



# Weeks 2-3 Global Tropics Hazards Outlook

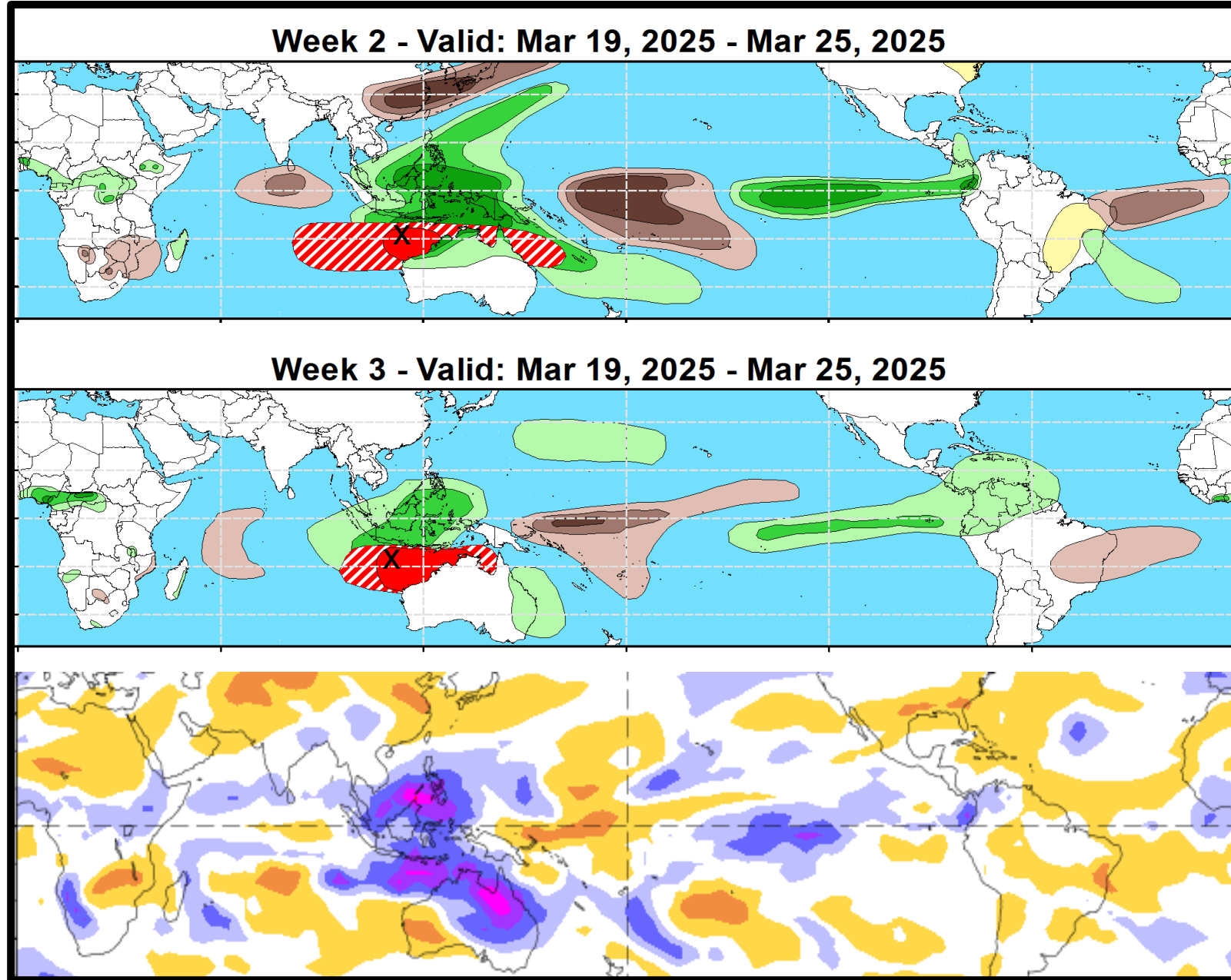
3/25/2025

Brad Pugh

NWS / NCEP / Climate Prediction Center

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

X = Tropical Cyclone 27S



# Synopsis of Climate Modes:

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**ENSO:** (Mar 13, 2025 Update)     *next update on Thursday, Apr 10<sup>th</sup>*

- ENSO Alert System Status: [La Niña Advisory](#)
- ENSO-neutral is favored to develop in the next month and persist through the Northern Hemisphere summer (62% chance in JJA, 2025).

## **MJO and other subseasonal tropical variability:**

- Based on RMM index observations, the MJO propagated rapidly east from the Indian Ocean to the West Pacific since early March.
- Forecast uncertainty increases heading into April due to in part to conflicting influences from the MJO and the lingering albeit weakening La Nina.
- Tropical cyclone development is most likely near northern Australia during the next three weeks. Elsewhere across the global tropics, it is a quiet time of year for tropical cyclones.

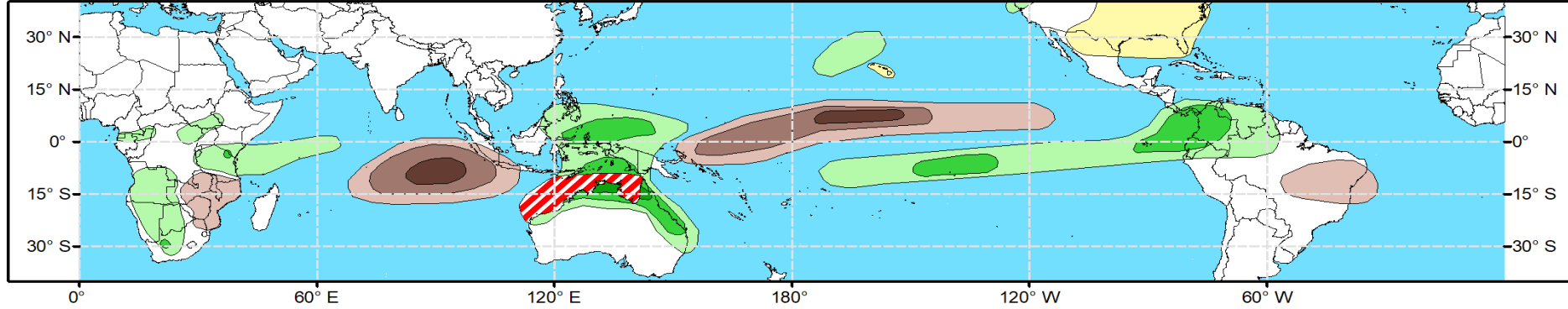
# GTH Outlook:



