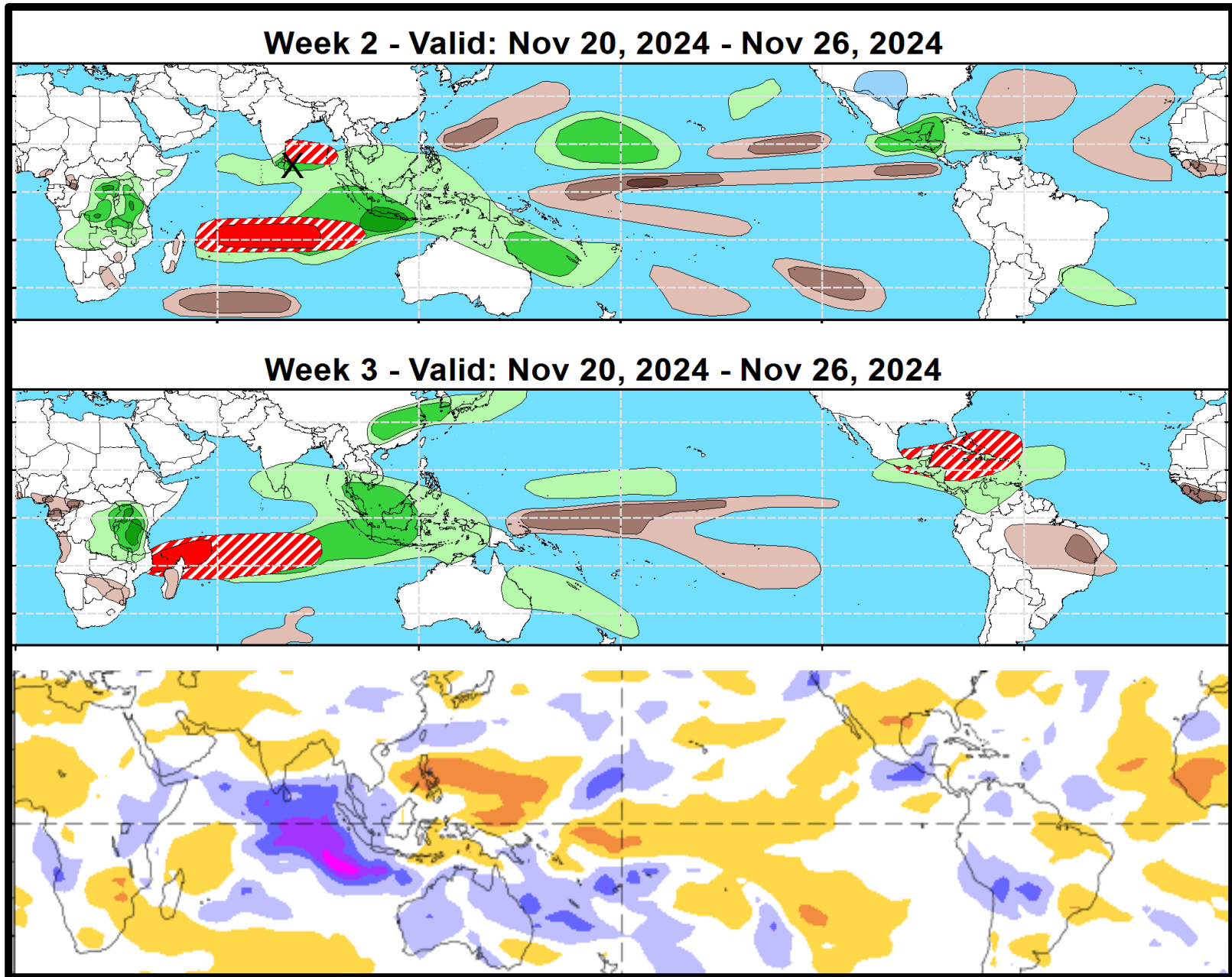
Weeks 2-3 Global Tropics Hazards Outlook

11/26/2024

Nick Novella
NWS / NCEP / Climate Prediction Center

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

- TCFA: 99B (Bay of Bengal)



Synopsis of Climate Modes:

ENSO: (Nov 14, 2022 Update) ***next update on Thursday, Dec 12th***

- ENSO Alert System Status: La Niña Watch

- La Niña is most likely to emerge in October-December 2024 (57% chance) and is expected to persist through January-March 2025.

MJO and other subseasonal tropical variability:

- Since becoming briefly disorganized over the Western Hemisphere, observations show the MJO regaining amplitude while propagating eastward across the Indian Ocean.

- Some discrepancies exist in the guidance in regards to the strength and evolution of the MJO signal, notably the Maritime Continent Barrier Effect, though there is growing confidence that the MJO propagates across the Maritime Continent and into Western Pacific later in December.

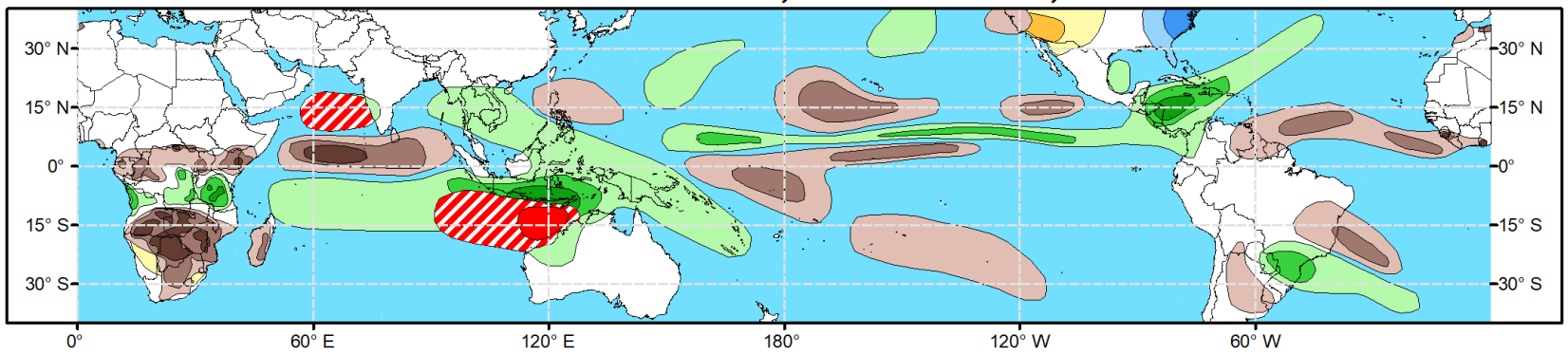
- While there remains some question in regards to the eventual MJO amplitude, the large-scale environment is expected to be favorable for additional tropical cyclogenesis across Indian Ocean and western Pacific, with development possible over the South Pacific towards the middle of December.

GTH Outlook:

Global Tropics Hazards Outlook

Climate Prediction Center

Week 2 - Valid: Dec 04, 2024 - Dec 10, 2024



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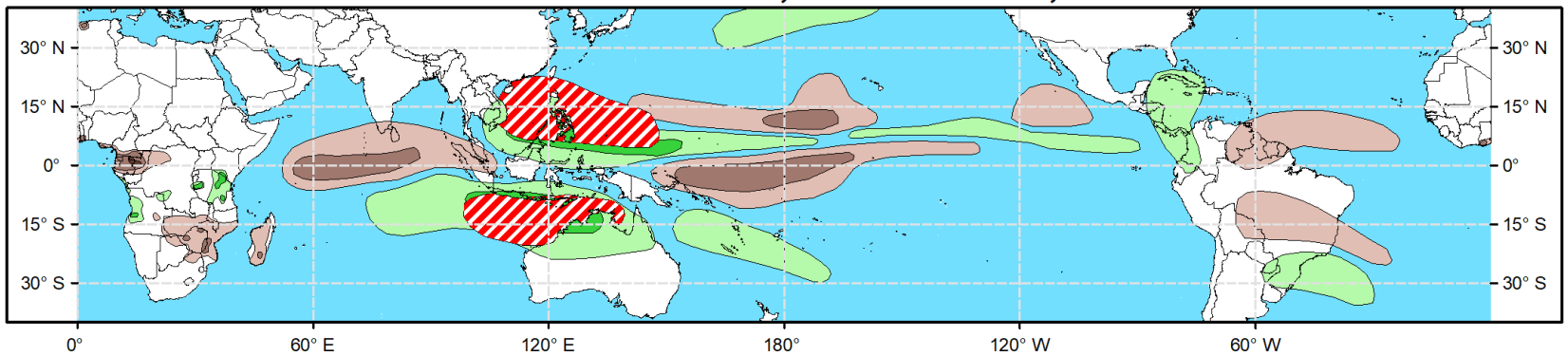

