

Global Tropics Hazards And Benefits Outlook

7/06/2021

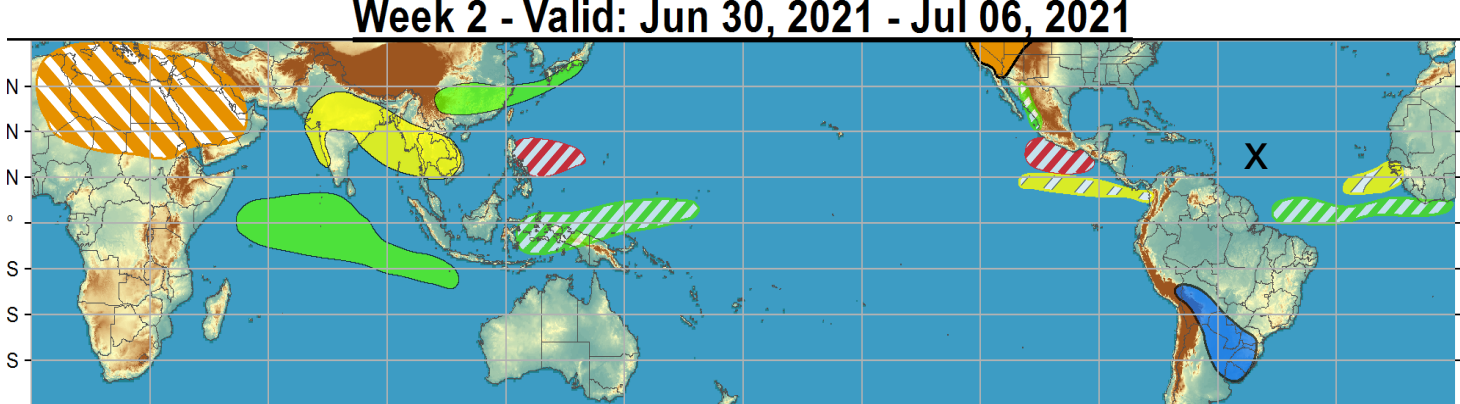
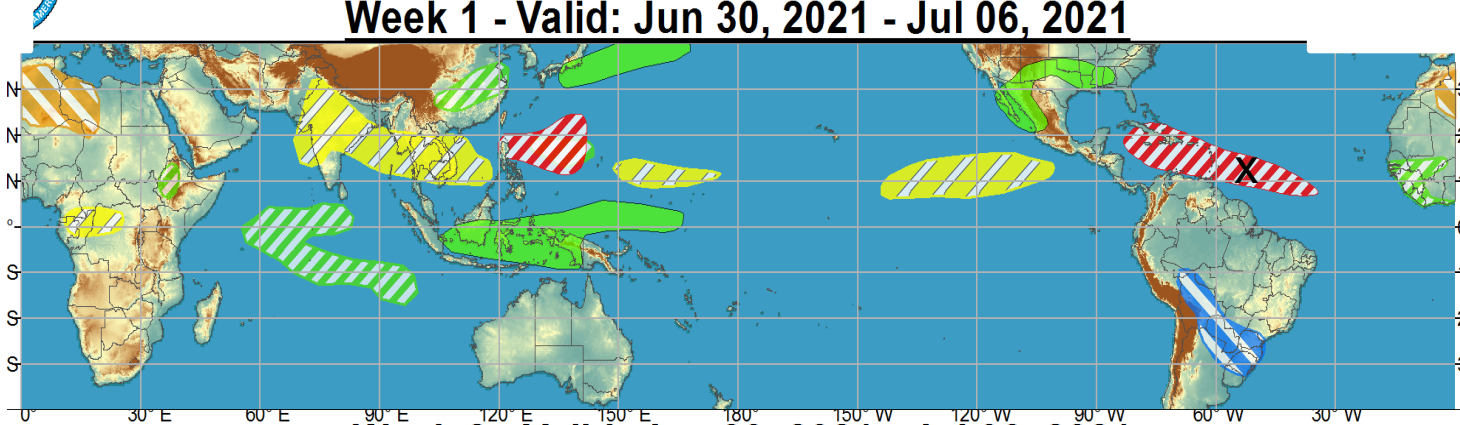
Brad Pugh

Outline

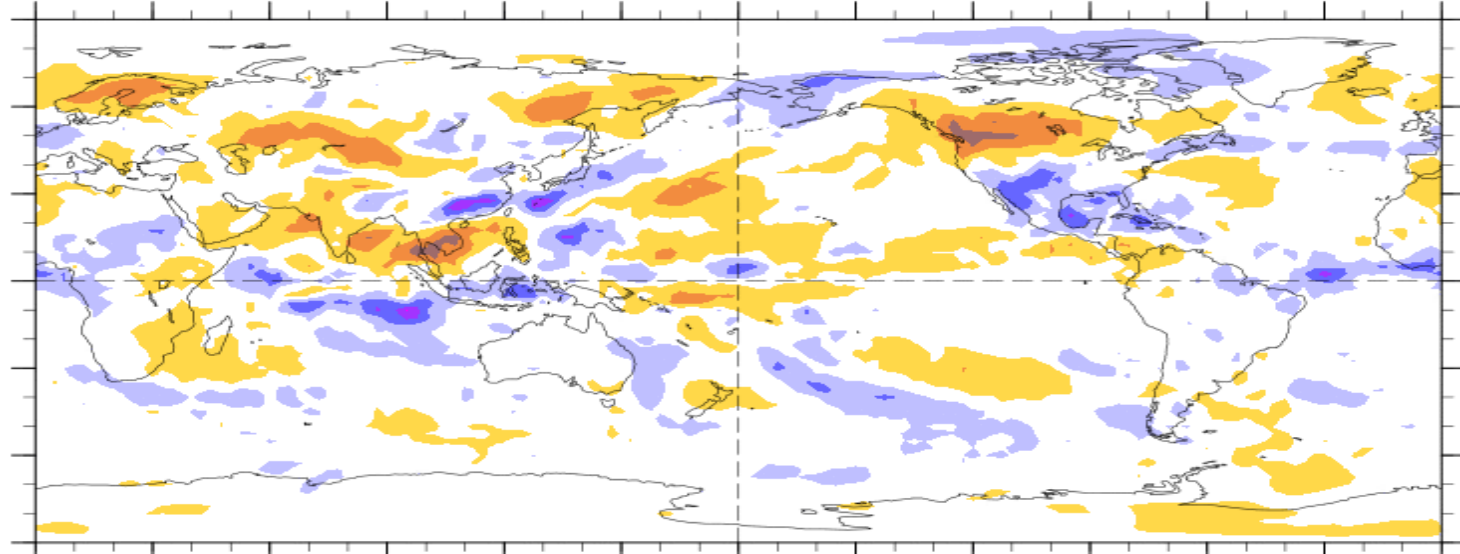
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

X =
Elsa development



7-Day Average OLR Anomaly 2021/06/28 - 2021/07/04



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO: (10 June, 2021 Update)

next update on 8th of July

- ENSO Alert System Status: Not Active
- ENSO-neutral conditions are favored through the Northern Hemisphere summer (78% chance for the June-August season) and fall (50% chance for the September-November season).