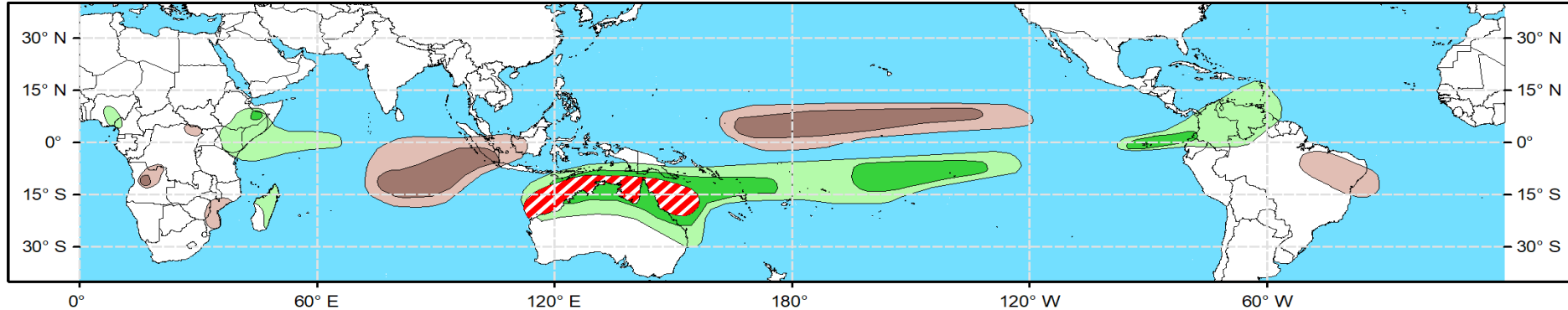
## Global Tropics Hazards Outlook Climate Prediction Center



**Week 2 - Valid: Apr 02, 2025 - Apr 08, 2025**



**Week 3 - Valid: Apr 09, 2025 - Apr 15, 2025**



**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**



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

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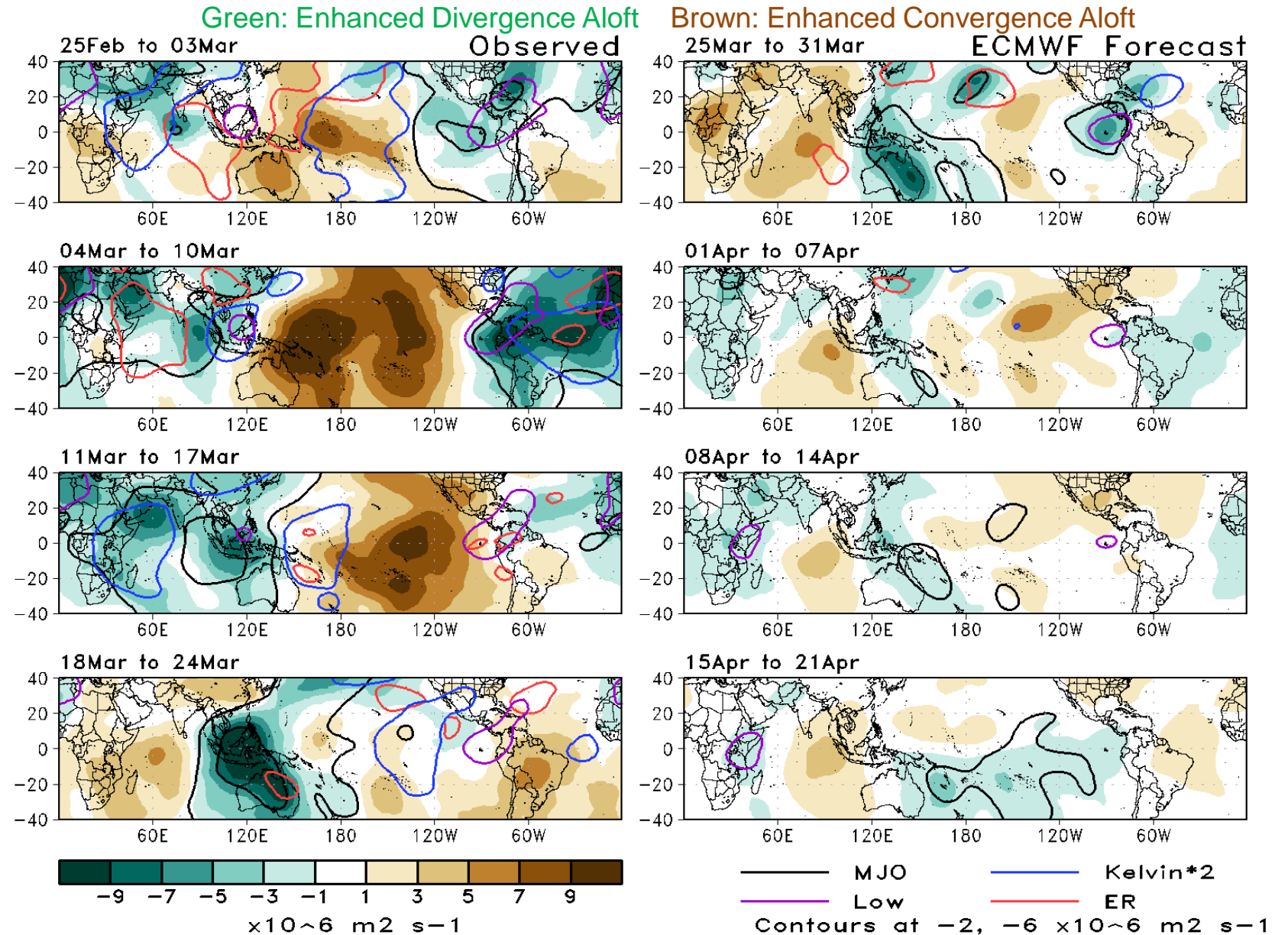
**Issued: 03/25/2025**

