



Weeks 2-3 Global Tropics Hazards Outlook

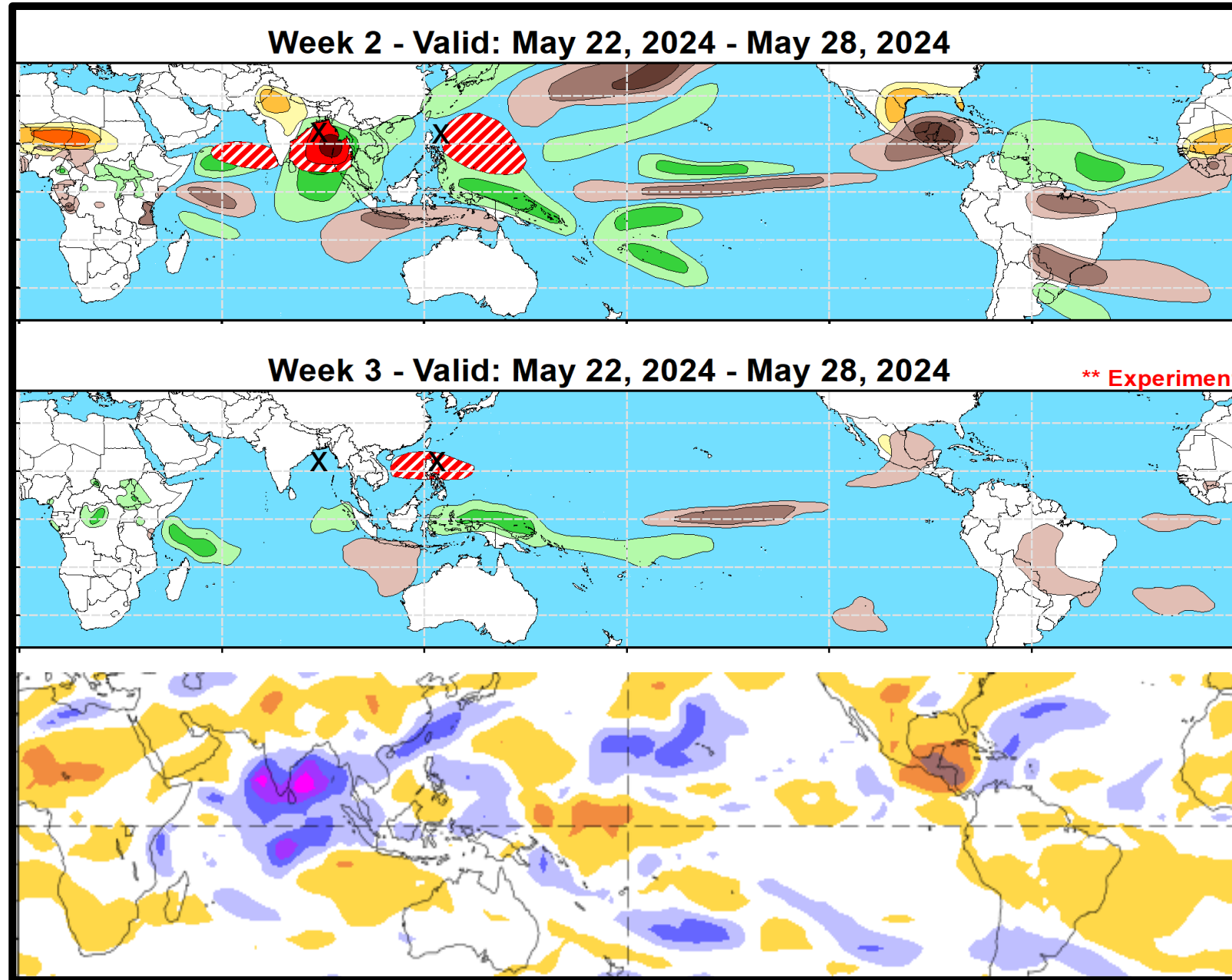
5/28/2024

Brad Pugh

NWS / NCEP / Climate Prediction Center

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

- Tropical Cyclone Remal in Bay of Bengal: May 25th
- Tropical Cyclone Ewiniar near Luzon: May 25th (1st TC in the West Pacific during 2024)



Synopsis of Climate Modes:

ENSO: (May 9, 2024 Update) *next update on Thursday, Jun 13th*

- ENSO Alert System Status: [El Niño Advisory](#) / [La Niña Watch](#)
- A transition from El Niño to ENSO-neutral is likely in the next month. La Niña may develop in June-August (49% chance) but more likely by July-September (69% chance).

MJO and other subseasonal tropical variability:

- The MJO strengthened during late May and recently propagated eastward from the Indian Ocean to the Maritime Continent.
- Dynamical model output is in good agreement that a MJO propagates eastward during the next two to three weeks but differ on its speed.
- Tropical cyclone development is likely for the South China Sea and West Pacific for week-2 (June 5-11).

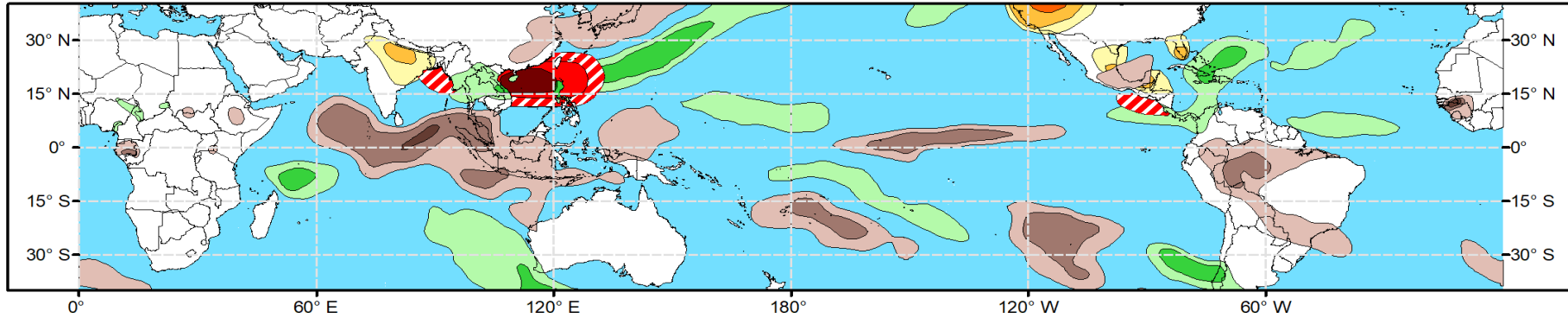
GTH Outlook:



Global Tropics Hazards Outlook Climate Prediction Center

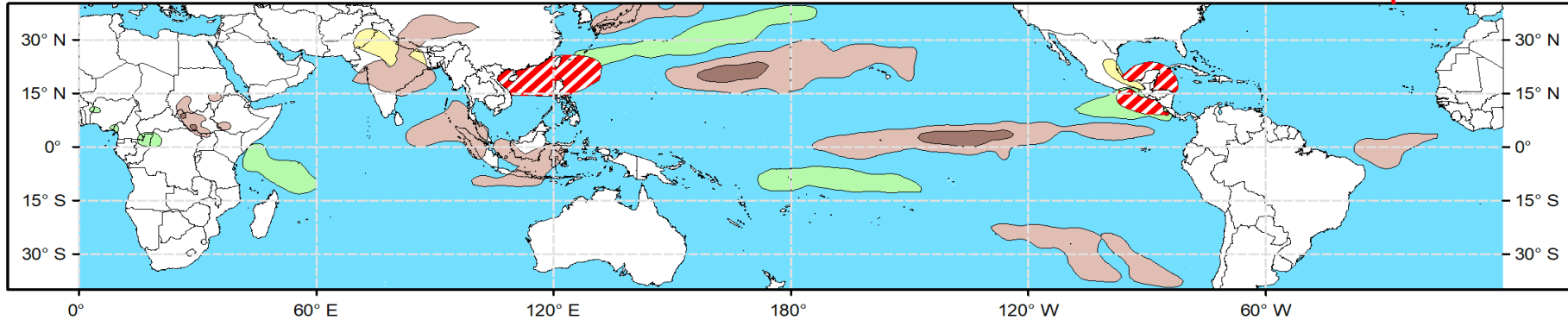


Week 2 - Valid: Jun 05, 2024 - Jun 11, 2024



Week 3 - Valid: Jun 12, 2024 - Jun 18, 2024

**** Experimental ****



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or greater strength*

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*Weekly total rainfall in the
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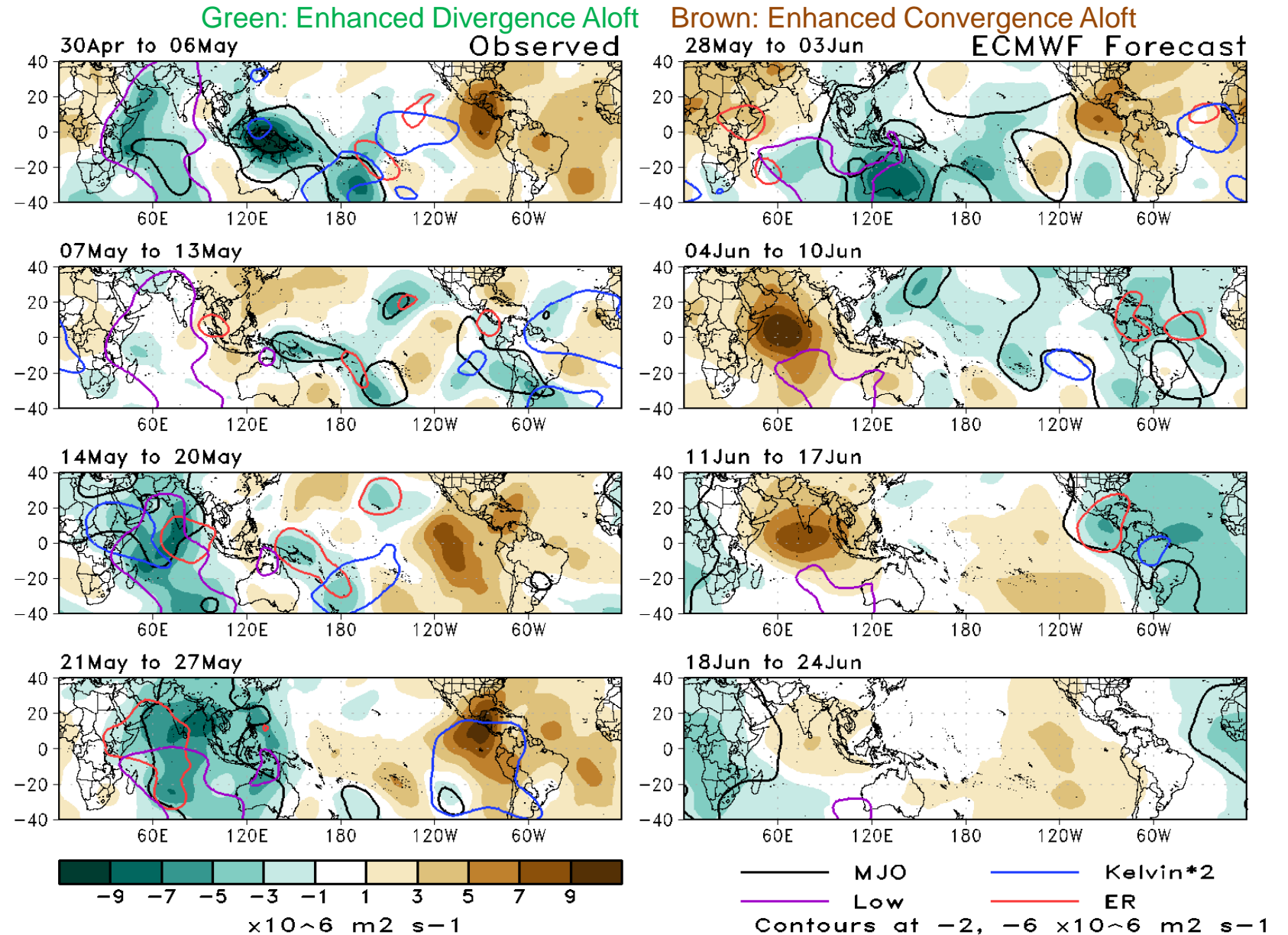
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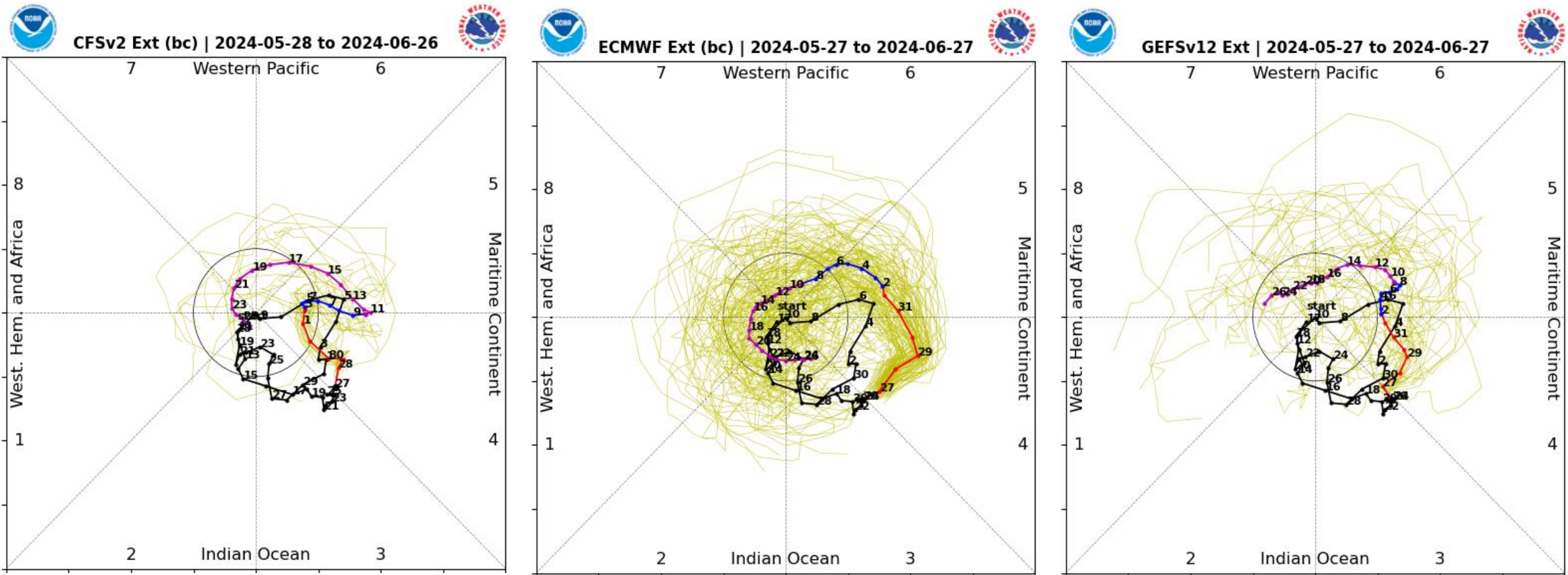
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200-hPa Velocity Potential Anomaly Maps:

- A coherent wave-1 pattern developed during the latter half of May as the MJO strengthened.
- The ECMWF model depicts eastward propagation of anomalous upper-level divergence/convergence during the next three weeks.