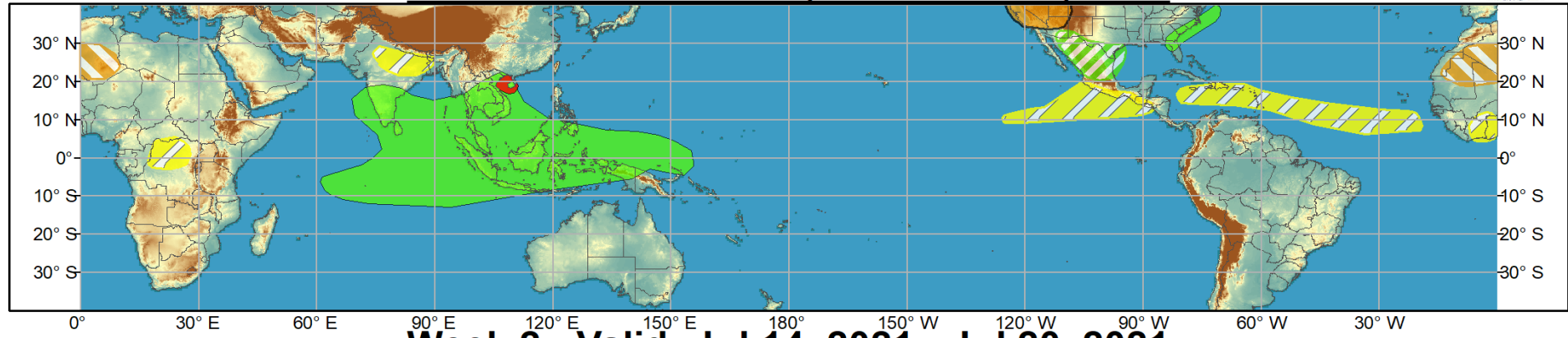
MJO and other subseasonal tropical variability:

- The MJO became more coherent with anomalous upper-level divergence (convergence) over the Eastern (Western) Hemisphere.
- Forecast uncertainty is large on the longevity of this MJO signal during the next two weeks.
- Chances for tropical cyclone development across the Atlantic basin are expected be limit by anomalous upper-level convergence and strong vertical wind shear.

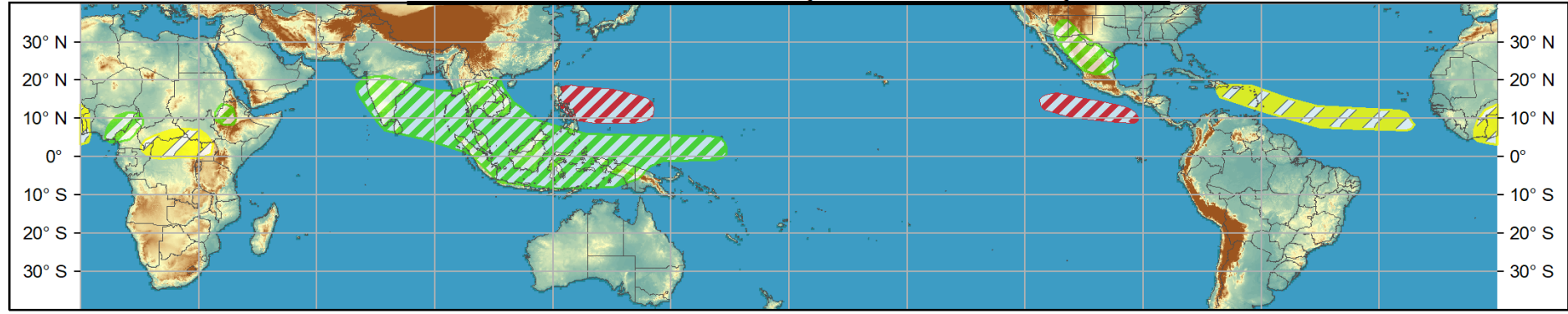


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 07, 2021 - Jul 13, 2021



Week 2 - Valid: Jul 14, 2021 - Jul 20, 2021



Confidence
 High Moderate

- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Above-average rainfall** Weekly total rainfall in the upper third of the historical range.
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- Above-normal temperatures** 7-day mean temperatures in the upper third of the historical range.
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Produced: 07/06/2021
Forecaster: Pugh

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IR Satellite & 200-hpa Velocity Potential Anomalies

