

Global Tropics Hazards And Benefits Outlook

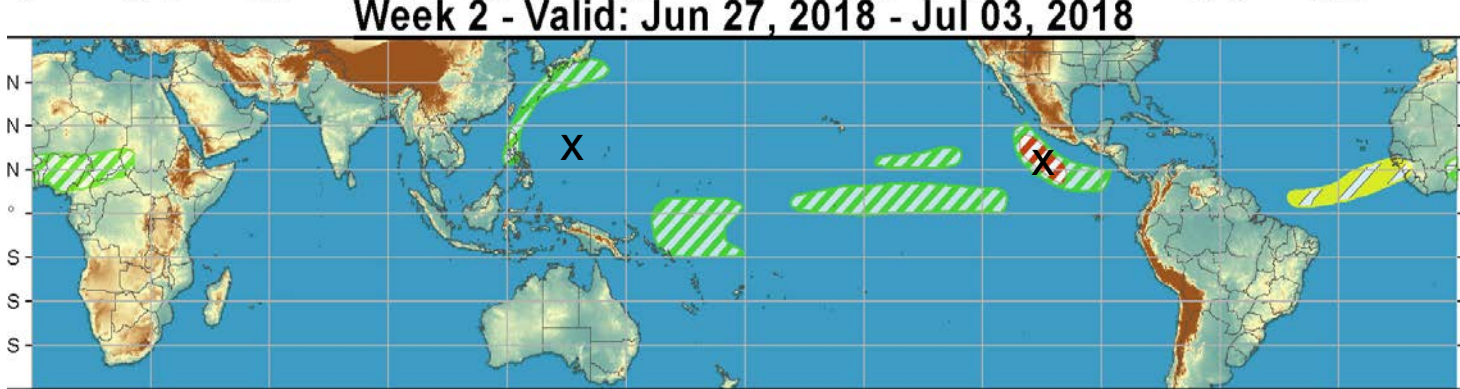
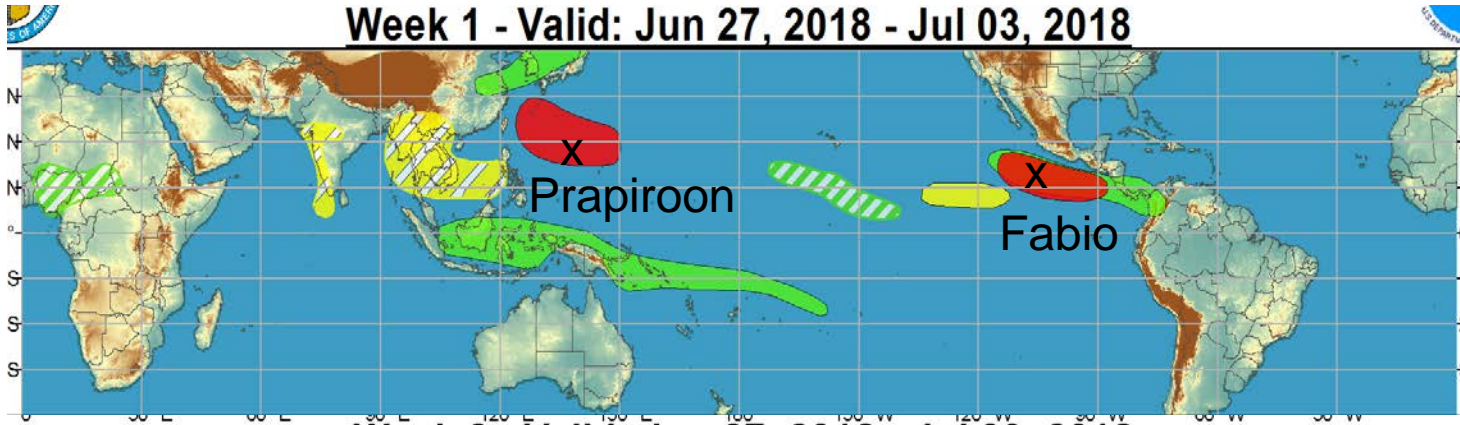
7/3/2018

Anthony Artusa

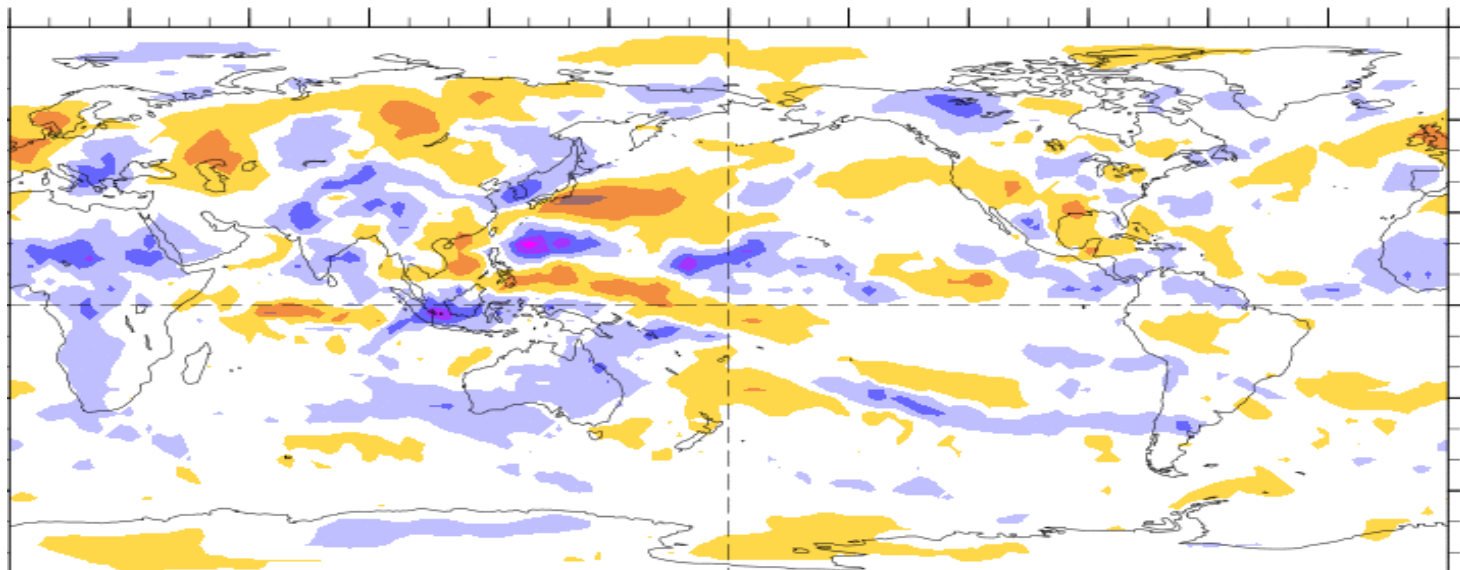
Outline

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

Outlook Review



7-Day Average OLR Anomaly 2018/06/25 - 2018/07/01



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

- **El Nino Watch...** ENSO-neutral is favored through NH summer 2018, with the chance for El Nino increasing to 50% during Fall, and ~65% during winter 2018-19.

MJO and other subseasonal tropical variability:

- The MJO remained weak and incoherent, with enhanced phase over Africa & the Indian Ocean, and suppressed phase over Pacific.
- Dynamical models indicate a continued weak MJO signal in Week-1, then a weak to moderate signal in Week-2. Signal expected to emerge in vicinity of Maritime Continent. Several Kelvin waves in progress.

