



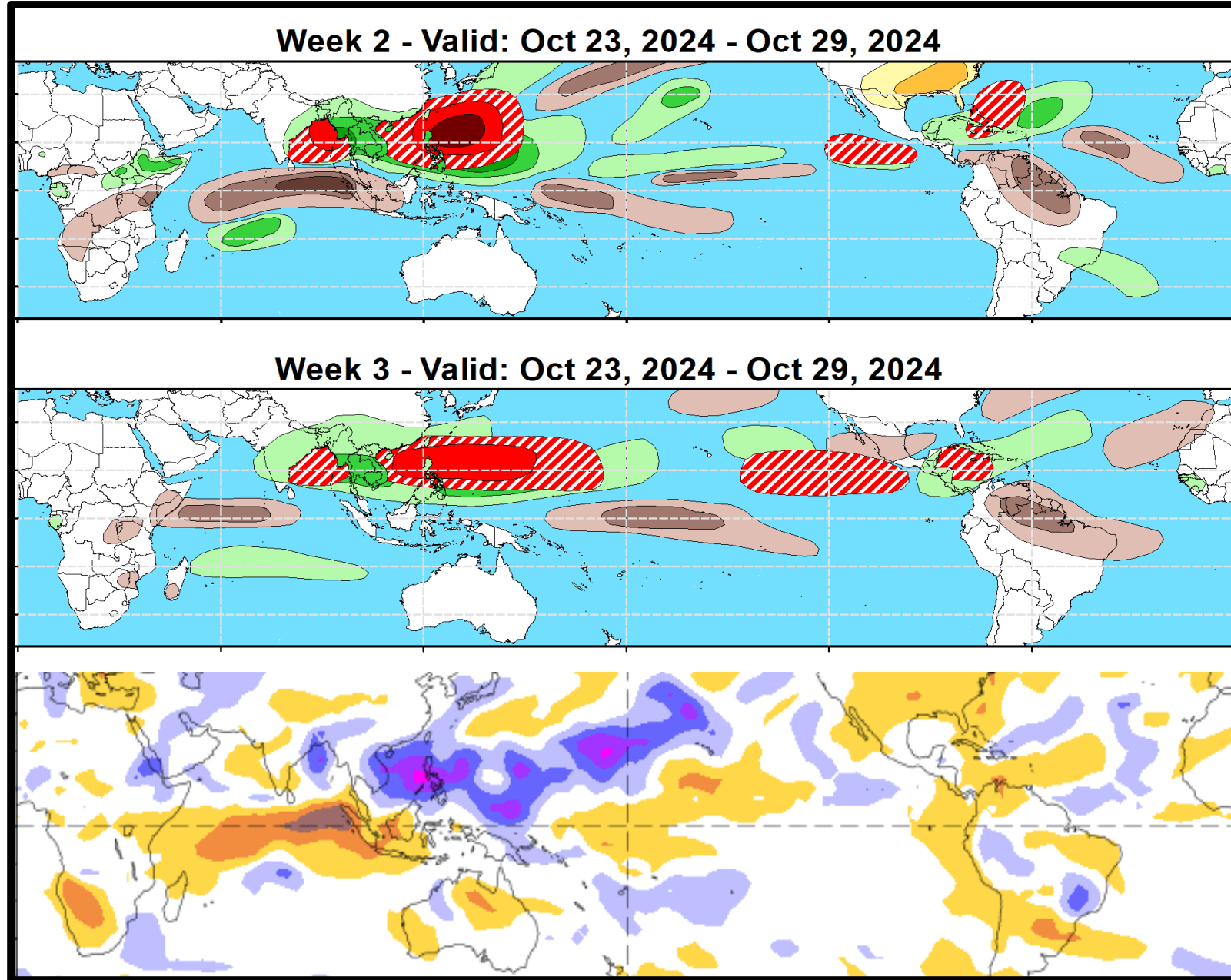
Weeks 2-3 Global Tropics Hazards Outlook

10/29/2024

Danny Barandiaran
NWS / NCEP / Climate Prediction Center

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

- 1: Dana, Oct. 22
- 2: Kong-rey, Oct. 24



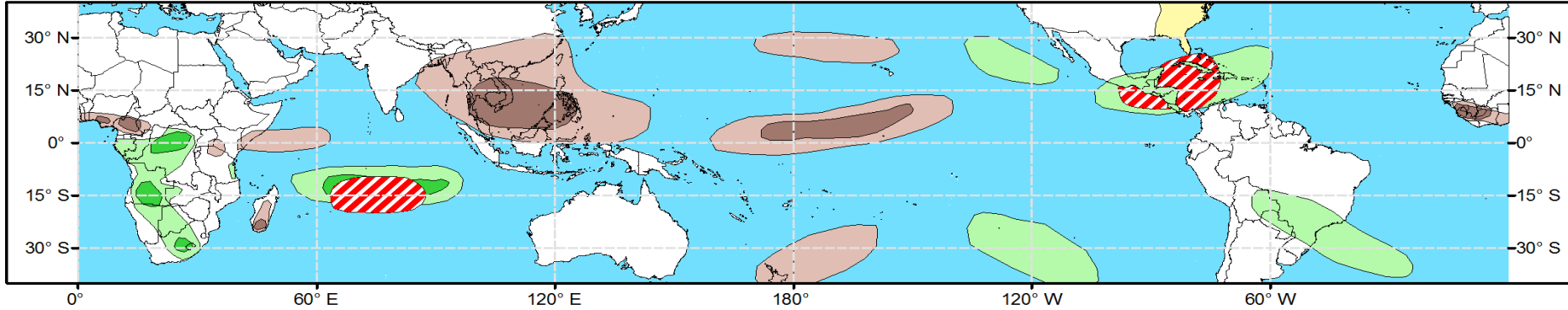
GTH Outlook:



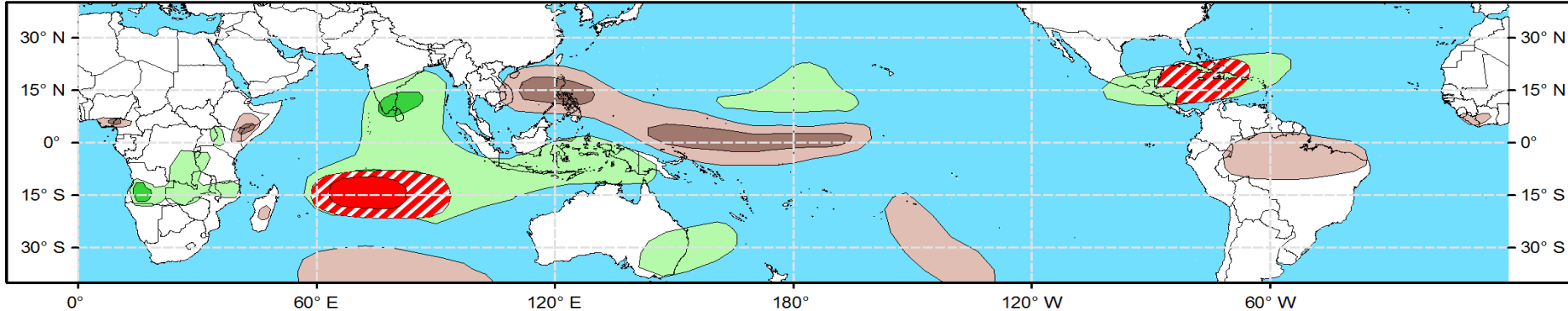
Global Tropics Hazards Outlook Climate Prediction Center



Week 2 - Valid: Nov 06, 2024 - Nov 12, 2024



Week 3 - Valid: Nov 13, 2024 - Nov 19, 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**



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*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*

Issued: 10/29/2024

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.

Synopsis of Climate Modes:

ENSO: (Oct 10, 2024 Update) *next update on Thursday, Nov 14th*

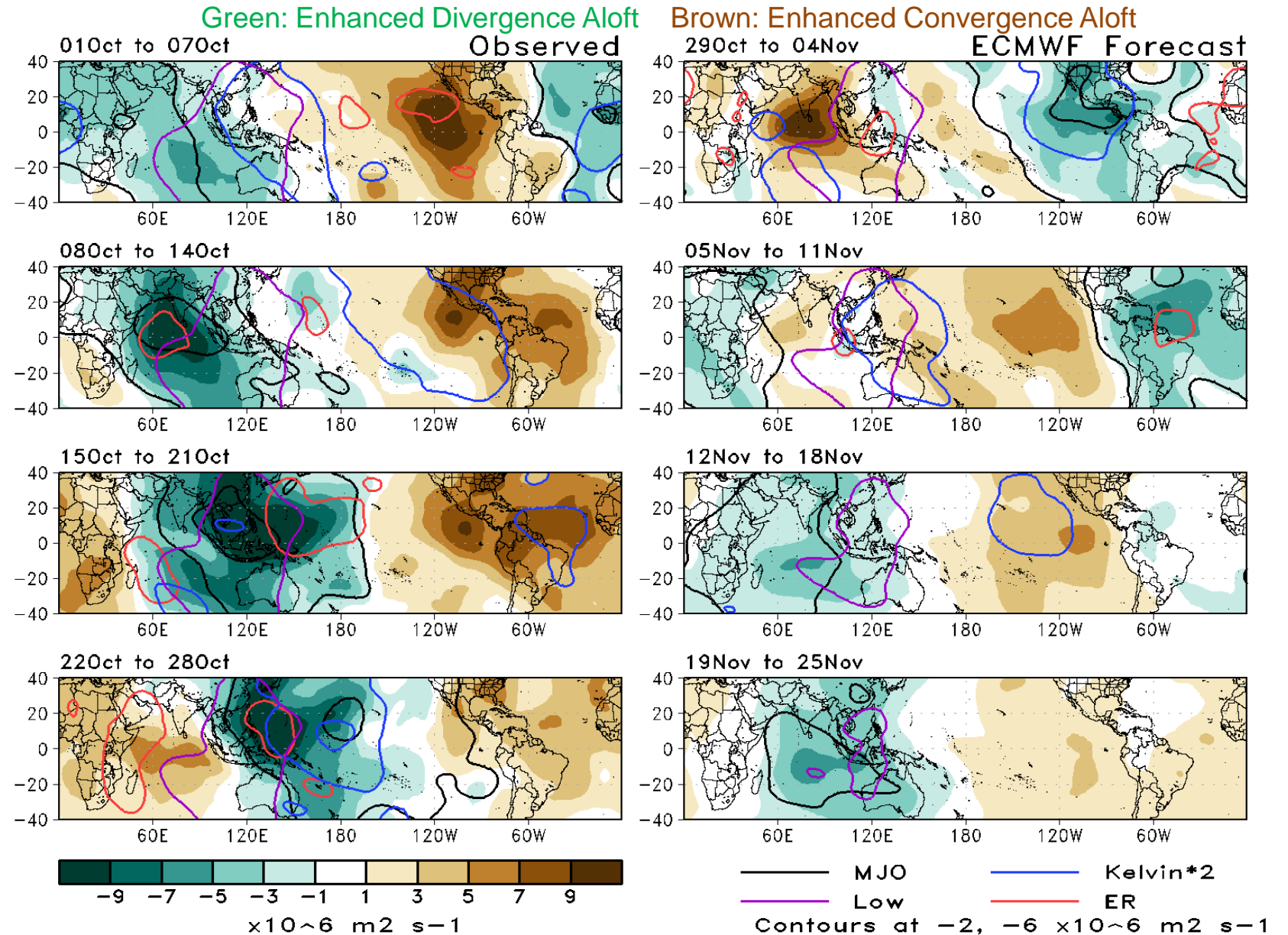
- ENSO Alert System Status: [La Niña Watch](#)
- La Niña is favored to emerge in September-November (60% chance) and is expected to persist through January-March 2025.