RMM Index Observations & Forecasts:

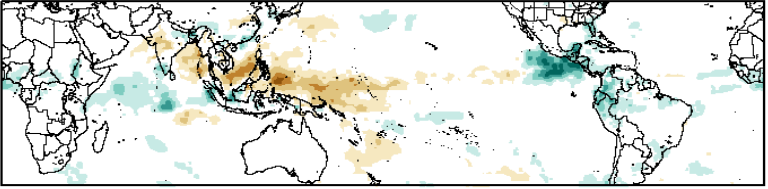


- Nearly all of the CFS, ECMWF, and GEFs ensemble members depict eastward propagation (counter clockwise).
- However, there are differences on its speed with the ECMWF model the fastest of the dynamical models.

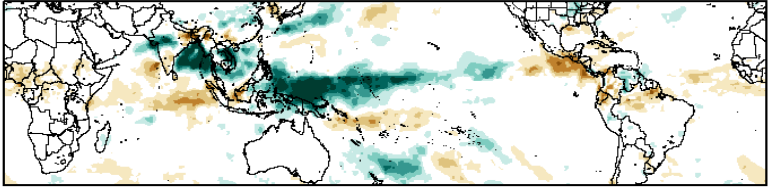
Historical Precipitation Anomalies By MJO Phase:

MJJ MJO Composite: GPCP1DD (mm/day)

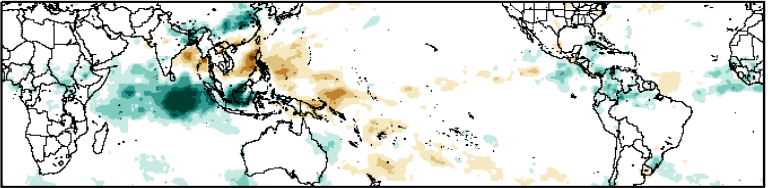
Phase 1



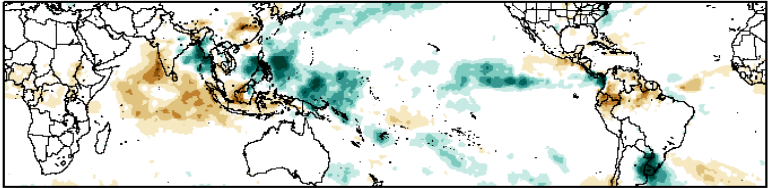
Phase 5



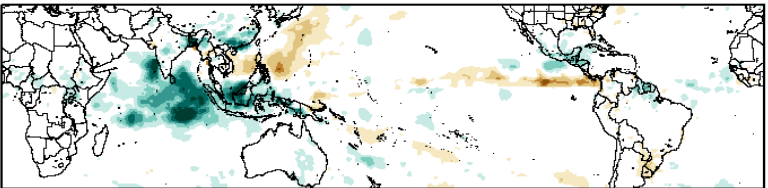
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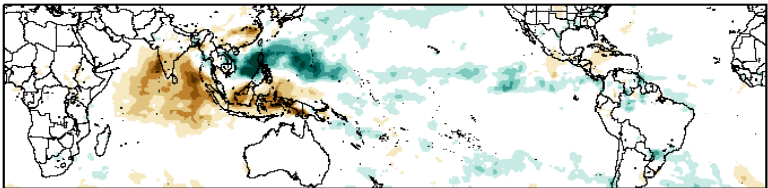
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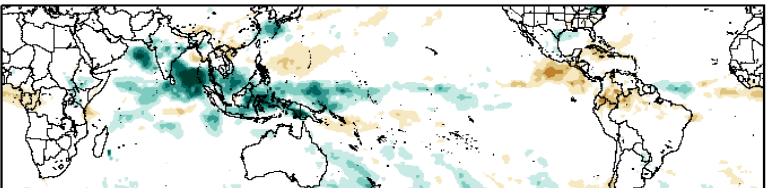
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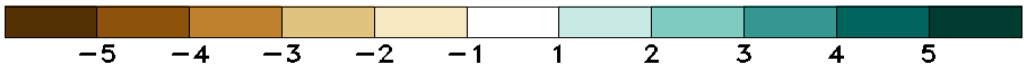
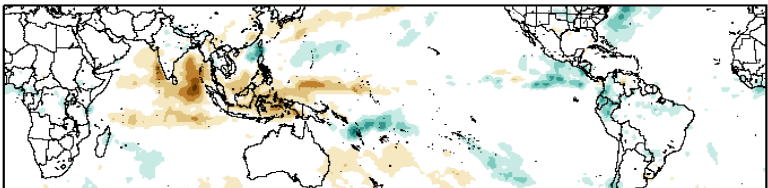
Phase 7