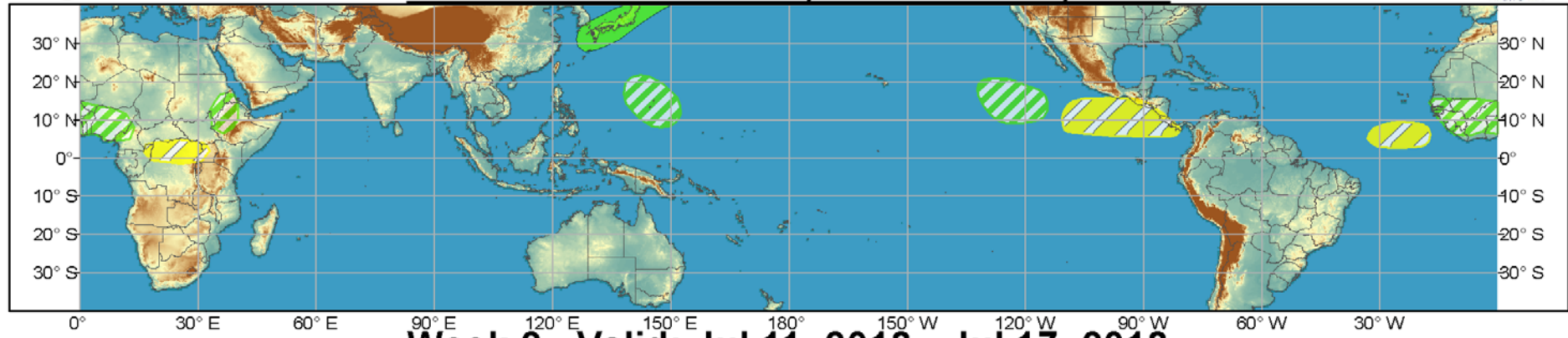
Extratropics:

- The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by MJO activity (because of such a weak, incoherent MJO signal).

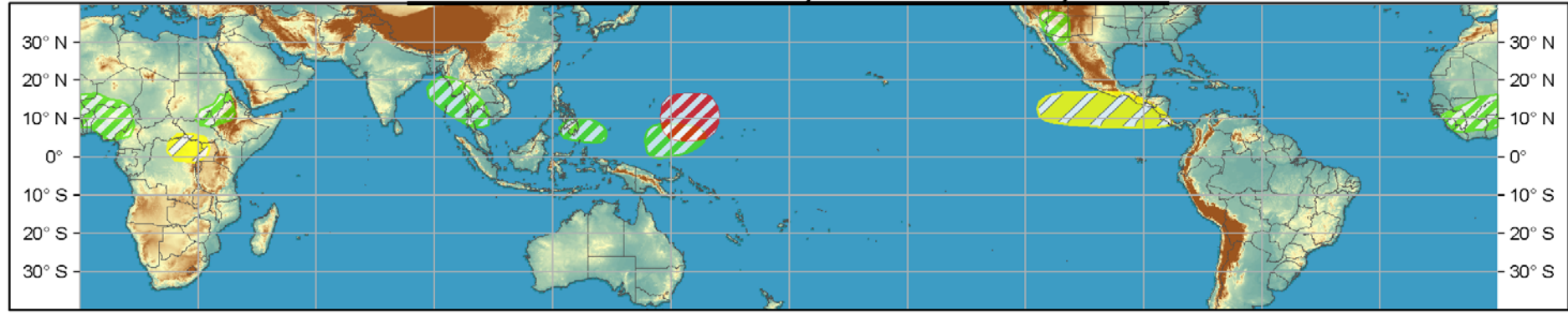


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jul 04, 2018 - Jul 10, 2018



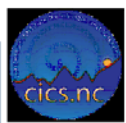
Week 2 - Valid: Jul 11, 2018 - Jul 17, 2018



Produced: 07/03/2018
Forecaster: Artusa

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.
		Below-average rainfall Weekly total rainfall in the lower third of the historical range.
		Above-normal temperatures 7-day mean temperatures in the upper third of the historical range.
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IR Satellite & 200-hpa Velocity Potential Anomalies

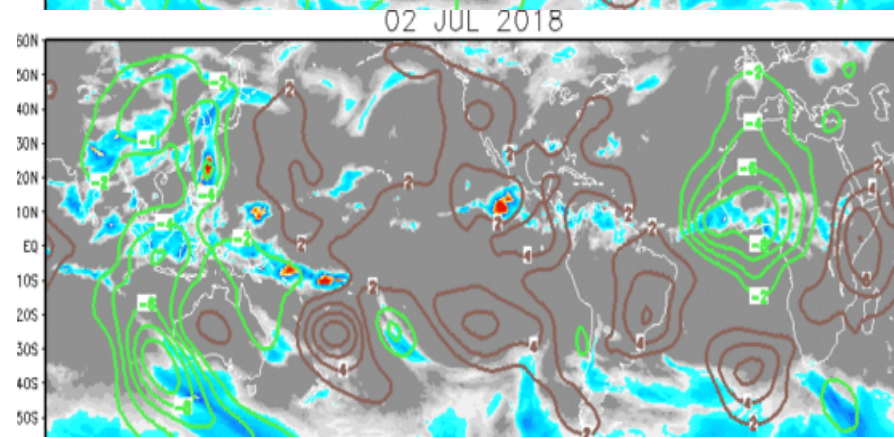
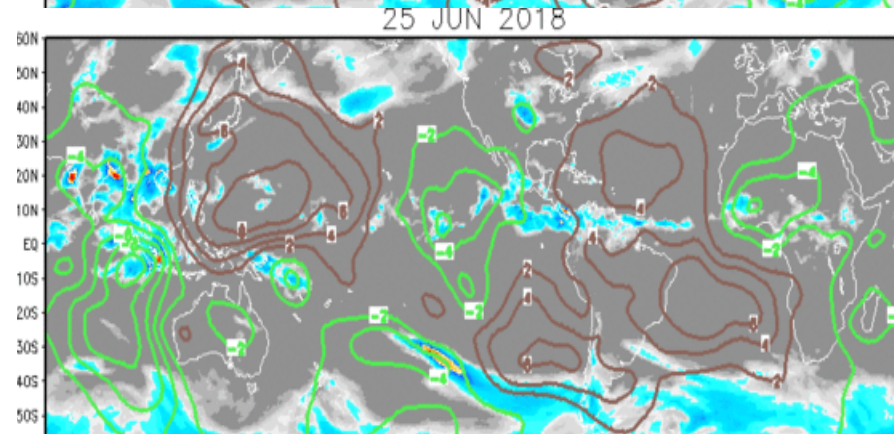
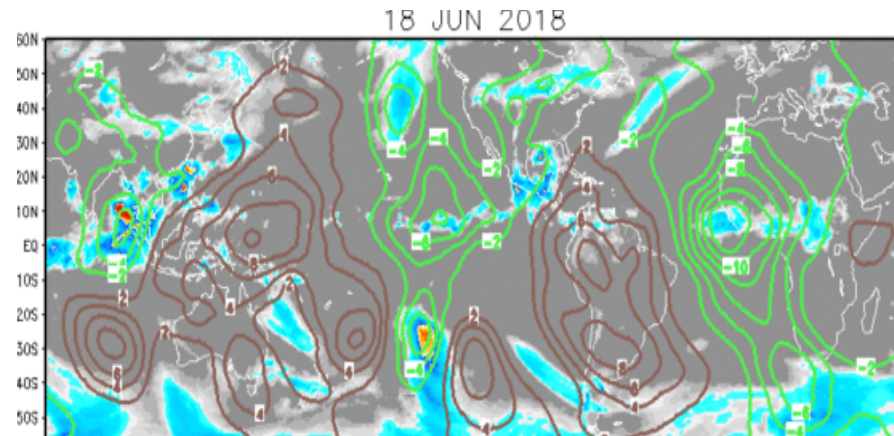
Green: Enhanced Divergence