MJO and other subseasonal tropical variability:

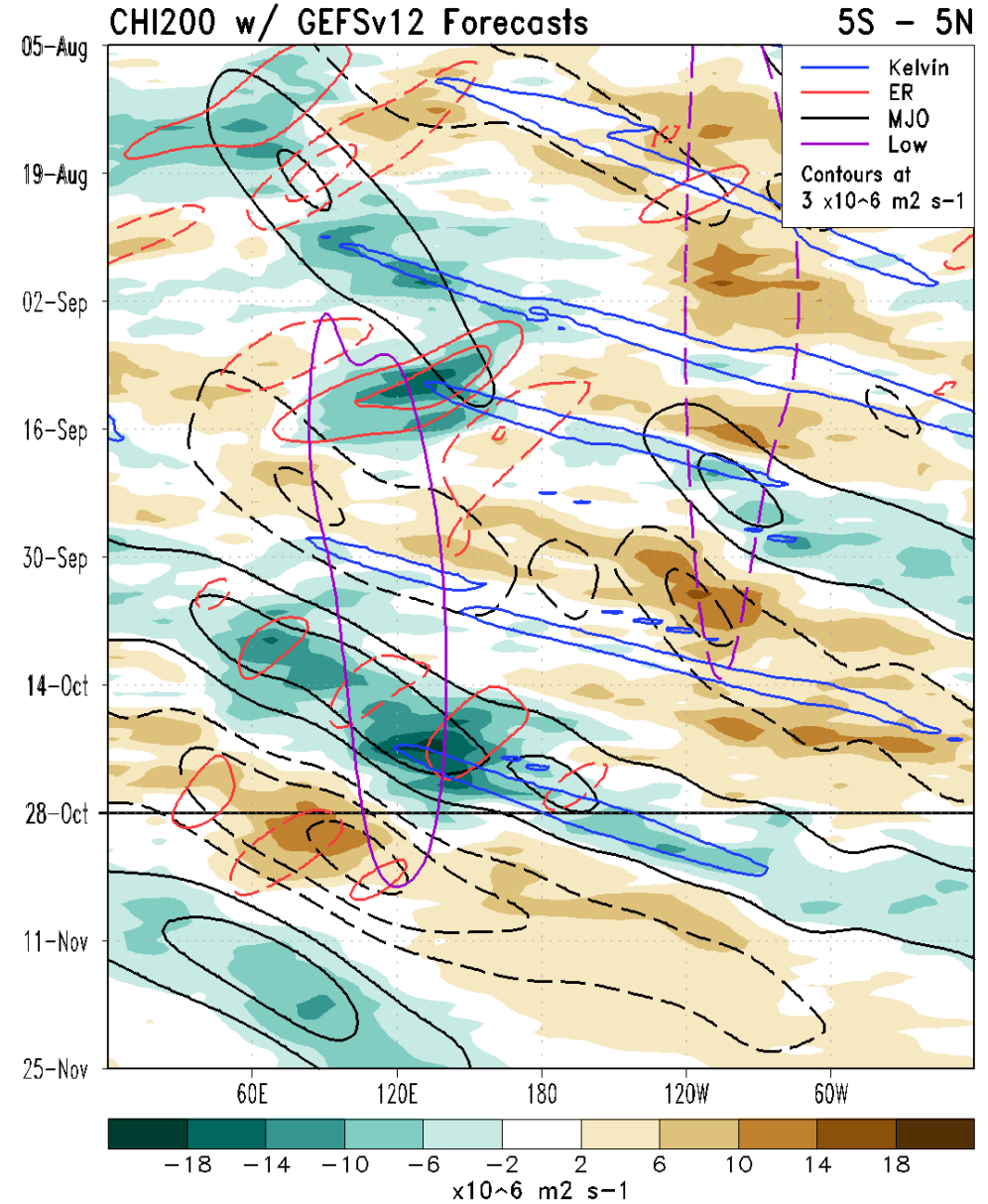
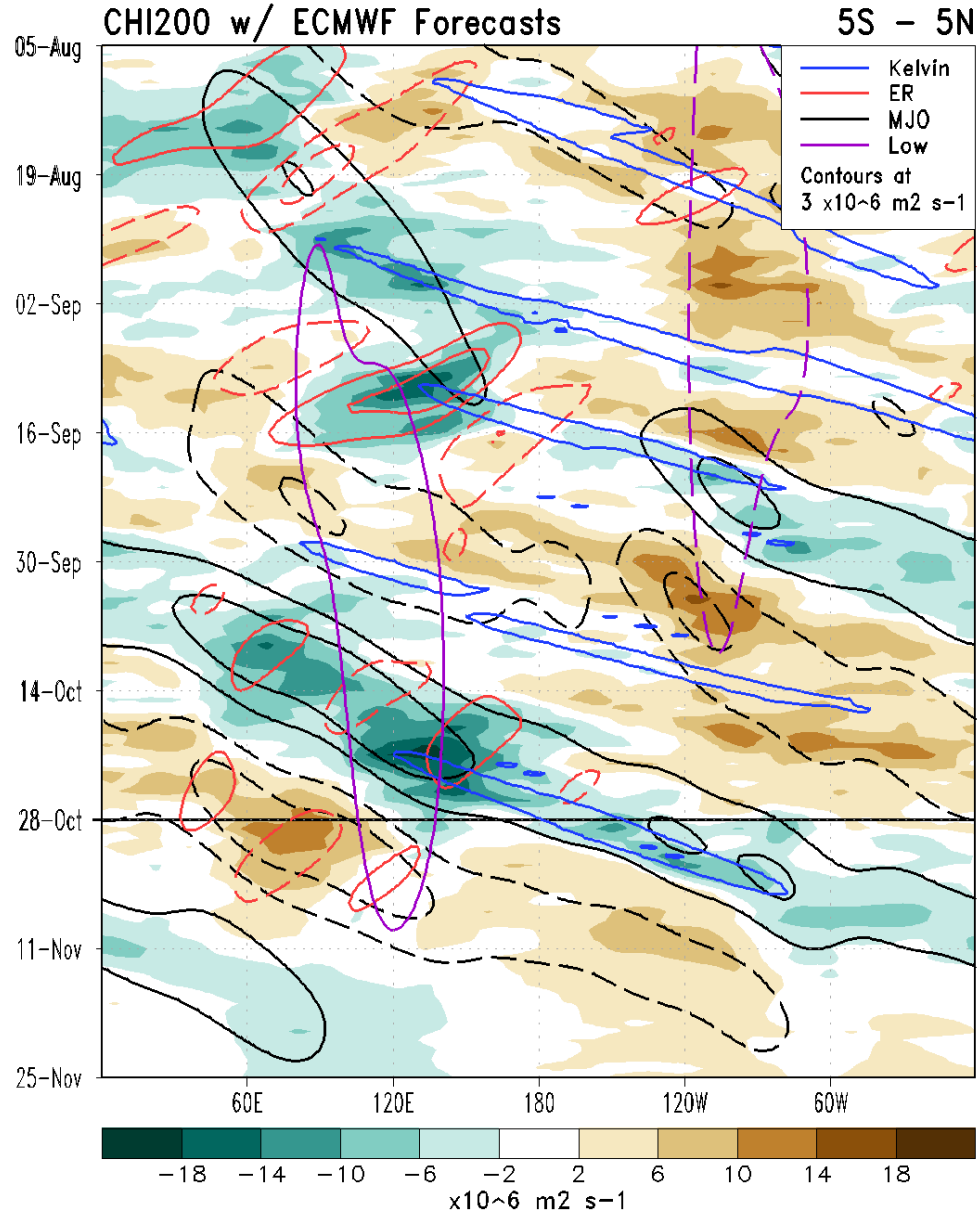
- A robust MJO continues to propagate eastward through the global tropics, with the enhanced convective envelope currently over the western and central Pacific Ocean.
- Dynamical models are in good agreement that the MJO continues to propagate eastward into the western Hemisphere during early November.
- This predicted MJO evolution would enhance the potential for tropical cyclone (TC) development over the Eastern Pacific and Caribbean Sea during the week 1-2 period.
- The continued shift towards La Niña conditions has been notably slow in recent months, though enhanced trade winds over the equatorial Pacific may increase upwelling via Ekman transport and push down upper-ocean heat content east of the Date Line.

200-hPa Velocity Potential Anomaly Maps:

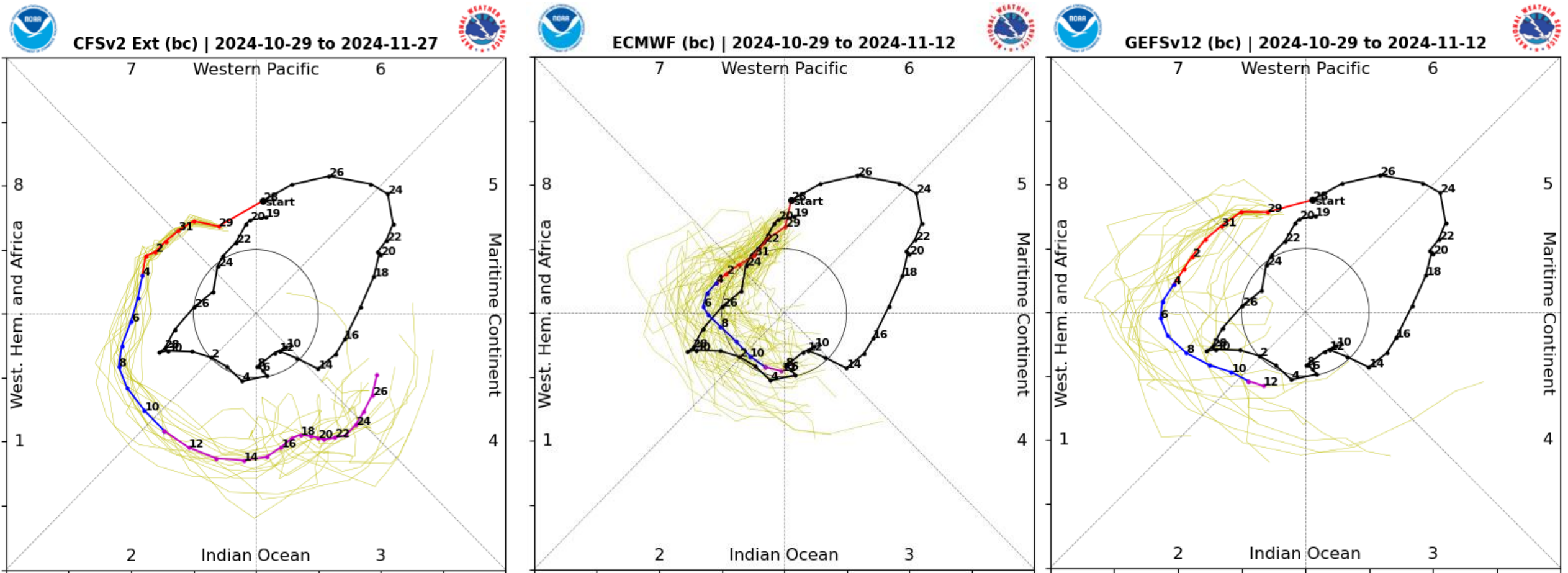
- A very robust MJO has been propagating steadily around the globe, completing the last circumnavigation in roughly 40 days.
- The enhanced convective envelope is favored to move into the Western Hemisphere and over the Americas during weeks 1-2. Model solutions indicate that the MJO is likely to remain in an amplified state throughout the forecast period.



