

Global Tropics Hazards And Benefits Outlook

Jun 14, 2016

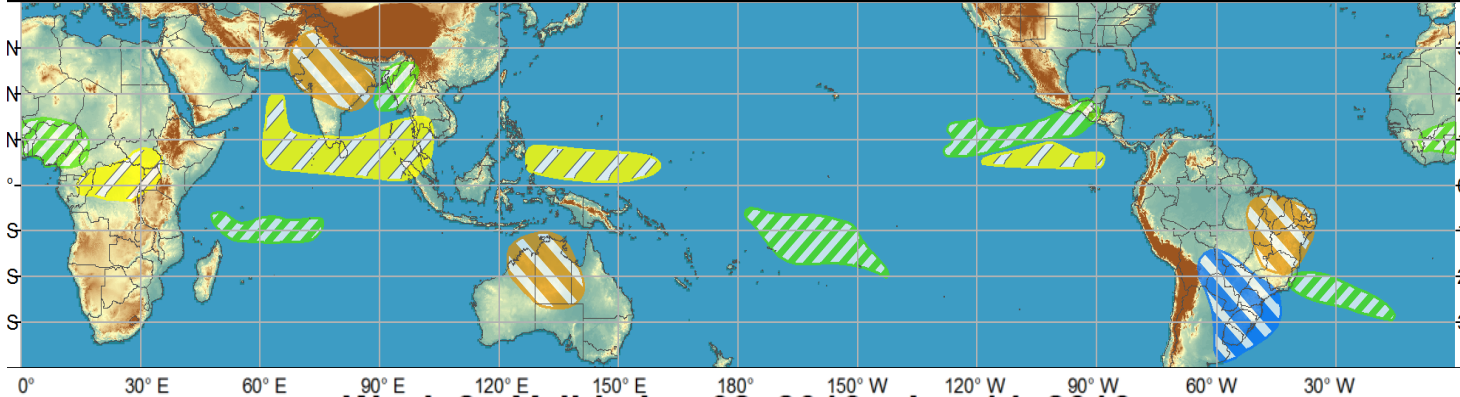
Matthew Rosencrans

Outline

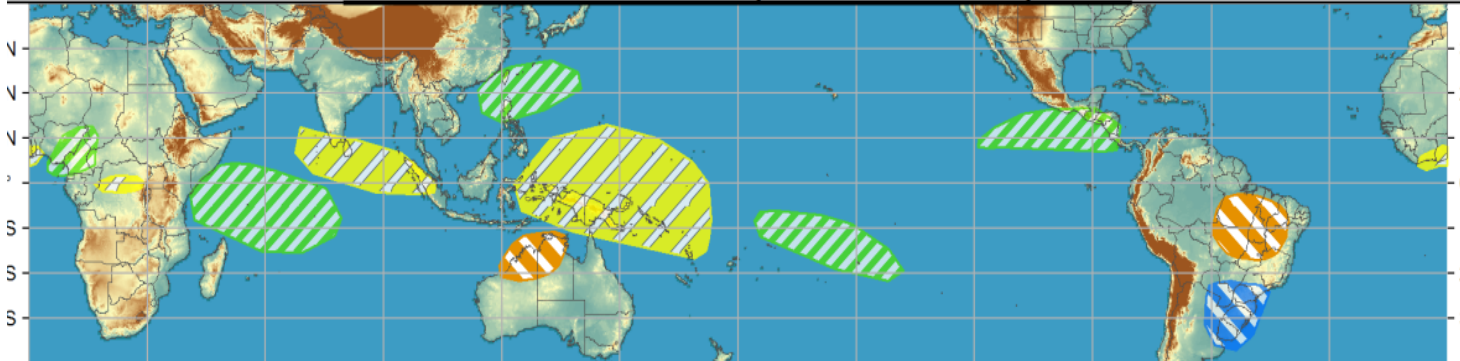
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

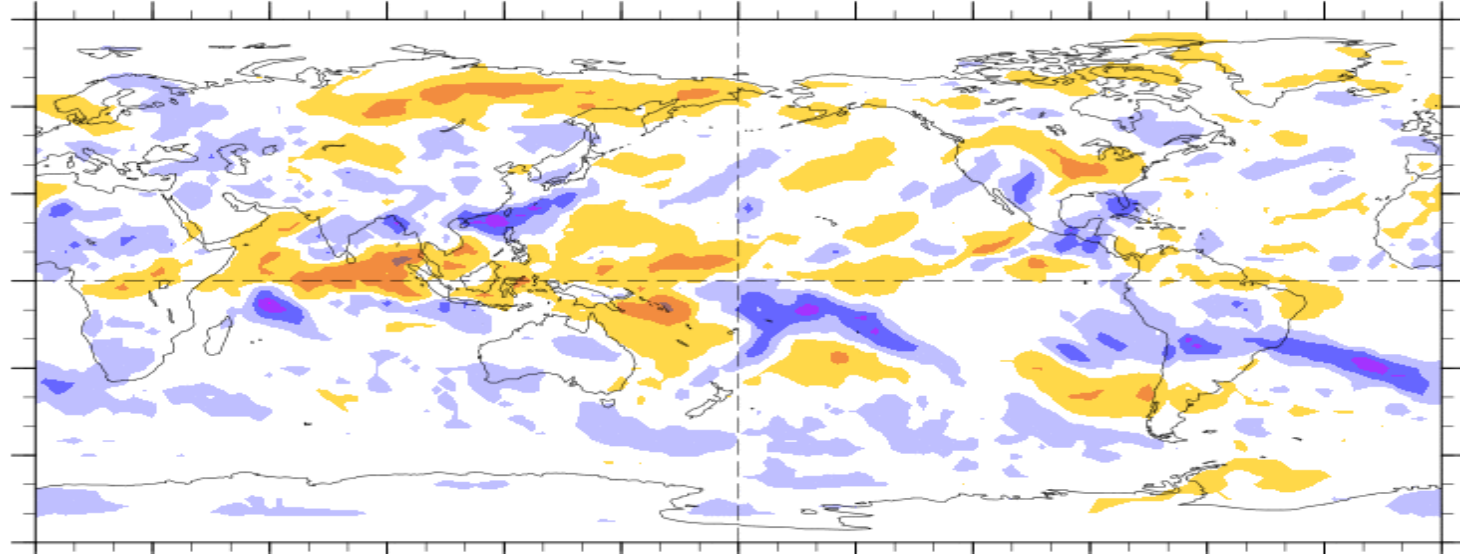
Week 1 - Valid: Jun 08, 2016 - Jun 14, 2016



Week 2 - Valid: Jun 08, 2016 - Jun 14, 2016



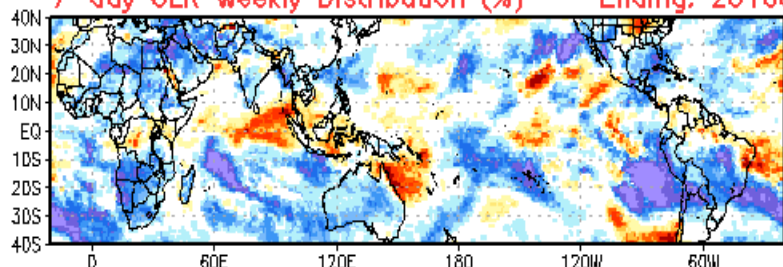
7-Day Average OLR Anomaly 2016/06/06 - 2016/06/12



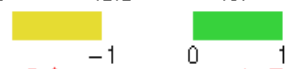
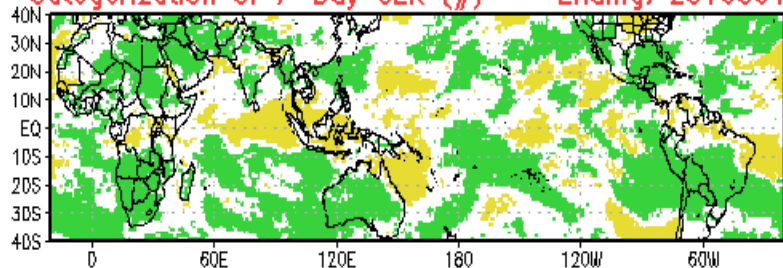
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

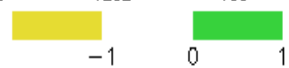
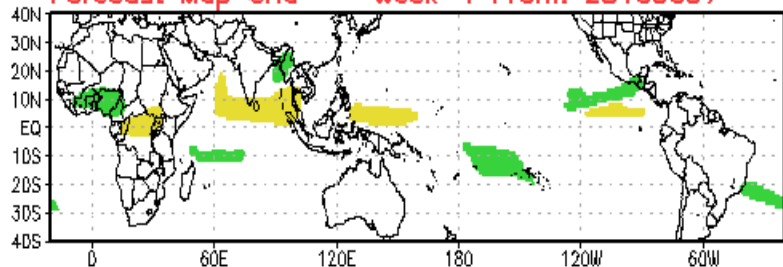
7-day OLR Weekly Distribution (%) -- Ending: 20160614