**Forecaster: Pugh**

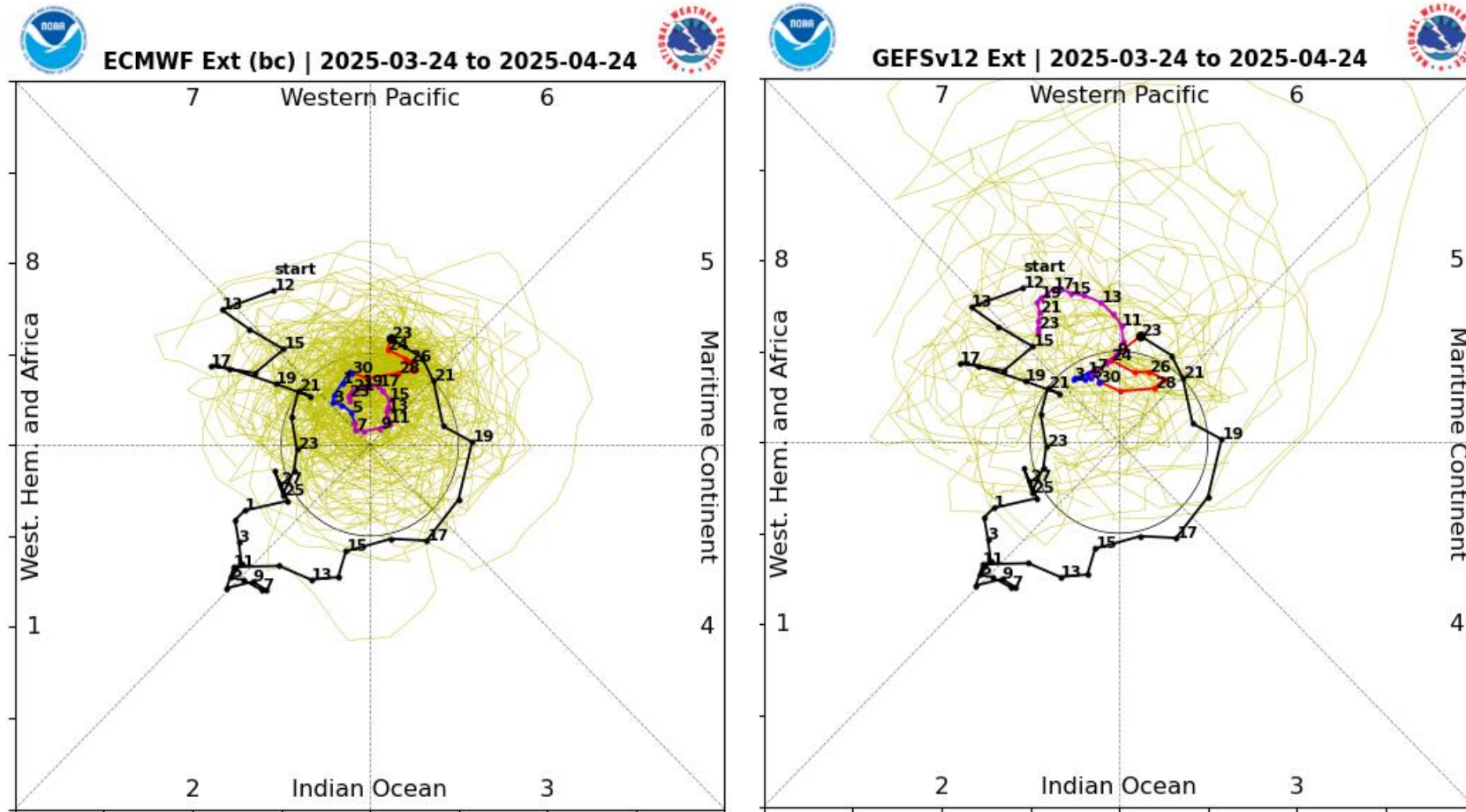
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# 200-hPa Velocity Potential Anomaly Maps:

- During much of March, a wave-1 pattern was evident which is consistent with a MJO.
- March 18-24: MJO + lingering La Nina = strong anomalous upper-level divergence
- By the end of March into early April, the ECMWF depicts a less coherent pattern with smaller anomalies.



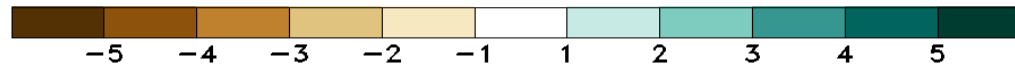
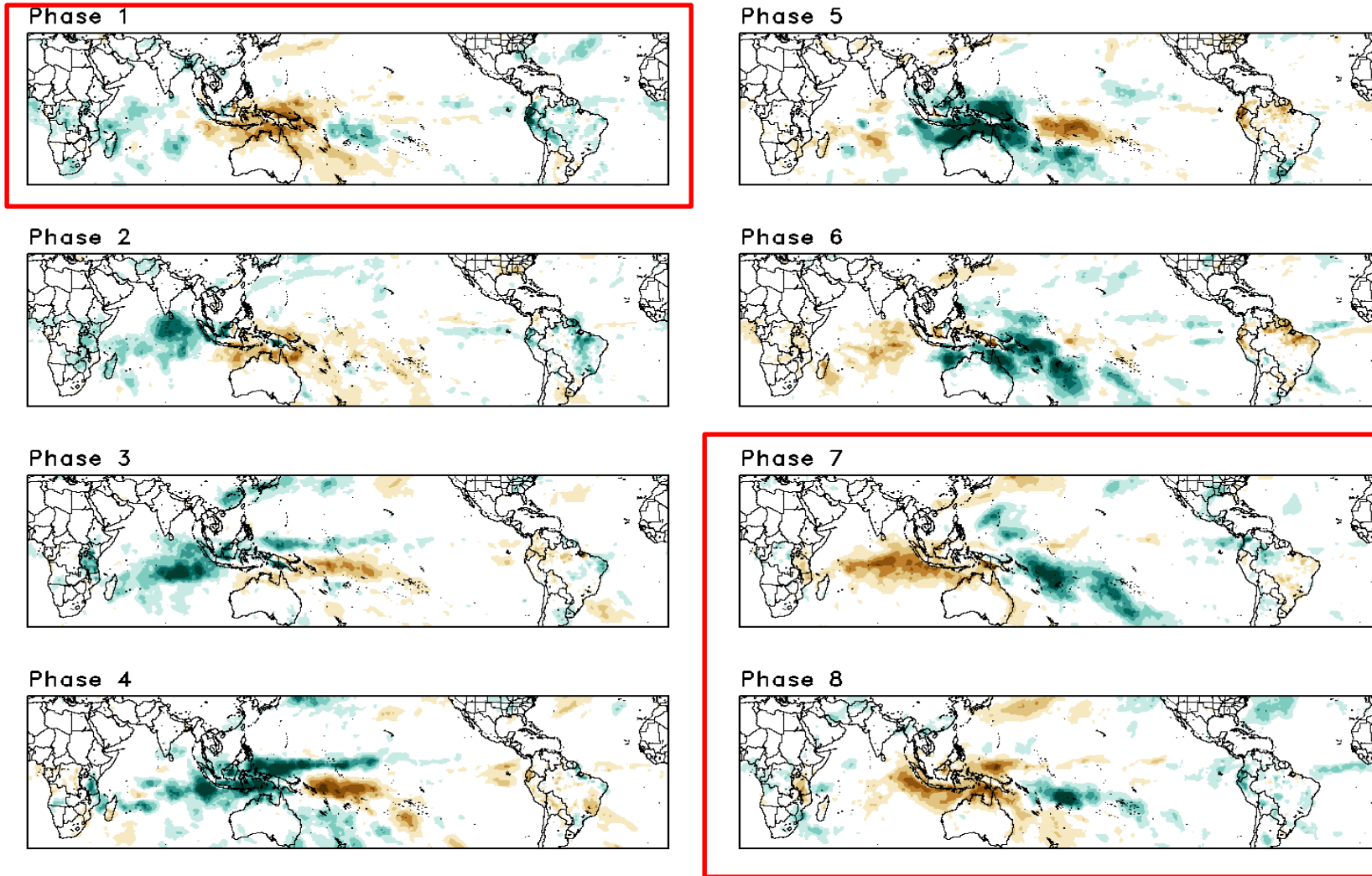
# RMM Index Observations & Forecasts:



- Ensemble spread is very large during the next month which leads to higher forecast uncertainty on the MJO strength and propagation.

# Historical Precipitation Anomalies By MJO Phase:

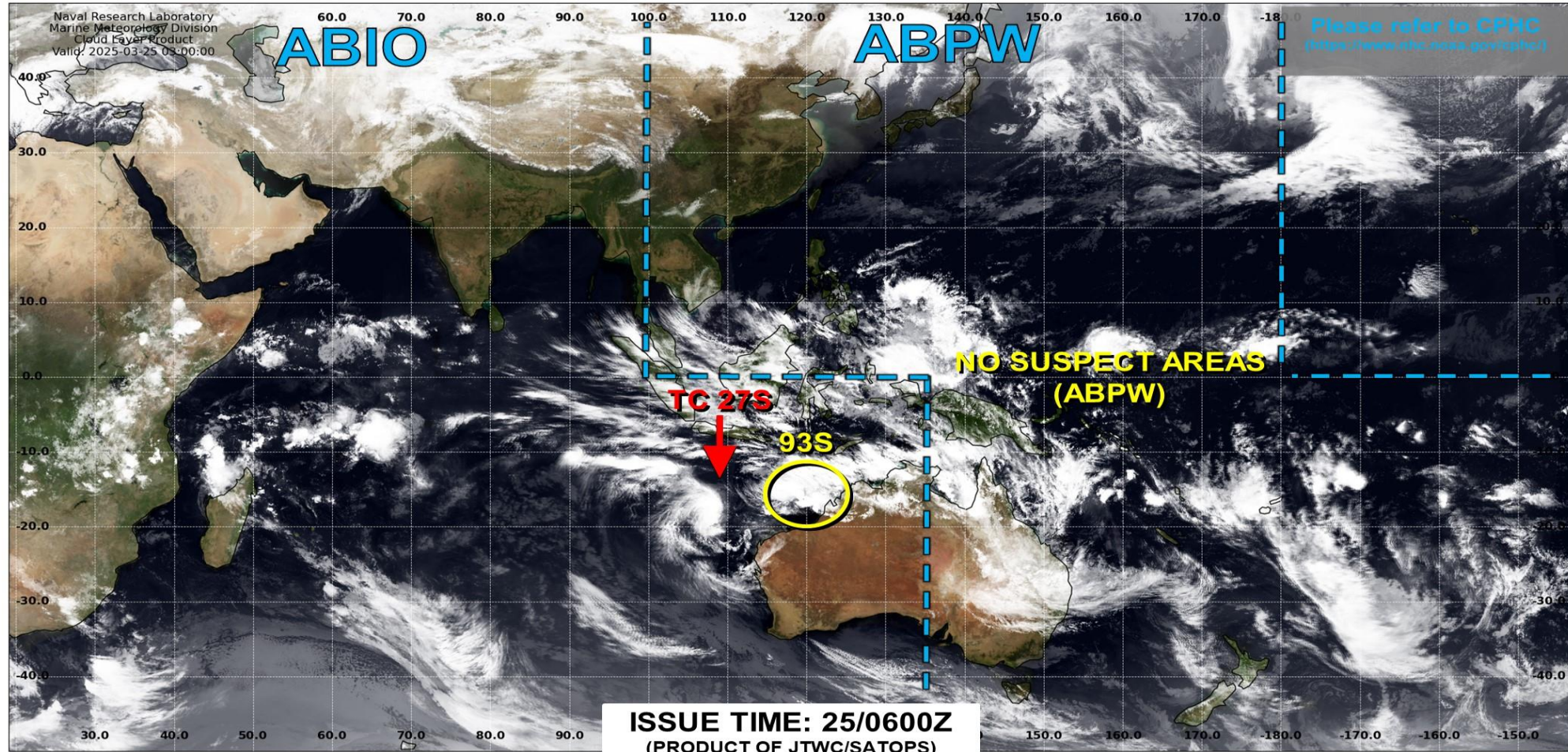
FMA MJO Composite: GPCP1DD (mm/day)



