



Weeks 2-3 Global Tropics Hazards Outlook

9/27/2022

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NWS / NCEP / Climate Prediction Center

Synopsis of Climate Modes:

ENSO: (Sep 8, 2022 Update) *next update on Thursday, Oct 13th*

- ENSO Alert System Status: [La Niña Advisory](#)
- La Niña is favored to continue through Northern Hemisphere winter 2022-23, with a 91% chance in Sep-Nov, decreasing to a 54% chance in Jan-Mar 2023.

MJO and other subseasonal tropical variability:

- The MJO weakened during early September as it destructively interfered with the La Niña.
- A remnant MJO is forecast to propagate eastward over the Western Hemisphere during the next two weeks.
- This large-scale environment is expected to be favorable for tropical cyclone development across the Atlantic basin through the beginning of October.

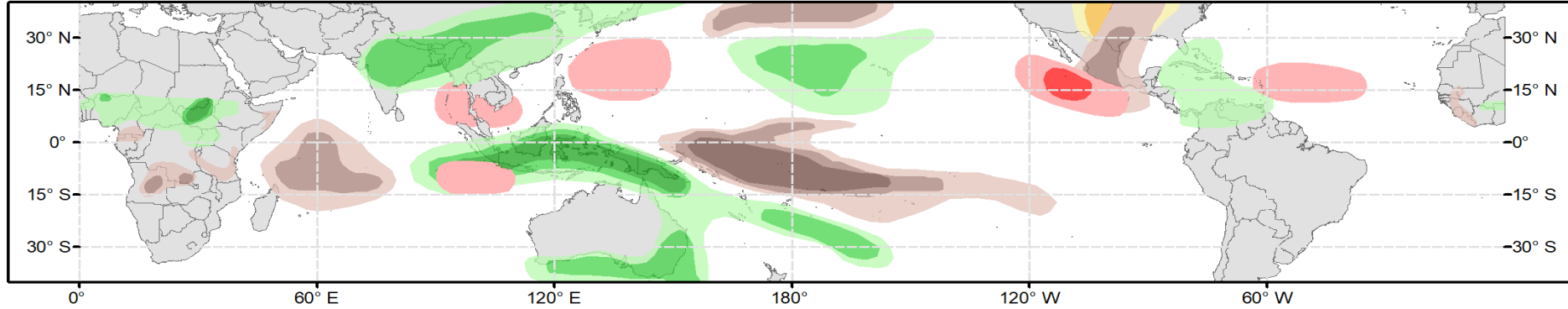
GTH Outlook:



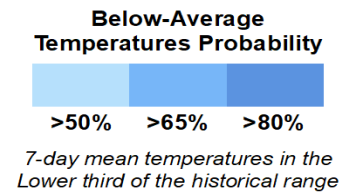
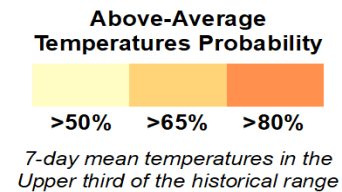
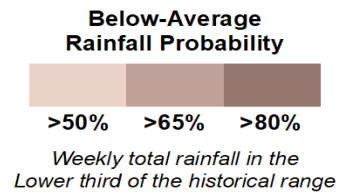
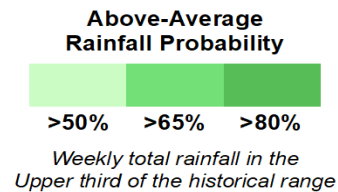
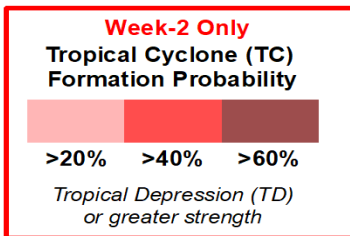
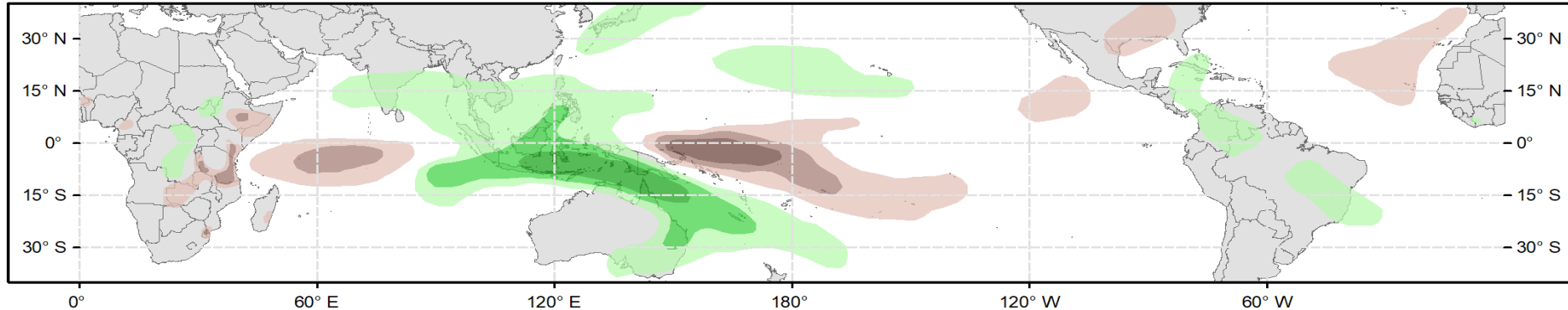
Global Tropics Hazards Outlook Climate Prediction Center



Week 2 - Valid: Oct 05, 2022 - Oct 11, 2022



Week 3 - Valid: Oct 12, 2022 - Oct 18, 2022

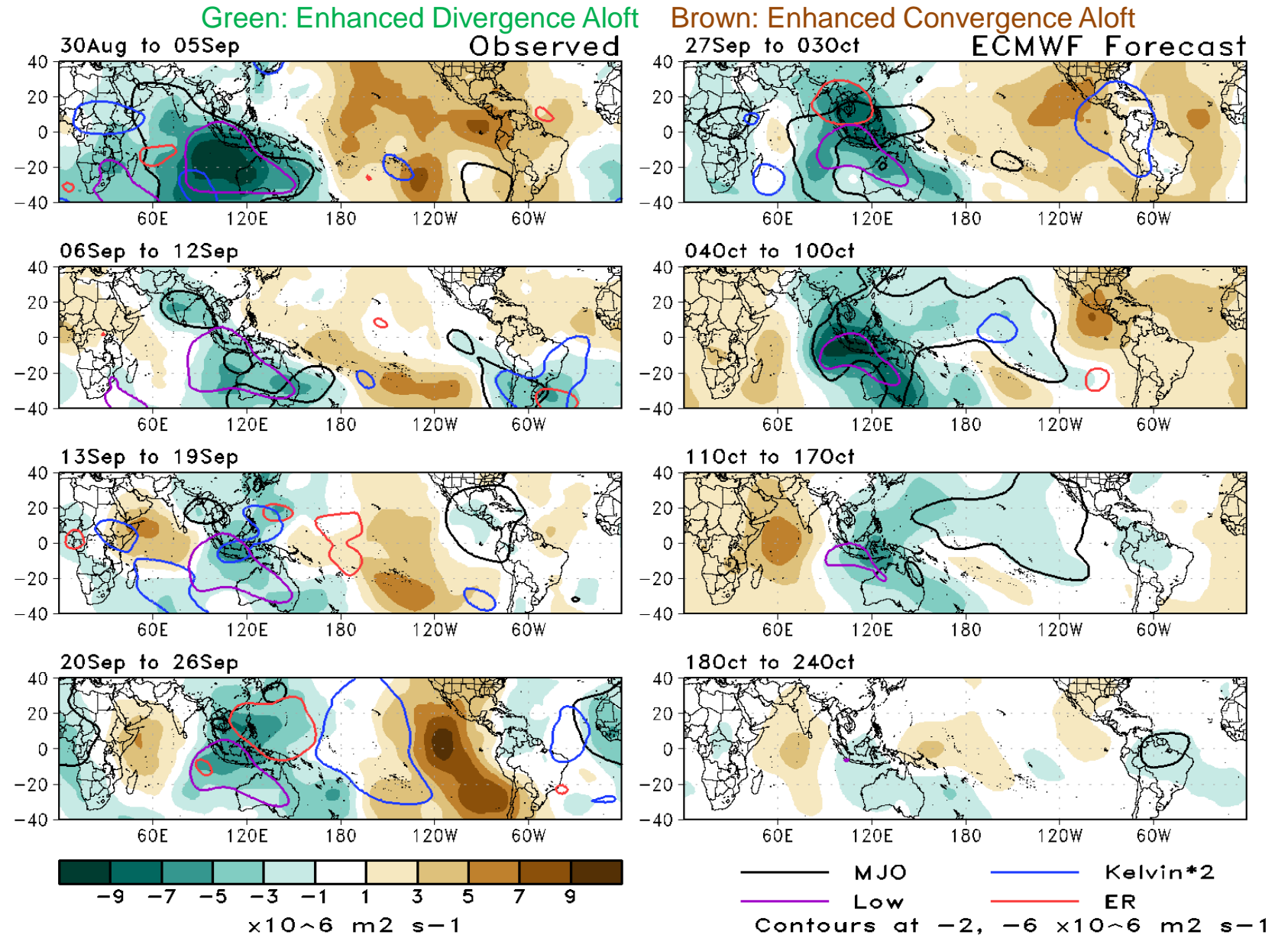


Issued: 09/27/2022
Forecaster: Barandiaran

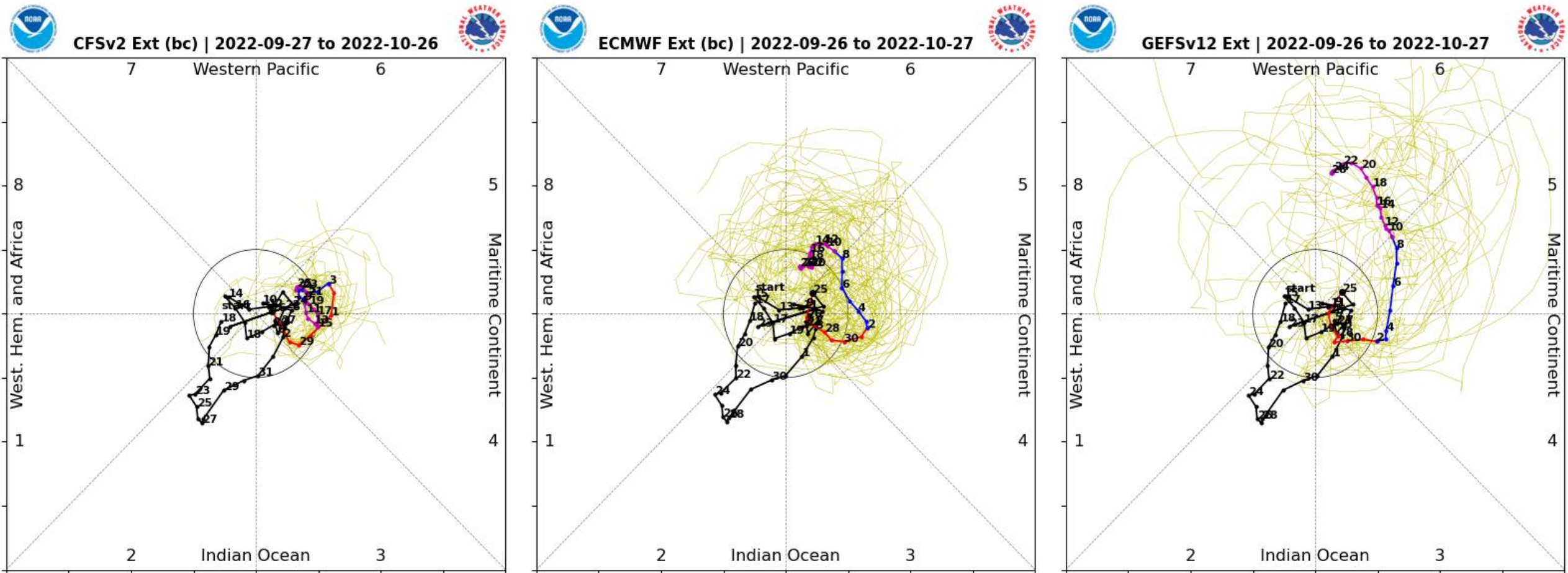
This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

200-hPa Velocity Potential Anomaly Maps:

- A secondary envelope of enhanced conditions is favored during week-1 over the Americas, while the main convective envelope remains anchored over the eastern Hemisphere.
- By week-3, the a wave-1 pattern is favored to redevelop, suggestive of the renewal of a more coherent MJO.

