Global Tropics Hazards And Benefits Outlook

7/31/2018

Christina Finan

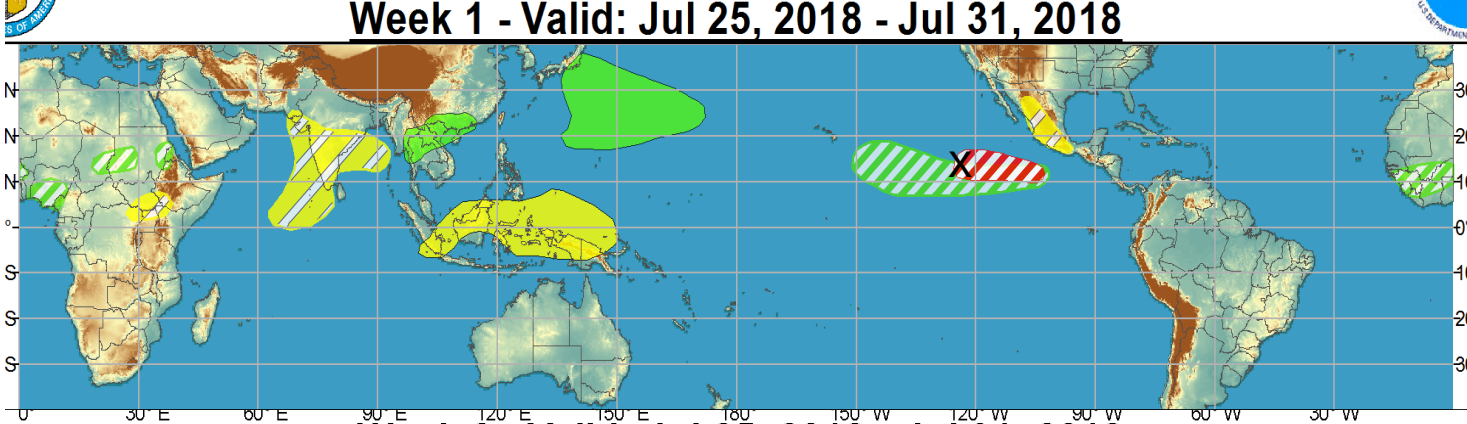
Outline

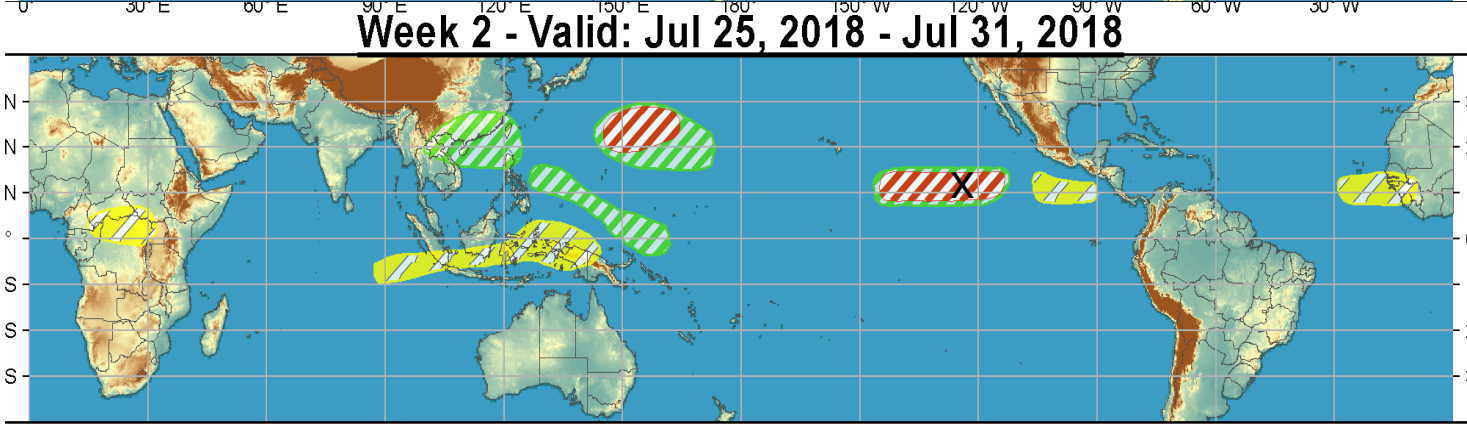
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

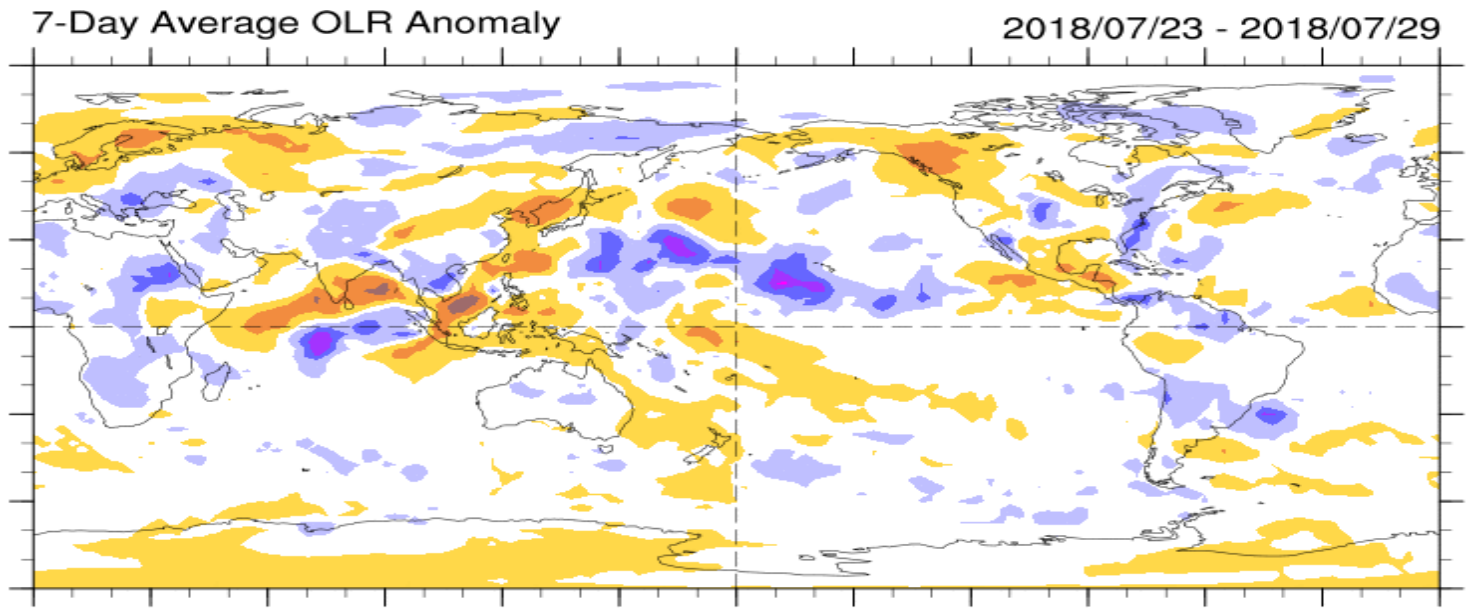
Outlook Review

WNP:
No formations

ENP:
TS Gilma
7/26-7/30







Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO: (July 12, 2018 Update)

- ENSO Alert System Status: El Niño Watch

- ENSO-neutral is favored through Northern Hemisphere summer 2018, with the chance for El Niño increasing to about 65% during fall, and to about 70% during winter 2018-19.

MJO and other subseasonal tropical variability:

• The MJO signal has decayed over the past week, but continues propagation toward the central and eastern Pacific.

