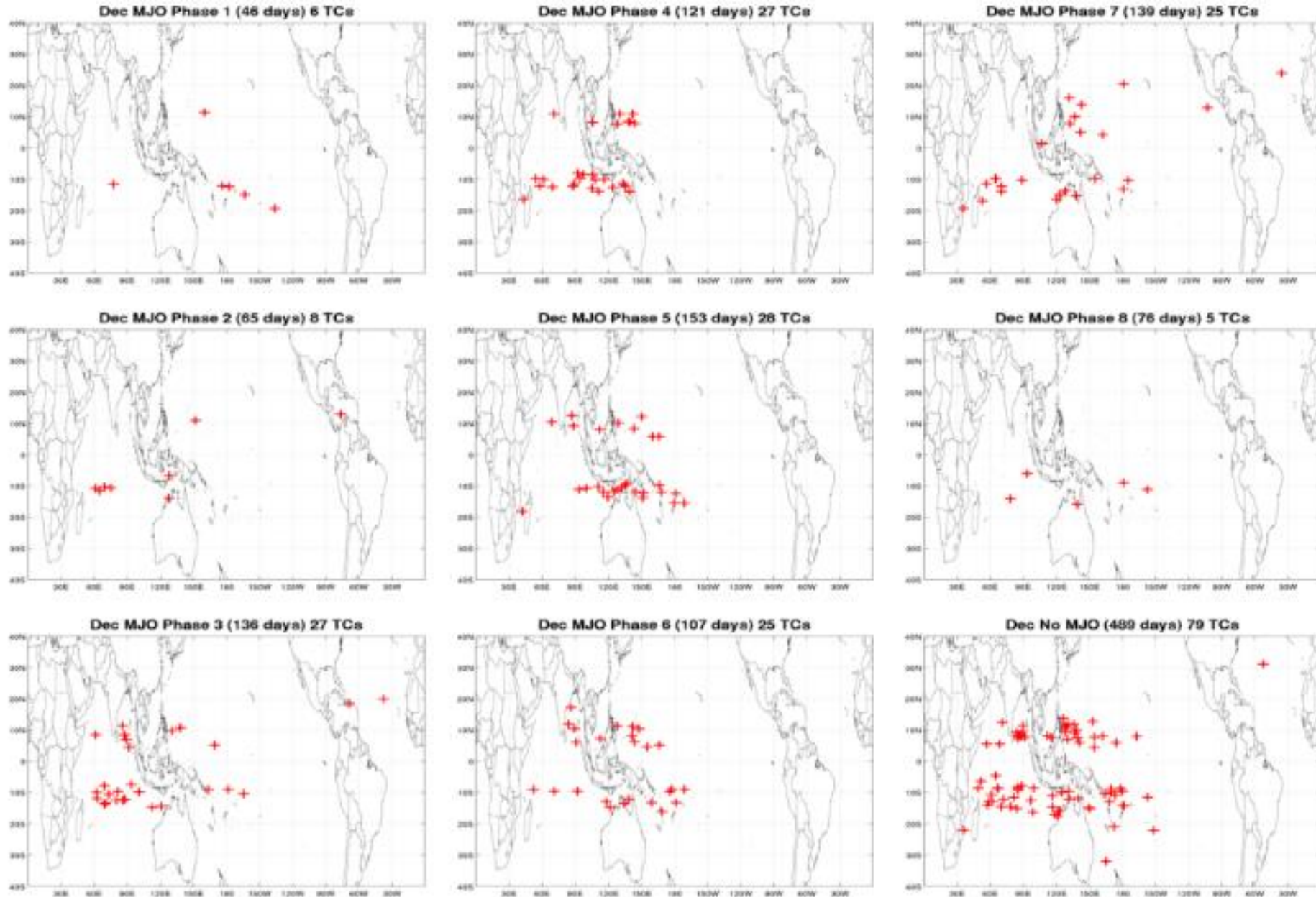
Phase 4



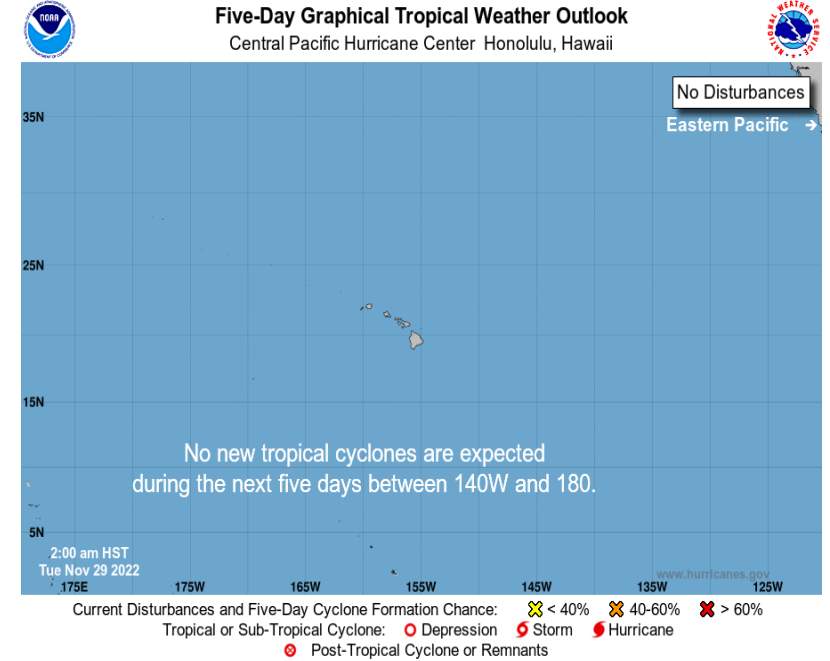
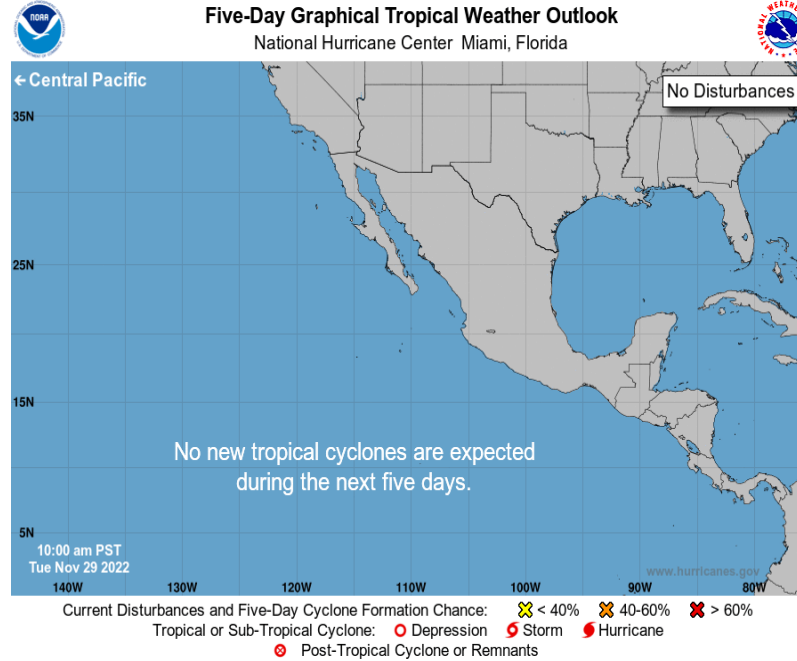
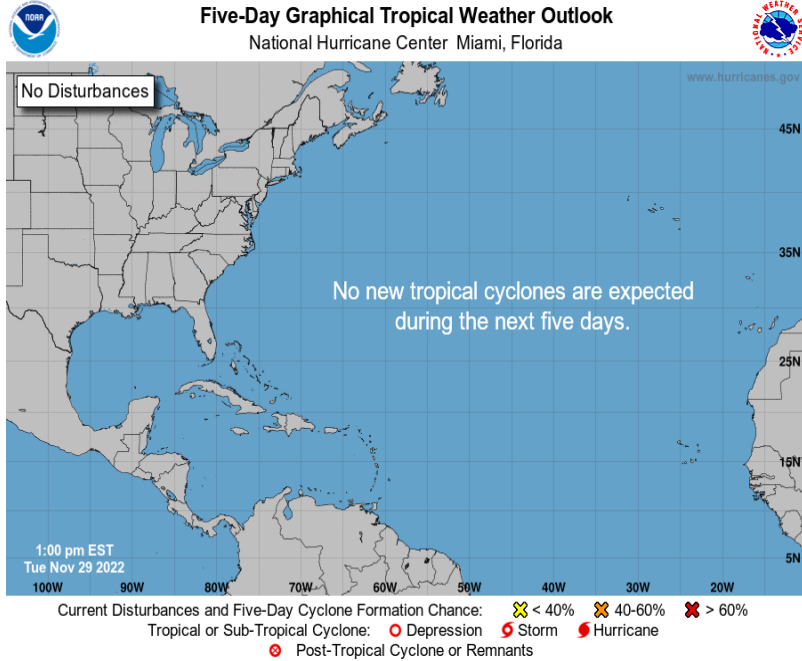
Phase 8



