

Global Tropics Hazards And Benefits Outlook

06/12/2018

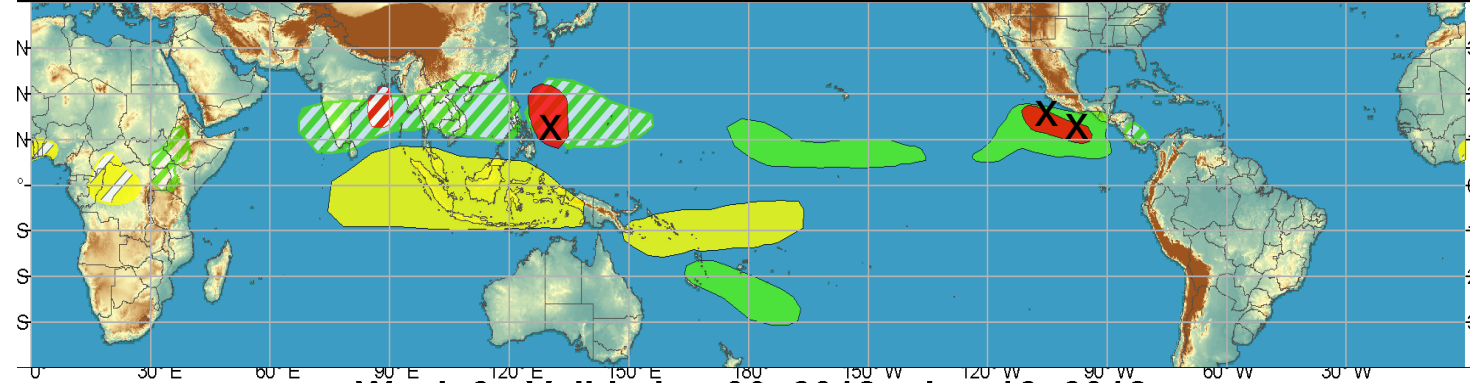
Stephen Baxter

Outline

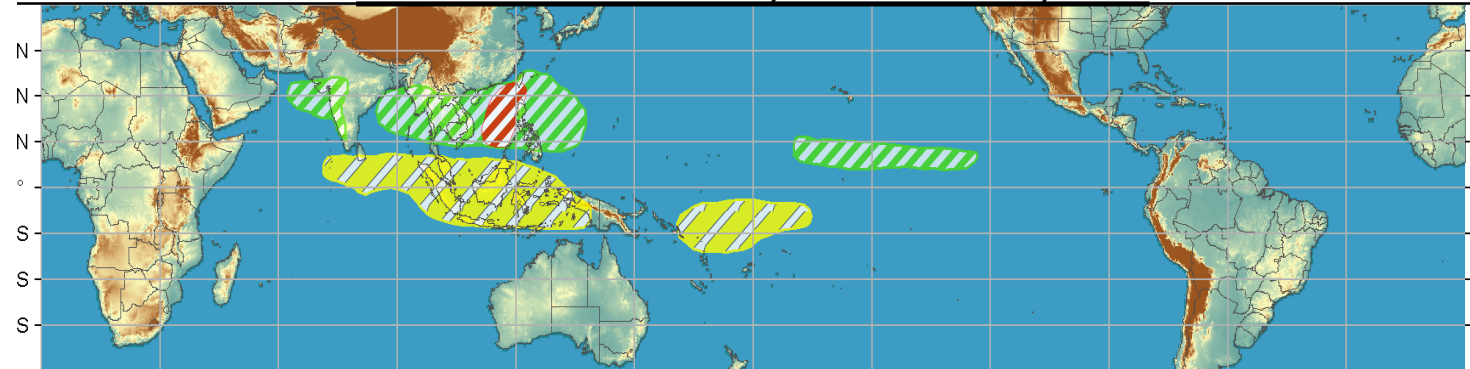
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Jun 06, 2018 - Jun 12, 2018

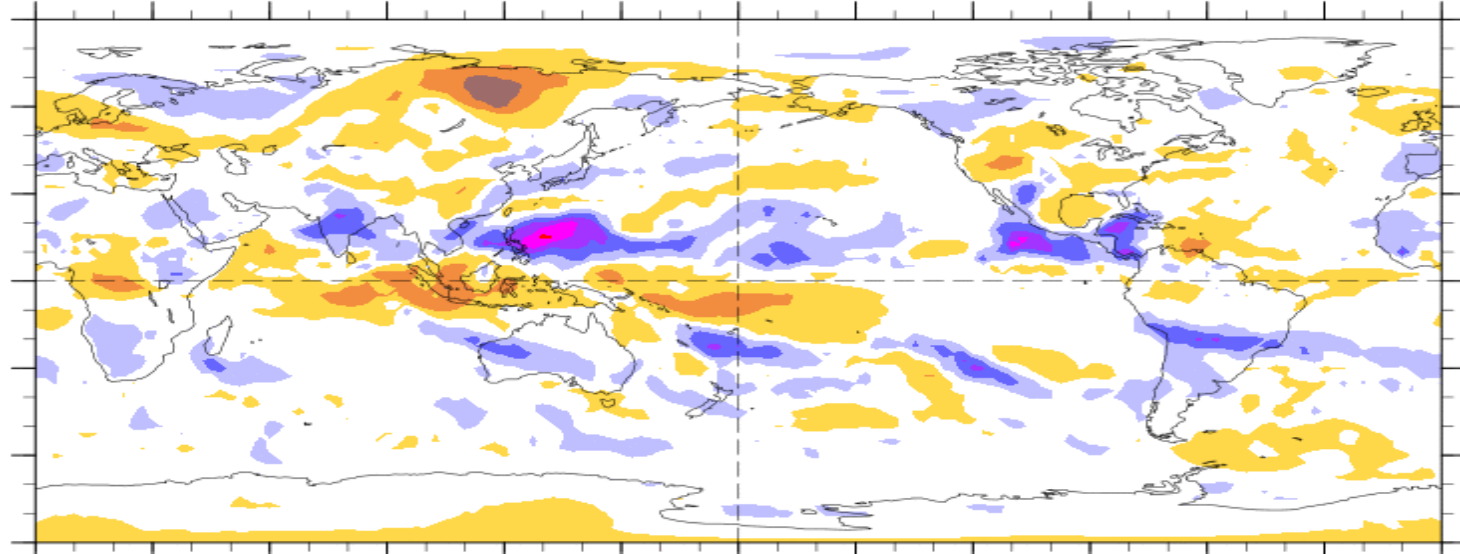


Week 2 - Valid: Jun 06, 2018 - Jun 12, 2018



7-Day Average OLR Anomaly

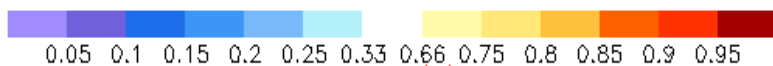
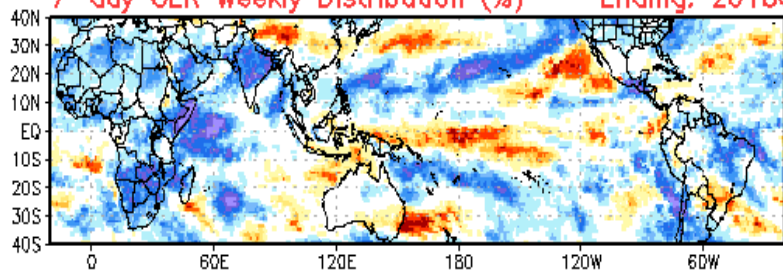
2018/06/04 - 2018/06/10



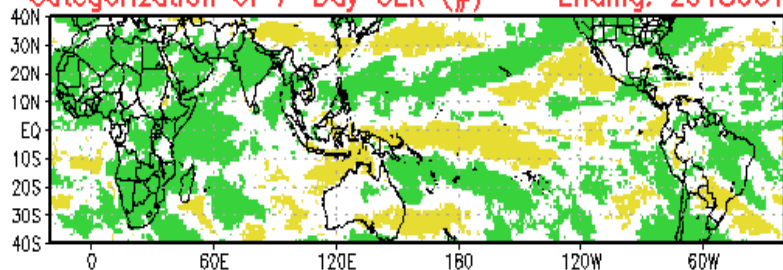
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

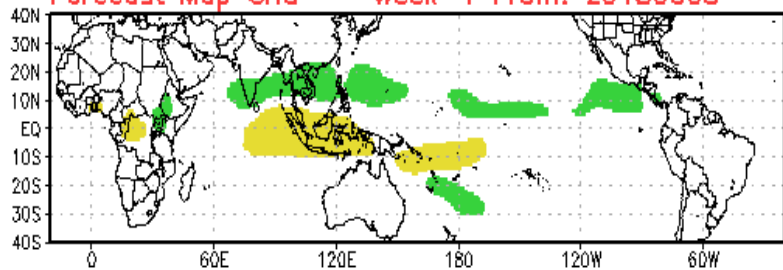
7-day OLR Weekly Distribution (%) -- Ending: 20180612