Velocity Potential Anomaly Time/Lon Plots:



RMM Index Observations & Forecasts:

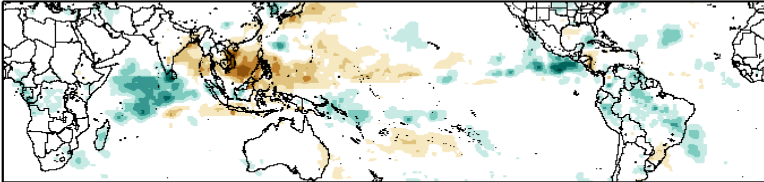


- Model ensemble RMM forecasts broadly agree on a continuation of an active MJO regime in the coming weeks. Agreement on phase speed is remarkably strong.
- There is less agreement on MJO amplitude looking ahead. The CFS is very bullish and possibly overdone. The ECMWF favors a lower amplitude but has been doing so for a while, contrary to observation.

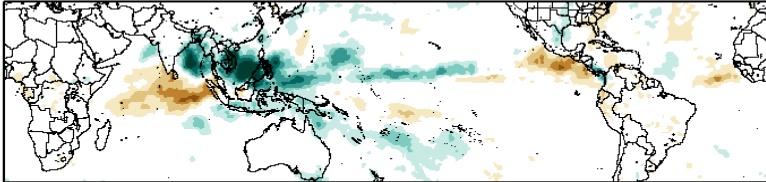
Historical Precipitation Anomalies By MJO Phase:

SON MJO Composite: GPCP1DD (mm/day)

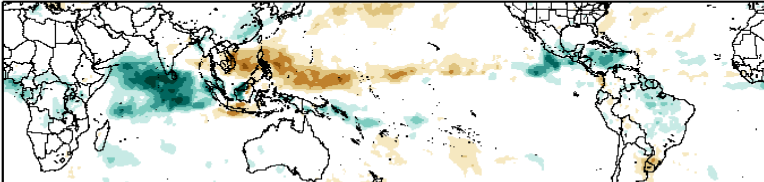
Phase 1



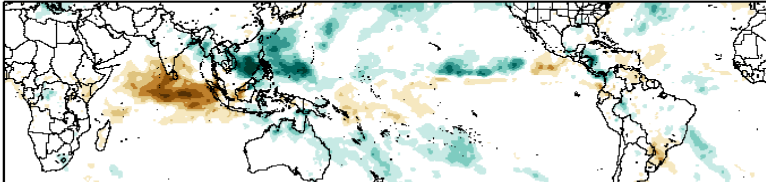
Phase 5



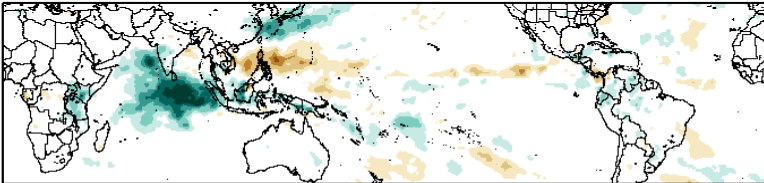
Phase 2



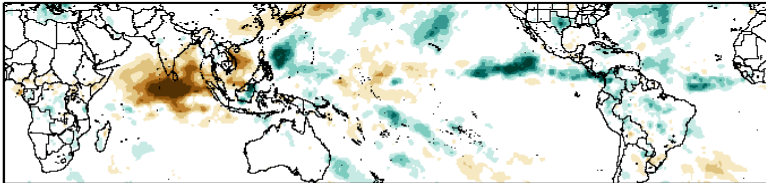
Phase 6



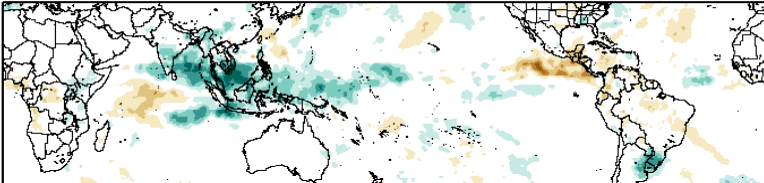
Phase 3



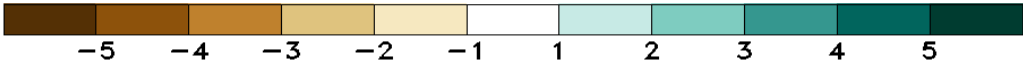
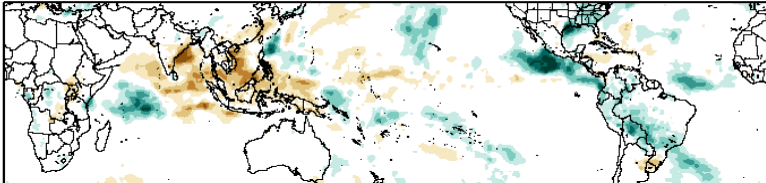
Phase 7



Phase 4



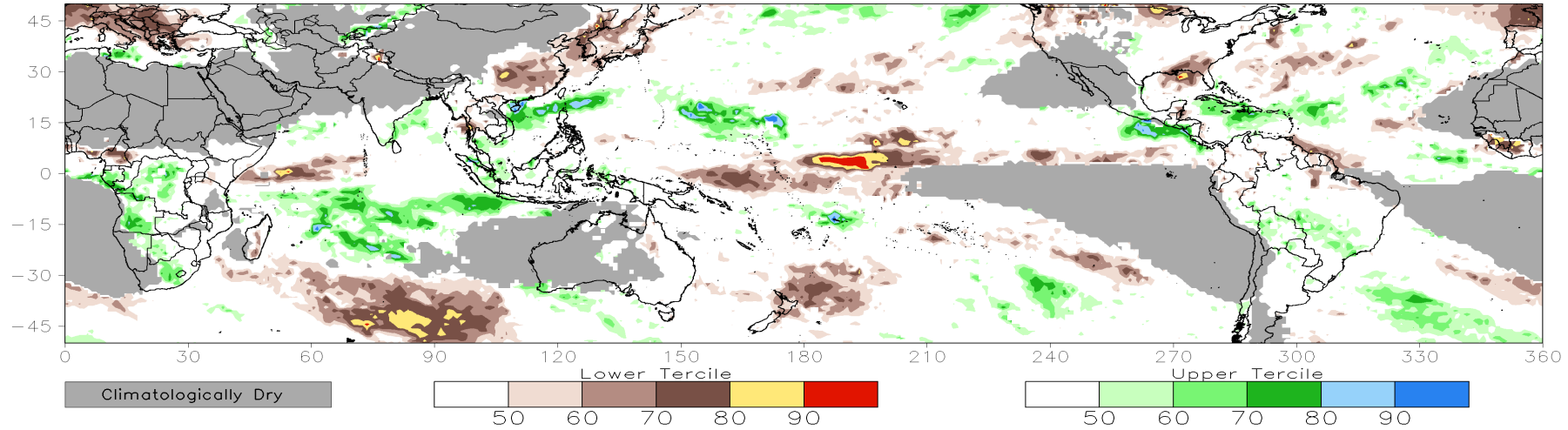
Phase 8



Consolidated Probabilistic Precipitation: Weeks 2 & 3

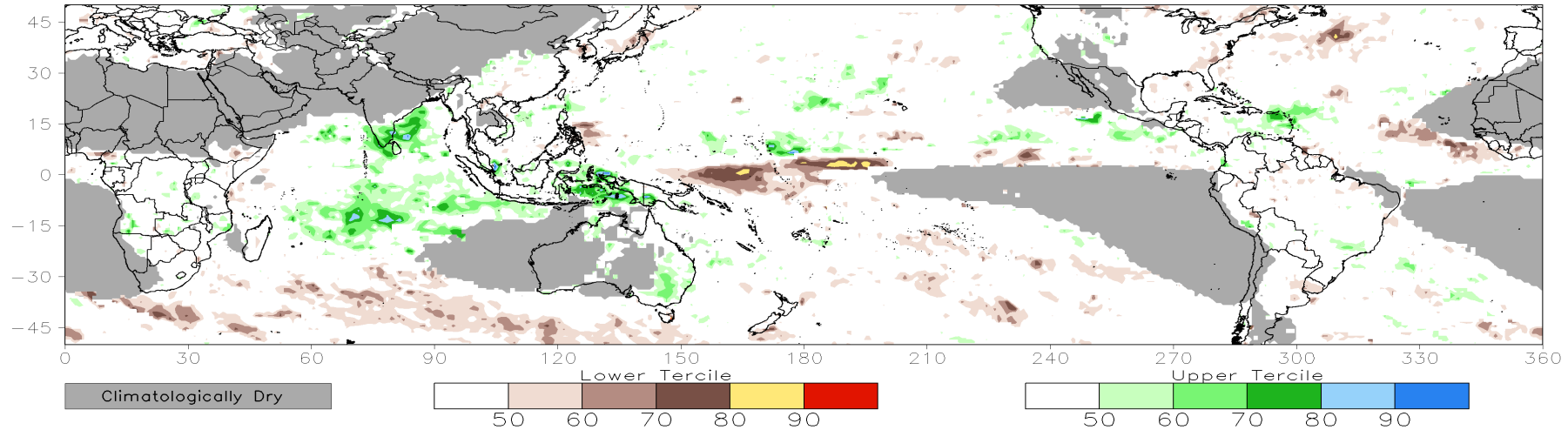
CONS 00z: Week2 Probability for Total Rainfall Below(Above) Lower(Upper) Tercile (%)