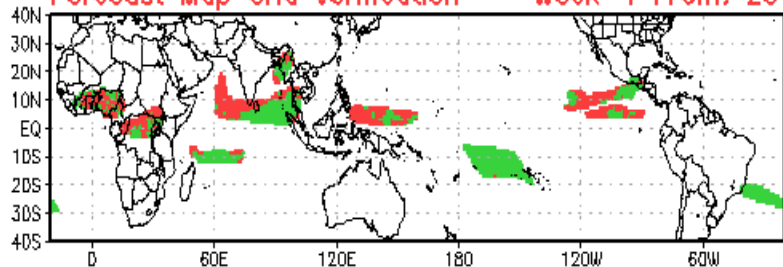
Categorization of 7-Day OLR (#) -- Ending: 20160614



Forecast Map Grid -- Week-1 From: 20160607

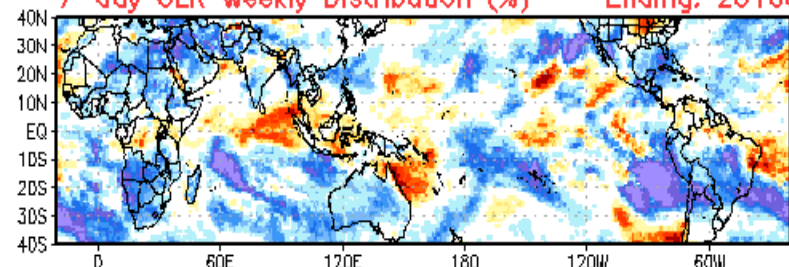


Forecast Map Grid Verification -- Week-1 From: 20160607

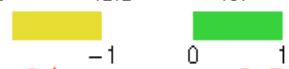
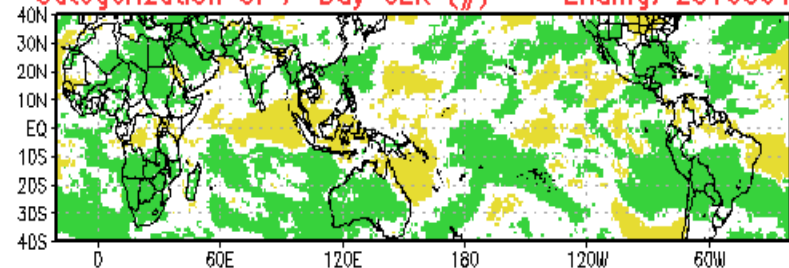


Hit: Green, Miss: Red
Heidke Skill Score: 32.7187

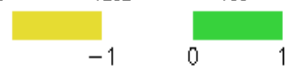
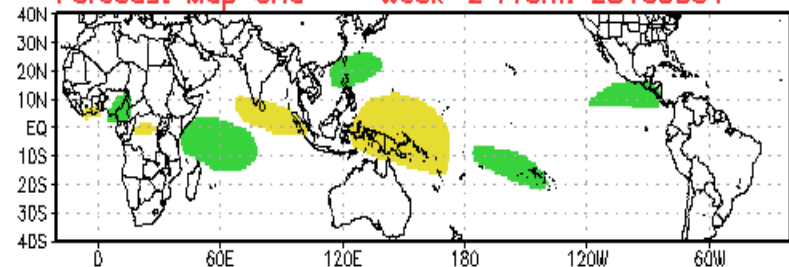
7-day OLR Weekly Distribution (%) -- Ending: 20160614



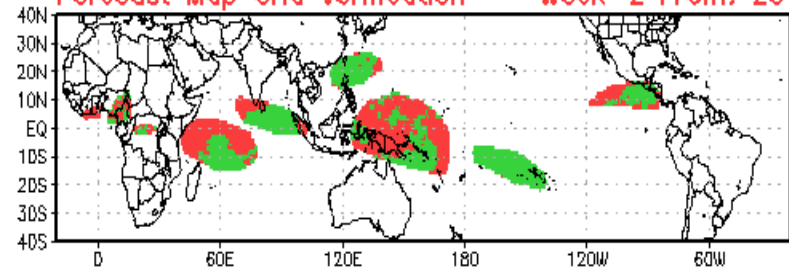
Categorization of 7-Day OLR (#) -- Ending: 20160614



Forecast Map Grid -- Week-2 From: 20160531



Forecast Map Grid Verification -- Week-2 From: 20160531



Hit: Green, Miss: Red
Heidke Skill Score: 26.9325

Synopsis of Climate Modes

ENSO:

- La Nina Watch in effect as of 14 April 2016

ENSO-neutral conditions are present and La Niña is favored to develop during the Northern Hemisphere summer 2016, with about a 75% chance of La Niña during the fall and winter 2016-17.

MJO and other subseasonal tropical variability:

- MJO in phase 2 over the Indian Ocean.
- Most dynamical model MJO index forecasts depict the MJO signal to continue from the Indian Ocean to the Maritime Continent. Disagreement increases during Week-2.

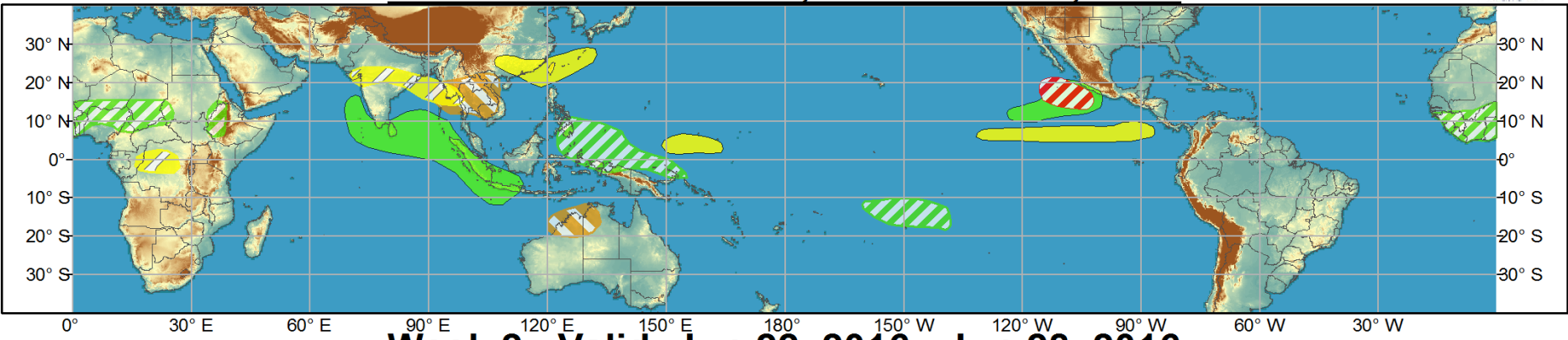
Extratropics:

- The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by the MJO, but more likely to be impacted by indirectly by tropical cyclones.

