

Global Tropics Hazards And Benefits Outlook

5/25/2021

Brad Pugh

Outline

1. Synopsis of Climate Modes
2. GTH Outlook and Forecast Discussion
3. Connections to U.S. Impacts

Synopsis of Climate Modes

ENSO: (April 8, 2021 Update)

next update on June 10, 2021

- ENSO Alert System Status: [Final La Niña Advisory \(La Niña has ended\)](#)
- La Niña has ended, with ENSO-neutral conditions likely to continue through the Northern Hemisphere summer (67% chance in June-August 2021).

MJO and other subseasonal tropical variability:

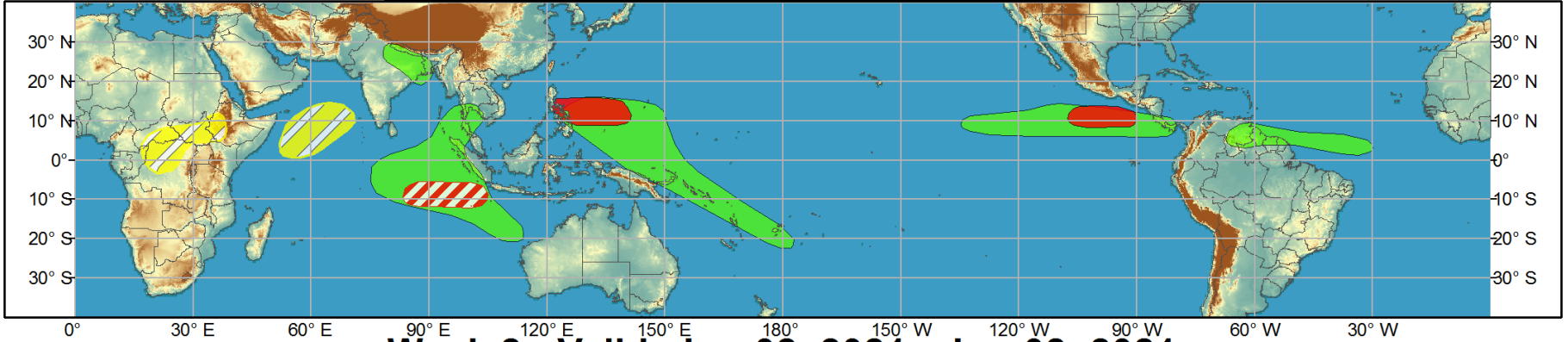
- The MJO has remained active since March and recently propagated eastward to the Maritime Continent and West Pacific.
- Dynamical models are in less agreement this week but at least a weaker MJO is expected to shift east over the Pacific during late May into the beginning of June.
- The Pacific (West and East) is likely to be active with multiple tropical cyclones forecast to develop through early June.



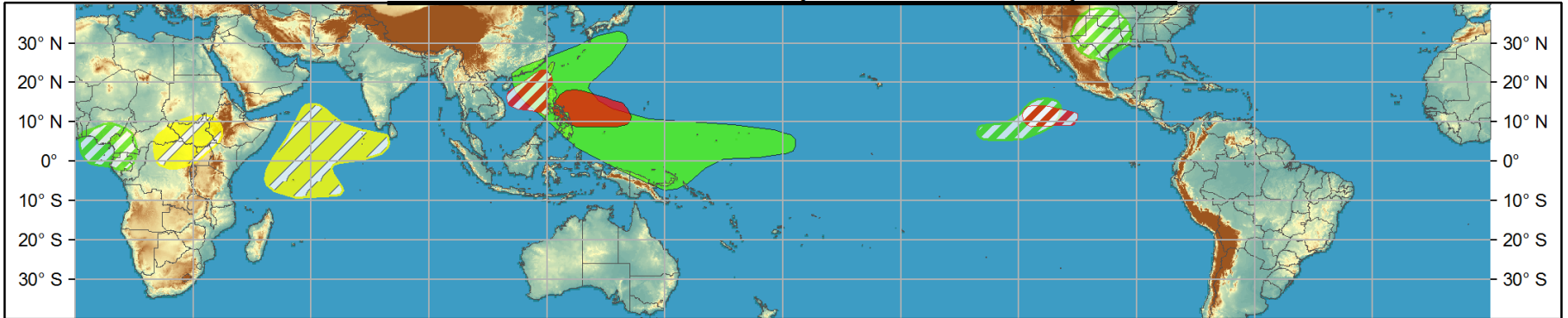
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: May 26, 2021 - Jun 01, 2021