# 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



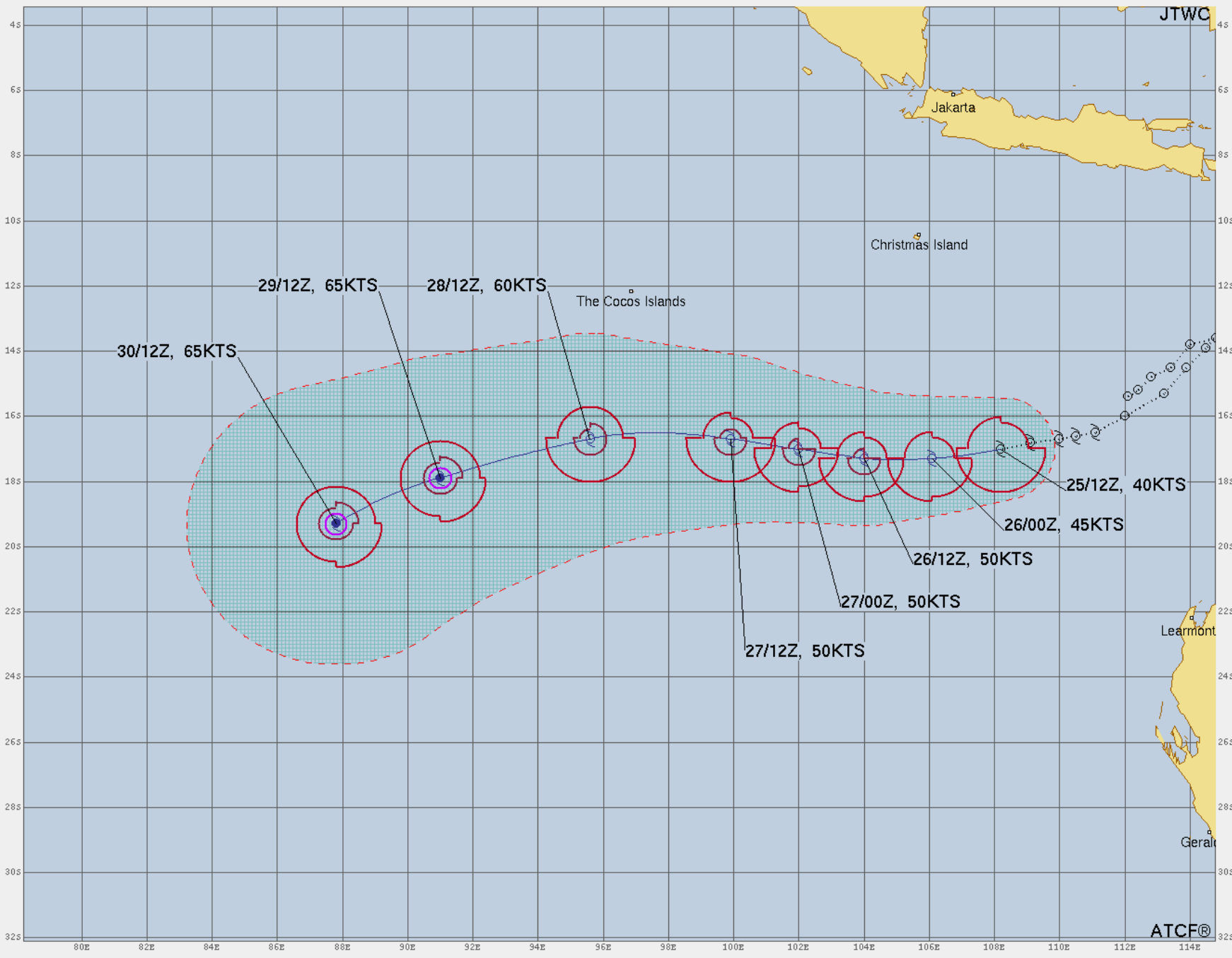
TC development likely within 24 hours (Reference TCFA)



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

 Tropical Cyclone (Reference Warning)






**TROPICAL CYCLONE 27S (TWENTYSEVEN) WARNING #5**  
 WTKSS1 PGTW 251500  
 251200Z POSIT: NEAR 17.0S 108.2E  
 MOVING 255 DEGREES TRUE AT 09 KNOTS  
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 18 FEET  
 25/12Z, WINDS 040 KTS, GUSTS TO 050 KTS  
 26/00Z, WINDS 045 KTS, GUSTS TO 055 KTS  
 26/12Z, WINDS 050 KTS, GUSTS TO 065 KTS  
 27/00Z, WINDS 050 KTS, GUSTS TO 065 KTS  
 27/12Z, WINDS 050 KTS, GUSTS TO 065 KTS  
 28/12Z, WINDS 060 KTS, GUSTS TO 075 KTS  
 29/12Z, WINDS 065 KTS, GUSTS TO 080 KTS  
 30/12Z, WINDS 065 KTS, GUSTS TO 080 KTS

CPA TO: NM DTG  
 COCOS\_ISLANDS 263 03/28/042

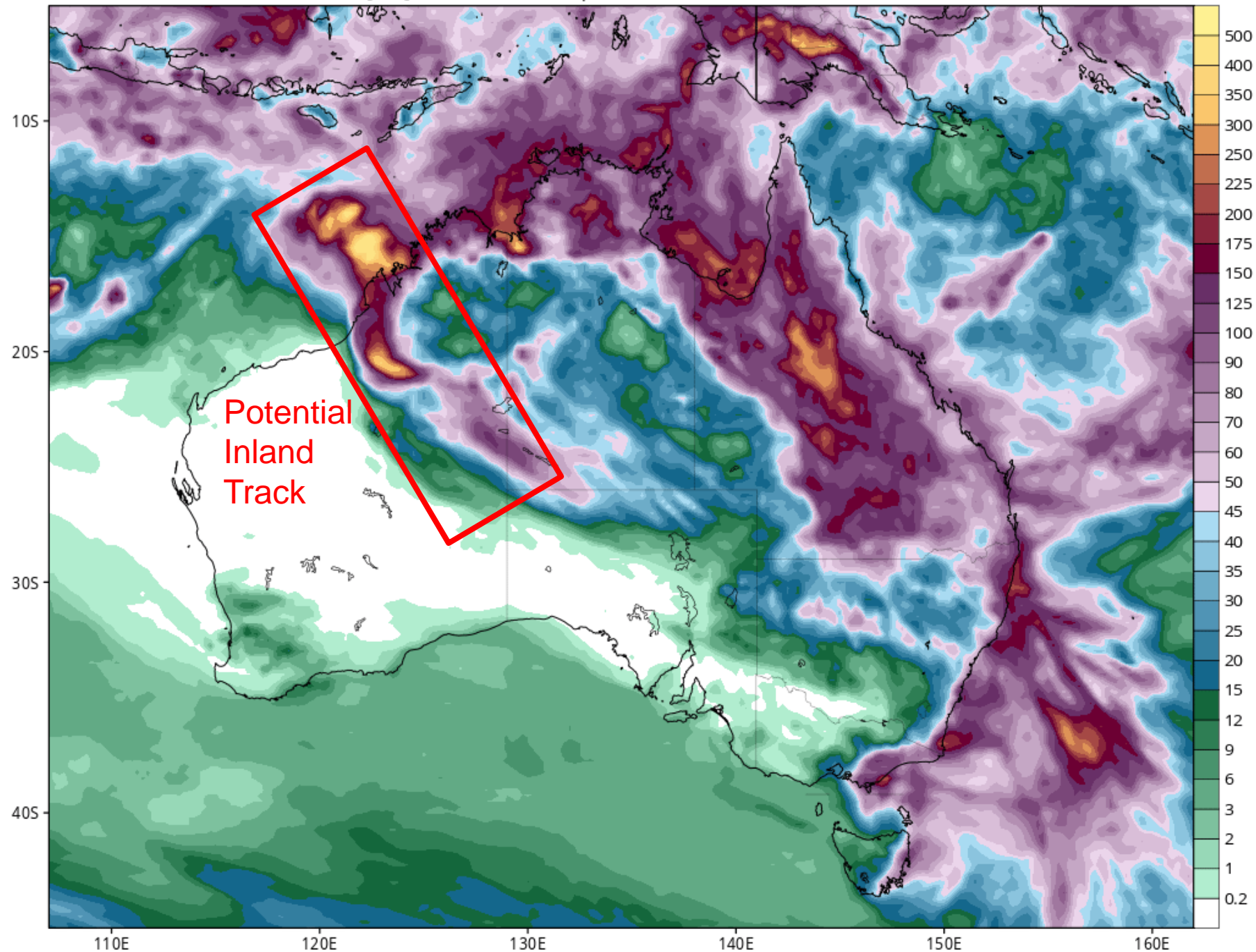
○ ○ LESS THAN 34 KNOTS  
 ○ ○ 34-63 KNOTS  
 ● ● MORE THAN 63 KNOTS  
 — FORECAST CYCLONE TRACK  
 ..... PAST CYCLONE TRACK  
 [Hatched Box] DENOTES 34 KNOT WIND DANGER AREA/USN SHIP AVOIDANCE AREA  
 [Concentric Circles] FORECAST 34/50/64 KNOT WIND RADII (WINDS VALID OVER OPEN OCEAN ONLY)