Brown: Enhanced Convergence

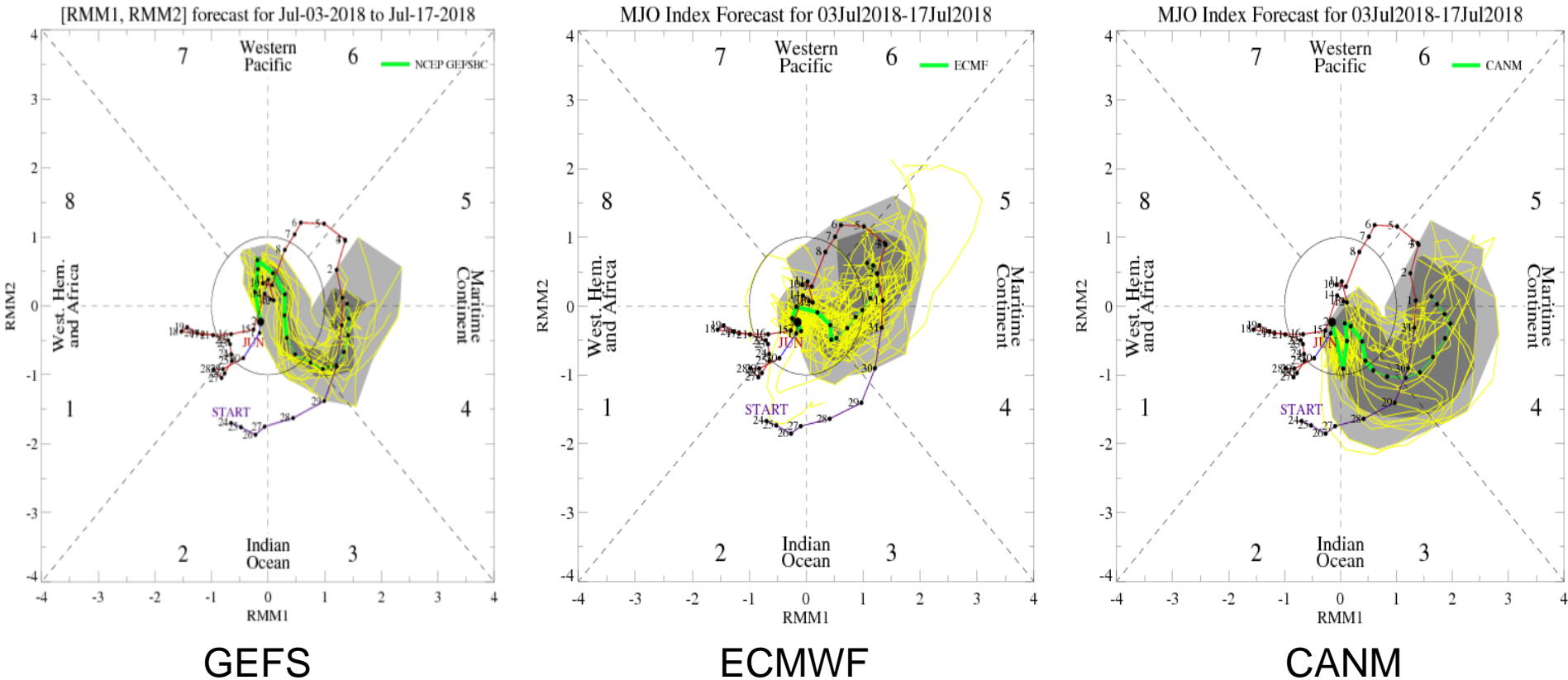
Wave-2 pattern. Upper-level DIV over Africa & Indian Ocean, & E-Pac.

Wave-2 pattern. Strongest Upper-level DIV shifts to eastern Indian Ocean. Upper-level DIV remains over East Pac.

Upper-level CON over East Pac. DIV over western Africa, and from East Asia south to Australia