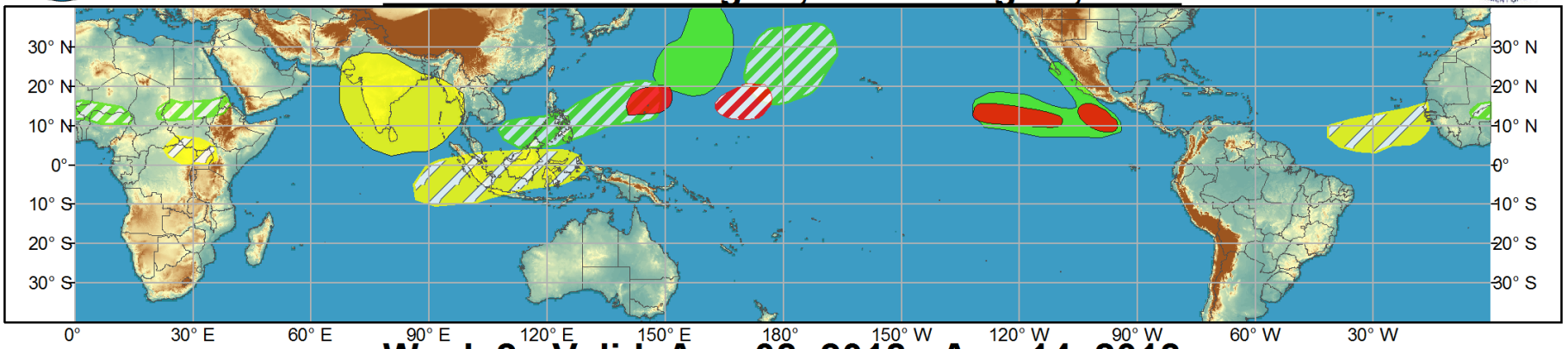
• Dynamical models show continued weakening of the signal in Week-1 with some eastward propagation. Statistical models maintain a slightly stronger signal. Higher frequency variability over Africa and the eastern Indian Ocean are dampening the signal and will likely continued to interfere into Week-1 and 2. The official outlook favors a continued weak signal moving eastward across the Pacific and into the western hemisphere, though influence is expected to be minimal.

Extratropics:

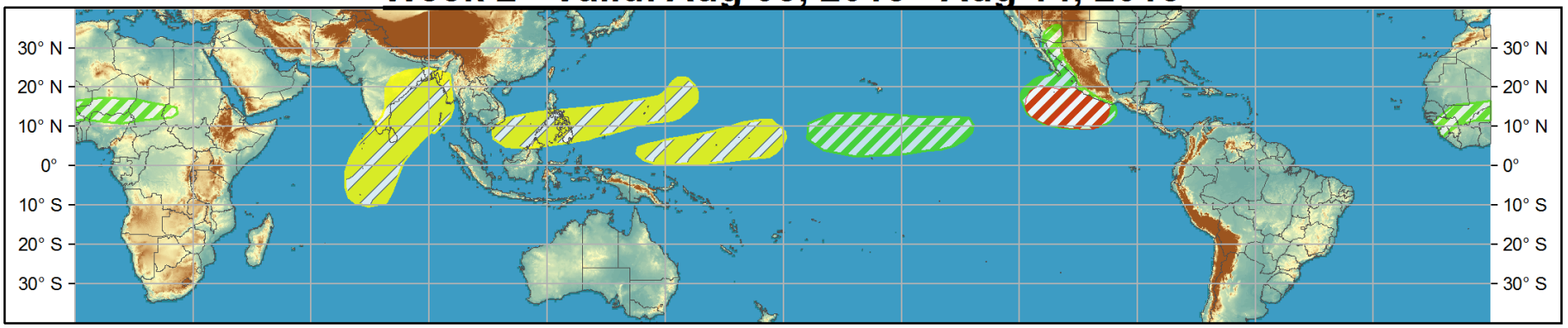
• The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by MJO activity. Enhanced convection and an active Eastern Pacific basin will likely stream into the Southwest in Week-1 and possibly into Week-2.

Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Aug 01, 2018 - Aug 07, 2018



Week 2 - Valid: Aug 08, 2018 - Aug 14, 2018



Produced: 07/31/2018

Forecaster: Finan

	Confidence: High	Confidence: Moderate	
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NPS PRAESTANTIA PER SCIENTIAM

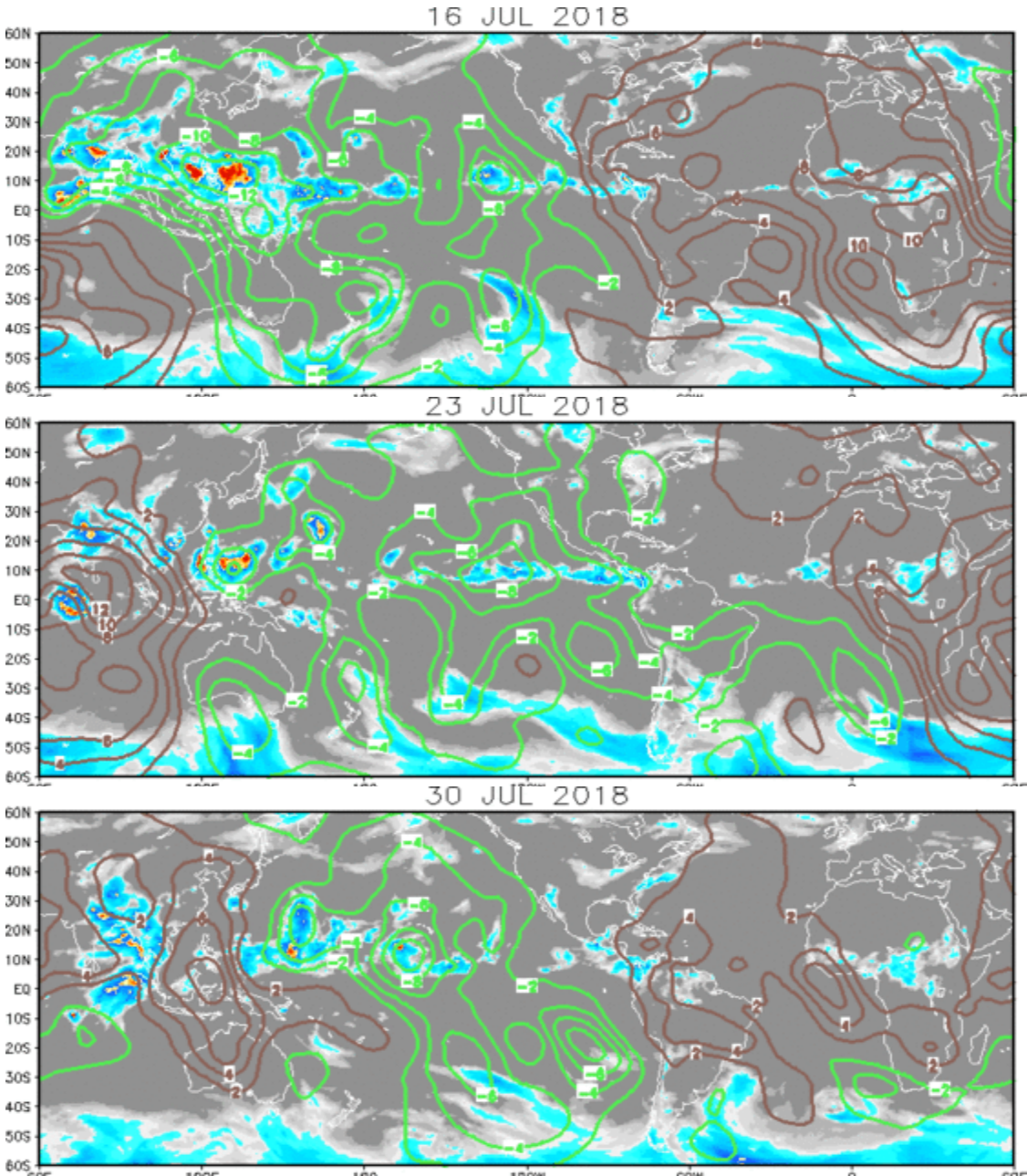
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