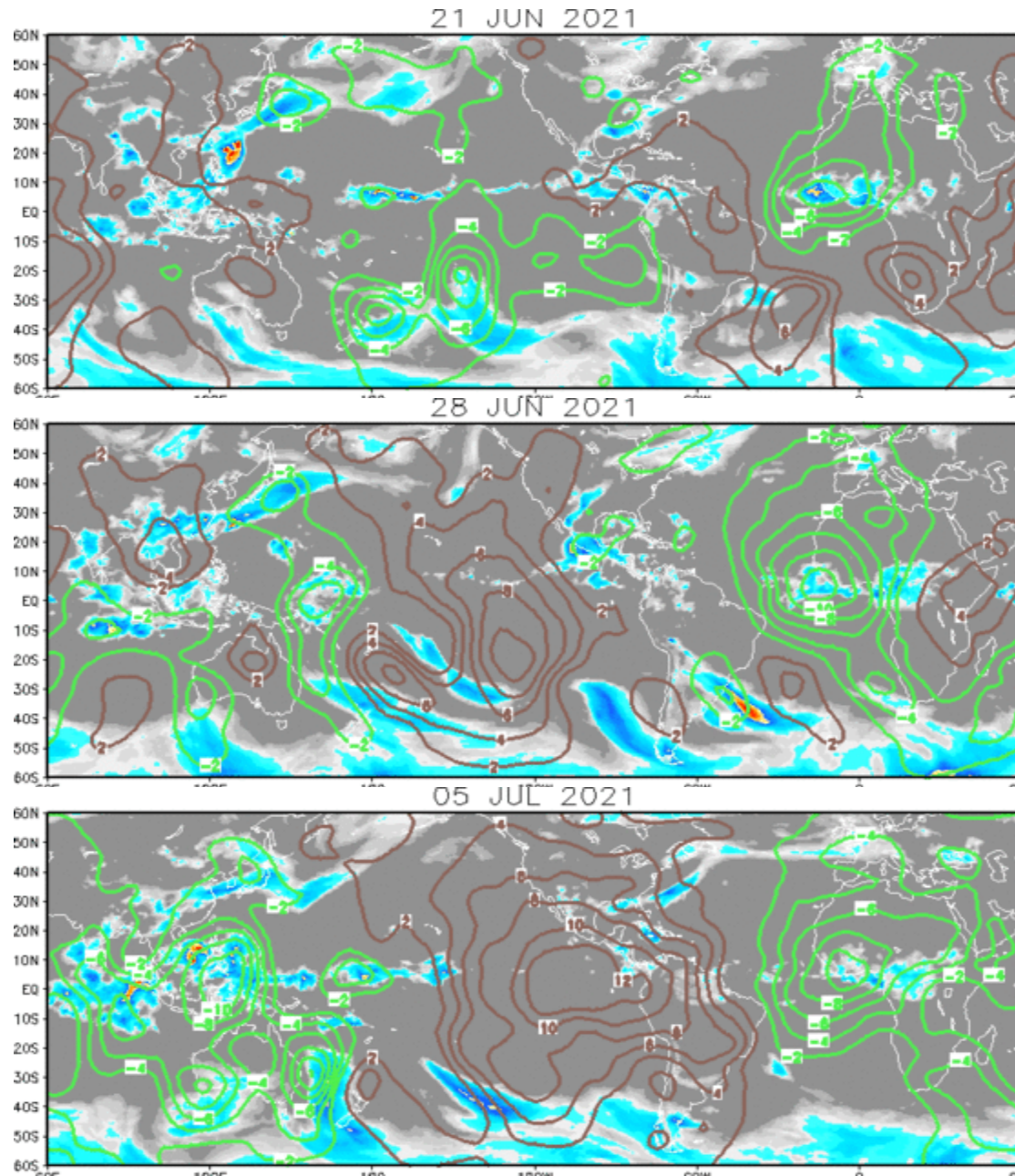
Green: Enhanced Divergence

Brown: Enhanced Convergence

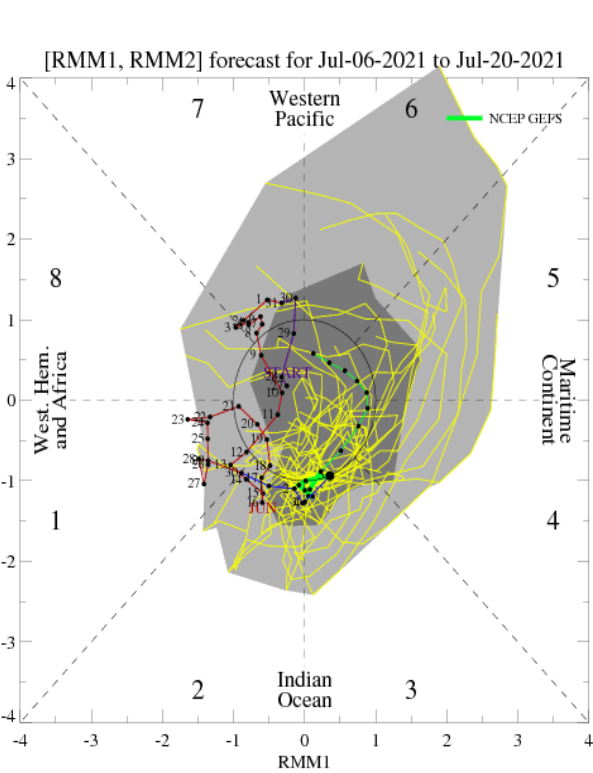
Some eastward progression of the signal originally over Southeast Asia. Most pronounced though is the decay of equatorial signals, outside of the persistent West Africa center.

A wave-2 pattern continues, with the growth of the West Africa signal and a Kelvin wave present over the Pacific.

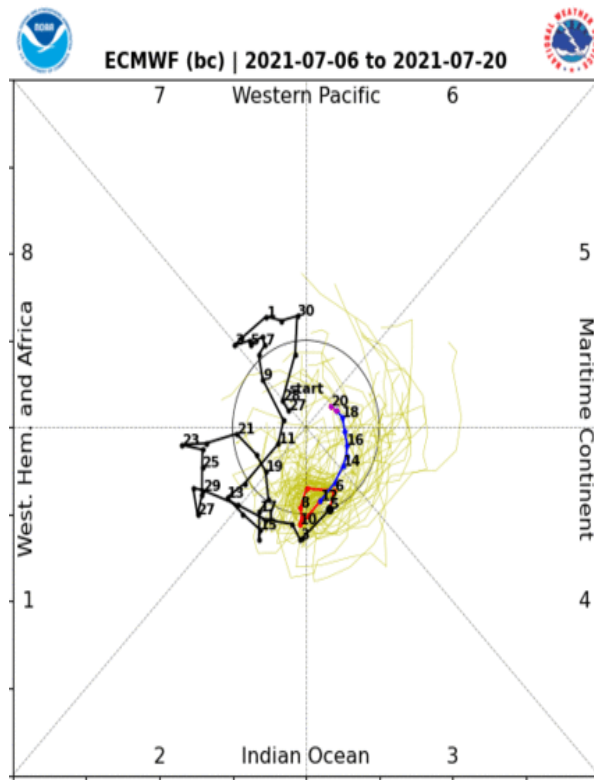
By the beginning of July, a wave-1 pattern emerged which is more consistent with a MJO.