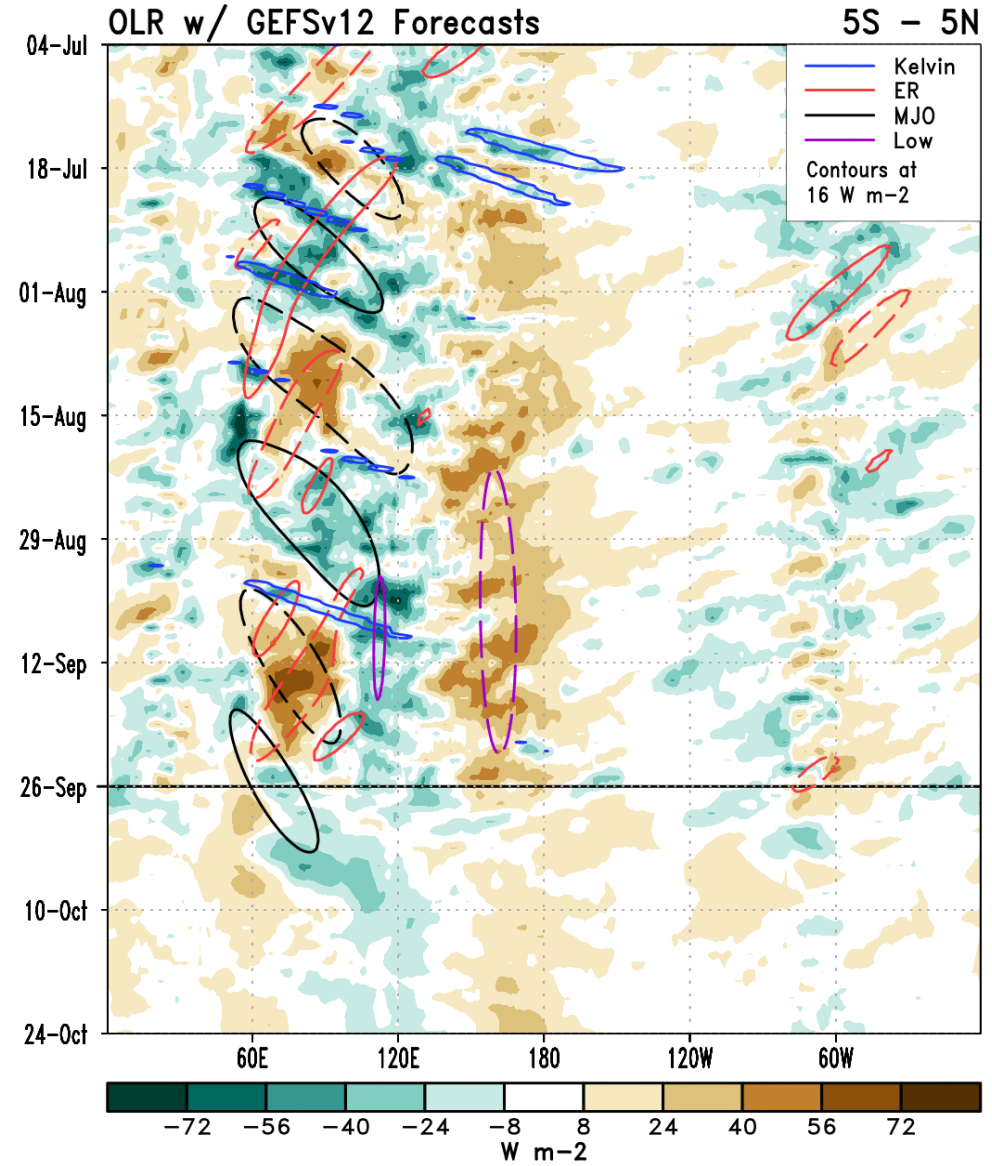
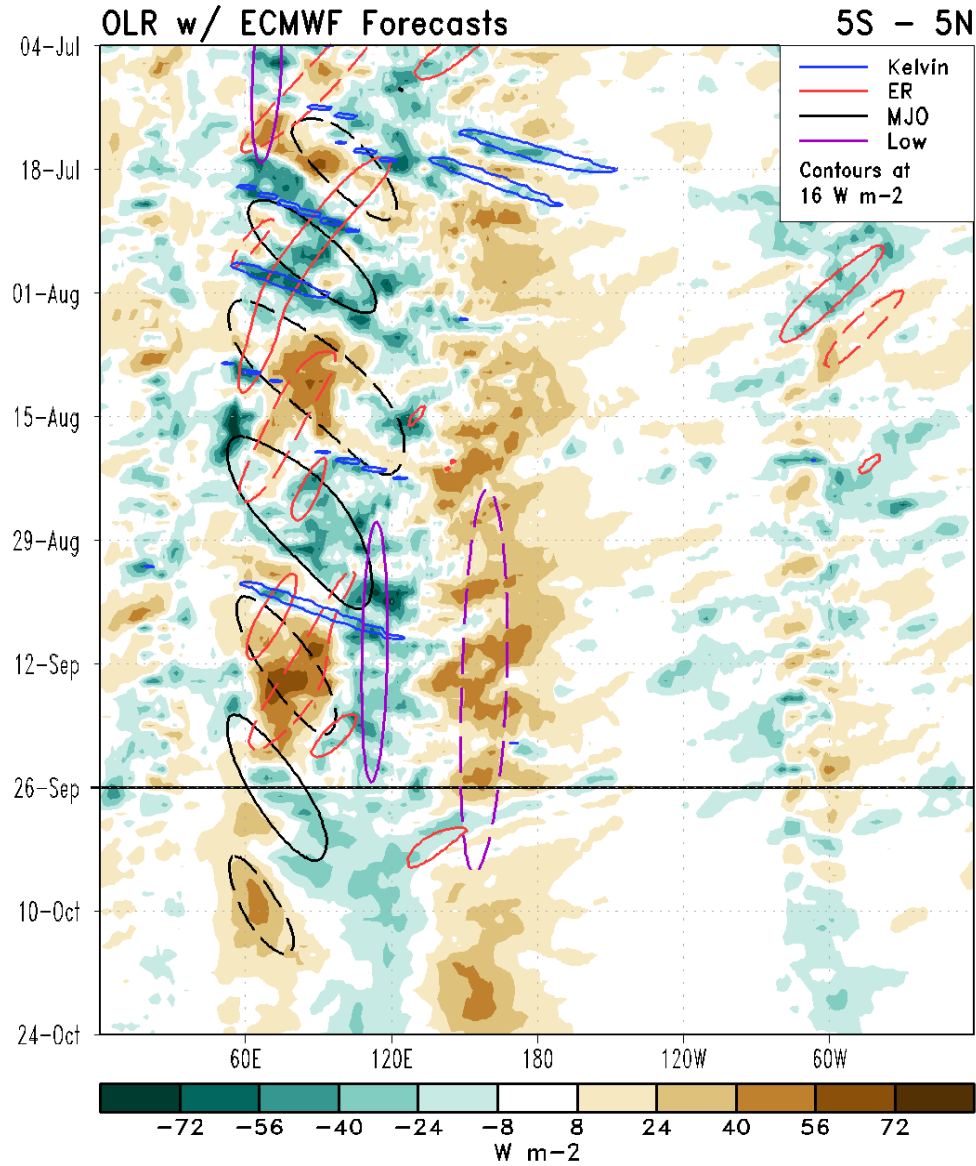


RMM Index Observations & Forecasts:



- Unlike the GEFS and CFS, the ECMWF favors a continual circumnavigation of the intraseasonal signal that returns to the Western Hemisphere and Indian Ocean during the next 3 weeks, albeit at a low amplitude. This evolution is also favored by the latest BOMM RMM forecast (not pictured).
- However, ensemble spread remains quite high among the dynamical models, contributing to much uncertainty in the outlook.

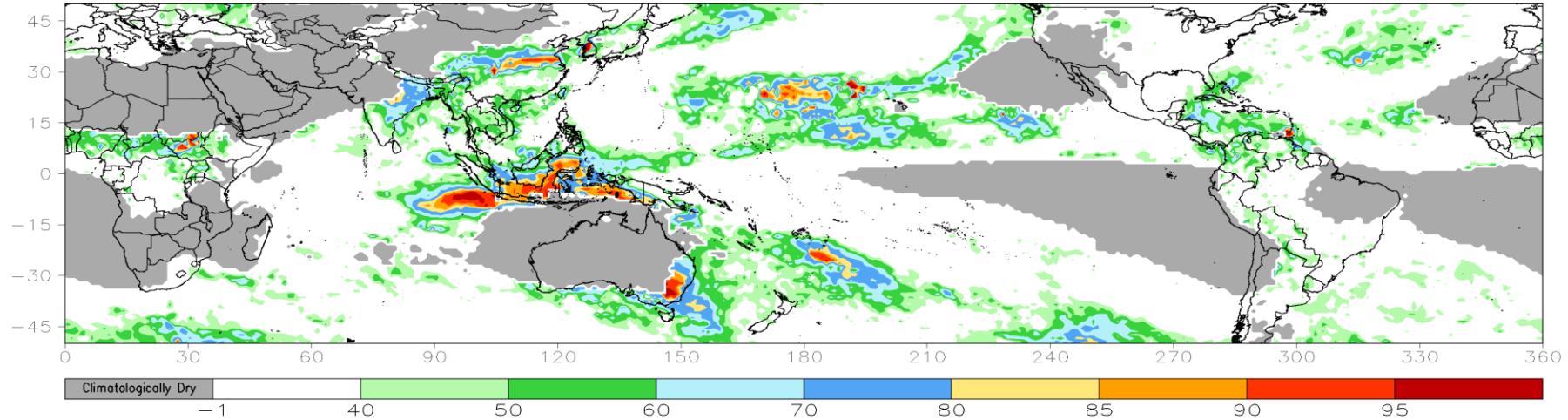
Outgoing Longwave Radiation (OLR) Anomaly Time/Lon Plots:



Consolidated Probabilistic Precipitation: Week-2

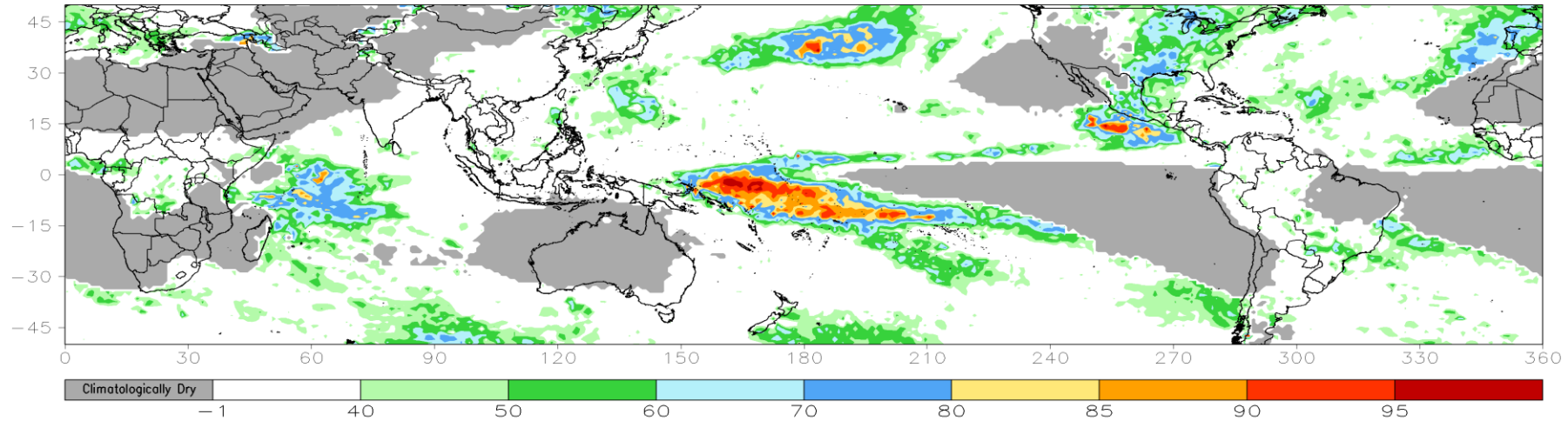
CONS 00z: Week2 Probability for Total Rainfall Above Upper Tercile (%)