Tropical Cyclone (TC) Formation Probability

>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

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

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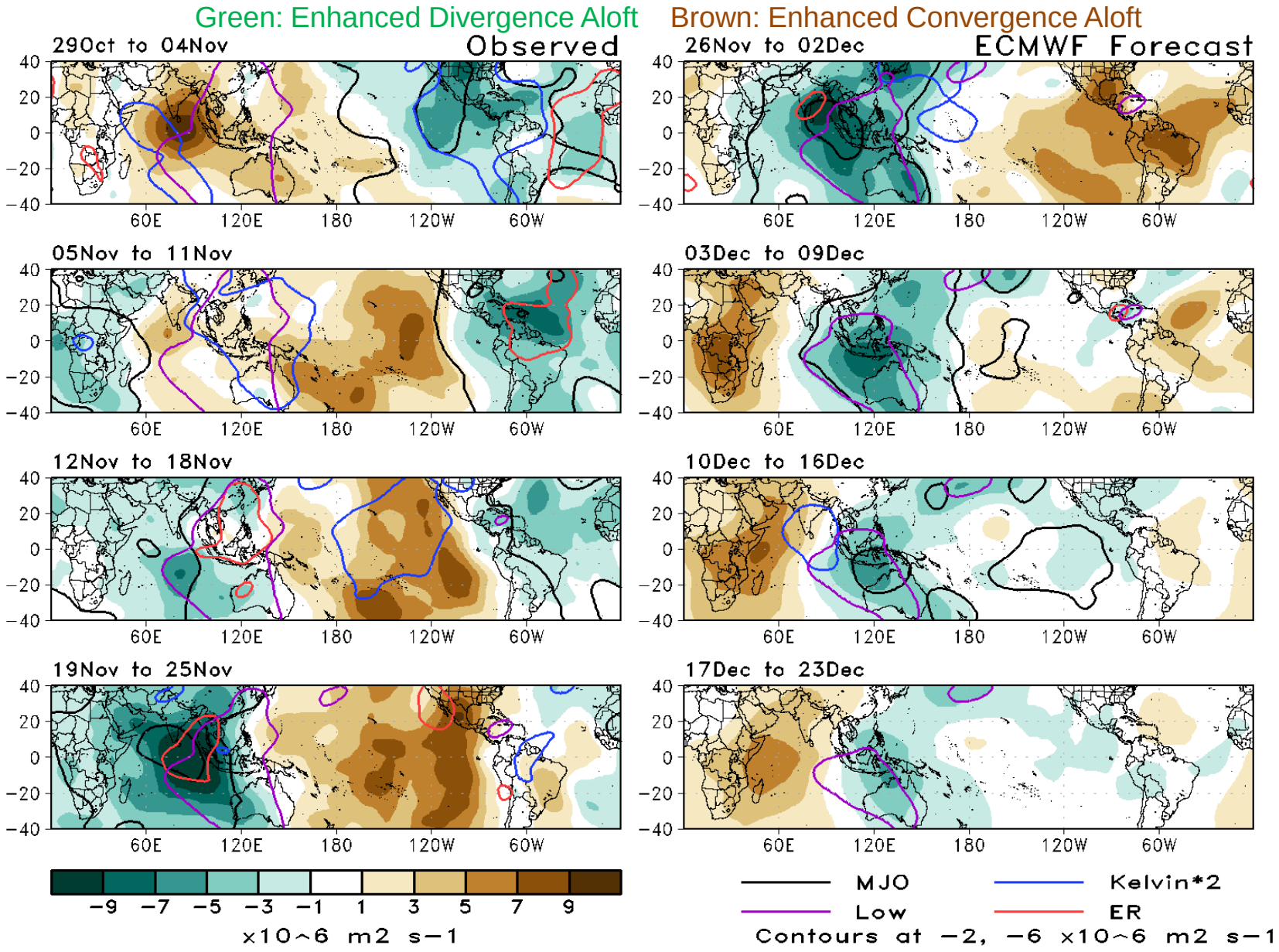
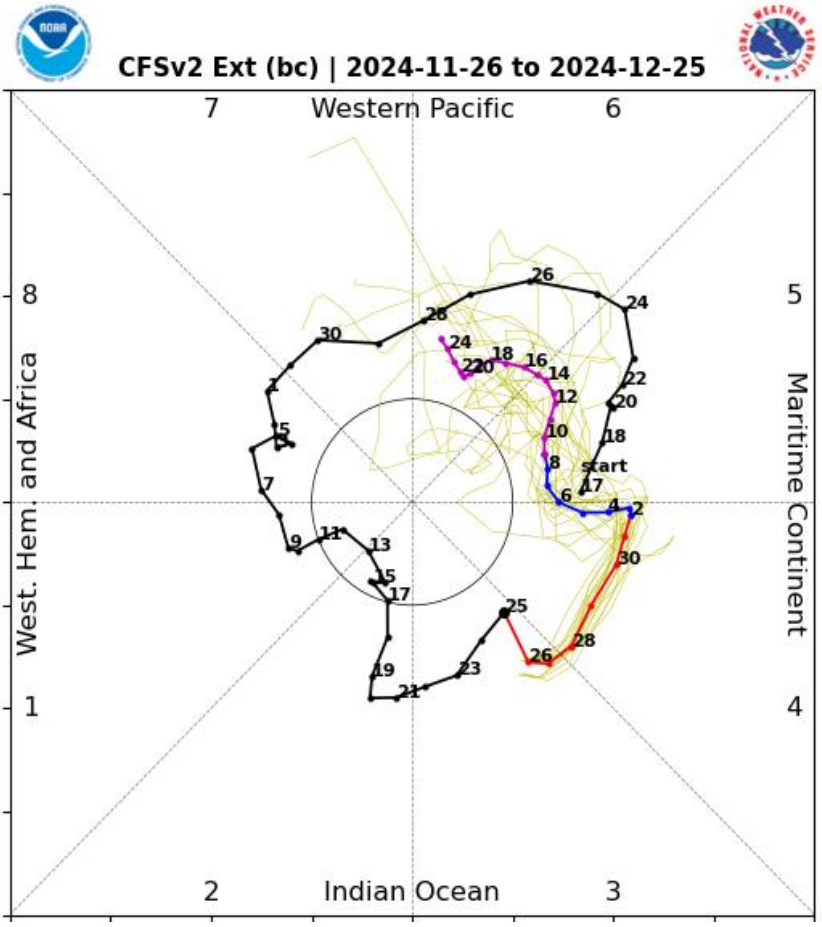
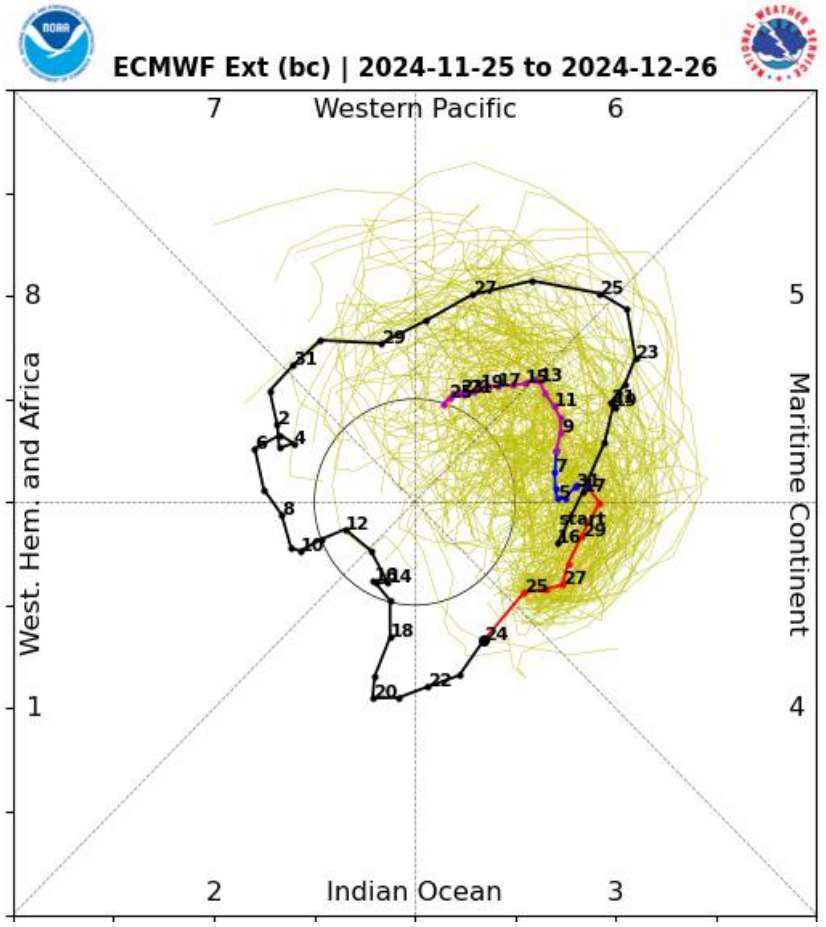
200-hPa Velocity Potential Anomaly Maps:

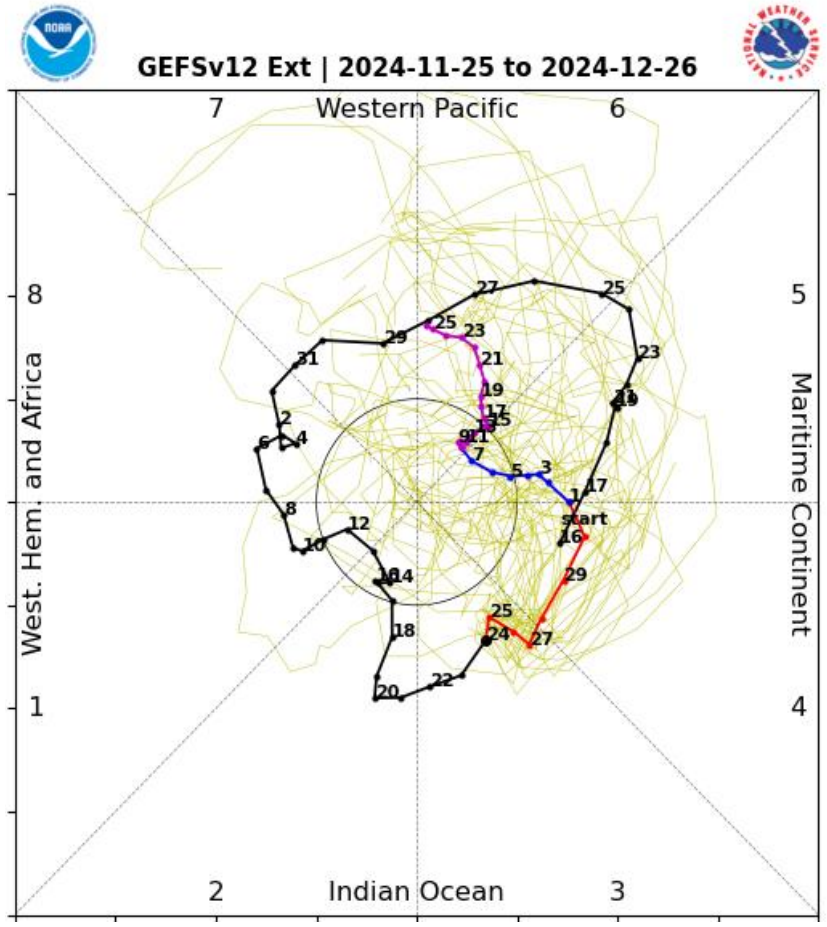
- The strengthened MJO signal resulted in a better defined wave-1 pattern during the past week.
- This is favored to continue, until the pattern becomes disorganized as the enhanced MJO phase encroaches the Western Pacific.
- Low frequency variability over the Maritime Continent appears to become a dominant player.



RMM Index Observations & Forecasts:



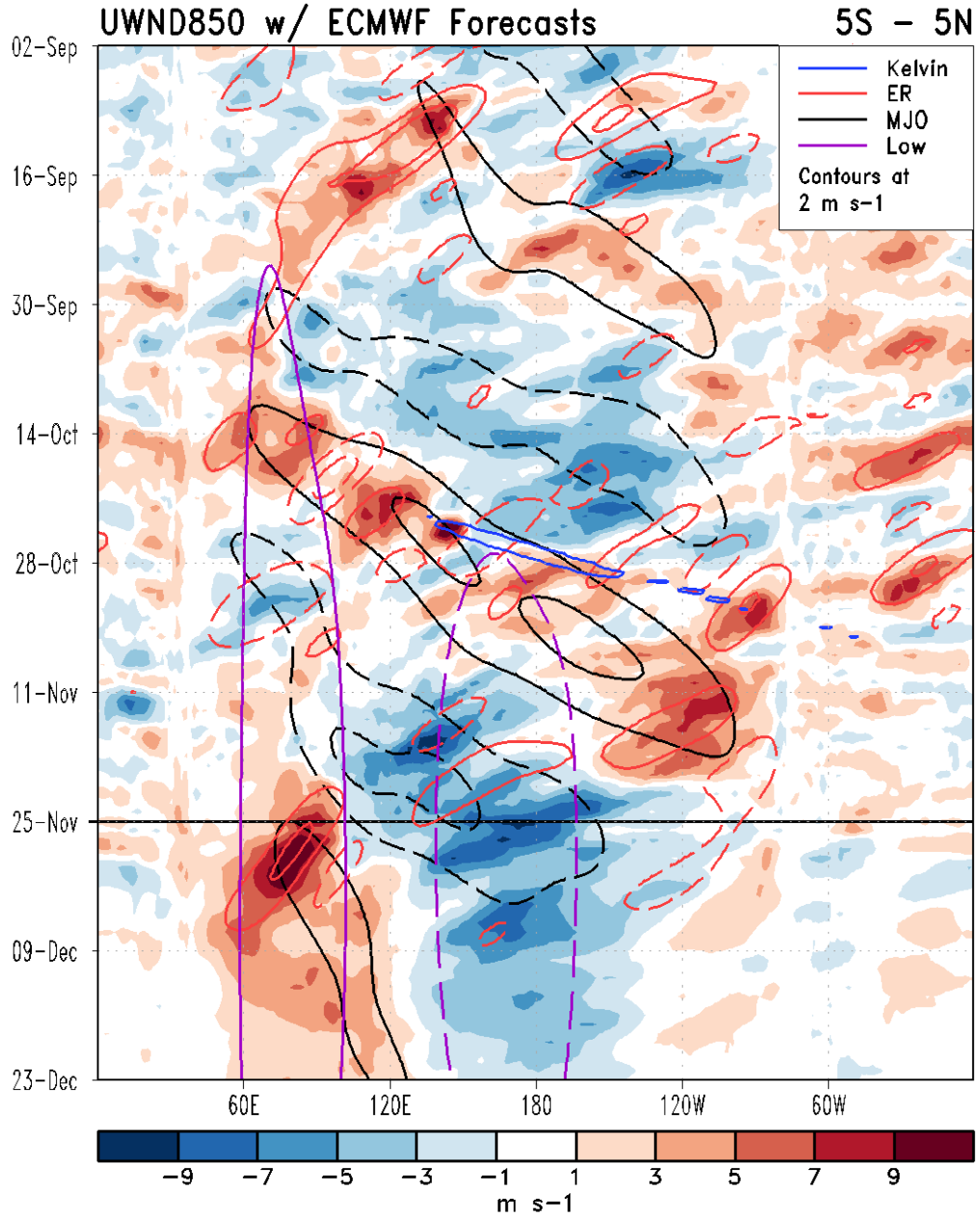


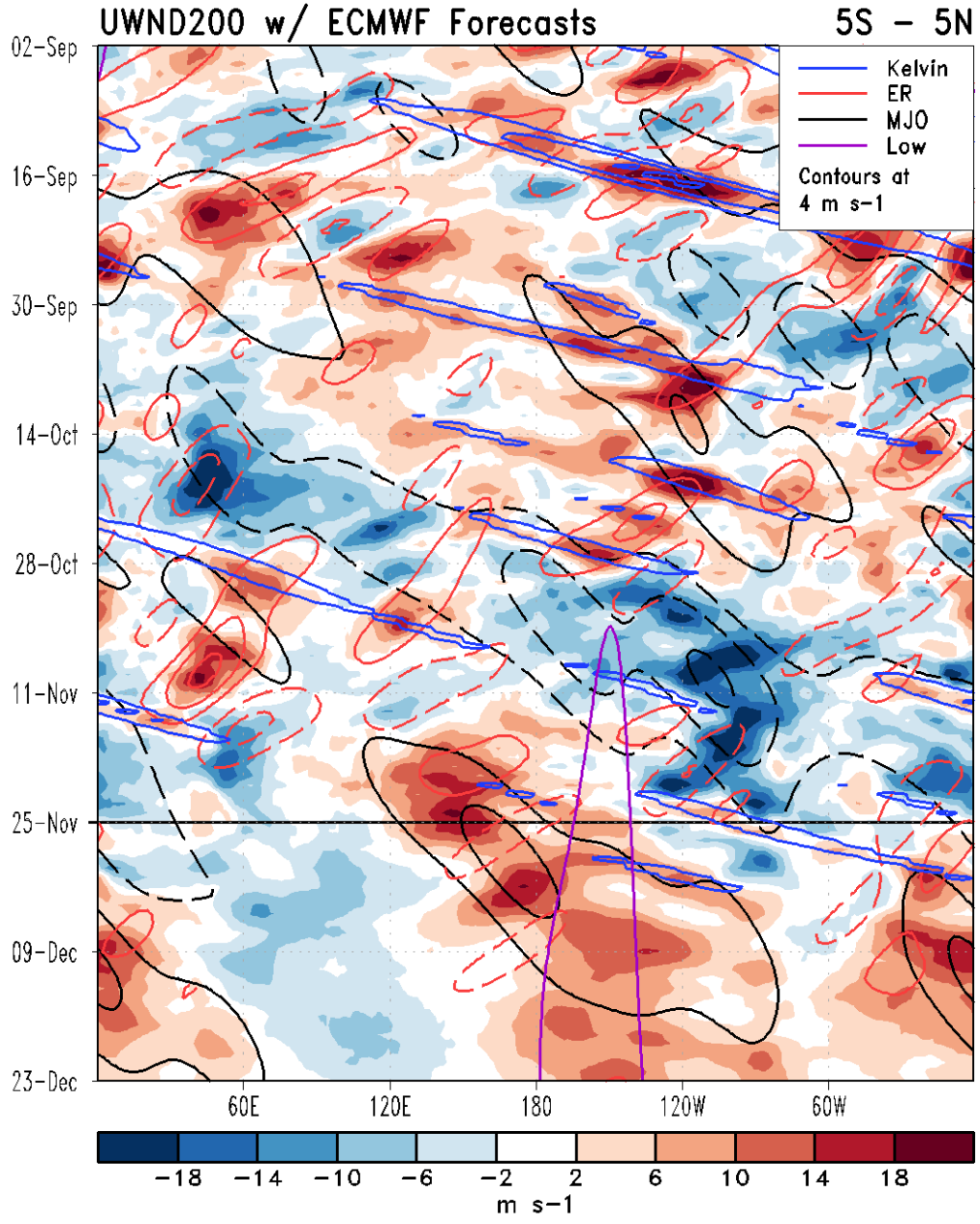


- Models are in good agreement with the MJO entering the Maritime Continent, but begin to waver in amplitude while continuing to propagate eastward into the Western Pacific towards mid-December.

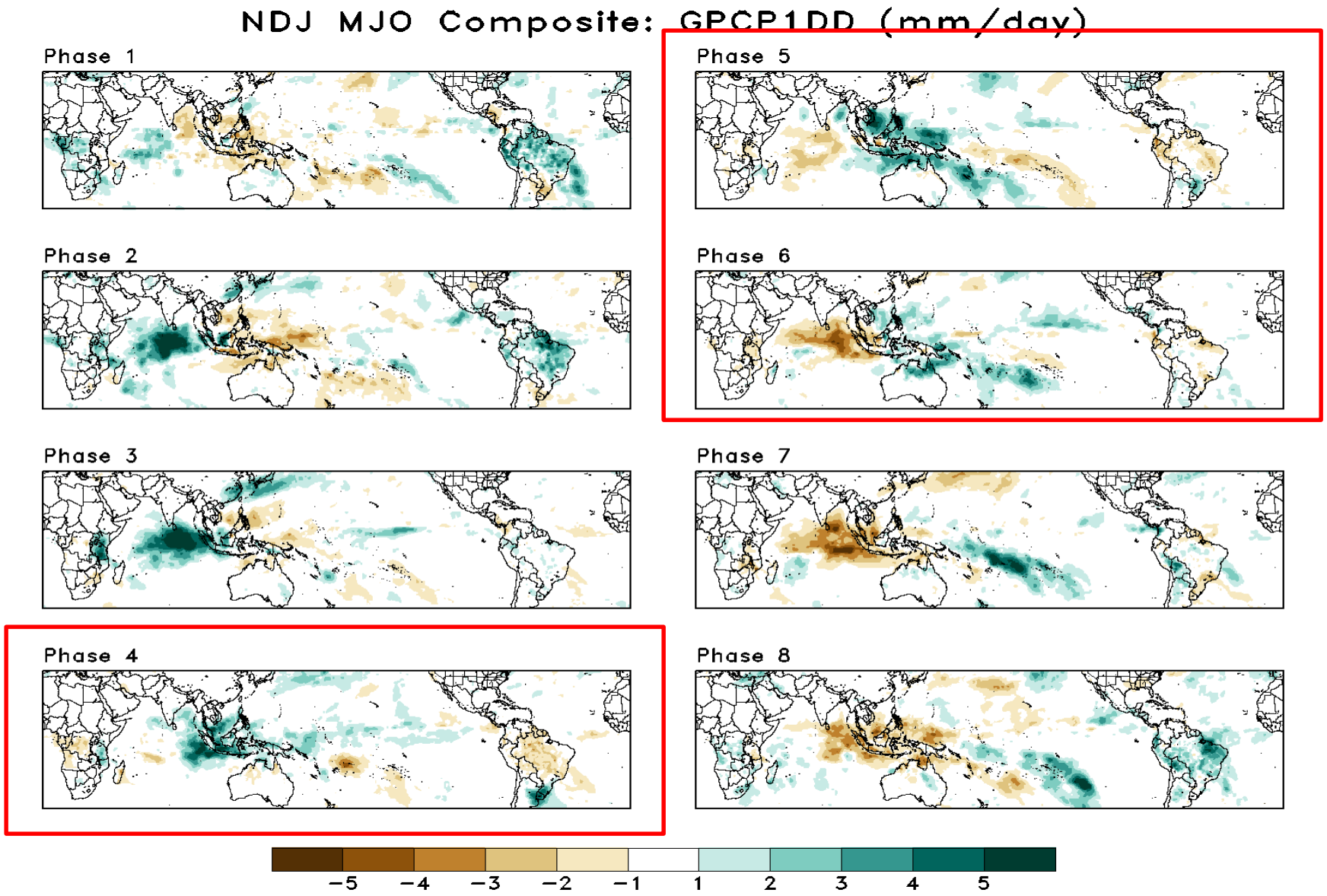
- Several ensemble members from the GEFS favor high amplitude event.

Zonal Wind Anomaly Time/Lon Plots:

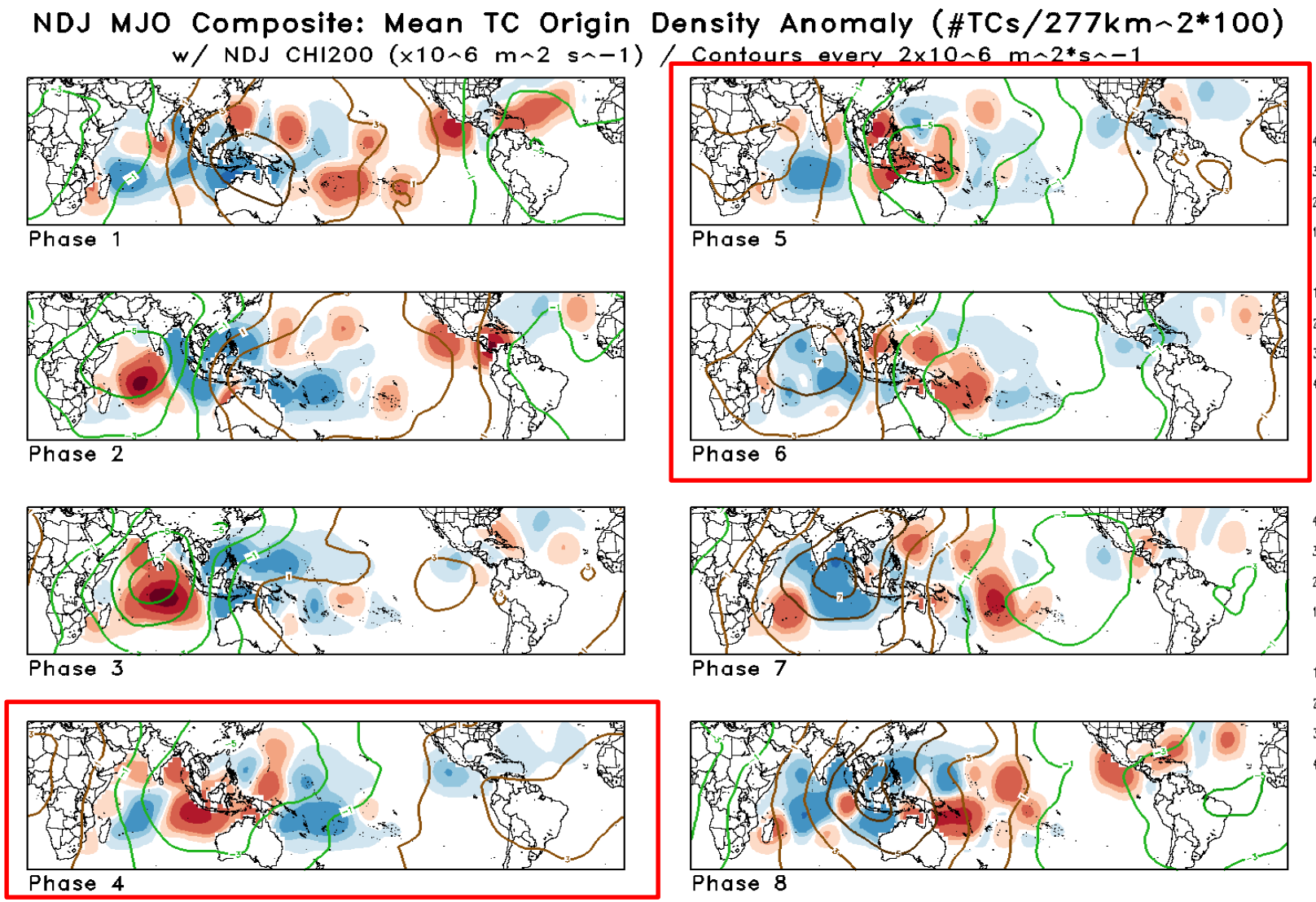


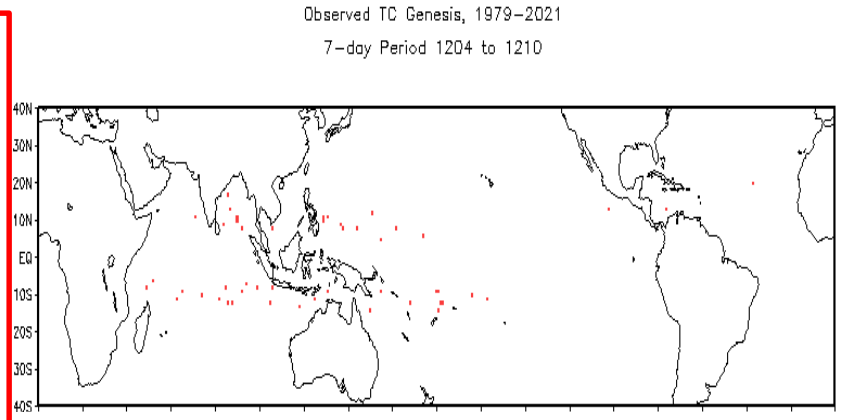


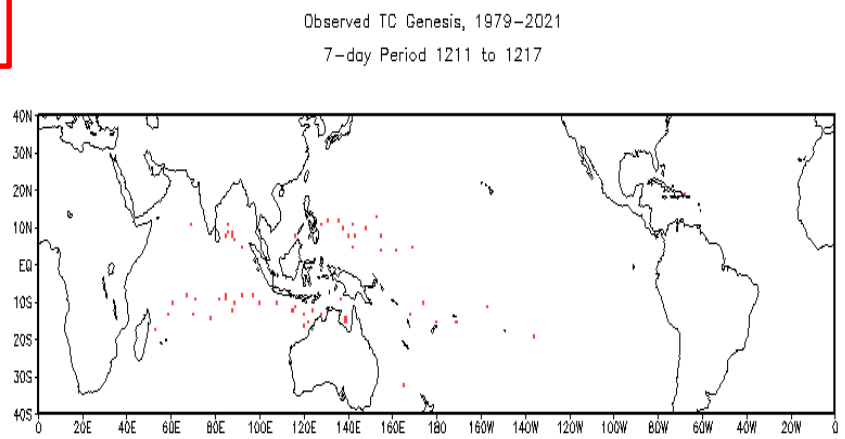
Historical Precipitation Anomalies By MJO Phase:



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

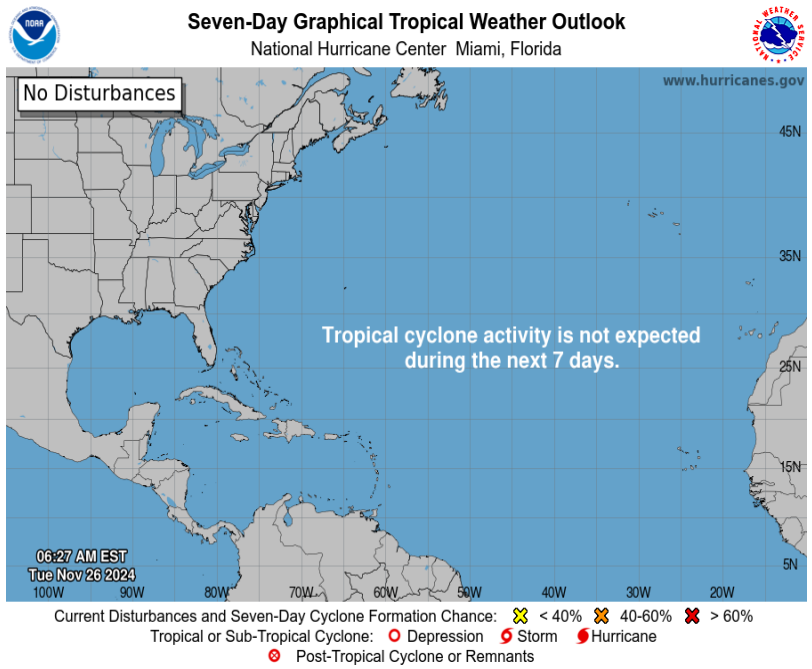


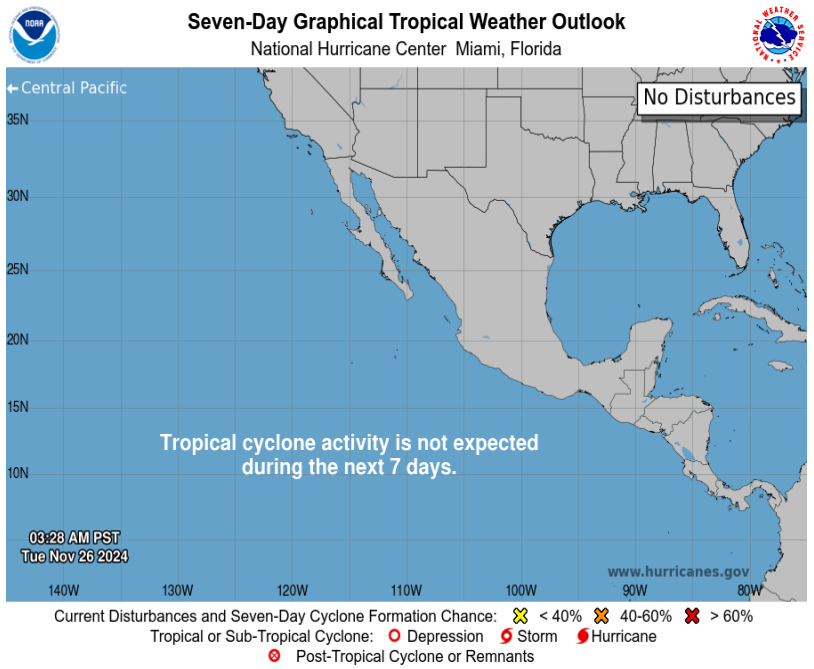


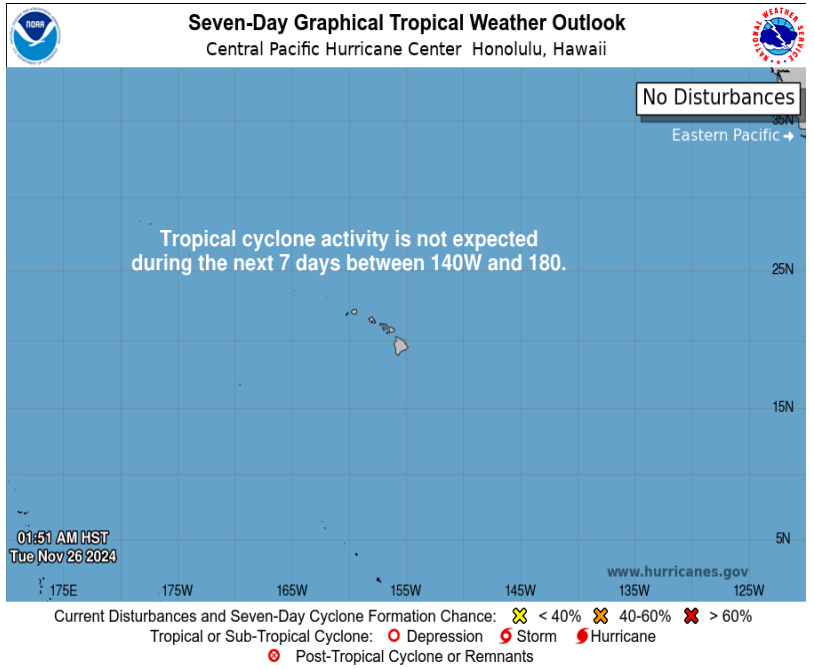


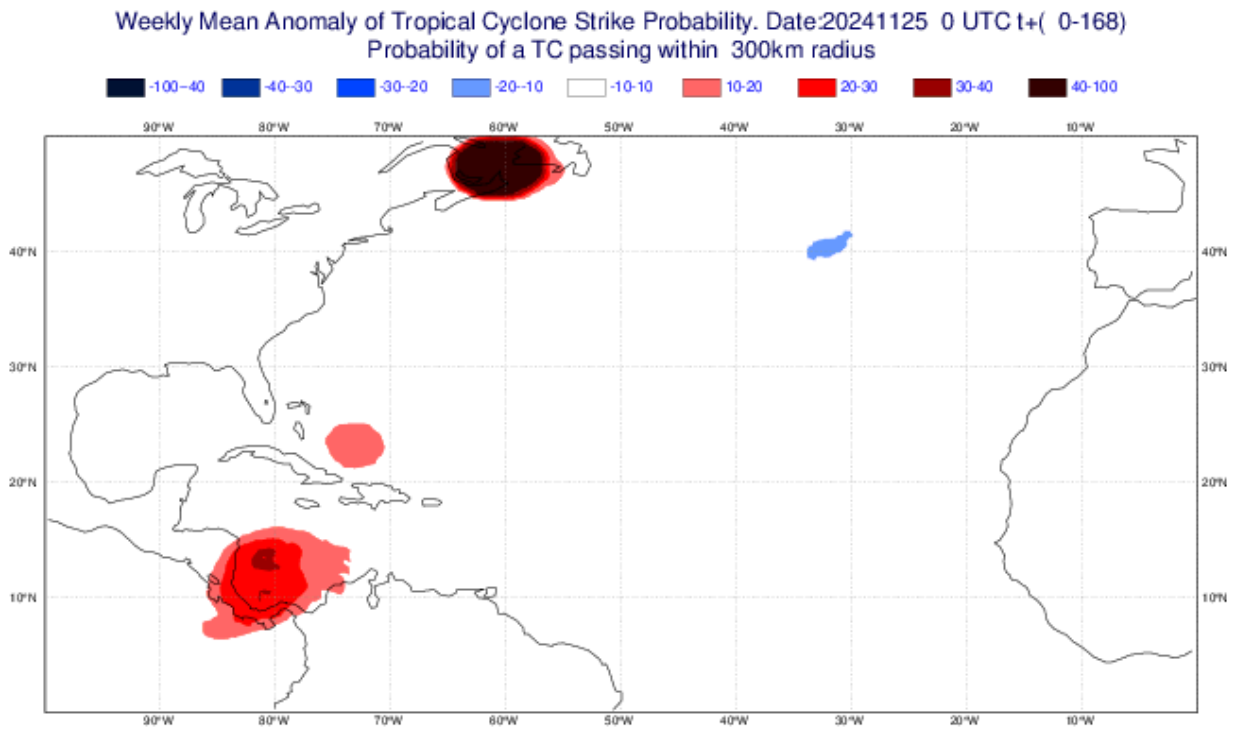
Experimental

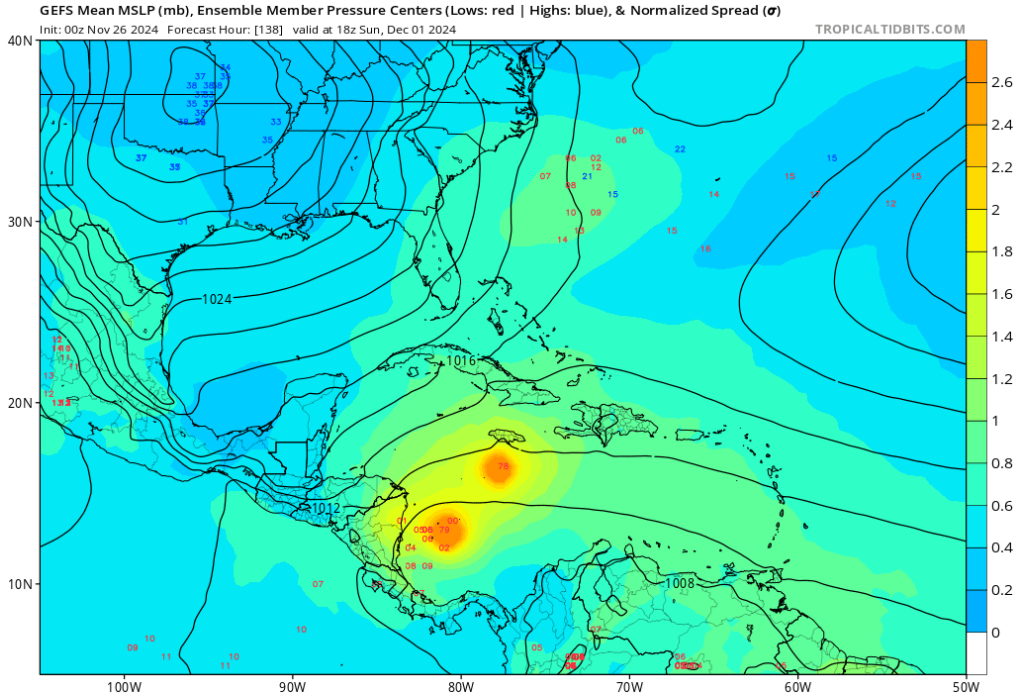
Tropical Cyclone Monitoring/Forecast: NHC / CPHC