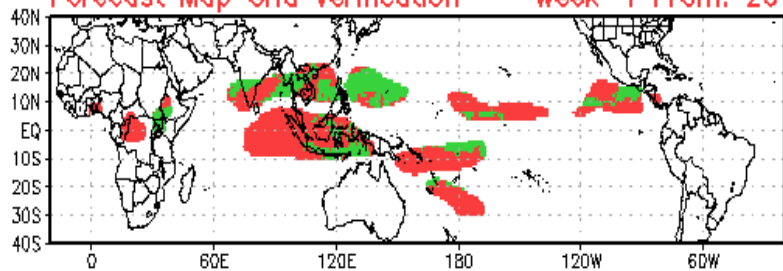
Categorization of 7-Day OLR (#) -- Ending: 20180612



Forecast Map Grid -- Week-1 From: 20180605

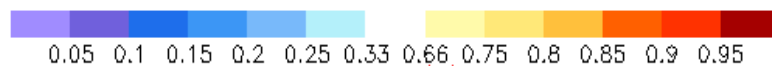
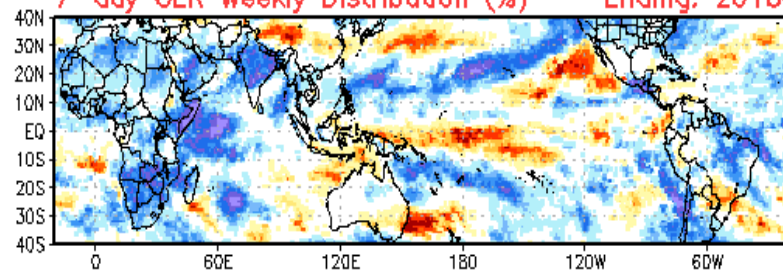


Forecast Map Grid Verification -- Week-1 From: 20180605

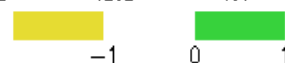
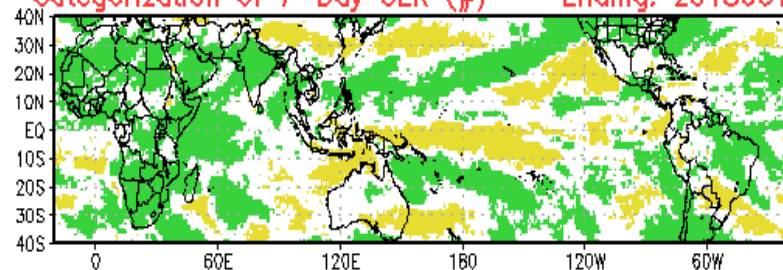


Hit: Green, Miss: Red
Heidke Skill Score: -3.9898

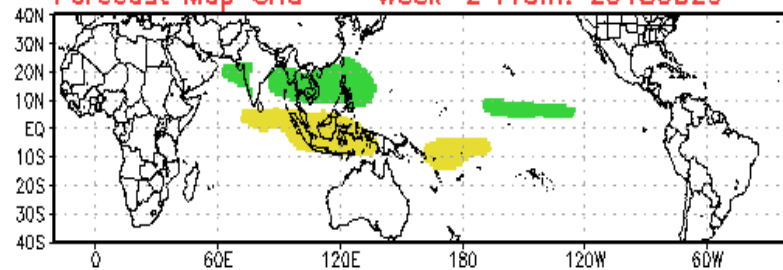
7-day OLR Weekly Distribution (%) -- Ending: 20180612



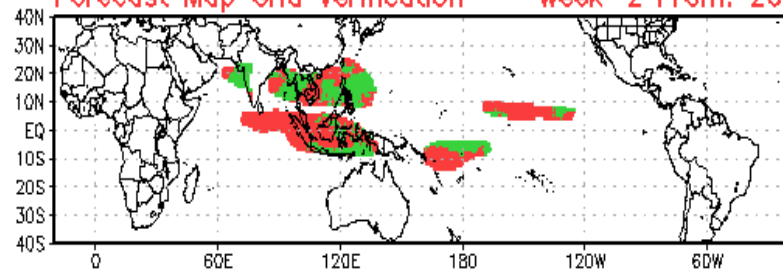
Categorization of 7-Day OLR (#) -- Ending: 20180612



Forecast Map Grid -- Week-2 From: 20180529



Forecast Map Grid Verification -- Week-2 From: 20180529



Hit: Green, Miss: Red
Heidke Skill Score: 8.7653

Synopsis of Climate Modes

ENSO:

- ENSO-neutral and El Niño are nearly equally favored during the Northern Hemisphere summer and fall 2017. Latest models very bullish on El Niño.

MJO and other subseasonal tropical variability:

- The MJO remained active, but weakened in terms of its RMM projection.
- Dynamical models indicate a more coherent signal emerging in Week-2 over Africa.

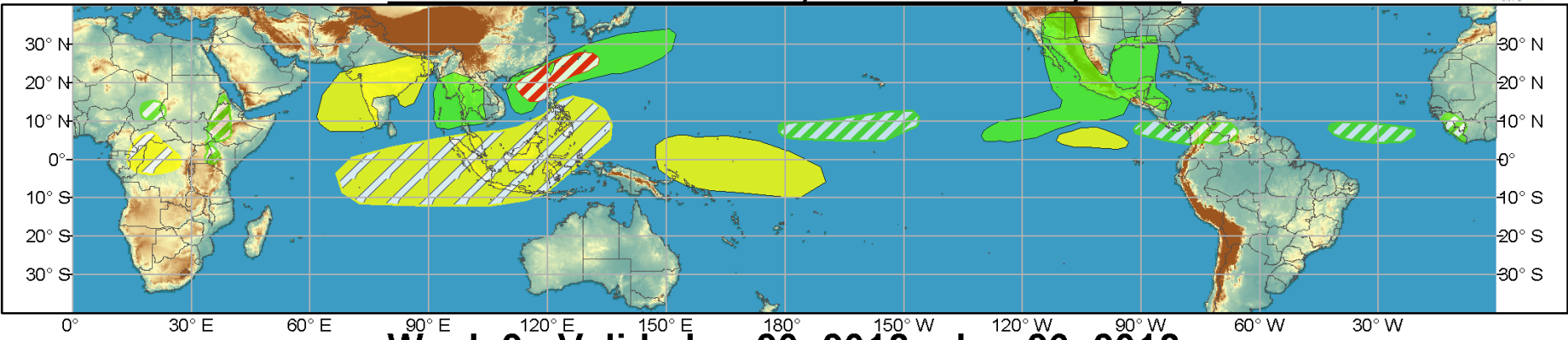
Extratropics:

- Impacts from Tropical Storm Maliksi
 - Serving to develop and maintain long wave pattern over the PNA region
- Tropical moisture into southwestern CONUS
 - Remnants of Hurricane Bud are expected to bring locally heavy rain to parts of the Desert Southwest

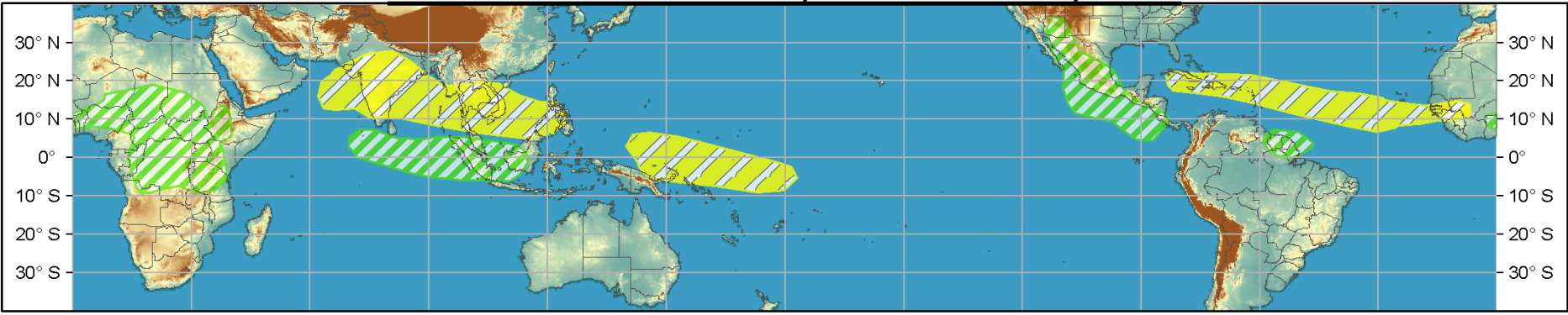


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 13, 2018 - Jun 19, 2018



Week 2 - Valid: Jun 20, 2018 - Jun 26, 2018



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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Produced: 06/12/2018