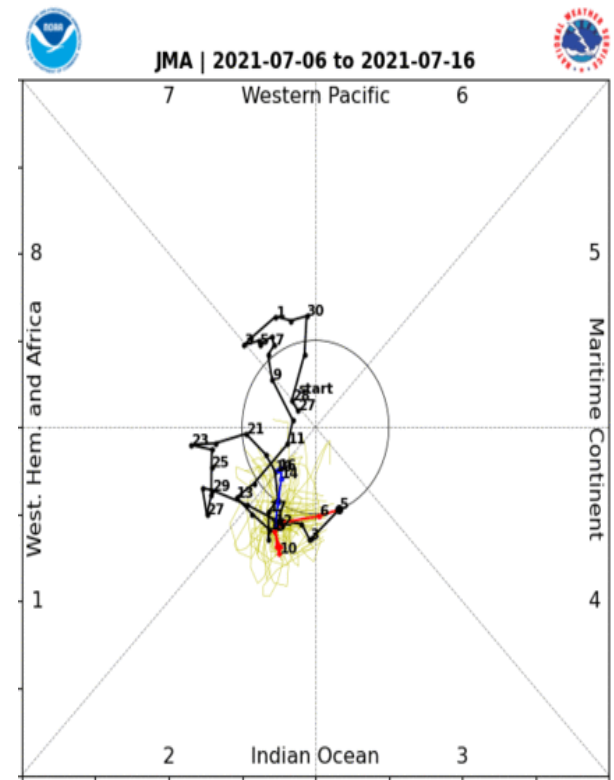
MJO Observation/Forecast



GEFS



ECMWF

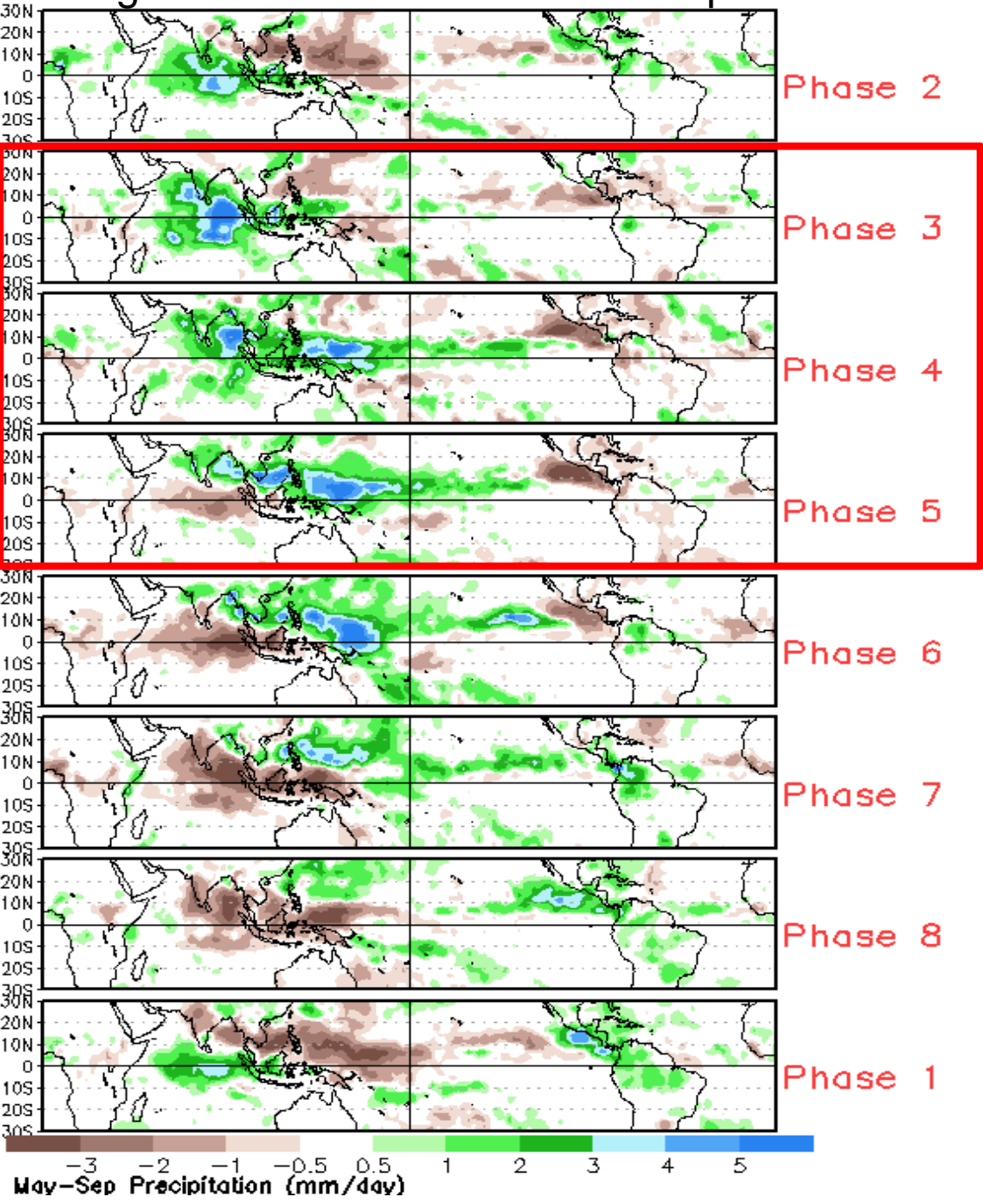


JMA

GEFS maintains eastward propagation to the Maritime Continent although the speed is on the fast side of a MJO

ECMWF ensemble members are not quite as bullish

Average Conditions when the MJO is present

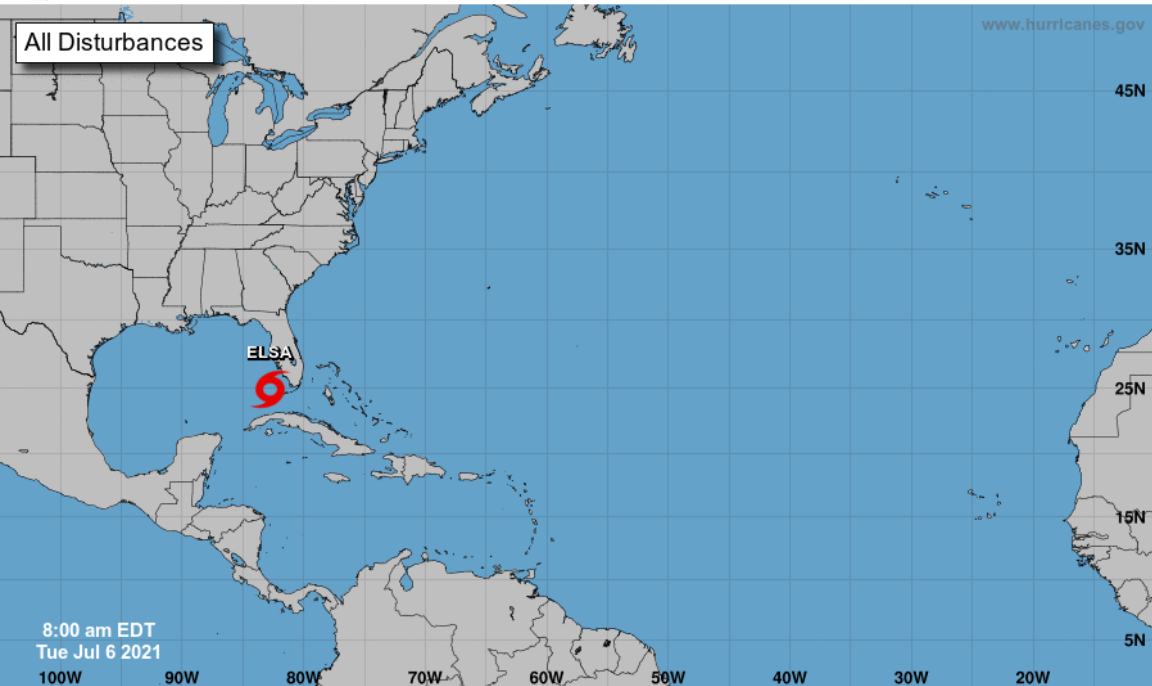


CAVEAT: These panels are representative of robust MJO events.



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



All Disturbances

www.hurricanes.gov

8:00 am EDT
Tue Jul 6 2021

100W 90W 80W 70W 60W 50W 40W 30W 20W

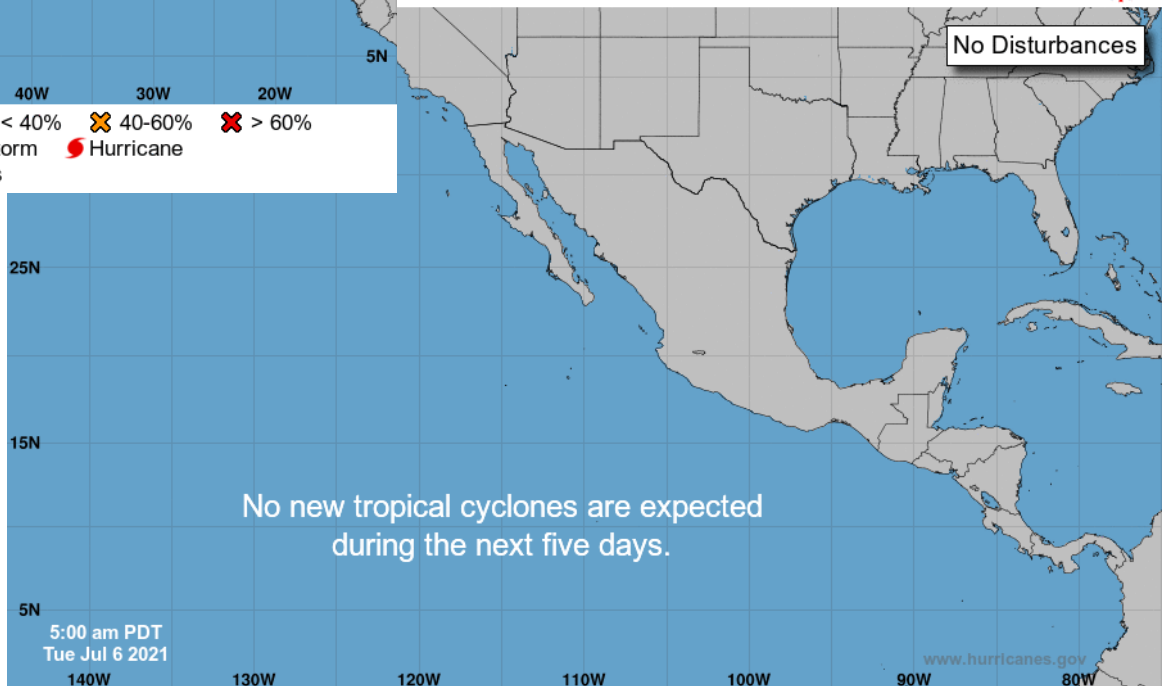
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