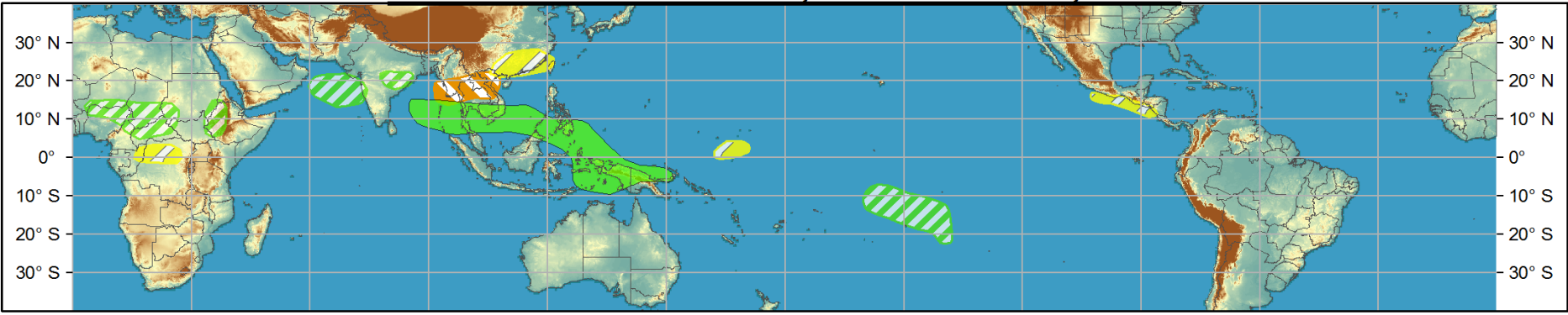


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 15, 2016 - Jun 21, 2016



Week 2 - Valid: Jun 22, 2016 - Jun 28, 2016



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: 06/14/2016

Forecaster: Rosencrans

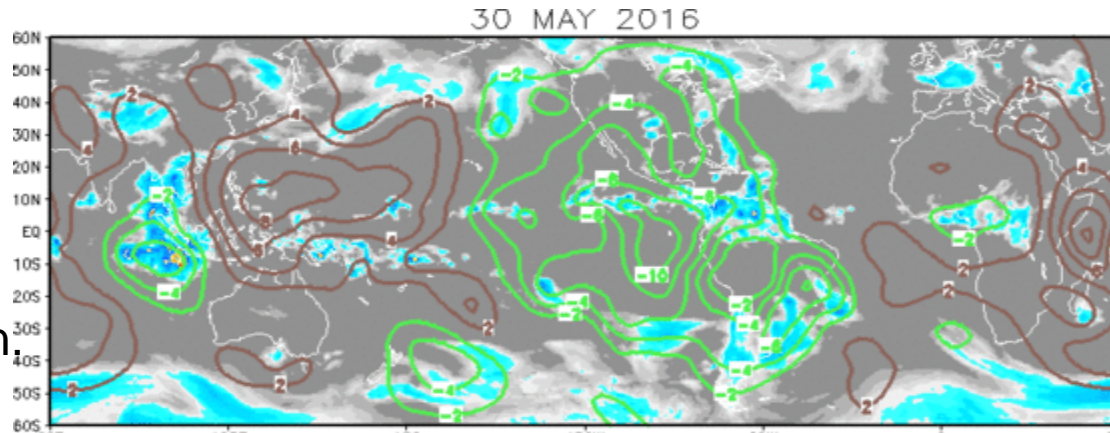
Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



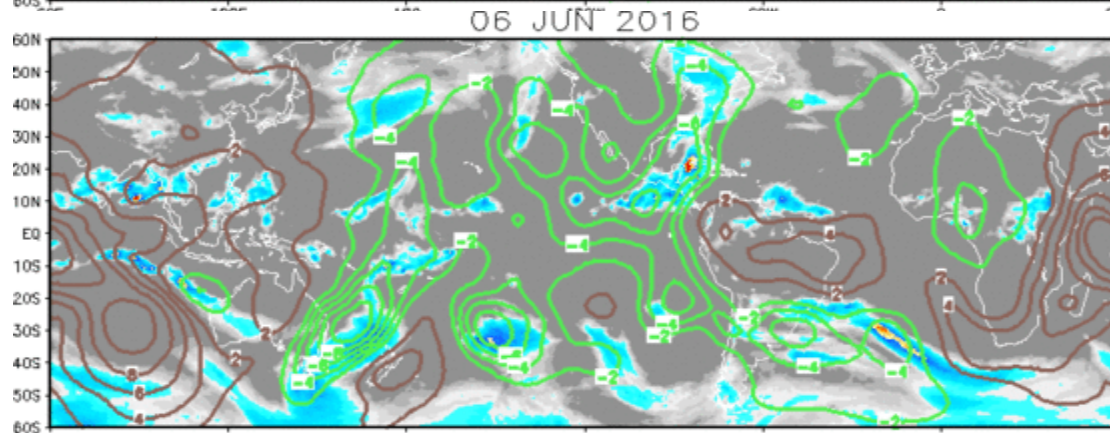
IR Satellite & 200-hPa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

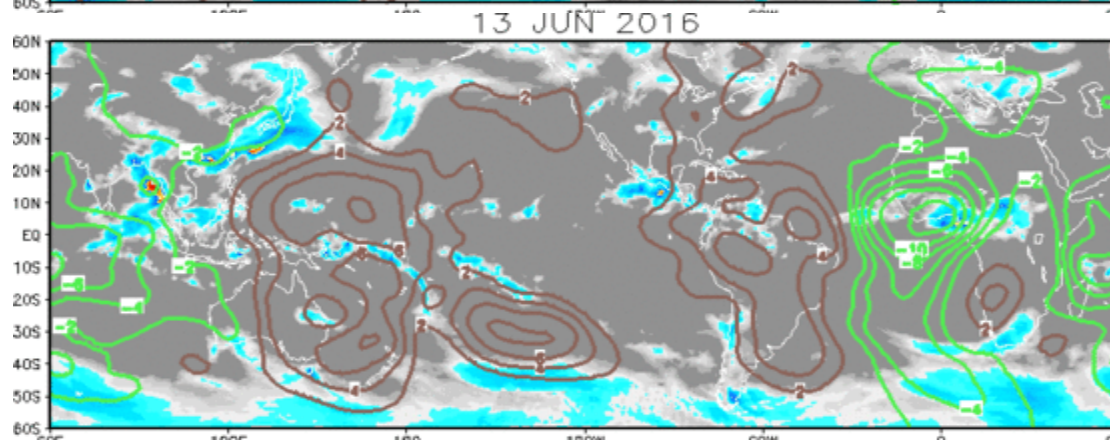
Wave-2 pattern
with 200-hPa
divergence over
Americas, Africa,
and Indian Ocean



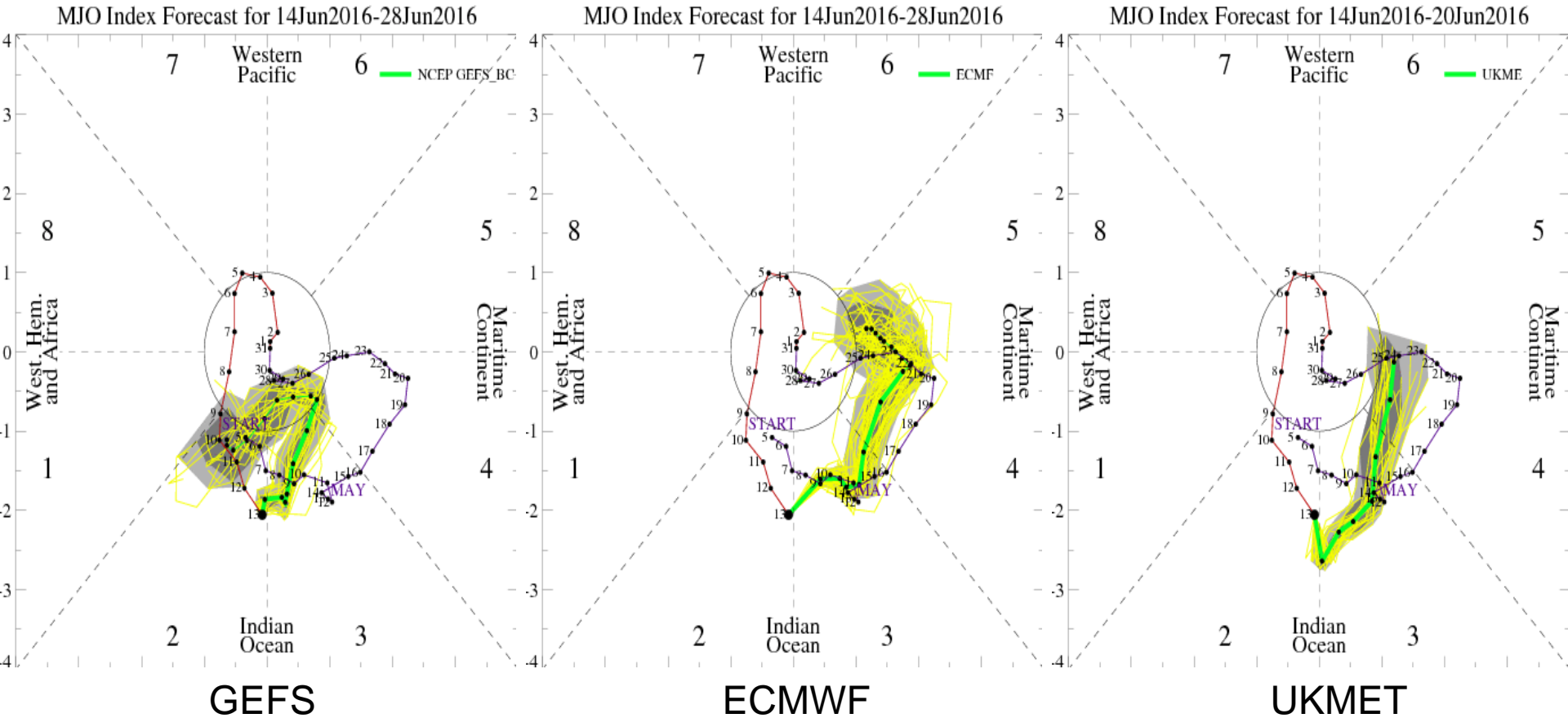
Eastward
propagation of
pattern from
prior week.



Upper-level
divergence over
Maritime
Continent, E.
Pacific, and W.
Africa.