Valid: 06Nov2024–12Nov2024

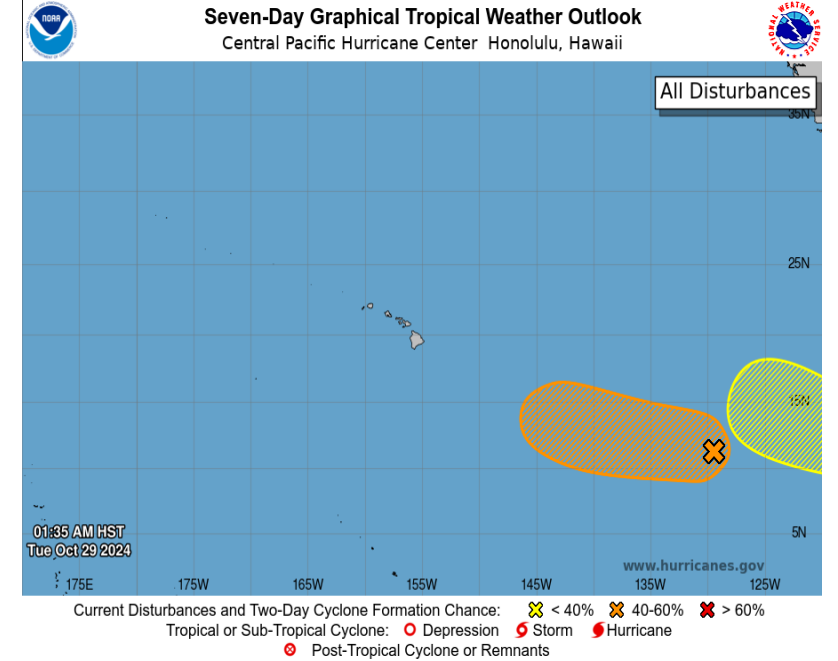
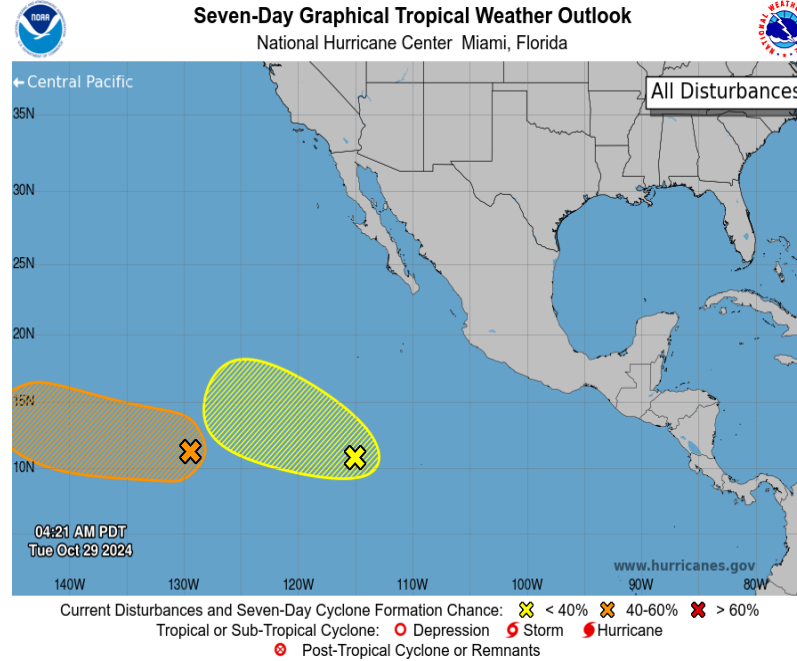
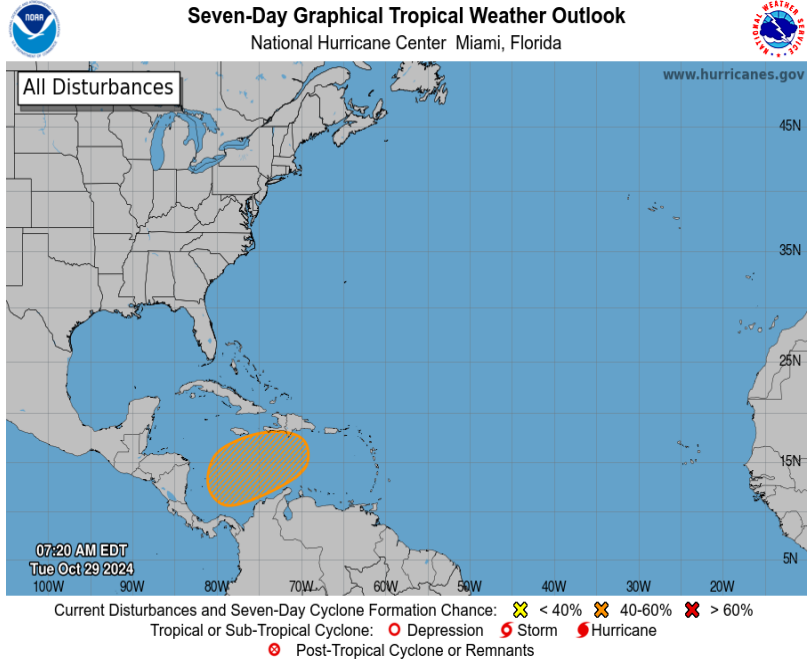


CONS 00z: Week3 Probability for Total Rainfall Below(Above) Lower(Upper) Tercile (%)

Valid: 13Nov2024–19Nov2024



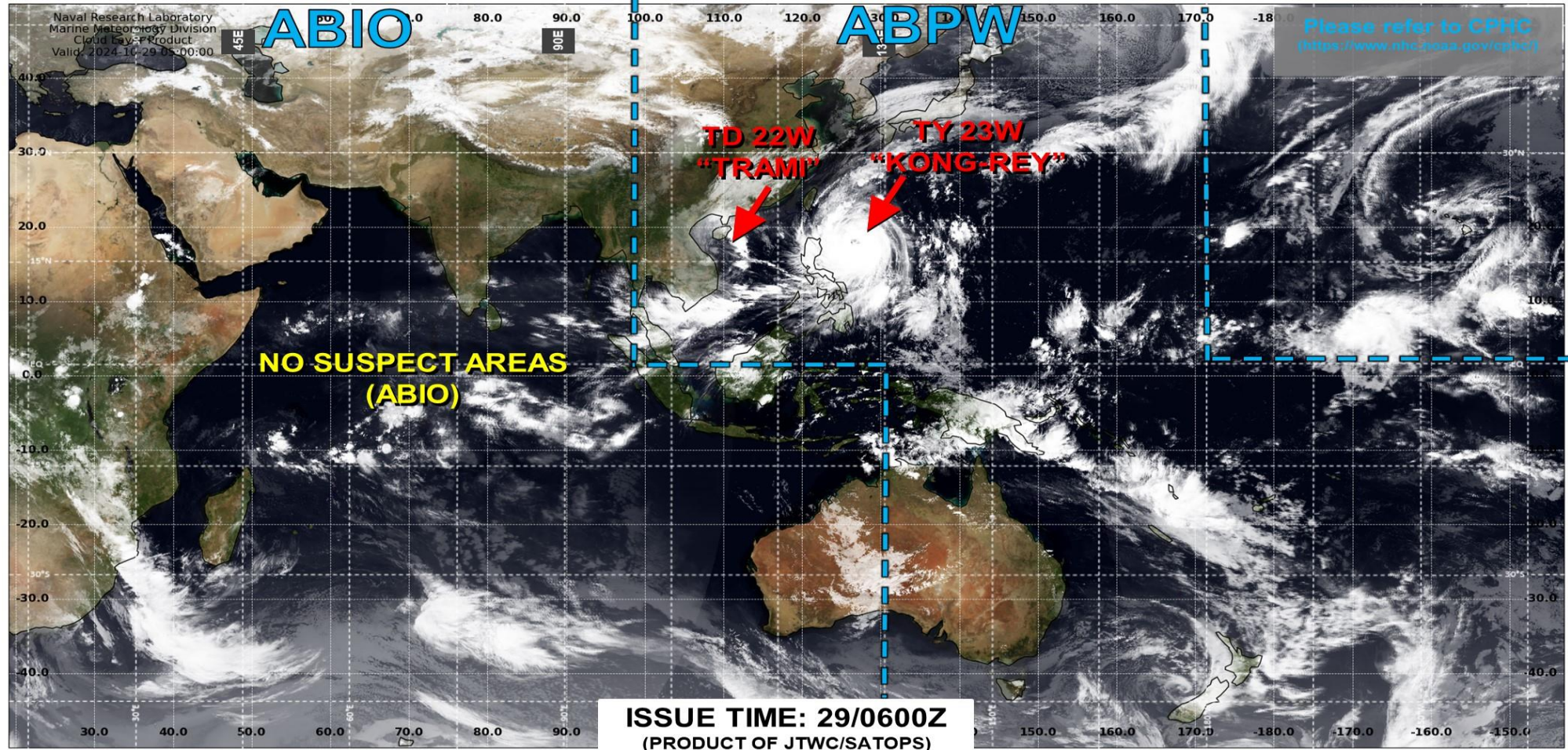
Tropical Cyclone Monitoring/Forecast: NHC / CPHC



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




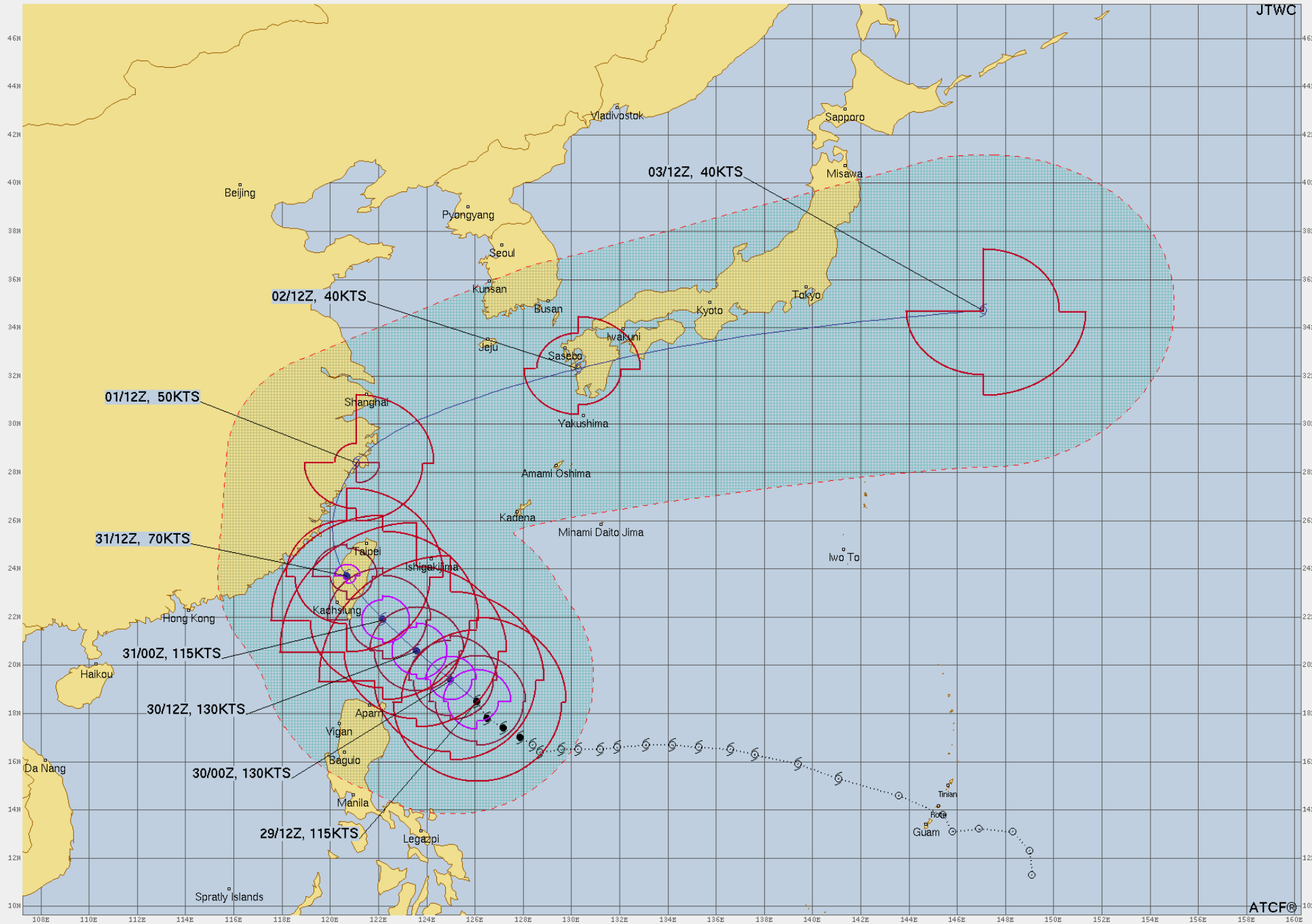
Tropical Cyclone
(Reference Warning)

TYPHOON 23W (KONG-REV) WARNING #19
 WTPH32 PGTW 231500
 231200Z POSIT. NEAR 19 5N 126 1E
 MOVING 330 DEGREES TRUE AT 08 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 46 FEET
 23/12Z WINDS 115 KTS, GUSTS TO 140 KTS
 30/00Z WINDS 130 KTS, GUSTS TO 160 KTS
 30/12Z WINDS 130 KTS, GUSTS TO 160 KTS
 31/00Z WINDS 115 KTS, GUSTS TO 140 KTS
 31/12Z WINDS 070 KTS, GUSTS TO 085 KTS
 01/12Z WINDS 050 KTS, GUSTS TO 065 KTS
 02/12Z WINDS 040 KTS, GUSTS TO 050 KTS
 03/12Z WINDS 040 KTS, GUSTS TO 050 KTS