No Disturbances

5:00 am PDT
Tue Jul 6 2021

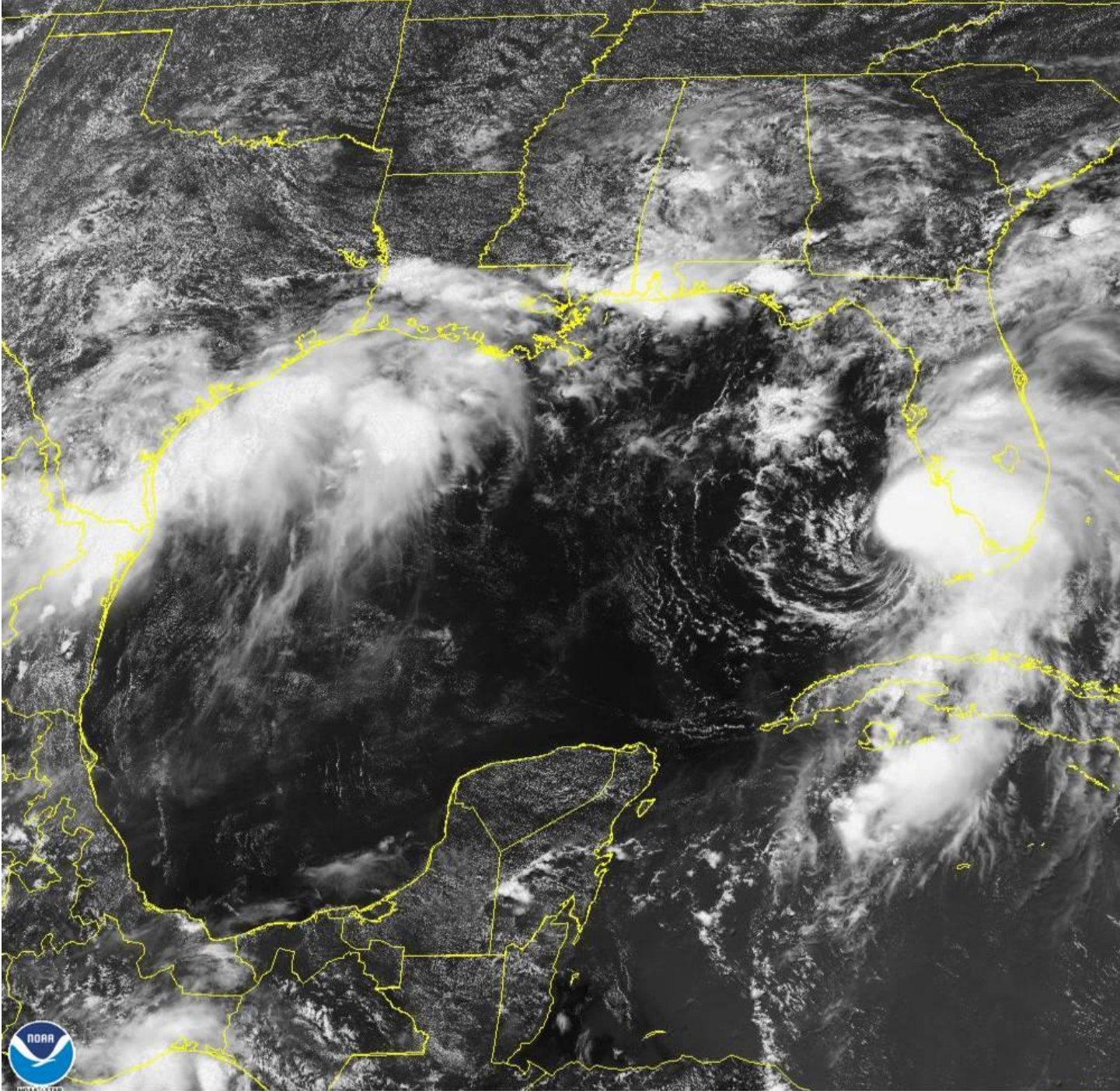
140W 130W 120W 110W 100W 90W 80W

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

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

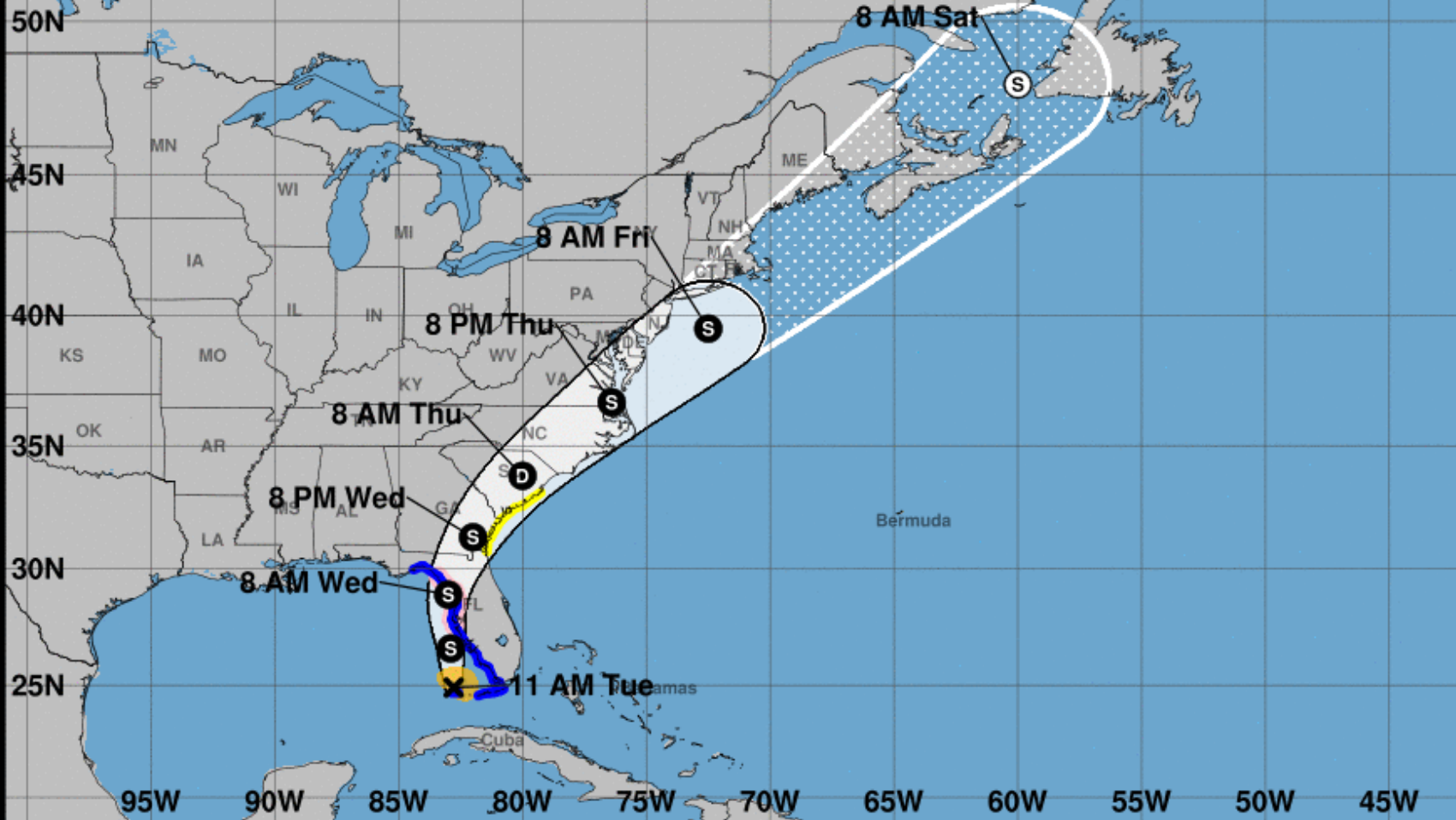
www.hurricanes.gov



06 Jul 2021 17:31Z NOAA/NESDIS/STAR GOES-East Band 02



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.