Phase 4



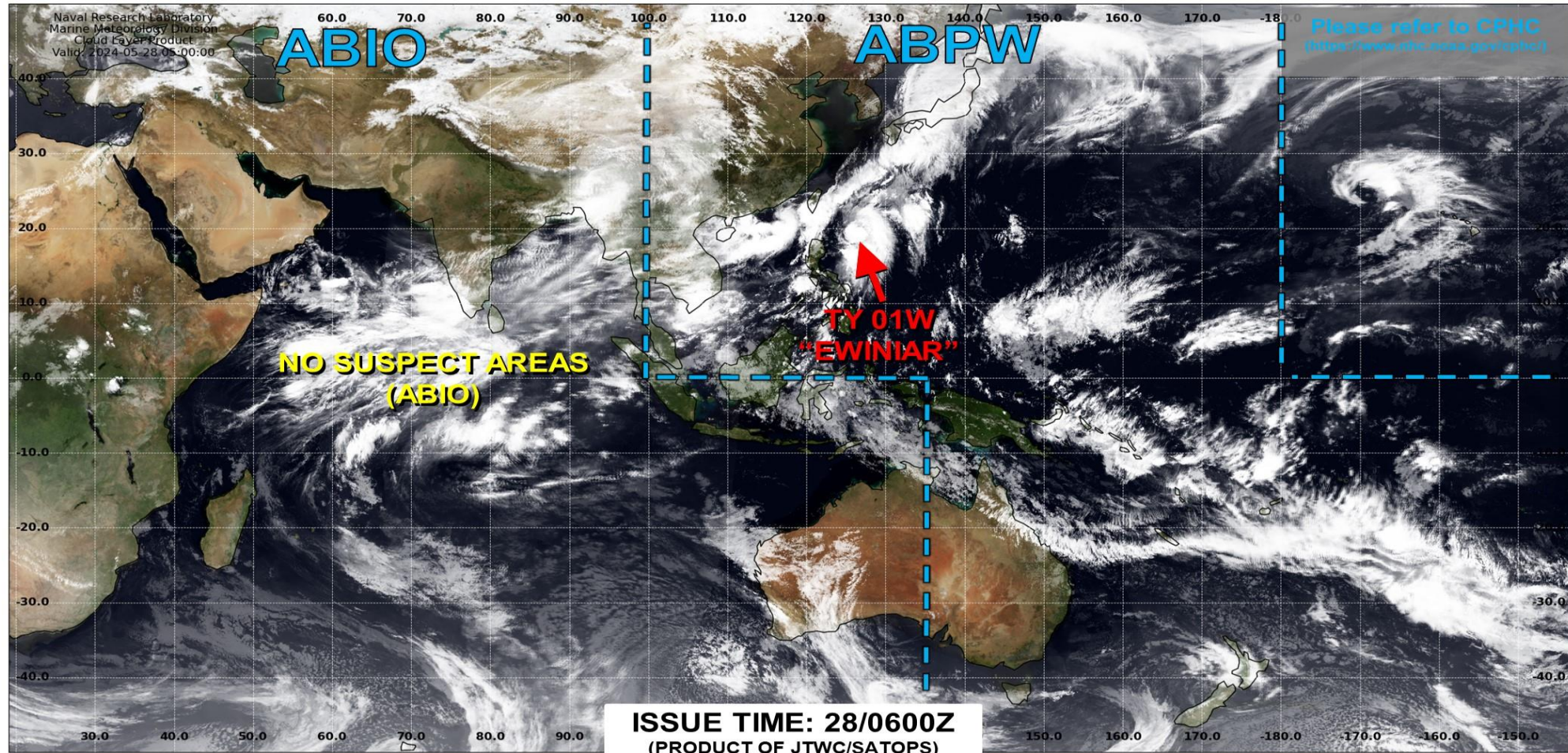
Phase 8



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


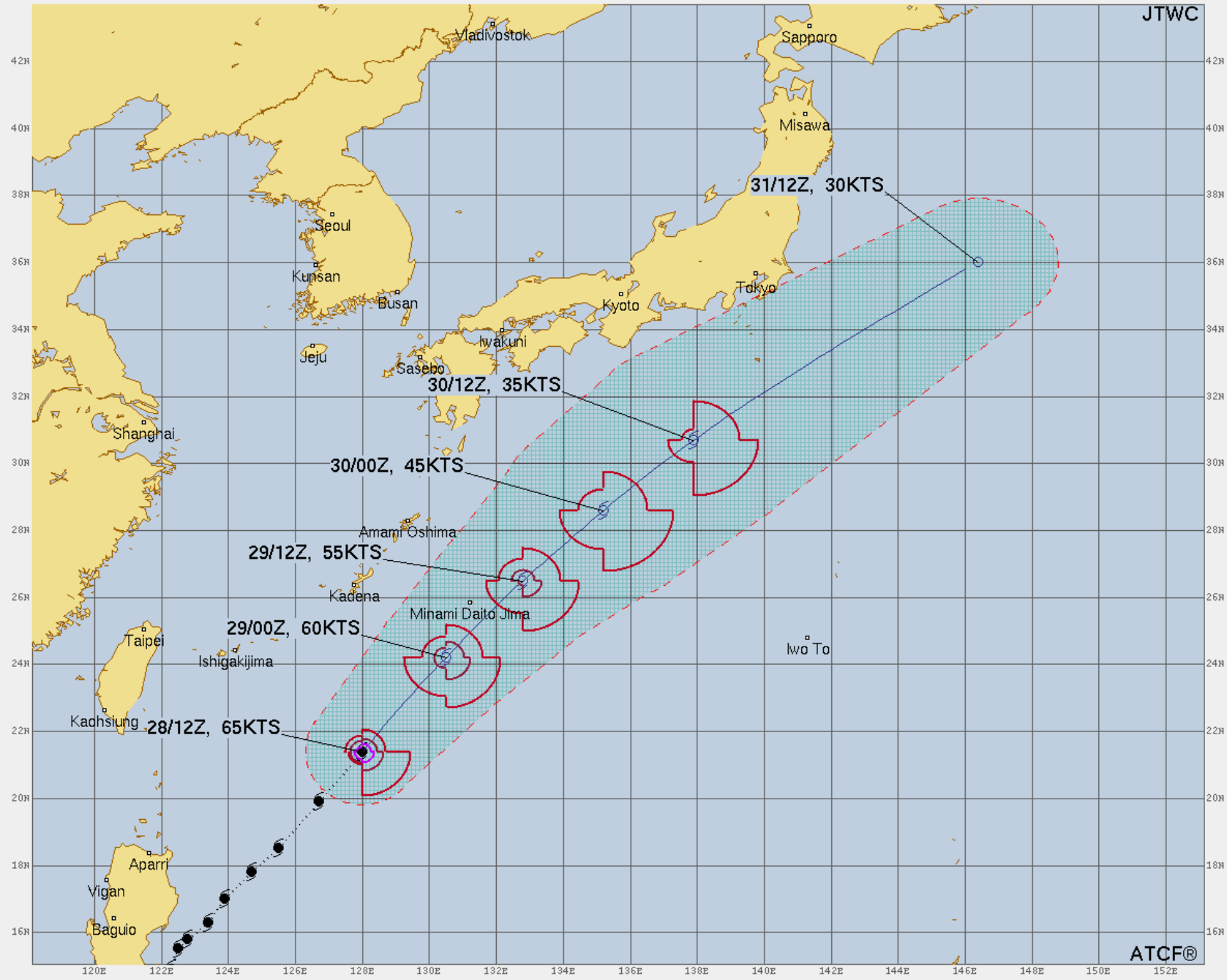
 Tropical Cyclone (Reference Warning)

TYPHOON 01W (EMWINAR) WARNING #16
 WTPN31 PGTW 281500
 281200Z POSIT: NEAR 21.4N 128.0E
 MOVING 040 DEGREES TRUE AT 19 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 31 FEET
 28/12Z, WINDS 065 KTS, GUSTS TO 080 KTS
 29/00Z, WINDS 060 KTS, GUSTS TO 075 KTS
 29/12Z, WINDS 055 KTS, GUSTS TO 070 KTS
 30/00Z, WINDS 045 KTS, GUSTS TO 055 KTS
 30/12Z, WINDS 035 KTS, GUSTS TO 045 KTS
 31/12Z, WINDS 030 KTS, GUSTS TO 040 KTS

CPA TO:	NM	DTG
KADENA_AB	197	05/29/00Z
WHITE_BEACH	189	05/29/00Z
OKIDAITO_JIMA	18	05/29/02Z
MINAMIDAITO_JIMA	35	05/29/06Z
KANOYA	277	05/29/21Z
SASEBO	395	05/30/00Z
CAMP_KENGUN	335	05/30/01Z
IWAKUNI	346	05/30/07Z
IWO_TO	386	05/30/07Z
CHICHI_JIMA	311	05/30/14Z
KYOGAMISAKI	319	05/30/17Z
CAMP_FUJI	182	05/30/22Z
AFUSUGI	176	05/31/00Z
CAMP_ZAMA	176	05/31/00Z
YOKOSUKA	158	05/31/00Z
YOKOTA_AB	189	05/31/00Z
NARITA_AIRPORT	161	05/31/02Z
MISAWA	367	05/31/11Z