MJO Observation/Forecast

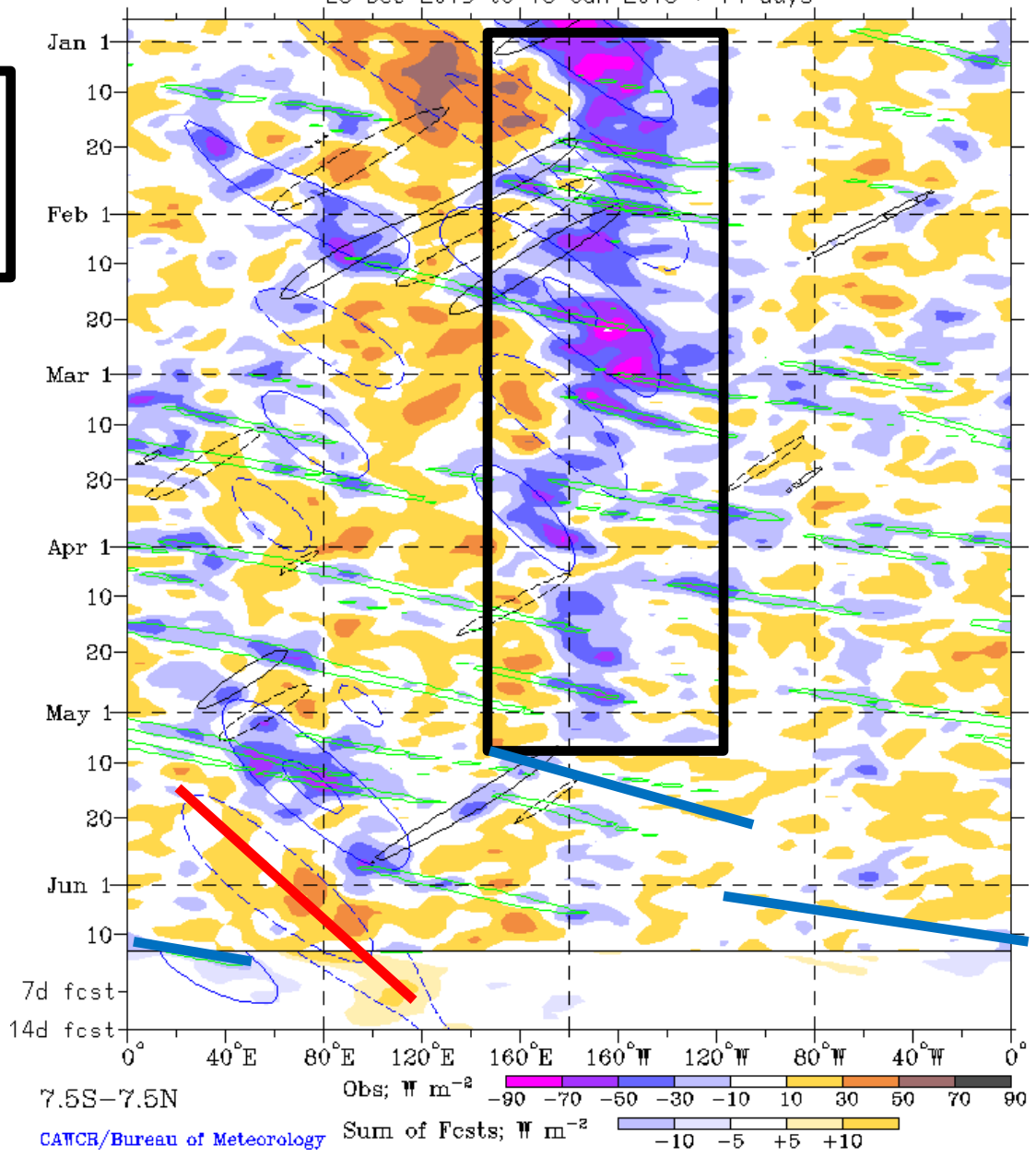


Wheeler-Hendon based analyses of model forecasts indicate a continued signal through Week-1, but diverge in Week-2..

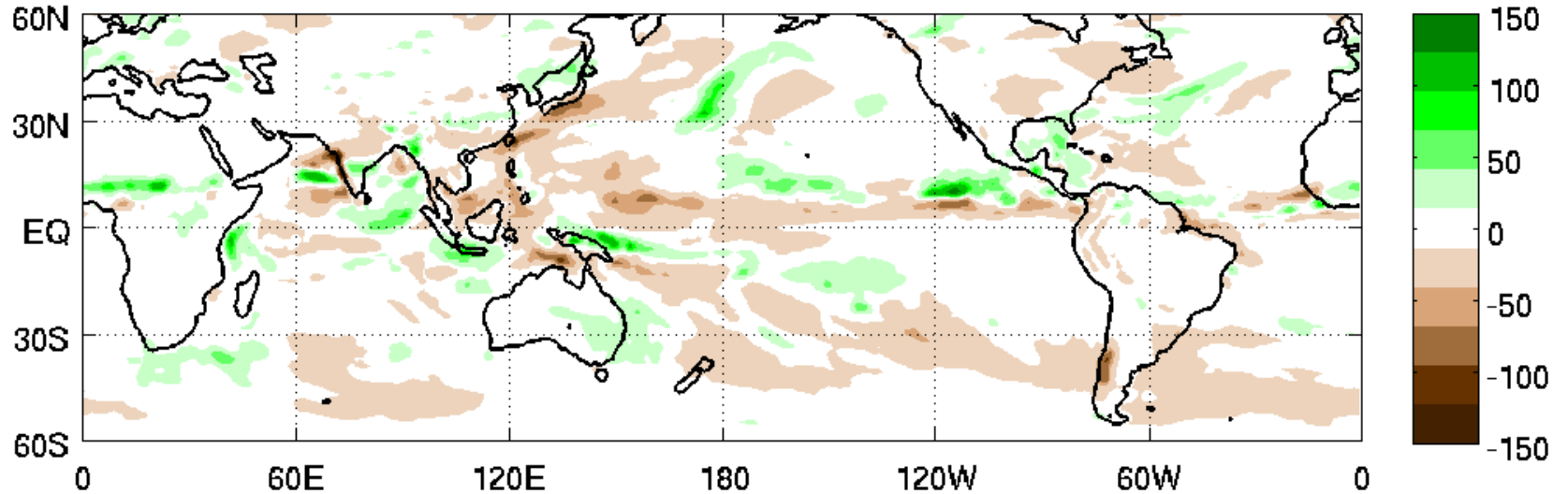
Real-time filtering superimposed upon 1-2-1 filt, R21, OLR Anoms
MJO blue CINT=10; n1ER black CINT=10; Kelvin green CINT=15
Negative contours solid, positive dashed (excluding Kelvin)
28-Dec-2015 to 13-Jun-2016 + 14 days

El Niño appearance
suppressed relative to
earlier this year.

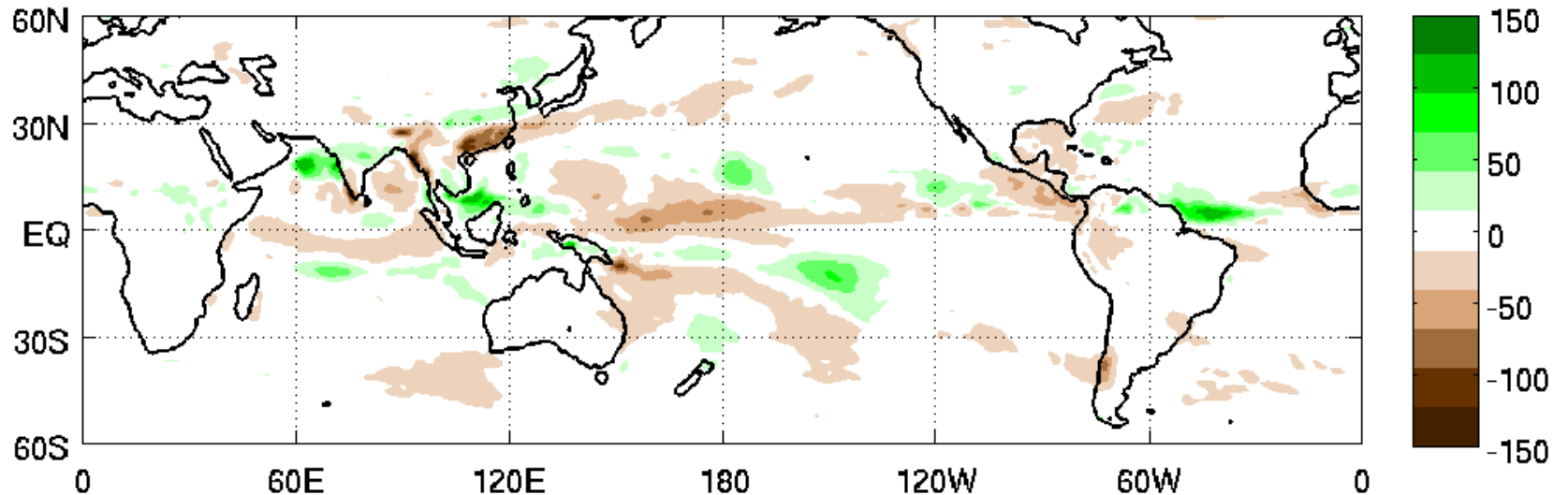
Complicated pattern with
MJO and **Kelvin waves** as
the major influences.