Week 2 - Valid: Jun 02, 2021 - Jun 08, 2021



Confidence
High Moderate

- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
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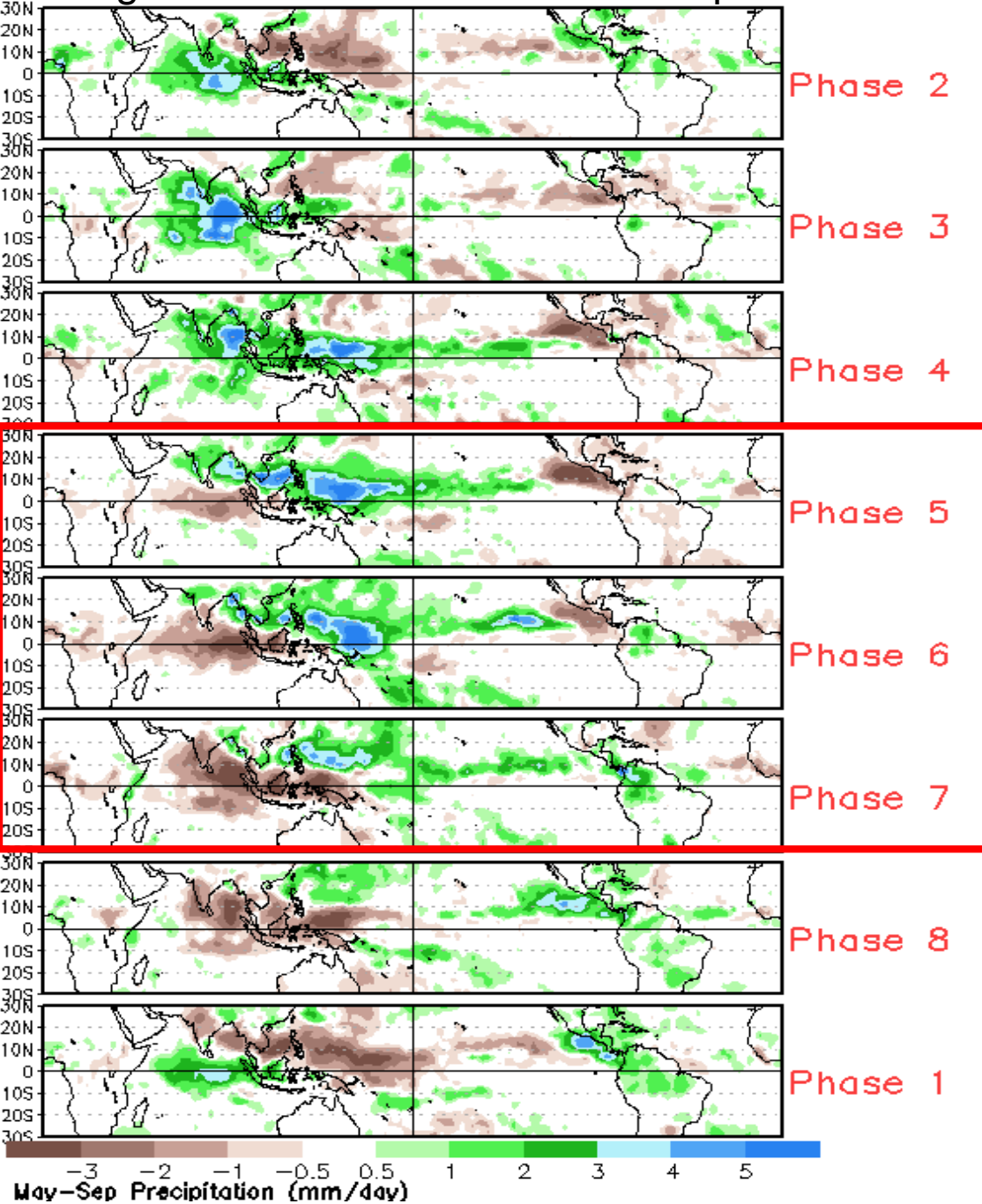
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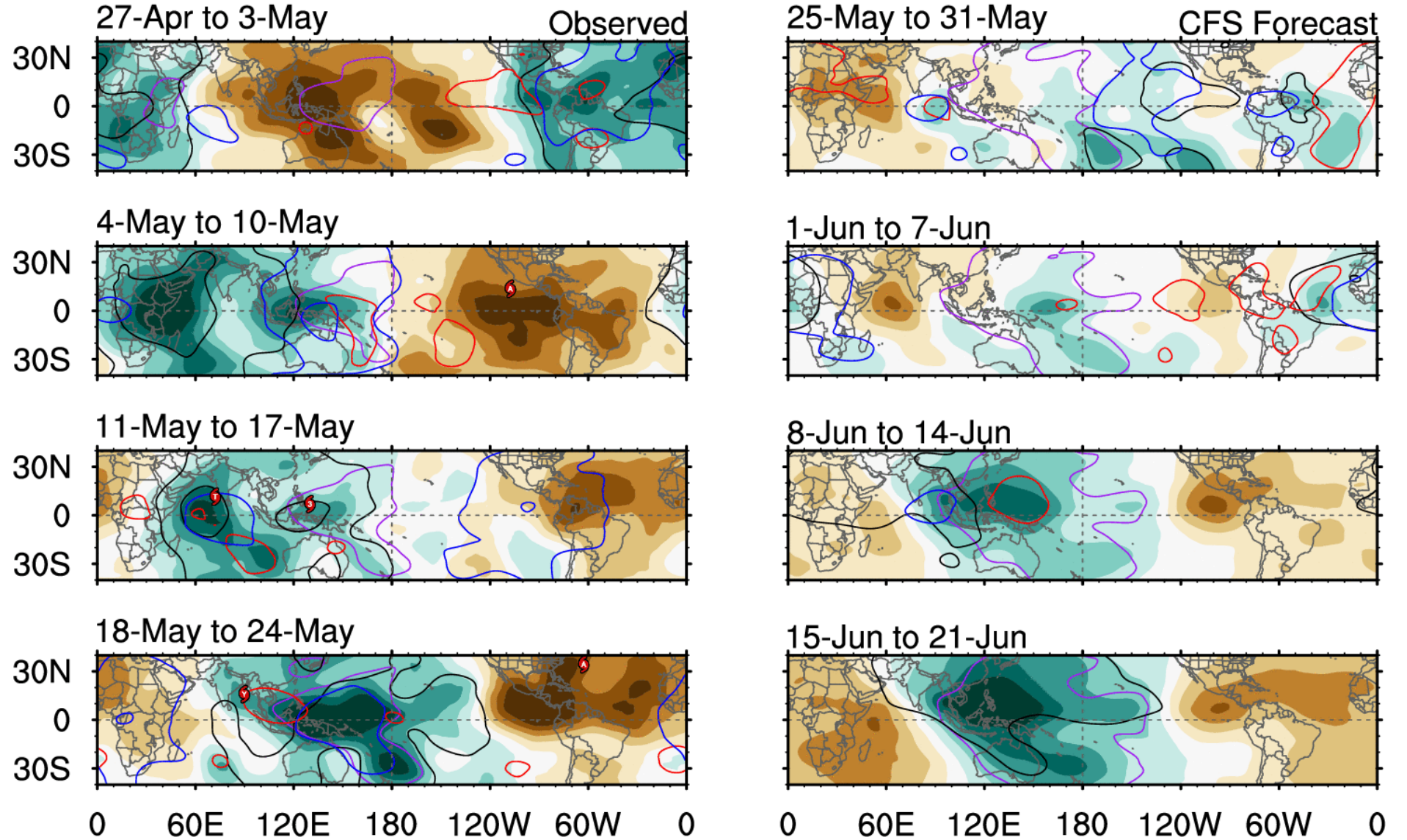
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Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.