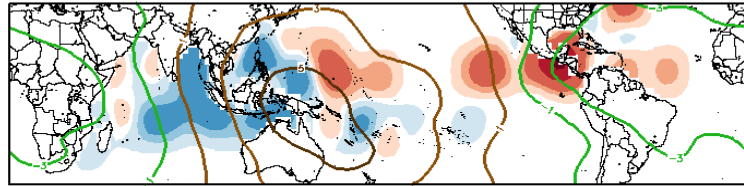
BEARING AND DISTANCE	DIR	DIST (NM)	TRV (HRS)
KADENA_AB	178	300	0
OKIDAITO_JIMA	224	257	0
MINAMIDAITO_JIMA	214	317	0
WHITE_BEACH	179	294	0

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

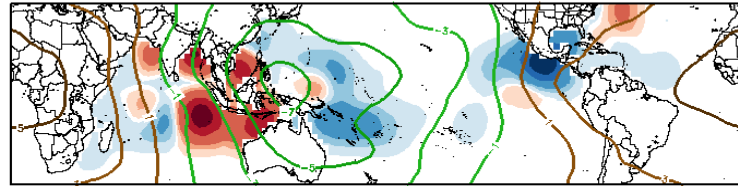



Historical TC Origin Anomalies By MJO Phase & Weeks 2+3 Genesis Climo:

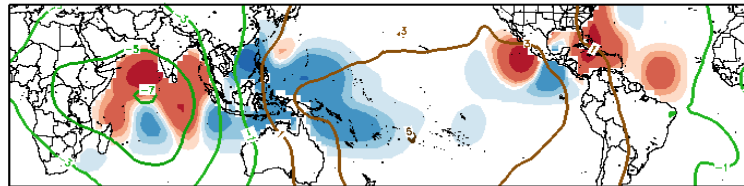
AMJ MJO Composite: Mean TC Origin Density Anomaly ($\#TCs/277km^2*100$)
w/ AMJ CHI200 ($\times 10^6 m^2 s^{-1}$) / Contours every $2 \times 10^6 m^2 s^{-1}$



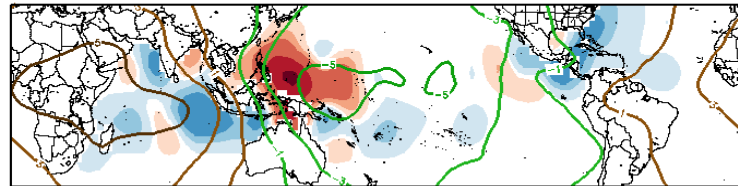
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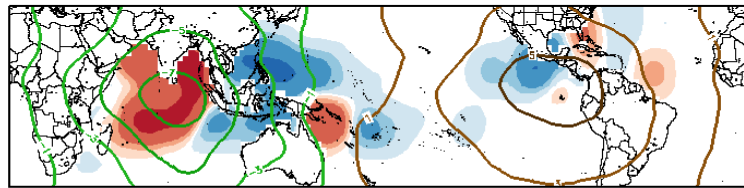
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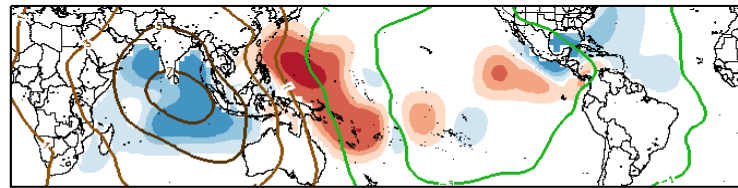
Phase 2