Forecaster: Baxter

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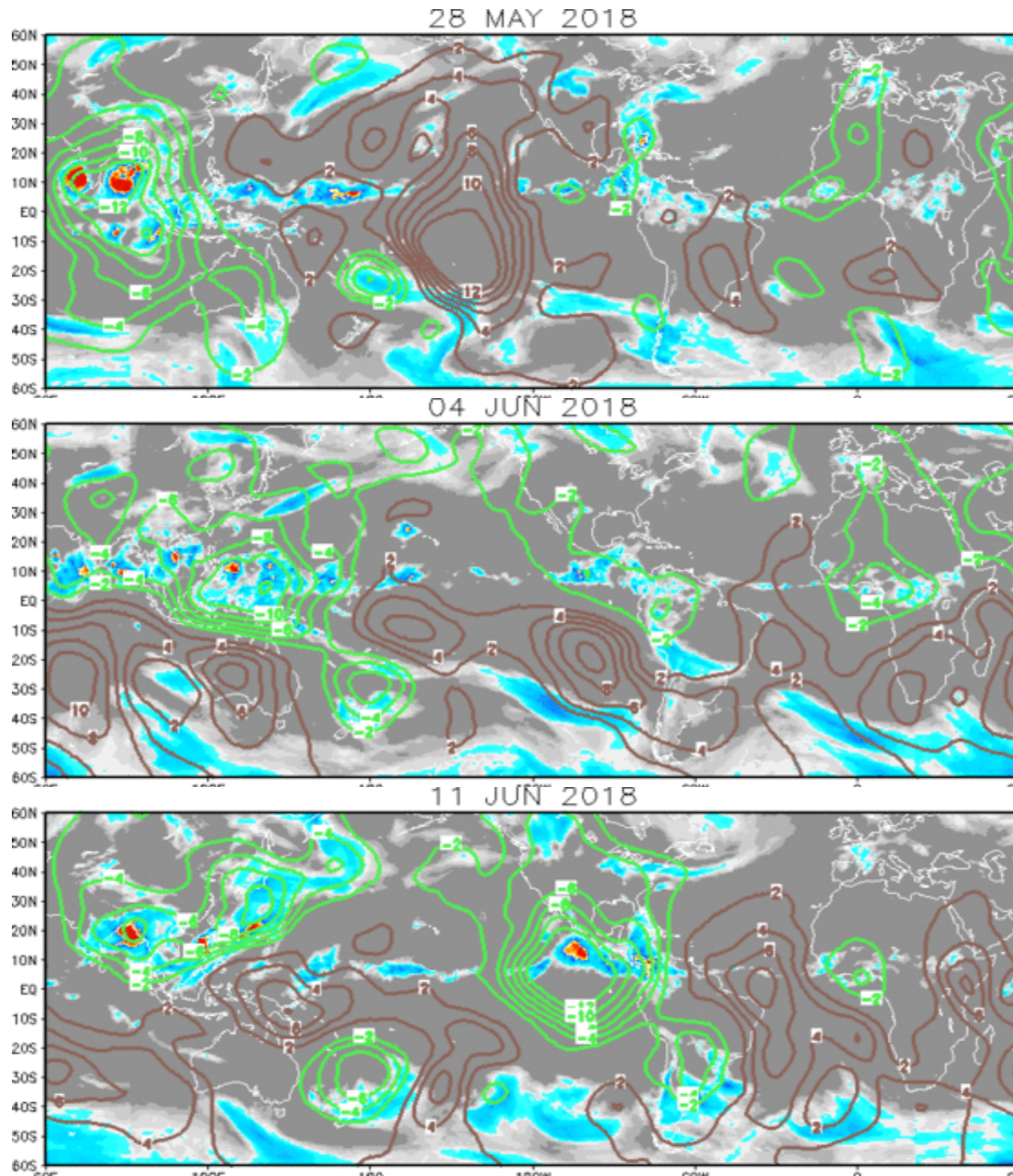
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

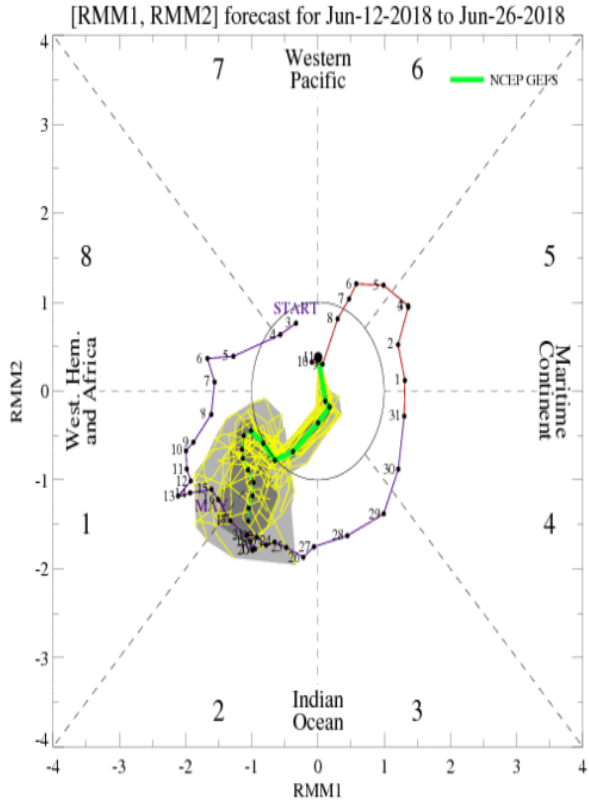
Brown: Enhanced Convergence

Eastward (northeastward) propagation of MJO-related signal is evident during the first two periods.

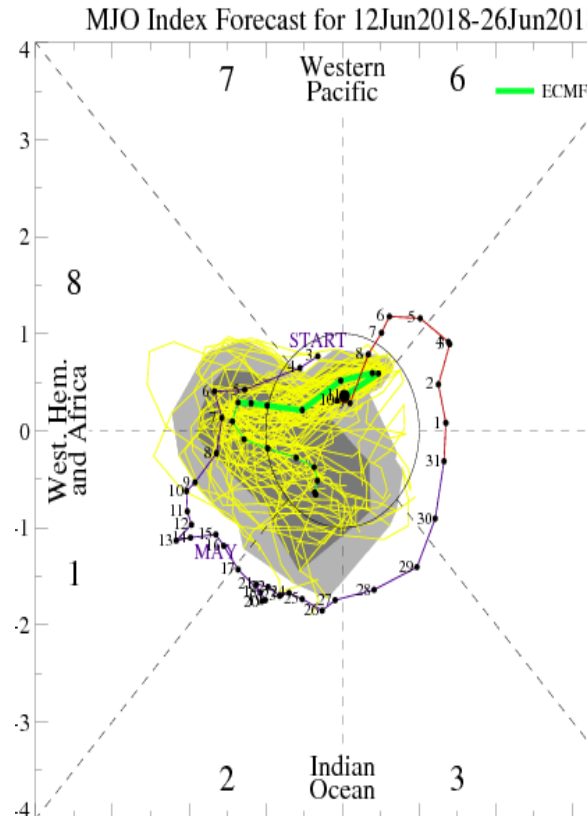
Enhanced convection southeast Asia and the East Pacific are completing centers of action, leading to a dramatic reduction in RMM amplitude.