Historical TC Genesis Origins By MJO Phase:



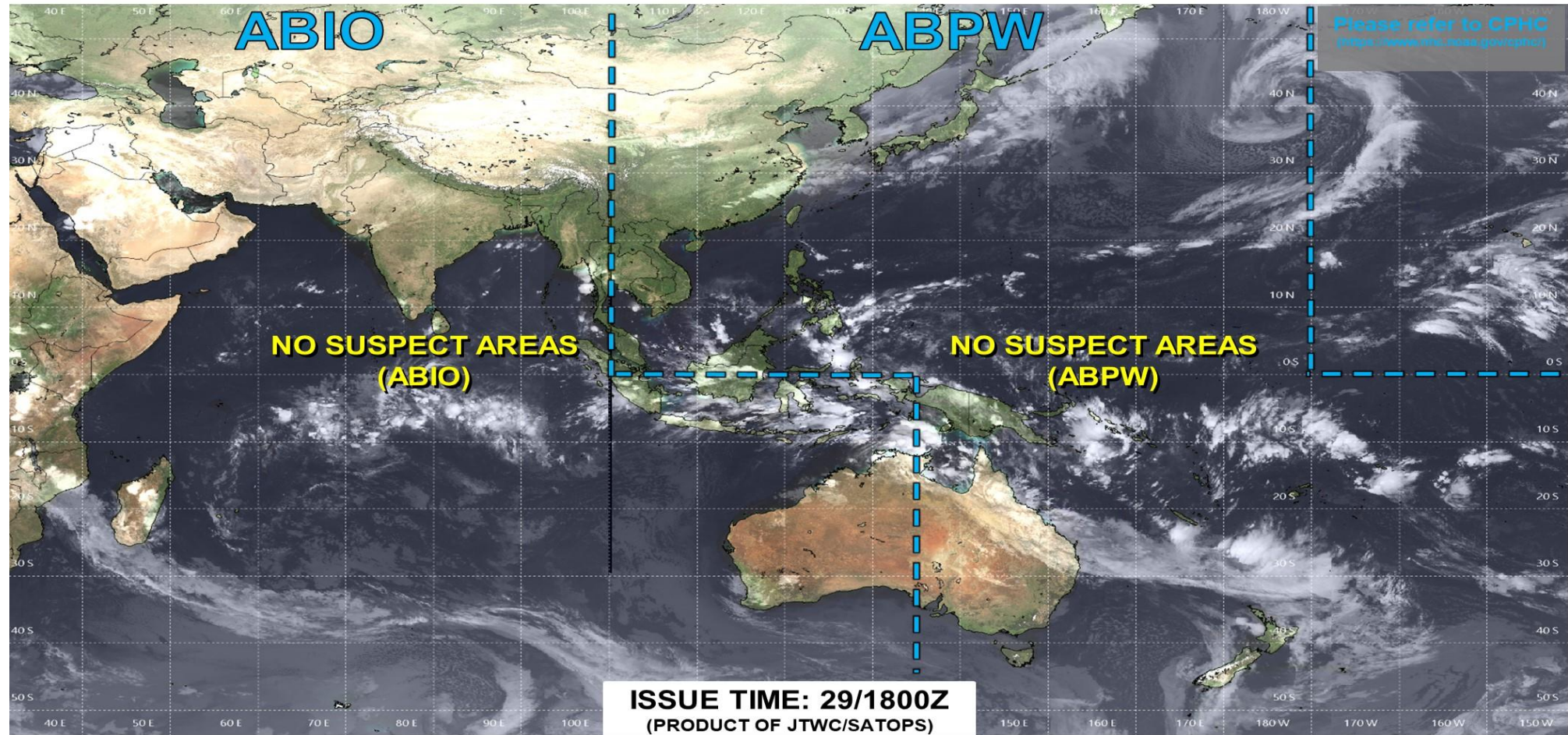
Tropical Cyclone Monitoring/Forecast: NHC



Tropical Cyclone Monitoring/Forecast: JTWC



JOINT TYPHOON WARNING CENTER



TC development unlikely within 24 hours



TC development likely, but expected to occur beyond 24 hours



TC development likely within 24 hours (Reference TCFA)