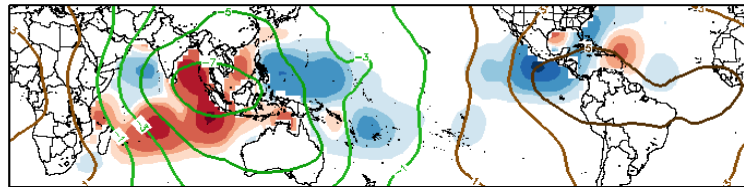
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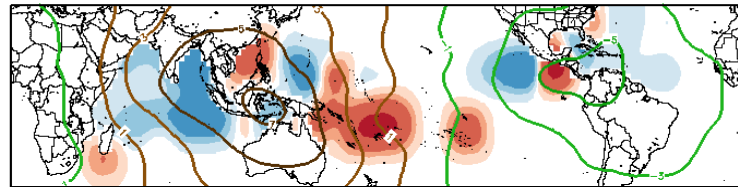
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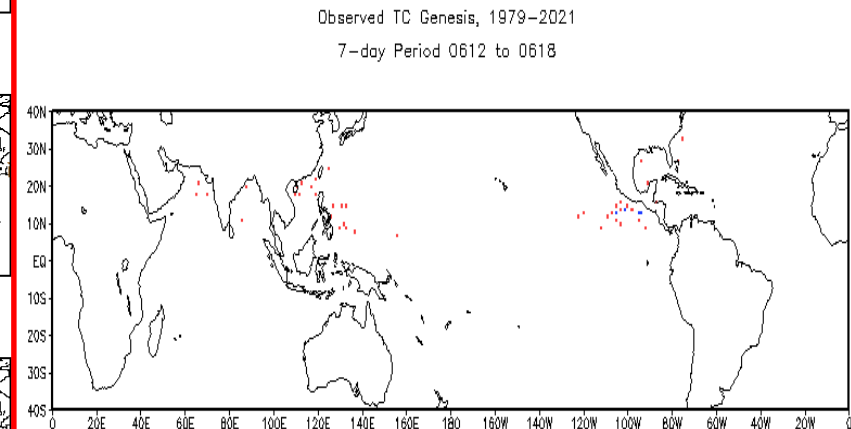
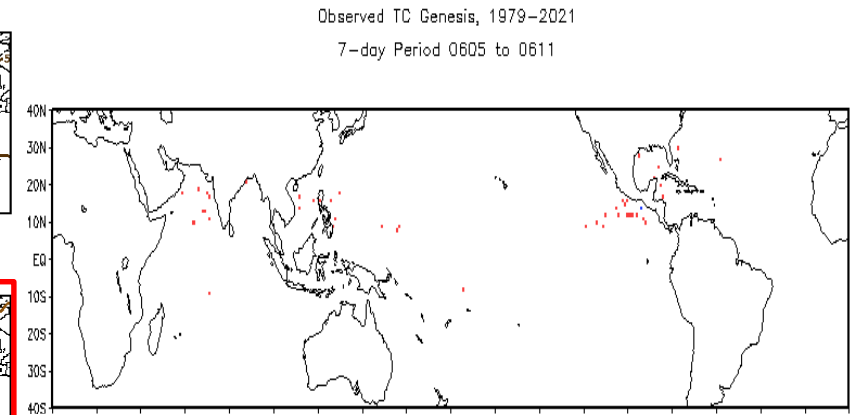
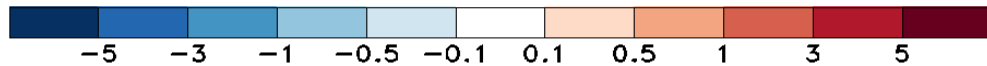
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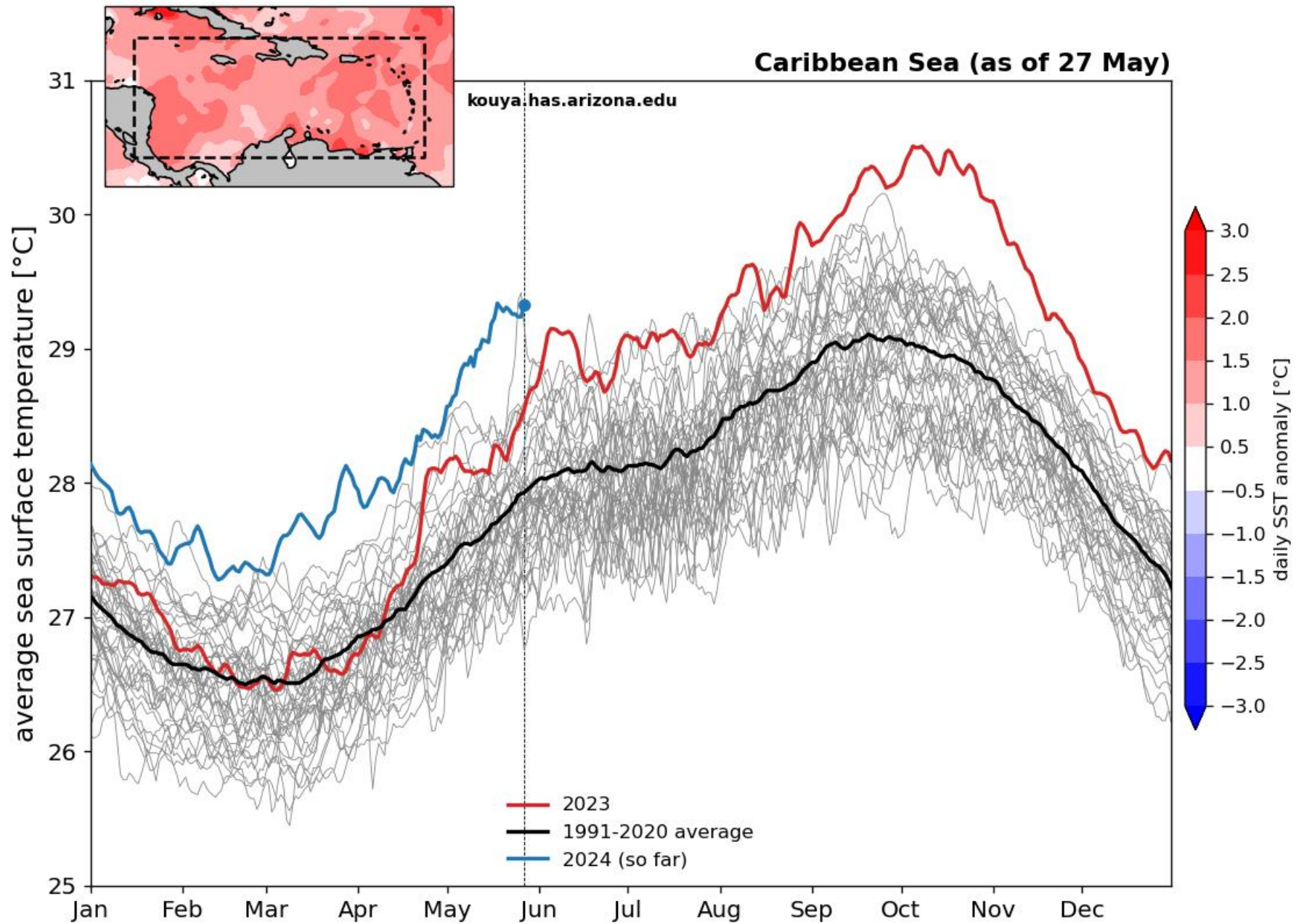
