

Global Tropics Hazards And Benefits Outlook

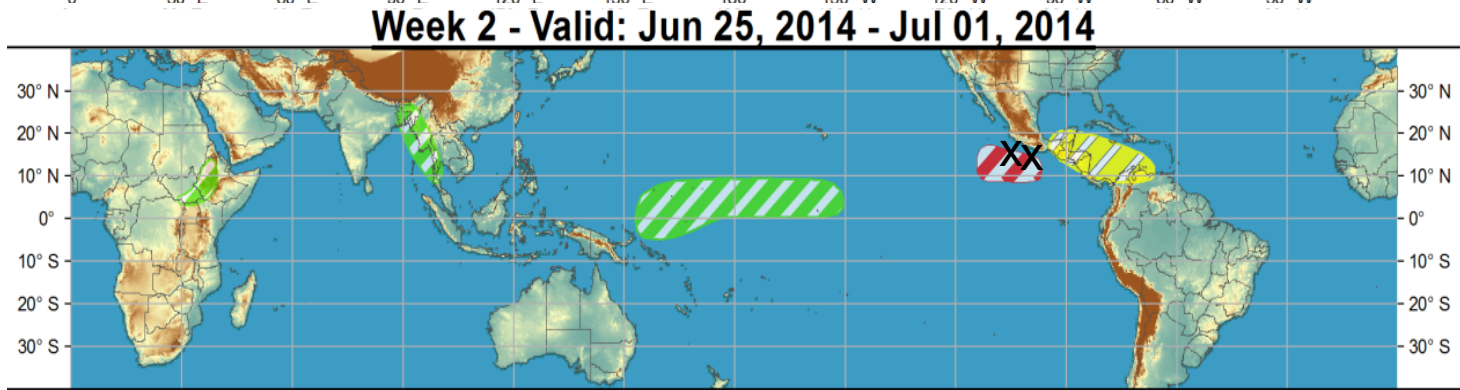
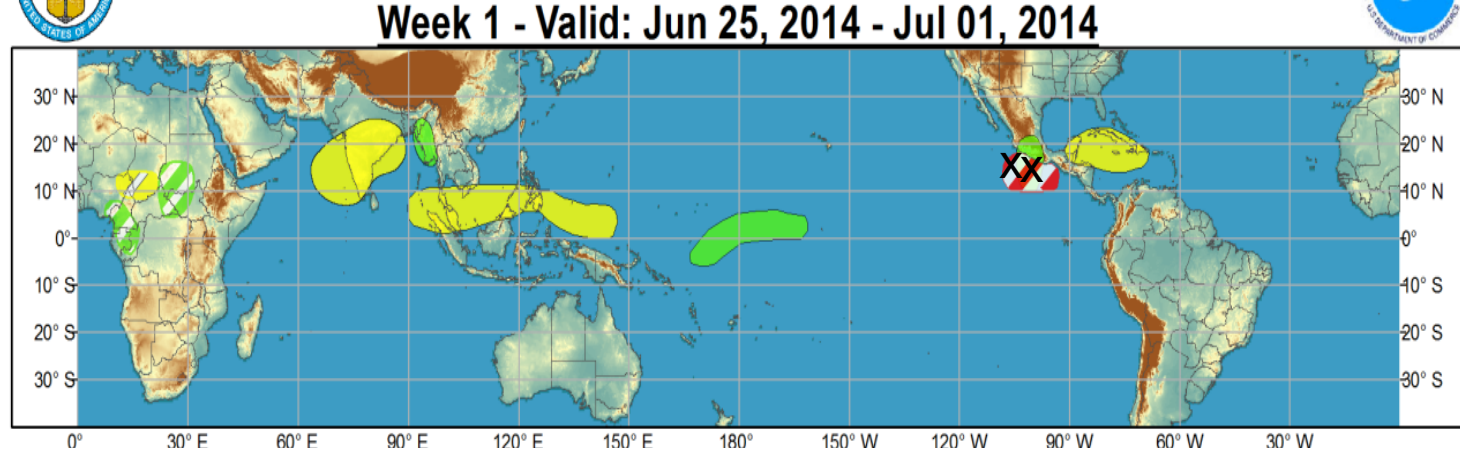
July 1, 2013