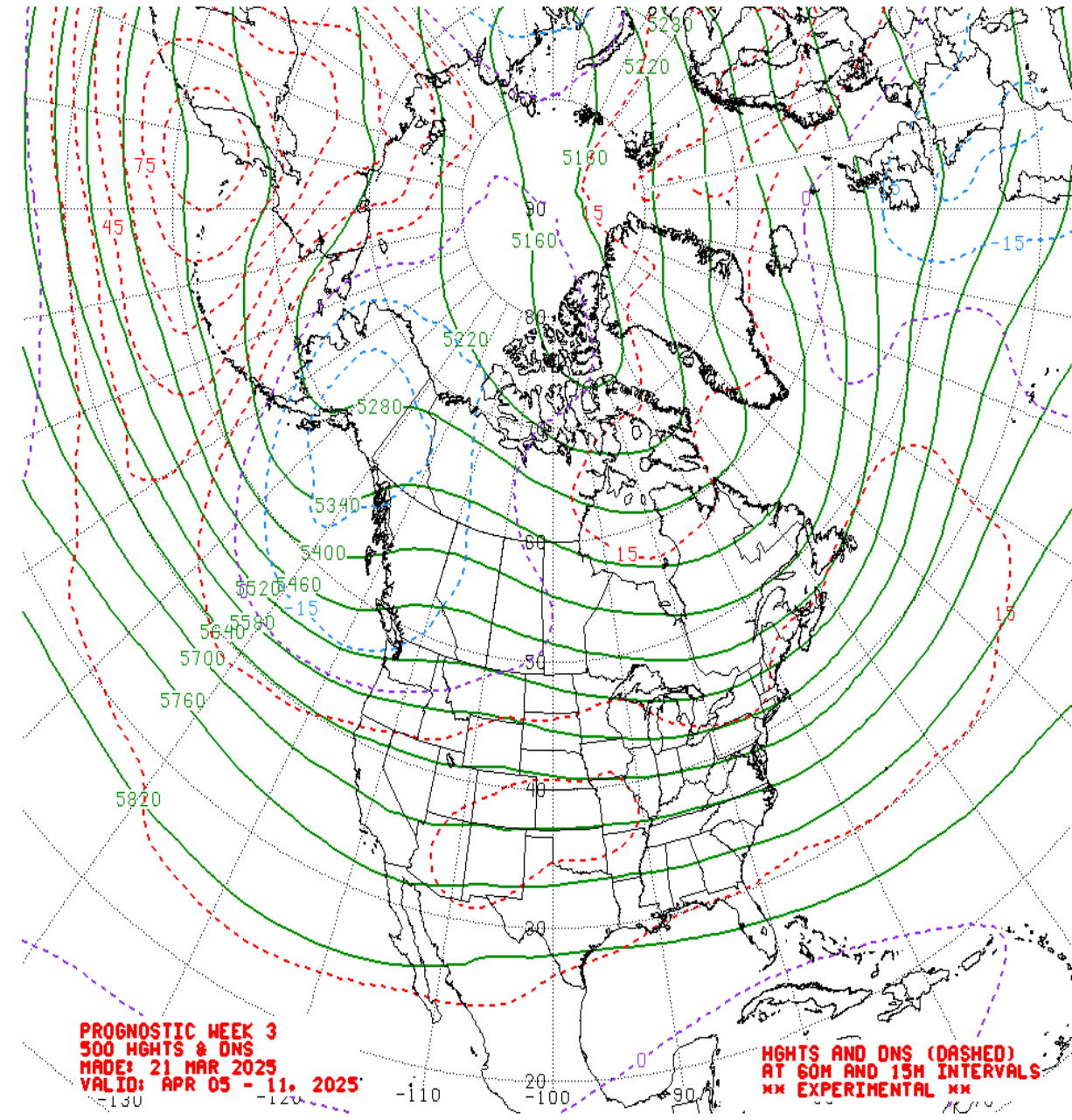
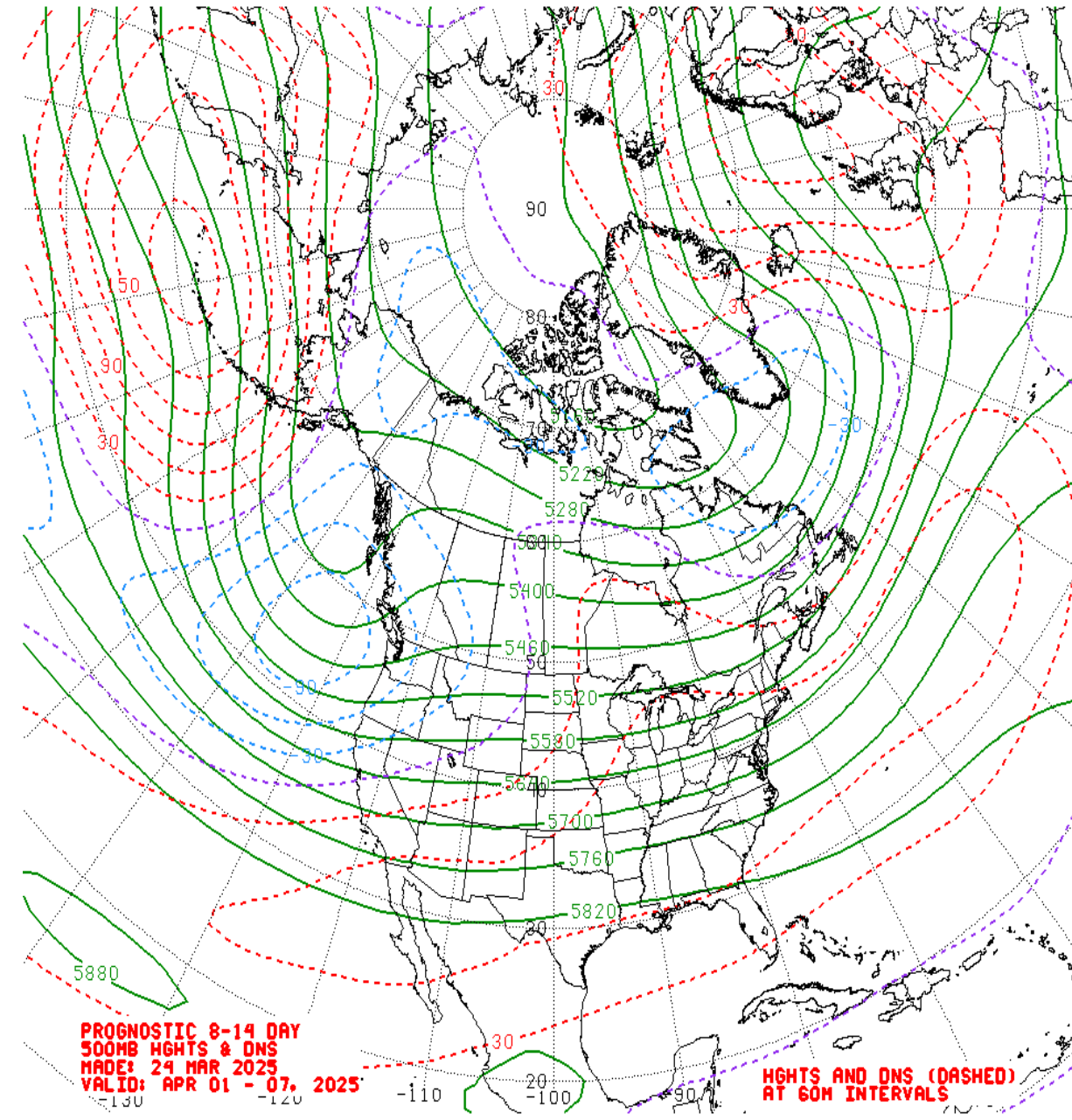
# GFS Total Accumulated Precipitation (mm) from 12z25Mar2025 to 12z02Apr2025