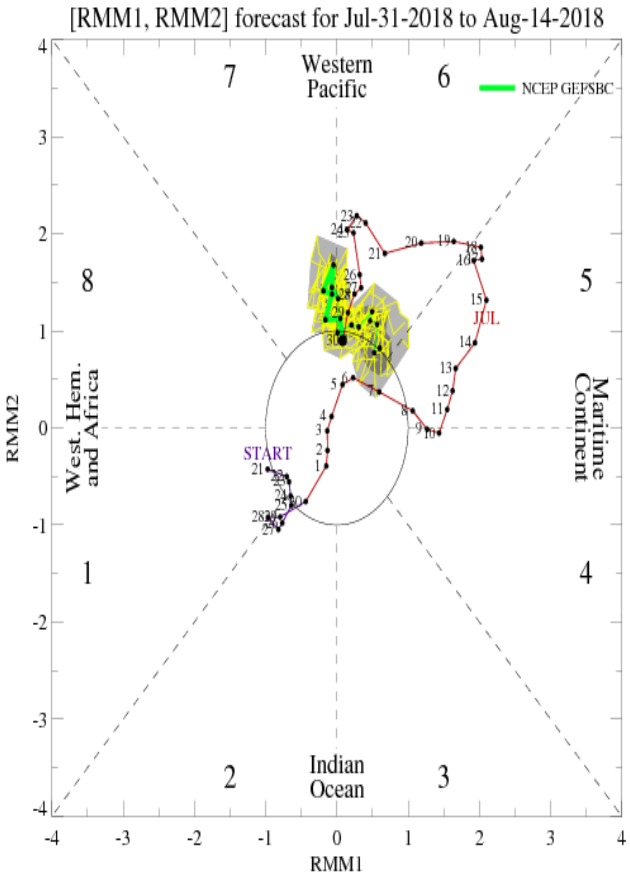
Wave-1 projecting onto MJO. Enhanced convection over the Maritime Continent and Western Pacific

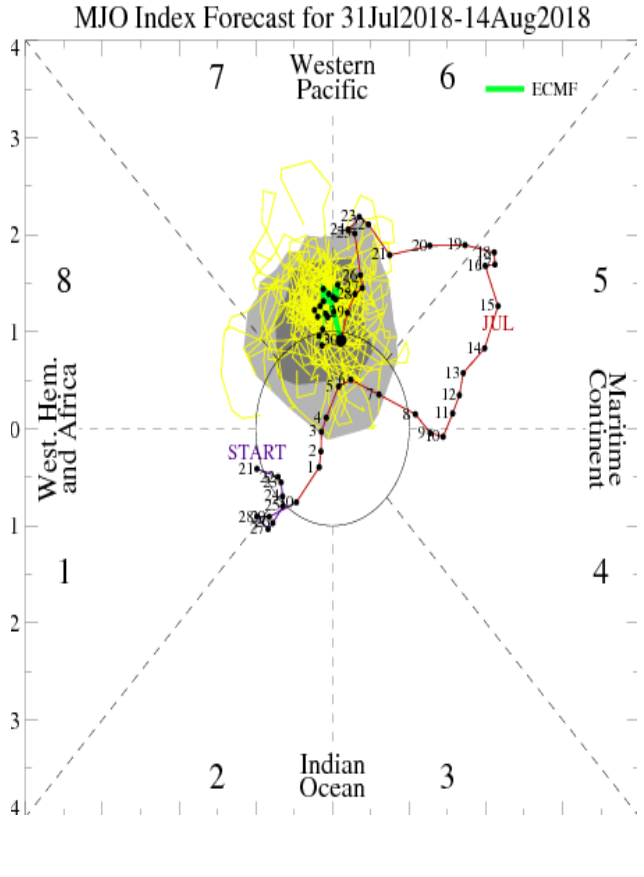
Wave-1 with an MJO projection. Enhanced convection expands over most of the Pacific and suppressed convection over Africa toward the western Indian Ocean.

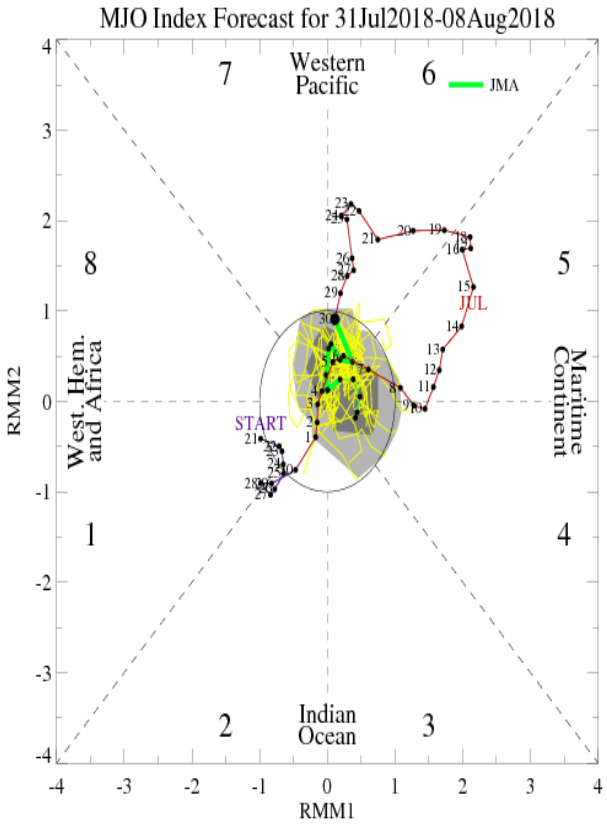
Wave-1 becomes a much noisier pattern with enhanced convection moving over parts of Africa and the Indian Ocean. Continued enhanced convection over the Pacific.



MJO Observation/Forecast



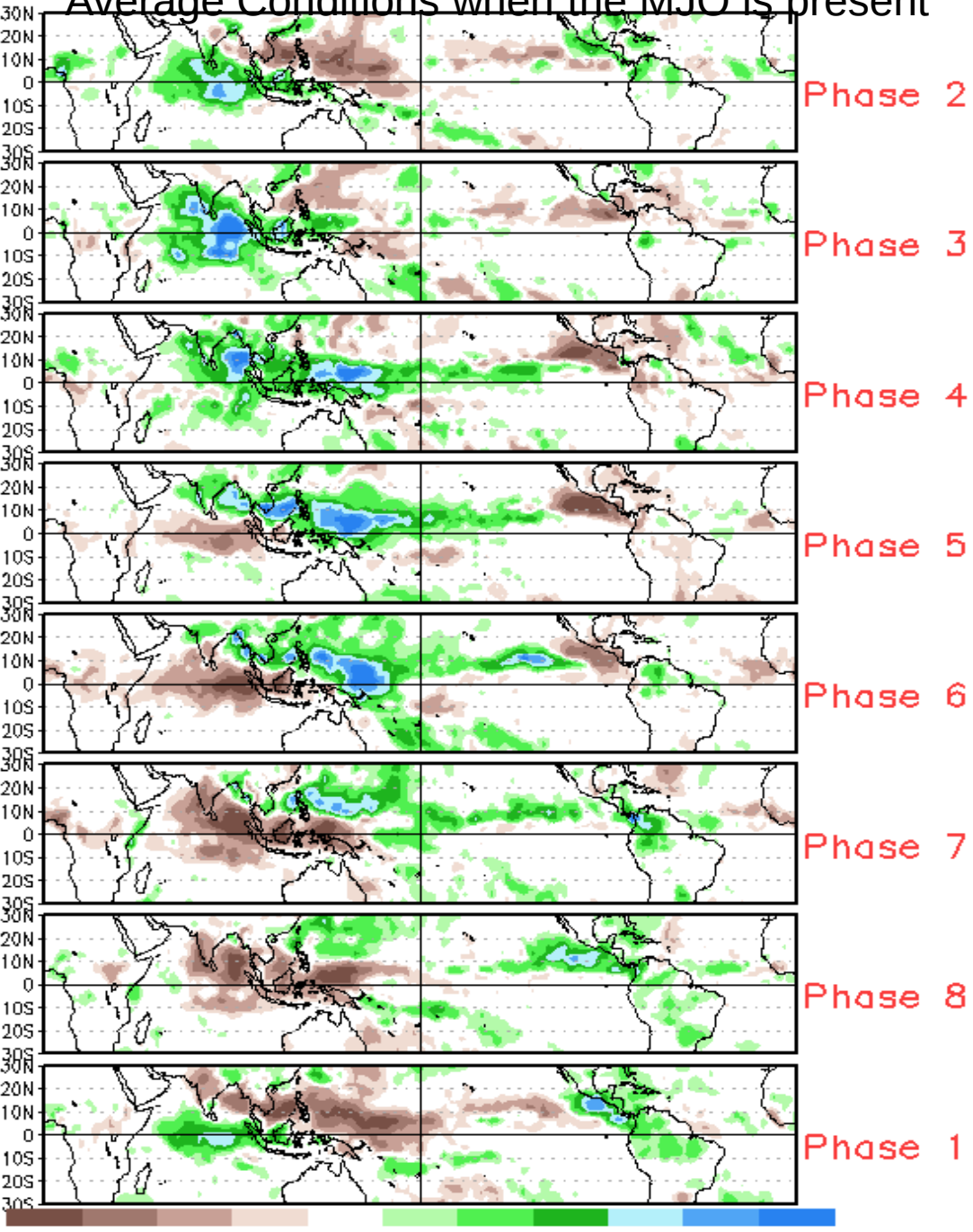




GEFS ECMWF JMA

Wheeler-Hendon based analyses of model forecasts indicate propagation to the east. Divergence in how the models handle interaction with westward moving modes.