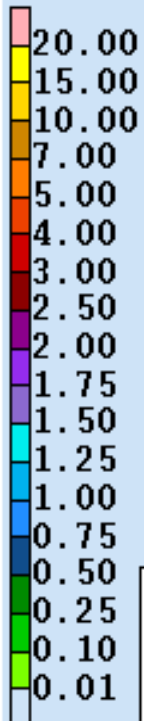
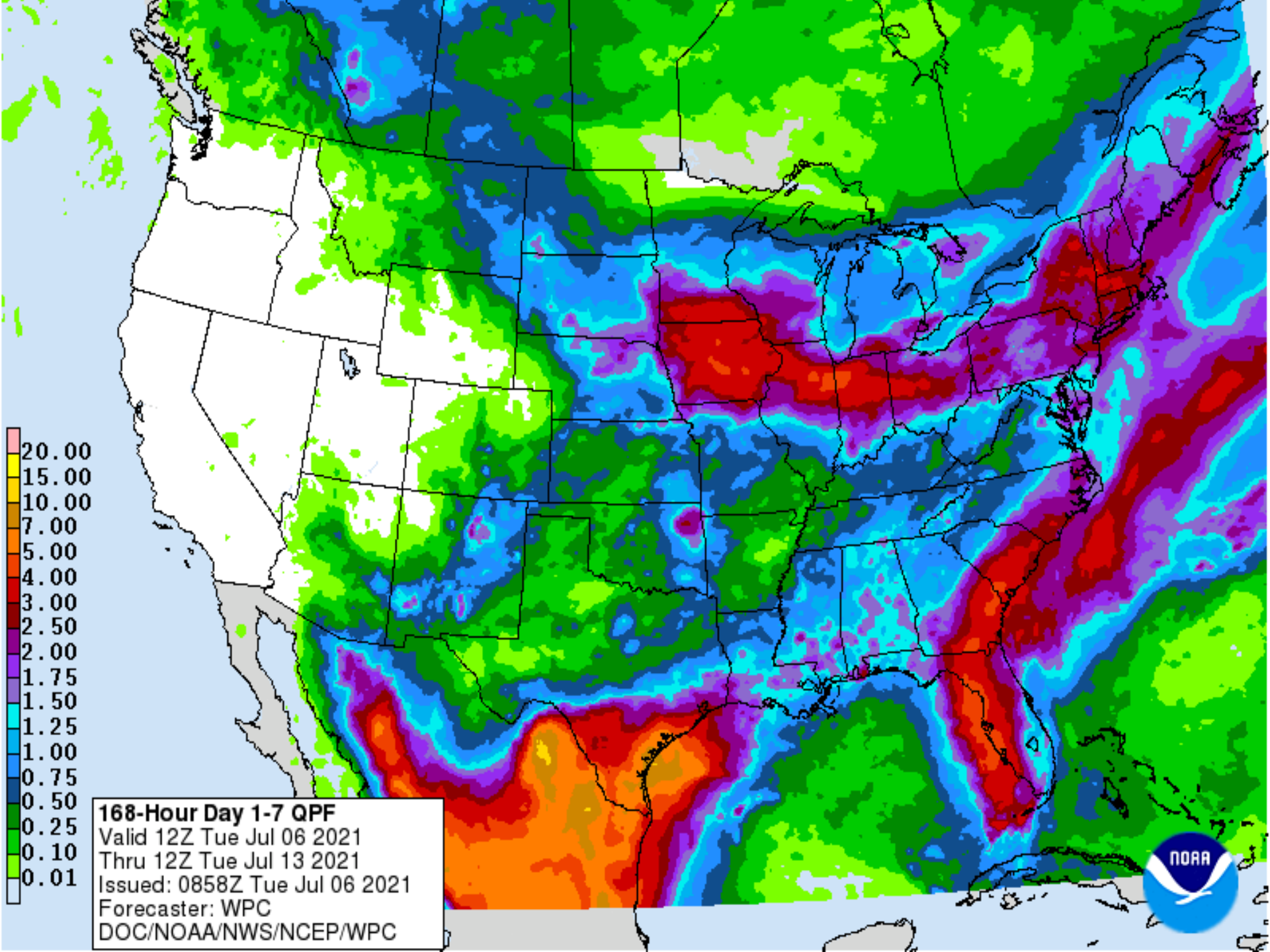


Tropical Storm Elsa
 Tuesday July 06, 2021
 11 AM EDT Advisory 25
 NWS National Hurricane Center

Current information: x
 Center location 24.9 N 82.8 W
 Maximum sustained wind 60 mph
 Movement NNW at 10 mph

Forecast positions:
 ● Tropical Cyclone ○ Post/Potential TC
 Sustained winds: D < 39 mph
 S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:	Watches:	Warnings:	Current wind extent:
Day 1-3 Day 4-5	Hurricane Trop Stm	Hurricane Trop Stm	Hurricane Trop Stm

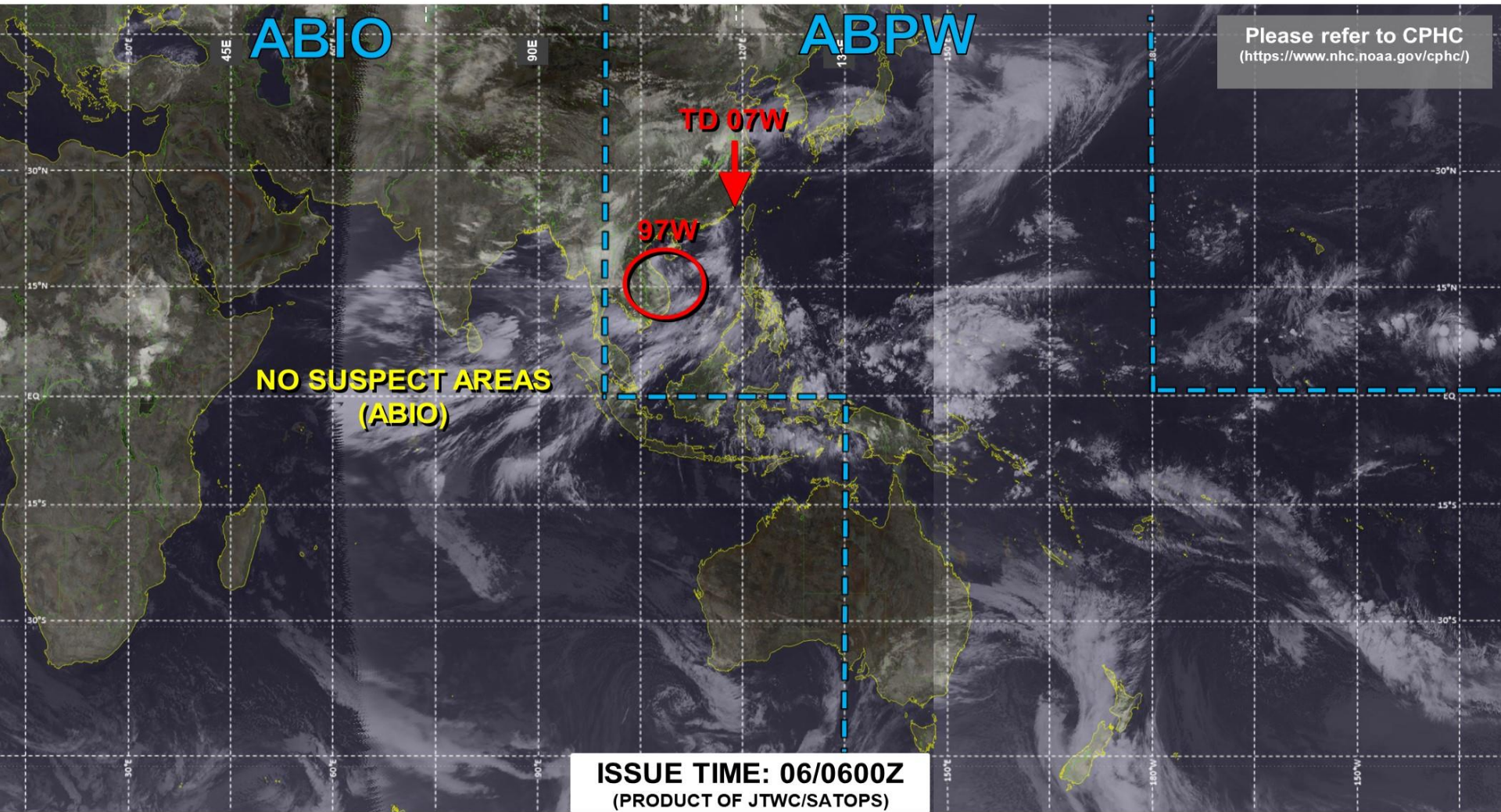


168-Hour Day 1-7 QPF
Valid 12Z Tue Jul 06 2021
Thru 12Z Tue Jul 13 2021
Issued: 0858Z Tue Jul 06 2021
Forecaster: WPC
DOC/NOAA/NWS/NCEP/WPC