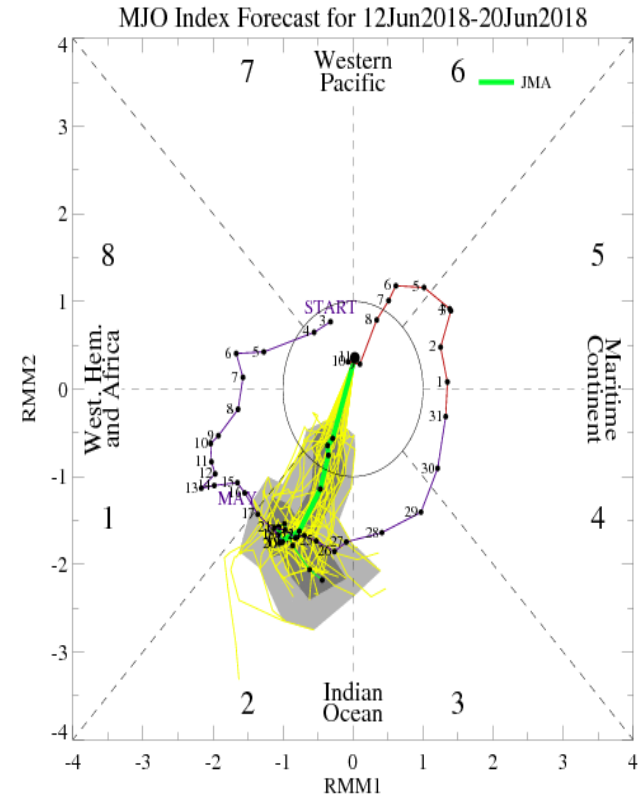
MJO Observation/Forecast



GEFS



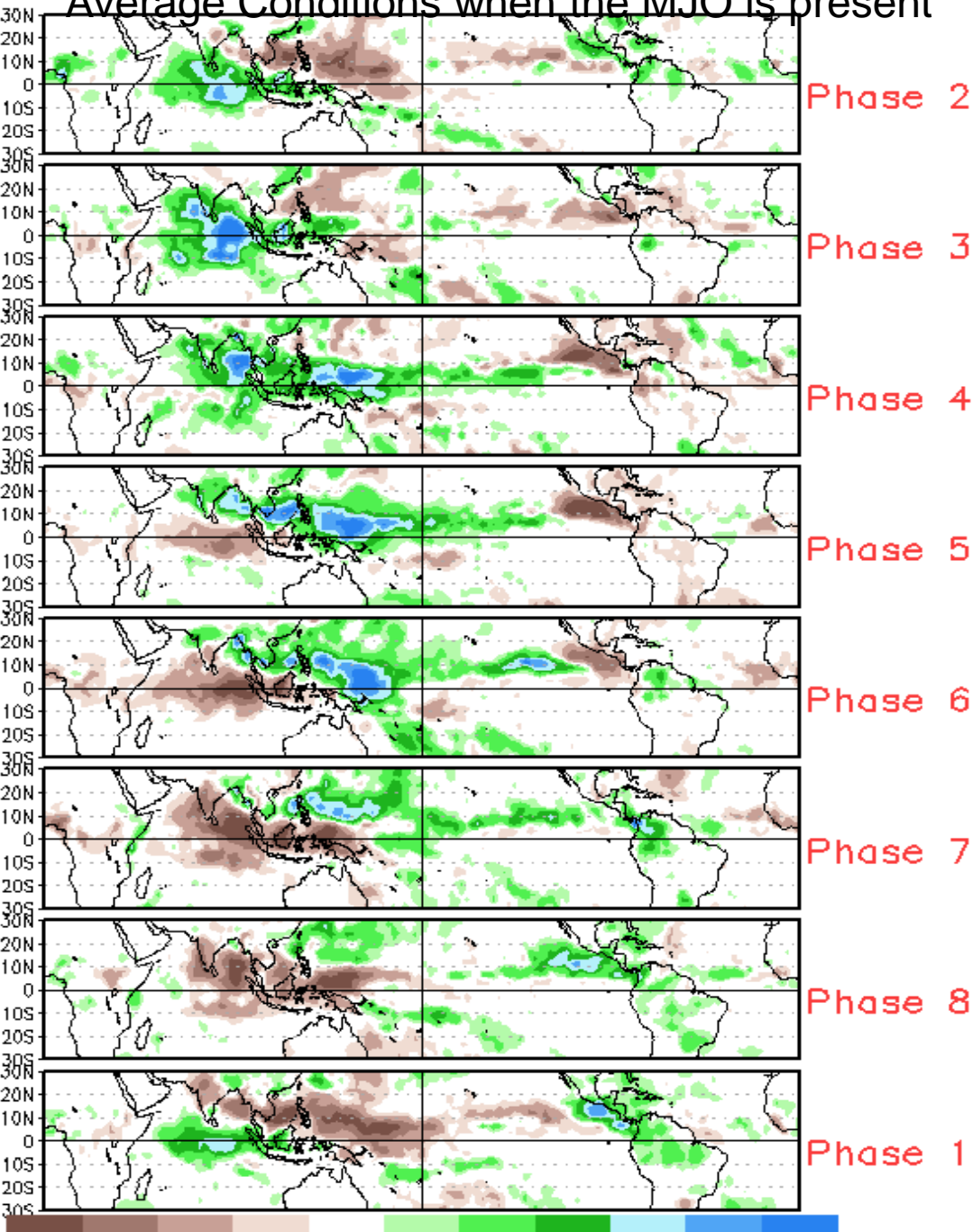
ECMWF



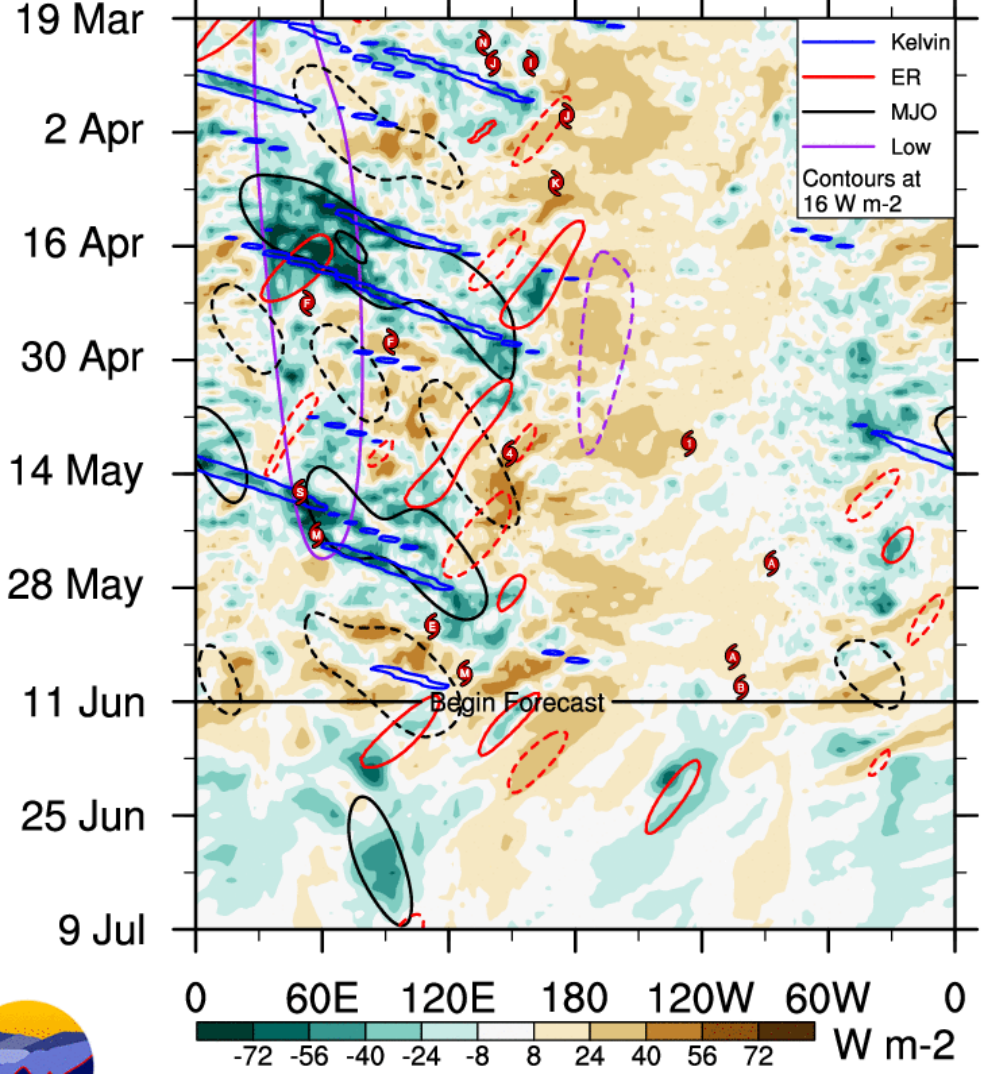
JMA

Models generally agree on a more coherent signal emerging in Phases 8, 1, and/or 2 during the next two weeks.

Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.