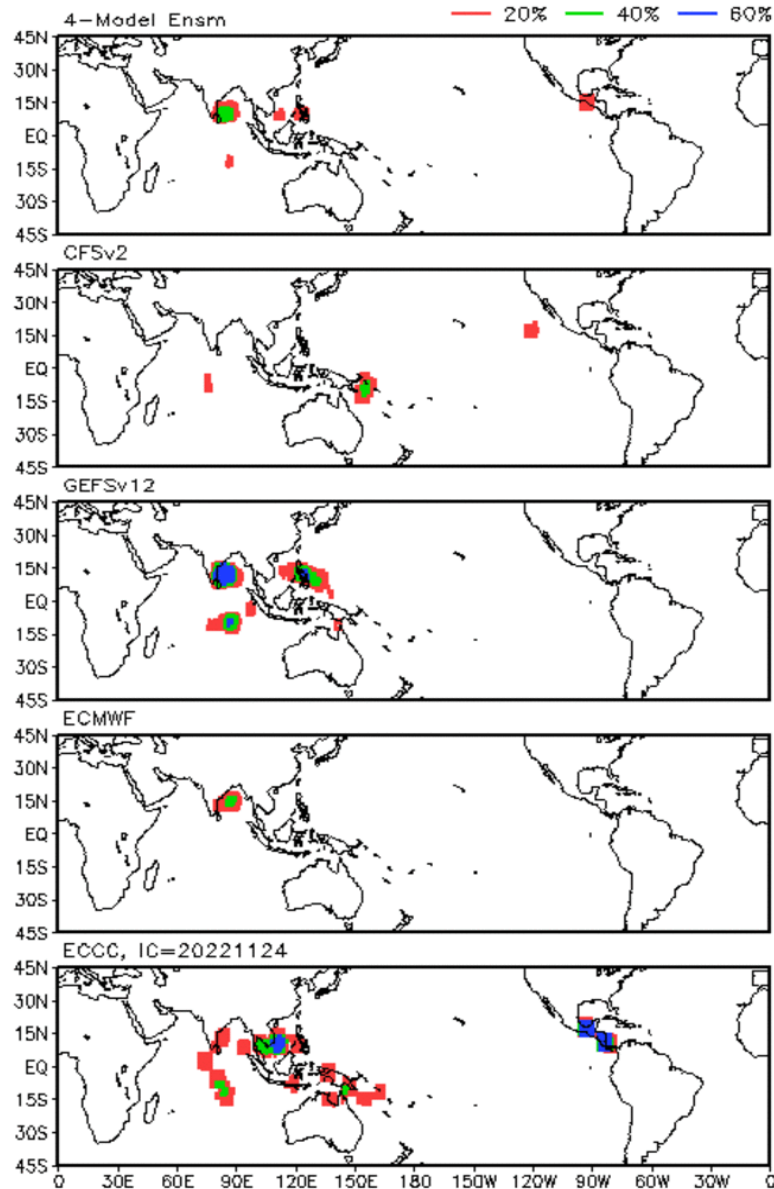
Monitoring for potential transition to TC. Invest label color denotes tropical transition probability

 Tropical Cyclone (Reference Warning)