JOINT TYPHOON WARNING CENTER



Please refer to CPHC
[\(https://www.nhc.noaa.gov/cphc/\)](https://www.nhc.noaa.gov/cphc/)

ISSUE TIME: 06/0600Z
 (PRODUCT OF JTWC/SATOPS)

LOW TC development unlikely within 24 hours

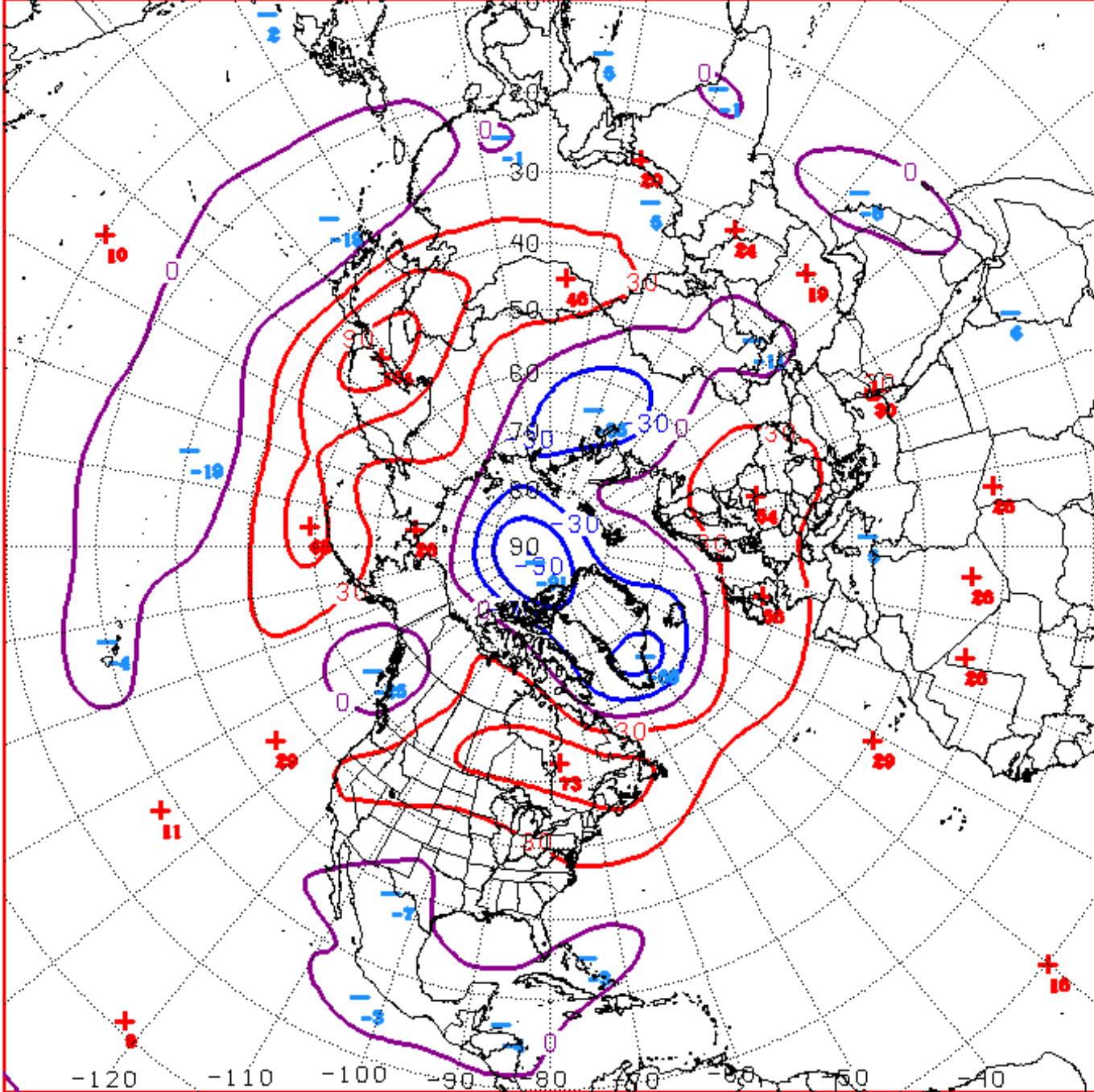
MEDIUM TC development likely, but expected to occur beyond 24 hours

HIGH TC development likely within 24 hours (Reference TCFA)

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

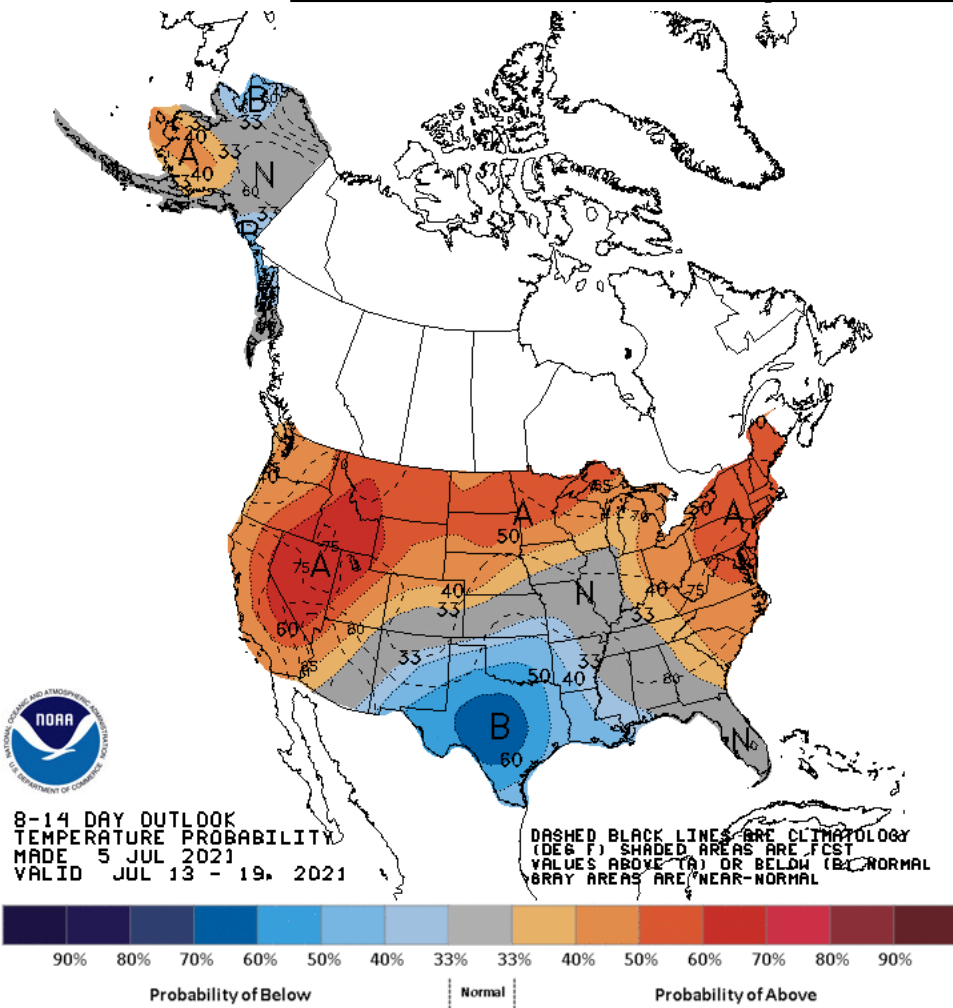
Tropical Cyclone (Reference Warning)