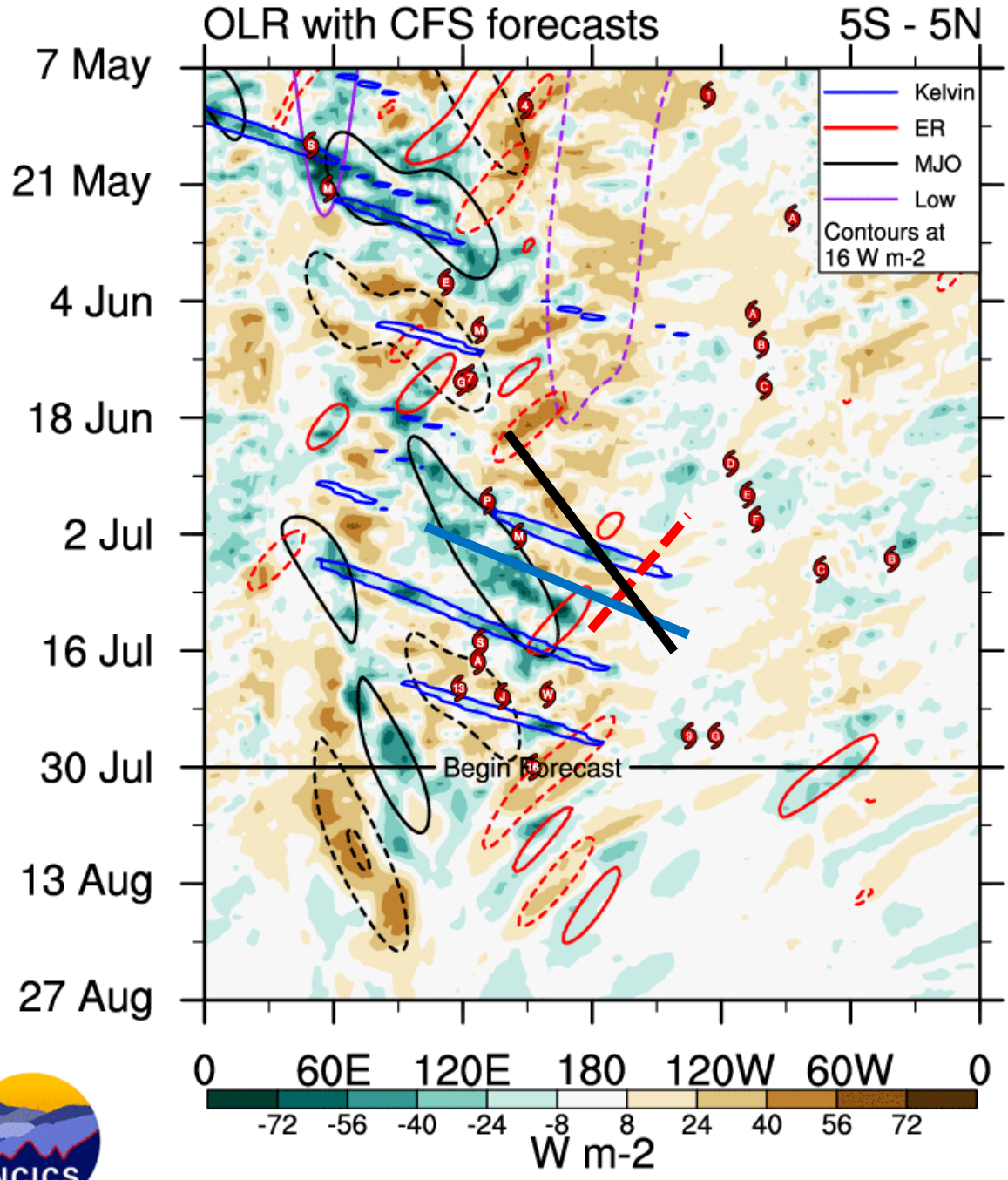
Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.

MJO, Rossby wave and Kelvin wave having an influence

Low-frequency pattern less of an influence in lower-level fields

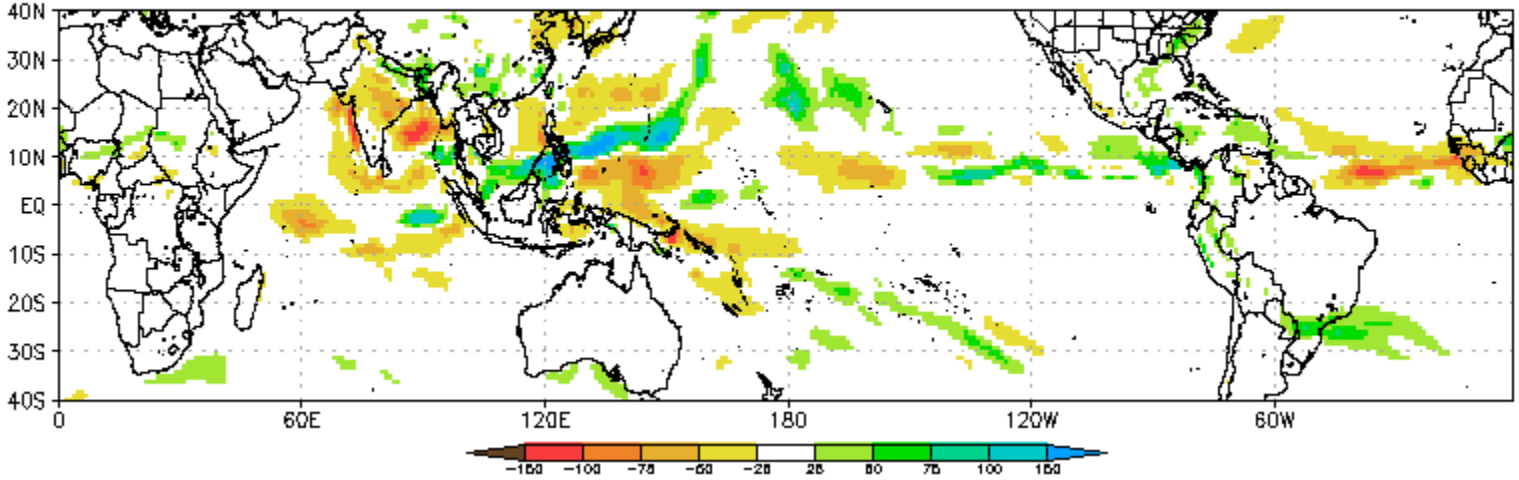


ncics.org/mjo

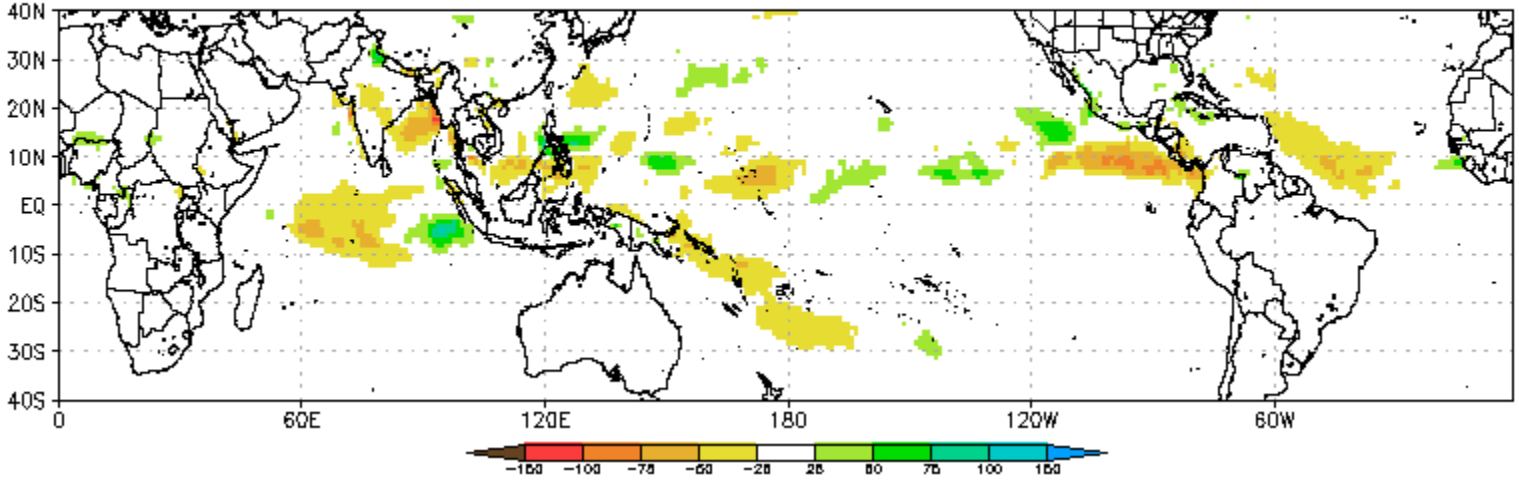
Tue 2018-07-31 1513 UTC

Carl Schreck (cjschrec@ncsu.edu)