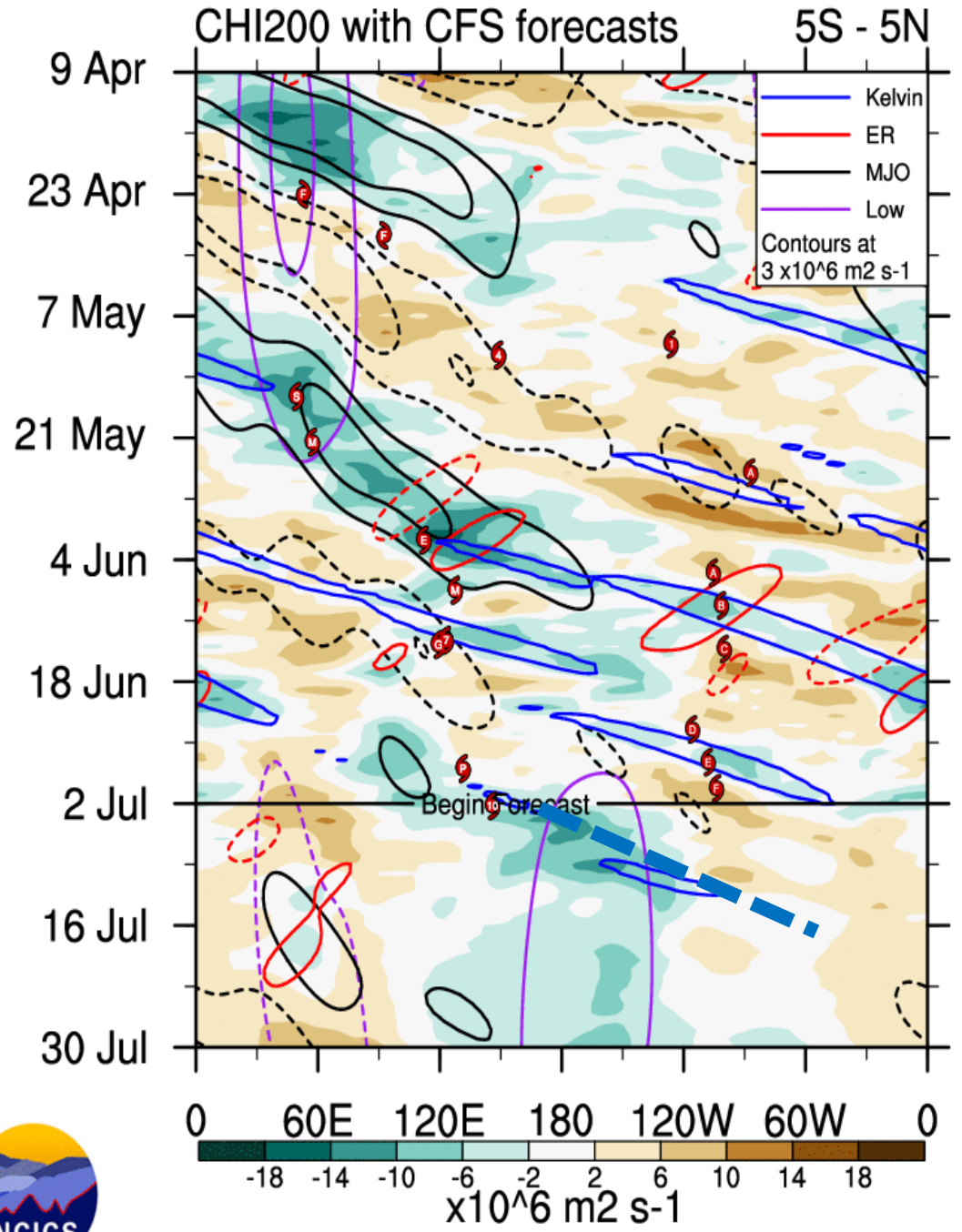
MJO Observation/Forecast



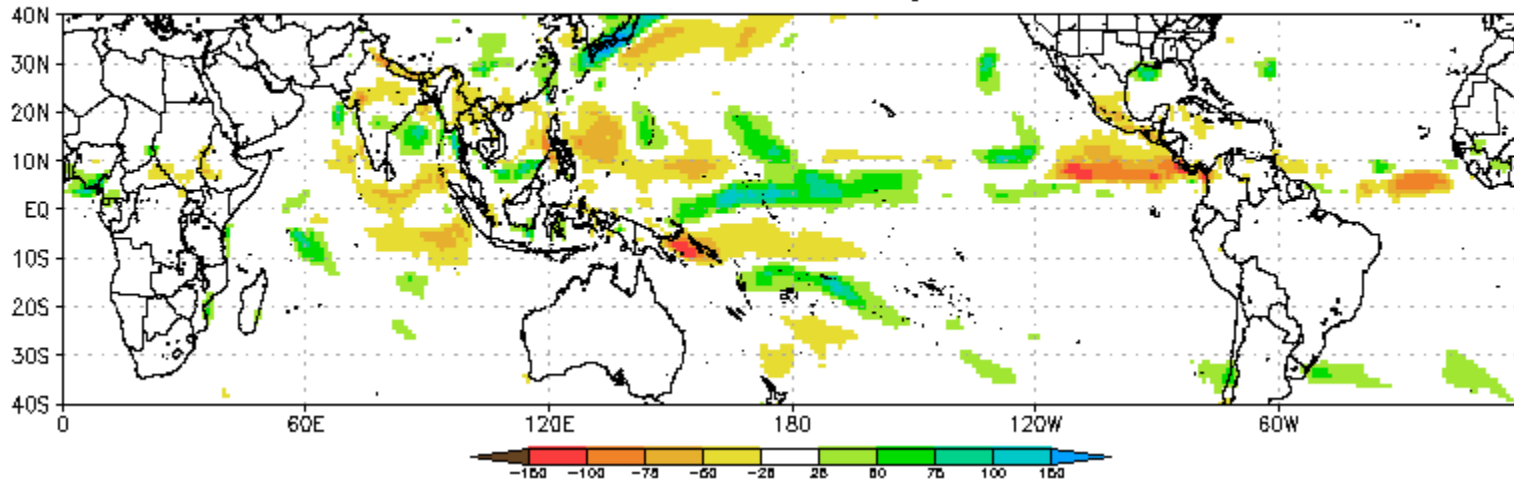
Wheeler-Hendon based analyses of model forecasts indicate large spread among the individual ensemble members; ensemble mean predicts weak signal in Week-1, and an amplifying signal in Week-2 which emerges in the general vicinity of phase 4 (western Maritime Continent).

MJO, Equatorial Rossby waves, Kelvin waves, and westward moving TCs having an influence

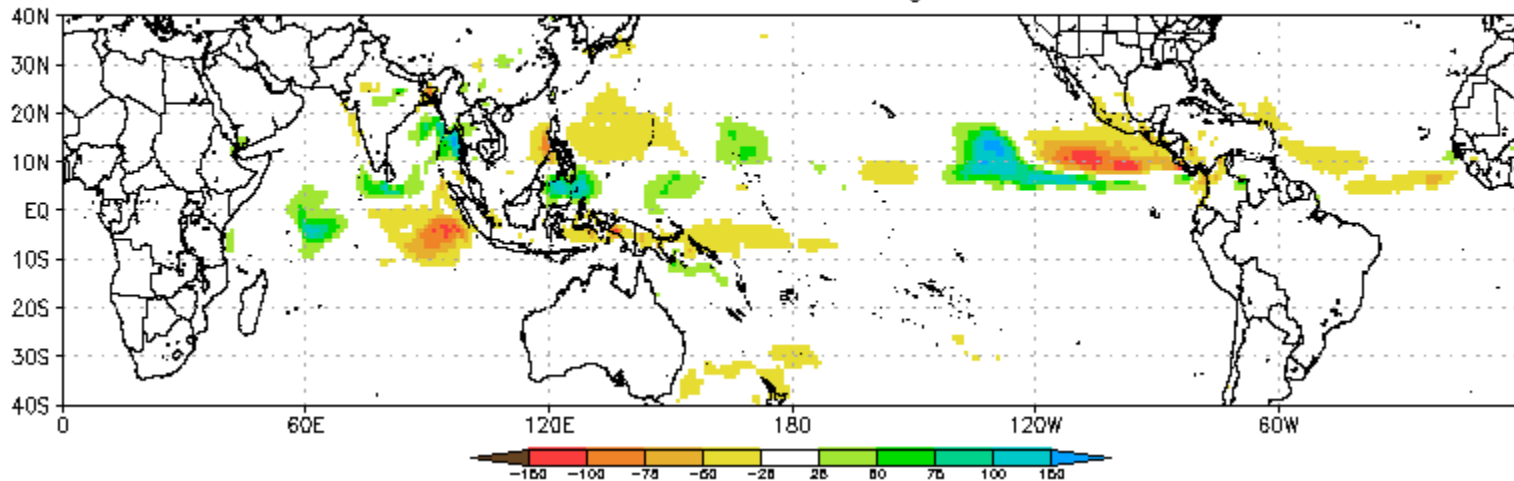
Low-frequency pattern less of an influence



CFS Precipitation Anomalies (mm) Issued 02Jul2018
Week-1 Forecast Ending 10Jul2018