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

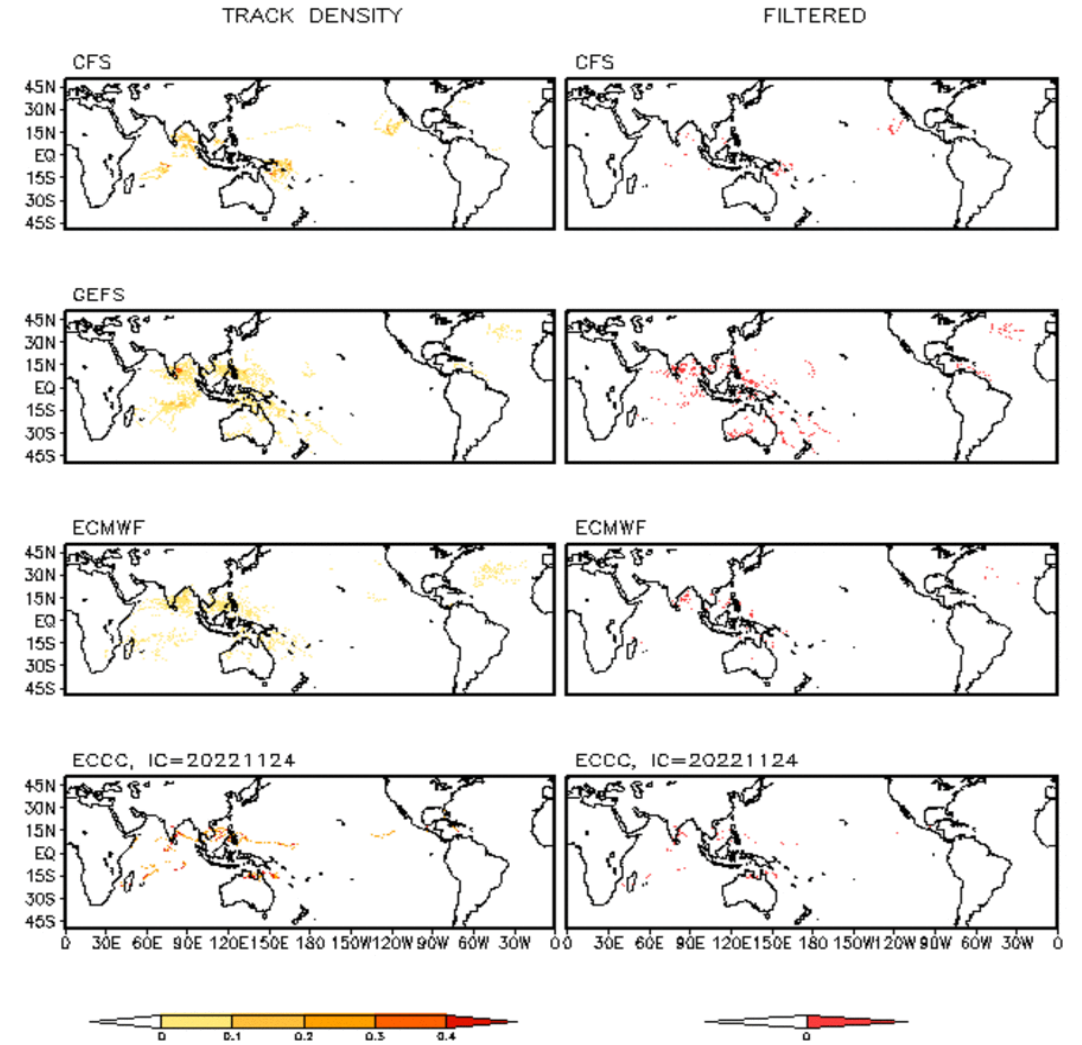
Storm Track Probabilities, IC=20221128

Week 2: 1207 - 1213



Storm Track Density Distribution, IC=20221128

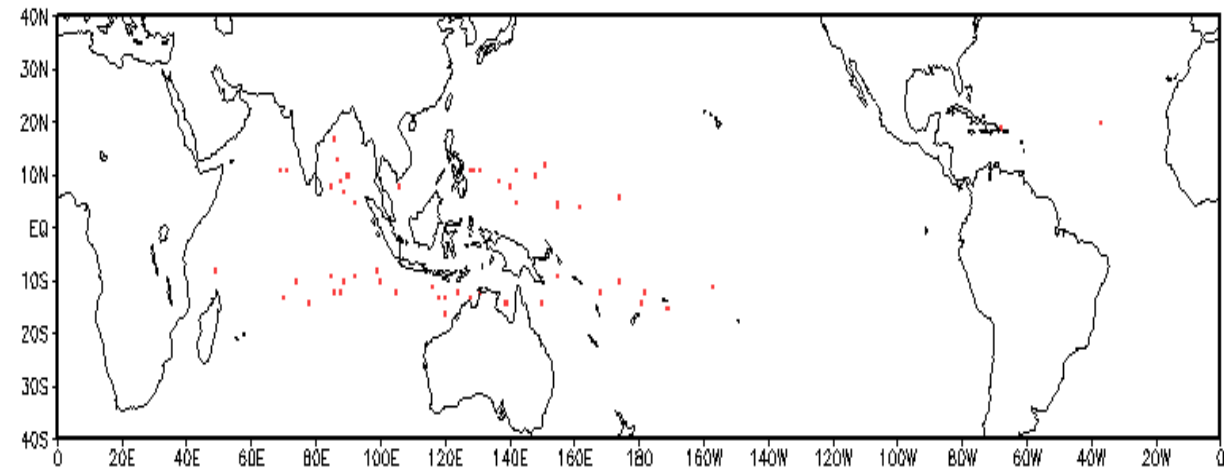
Week 2 Forecast: 1207-1213



TC Climatological Genesis: Weeks 2 & 3

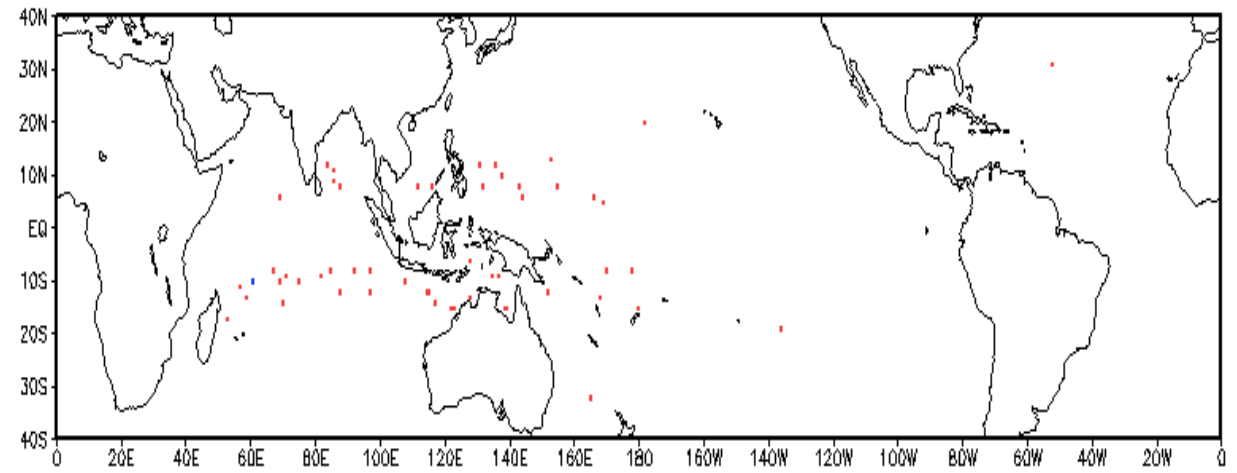
Observed TC Genesis, 1979–2021

7-day Period 1207 to 1213



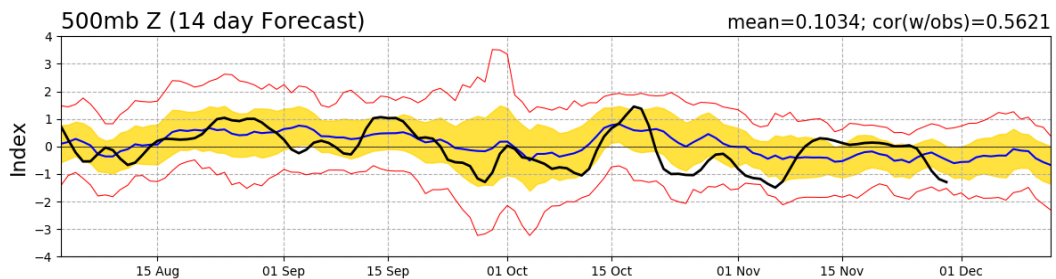
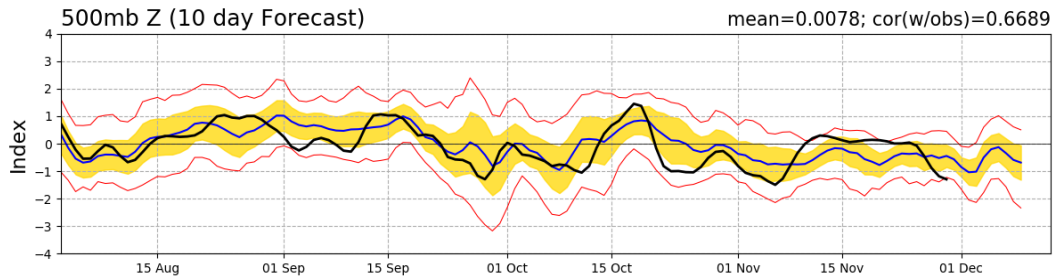
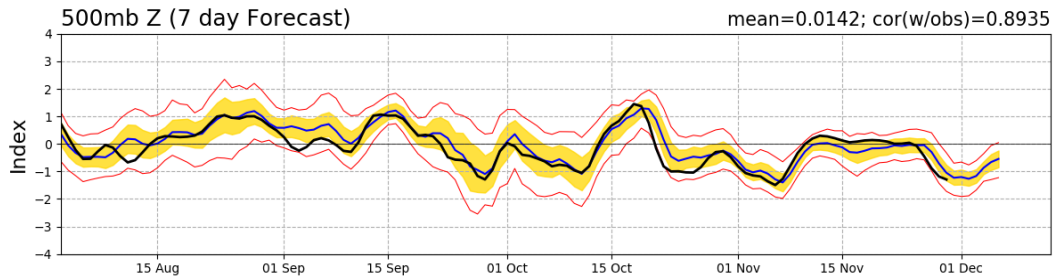
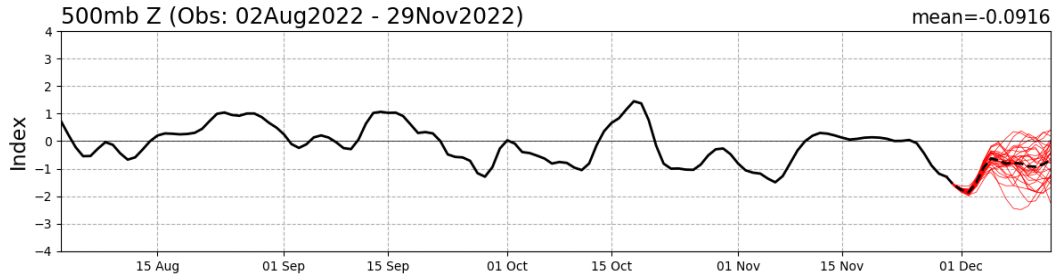
Observed TC Genesis, 1979–2021