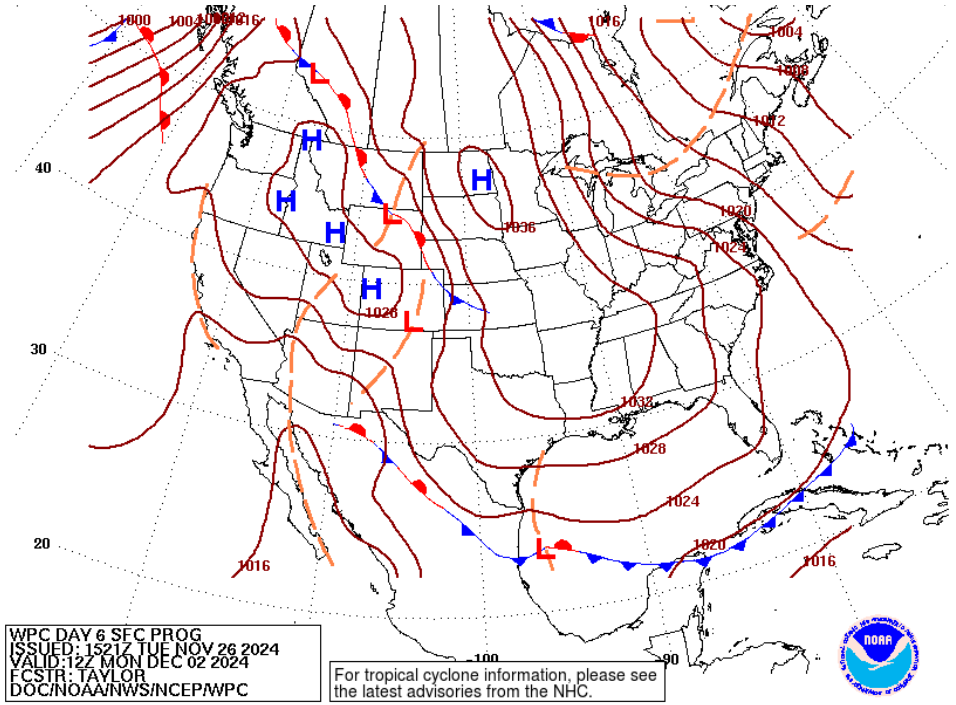


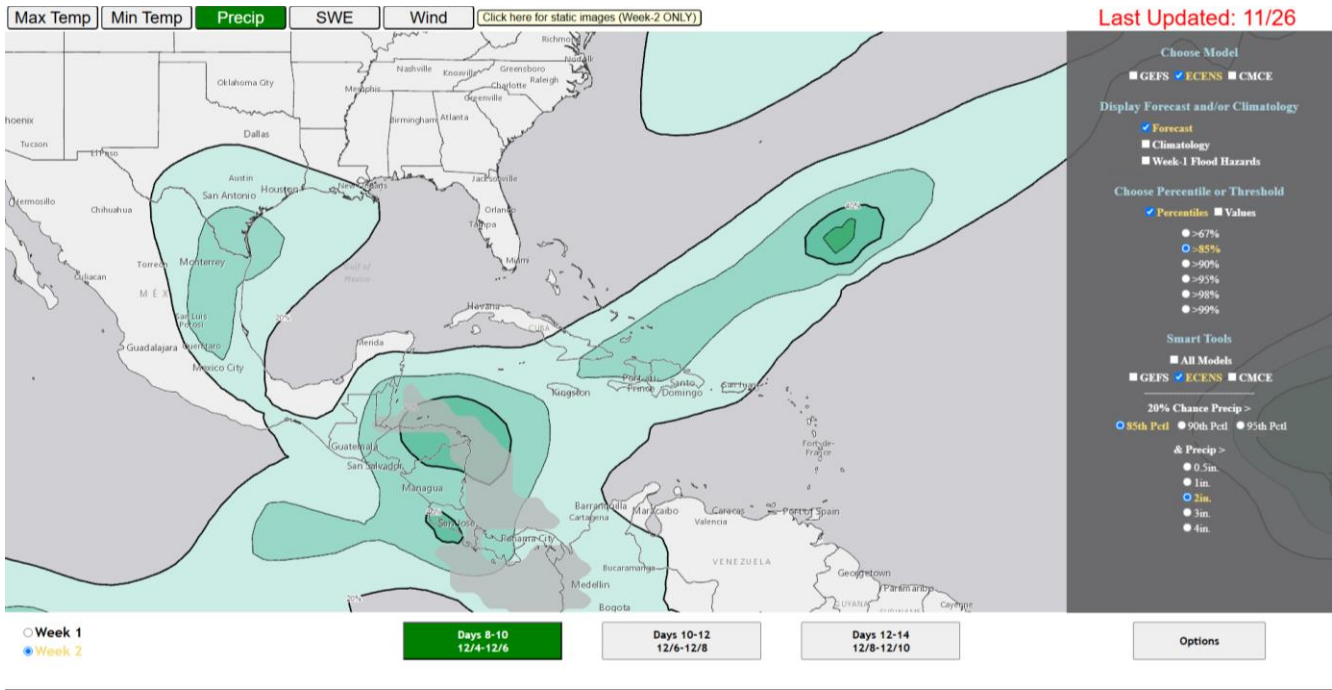




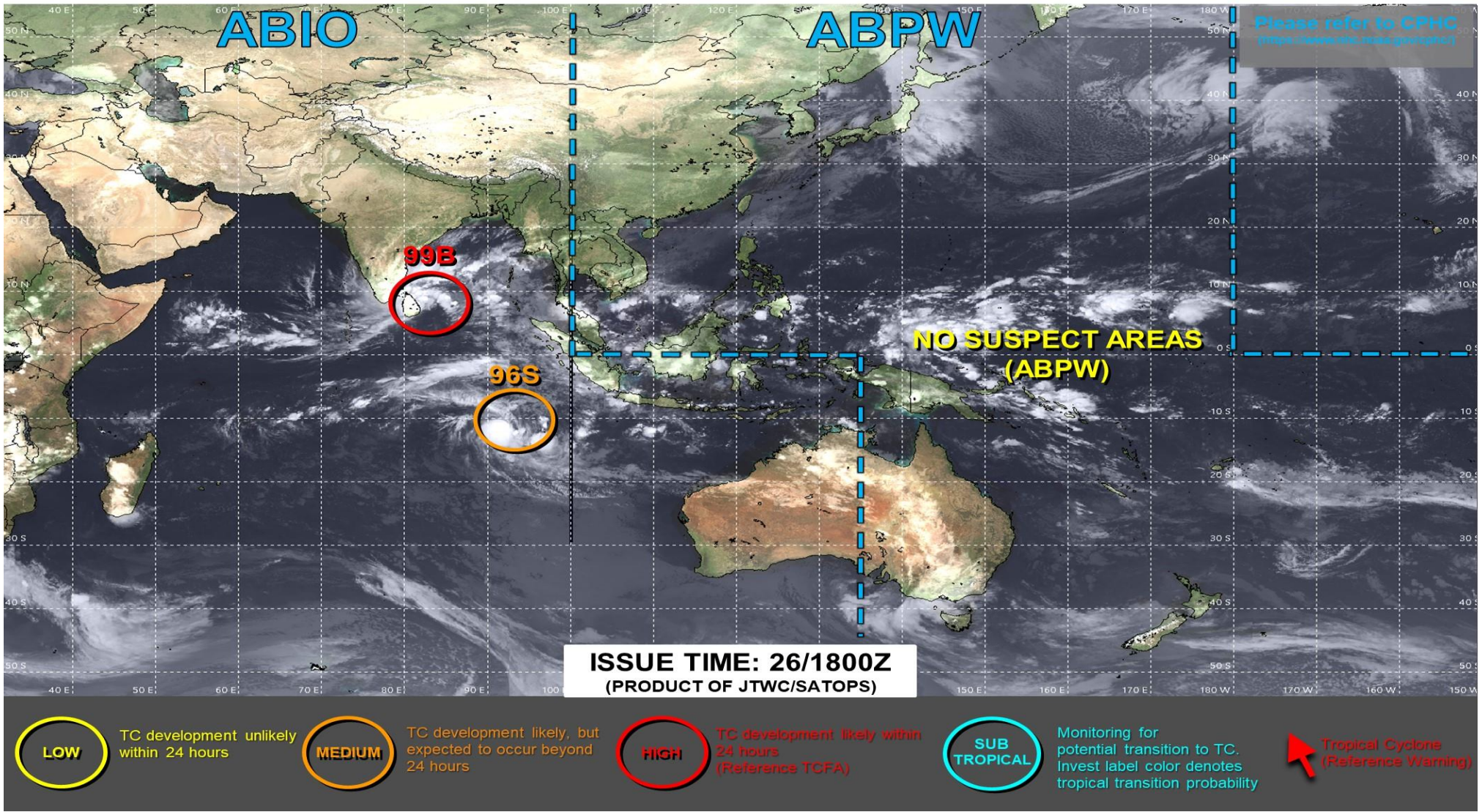

Weekly Mean Anomaly of Tropical Cyclone Strike Probability. Date:20241125 0 UTC t+(0-168)
Probability of a TC passing within 300km radius
-100--40
-40--30
-30--20
-20--10
-10-10
10-20
20-30
30-40
40-100


GEFS Mean MSLP (mb), Ensemble Member Pressure Centers (Lows: red | Highs: blue), & Normalized Spread (σ)
Init: 00z Nov 26 2024 Forecast Hour: [138] valid at 18z Sun, Dec 01 2024
TROPICALTIDBITS.COM


WPC DAY 6 SFC PROG
ISSUED: 1521Z TUE NOV 26 2024
VALID:12Z MON DEC 02 2024
FCSTR: TAYLOR
DOC/NOAA/NWS/NCEP/WPC
For tropical cyclone information, please see the latest advisories from the NHC.

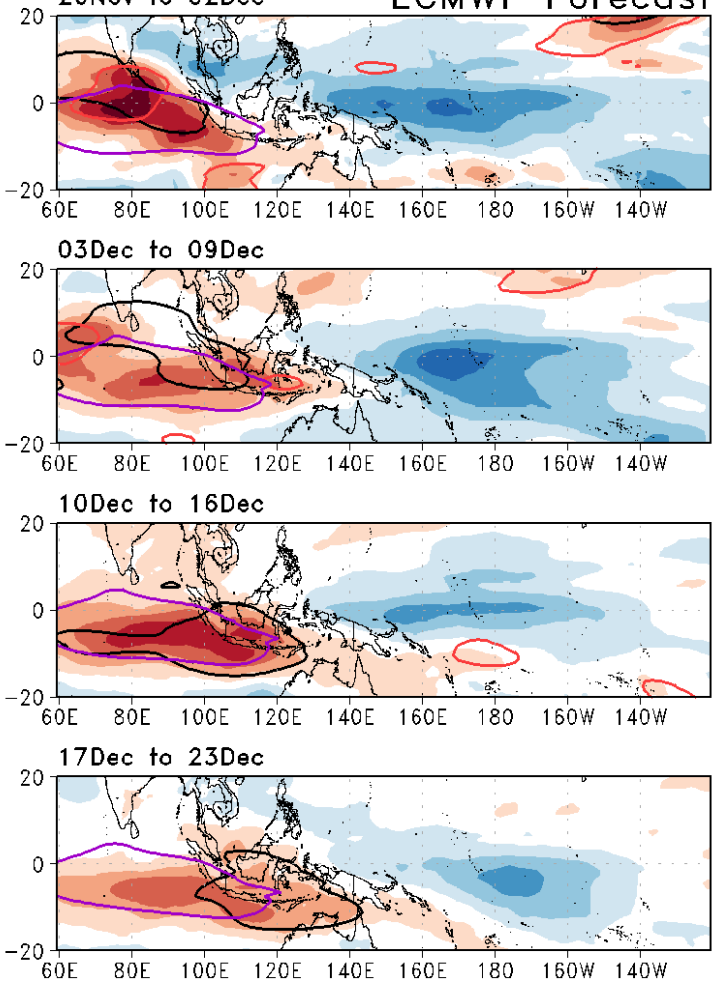

Max Temp
Min Temp
Precip
SWE
Wind
Click here for static images (Week-2 ONLY)
Last Updated: 11/26
Choose Model
GEFS ECENS CMCE
Display Forecast and/or Climatology
Forecast
Climatology
Week-1 Flood Hazards
Choose Percentile or Threshold
Percentiles Values
>67%
>85%
>90%
>95%
>98%
>99%
Smart Tools
All Models
GEFS ECENS CMCE
20% Chance Precip >
85th Pctl 90th Pctl 95th Pctl
& Precip >
0.5in.
1in.
2in.
3in.
4in.
Week 1
Week 2
Days 8-10 12/4-12/6
Days 10-12 12/6-12/8
Days 12-14 12/8-12/10
Options