Matthew Rosencrans

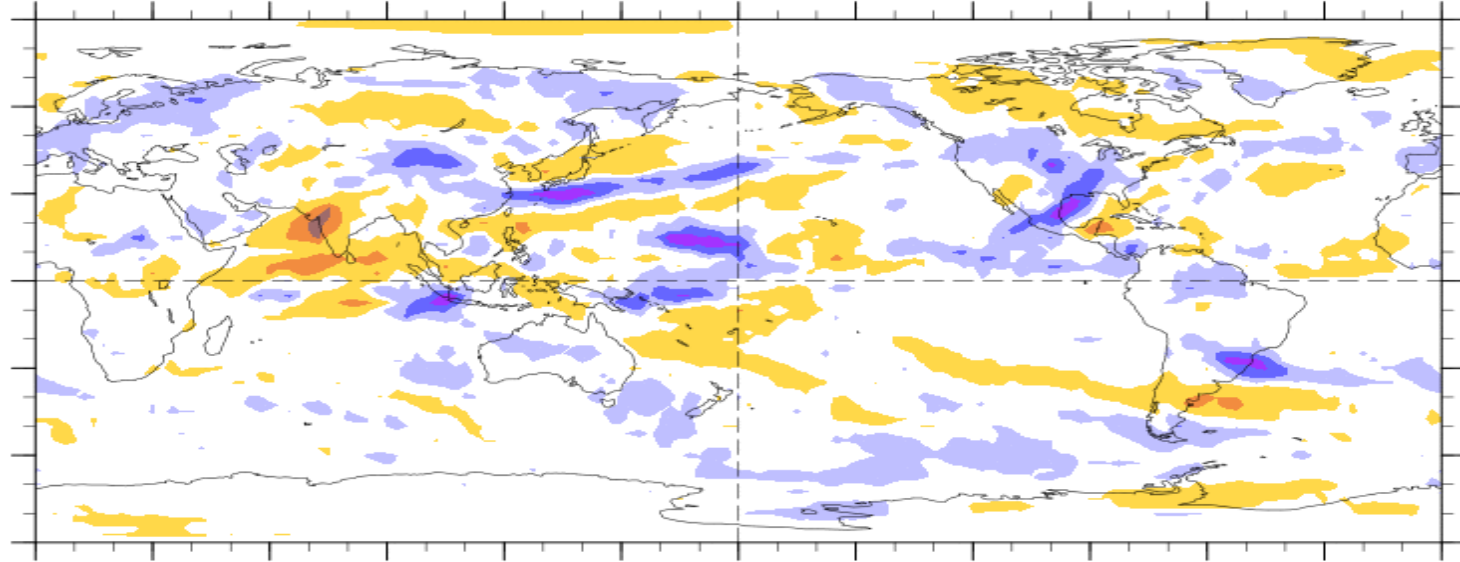
Outline

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

Outlook Review



7-Day Average OLR Anomaly 2014/06/23 - 2014/06/29



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

- El Niño Watch. The chance of El Niño is 70% during the Northern Hemisphere summer and reaches 80% during the fall and winter.

MJO and other subseasonal tropical variability:

- The MJO remained weak according to the WH-RMM index, with some weakening in the CPC index as well.
- Model forecasts of the MJO are less varied than last week, with most of the global models indicating rapid eastward propagation (consistent with Kelvin Wave activity) and an emerging signal over the Maritime Continent.

Extratropics:

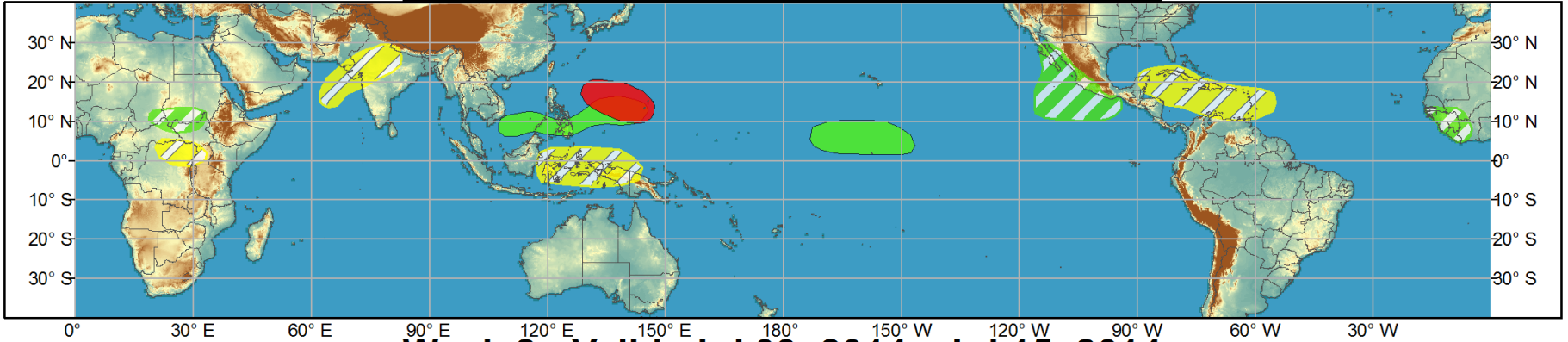
- The residual MJO signal and Kelvin Waves are likely to have an impact in the shorter term forecasts with increased moisture across the monsoon region and the Southeast.