CPR TO:	NM	DTG
MANILA	367	10/23/202
CLARK_AB	356	10/30/032
SUEIC_BAY	399	10/30/032
KROHSTUNG	56	10/31/032
HONG_KONG	360	10/31/162
TAIPEI	73	10/31/162
SHANGHAI	110	11/01/132
KADENA_AB	236	11/02/032
WAKTE_SEAOK	304	11/02/032
MOEPO	202	11/02/072
GWANJU_AB	212	11/02/082
KUSAN_AB	261	11/02/082
GWANGJANG	187	11/02/092
INCHON	352	11/02/092
YEOSU	181	11/02/092
CAMP_CASEY	367	11/02/102
CAMP_HUMPHREYS	318	11/02/102
CAMP_PED_CLOUD	363	11/02/102
CHEONGJU_AB	238	11/02/102
MINAMIDAITO_JIMA	388	11/02/102
OSAN_AB	323	11/02/102
SEIIL_AB	338	11/02/102
SUWON_AB	329	11/02/102
YONGSAN_AIN	346	11/02/102
CENHAE	189	11/02/112
DAEJU	230	11/02/112
GIMHAP_AB	187	11/02/112
BUSAN	178	11/02/122
SASEBO	62	11/02/122
CAMP_KENGVN	22	11/02/132
KAROTA	62	11/02/132
POHANG	226	11/02/132
IWAKURI	80	11/02/162
KOSUMISAKI	148	11/02/212
CAMP_FUJI	86	11/03/022
ATSUGI	95	11/03/032
CAMP_ZAMA	95	11/03/032
YOKOSUKA	80	11/03/032
YOKOTA_AB	108	11/03/032
NAKETA_AIRPORT	105	11/03/042
MISAWA	389	11/03/062

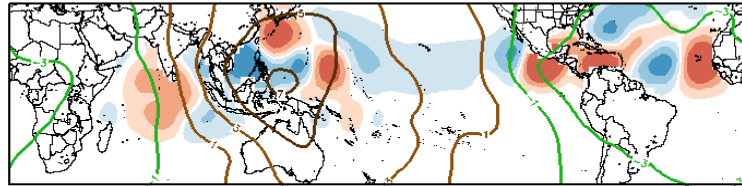
BEARING AND DISTANCE	DIR	DIST (NM)	TAU (HRS)
CLARK_AB	057	373	0
MANILA	051	375	0

○ LESS THAN 34 KNOTS
 ⊙ 34-63 KNOTS
 ● MORE THAN 63 KNOTS
 — FORECAST CYCLONE TRACK
 PAST CYCLONE TRACK
 [Blue Grid] DENOTES 34 KNOT WIND DANGER AREA/USN SHIP AVOIDANCE AREA
 [Purple Circle] FORECAST 34/50/64 KNOT WIND RADII (WINDS VALID OVER OPEN OCEAN ONLY)

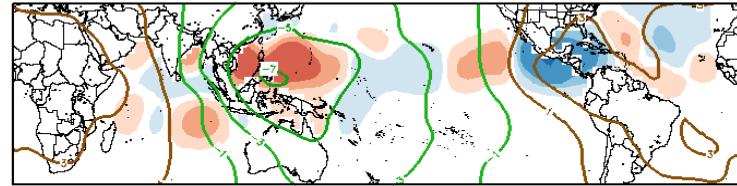



Historical TC Origin Anomalies By MJO Phase & Weeks 2+3 Genesis Climo:

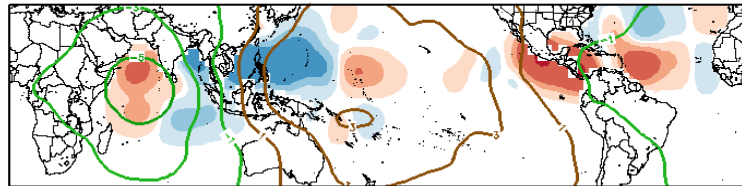
SON MJO Composite: Mean TC Origin Density Anomaly ($\#TCs/277km^2*100$)
w/ SON CHI200 ($\times 10^6 m^2 s^{-1}$) / Contours every $2 \times 10^6 m^2 s^{-1}$



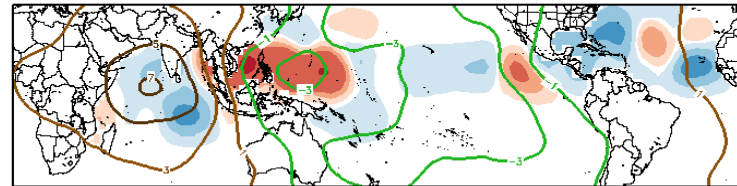
Phase 1



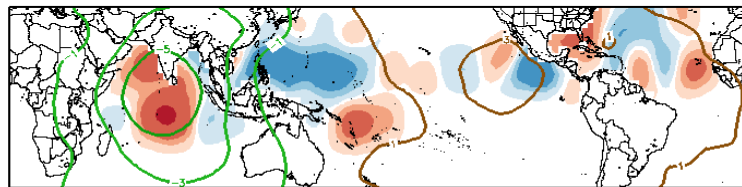
Phase 5



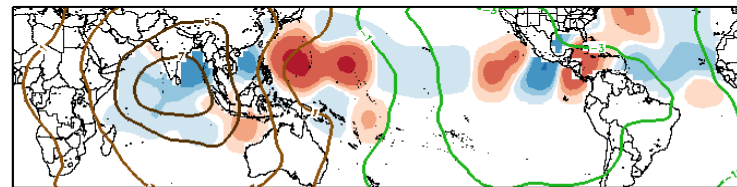
Phase 2



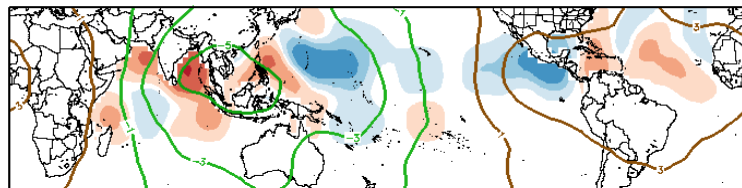
Phase 6



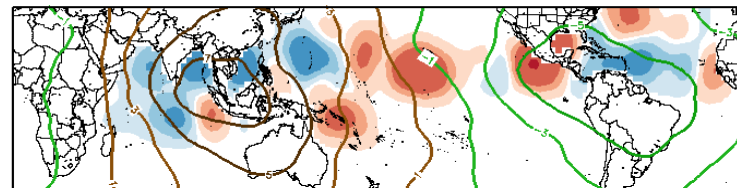
Phase 3



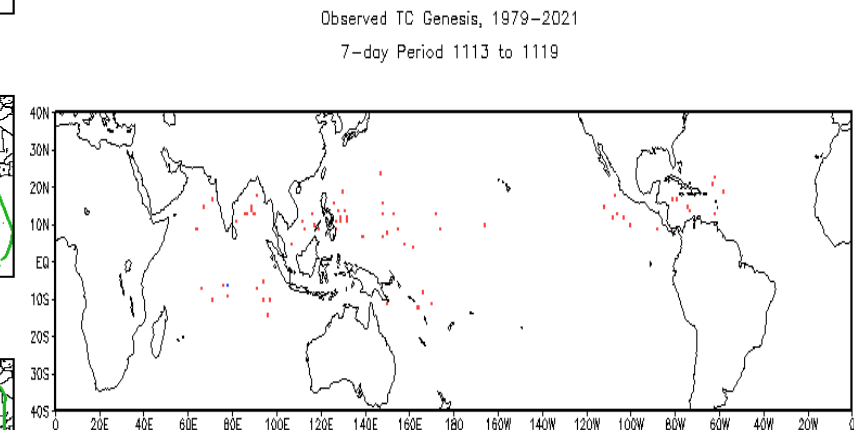
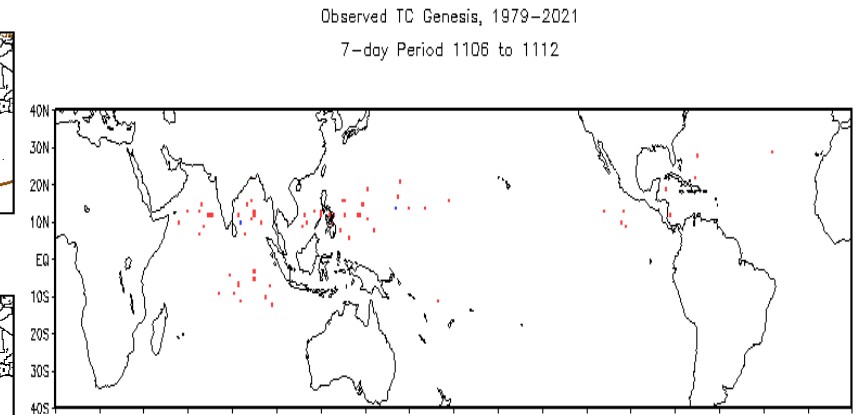
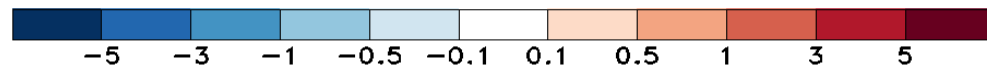
Phase 7