CFS Precipitation Anomalies (mm) Issued 30Jul2018
Week-1 Forecast Ending 07Aug2018

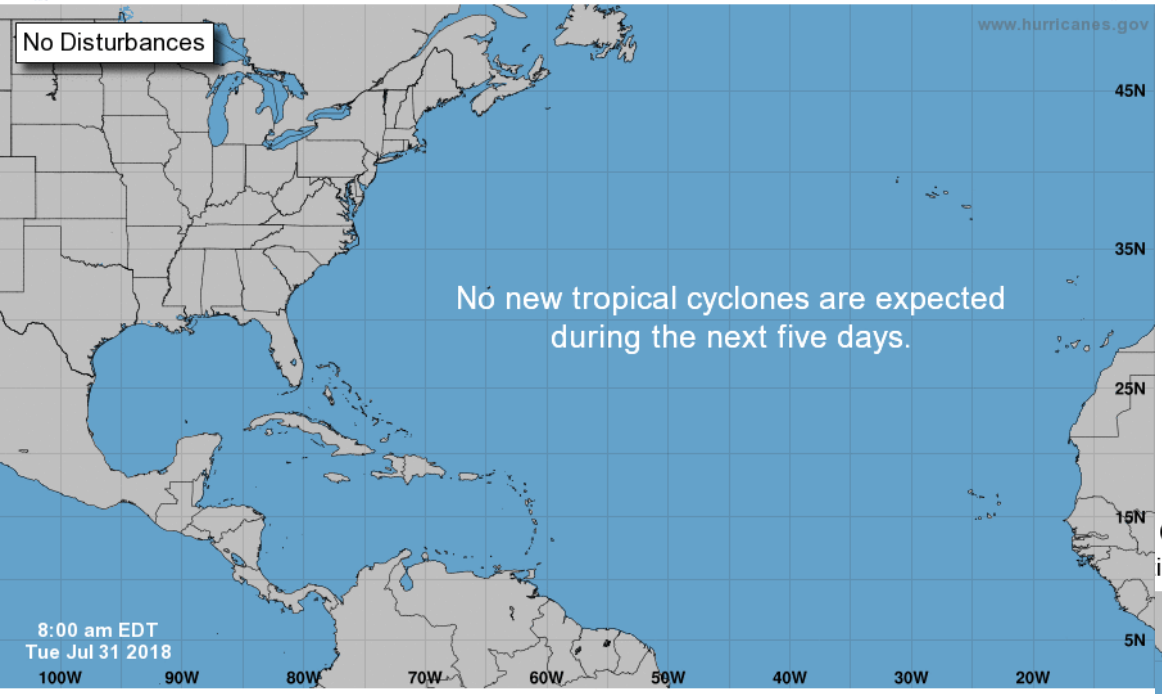


CFS Precipitation Anomalies (mm) Issued 30Jul2018
Week-2 Forecast Ending 14Aug2018



Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



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

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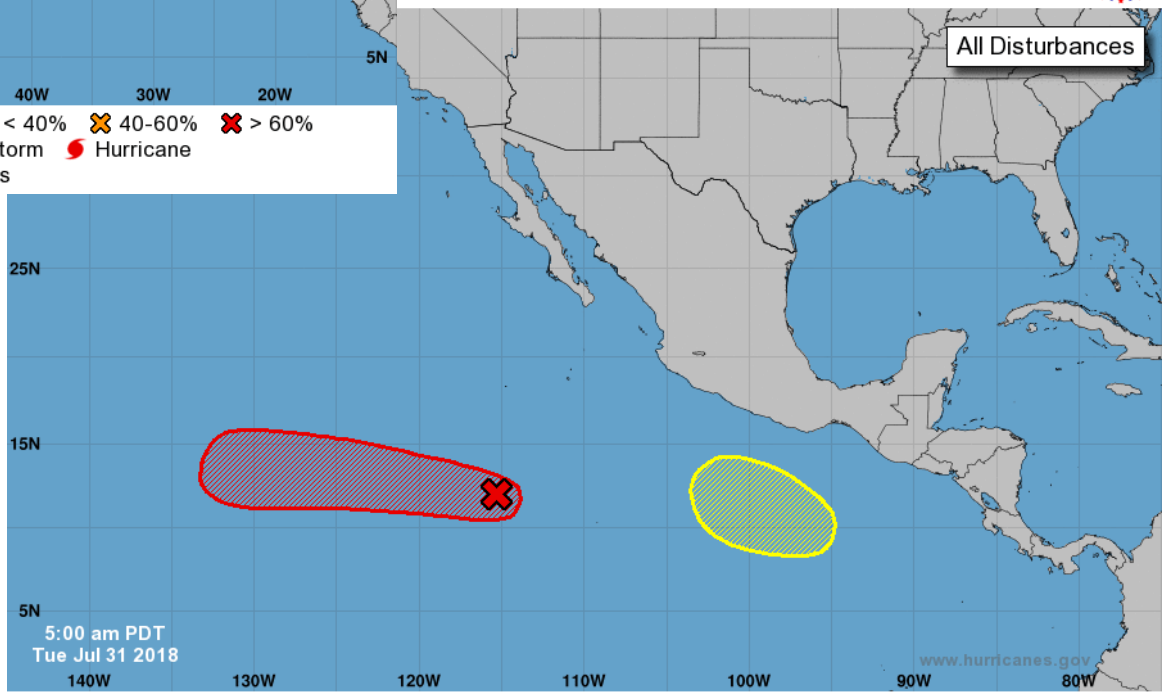