Init: 12z Mar 25 2025 Forecast Hour: [192] valid at 12z Wed, Apr 02 2025

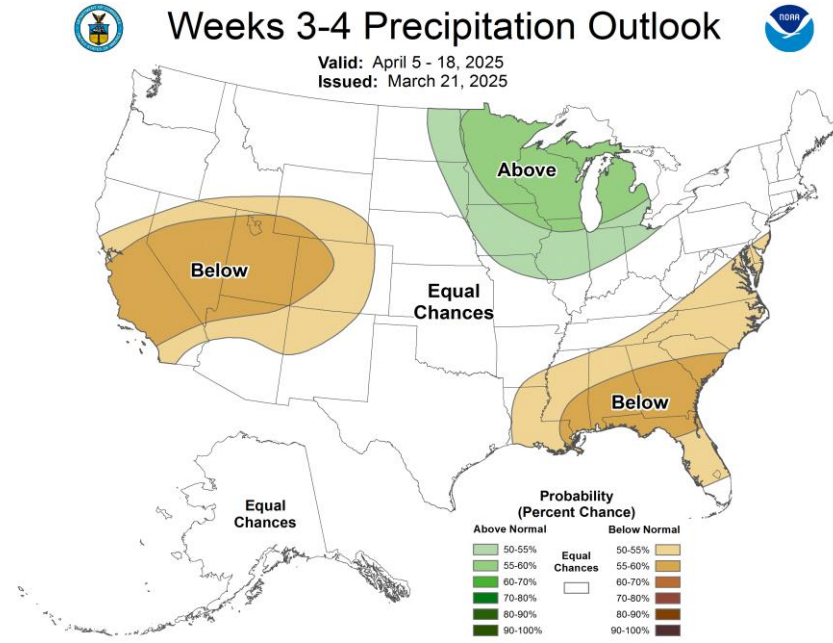
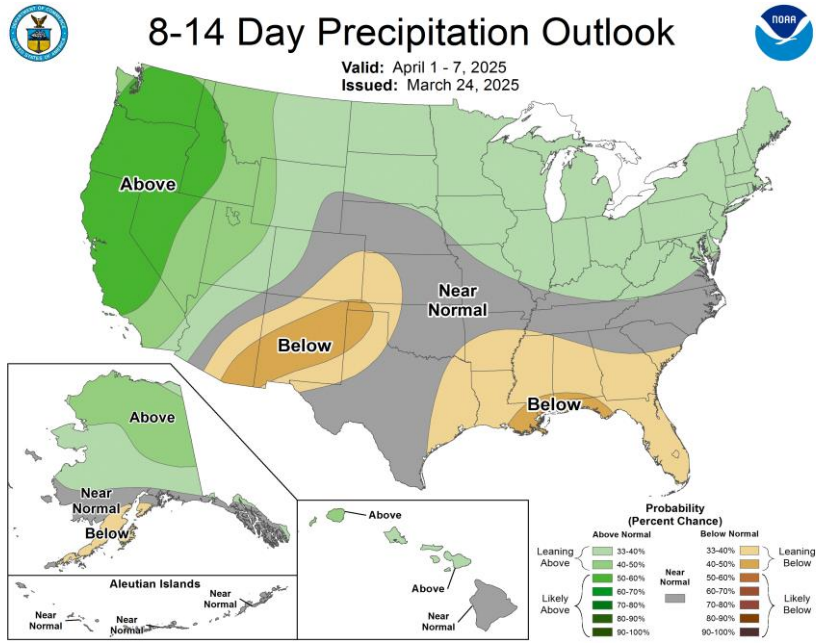
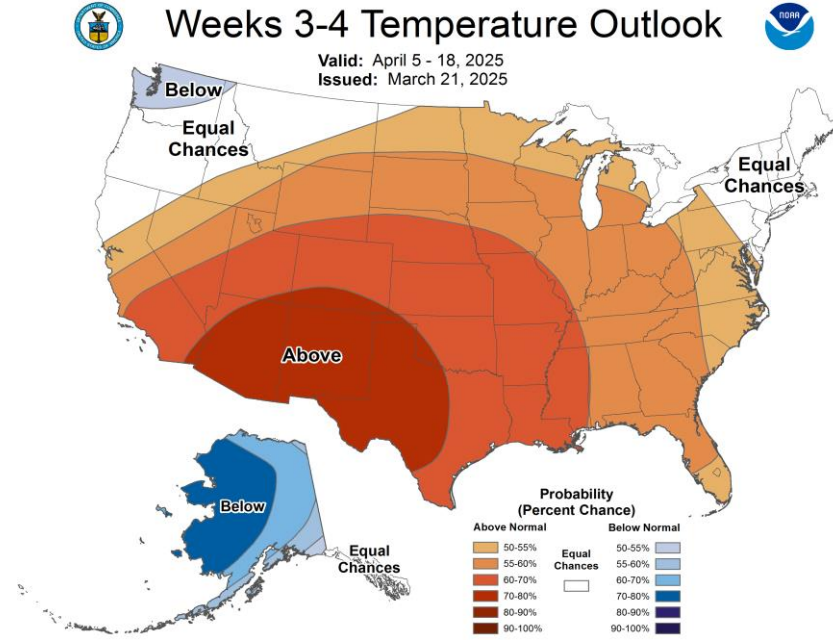
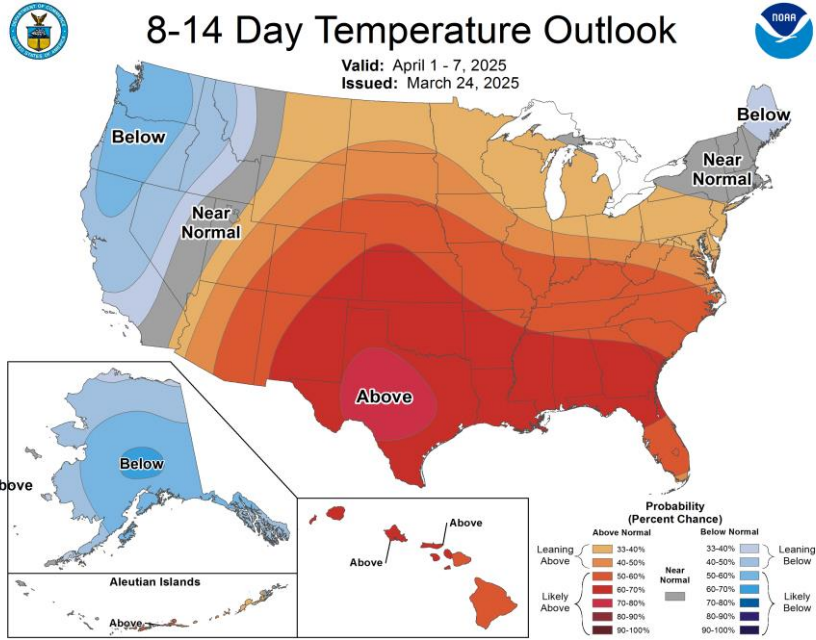
TROPICALTIDBITS.COM