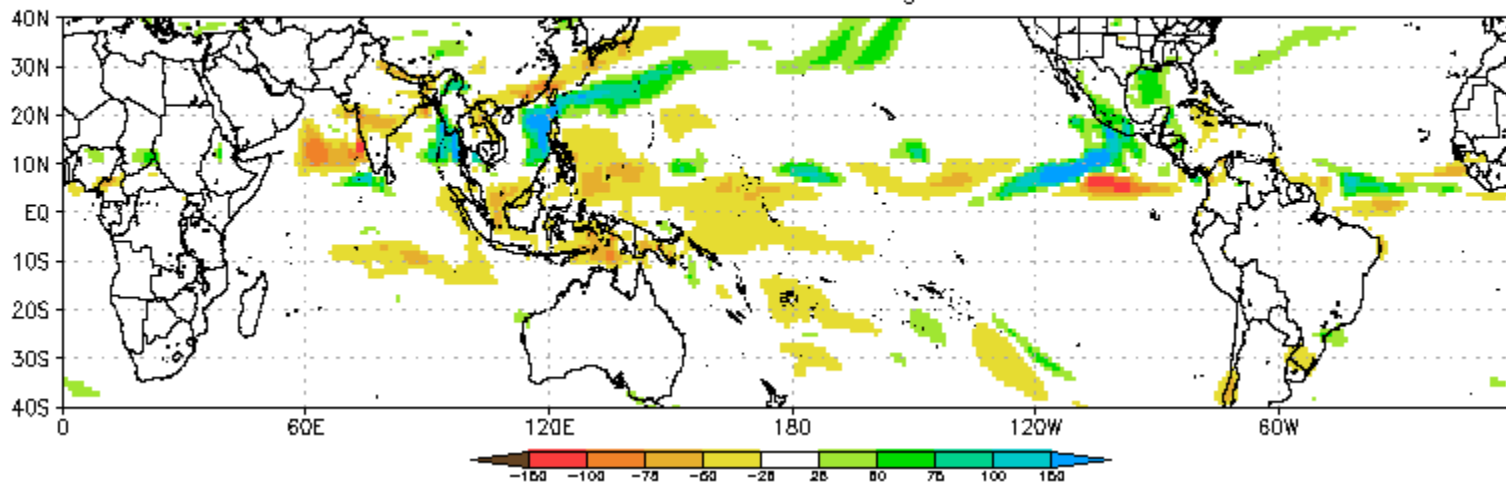


MJO, Rossby wave and **Kelvin wave** having an influence

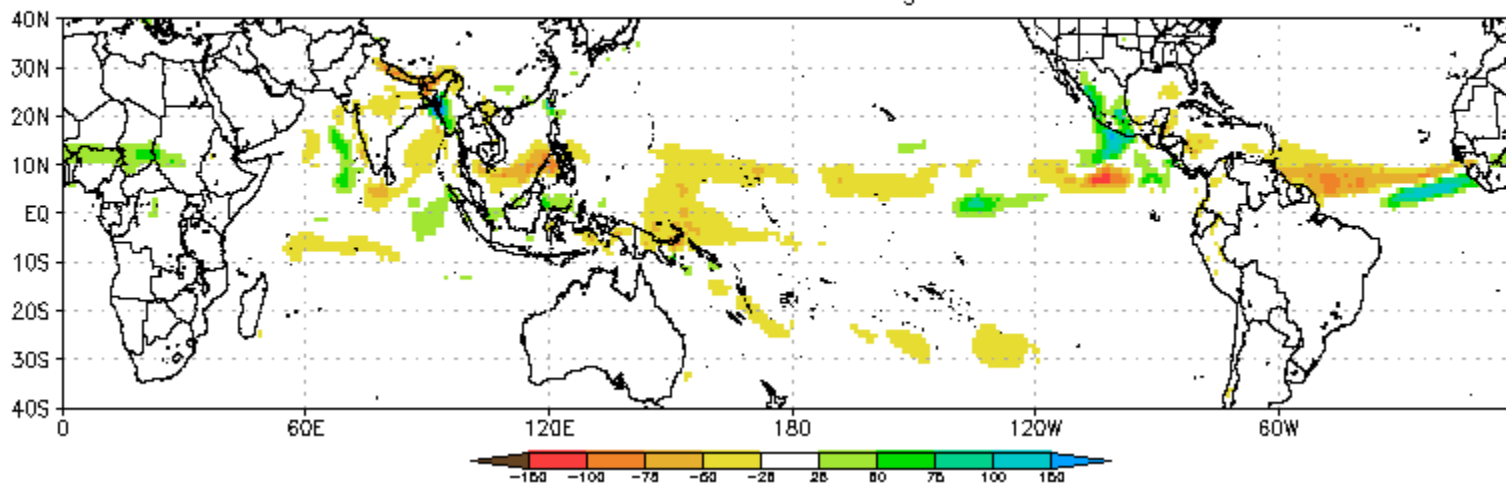
Low-frequency pattern less of an influence



CFS Precipitation Anomalies (mm) Issued 11Jun2018
Week-1 Forecast Ending 19Jun2018



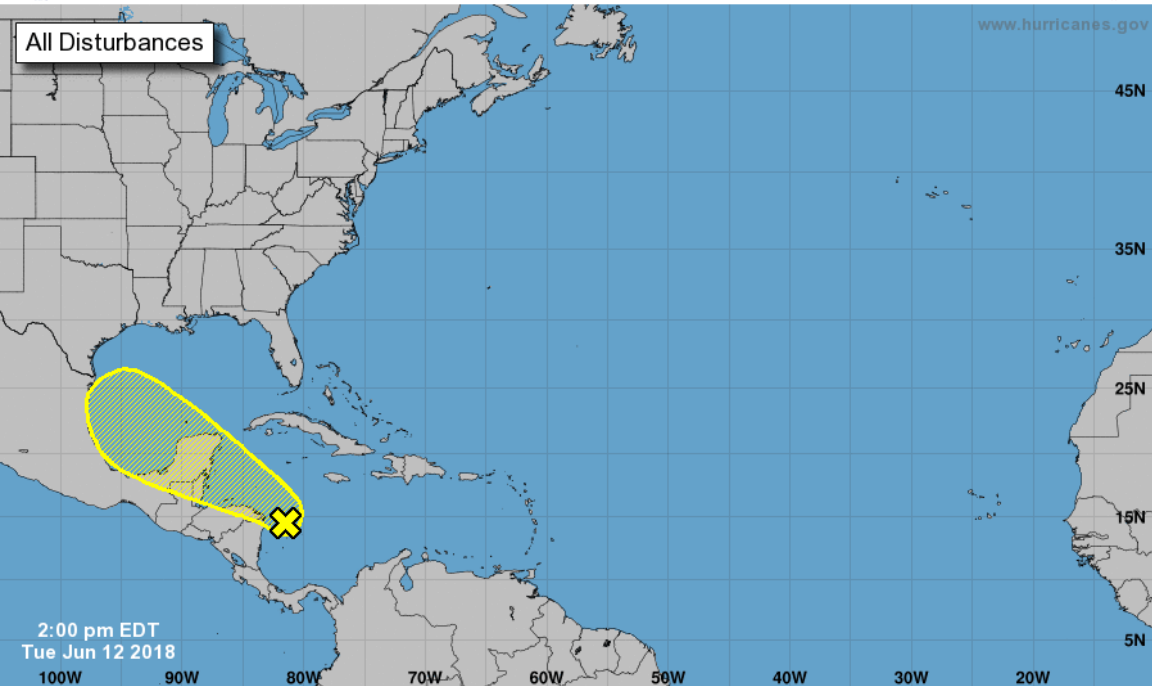
CFS Precipitation Anomalies (mm) Issued 11Jun2018
Week-2 Forecast Ending 26Jun2018





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



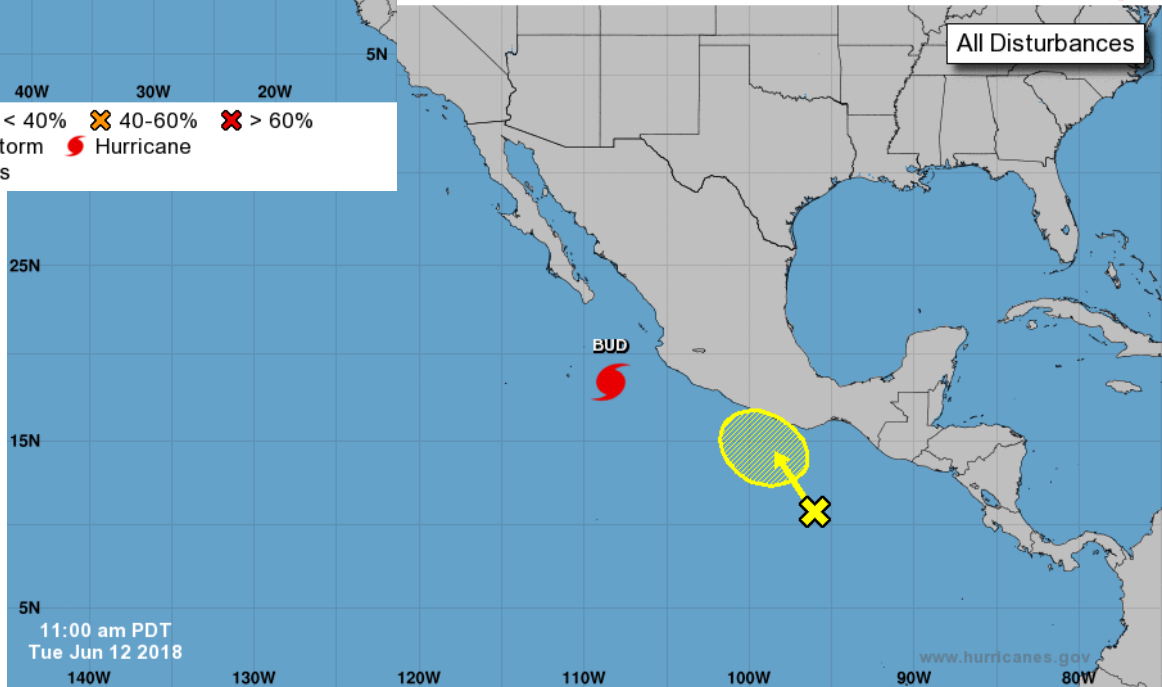
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