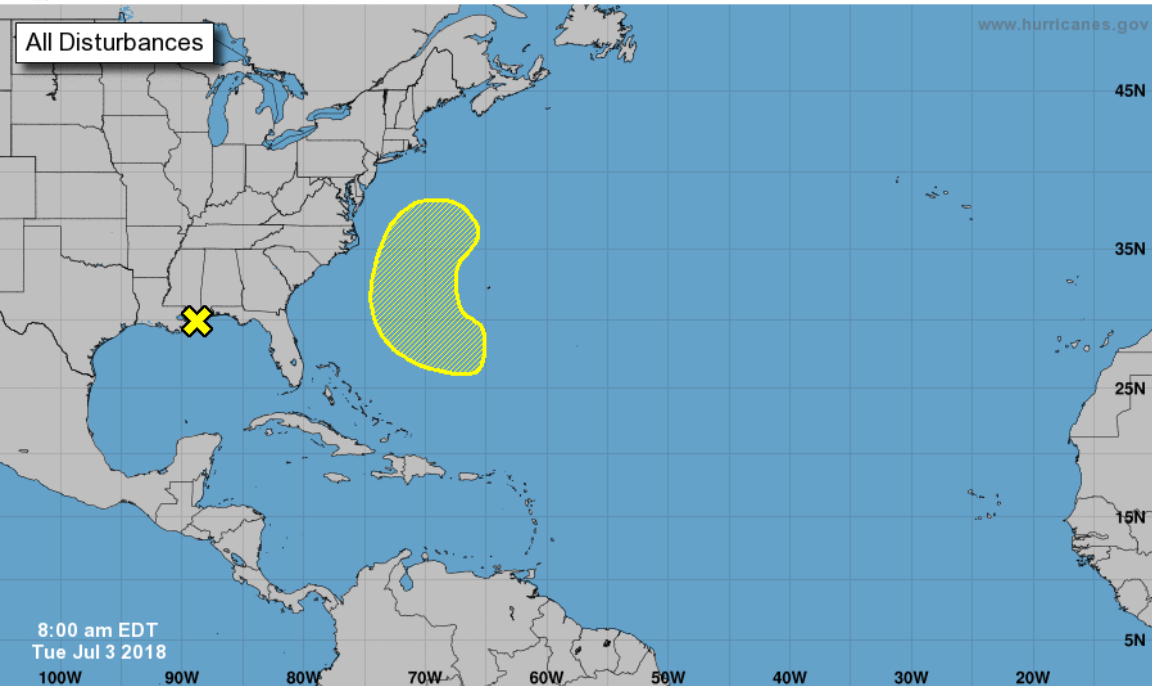
CFS Precipitation Anomalies (mm) Issued 02Jul2018
Week-2 Forecast Ending 17Jul2018





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



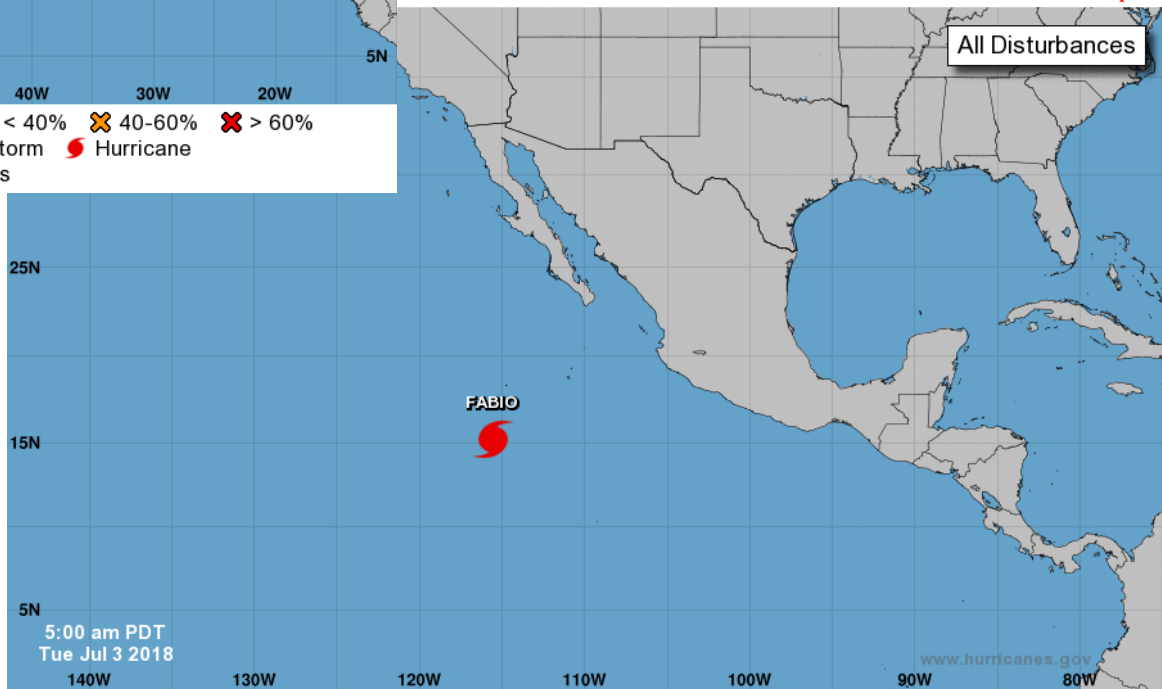
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

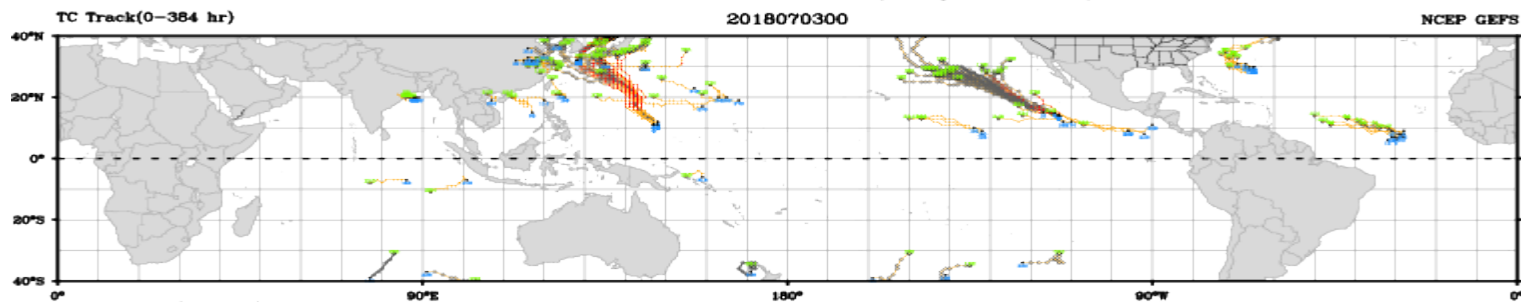
National Hurricane Center Miami, Florida



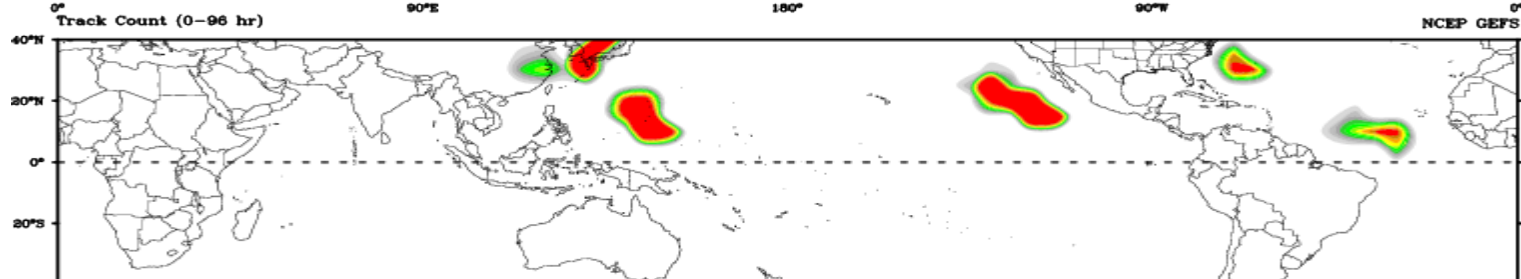
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Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