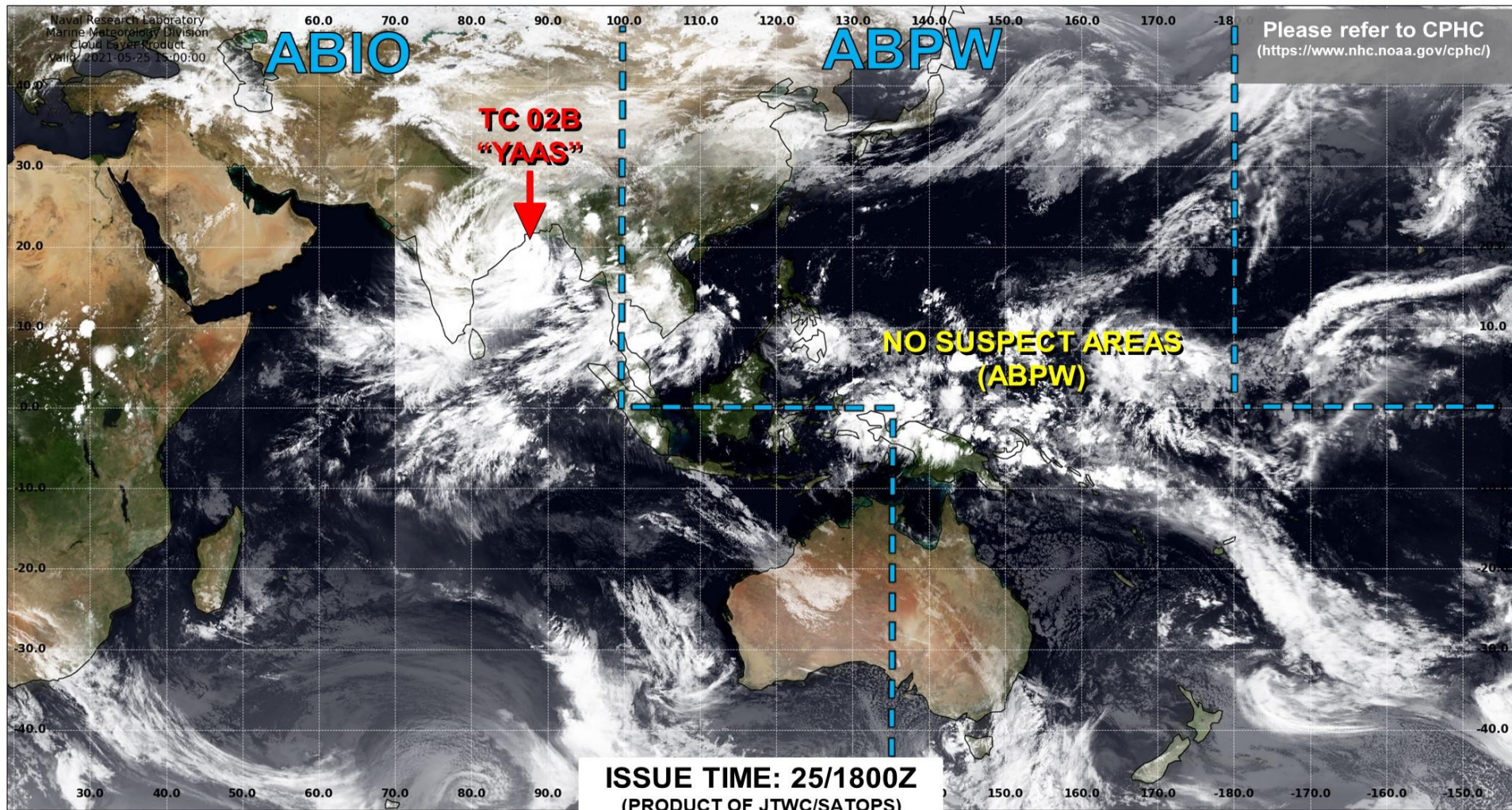
7-day CHI200 with CFS forecasts

— MJO — Kelvin x2
 — Low — ER

Contours at $-2, -6 \times 10^6 \text{ m}^2 \text{ s}^{-1}$



JOINT TYPHOON WARNING CENTER



LOW TC development unlikely within 24 hours

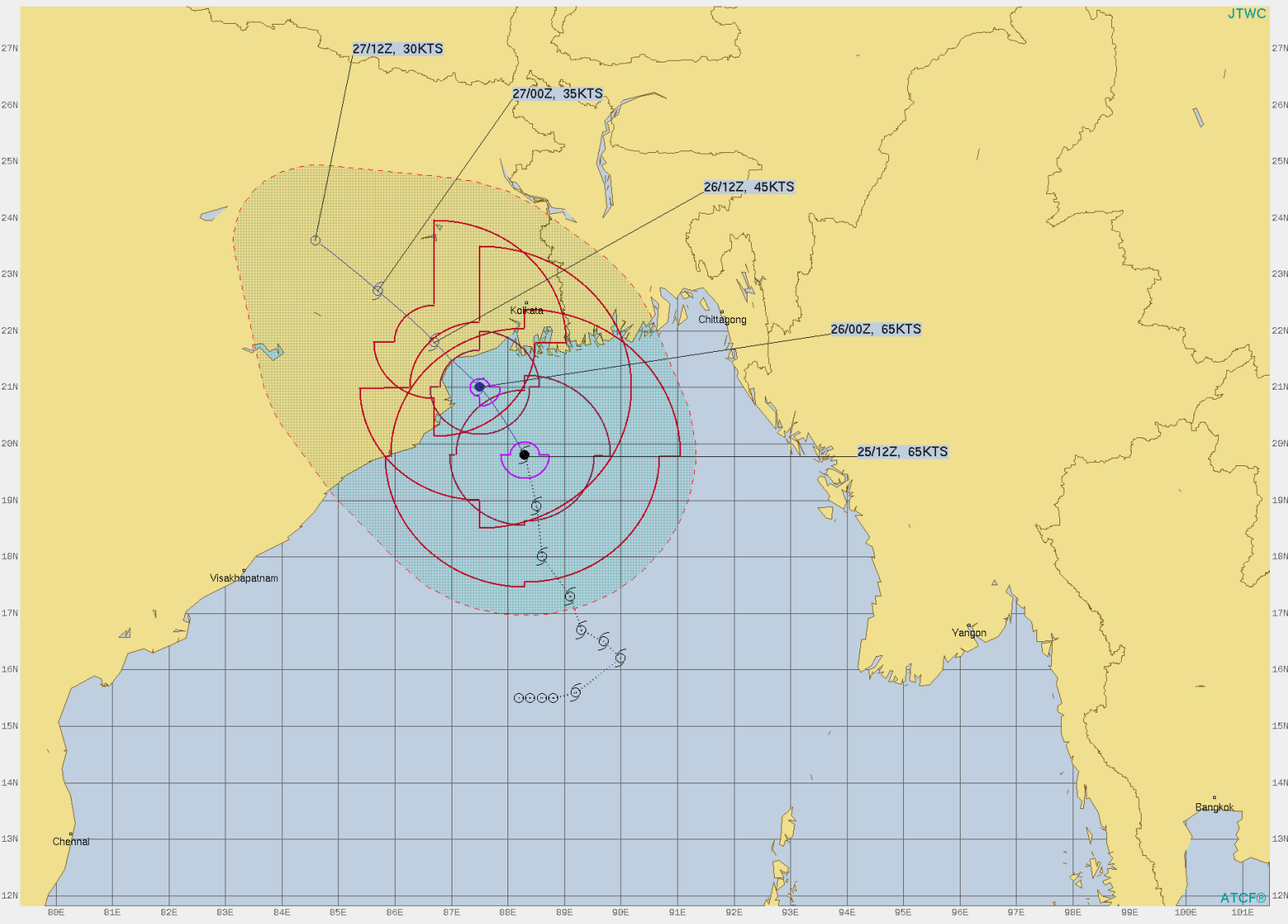
MEDIUM TC development likely, but expected to occur beyond 24 hours

HIGH TC development likely within 24 hours (Reference TCFA)

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



JTWC



TROPICAL CYCLONE 02B (YAAS) WARNING #7
 WT1031 PGTW 251500
 251200Z POSIT: NEAR 19.8N 88.3E
 MOVING 060 DEGREES TRUE AT 09 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 23 FEET
 25/12Z, WINDS 065 KTS, GUSTS TO 080 KTS
 26/00Z, WINDS 065 KTS, GUSTS TO 080 KTS
 26/12Z, WINDS 045 KTS, GUSTS TO 055 KTS
 27/00Z, WINDS 035 KTS, GUSTS TO 045 KTS
 27/12Z, WINDS 030 KTS, GUSTS TO 040 KTS

OPA TO: NM DTG
 CHITTAGONG 245 05/25/18Z
 COXS_BAZAR 258 05/25/18Z
 VISAKHAPATNAM 304 05/25/18Z
 DHAKA 227 05/26/06Z
 KOLKATA 101 05/26/06Z

BEARING AND DISTANCE	DIR	DIST (NM)	TAU (HRS)
CHITTAGONG	233	247	0
COXS_BAZAR	234	259	0
DHAKA	297	262	0
KOLKATA	182	168	0
VISAKHAPATNAM	066	306	0