CFS: Anom. PREC Week: 1: 15-Jun-2016 to 21-Jun-2016 (mm/week)



CFS: Anom. PREC Week: 2: 22-Jun-2016 to 28-Jun-2016 (mm/week)





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



No new tropical cyclones are expected during the next five days.

Tropical Cyclone Formation Potential for the Five-Day Period Ending at 2:00 pm EDT Sun Jun 19 2016

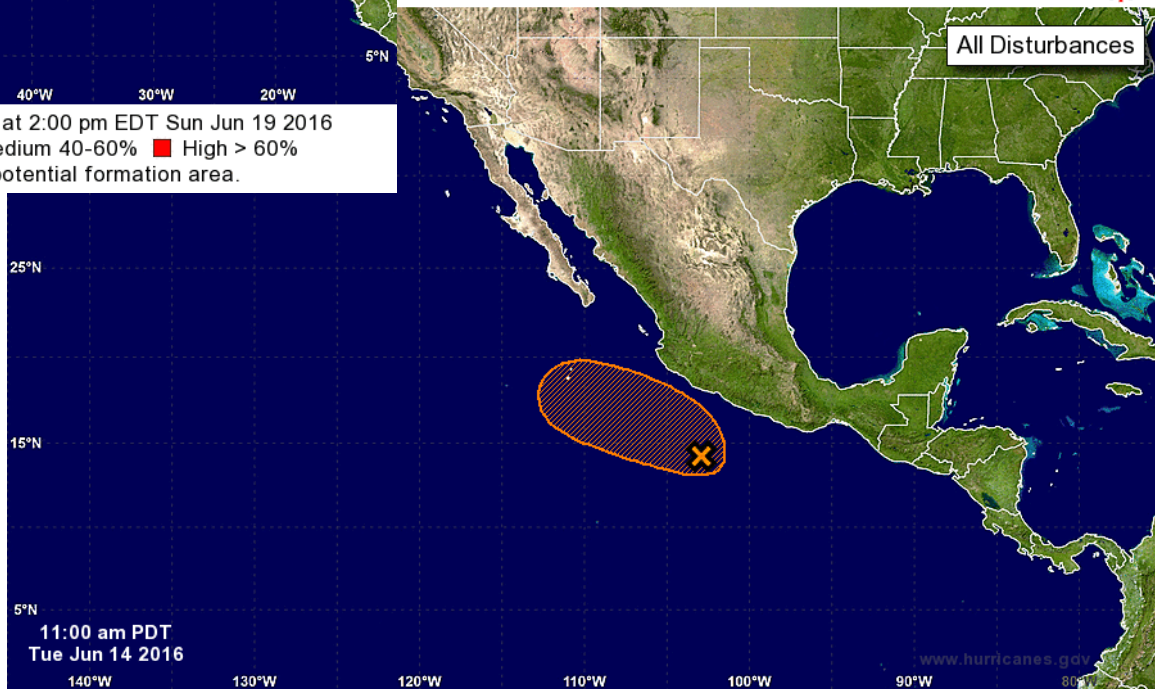
Chance of Cyclone Formation in Five Days: ■ Low < 40% ■ Medium 40-60% ■ High > 60%

X indicates current disturbance location; shading indicates potential formation area.

Graphical Tropical Weather Outlooks

Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



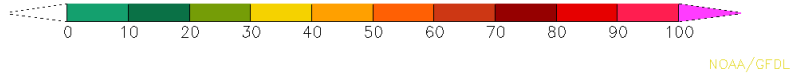
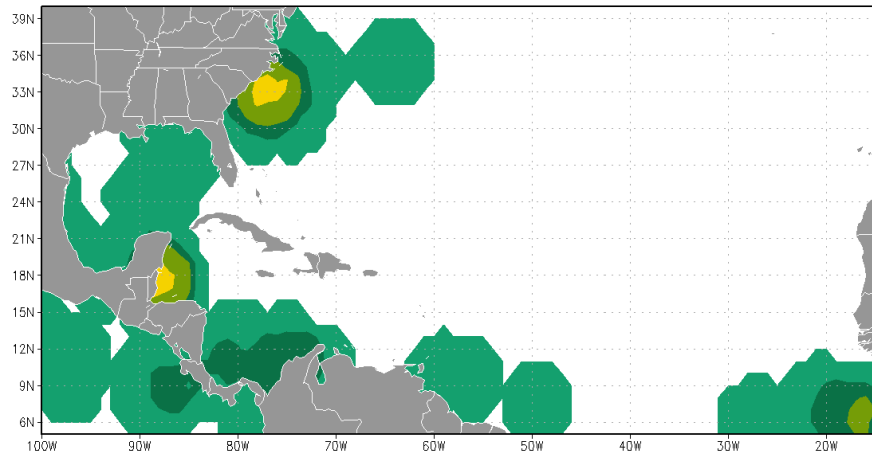
Tropical Cyclone Formation Potential for the Five-Day Period Ending at 11:00 am PDT Sun Jun 19 2016

Chance of Cyclone Formation in Five Days: ■ Low < 40% ■ Medium 40-60% ■ High > 60%

X indicates current disturbance location; shading indicates potential formation area.

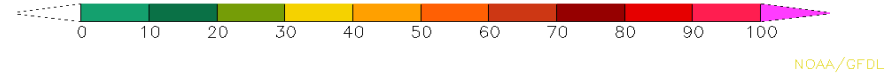
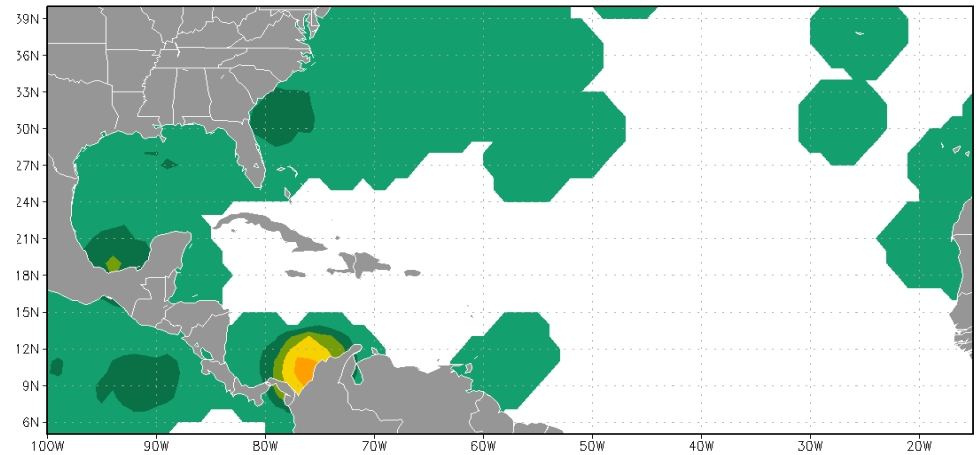
Ensemble-based Probability (%) of TC genesis
using these global ensembles: NCEP CMC ECMWF

For forecasts during the 00–120h period from initial time = 2016061400



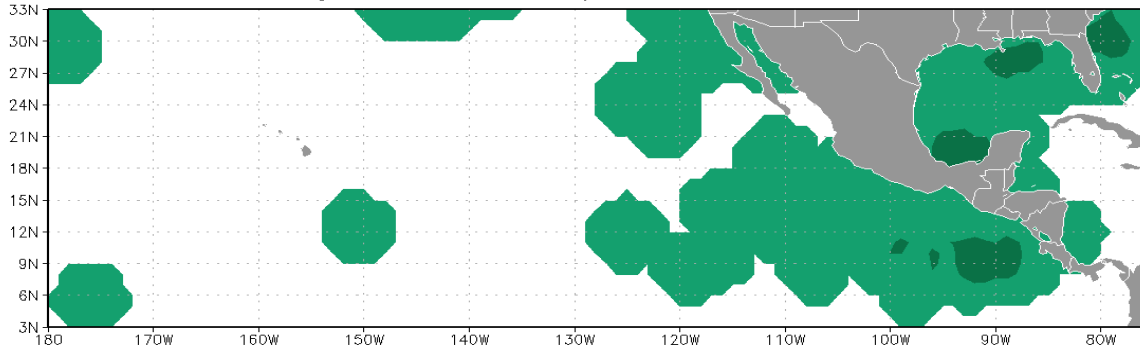
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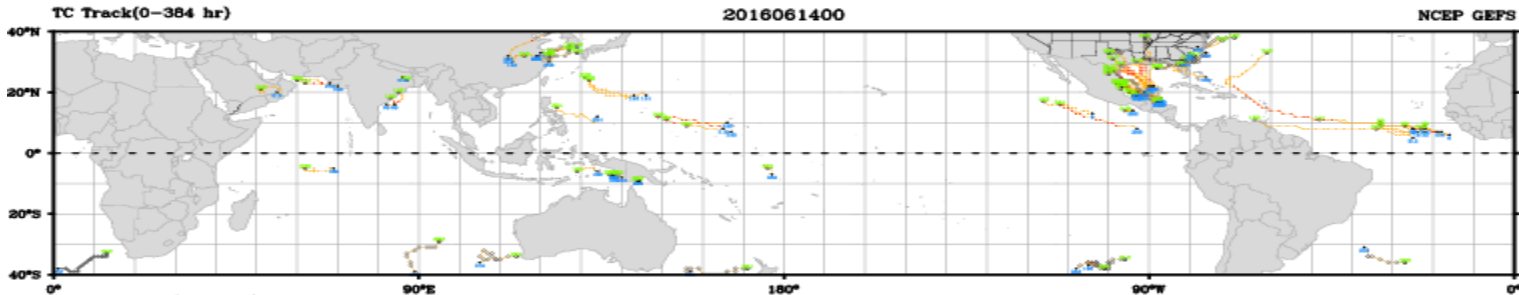
For forecasts during the 120–240h period from initial time = 2016061400