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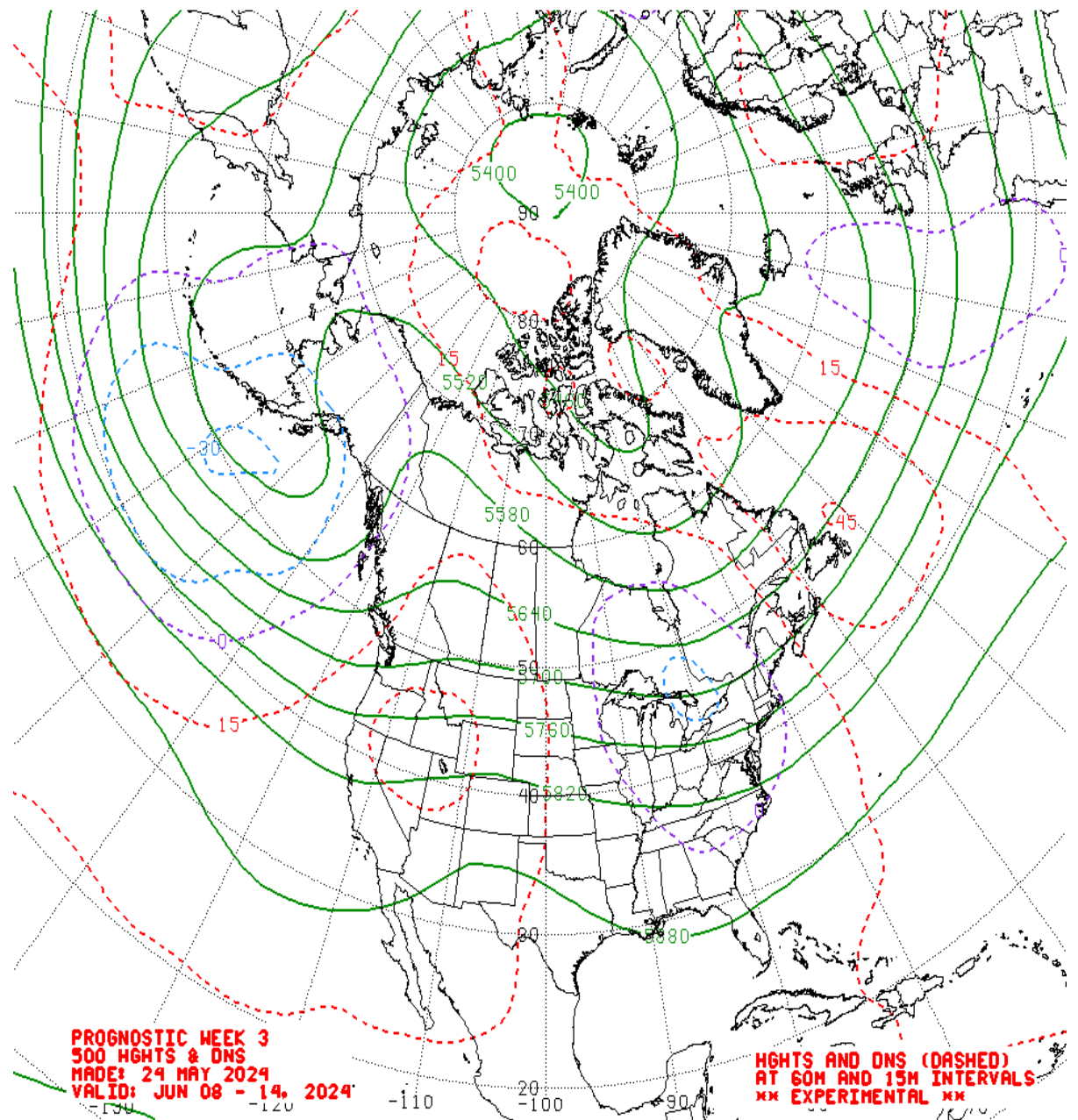
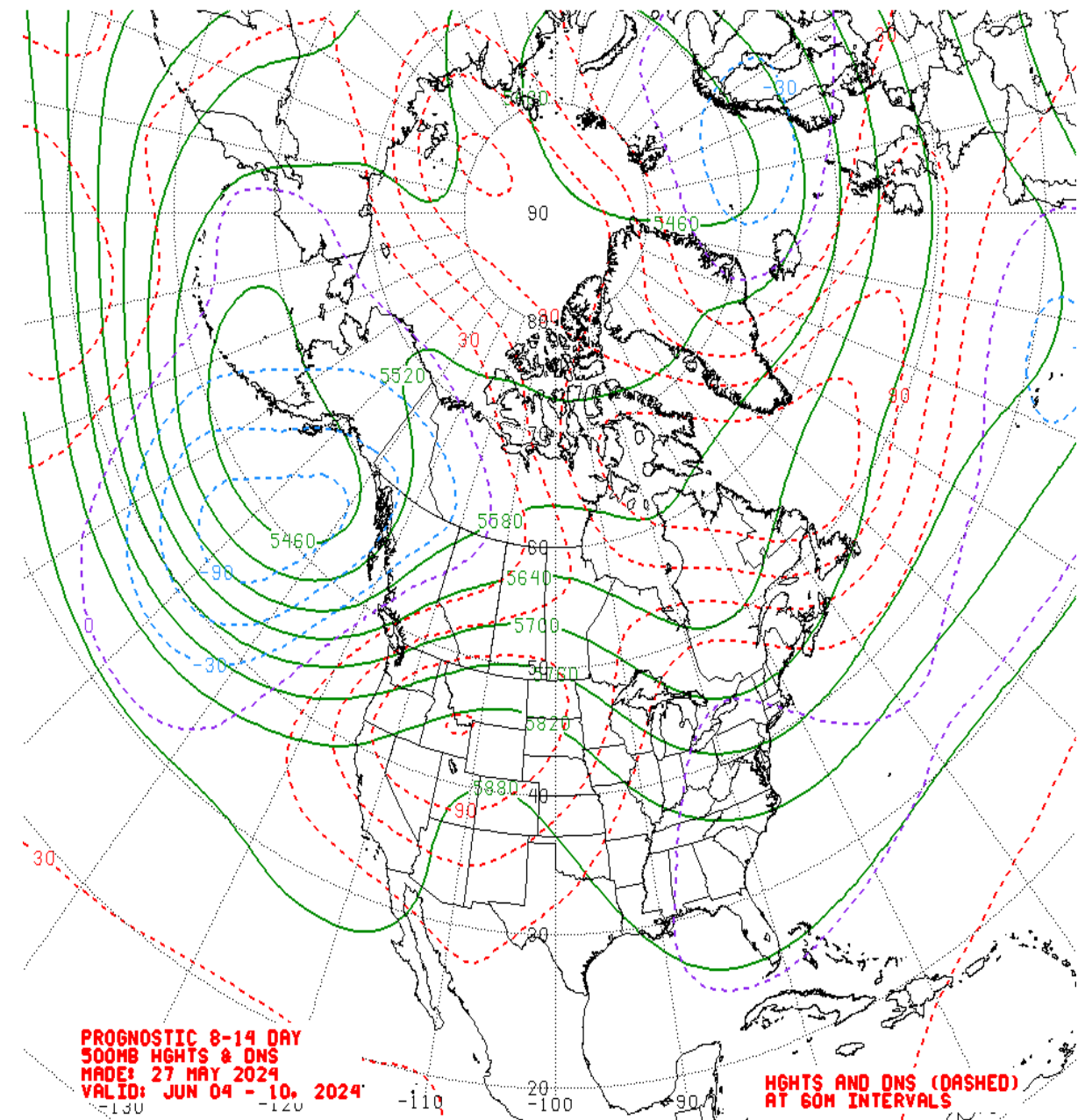
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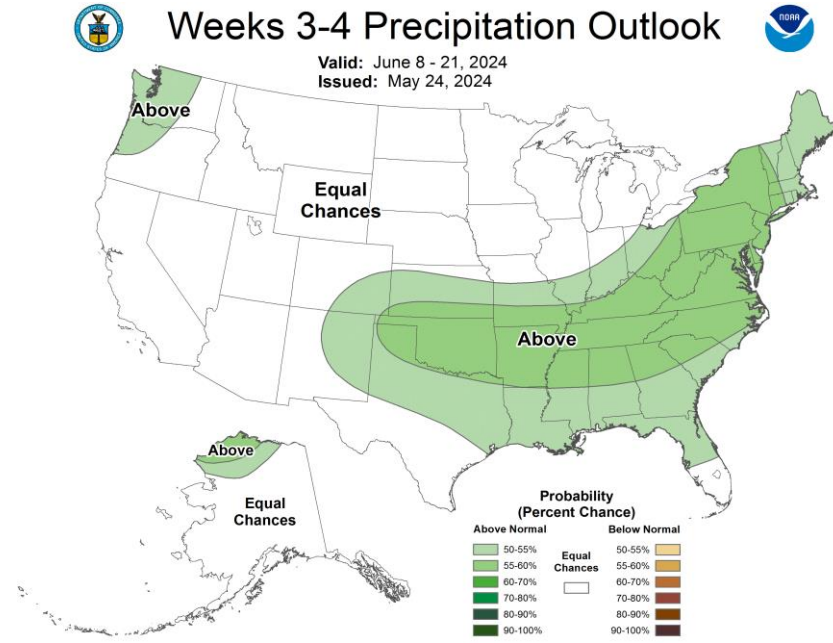
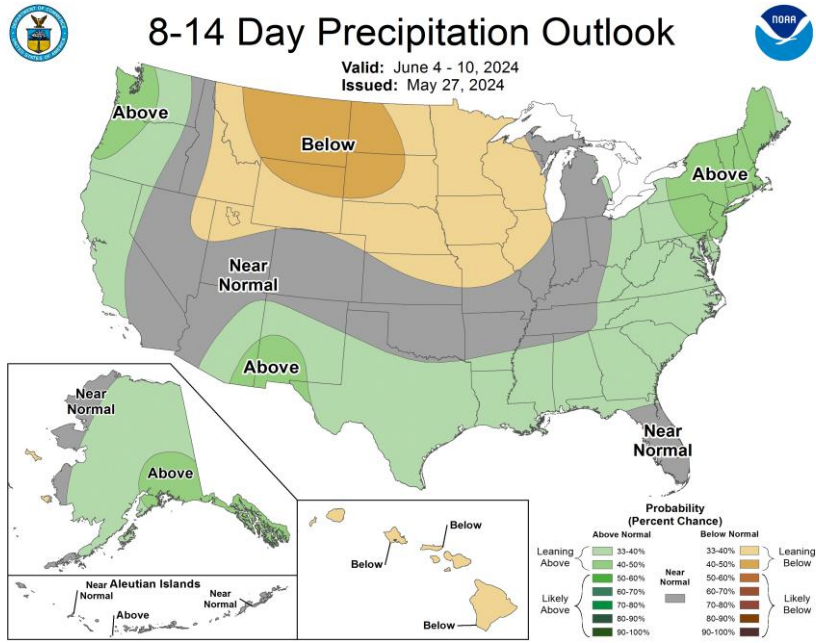
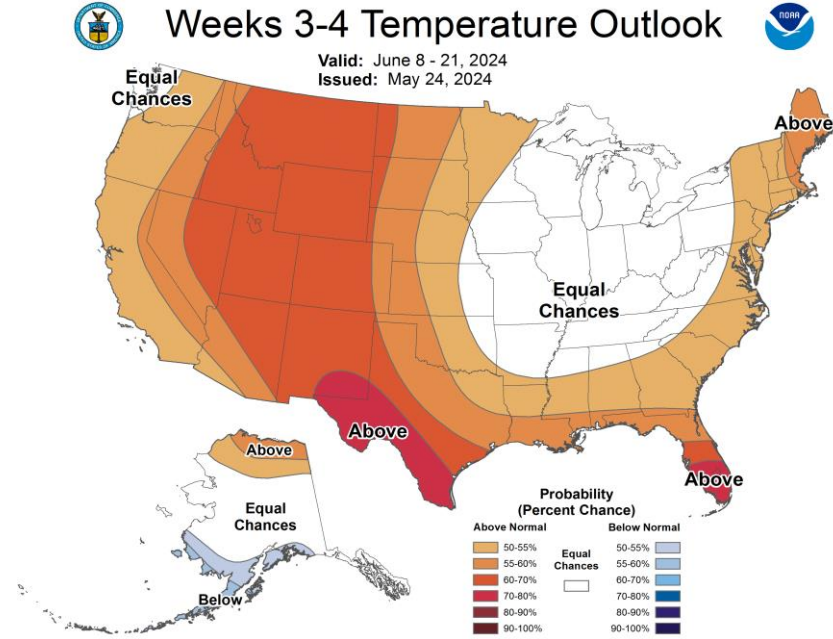
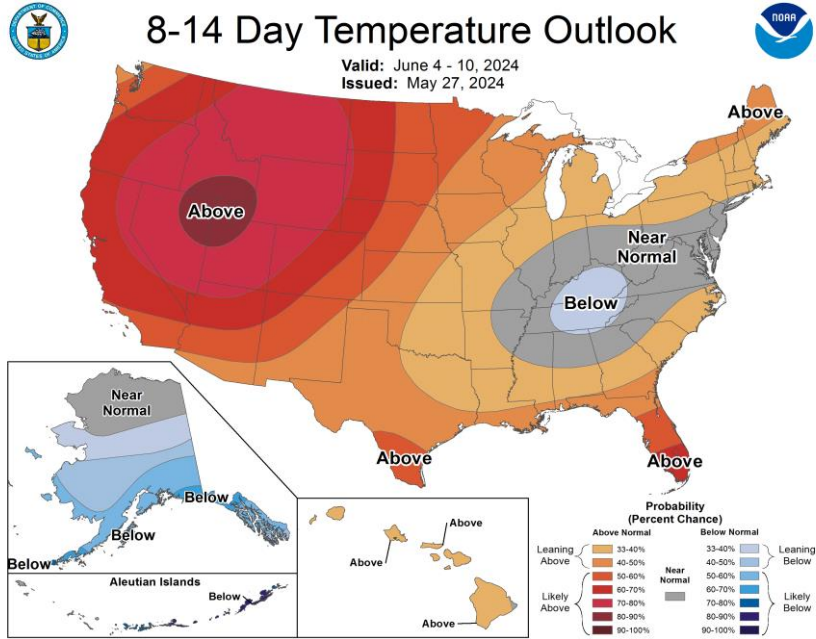
Experimental