Valid: 05Oct2022–11Oct2022



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

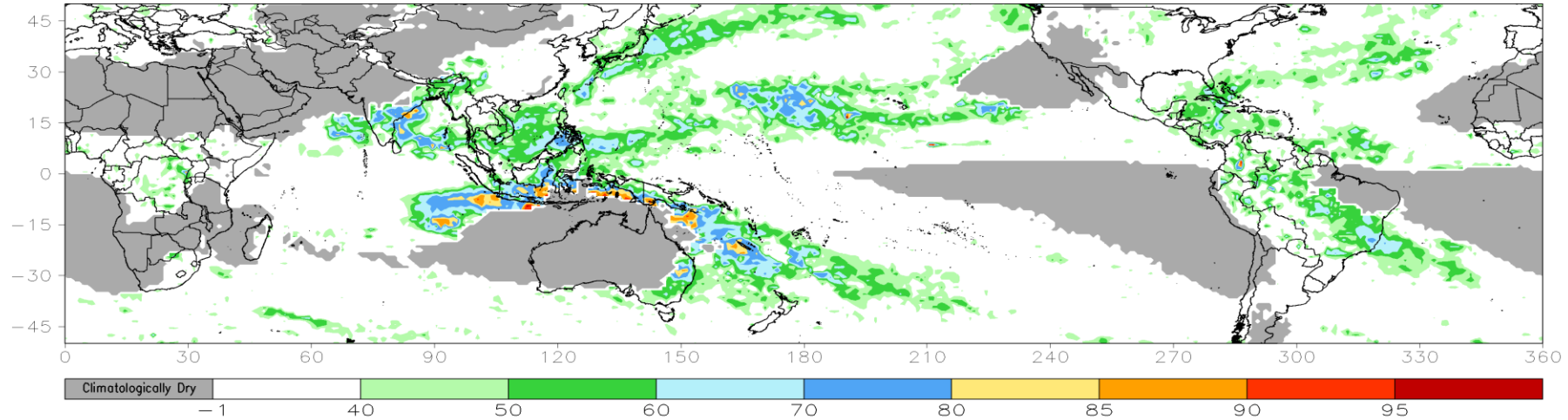
Valid: 05Oct2022–11Oct2022



Consolidated Probabilistic Precipitation: Week-3

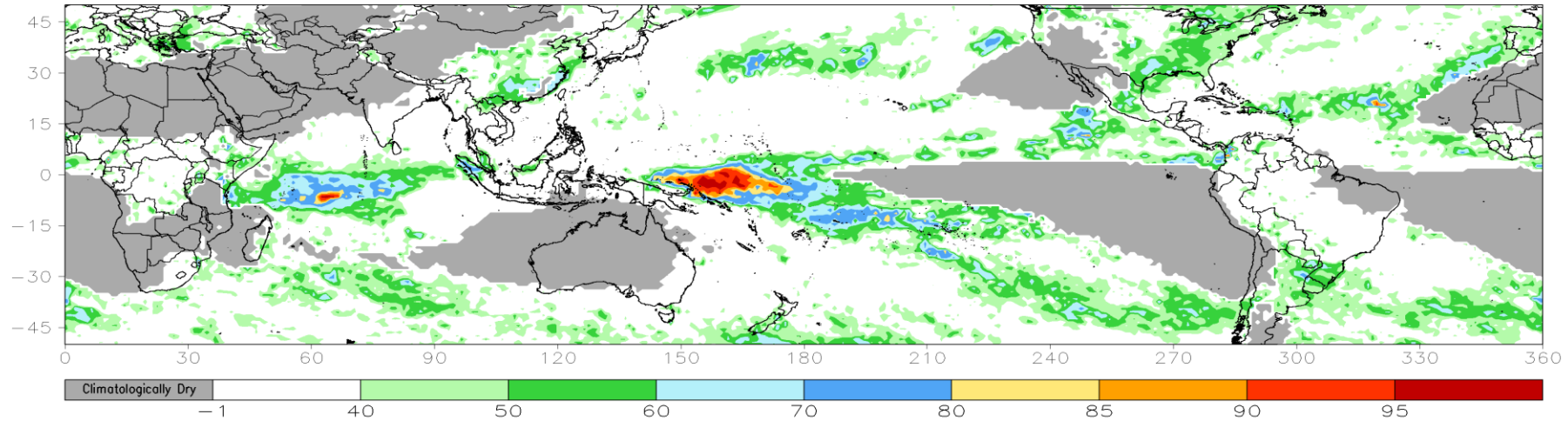
CONS 00z: Week3 Probability for Total Rainfall Above Upper Tercile (%)

Valid: 120ct2022-180ct2022



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

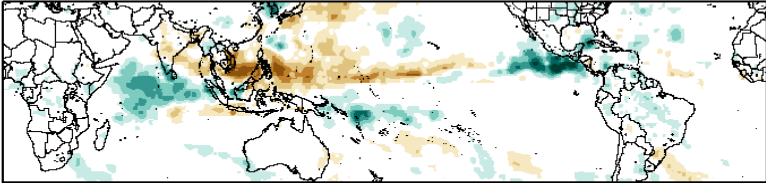
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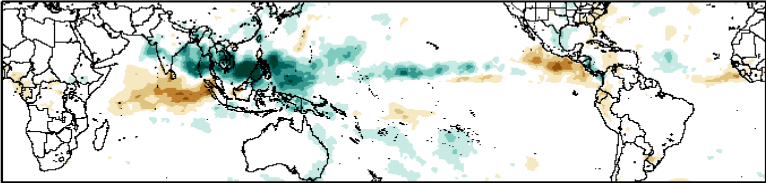
Historical Precipitation Anomalies By MJO Phase:

ASO MJO Composite: GPCP1DD (mm/day)

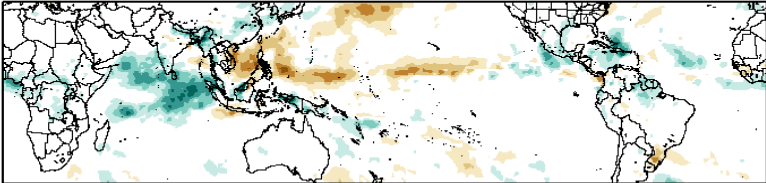
Phase 1



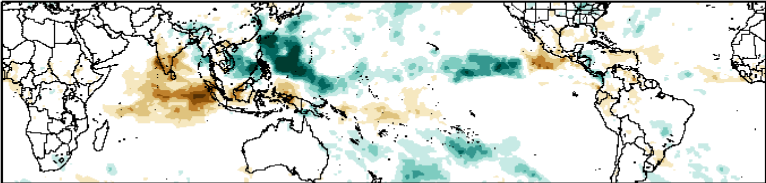
Phase 5



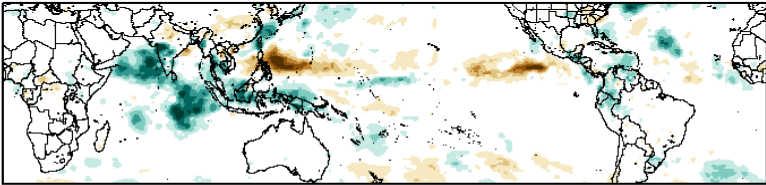
Phase 2



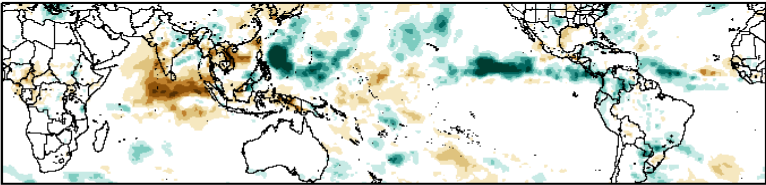
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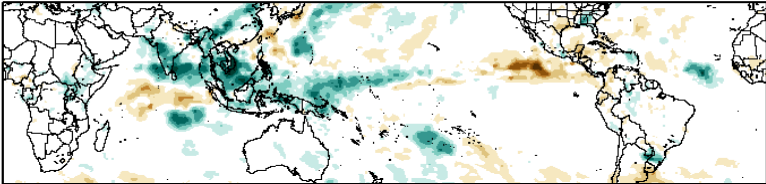
Phase 3



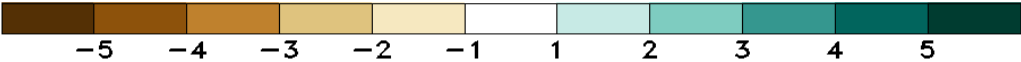
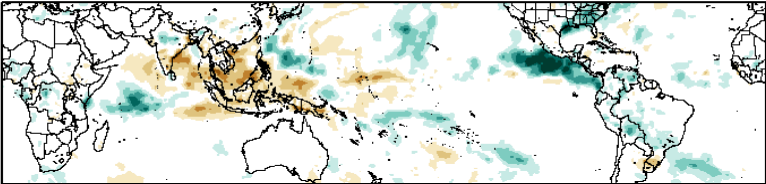
Phase 7