Connections to U.S. Impacts

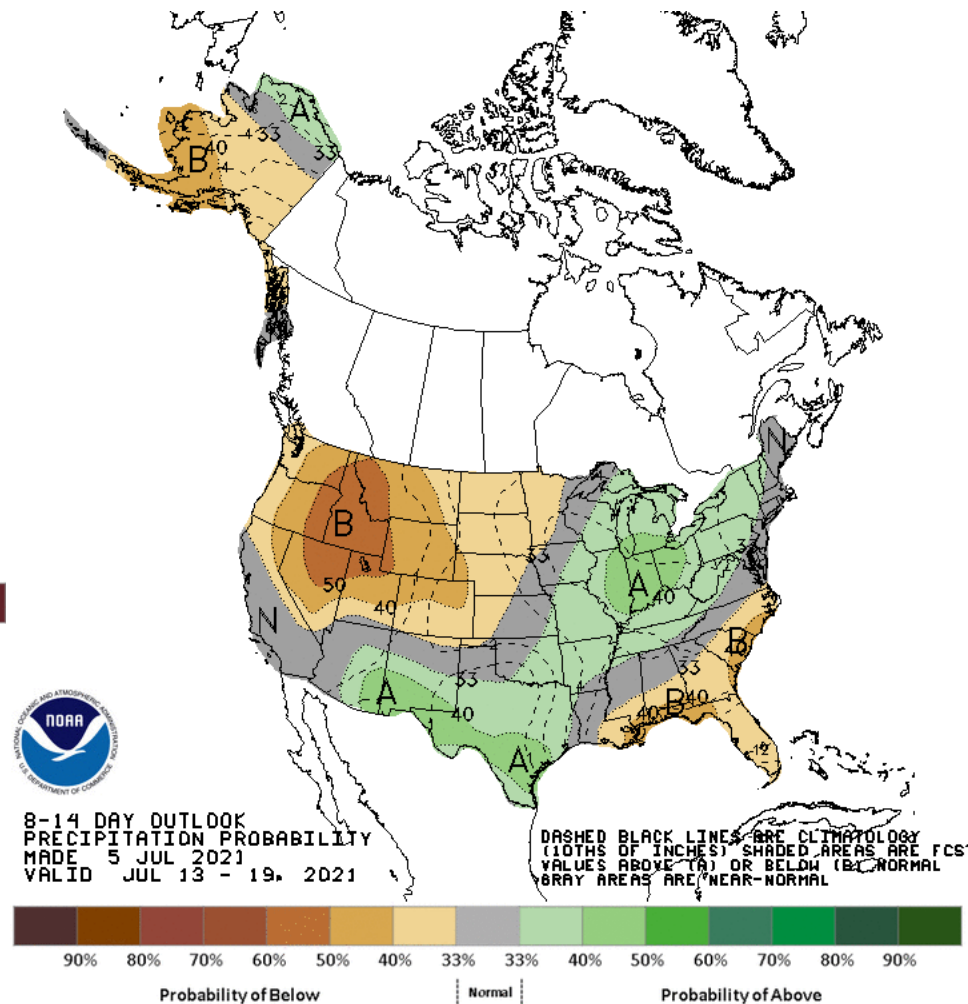


D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE JUL 06 2021 1400 UTC CNTD JUL 17 2021

Week 2 – Temperature and Precipitation



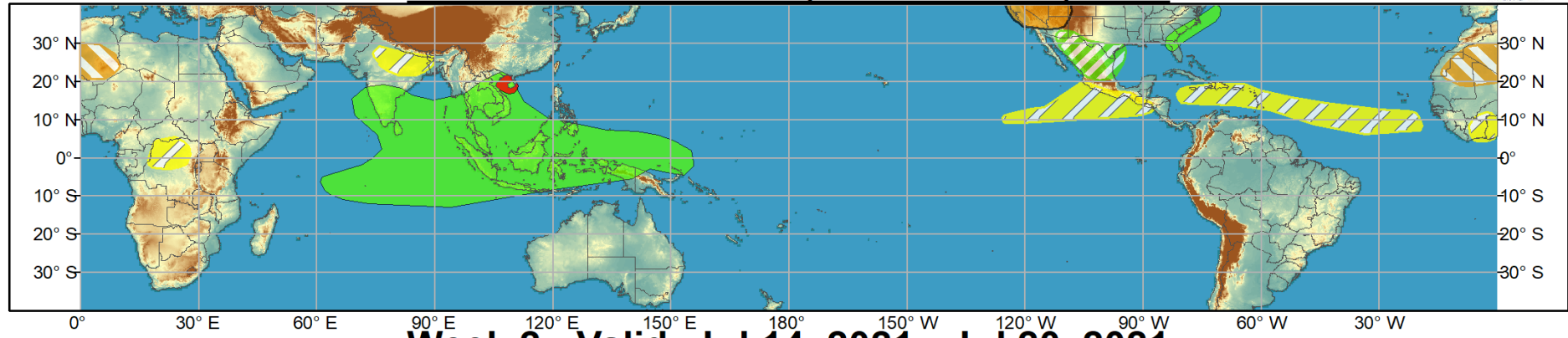
Periods of enhanced North American Monsoon during mid-July



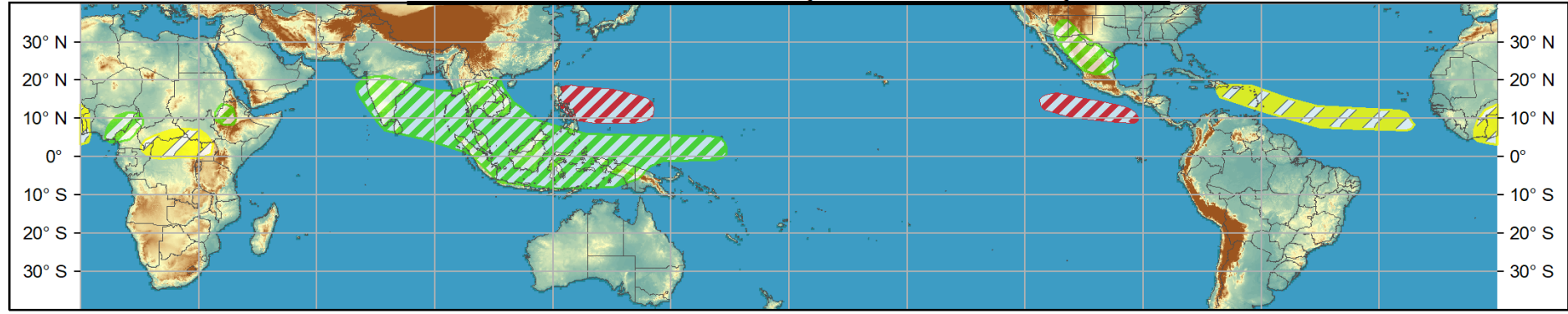


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