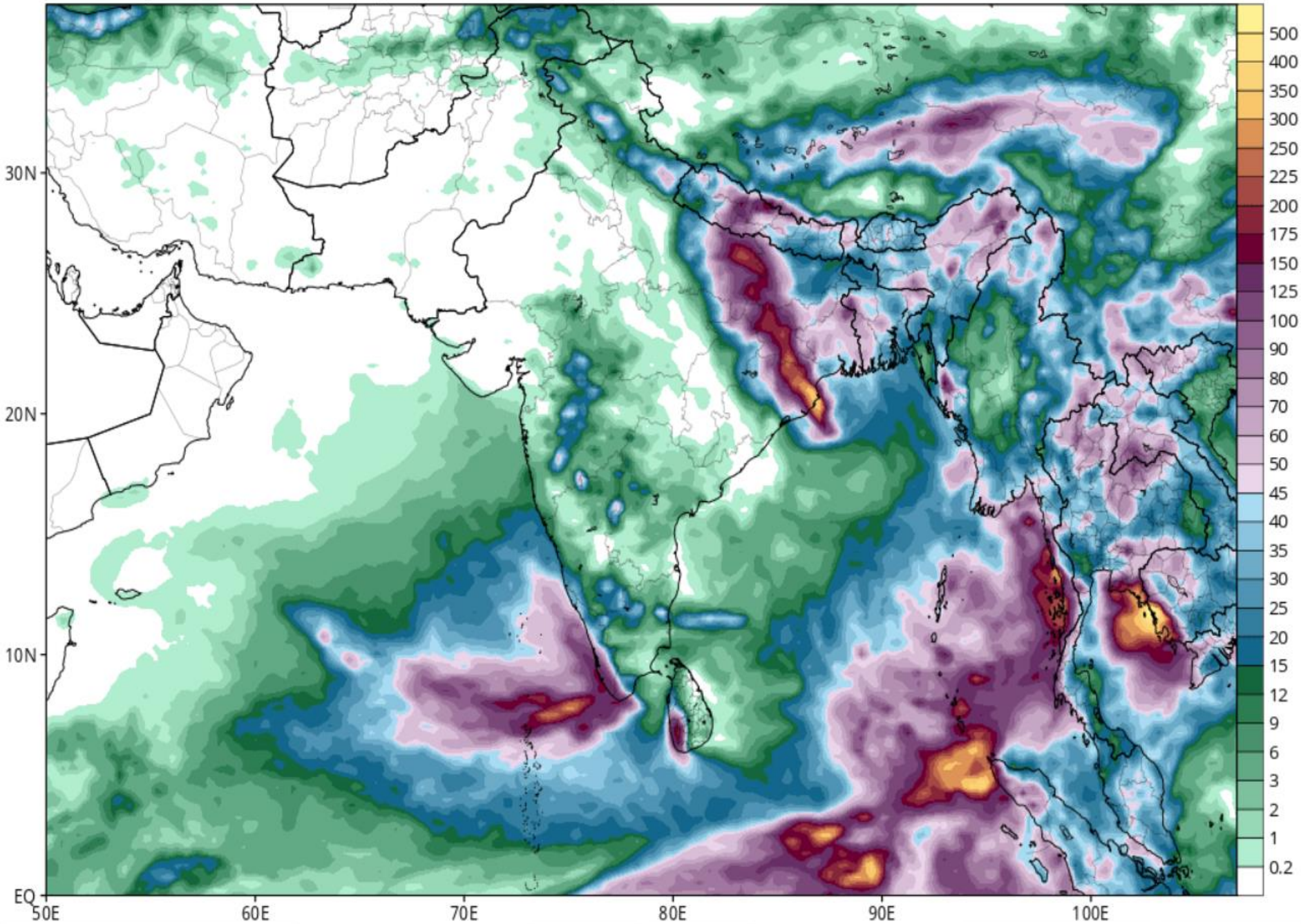
○ LESS THAN 34 KNOTS
 ○ 34-63 KNOTS
 ● MORE THAN 63 KNOTS
 — FORECAST CYCLONE TRACK
 - - - PAST CYCLONE TRACK
 [Blue shaded area] DENOTES 34 KNOT WIND DANGER AREA/USN SHIP AVOIDANCE AREA
 [Red dashed line] FORECAST 34/50/64 KNOT WIND RADII (WINDS VALID OVER OPEN OCEAN ONLY)