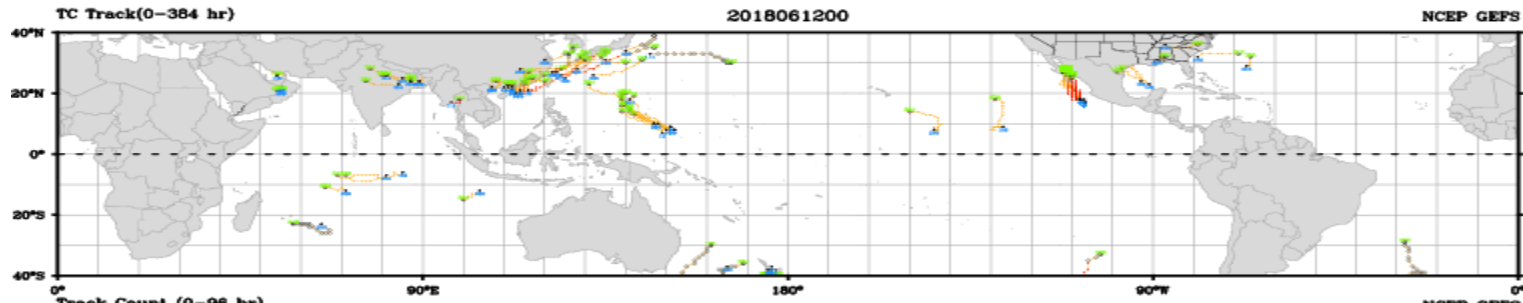
National Hurricane Center Miami, Florida



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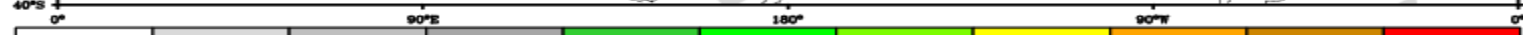
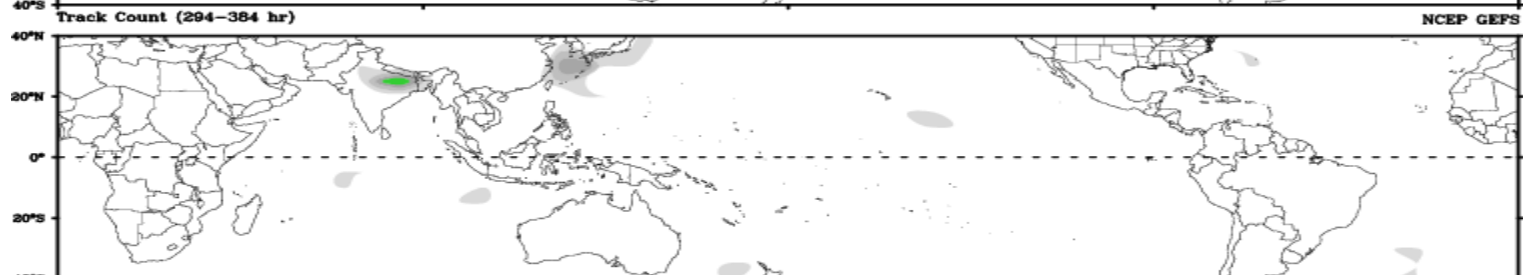
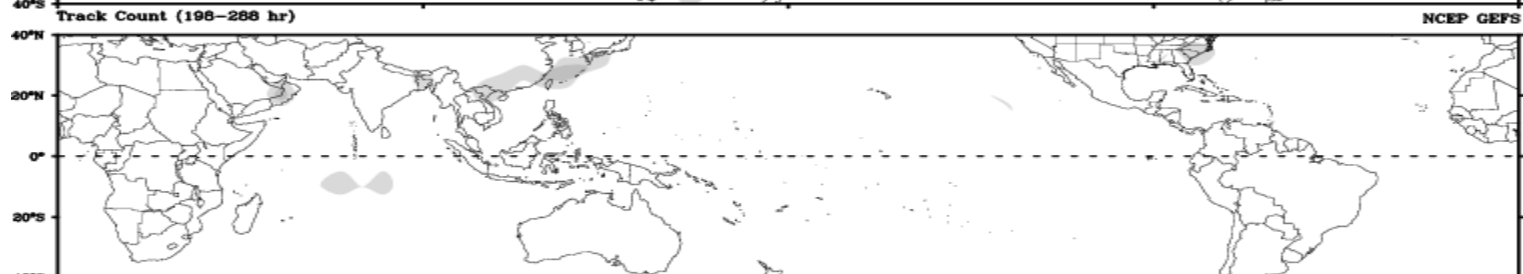
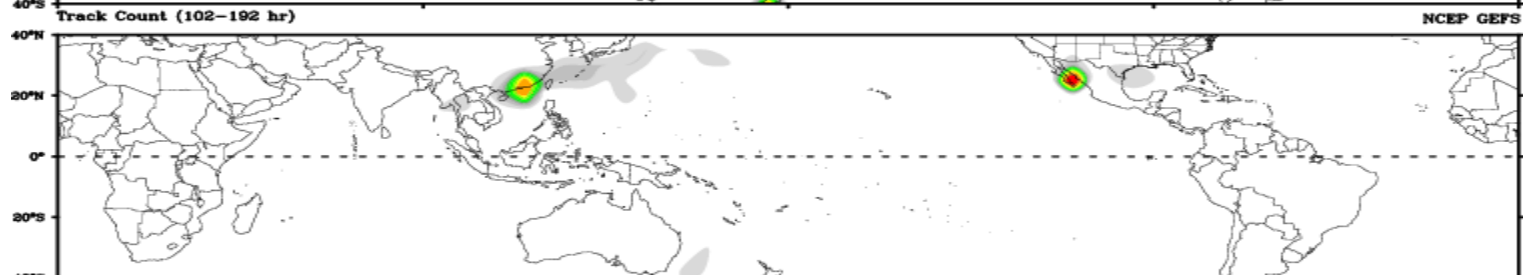
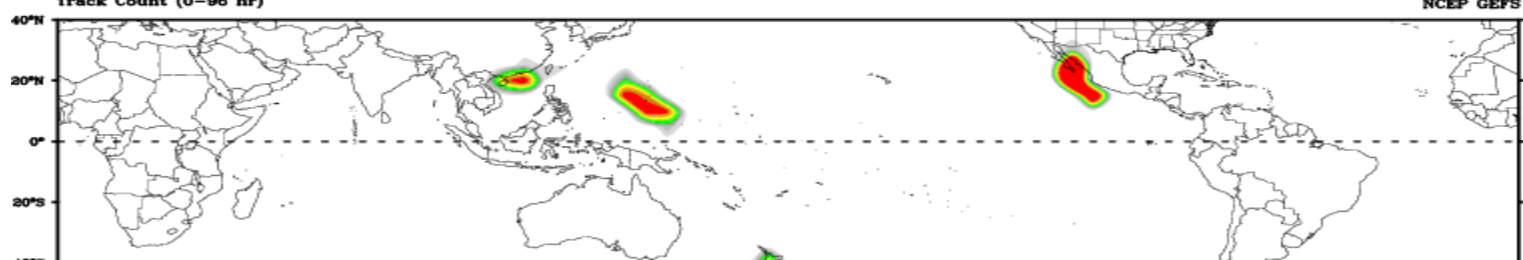