7-day Period 1214 to 1220

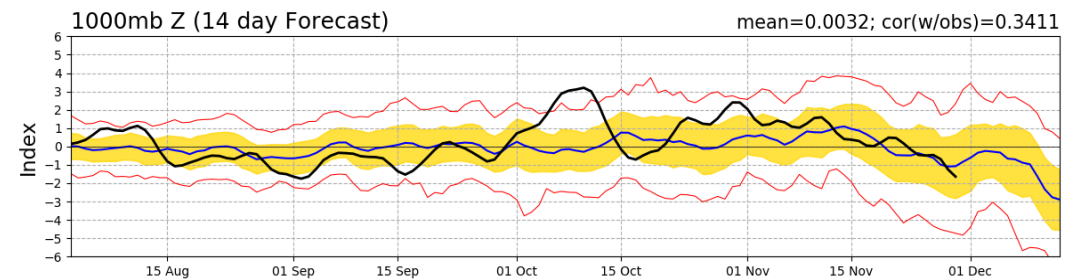
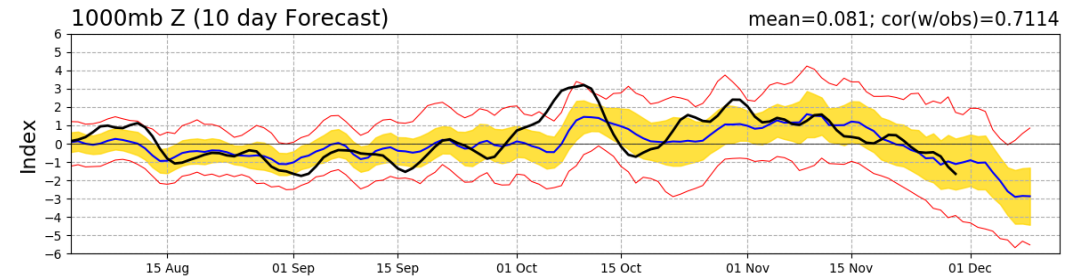
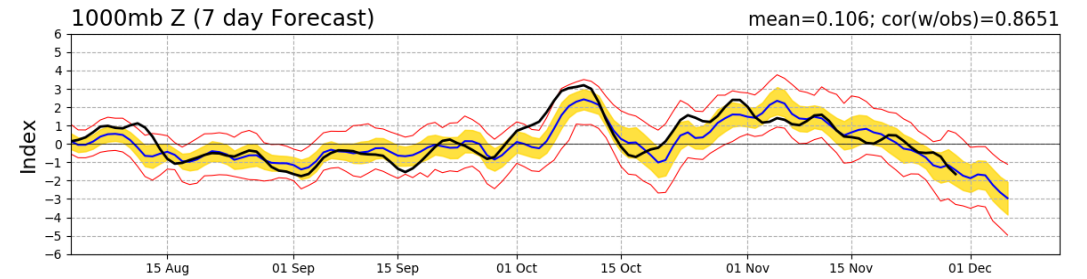
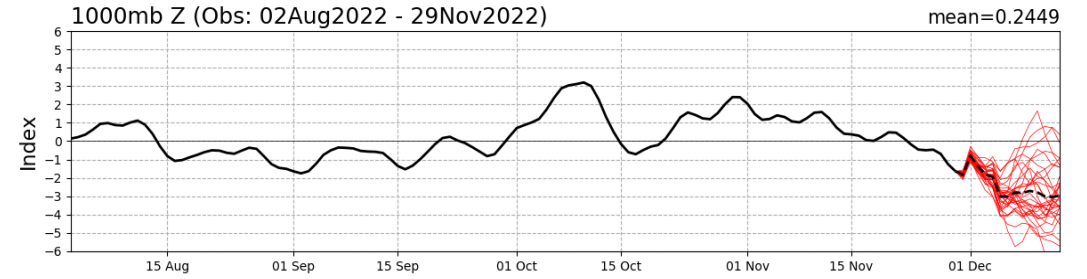


Teleconnection Indices: PNA / AO:

PNA Index: Observed & GEFS Forecasts

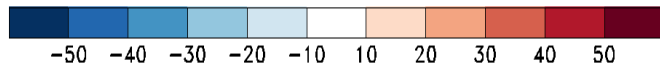
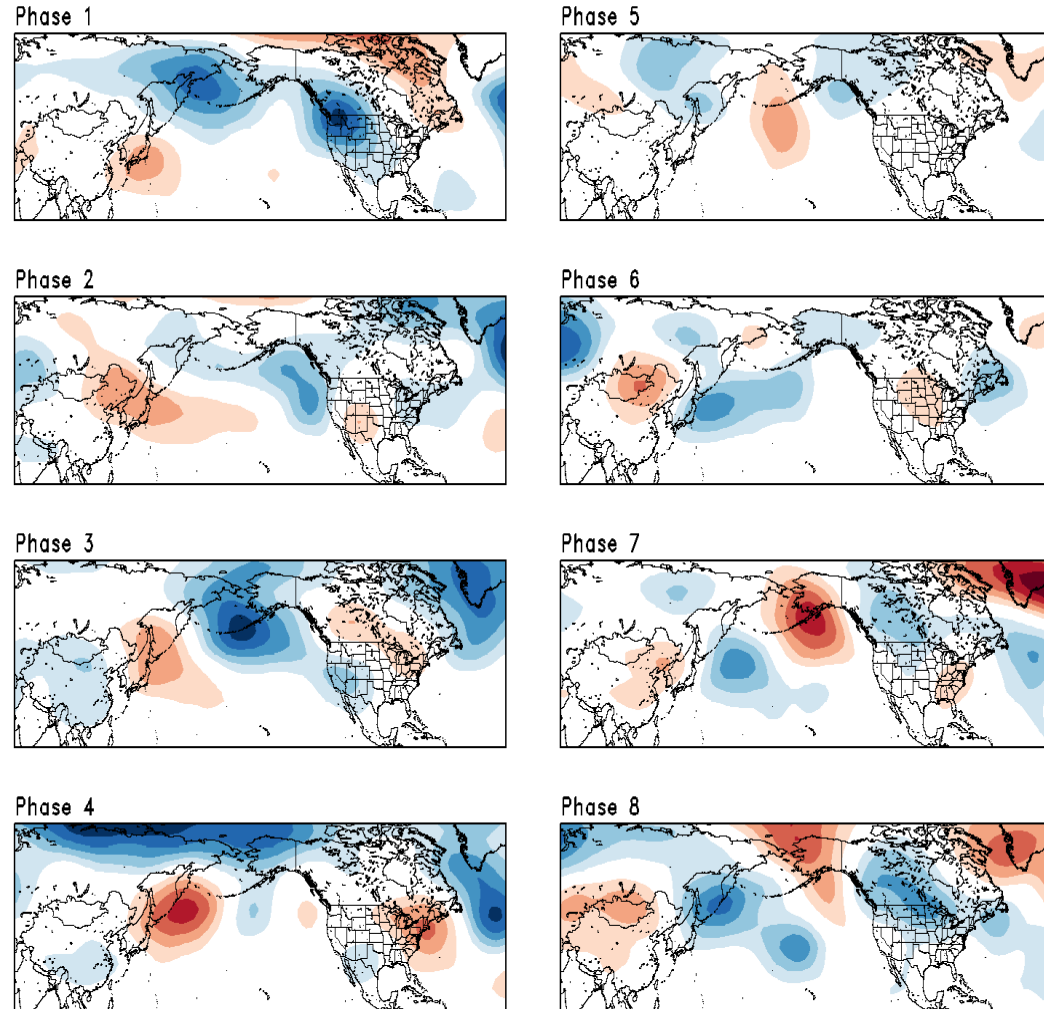