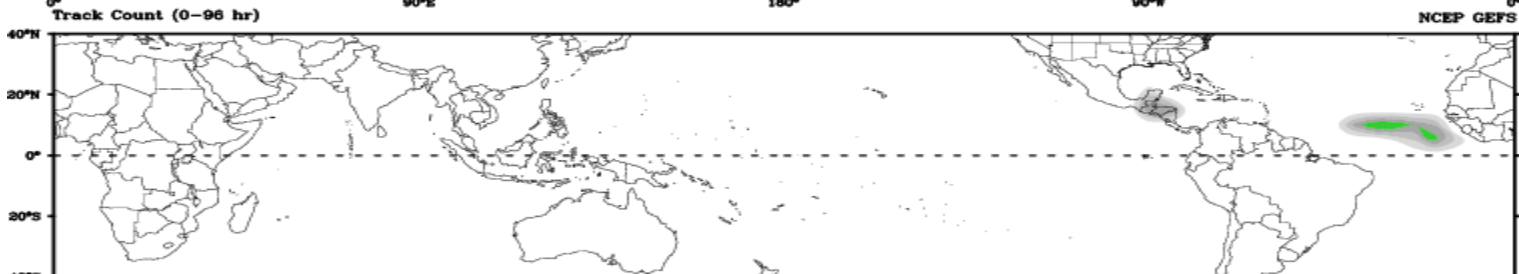
Ensemble-based Probability (%) of TC genesis
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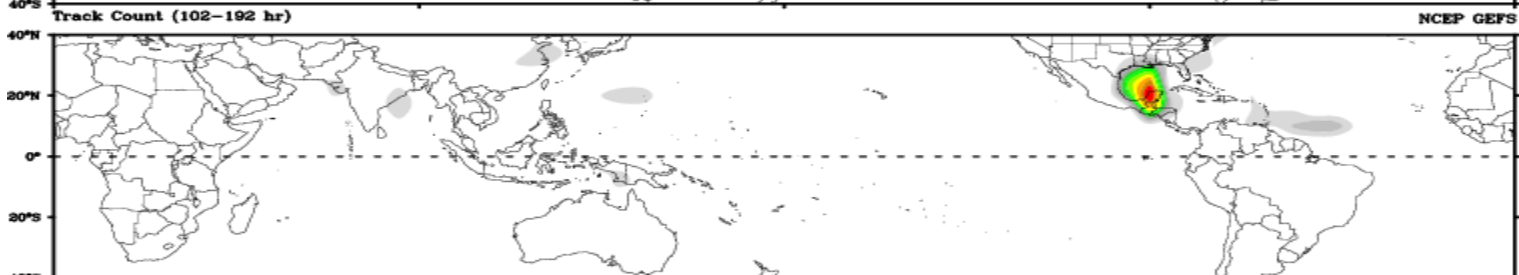




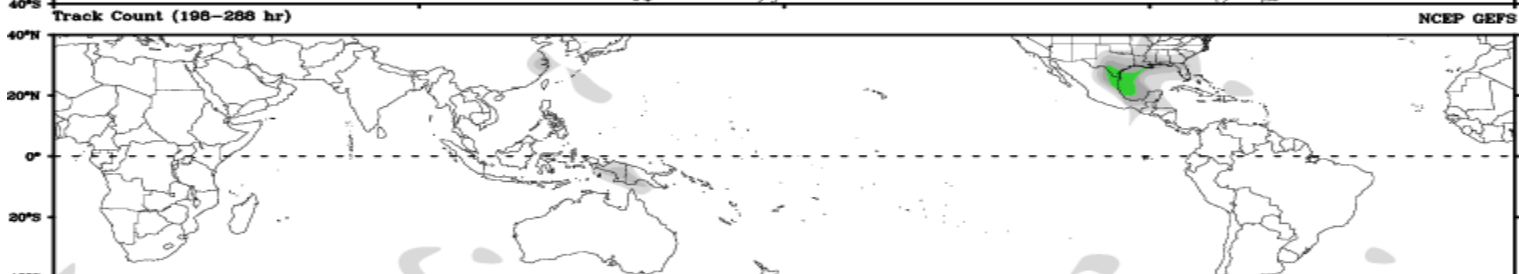
Days 1-4



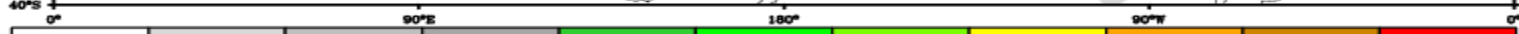
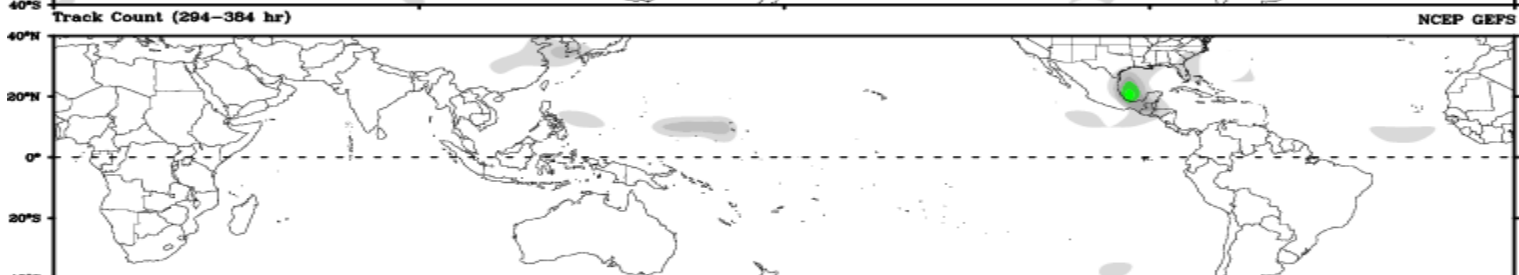
Day 5-8