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



# Official Temperature & Precipitation Forecasts:



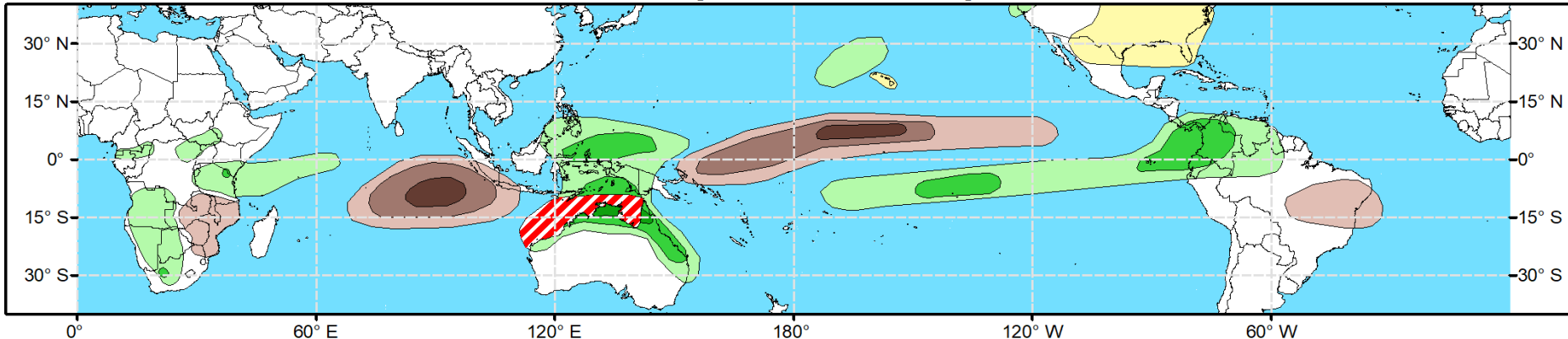


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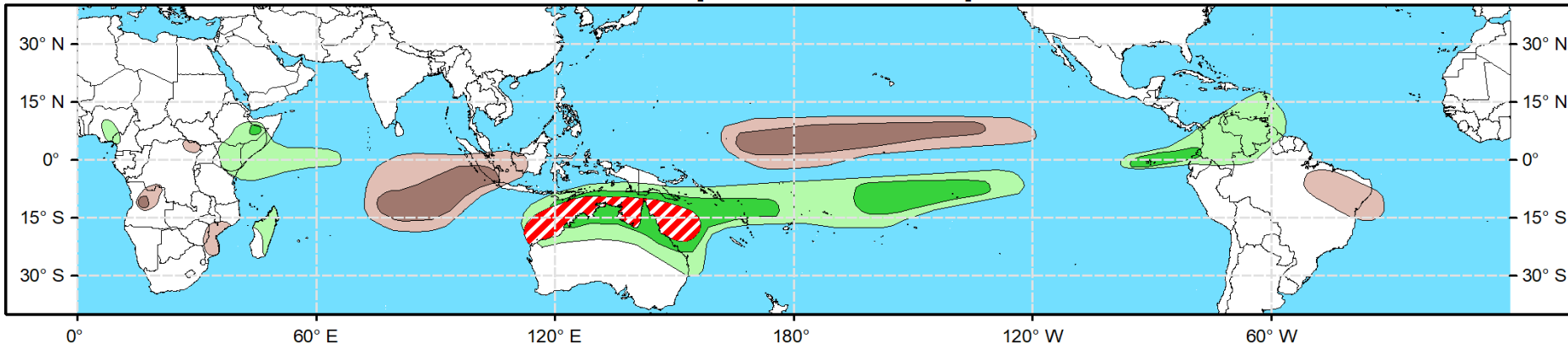
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