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



Official Temperature & Precipitation Forecasts:



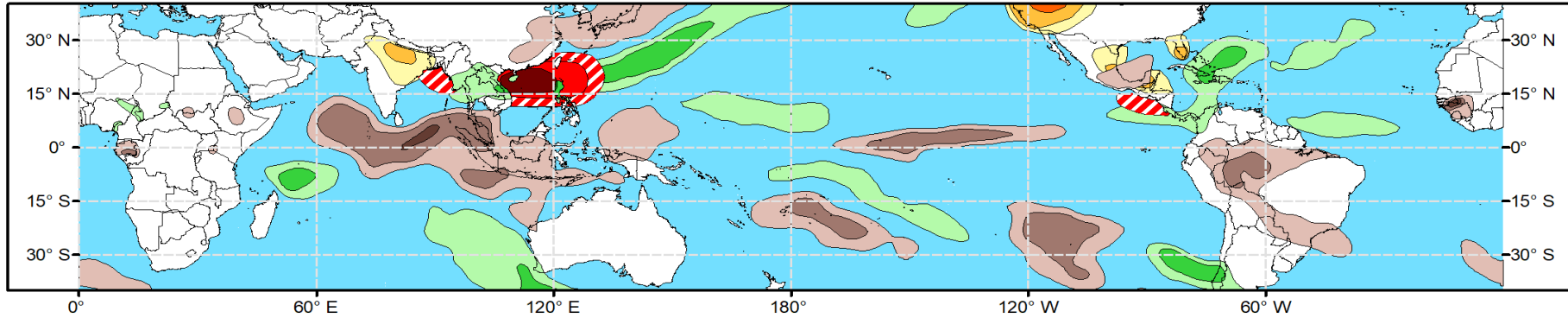
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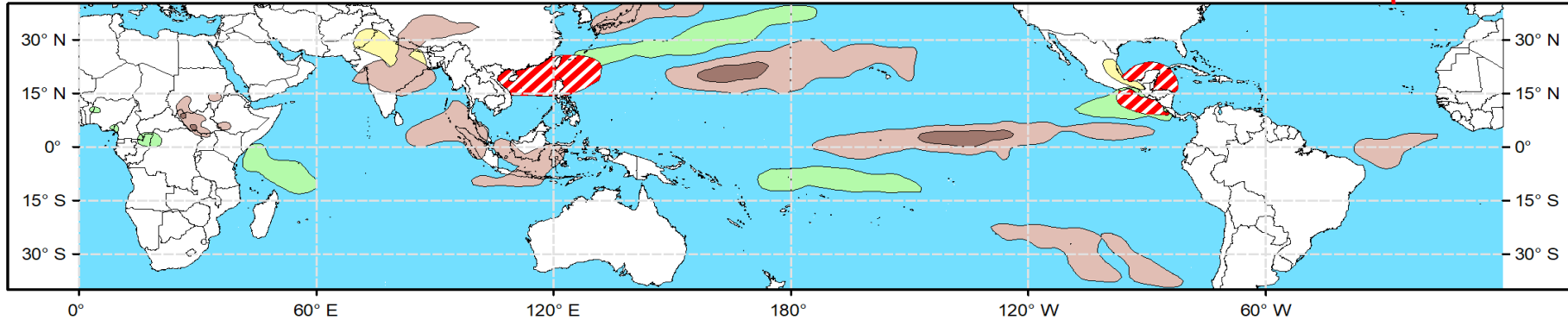


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