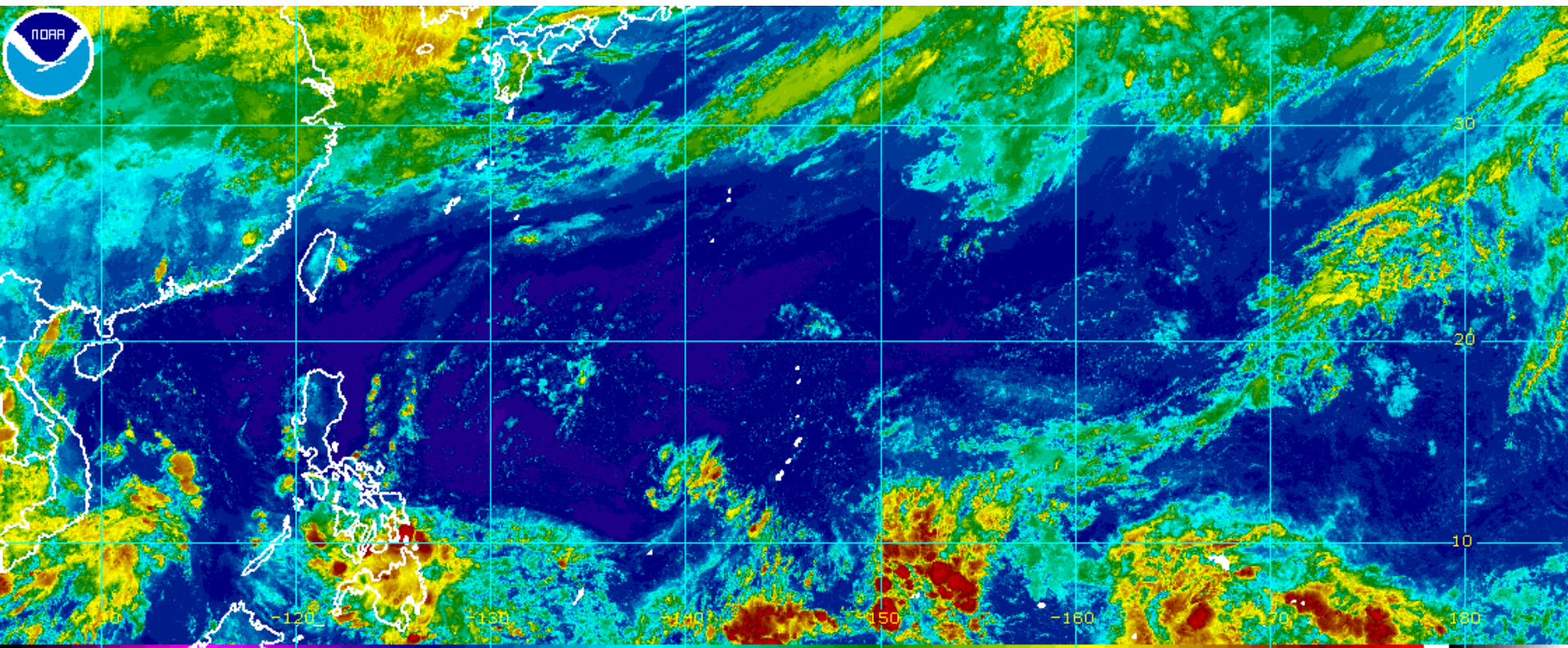
ATCF

GFS Total Accumulated Precipitation (mm) from 12z25May2021 to 18z30May2021

Init: 12z May 25 2021 Forecast Hour: [126] valid at 18z Sun, May 30 2021

TROPICALTIDBITS.COM

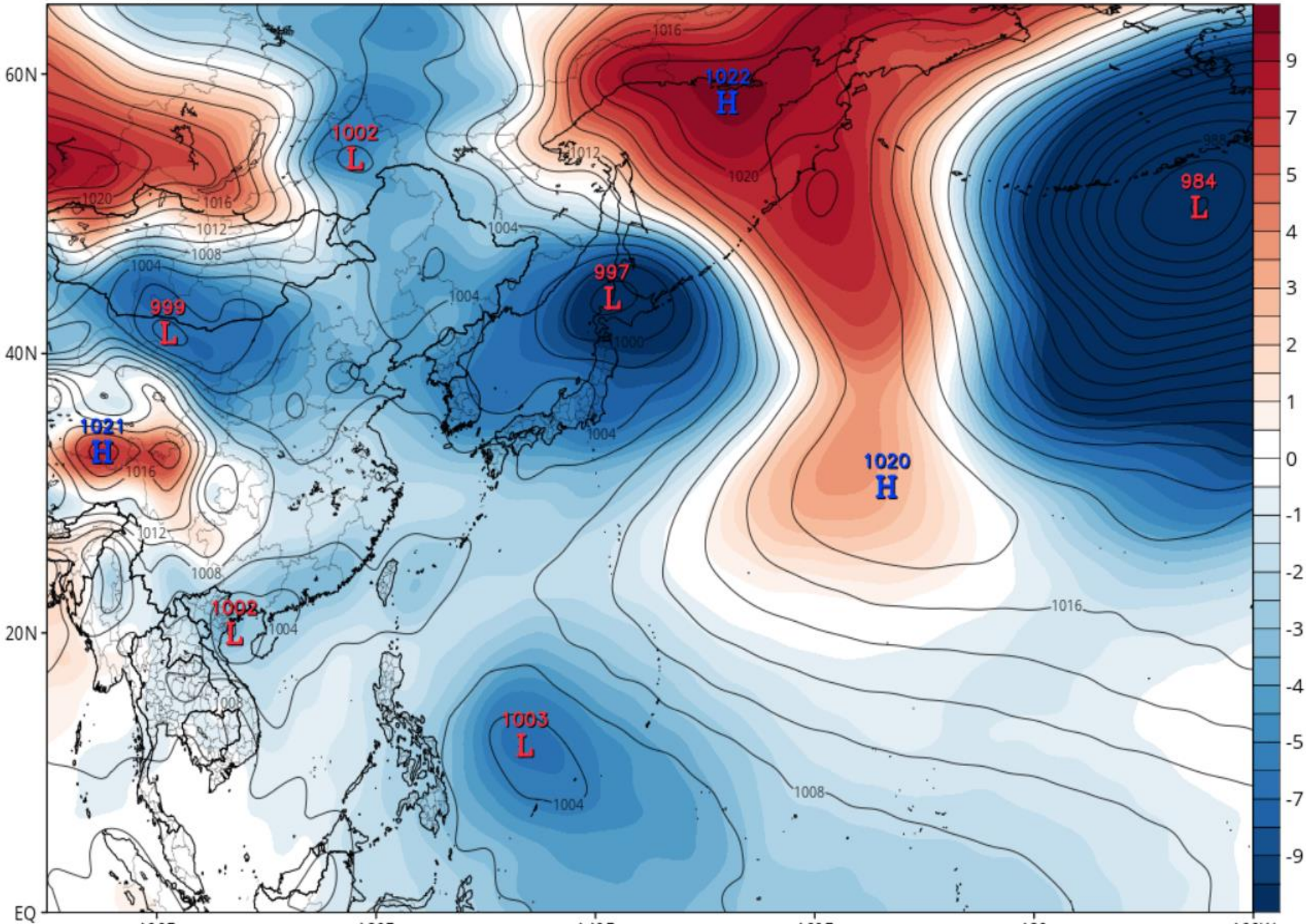




GEFS MSLP and Anomaly (hPa) (based on CFSR 1981-2010 Climatology)