Days 1-4

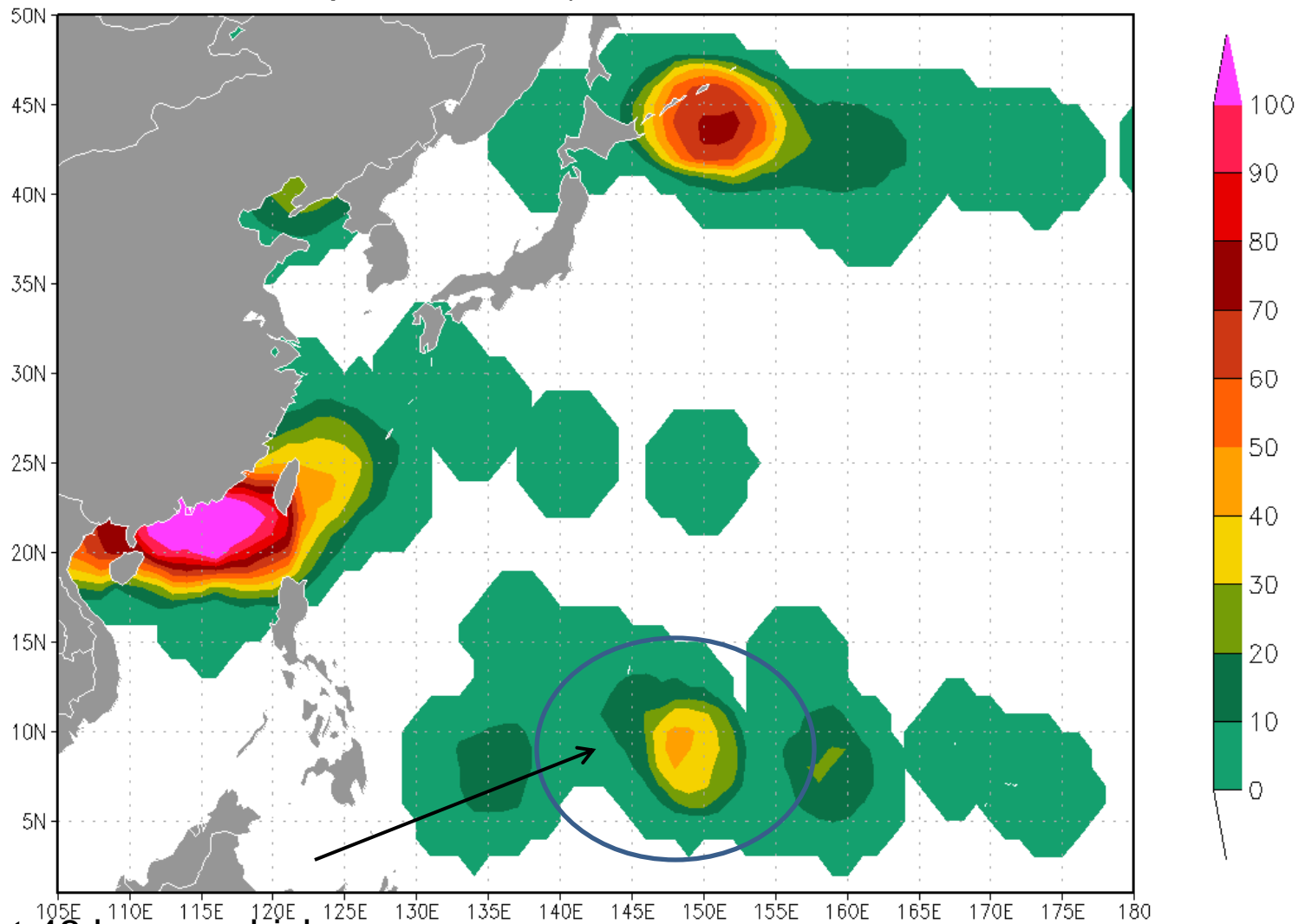
Day 5-8

Day 9-12

Day 13-15

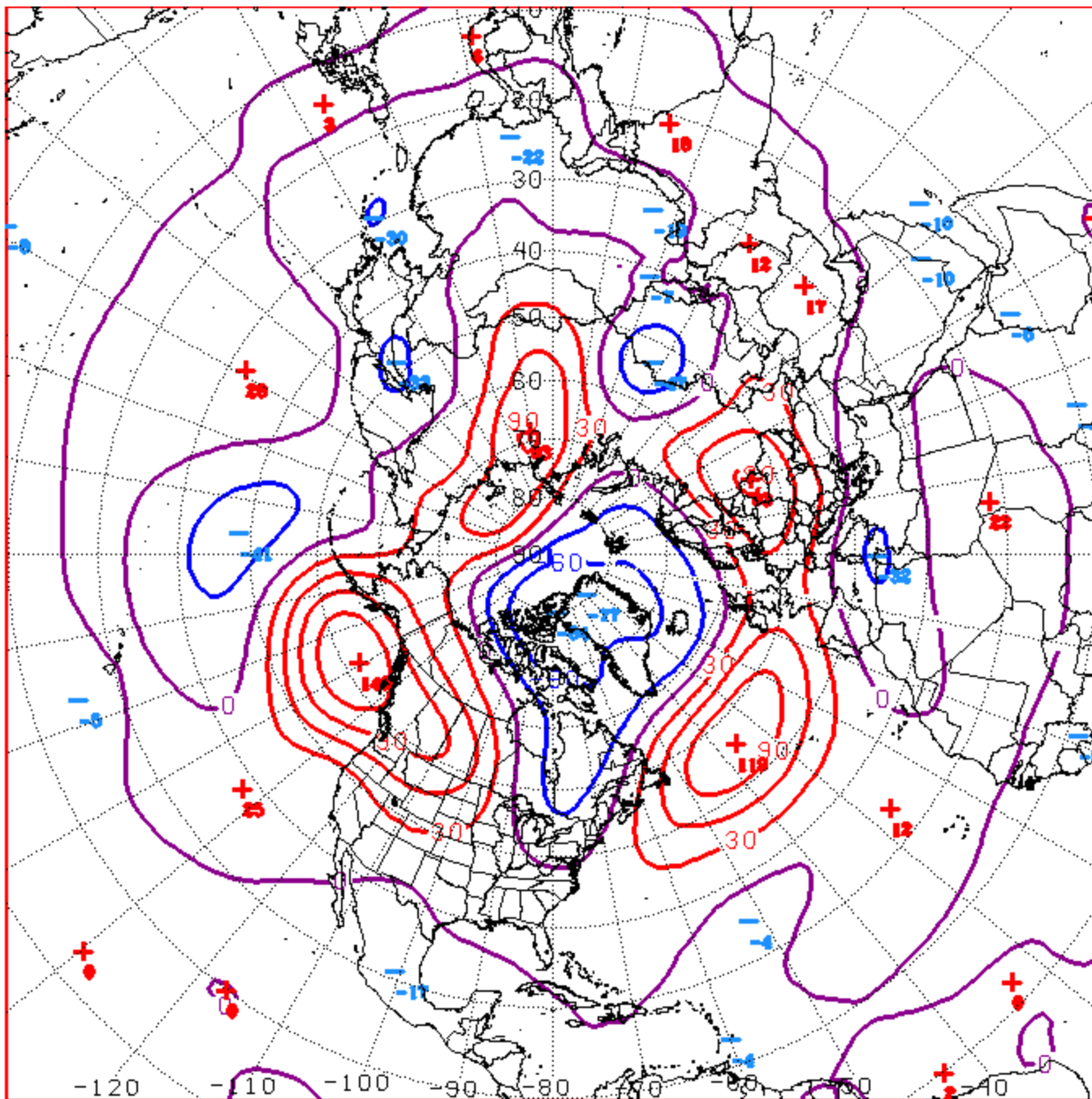


Ensemble-based Probability (%) of TC genesis
using these global ensembles: NCEP CMC ECMWF
For forecasts during the 00–120h period from initial time = 2018061200



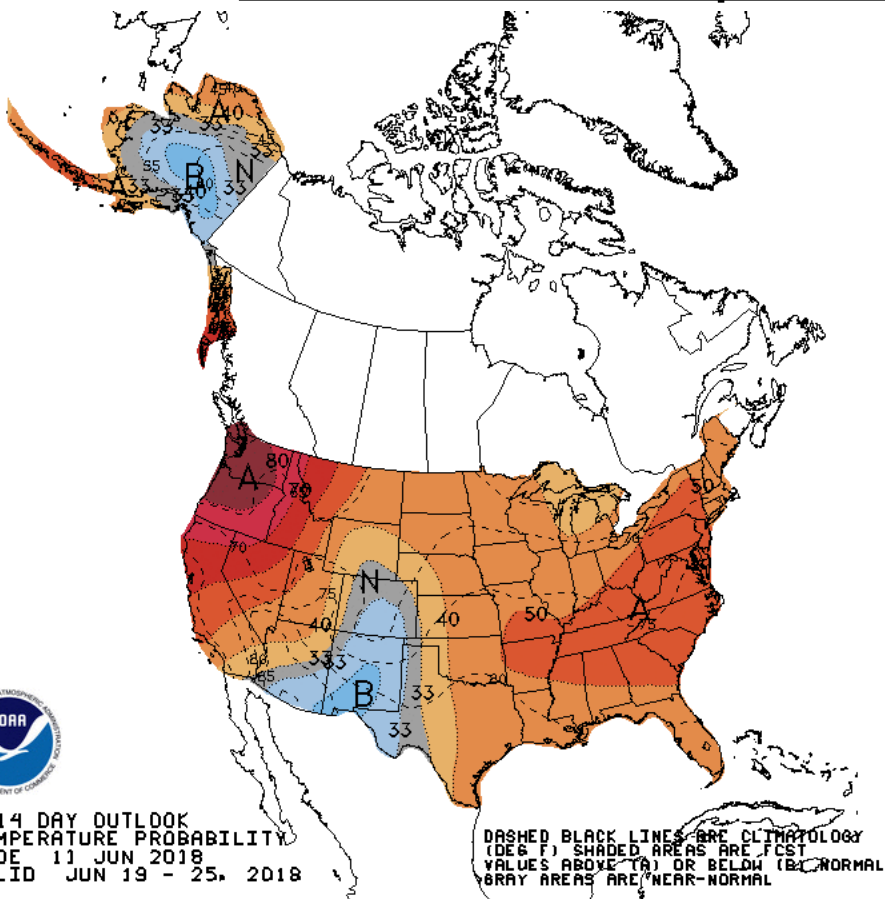
During the first 48 hours, which appears unlikely given latest model guidance.