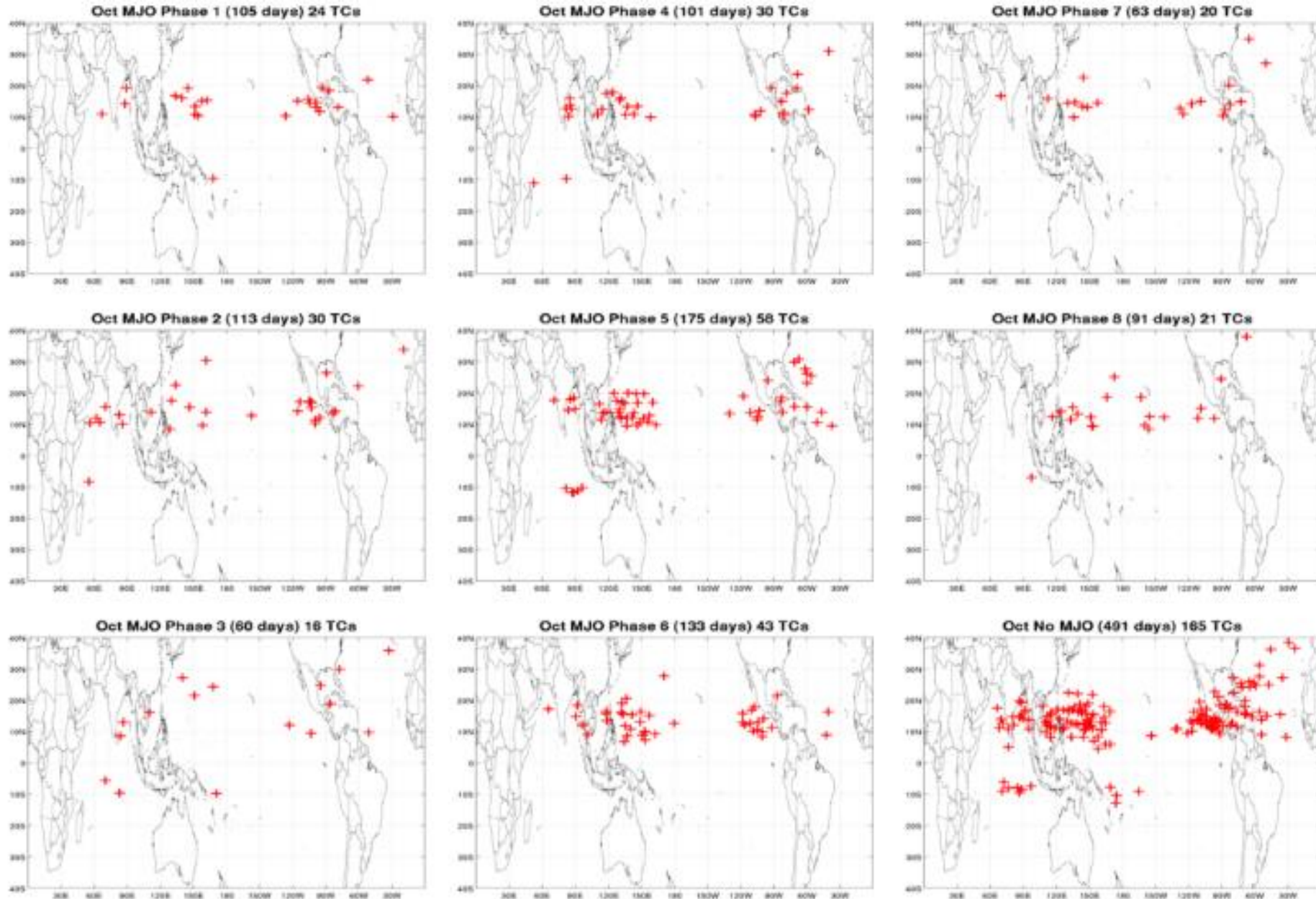
Phase 4



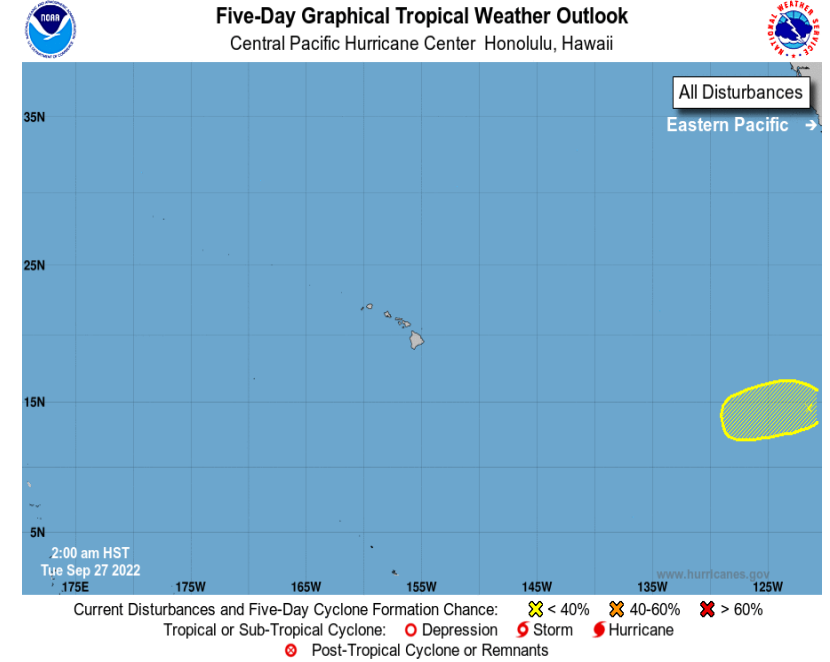
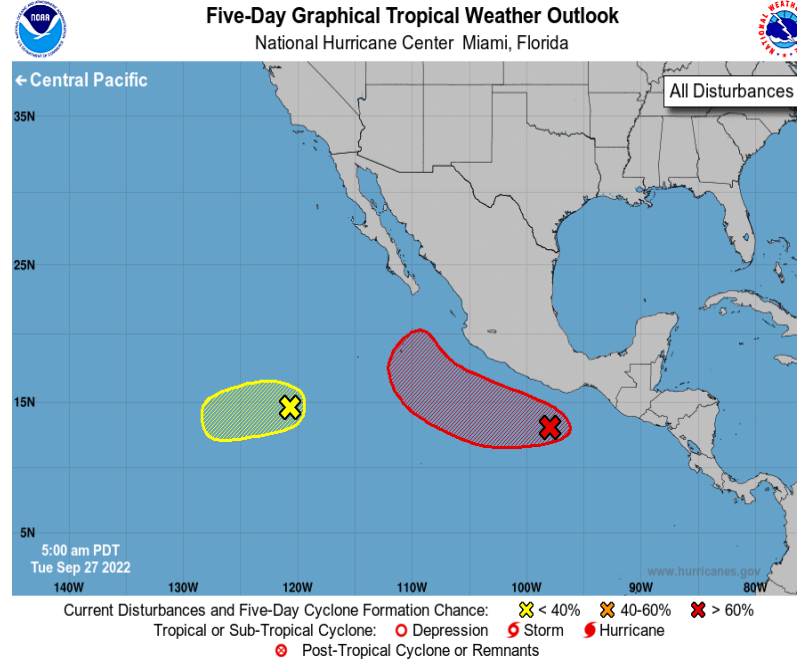
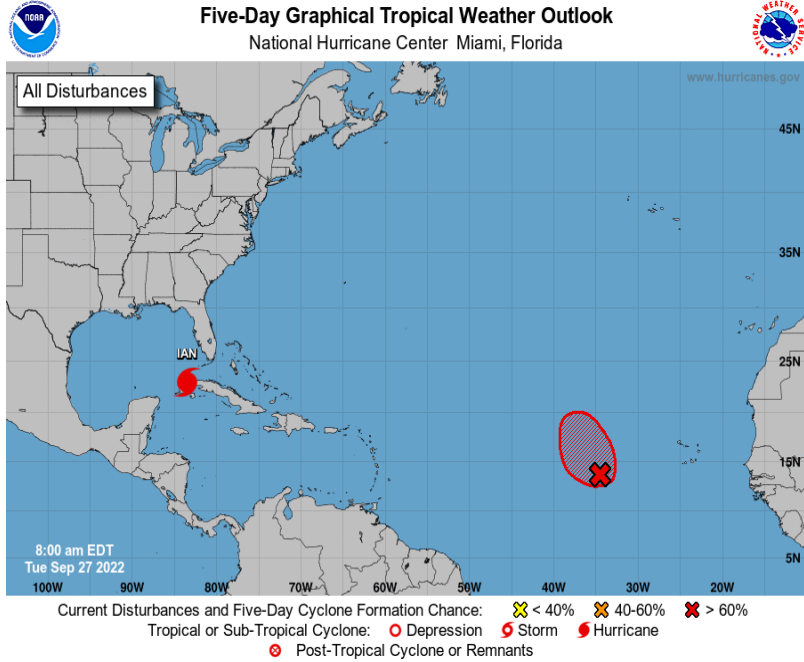
Phase 8



Historical TC Genesis Origins By MJO Phase:



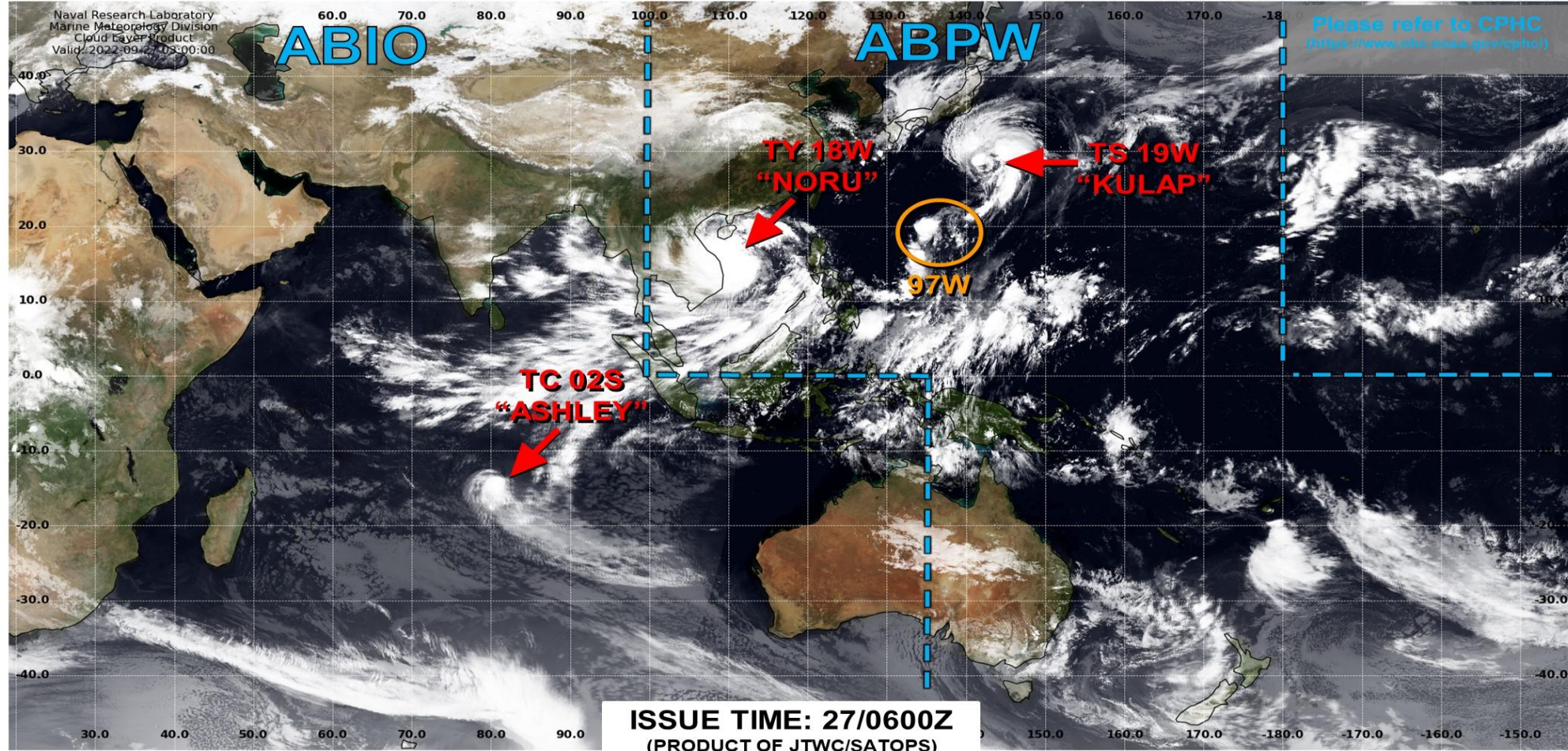
Tropical Cyclone Monitoring/Forecast: NHC