Init: 12z May 25 2021 Forecast Hour: [102] valid at 18z Sat, May 29 2021

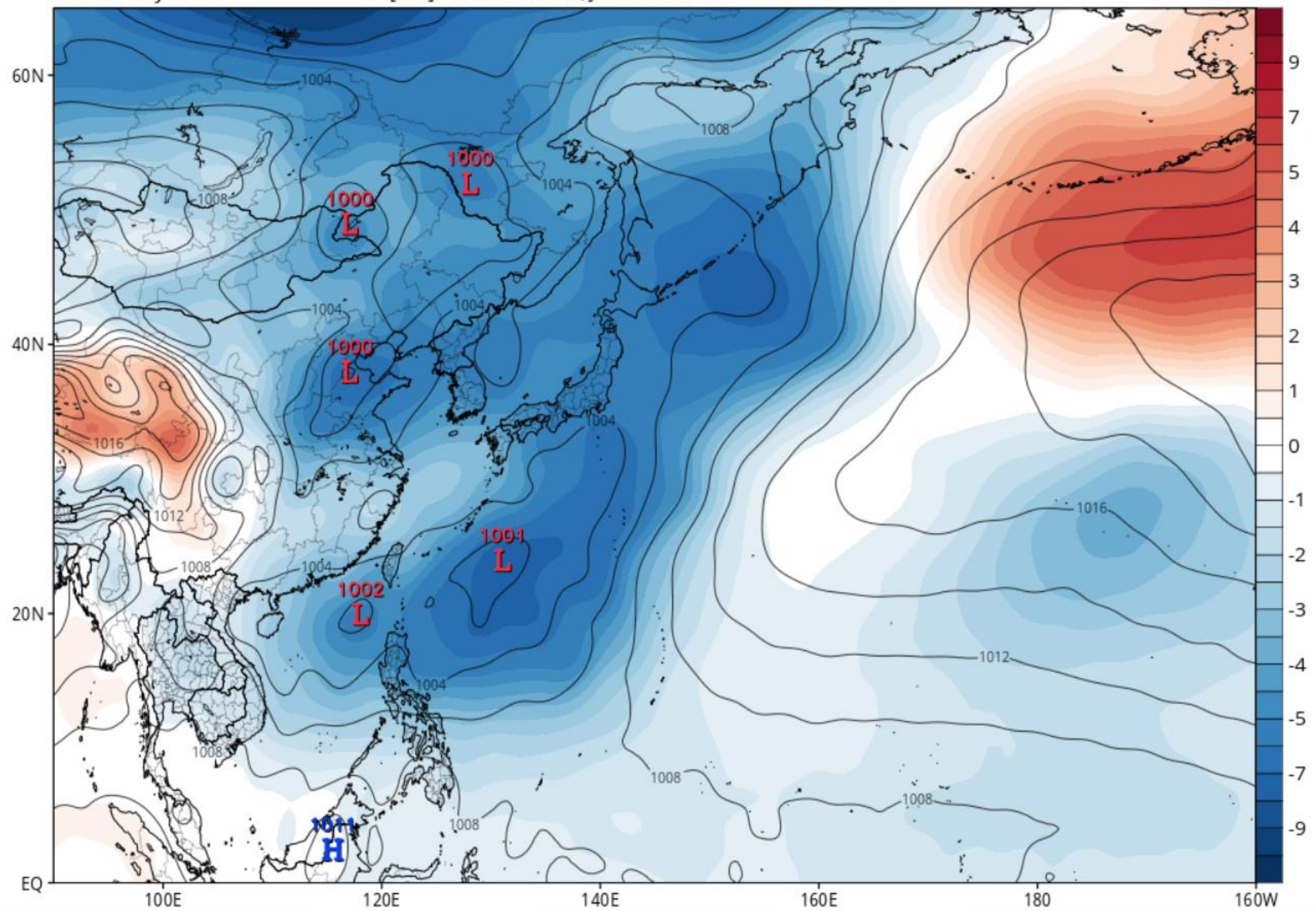
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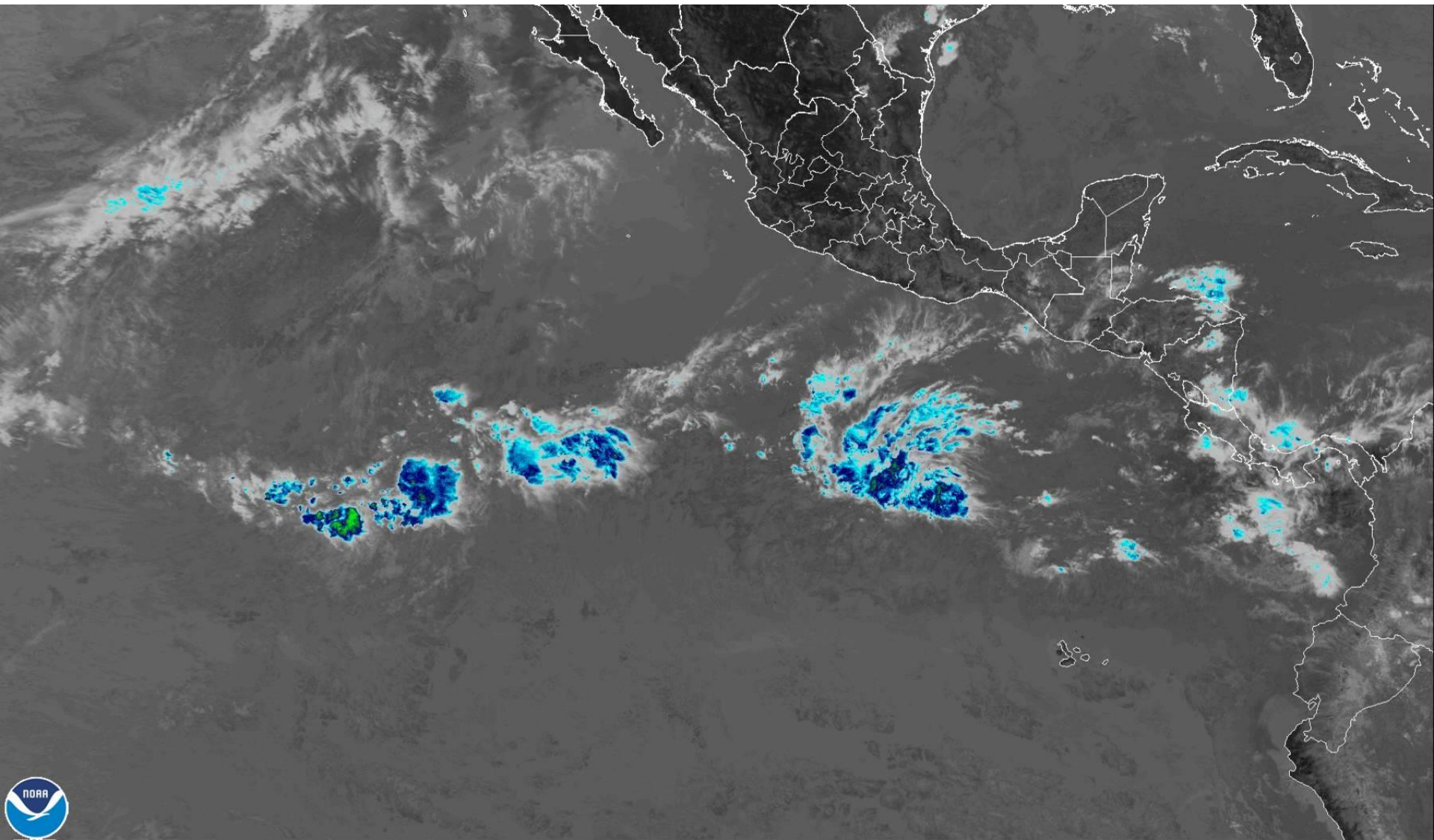


GEFS MSLP and Anomaly (hPa) (based on CFSR 1981-2010 Climatology)

Init: 12z May 25 2021 Forecast Hour: [270] valid at 18z Sat, Jun 05 2021

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25 May 2021 17:40Z NOAA/NESDIS/STAR GOES-East Band 07



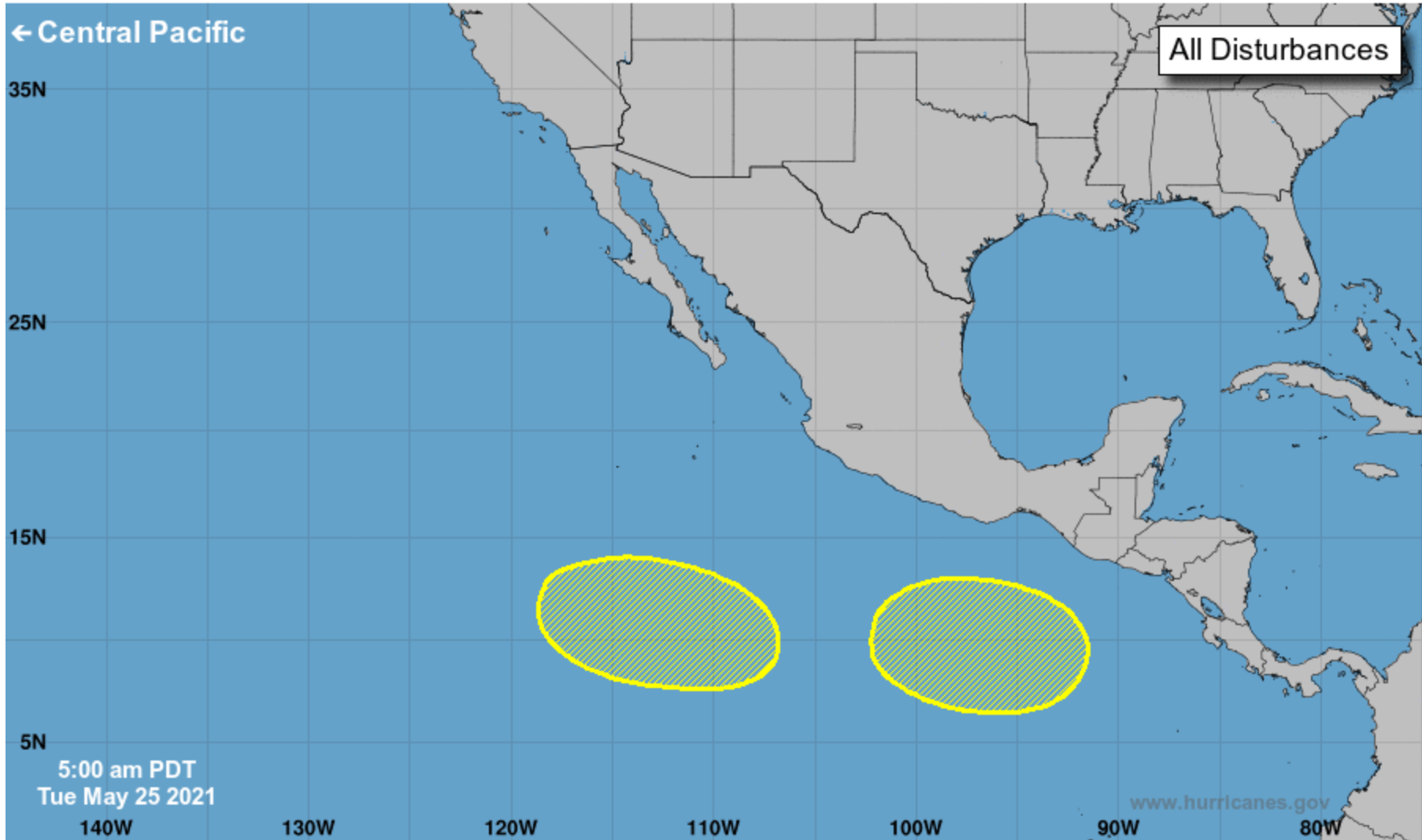
Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