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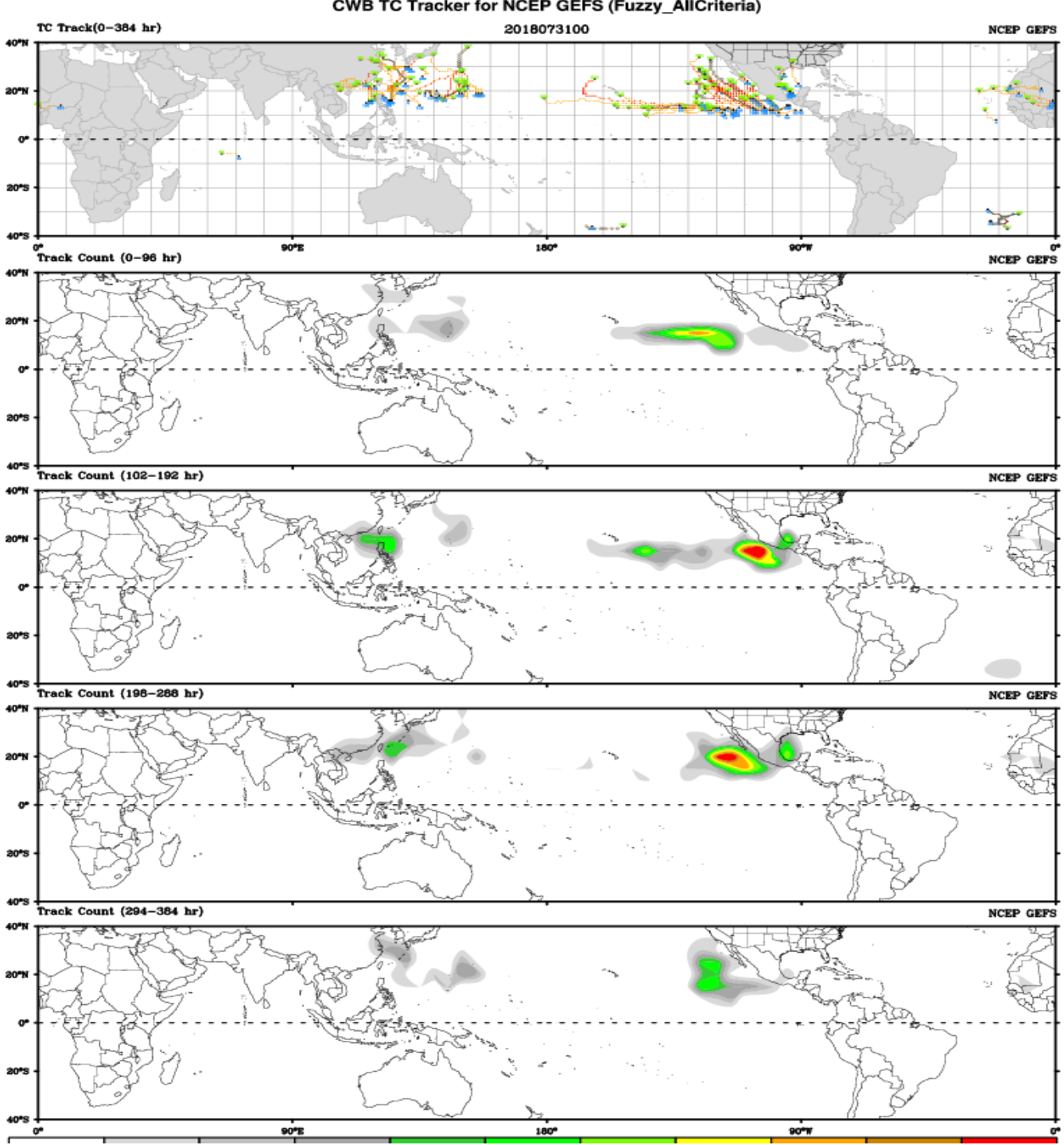


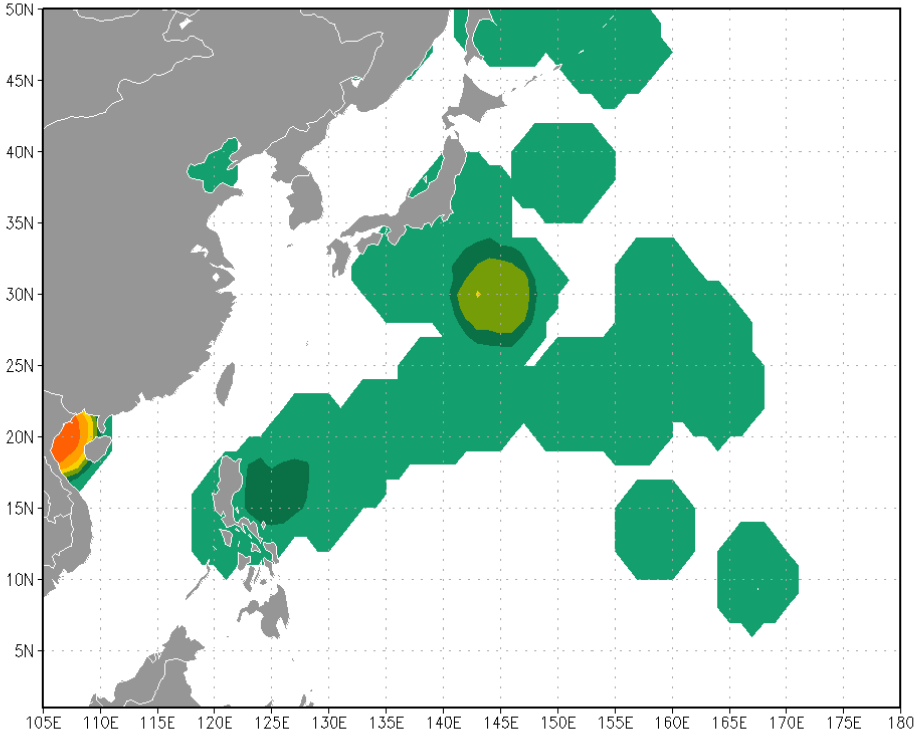
Days 1-4

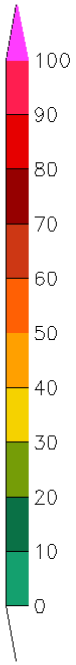
Day 5-8

Day 9-12

Day 13-15

Ensemble-based Probability (%) of TC genesis
using these global ensembles: NCEP ECMWF
For forecasts during the 48-120h period from initial time = 2018072400





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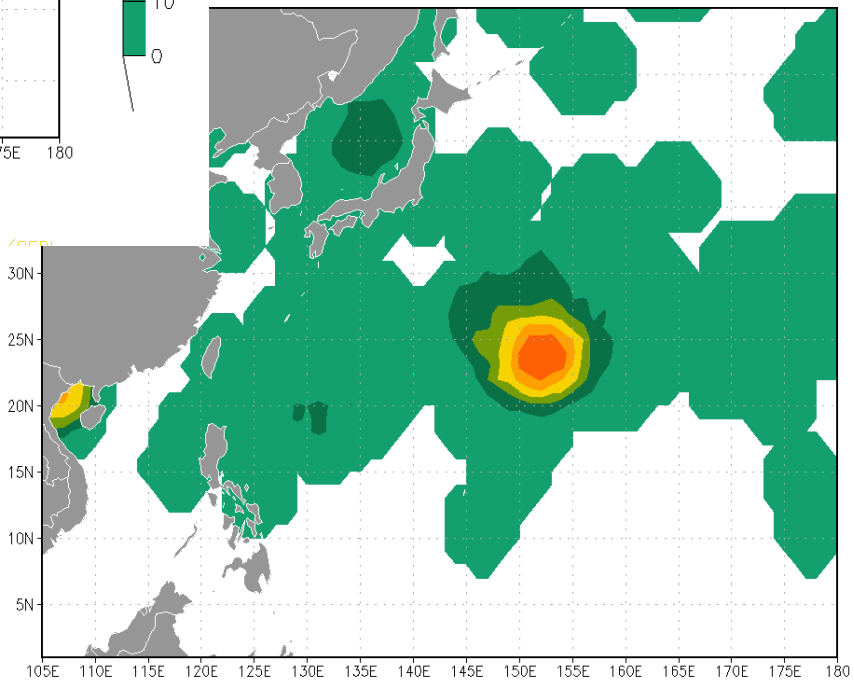

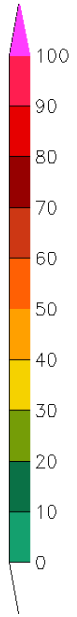

Ensemble-based Probability (%) of TC genesis
using these global ensembles: NCEP ECMWF
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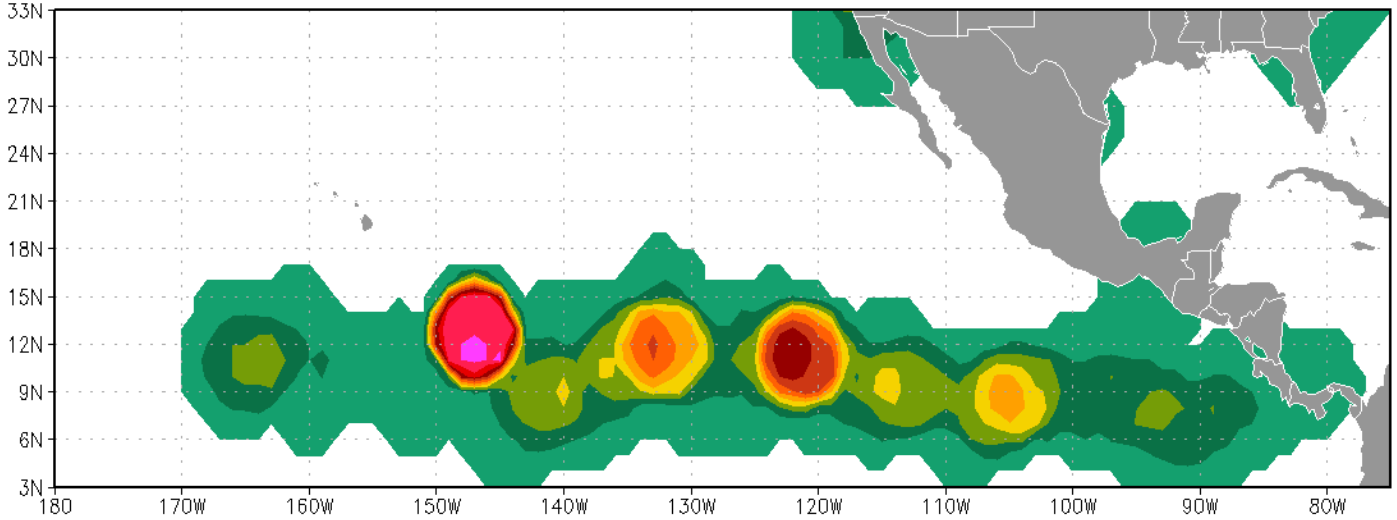