Phase 4



Phase 8

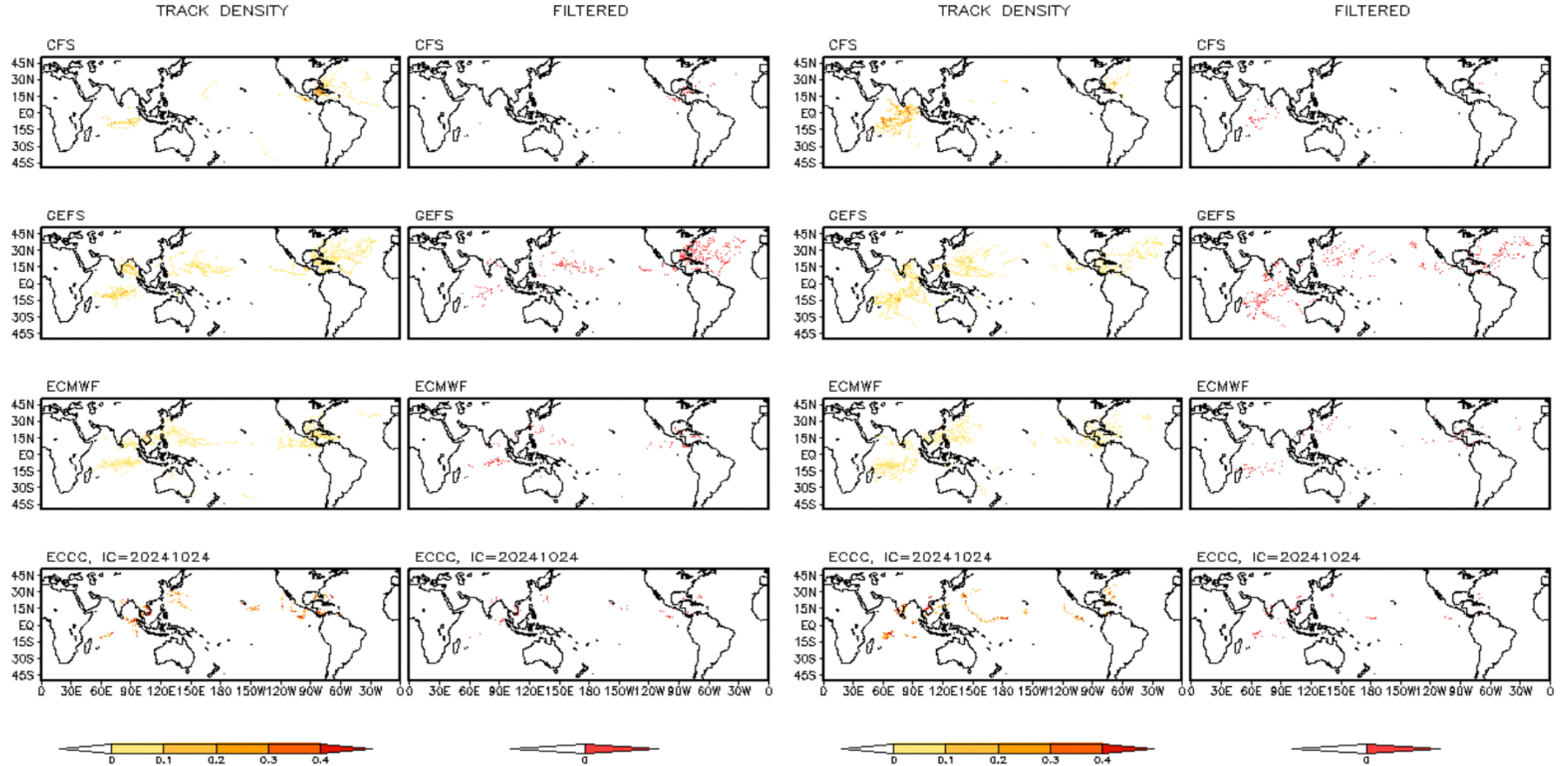


Experimental

Multi-Model TC Track Densities: Weeks 2+3

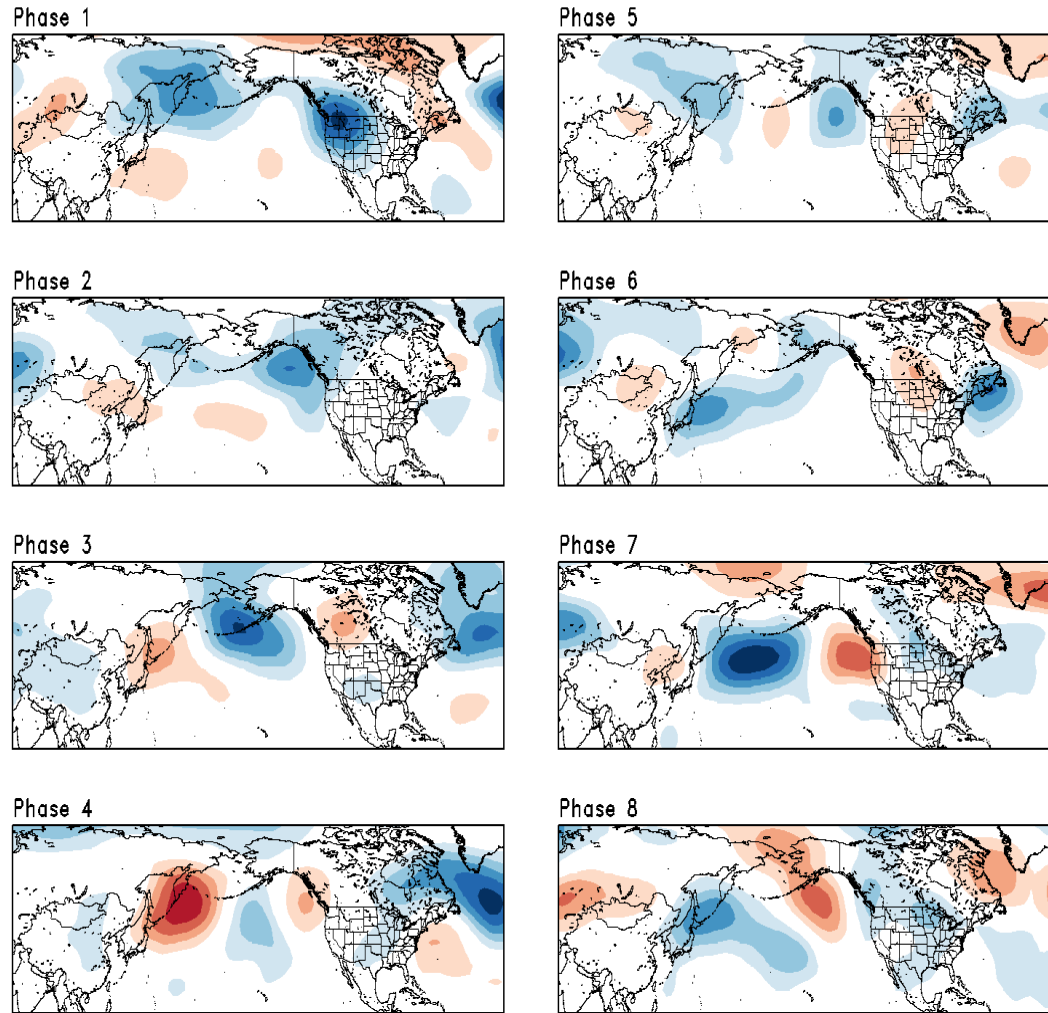
Storm Track Density Distribution, IC=20241028
Week 2 Forecast: 1106–1112

Storm Track Density Distribution, IC=20241028
Week 3 Forecast: 1113–1119

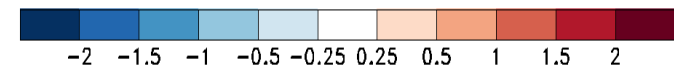
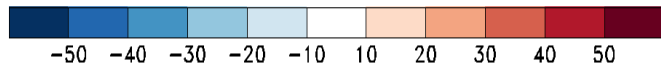
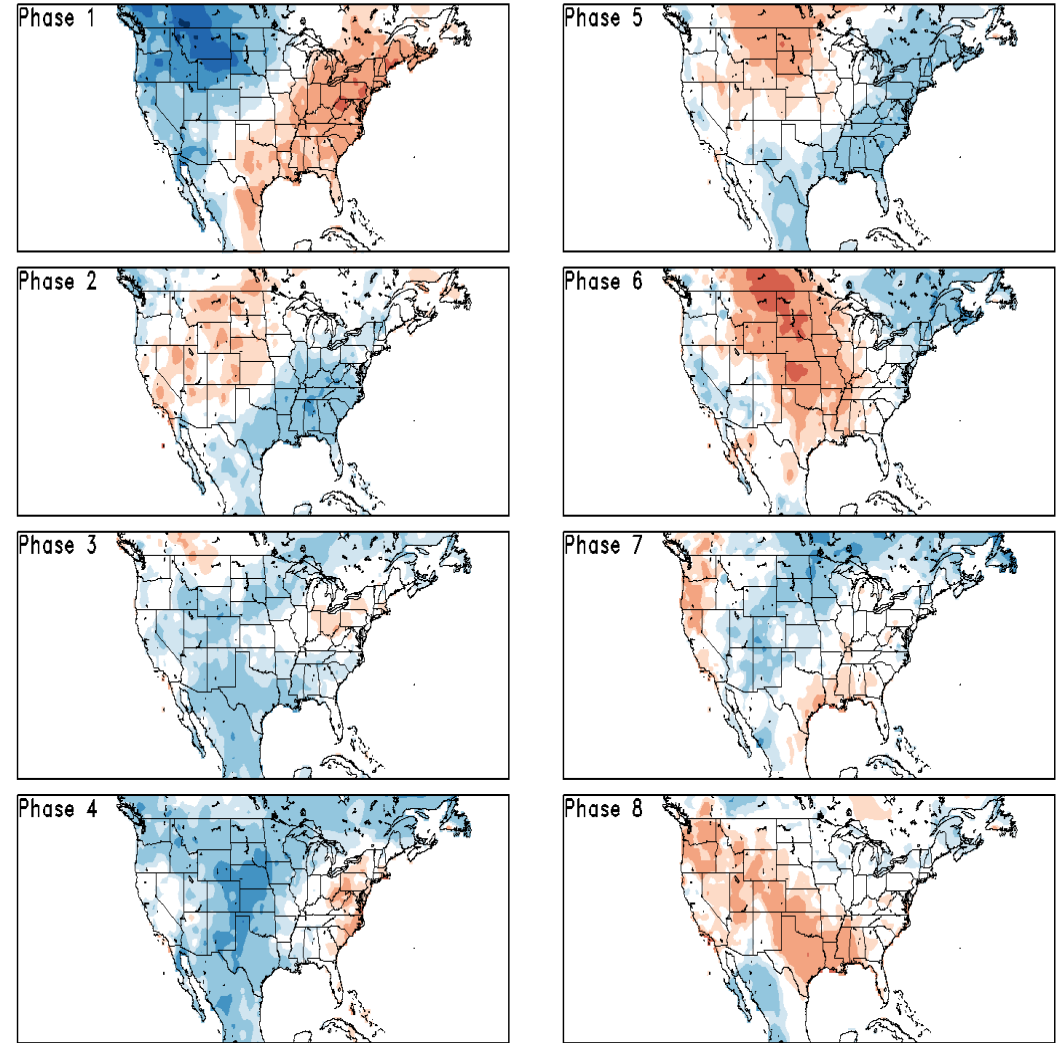


Historical 500-hPa Height & U.S. Temperatures By MJO Phase:

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

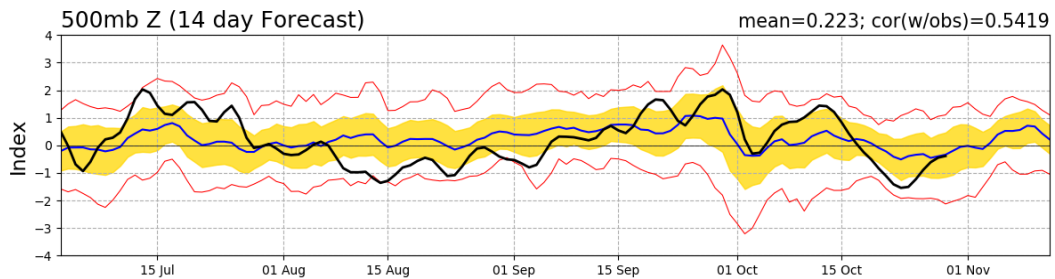
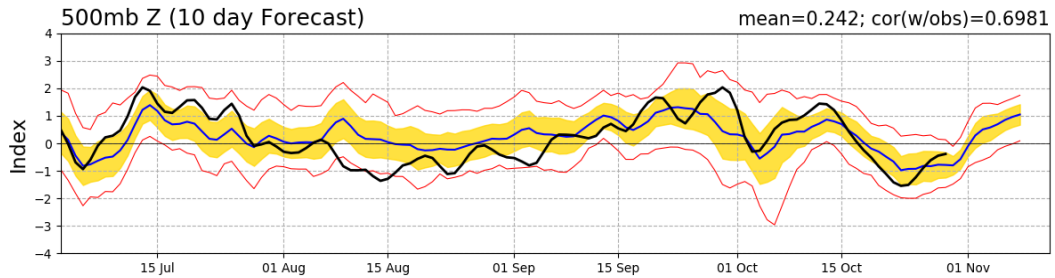
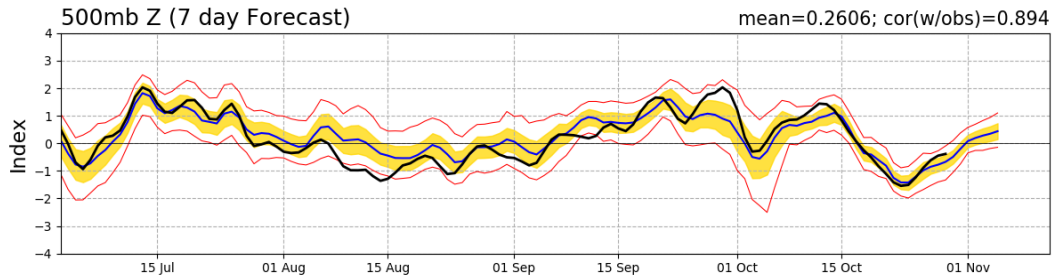
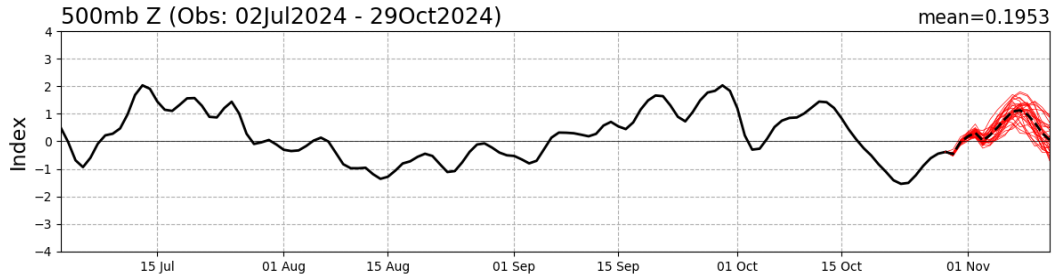