Day 9-12

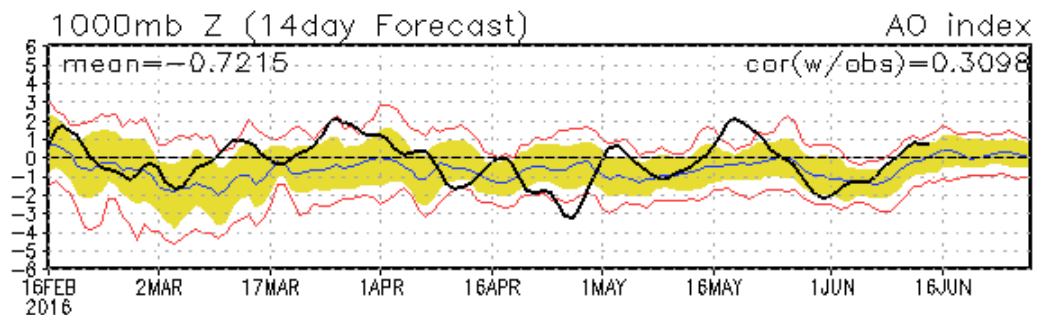
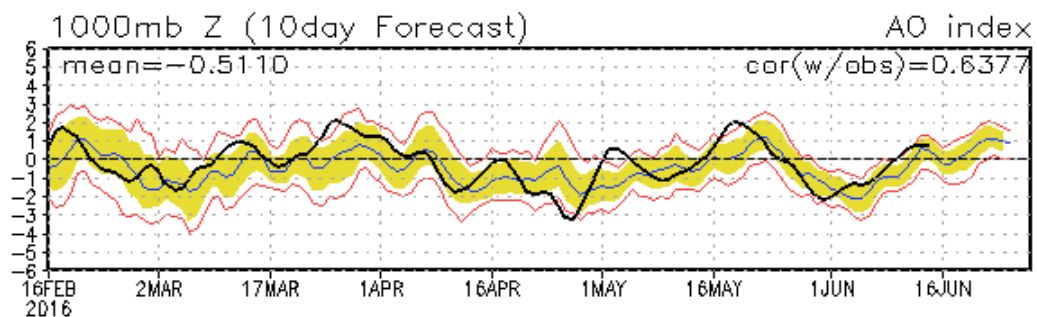
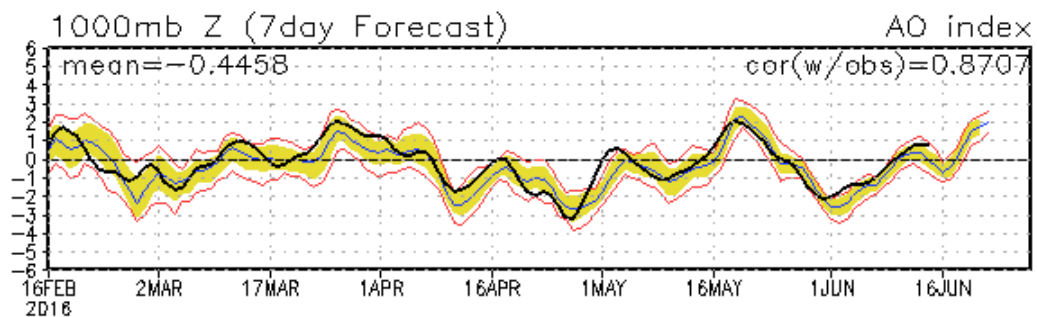
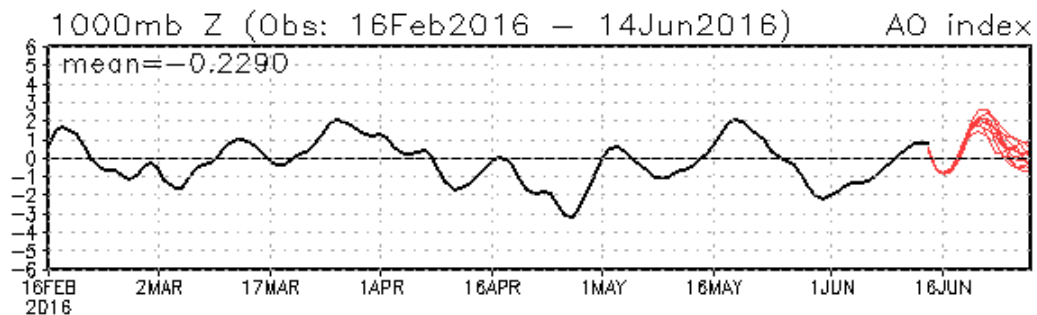