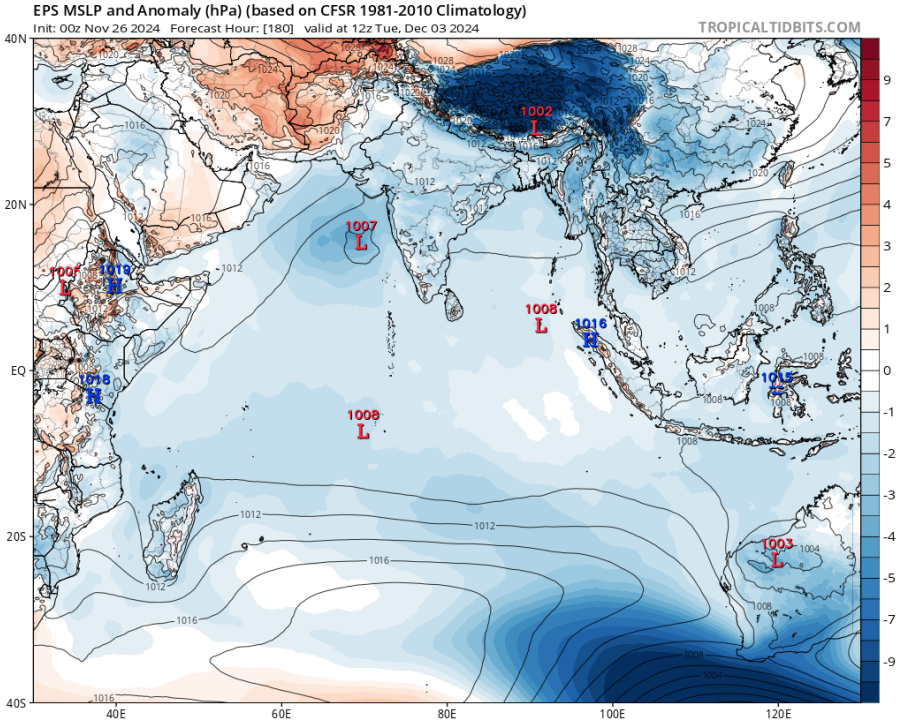
Tropical Cyclone Monitoring/Forecast: JTWC