Connections to U.S. Impacts



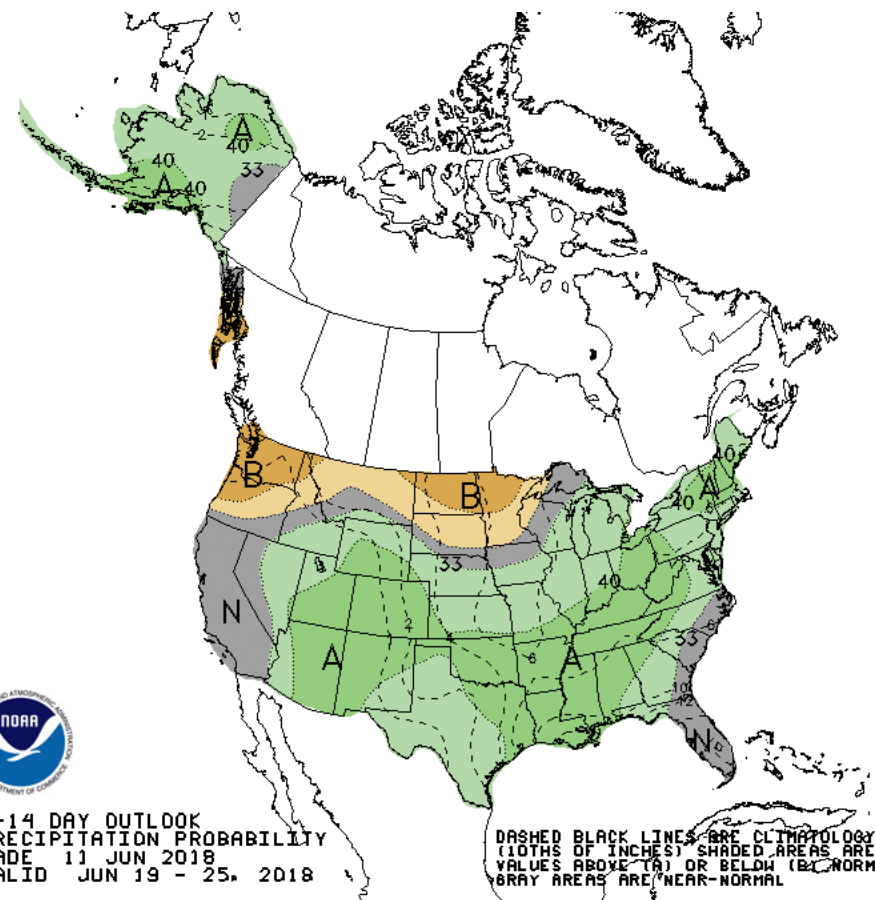
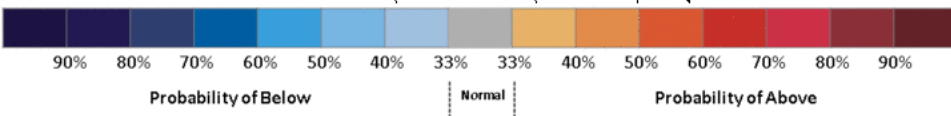
D+11 500 MB ANOMALIES FROM 06Z ENSM
CPC MAP MADE JUN 12 2018 1225 UTC CNTD JUN 23 2018

Week 2 – Temperature and Precipitation



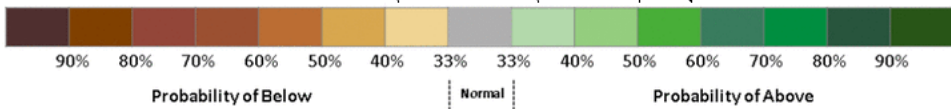
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 11 JUN 2018
VALID JUN 19 - 25, 2018

DASHED BLACK LINES ARE CLIMATOLOGY (DEG F). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 11 JUN 2018
VALID JUN 19 - 25, 2018

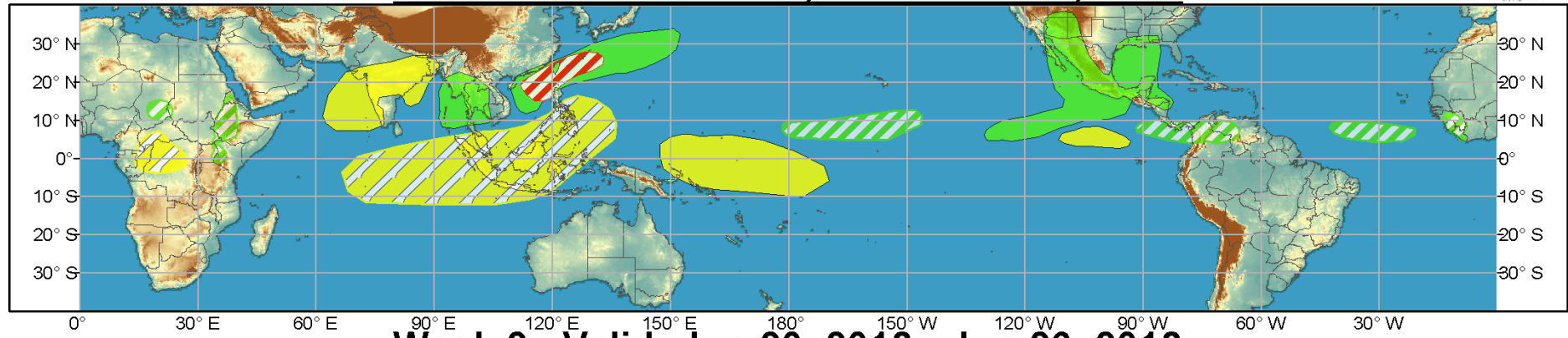
DASHED BLACK LINES ARE CLIMATOLOGY (10THS OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



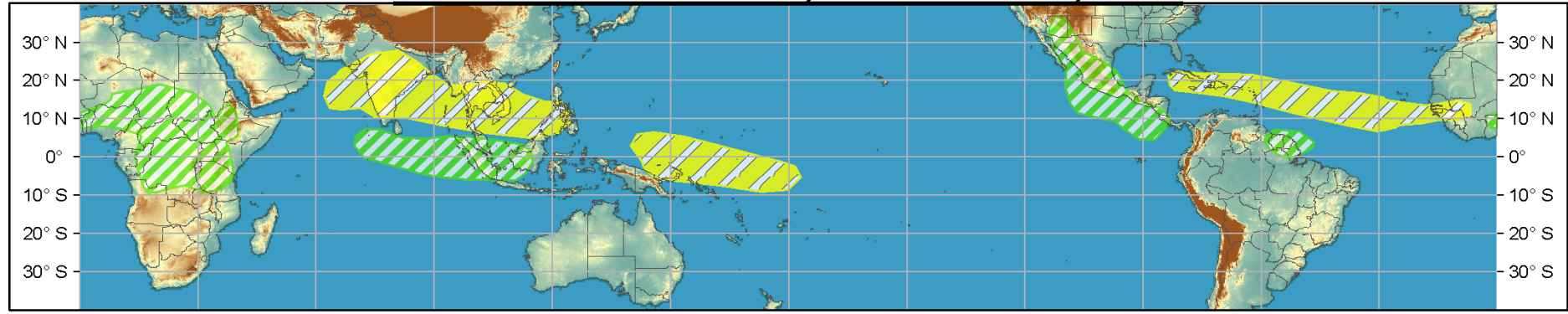


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