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



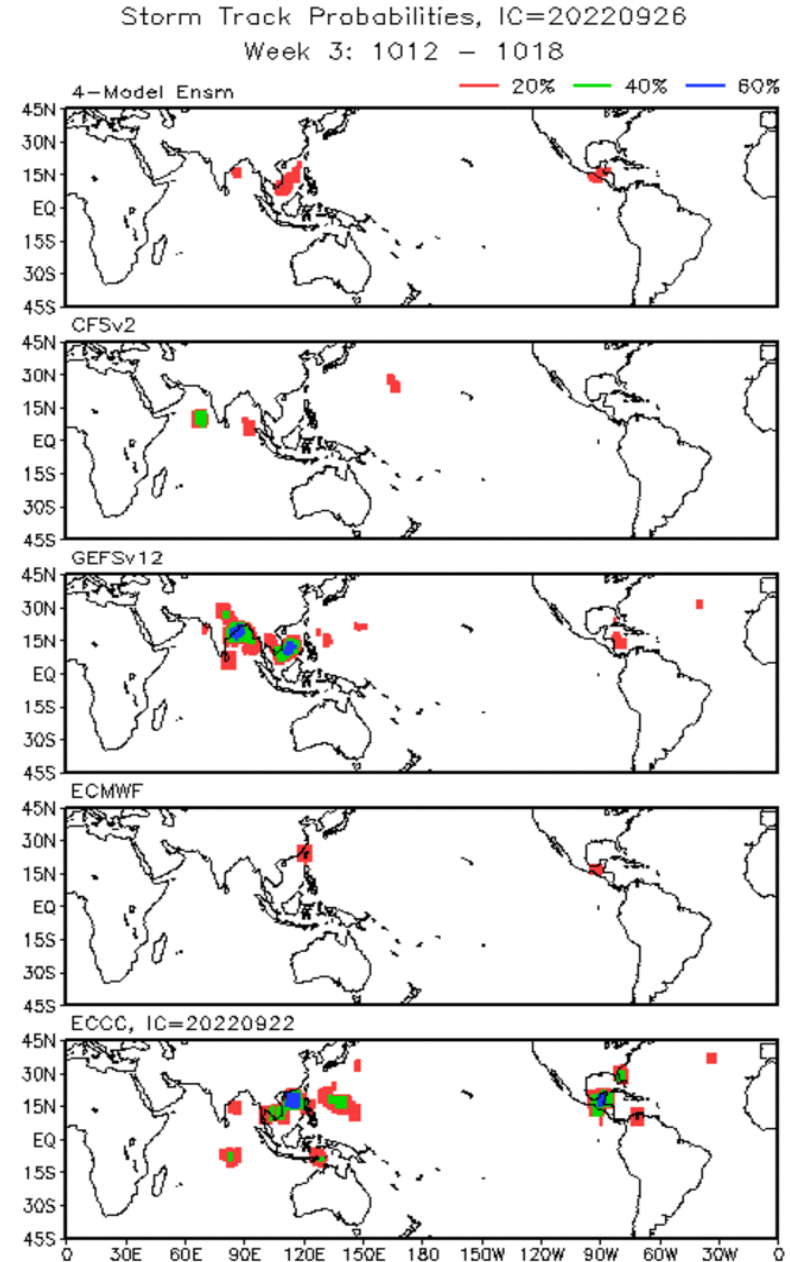
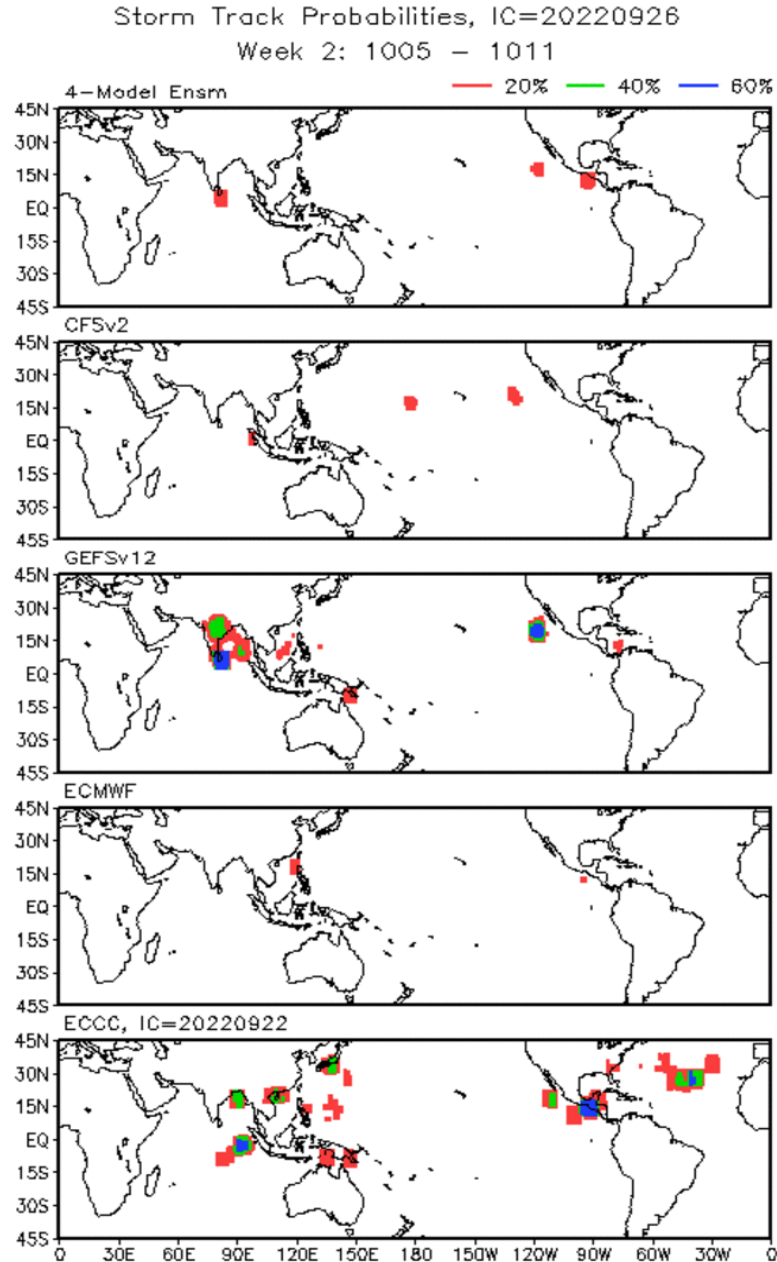
TC development likely within 24 hours (Reference TCFA)



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



Multi-Model TC Track Probabilities:



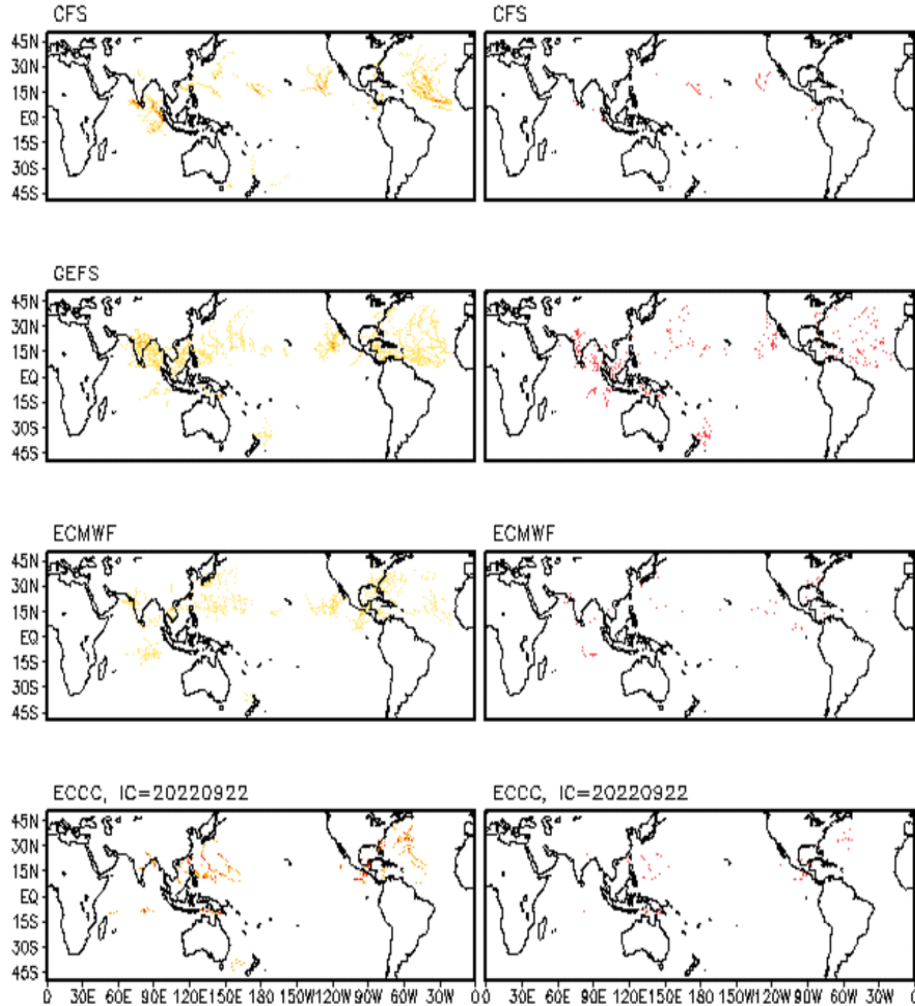
Multi-Model TC Densities (Unfiltered/Filtered):

Storm Track Density Distribution, IC=20220926

Week 2 Forecast: 1005-1011

TRACK DENSITY

FILTERED

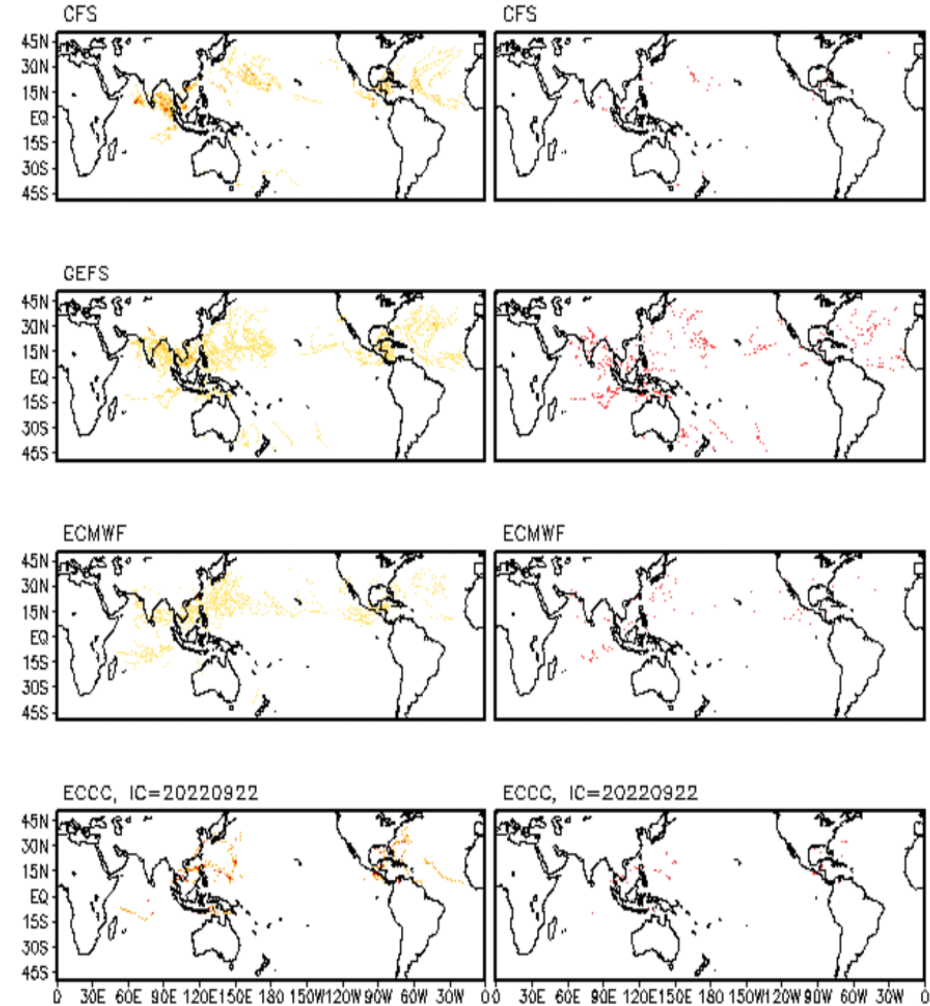


Storm Track Density Distribution, IC=20220926

Week 3 Forecast: 1012-1018

TRACK DENSITY

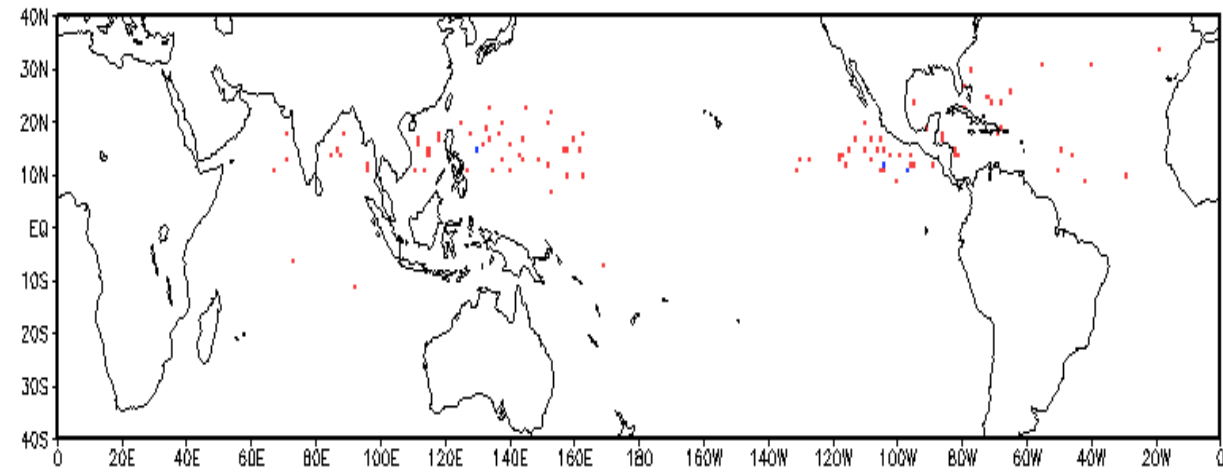
FILTERED



TC Climatological Genesis:

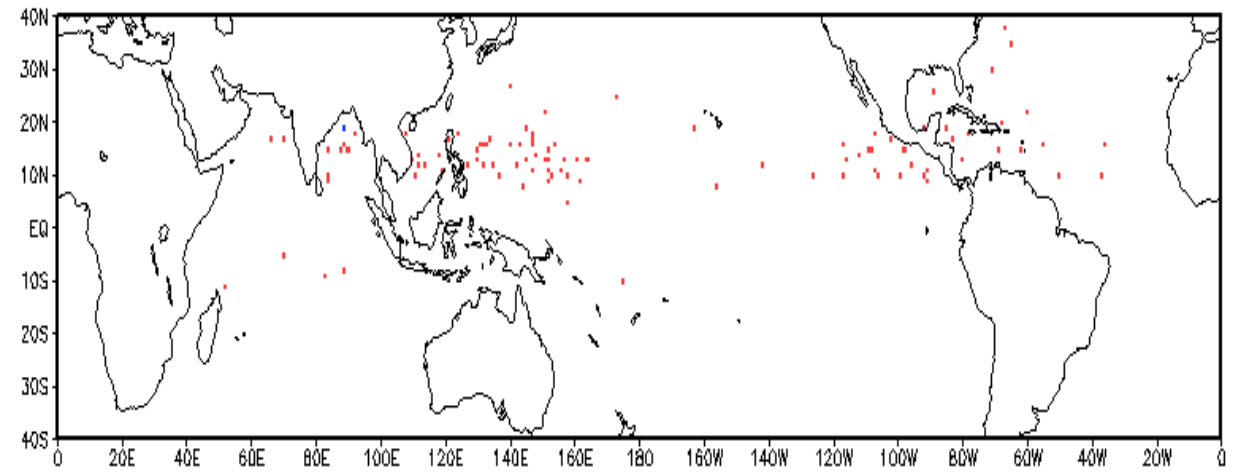
Observed TC Genesis, 1979–2021

7-day Period 1005 to 1011



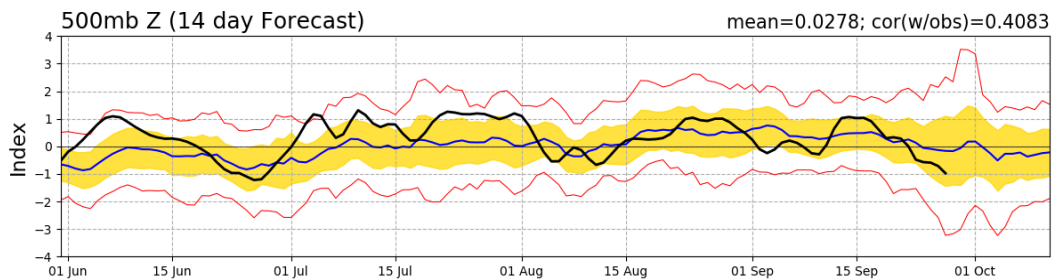
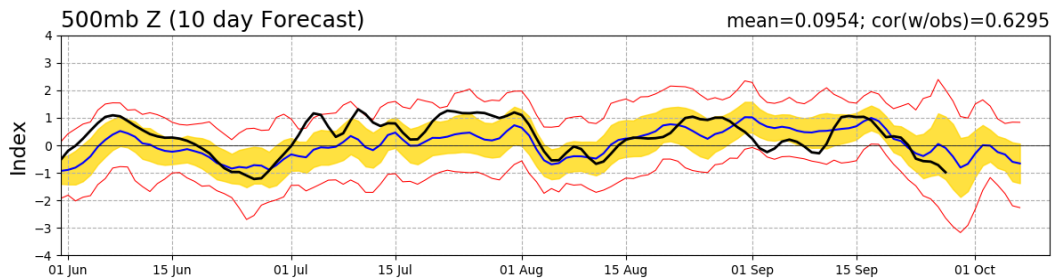
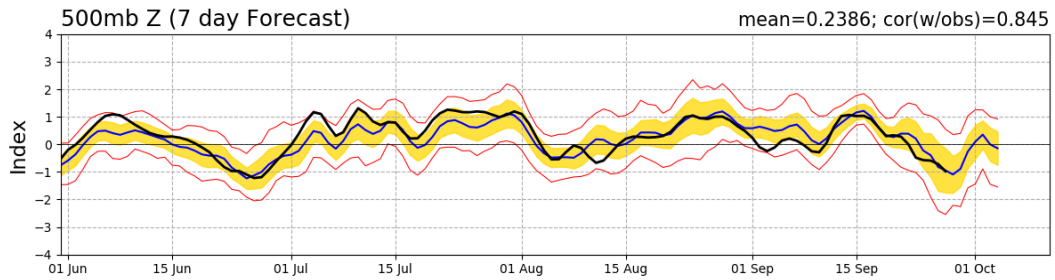
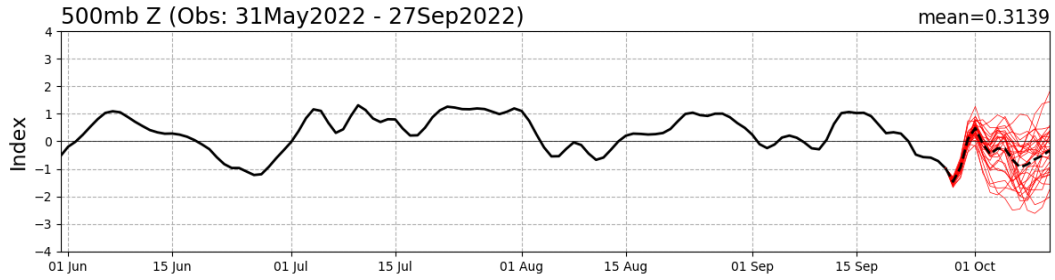
Observed TC Genesis, 1979–2021

7-day Period 1012 to 1018

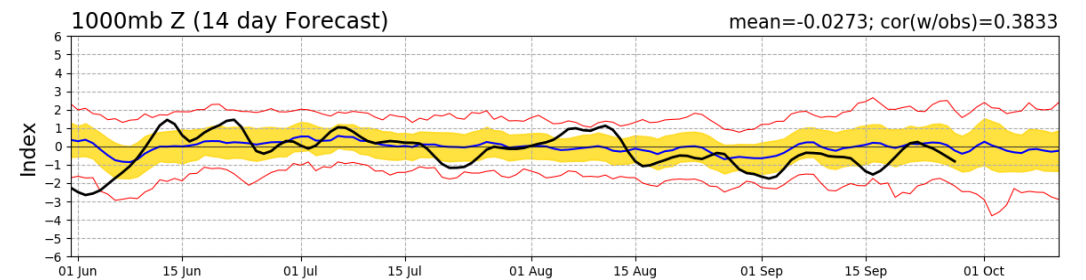
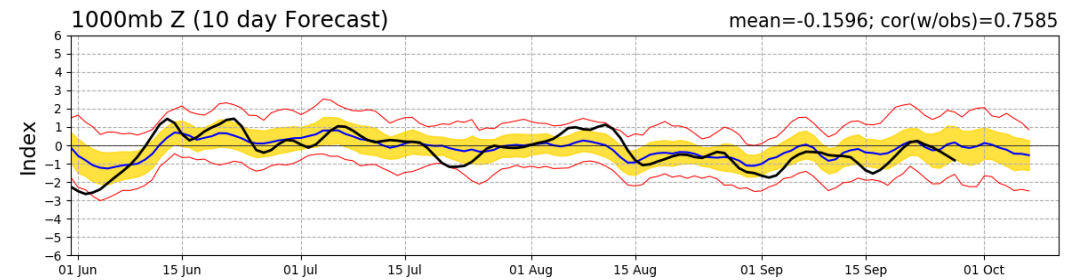
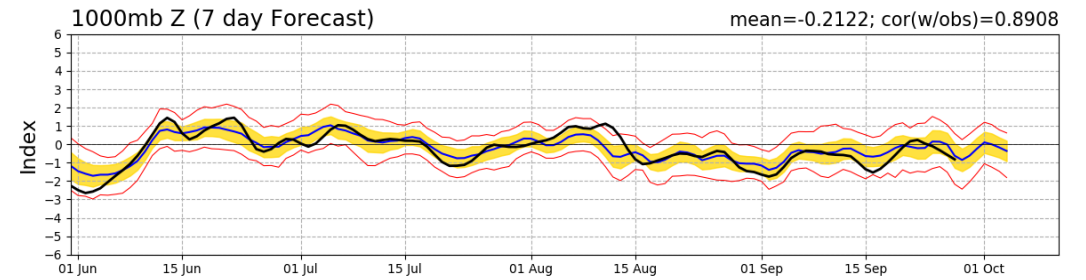
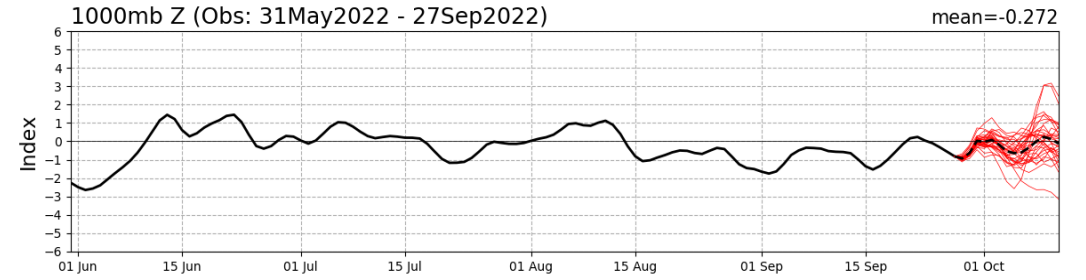


Teleconnection Indices: PNA / AO:

PNA Index: Observed & GEFS Forecasts

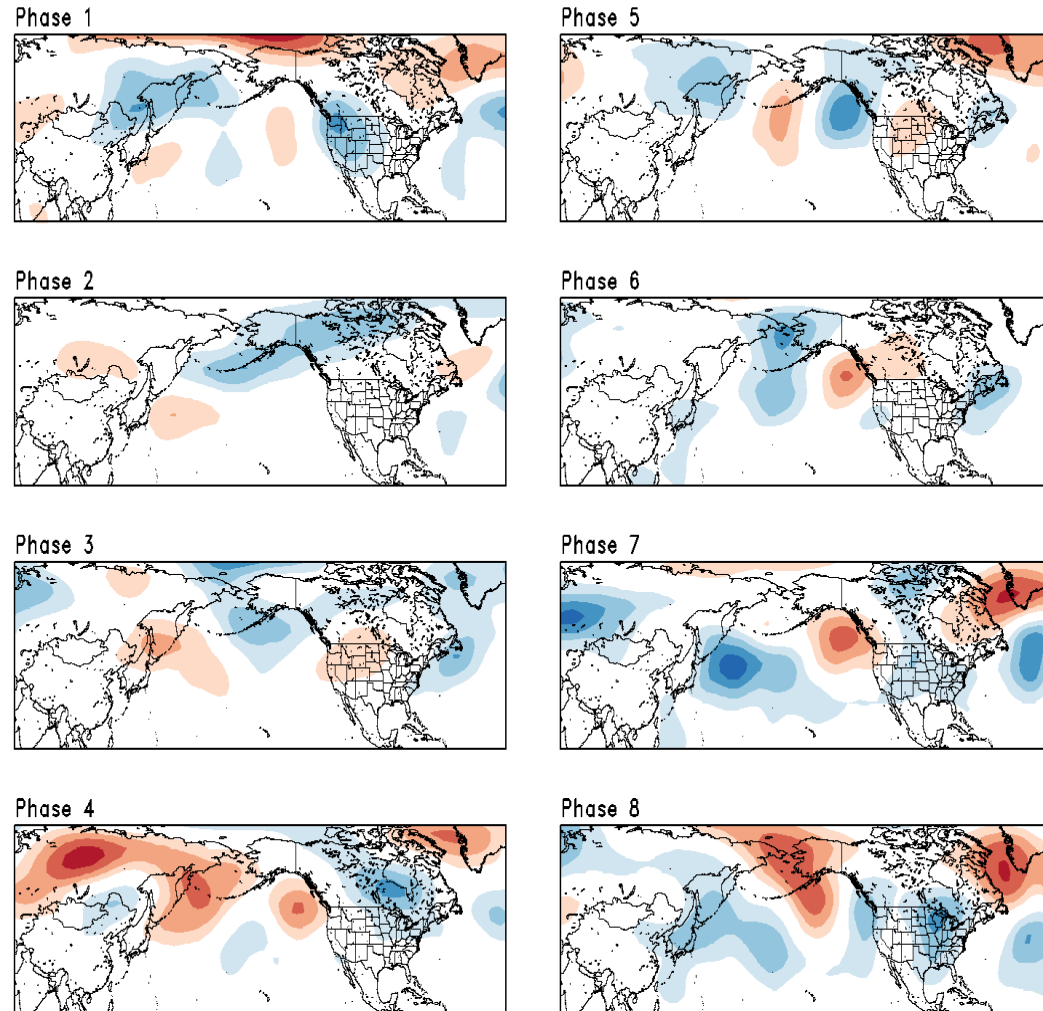


AO Index: Observed & GEFS Forecasts

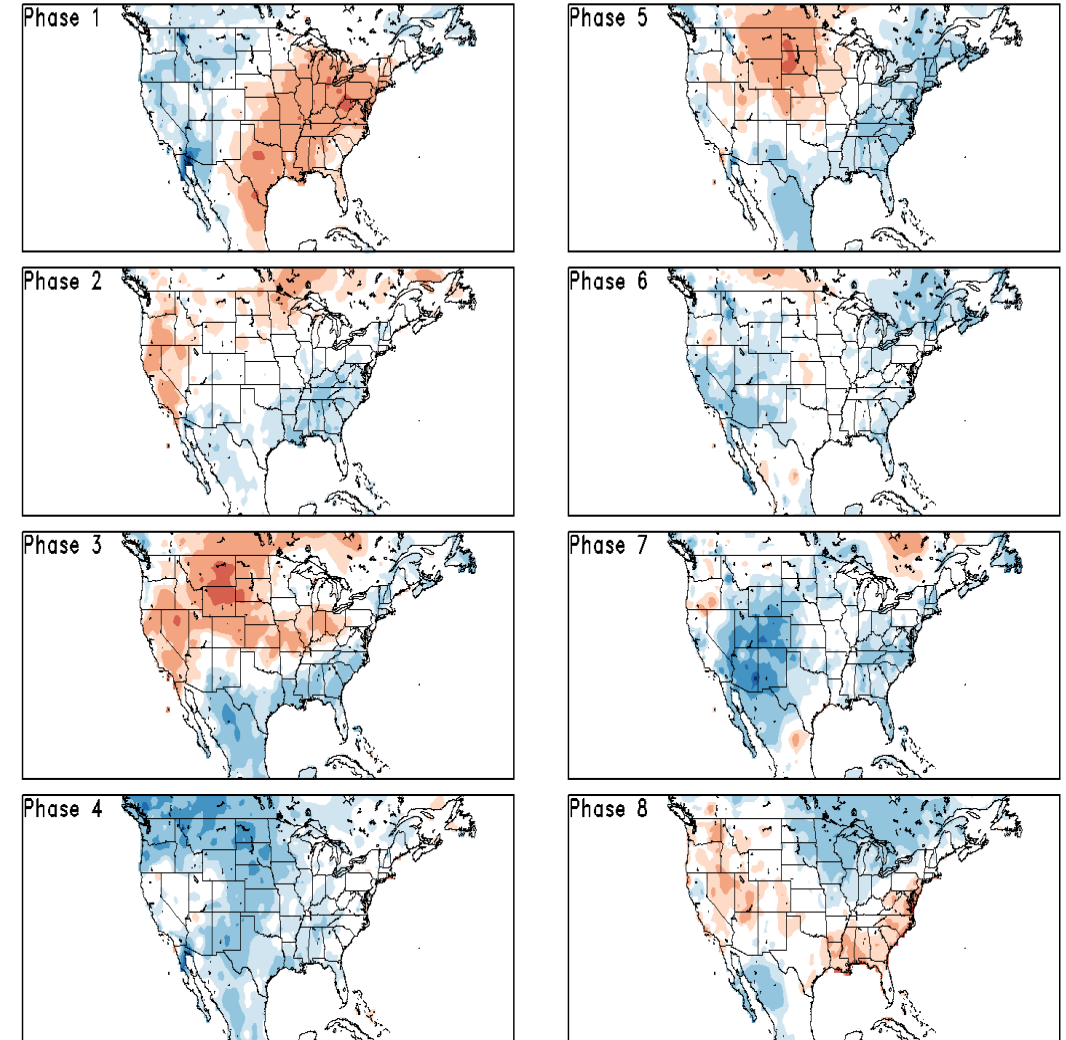


Historical 500-hPa Height & U.S. Temperatures By MJO Phase:

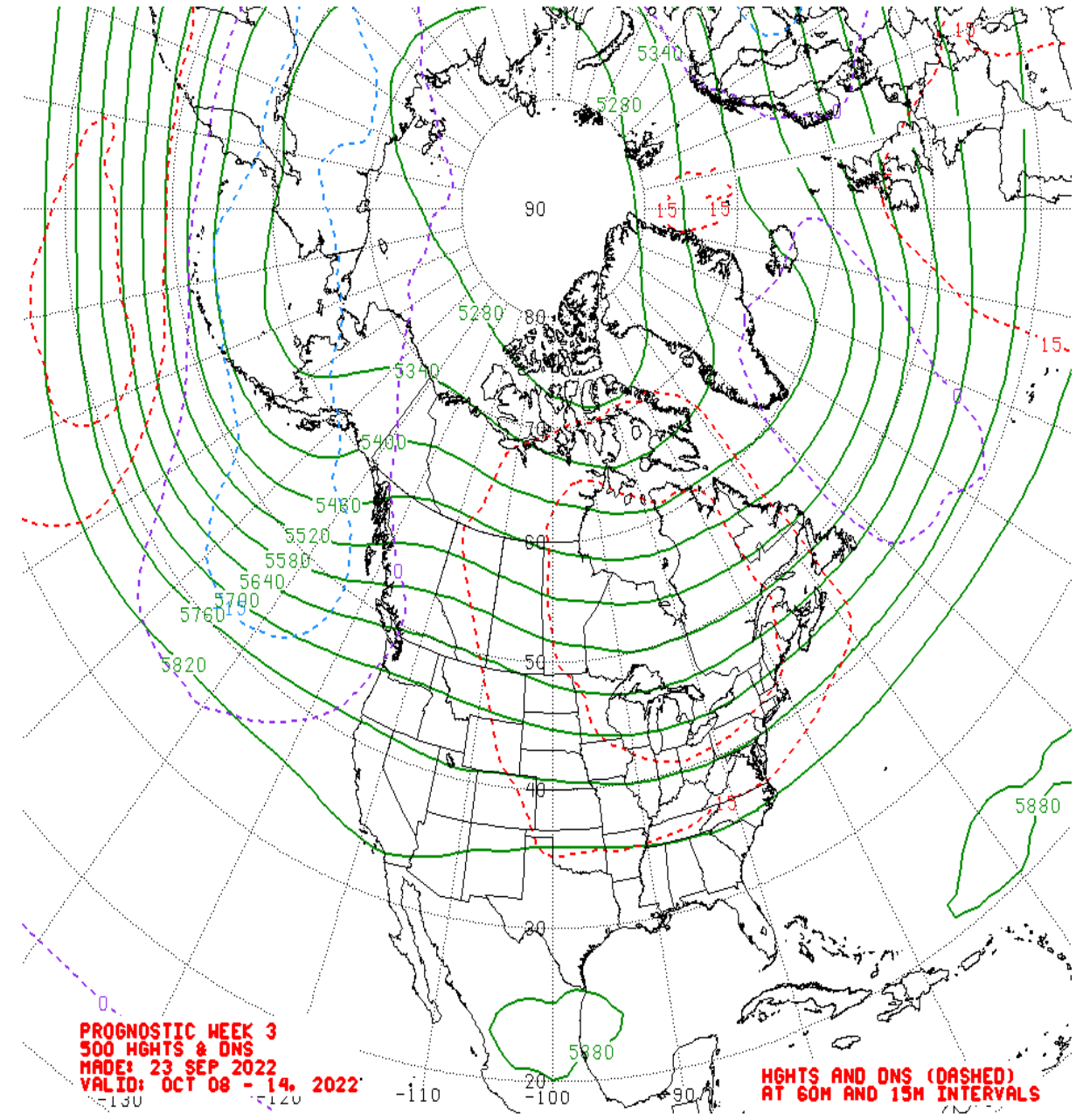
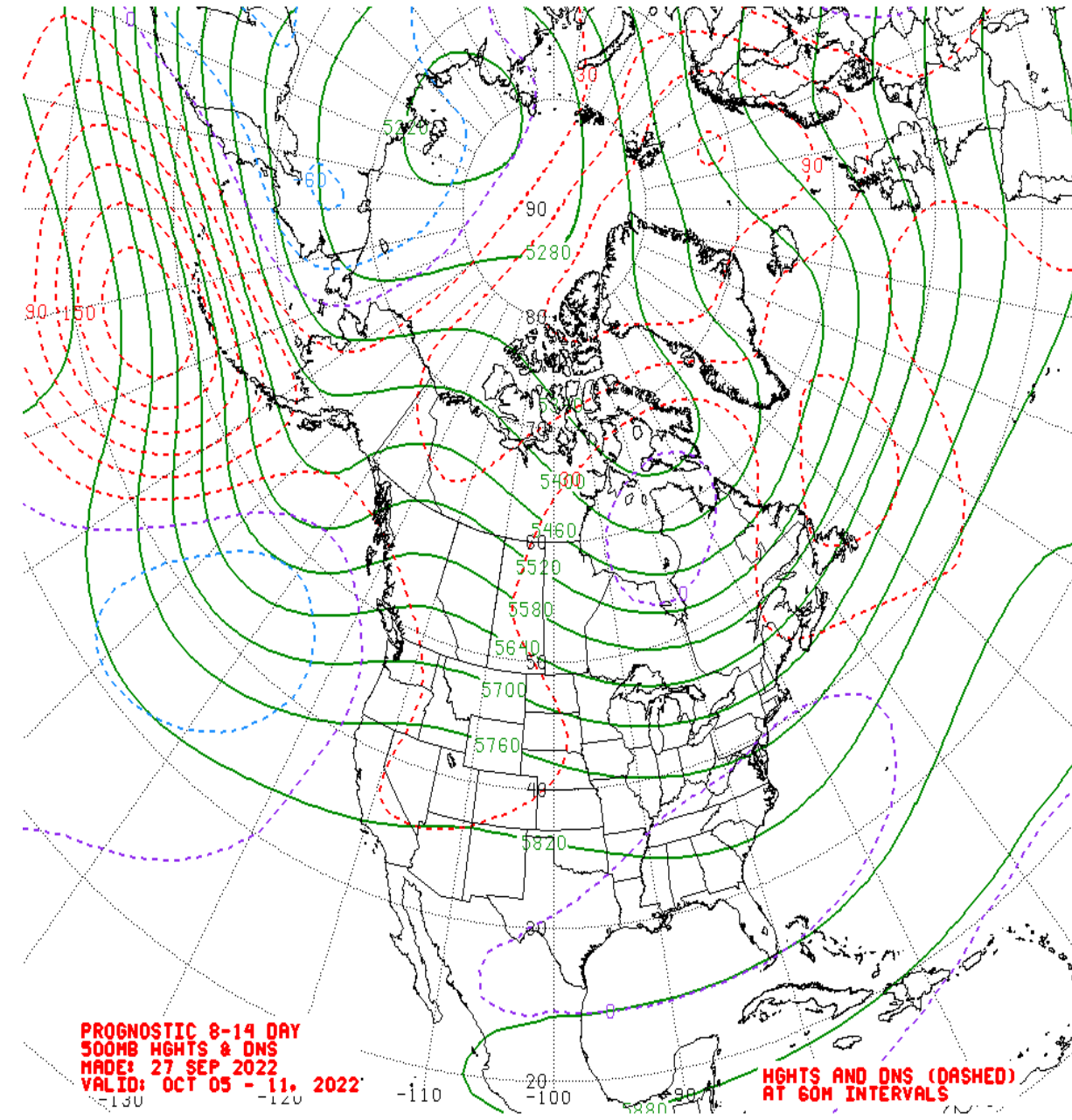
ASO MJO Composite: CDAS 500-hPa Height (m)