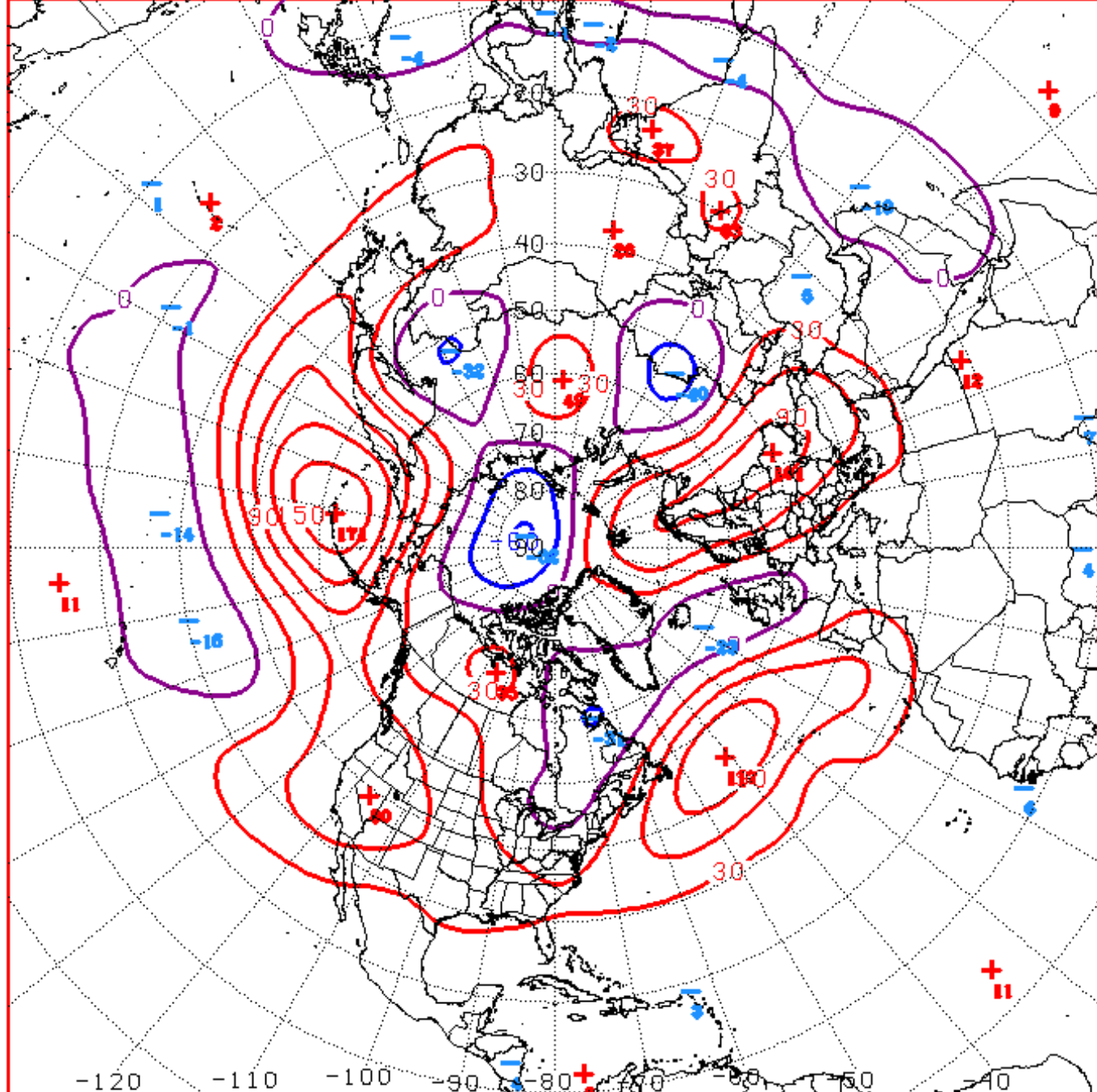
Day 13-15



Connections to U.S. Impacts

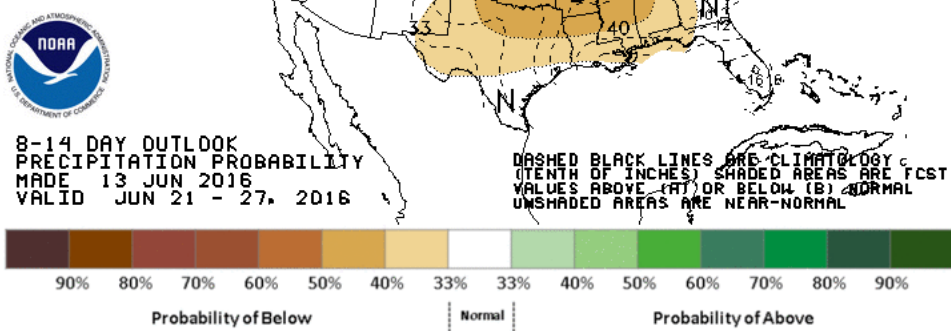
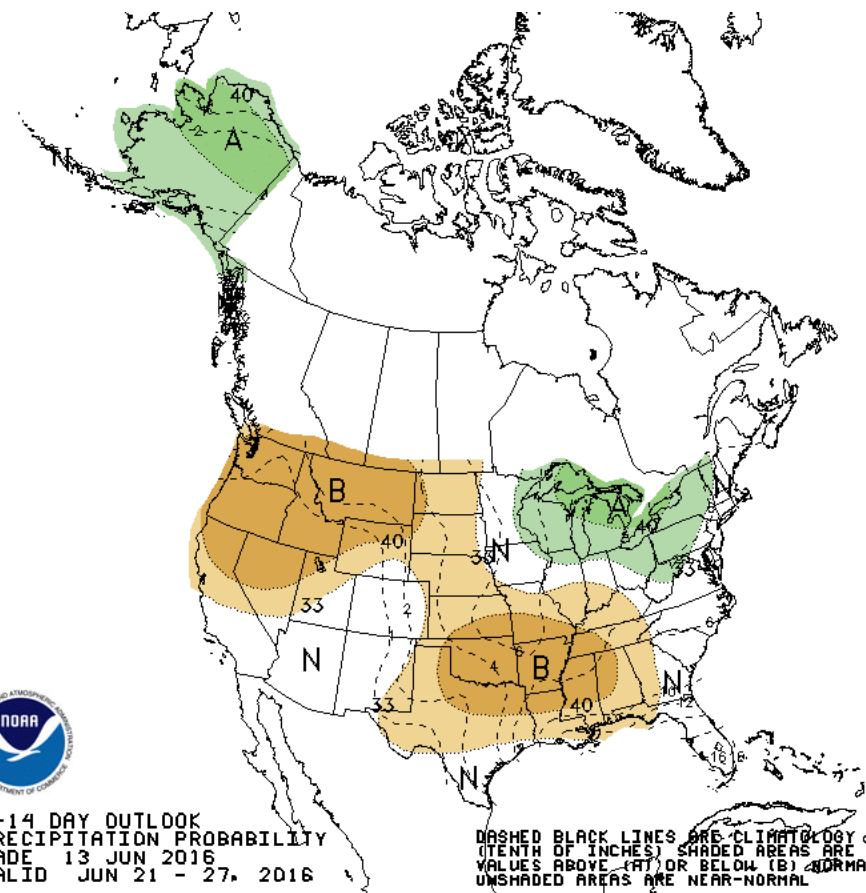
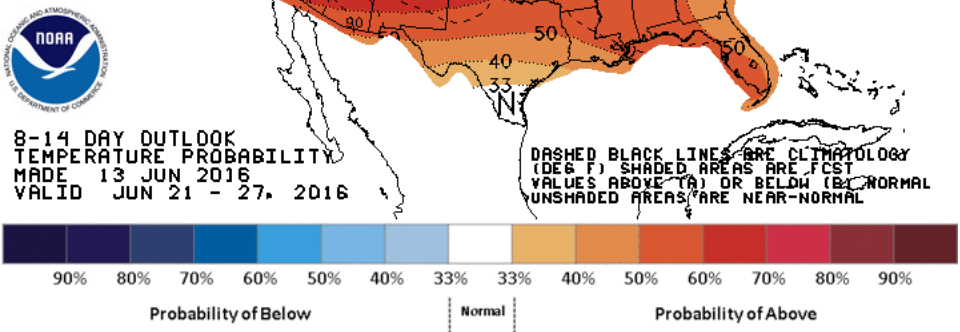
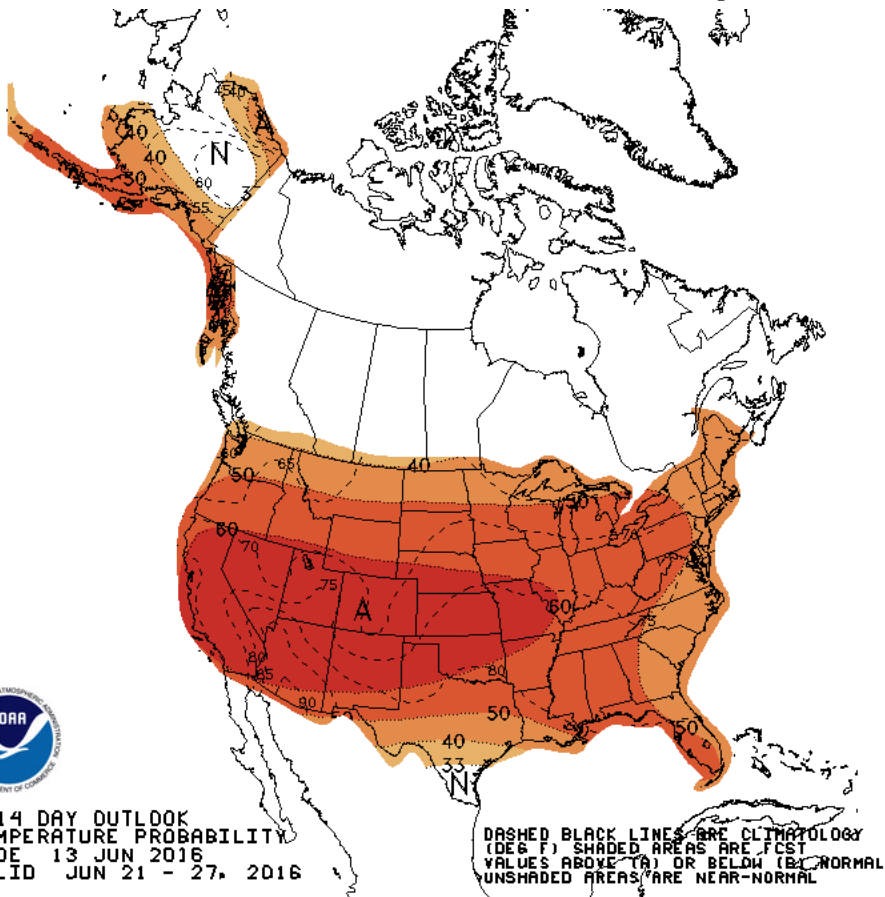
AO: Observed & ENSM forecasts





D+11 500 MB ANOMALIES FROM 00Z ECMM
 CPC MAP MADE JUN 14 2016 1010 UTC CNTD JUN 25 2016

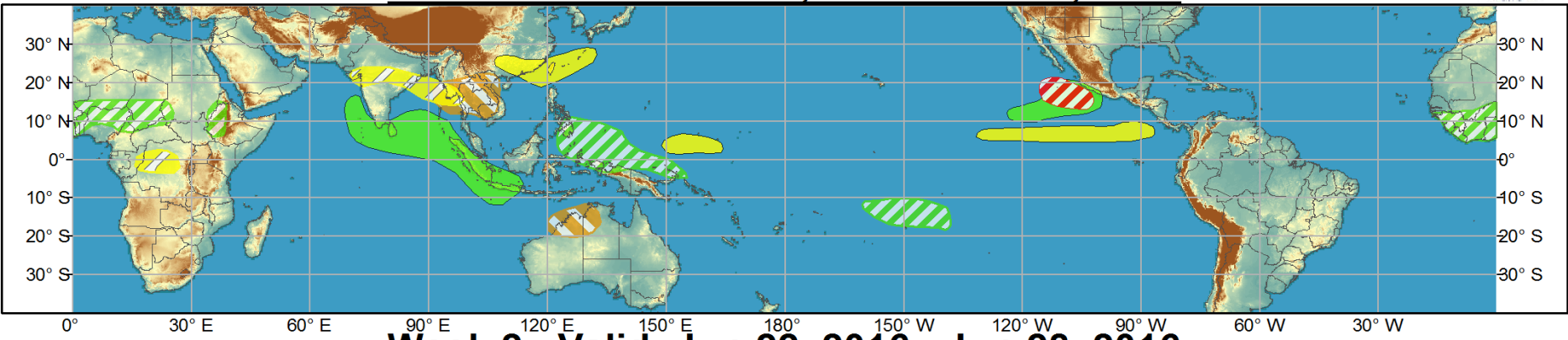
Week 2 – Temperature and Precipitation



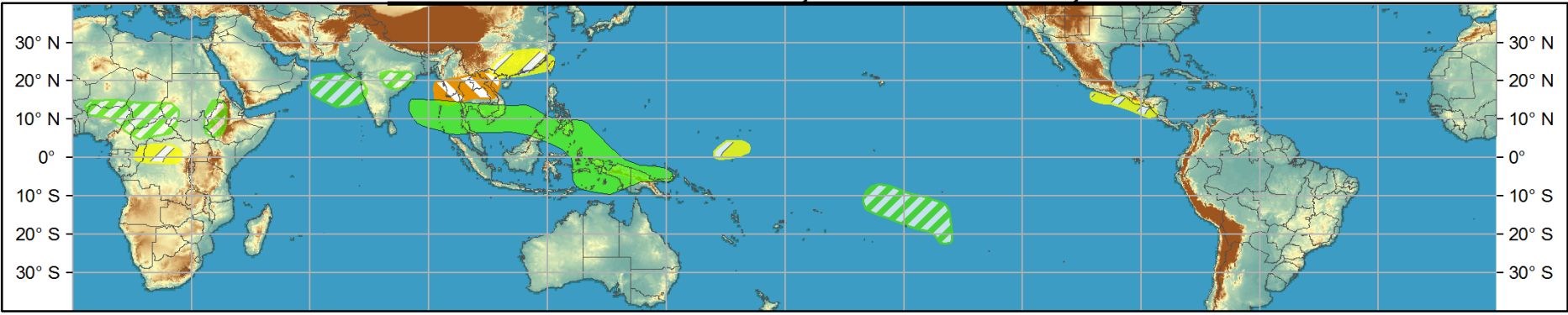


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