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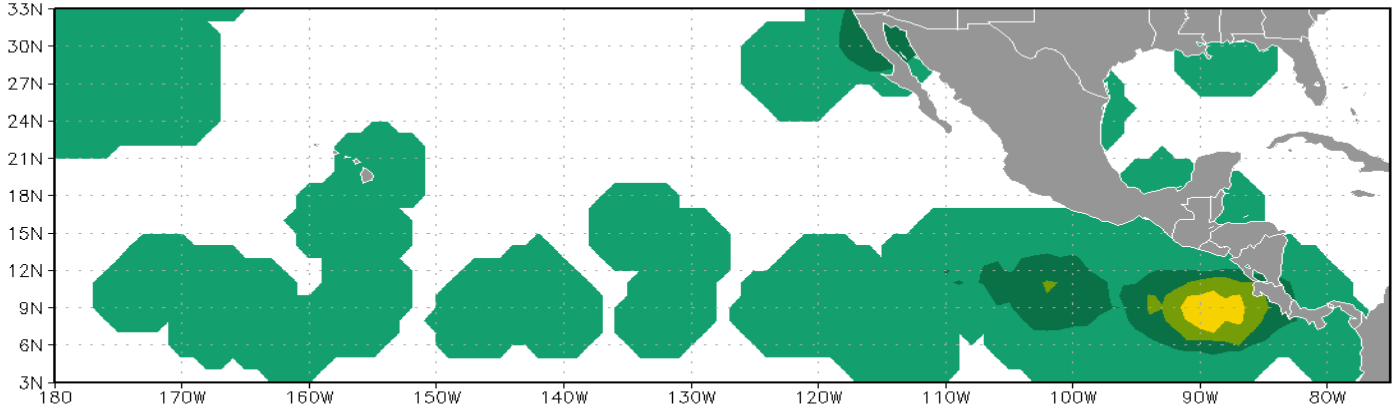

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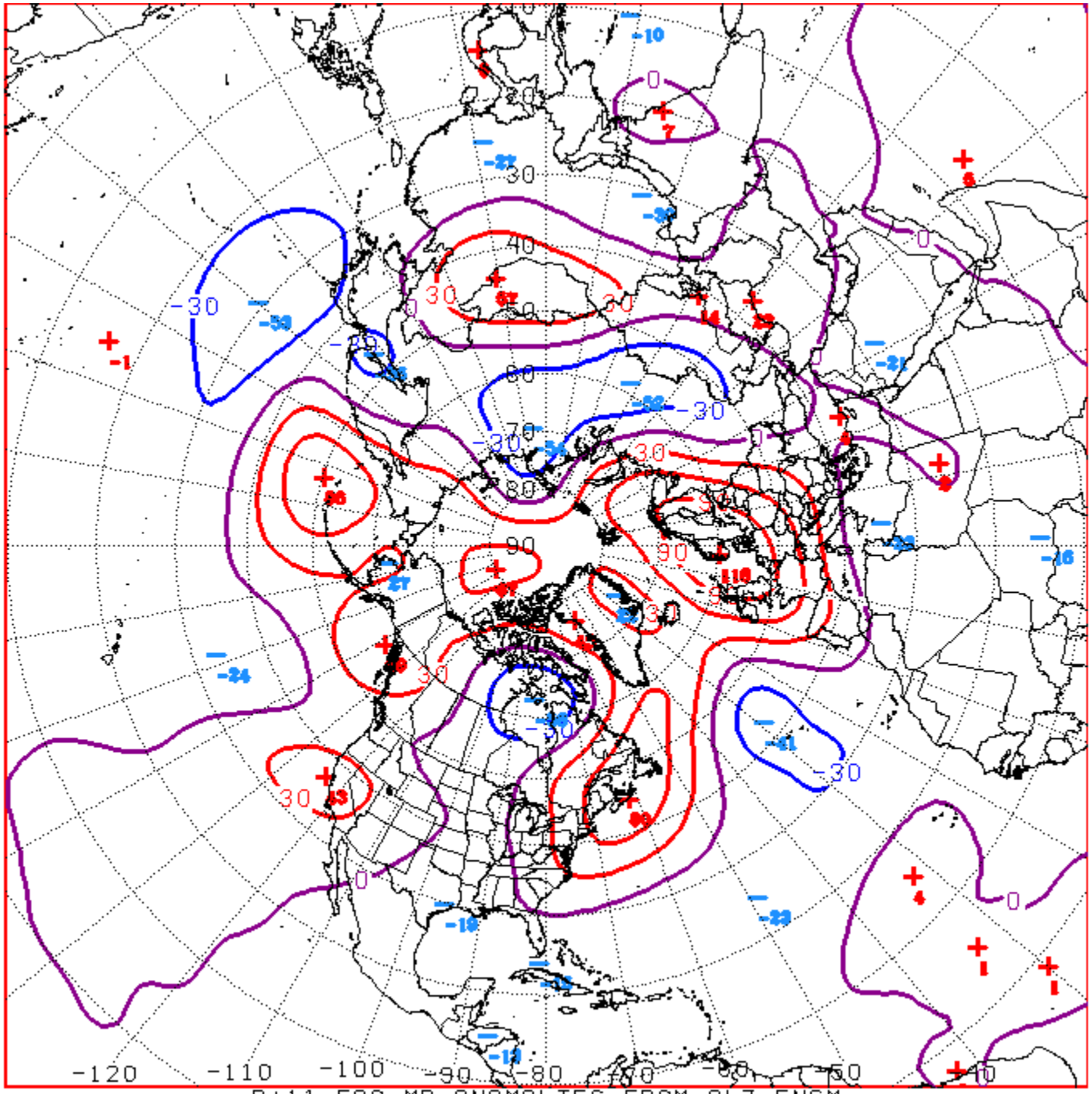
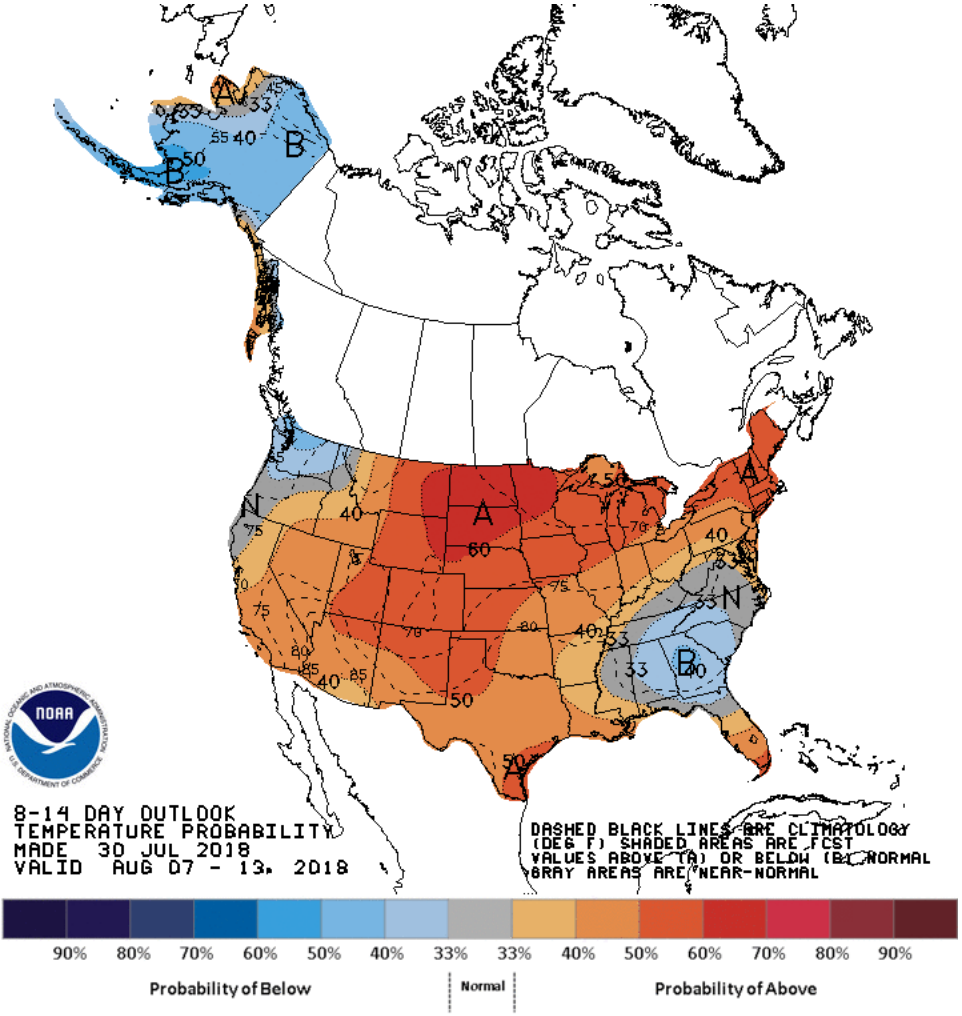
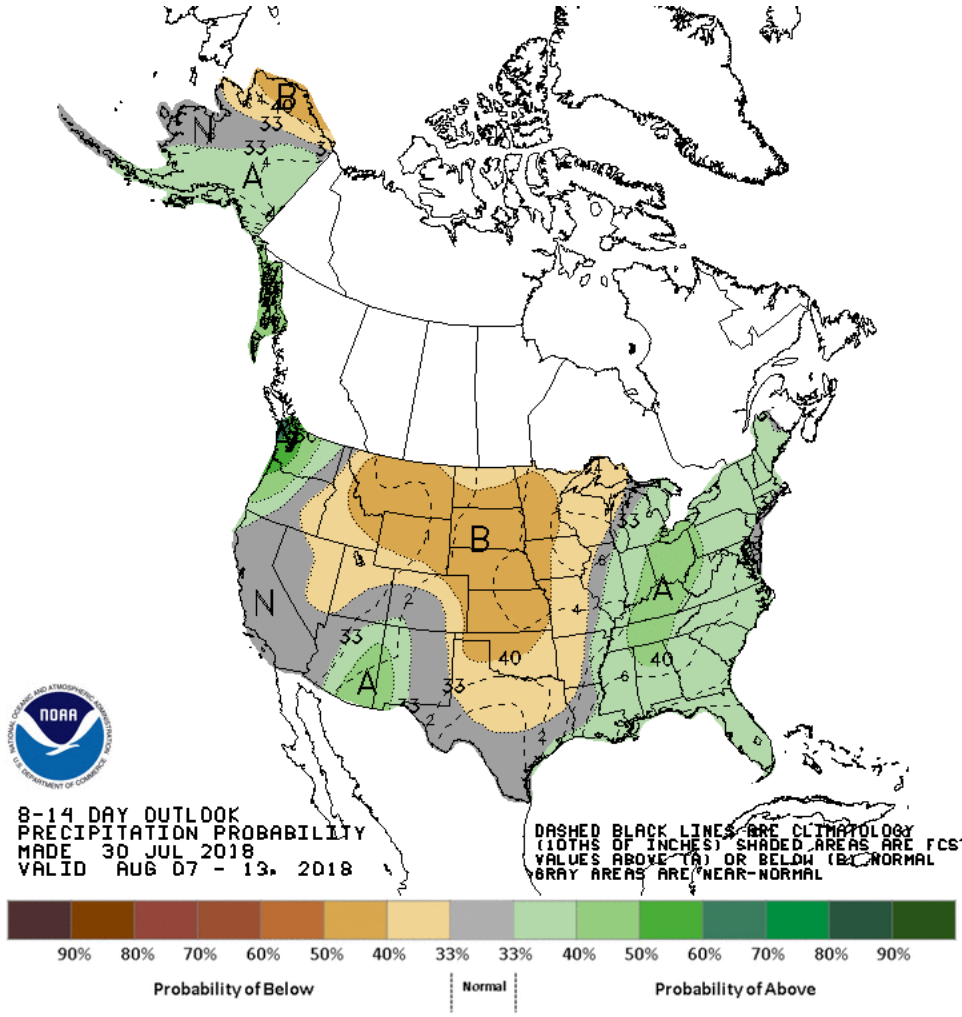