← Central Pacific

All Disturbances



5:00 am PDT
Tue May 25 2021

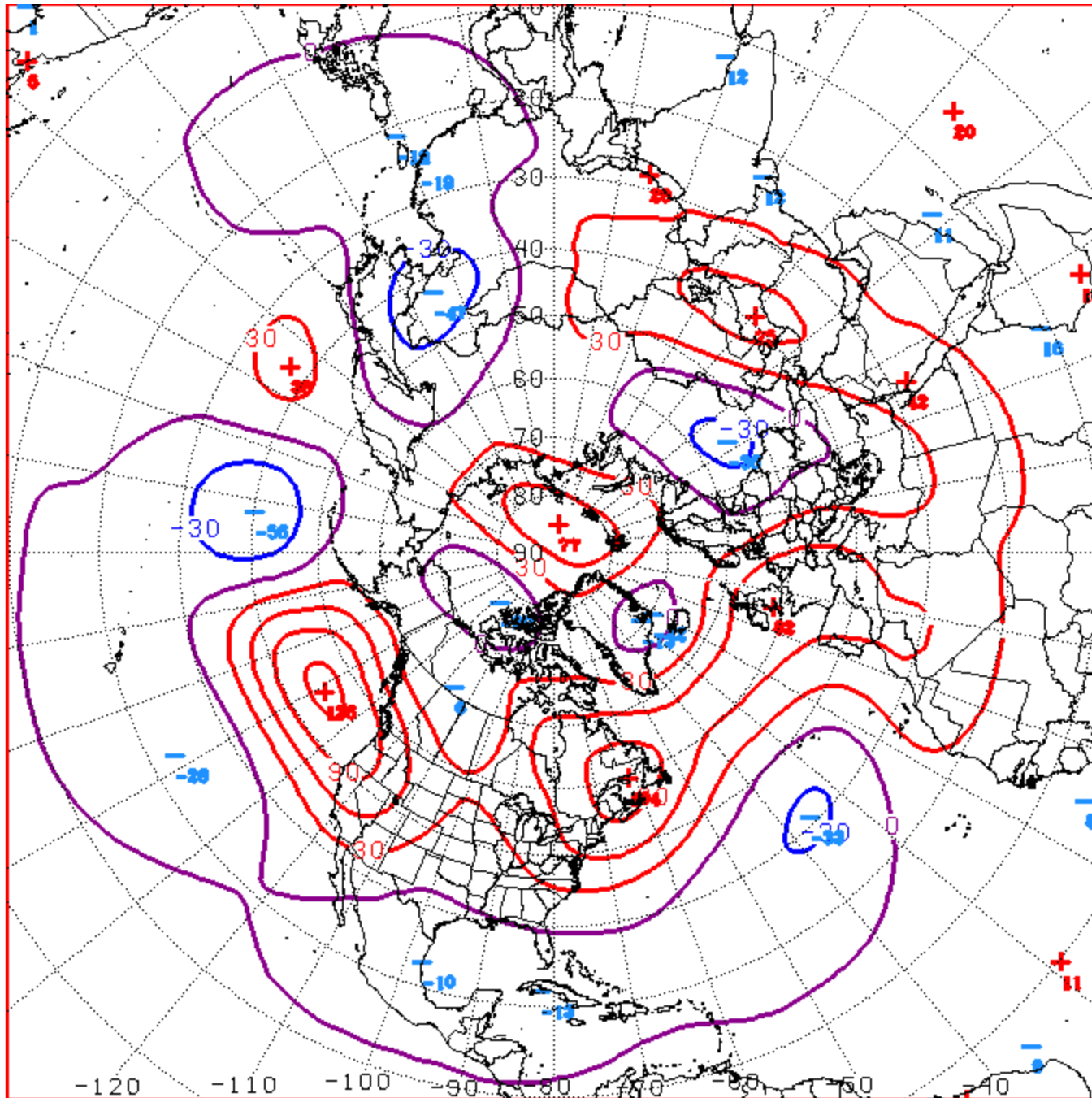
www.hurricanes.gov

Current Disturbances and Five-Day Cyclone Formation Chance: X < 40% X 40-60% X > 60%