SON MJO Composite: GLBT (degC)

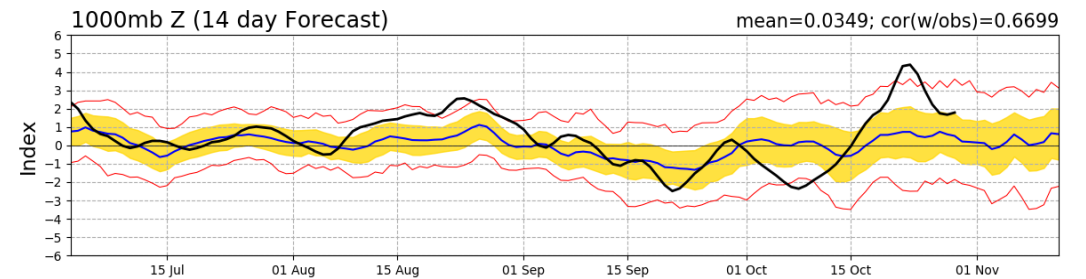
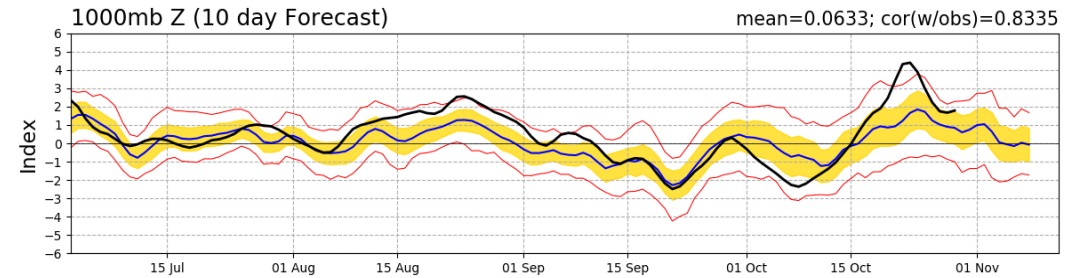
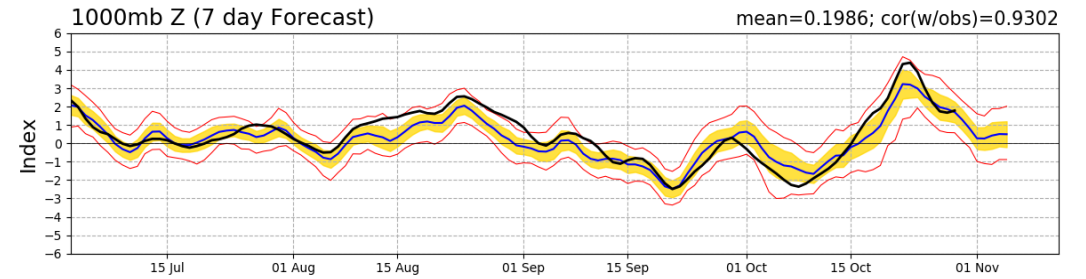
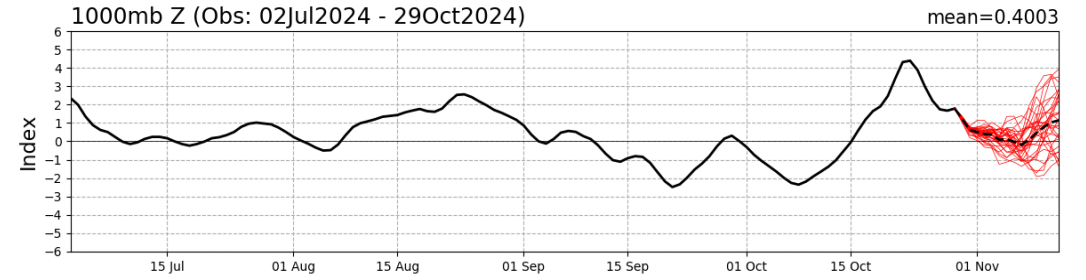


Teleconnection Indices: PNA / AO:

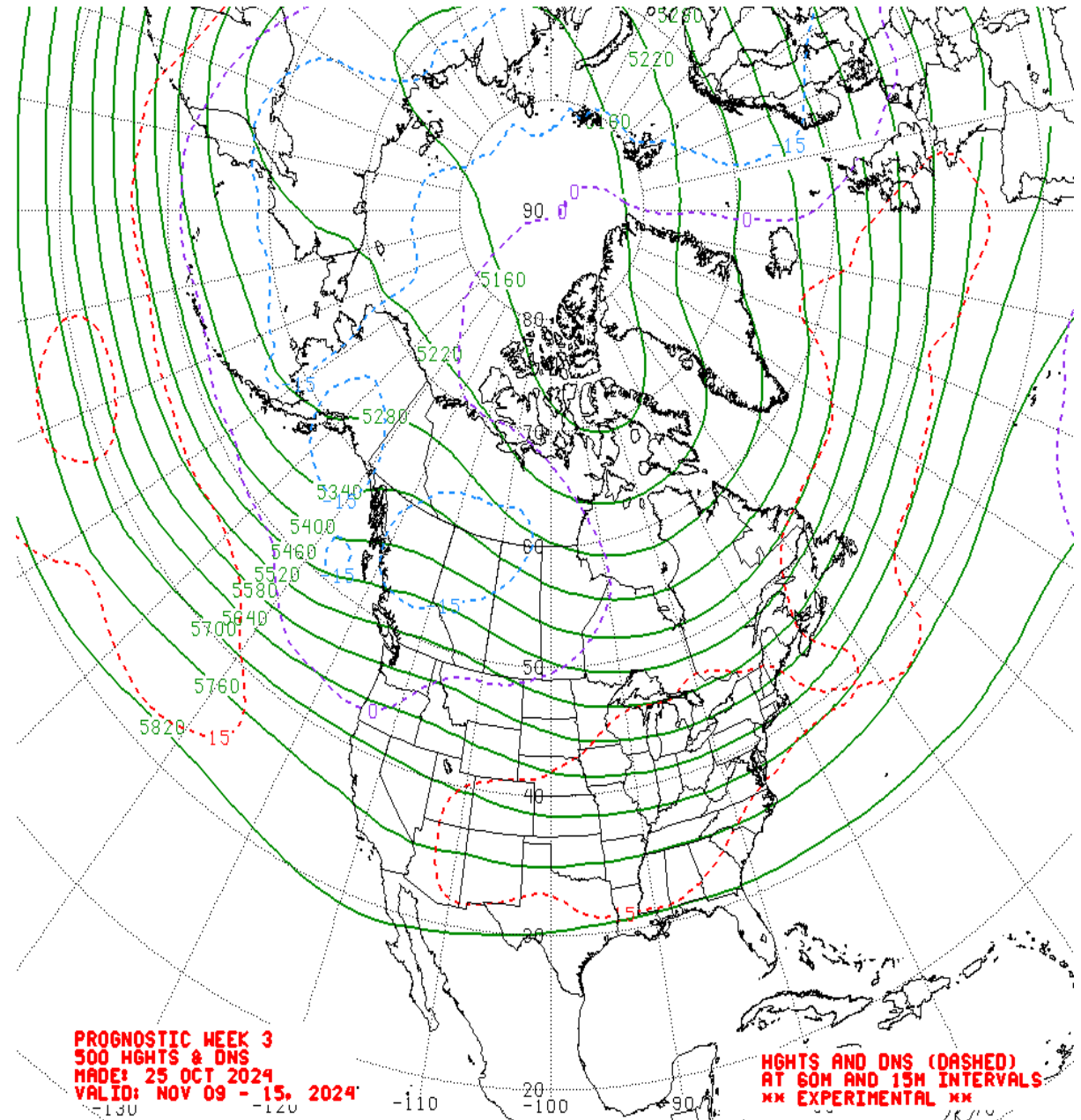
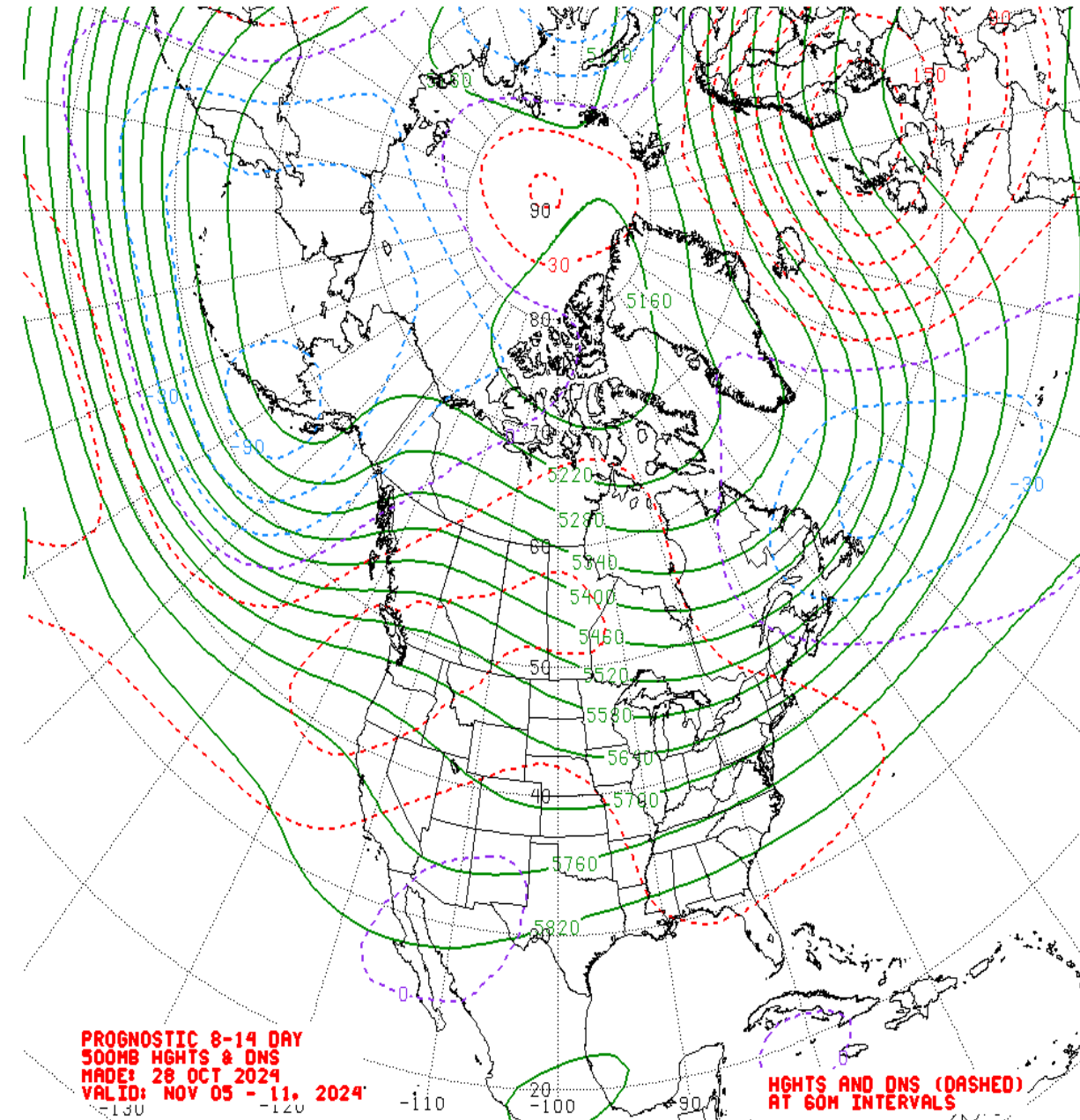
PNA Index: Observed & GEFS Forecasts