D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE JUL 24 2018 1346 UTC CNTD AUG 04 2018

Week 2 – Temperature and Precipitation





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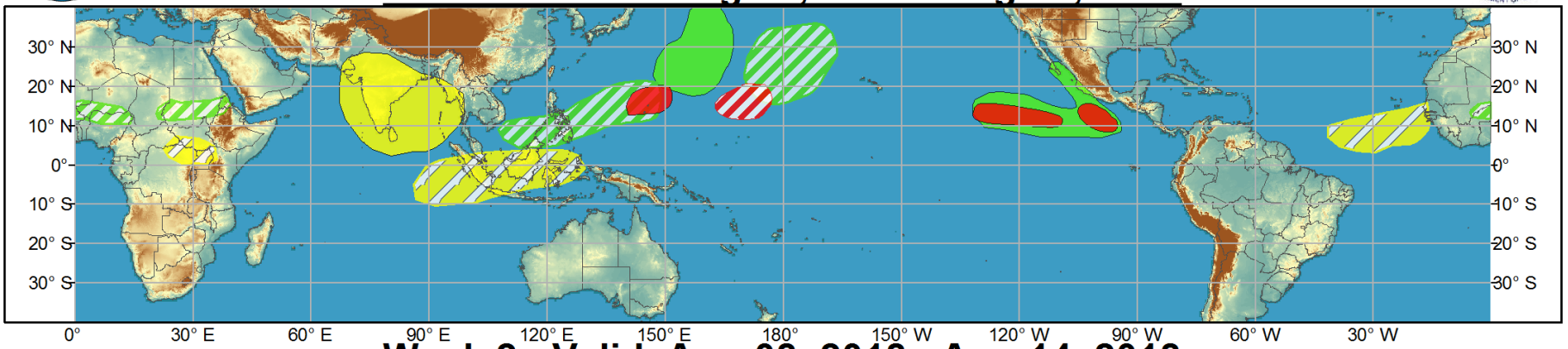

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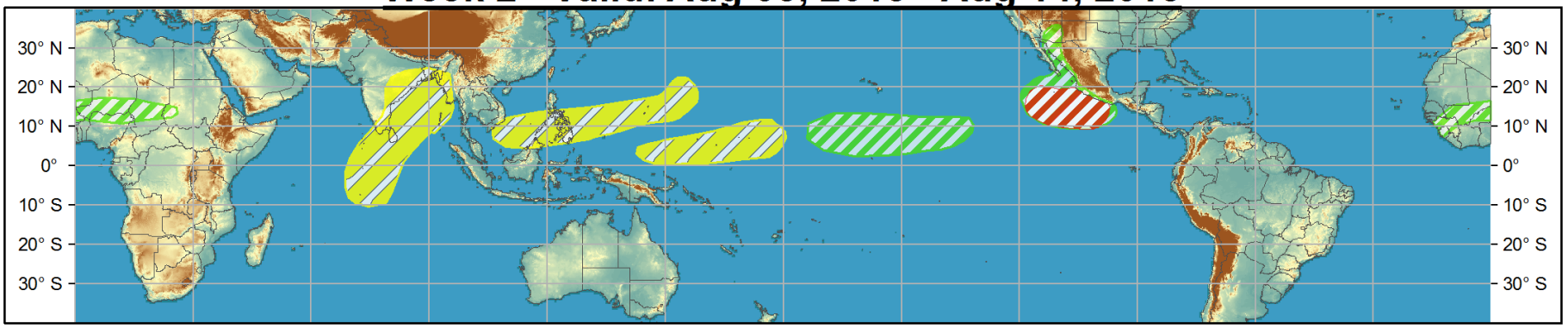

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