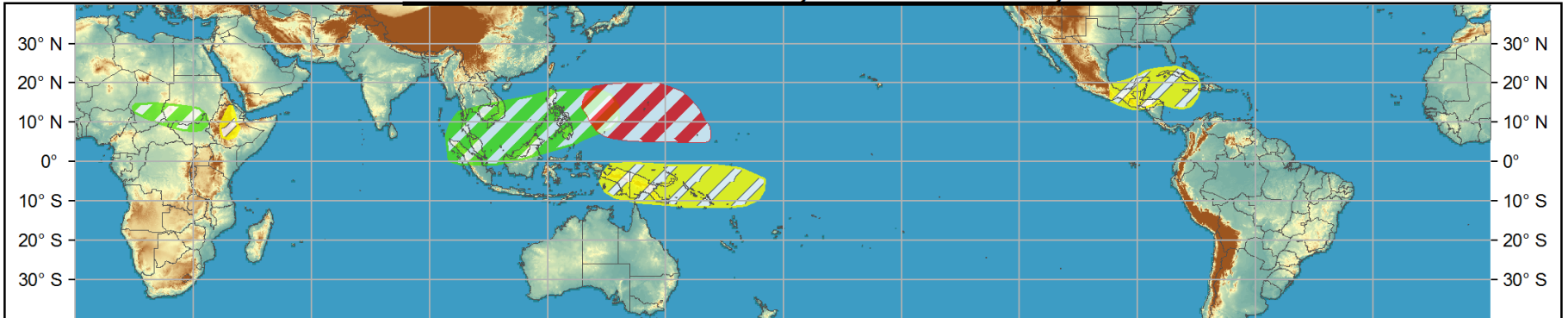
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Jul 02, 2014 - Jul 08, 2014