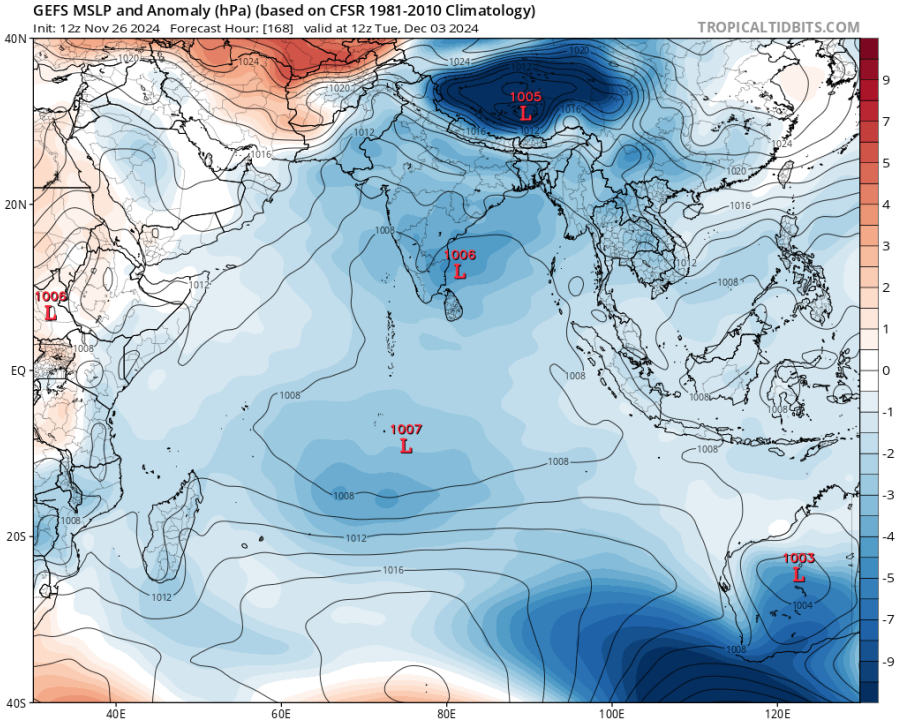


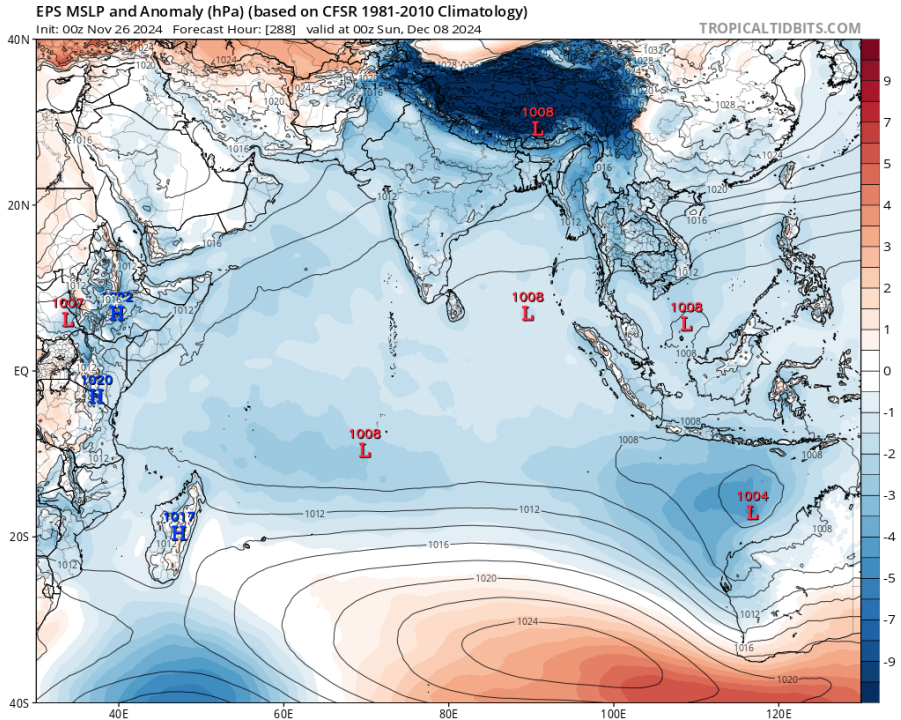
7-Day Means

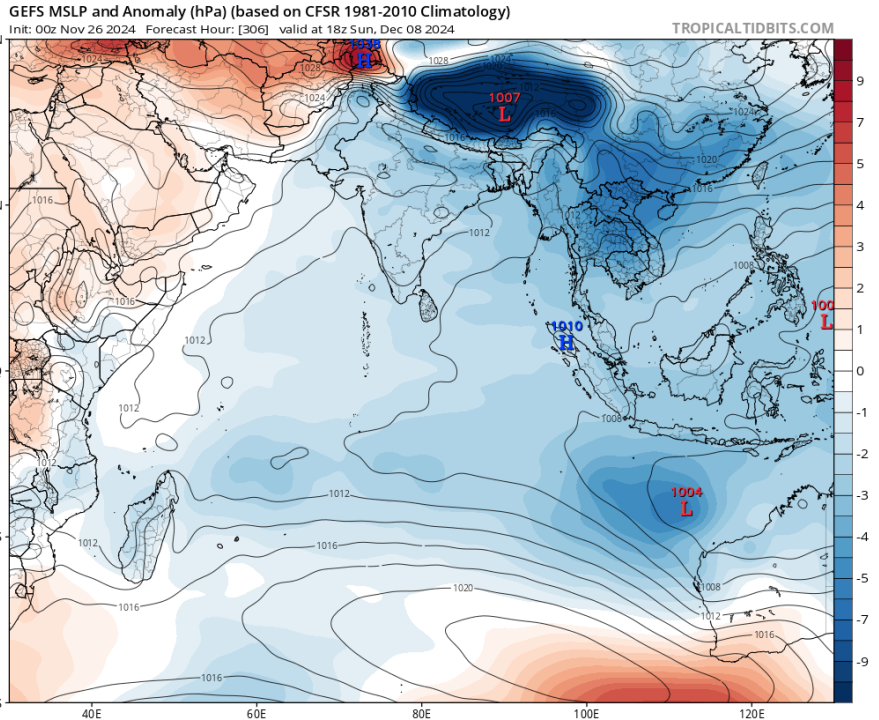
ECMWF Forecast



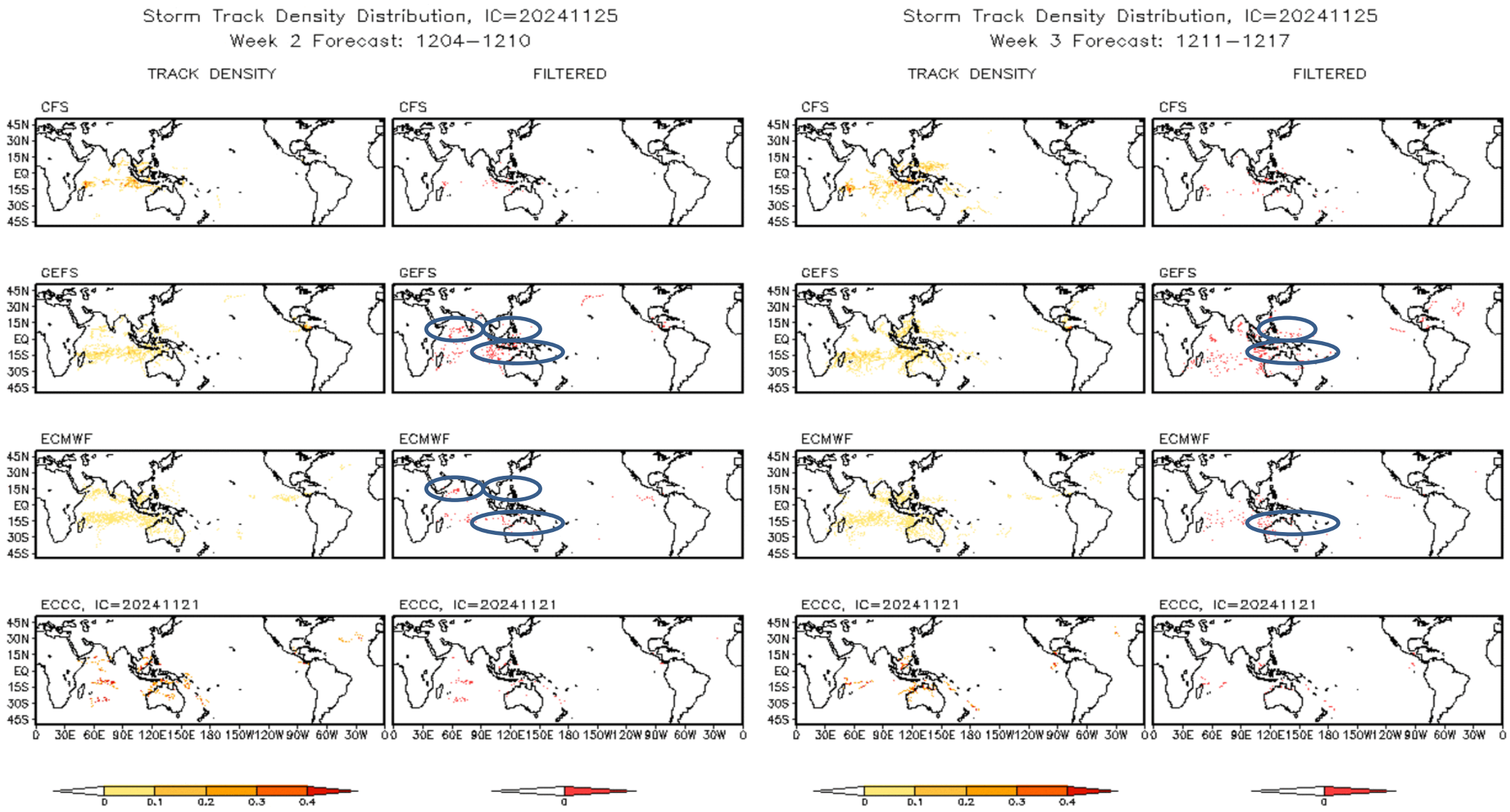




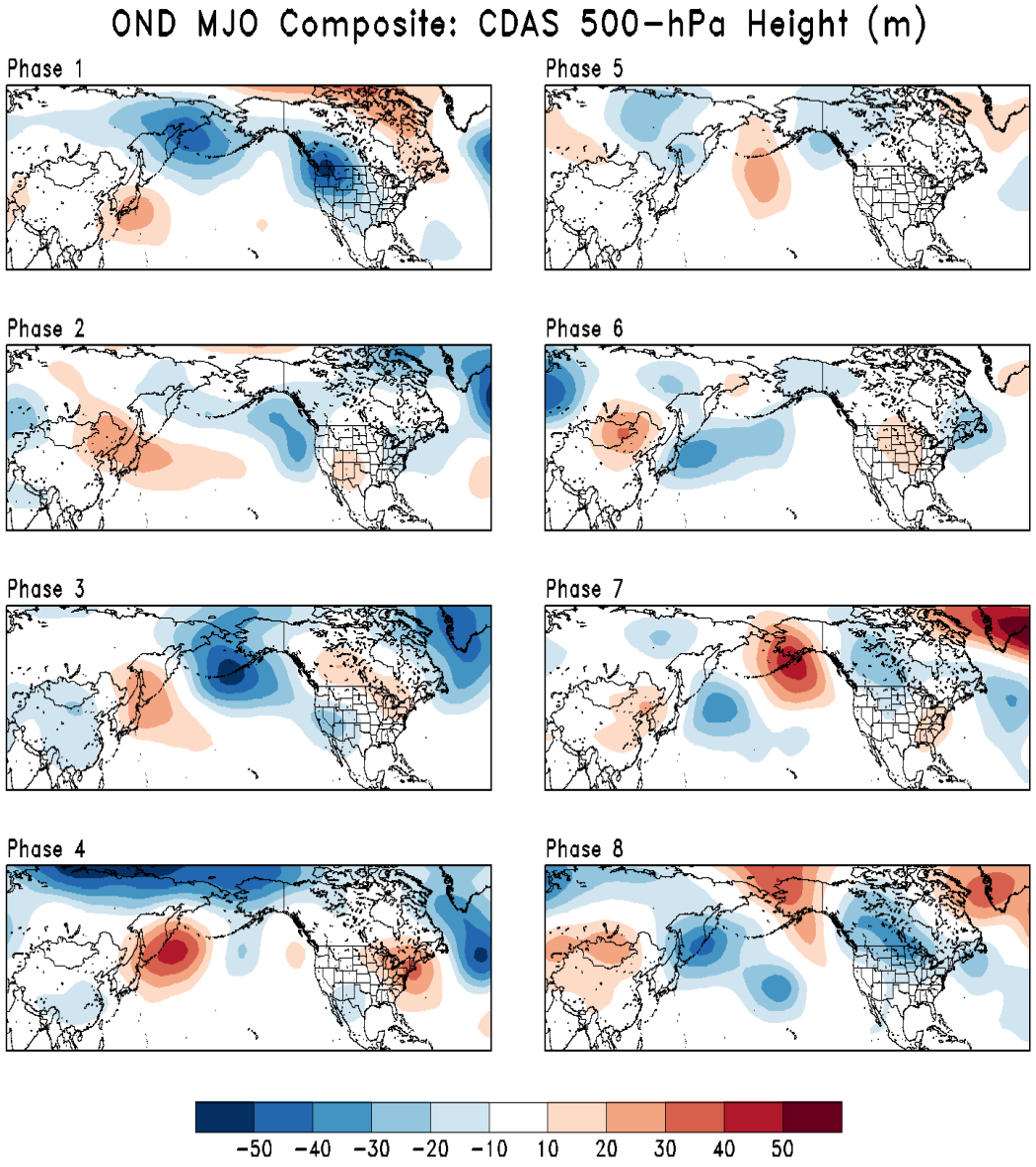


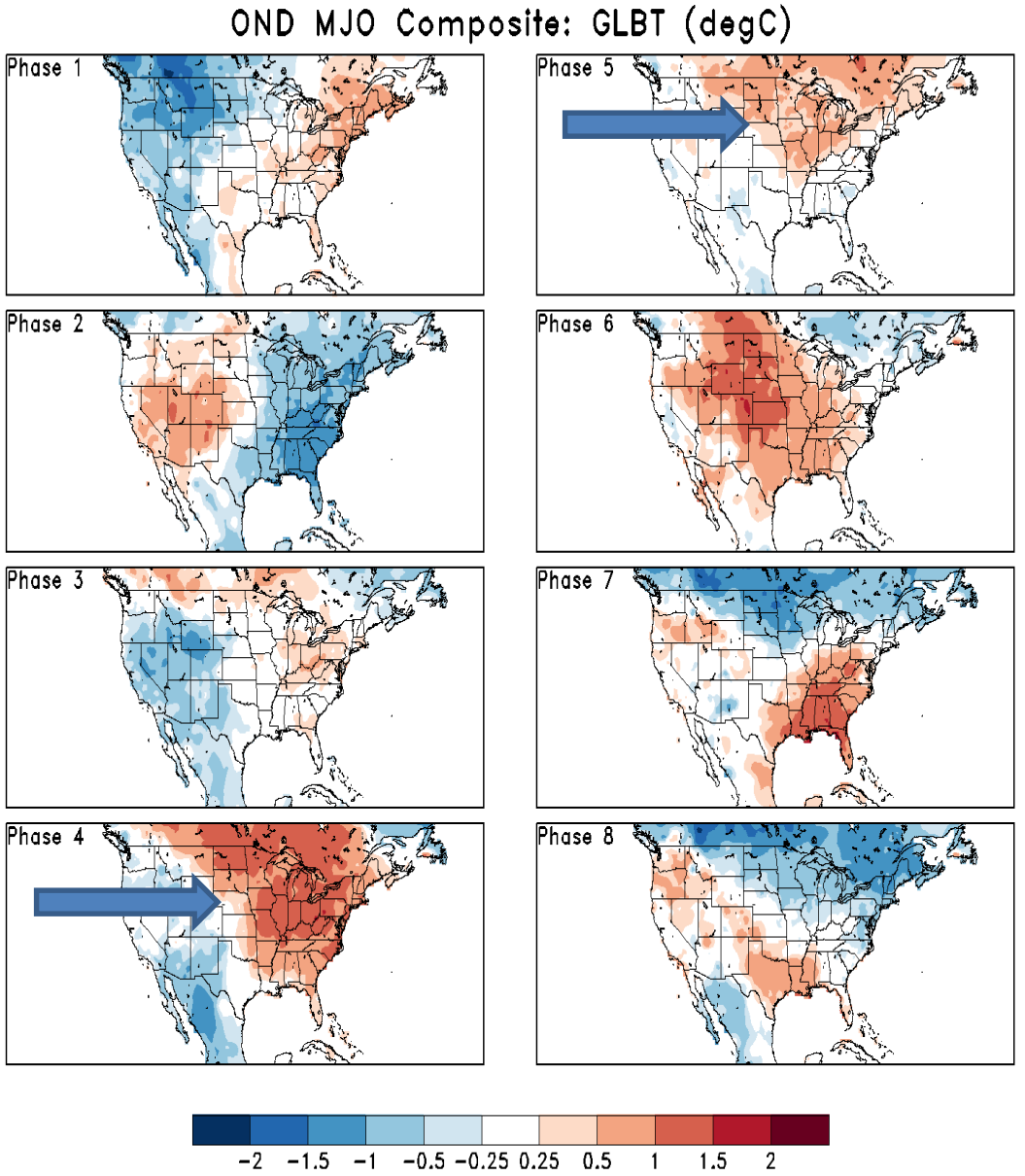


Multi-Model TC Track Densities: Weeks 2+3

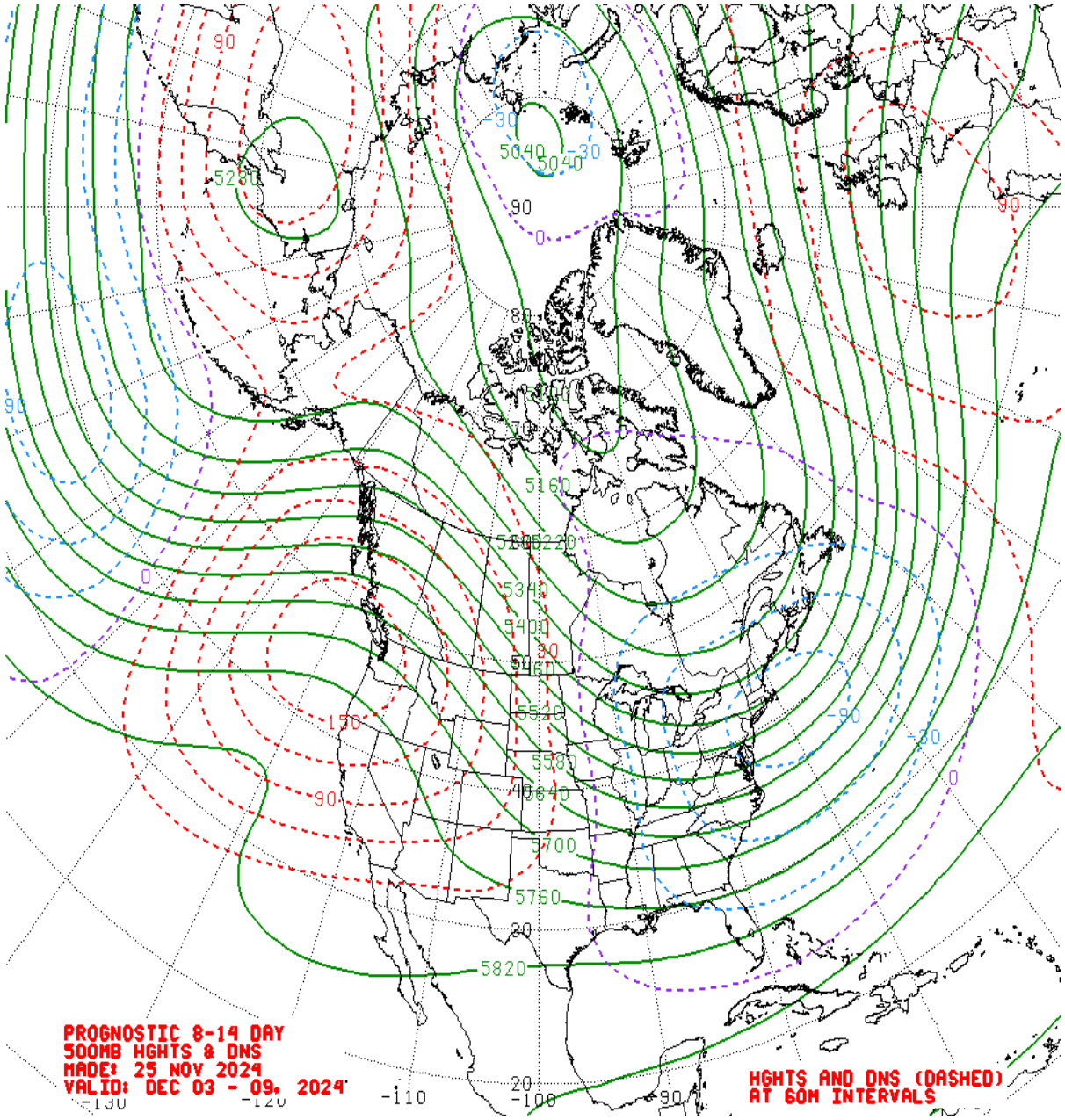


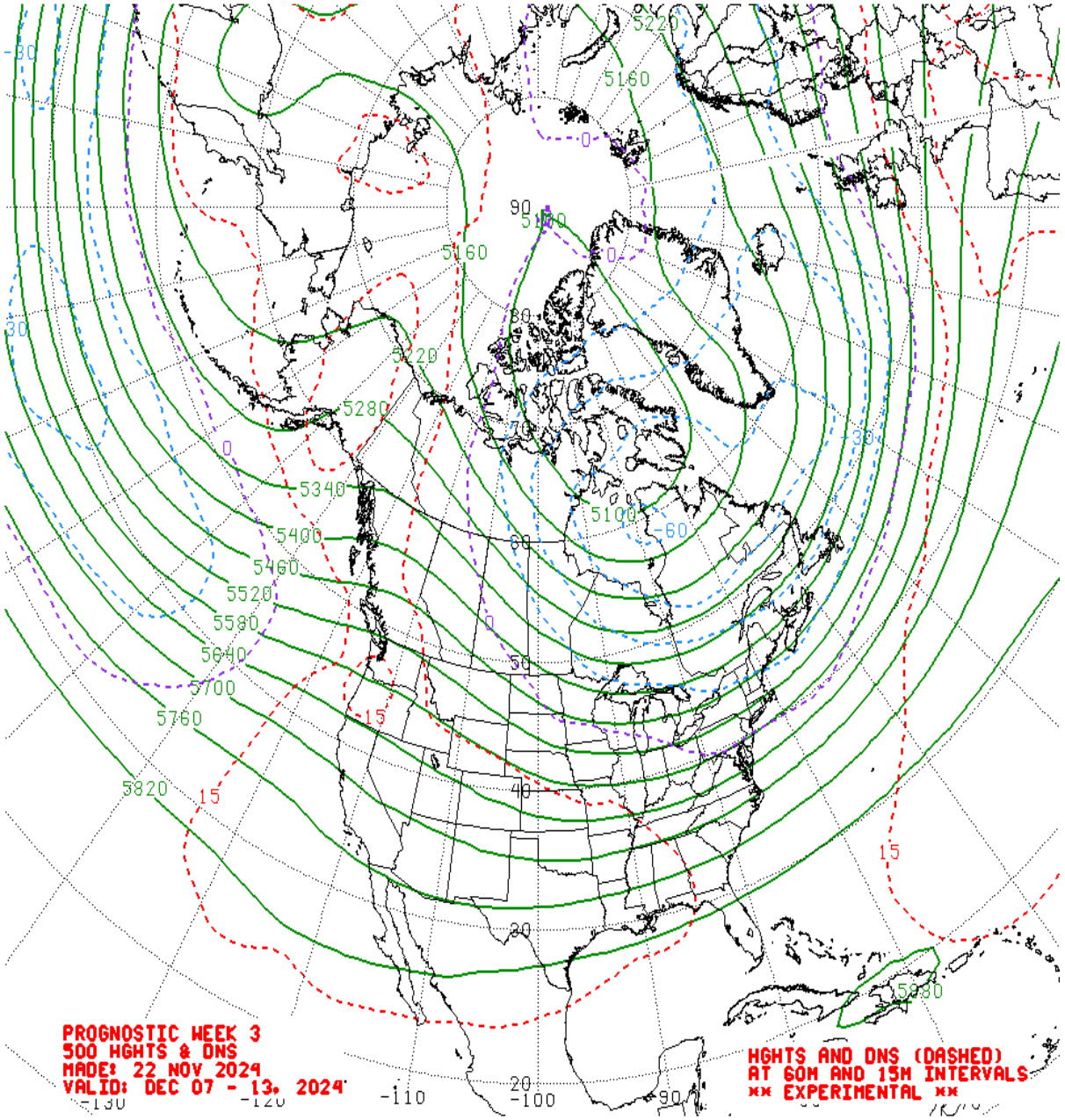
Historical 500-hPa Height & U.S. Temperatures By MJO Phase:



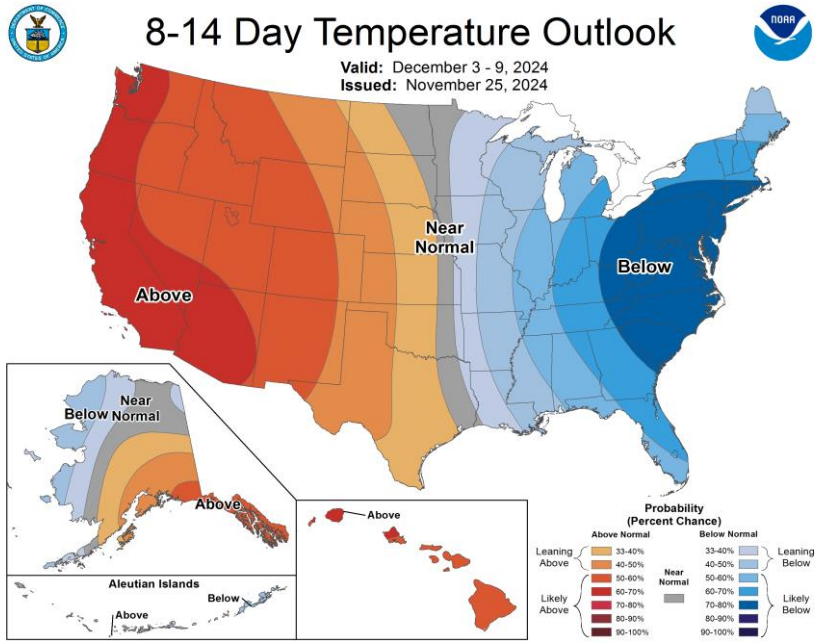


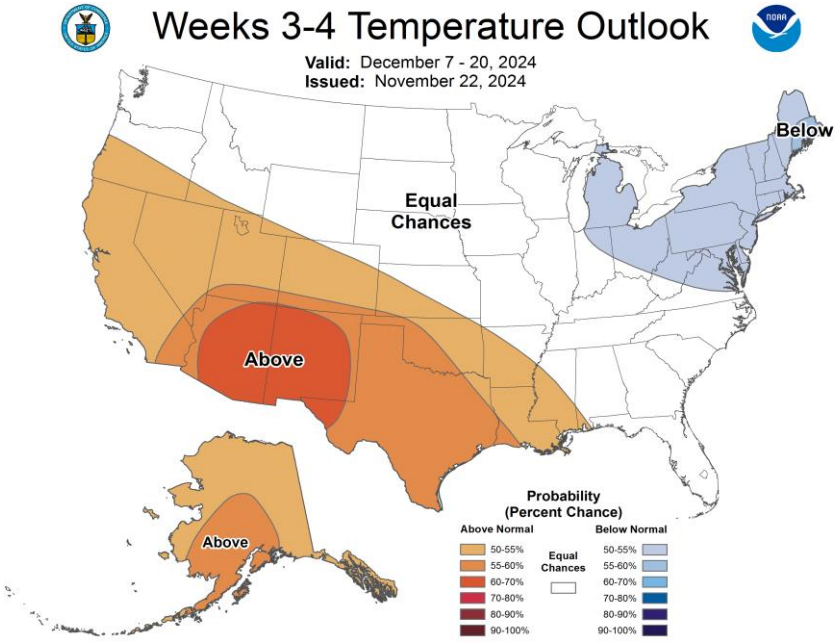
Mean 500-hPa Height Anomaly Forecasts: Weeks 2+3

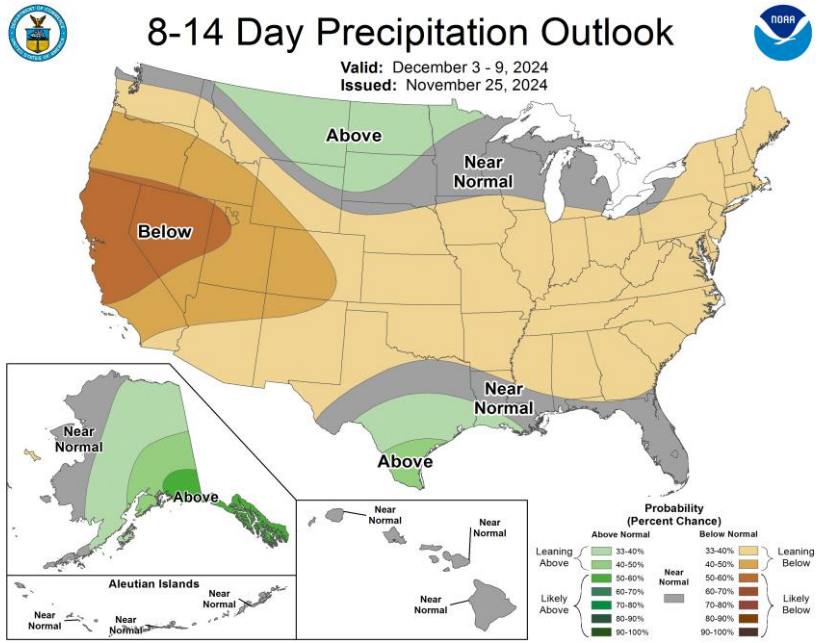


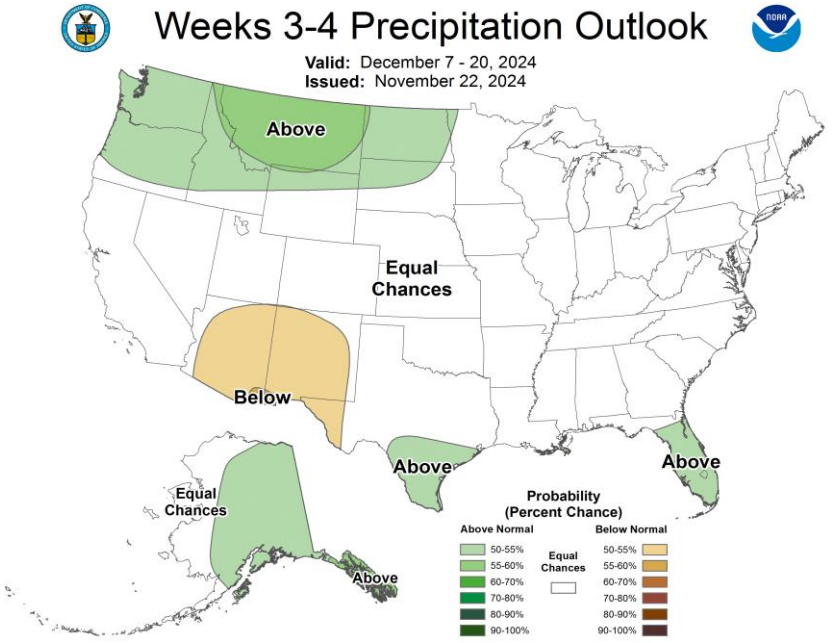


Official Temperature & Precipitation Forecasts:









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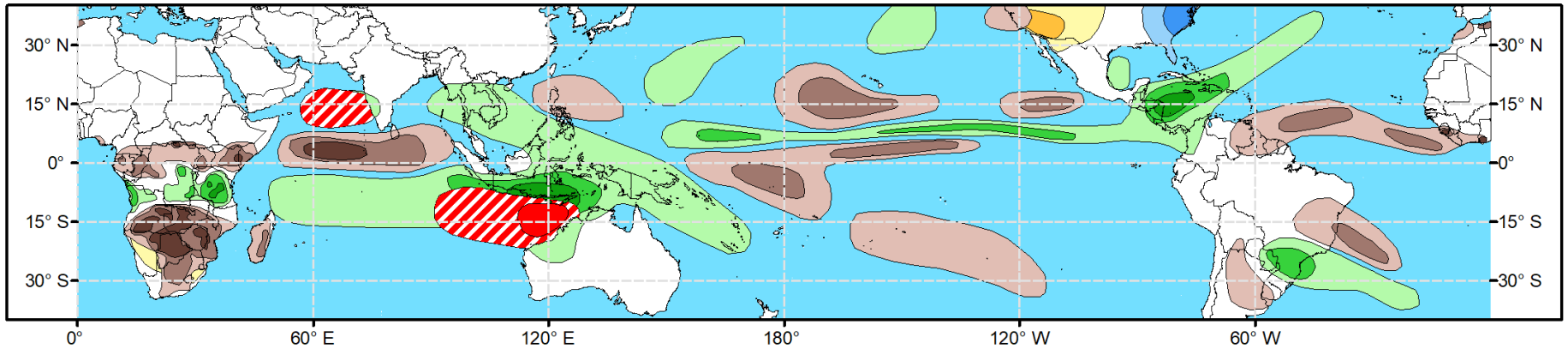

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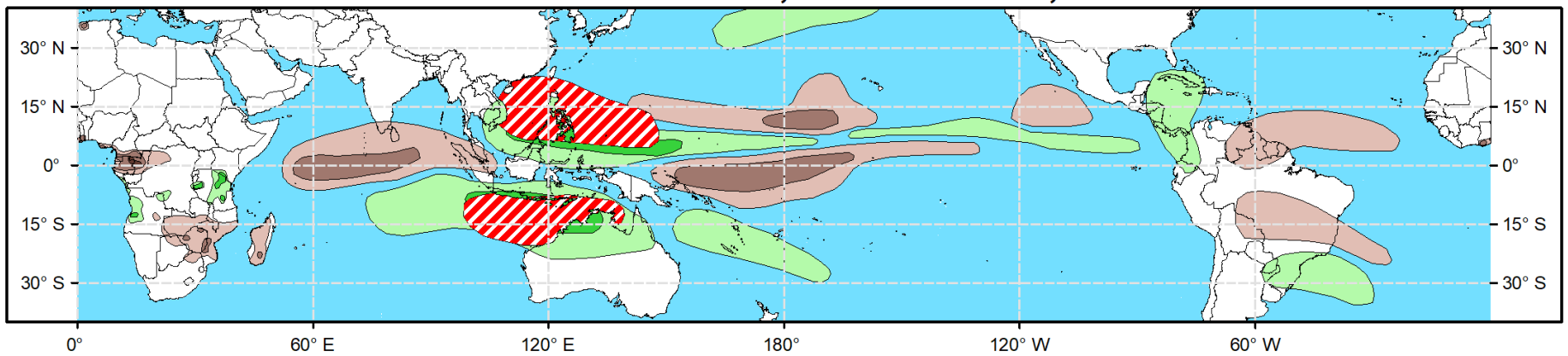

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