ASO MJO Composite: GLBT (degC)



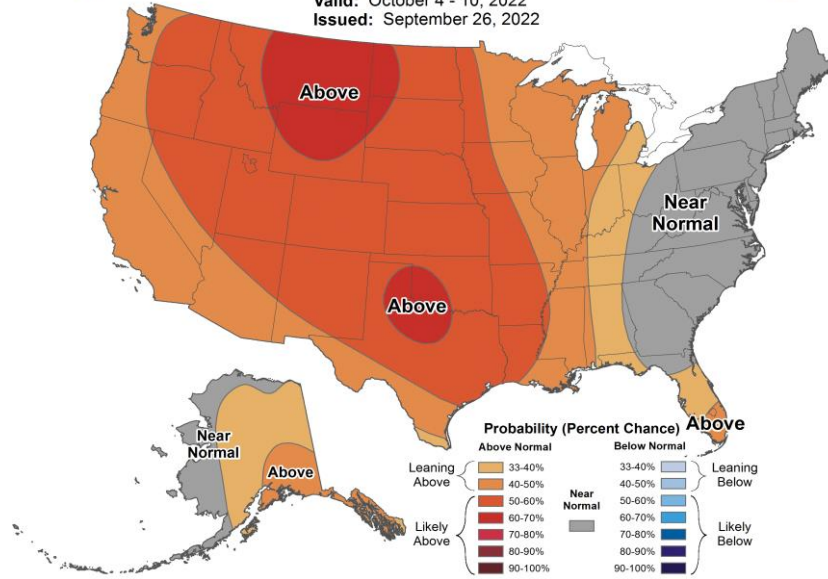
Mean 500-hPa Height Anomaly Forecasts:



Official Temperature & Precipitation Forecasts:

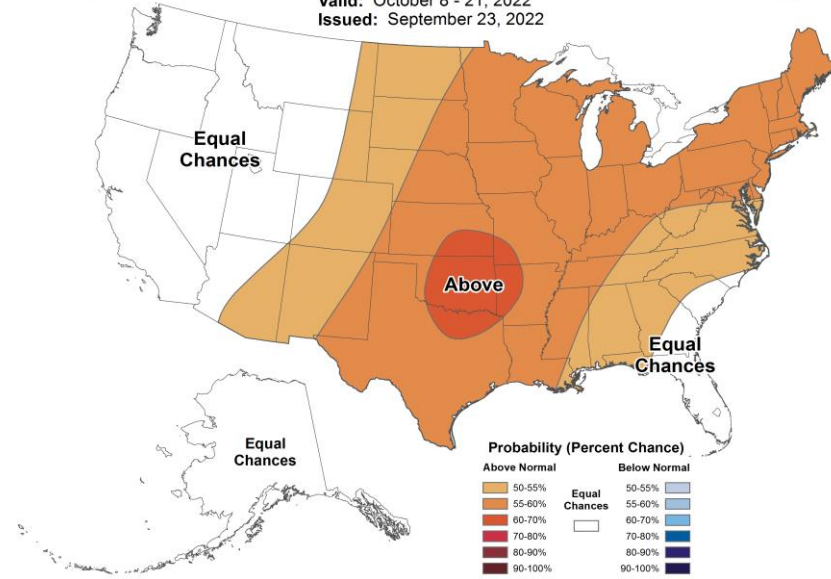
8-14 Day Temperature Outlook

Valid: October 4 - 10, 2022
Issued: September 26, 2022



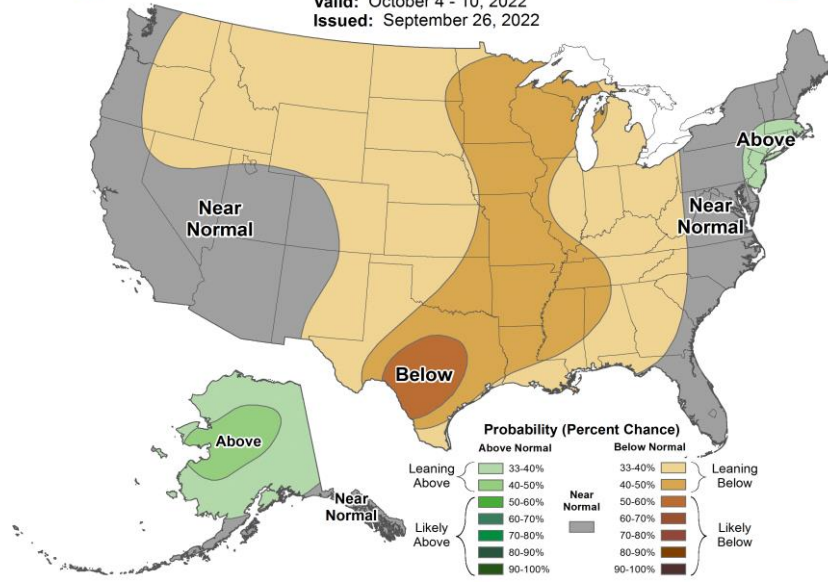
Weeks 3-4 Temperature Outlook

Valid: October 8 - 21, 2022
Issued: September 23, 2022



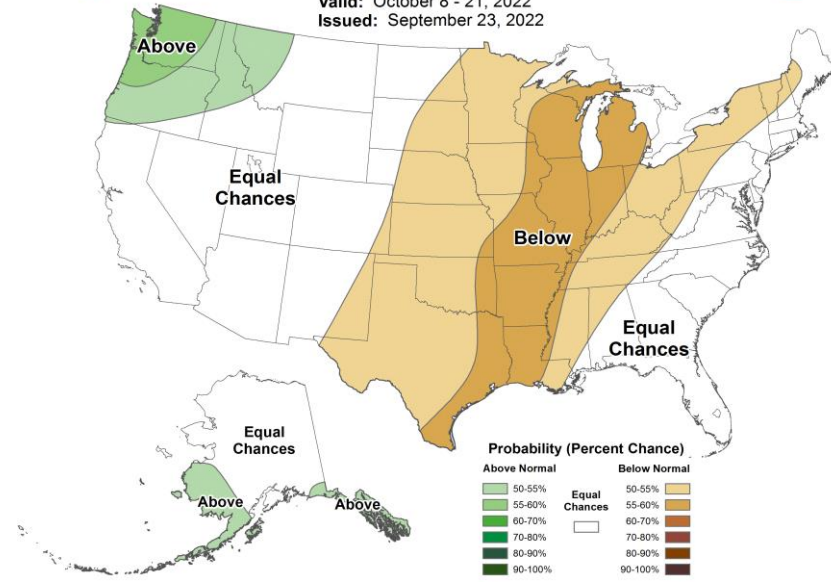
8-14 Day Precipitation Outlook

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Weeks 3-4 Precipitation Outlook

Valid: October 8 - 21, 2022
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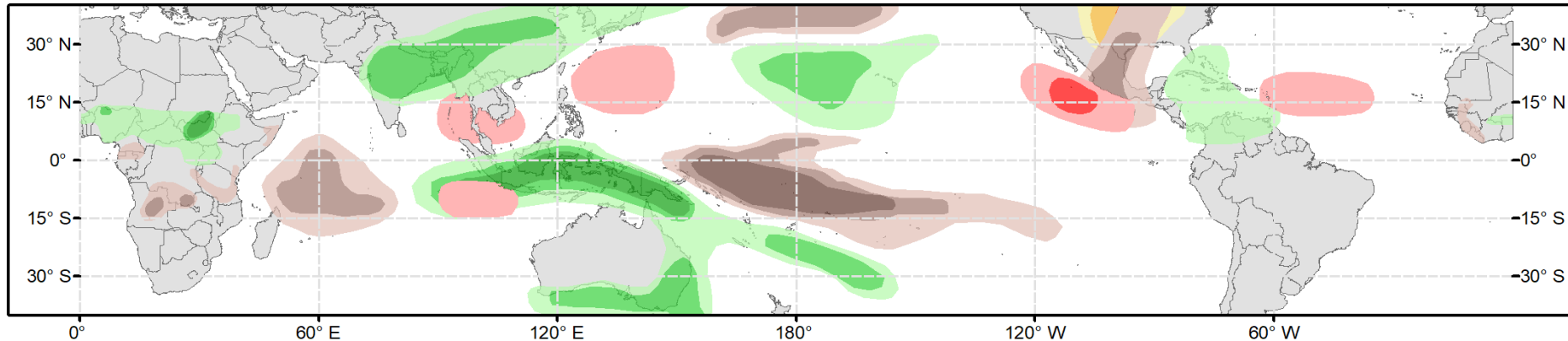


Global Tropics Hazards Outlook

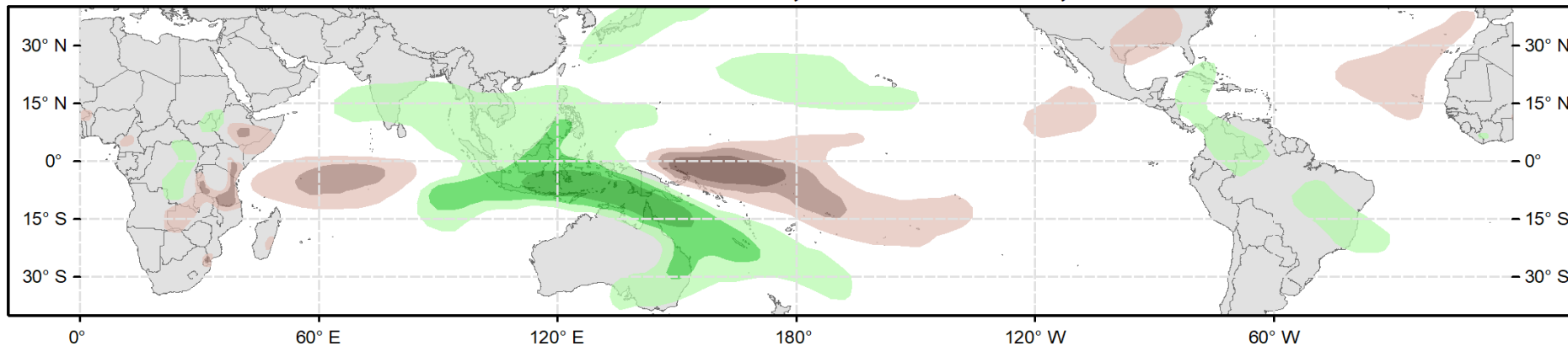
Climate Prediction Center



Week 2 - Valid: Oct 05, 2022 - Oct 11, 2022



Week 3 - Valid: Oct 12, 2022 - Oct 18, 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

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Forecaster: Barandiaran

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