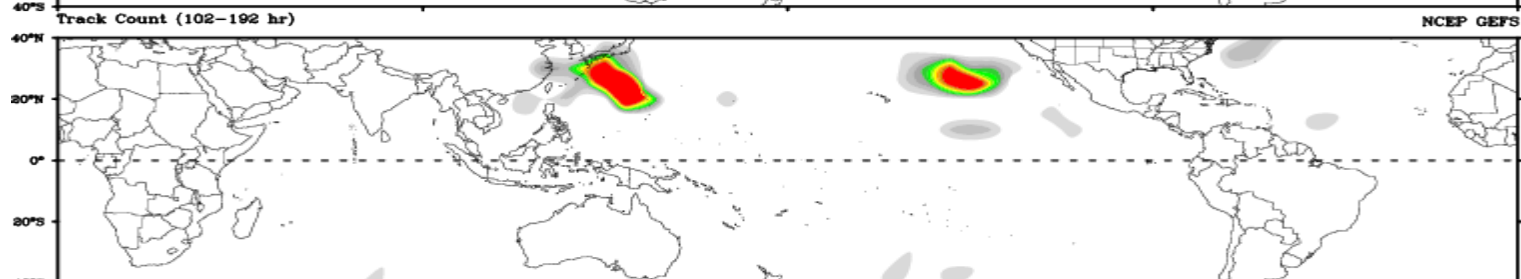
Post-Tropical Cyclone or Remnants



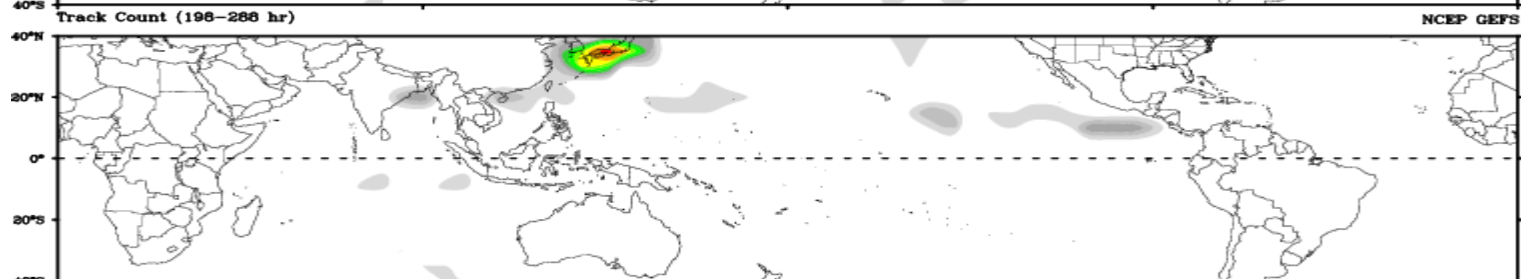
Days 1-4



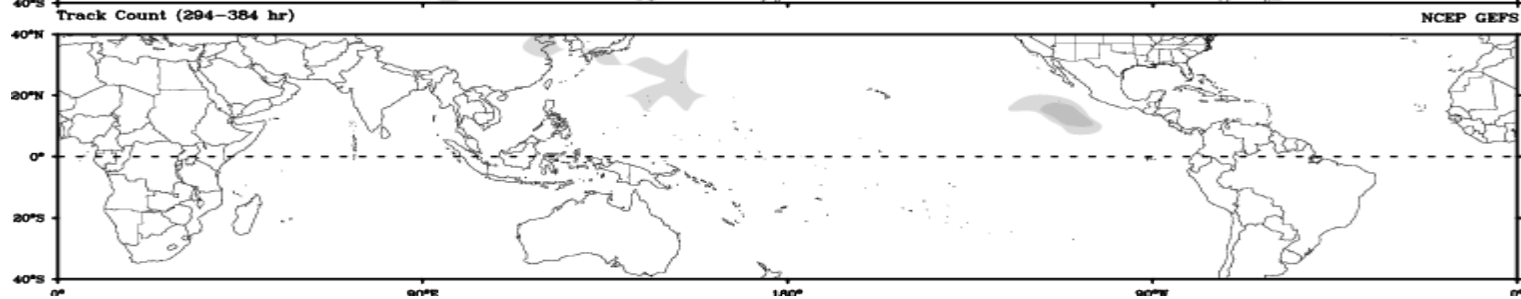
Day 5-8



Day 9-12



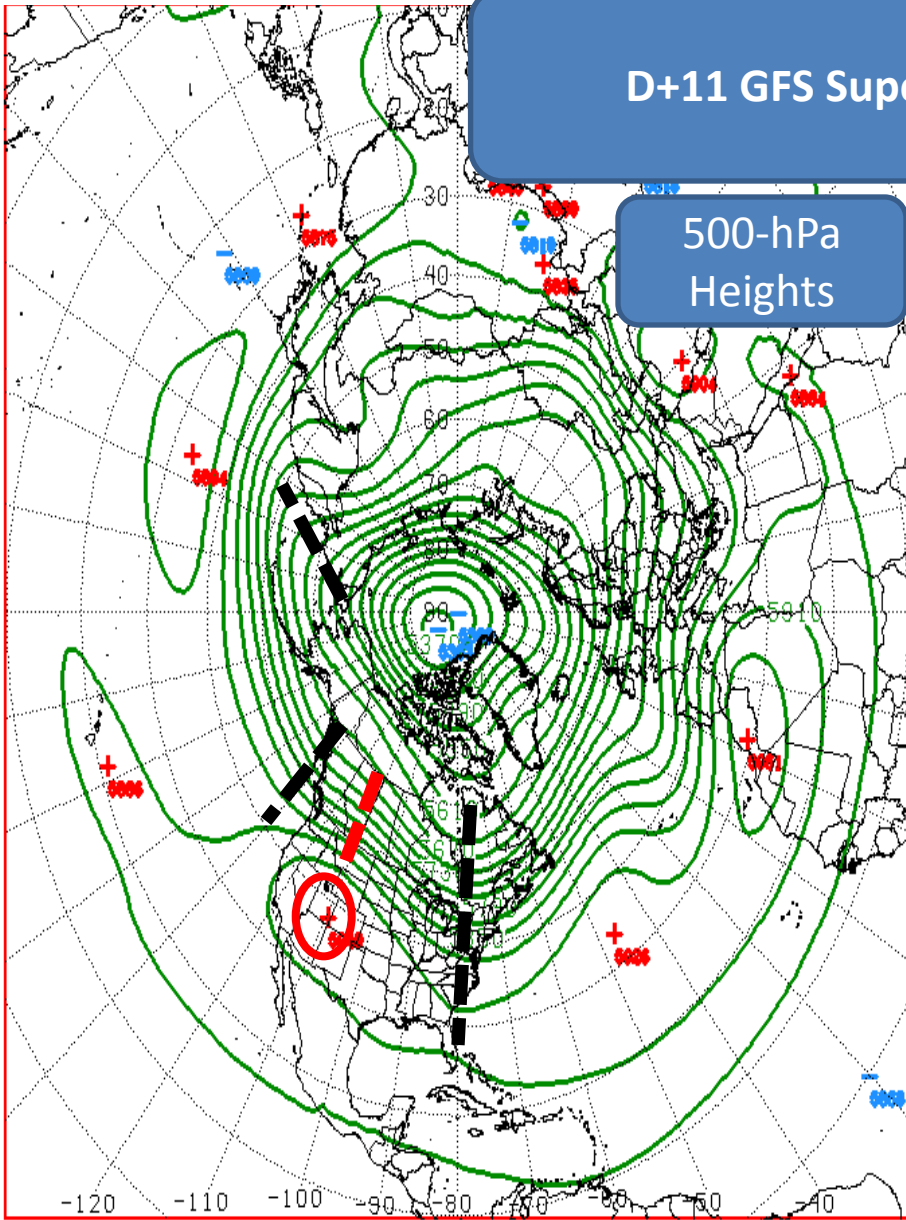
Day 13-15



Connections to U.S. Impacts