Tropical or Sub-Tropical Cyclone: ○ Depression Ⓢ Storm Ⓢ Hurricane

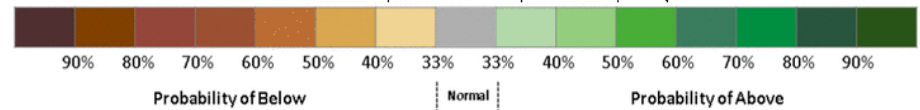
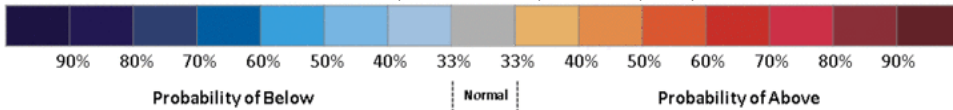
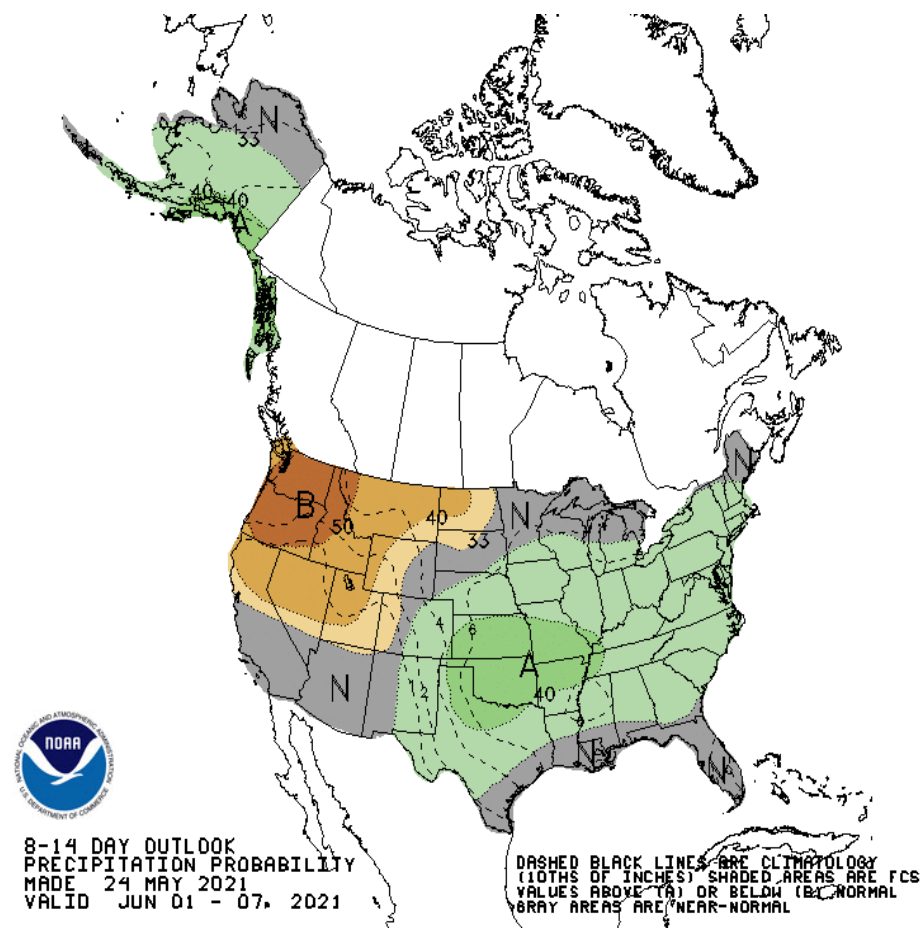
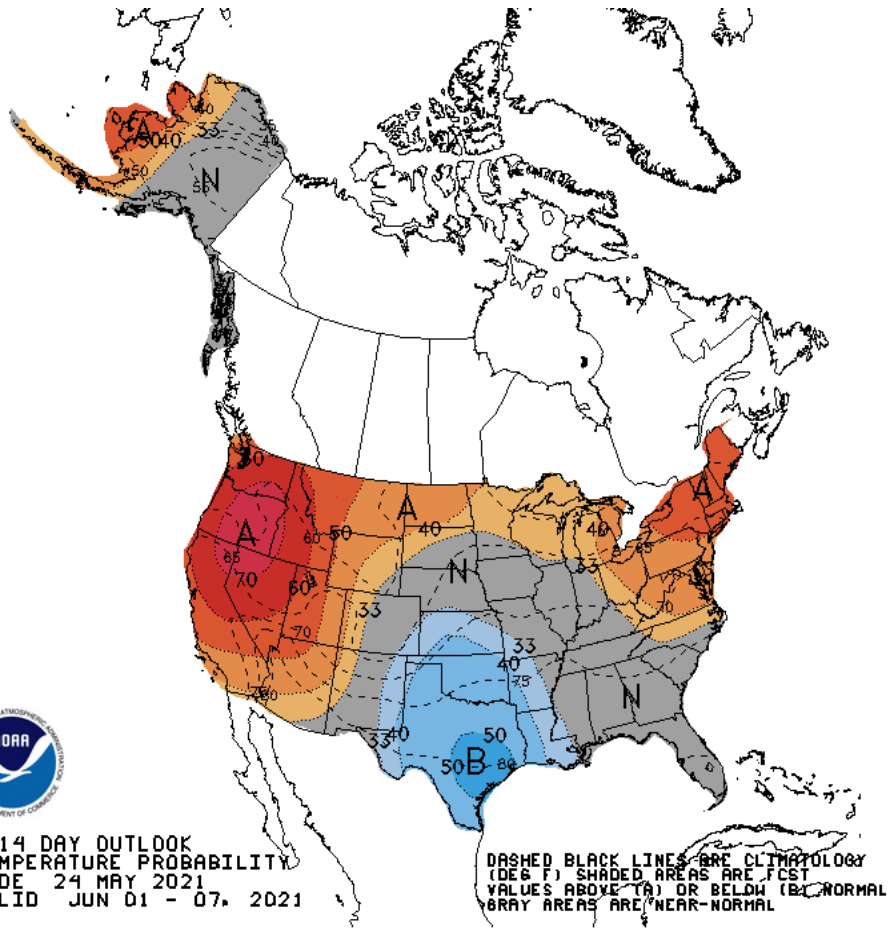
⊗ Post-Tropical Cyclone or Remnants

Connections to U.S. Impacts



D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAY 25 2021 1422 UTC CNTD JUN 05 2021

Week 2 – Temperature and Precipitation

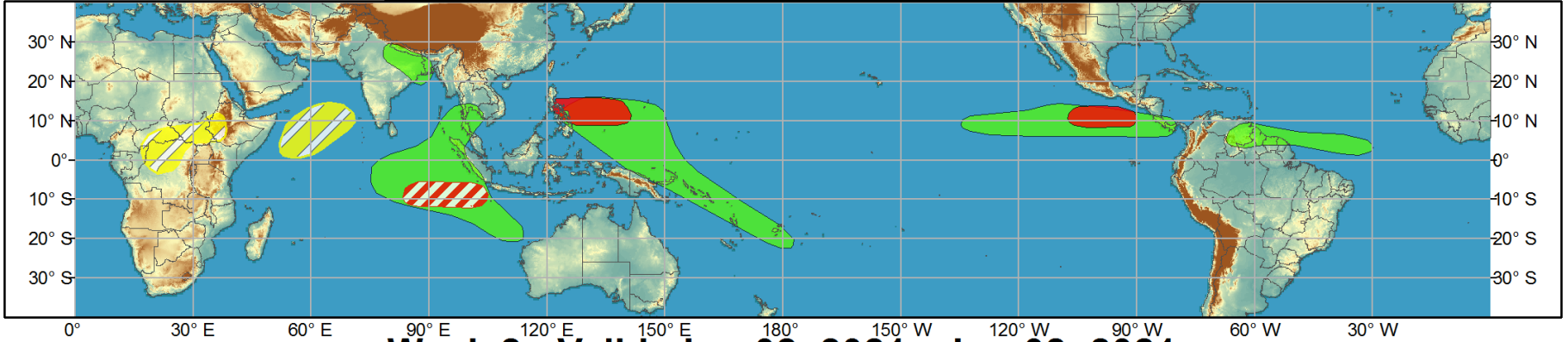




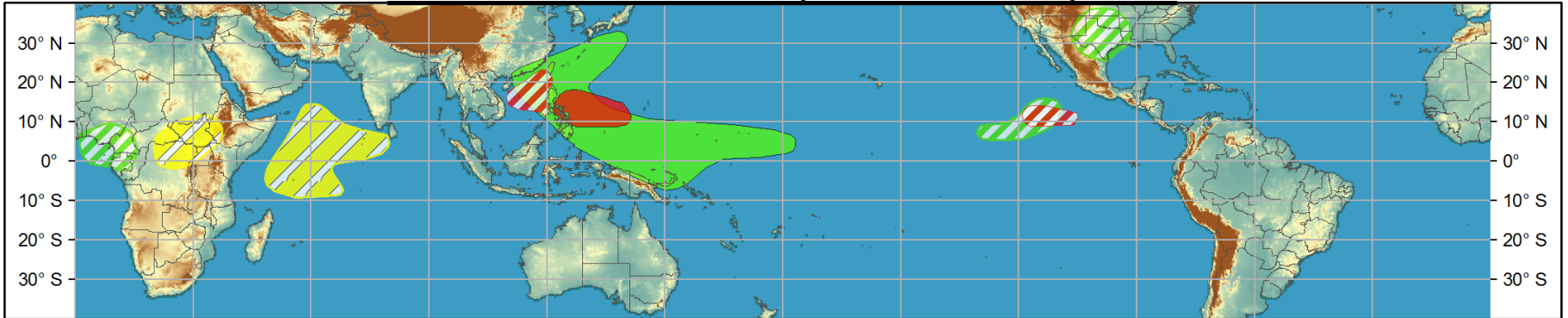
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