AO Index: Observed & GEFS Forecasts

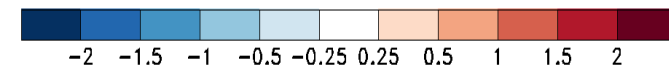
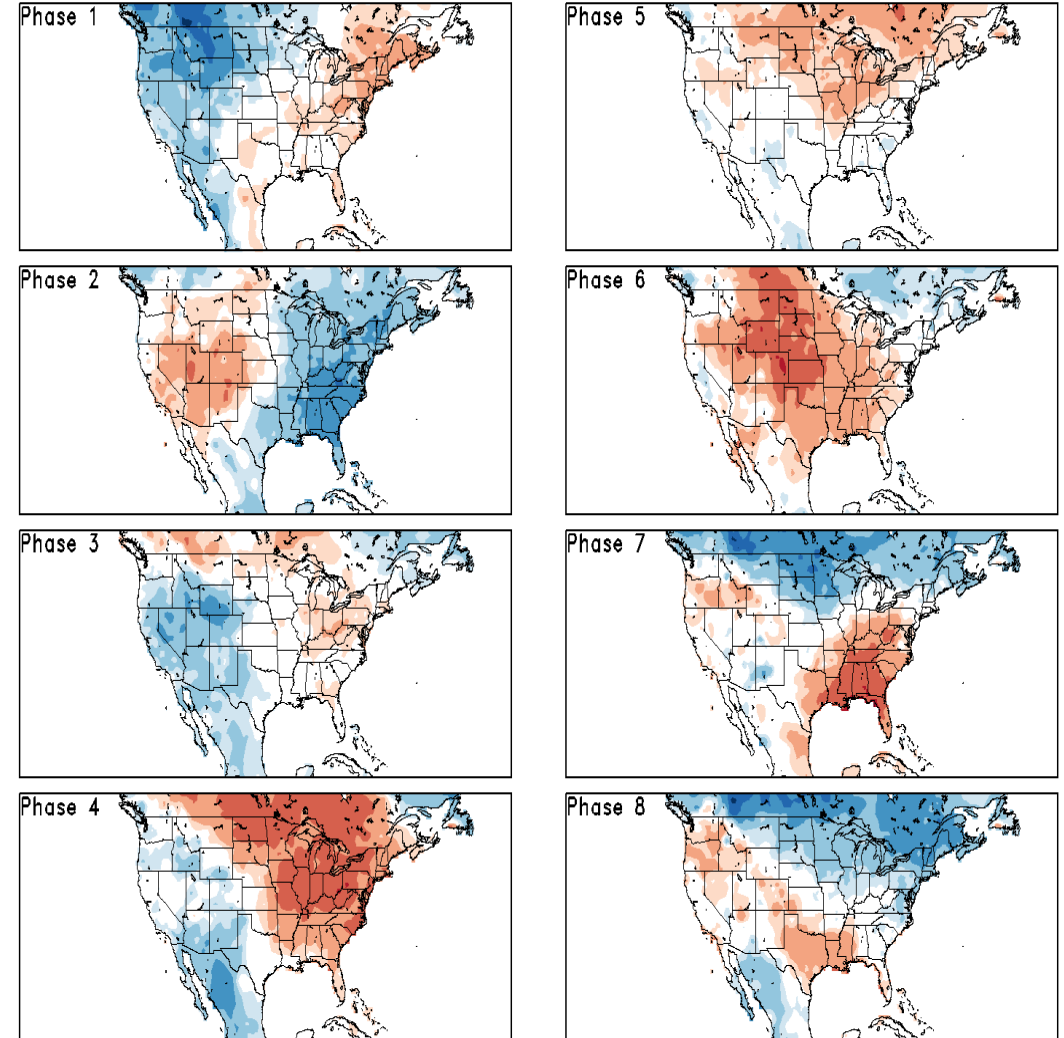


Historical 500-hPa Height & U.S. Temperatures By MJO Phase:

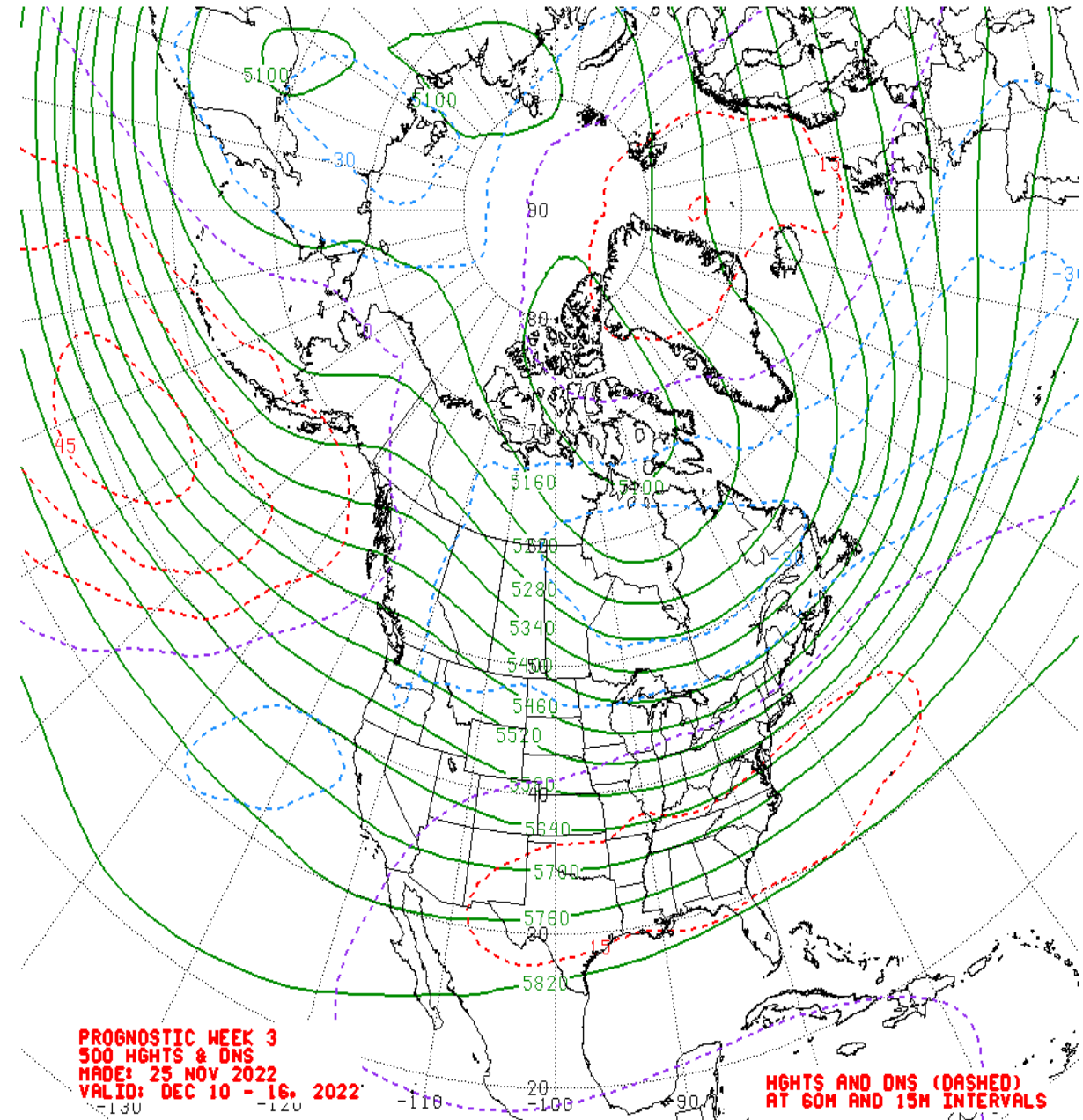
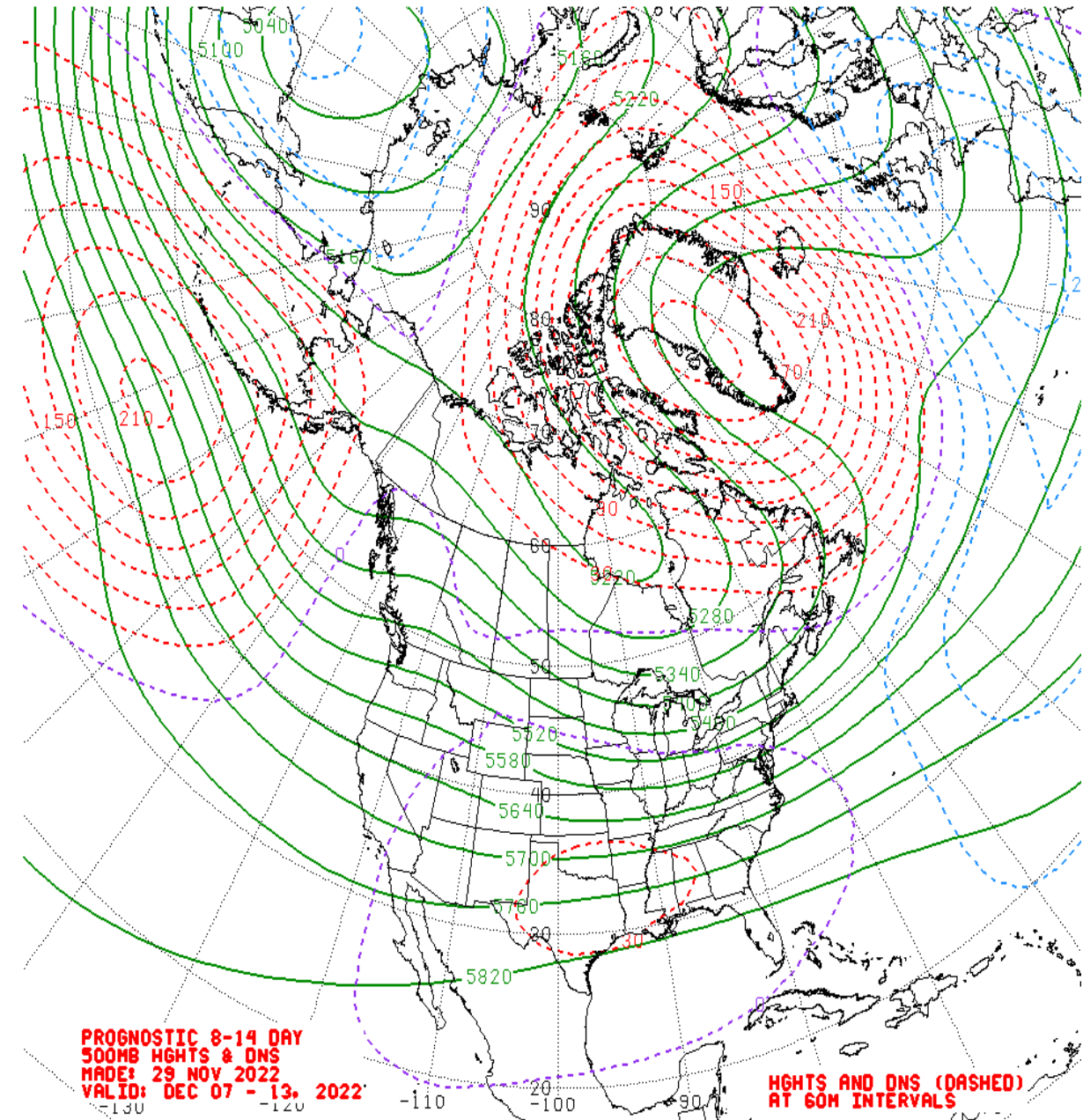
OND MJO Composite: CDAS 500-hPa Height (m)