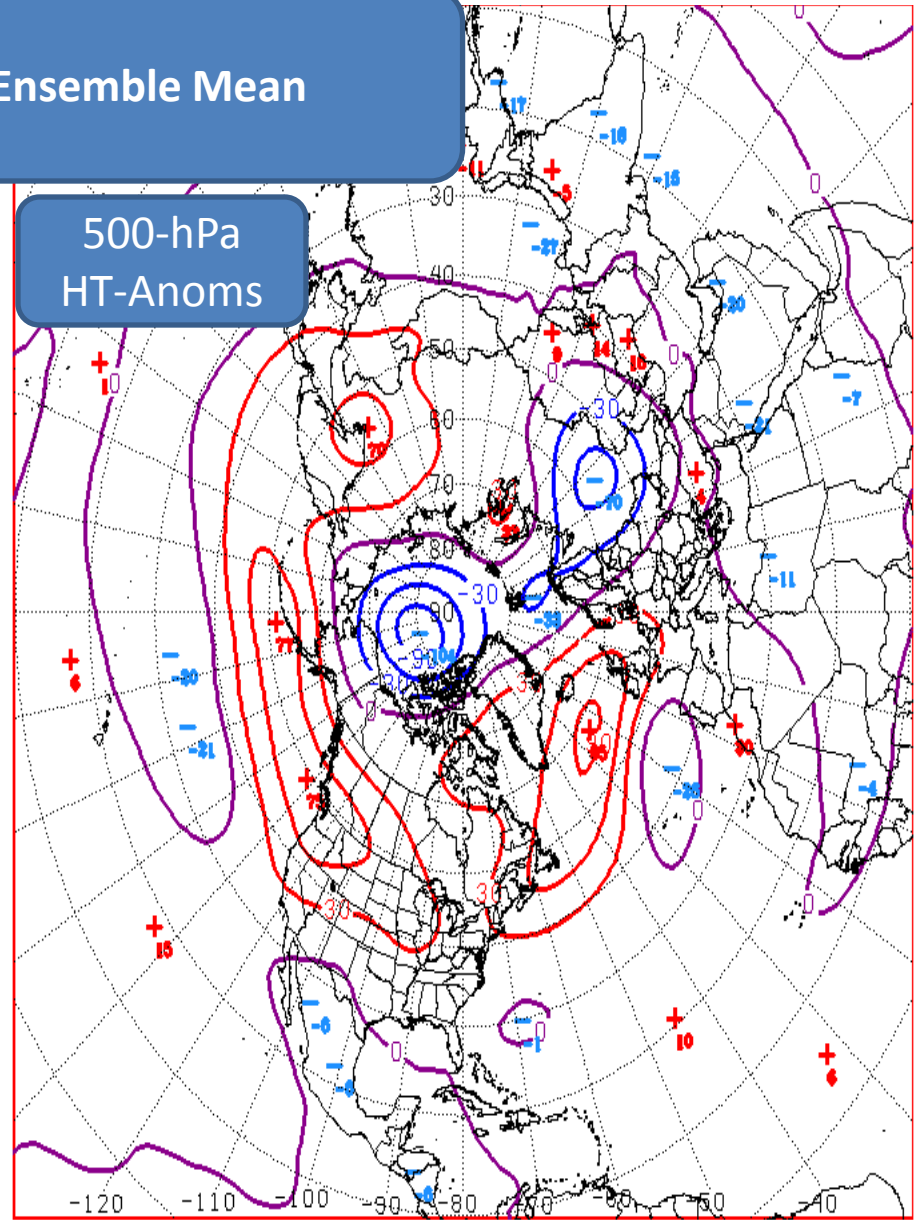
D+11 GFS SuperEnsemble Mean

500-hPa Heights



D+11 500 MB HEIGHTS FROM ALZ ENSM
CPC MAP MADE JUL 03 2018 1333 UTC CNTD JUL 14 2018

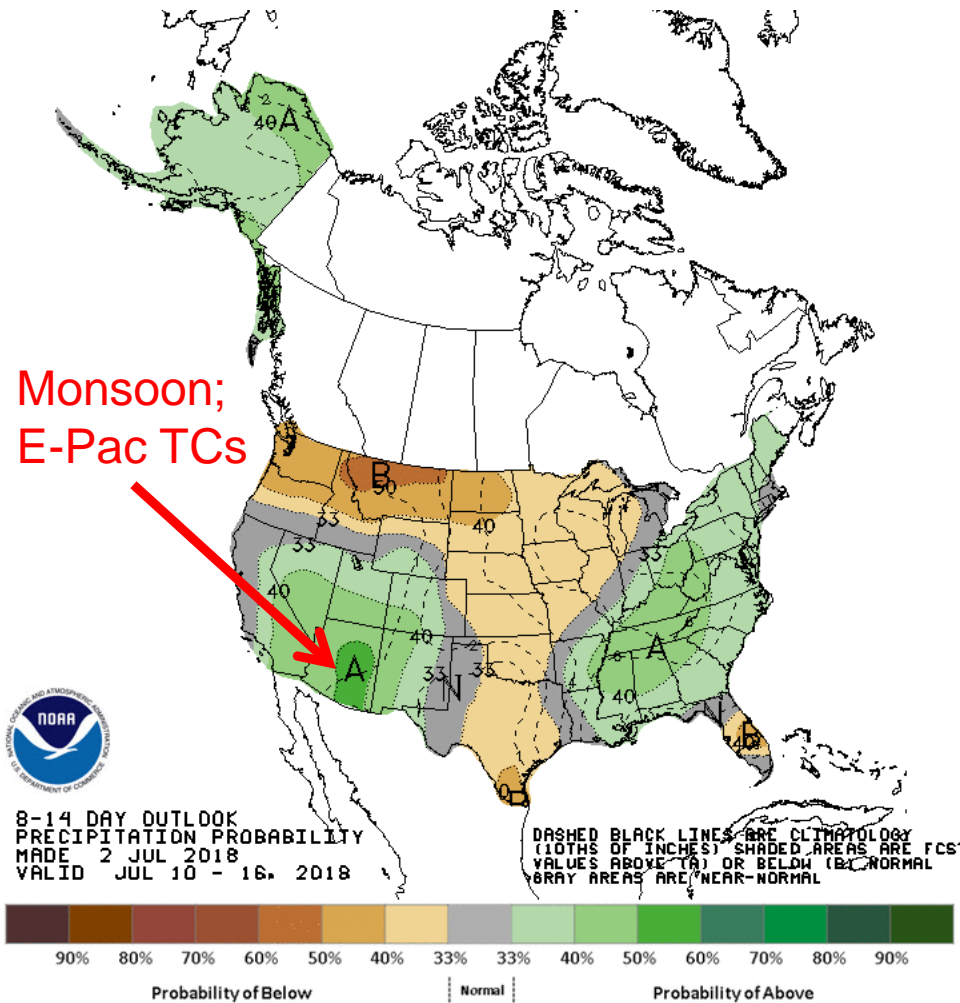
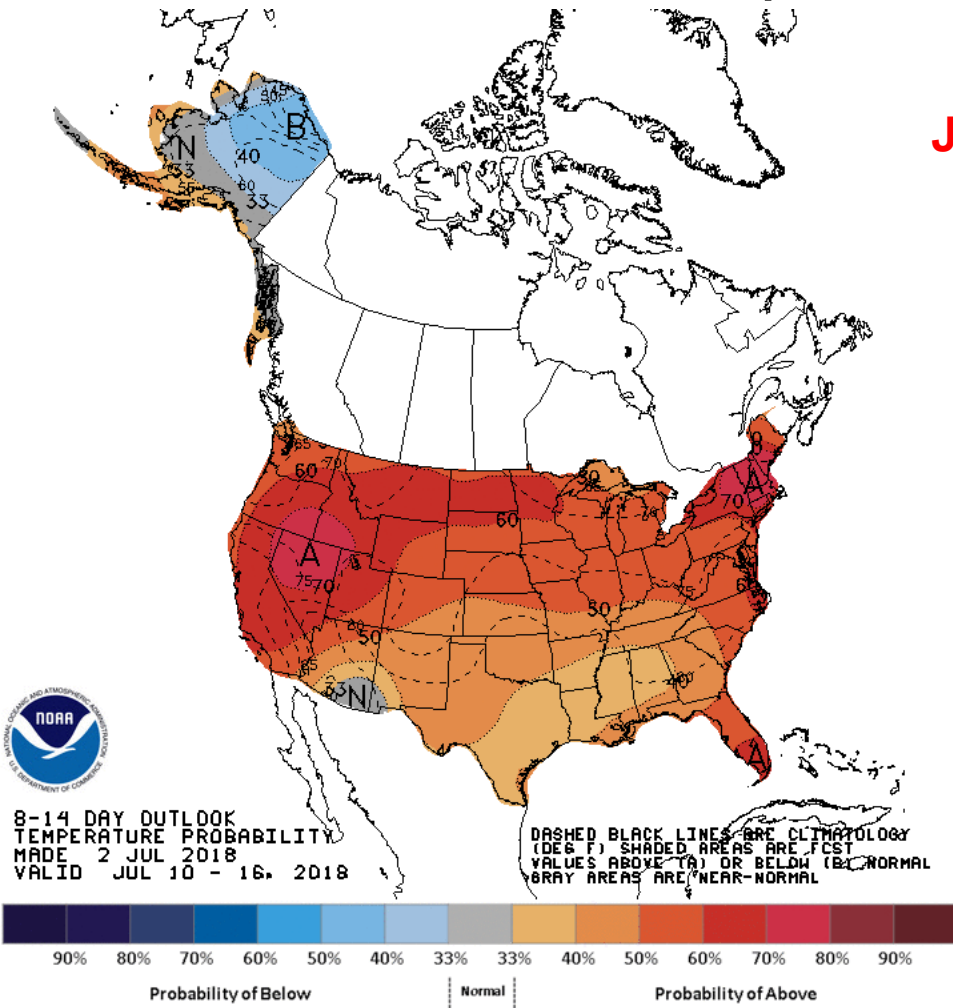
500-hPa HT-Anoms