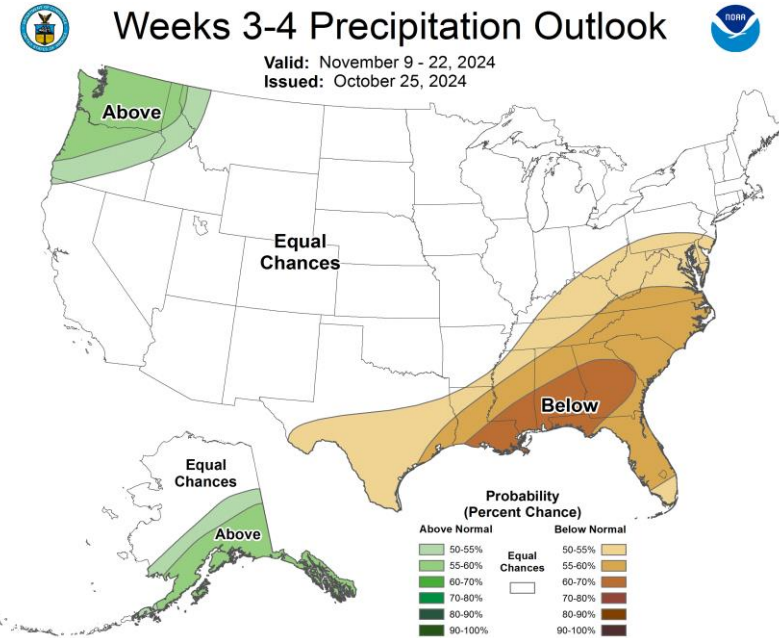
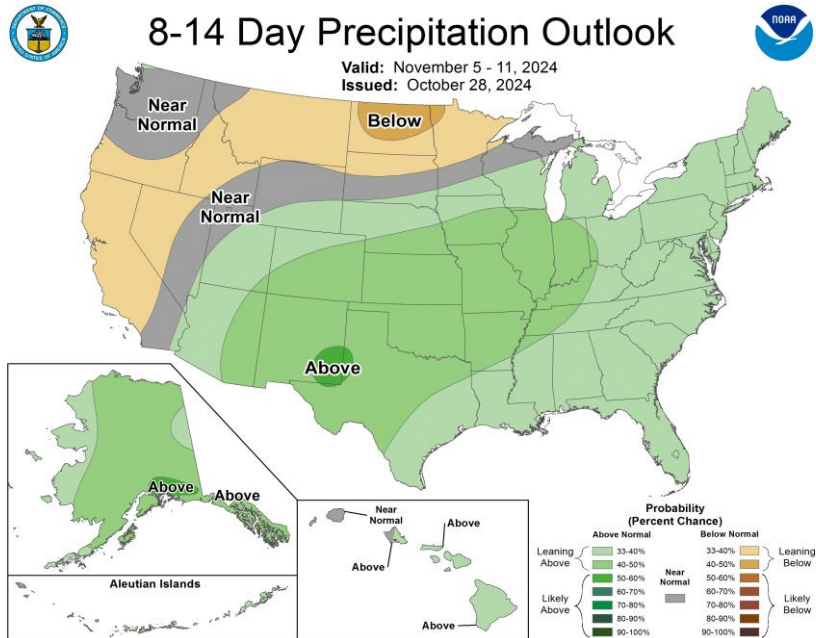
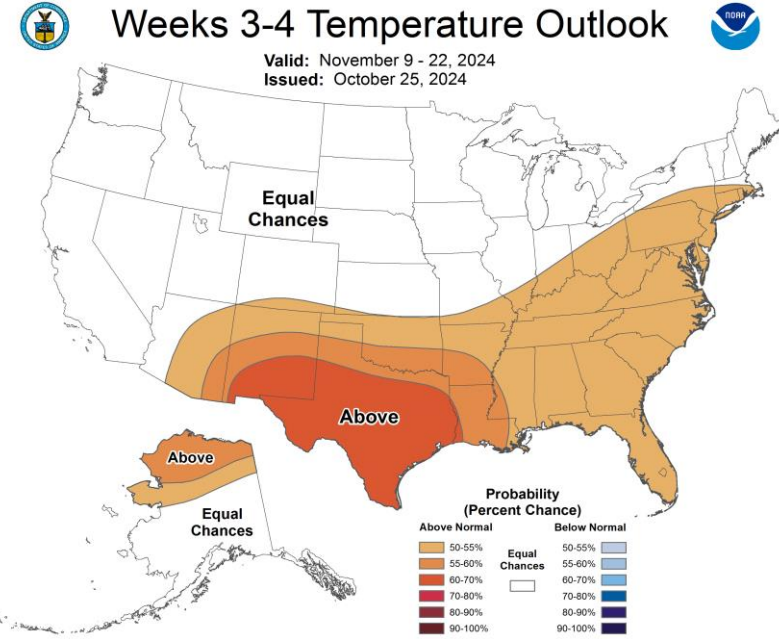
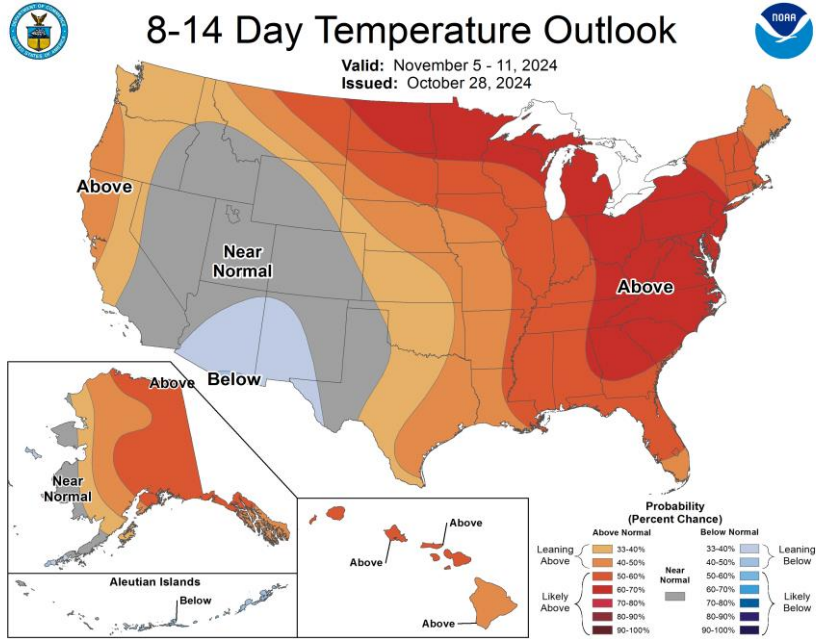
AO Index: Observed & GEFS Forecasts



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



Official Temperature & Precipitation Forecasts:



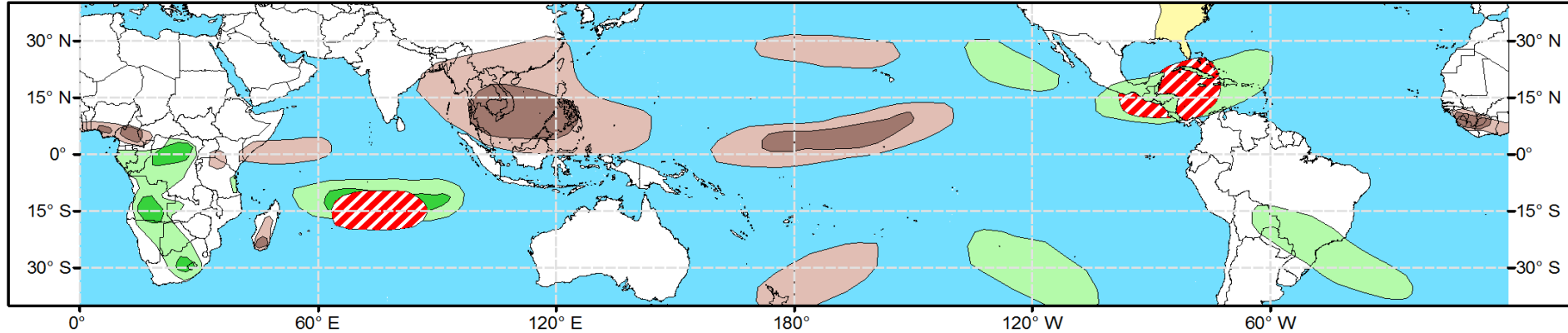


Global Tropics Hazards Outlook

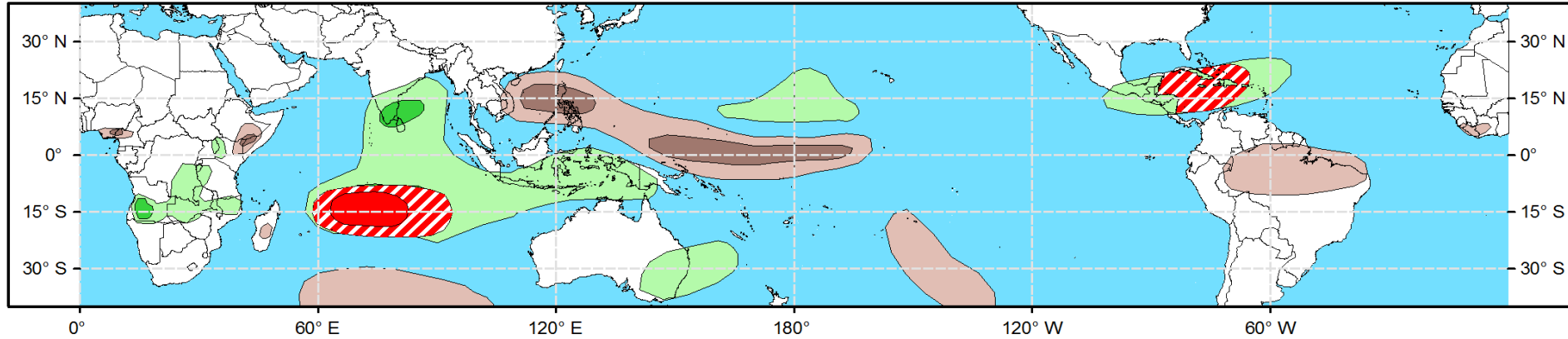
Climate Prediction Center



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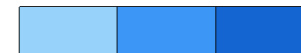
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