OND MJO Composite: GLBT (degC)



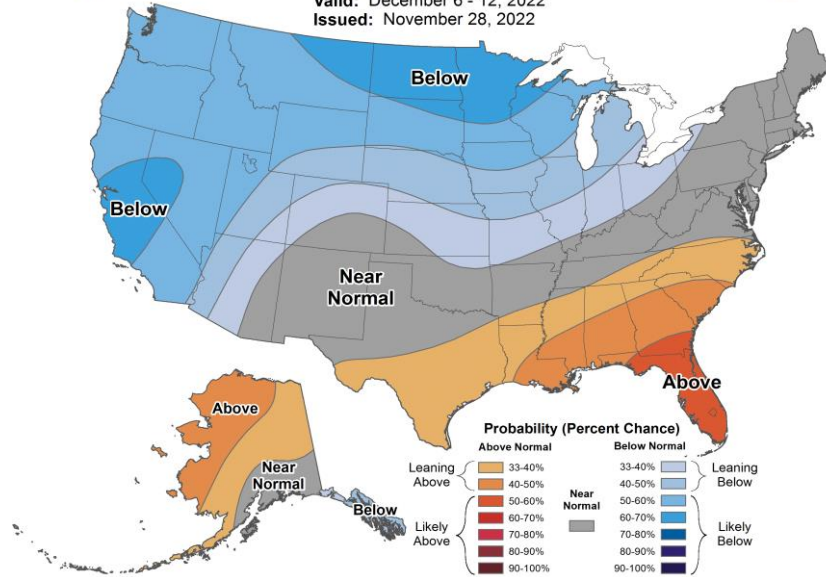
Mean 500-hPa Height Anomaly Forecasts:



Official Temperature & Precipitation Forecasts:

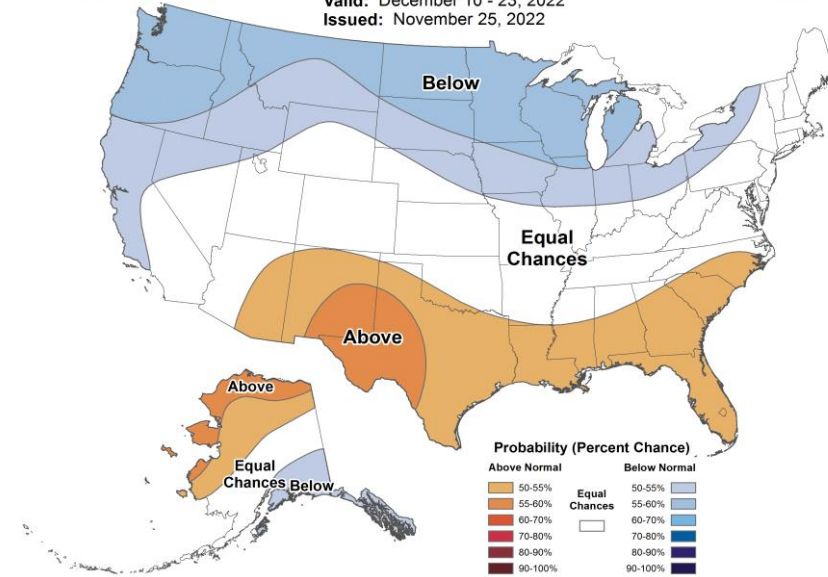
8-14 Day Temperature Outlook

Valid: December 6 - 12, 2022
 Issued: November 28, 2022



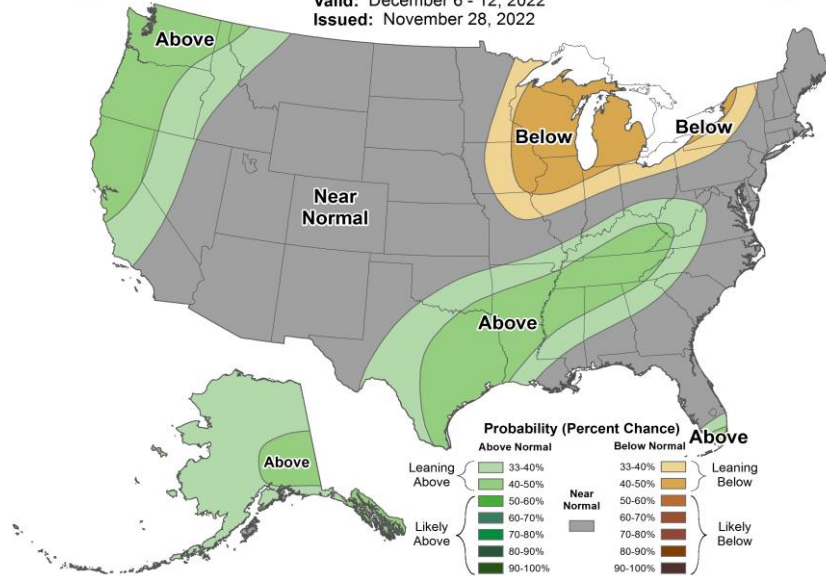
Weeks 3-4 Temperature Outlook

Valid: December 10 - 23, 2022
 Issued: November 25, 2022



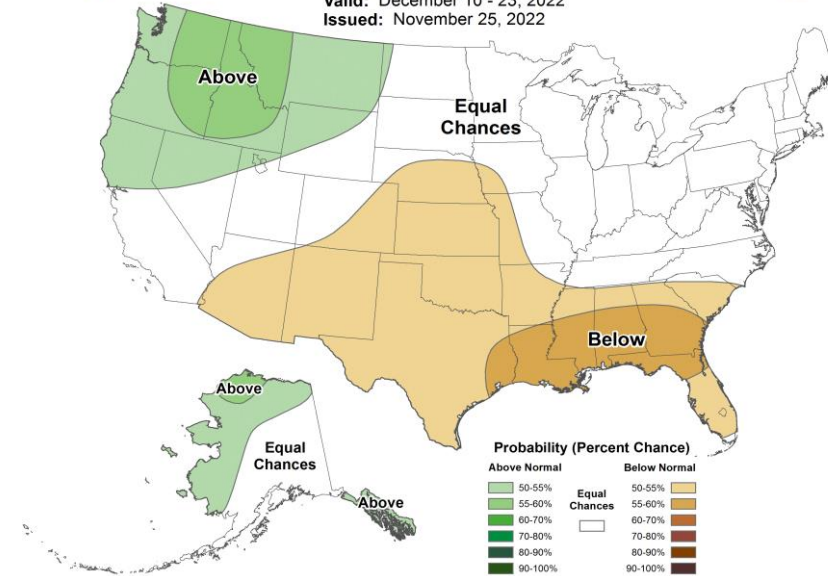
8-14 Day Precipitation Outlook

Valid: December 6 - 12, 2022
 Issued: November 28, 2022



Weeks 3-4 Precipitation Outlook

Valid: December 10 - 23, 2022
 Issued: November 25, 2022



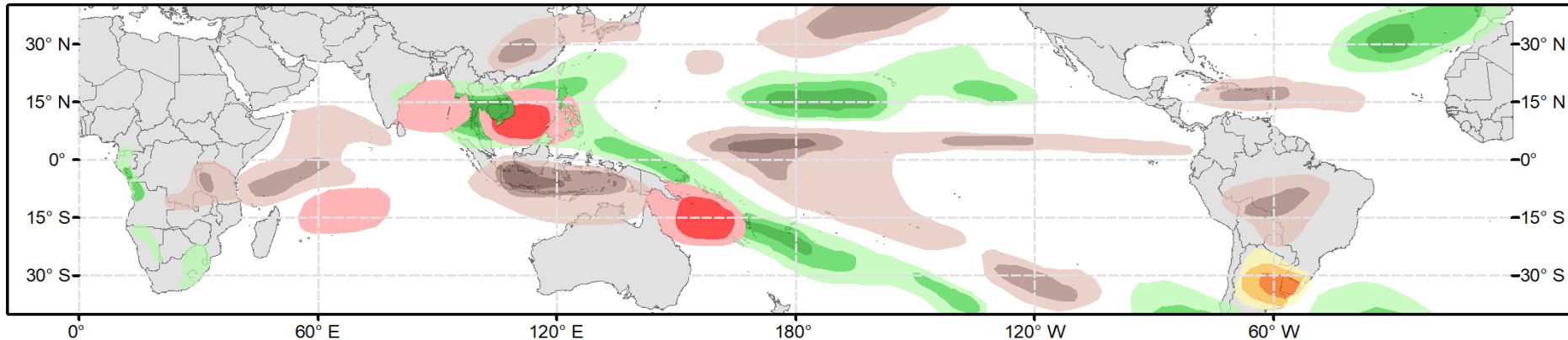


Global Tropics Hazards Outlook

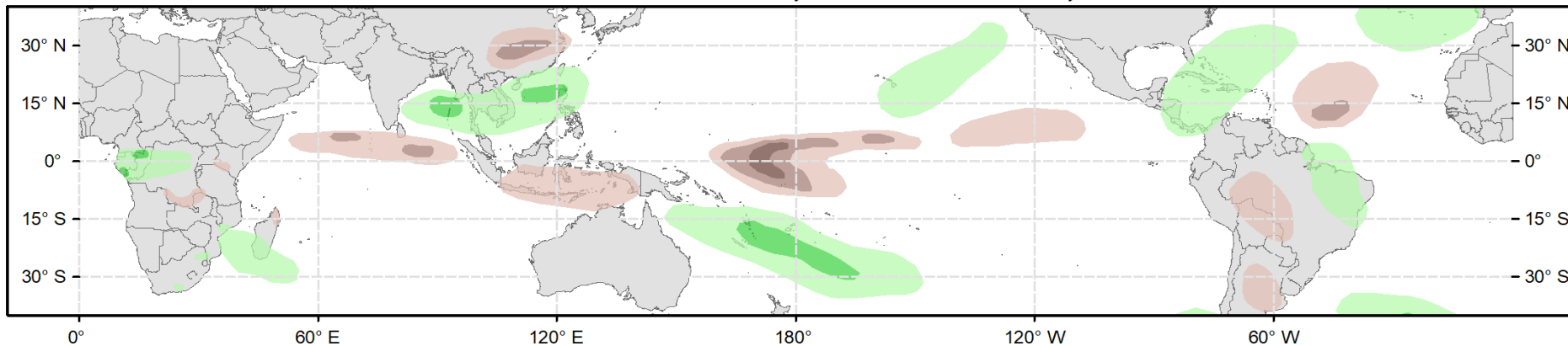
Climate Prediction Center



Week 2 - Valid: Dec 07, 2022 - Dec 13, 2022



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



Week-2 Only

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 mean temperatures in the Upper third of the historical range

Below-Average Temperatures Probability

>50% >65% >80%

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

Issued: 11/29/2022
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.