D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE JUL 03 2018 1335 UTC CNTD JUL 14 2018

Week 2 – Temperature and Precipitation

July 2nd

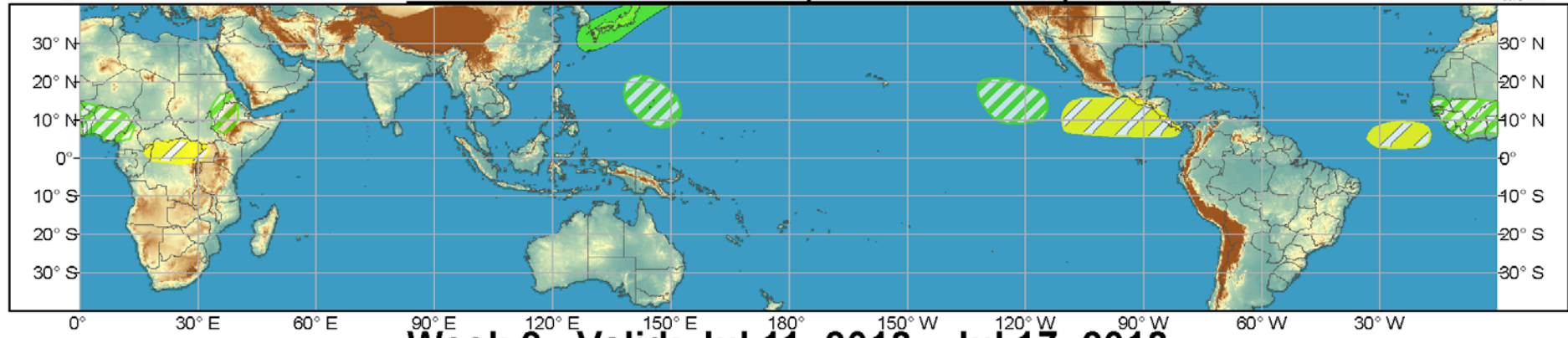


Monsoon;
E-Pac TCs

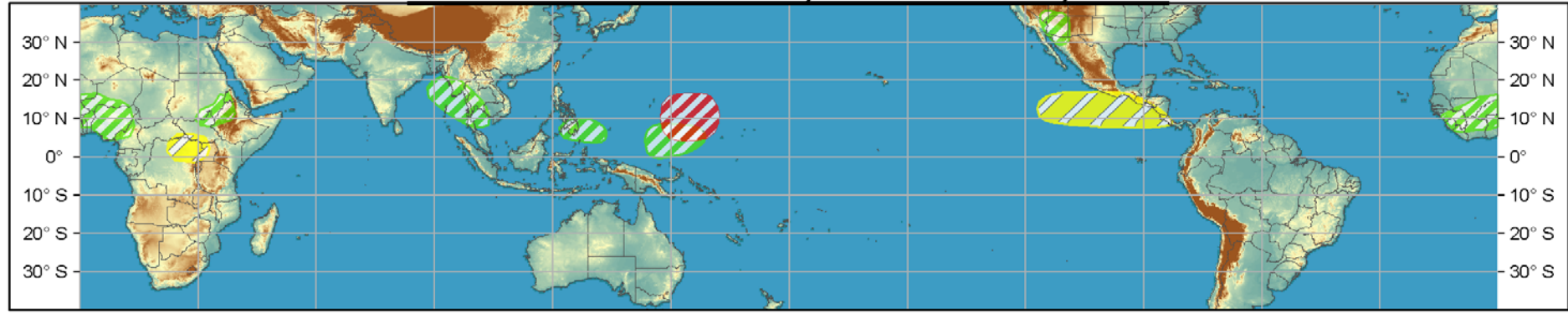


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