Week 2 - Valid: Jul 09, 2014 - Jul 15, 2014



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: 07/01/2014

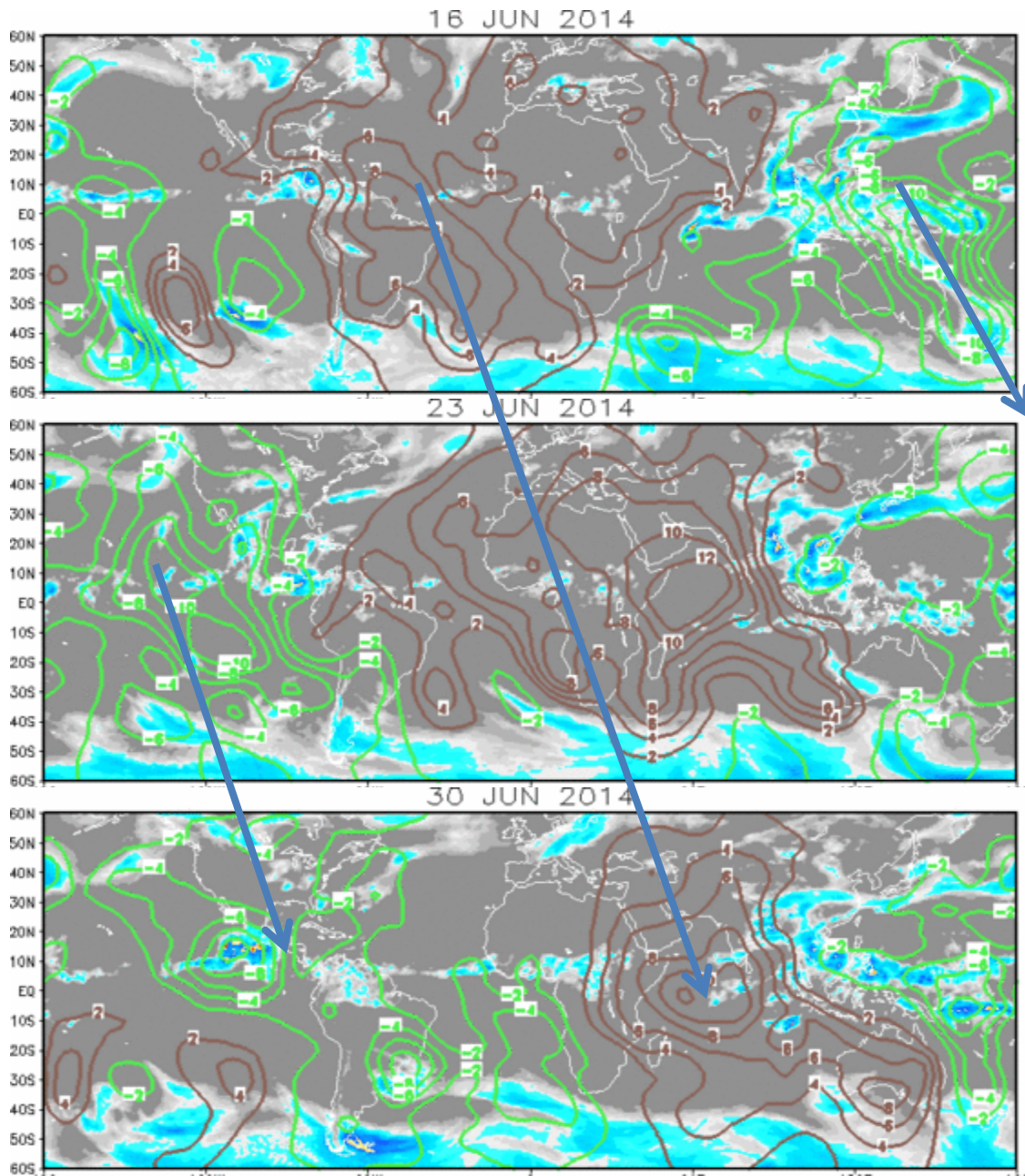
Forecaster: Rosencrans

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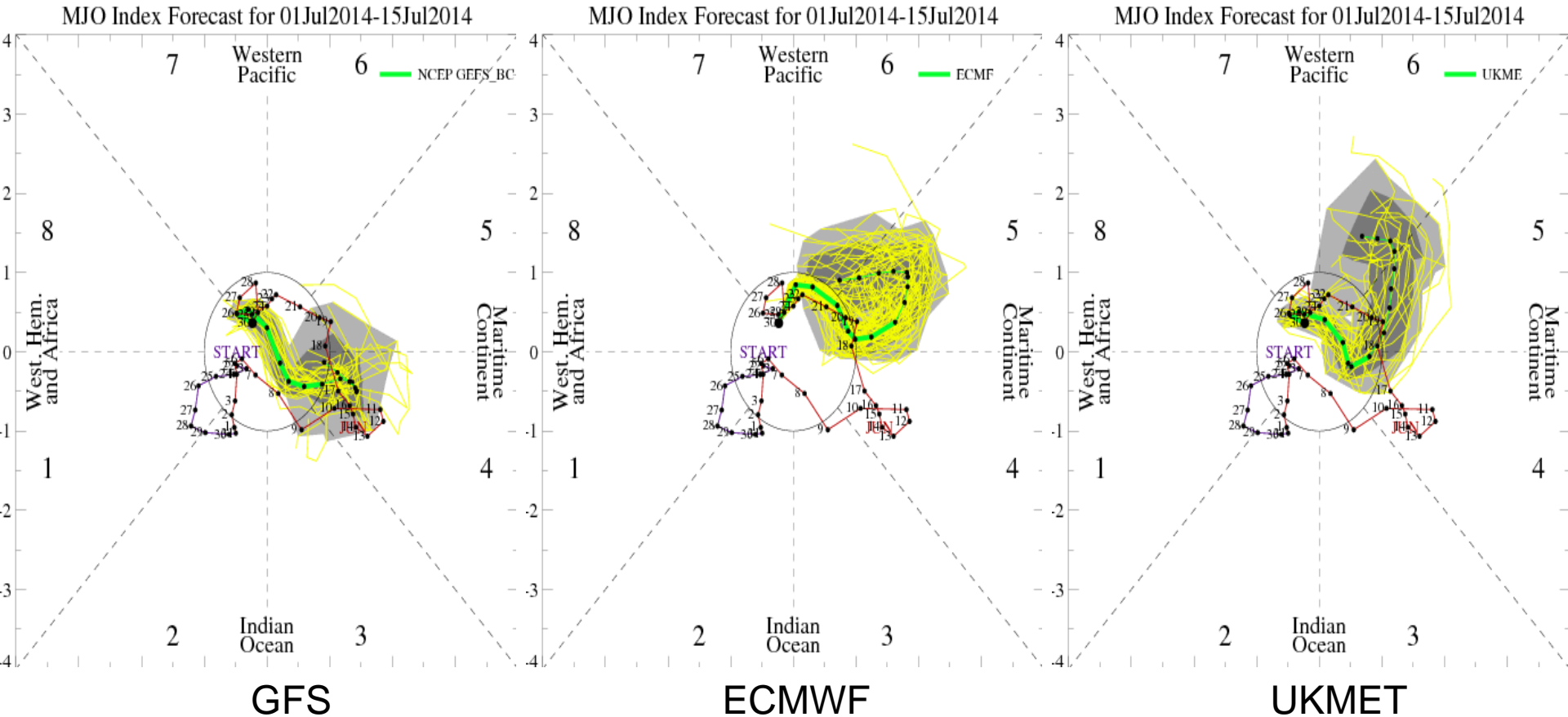


IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

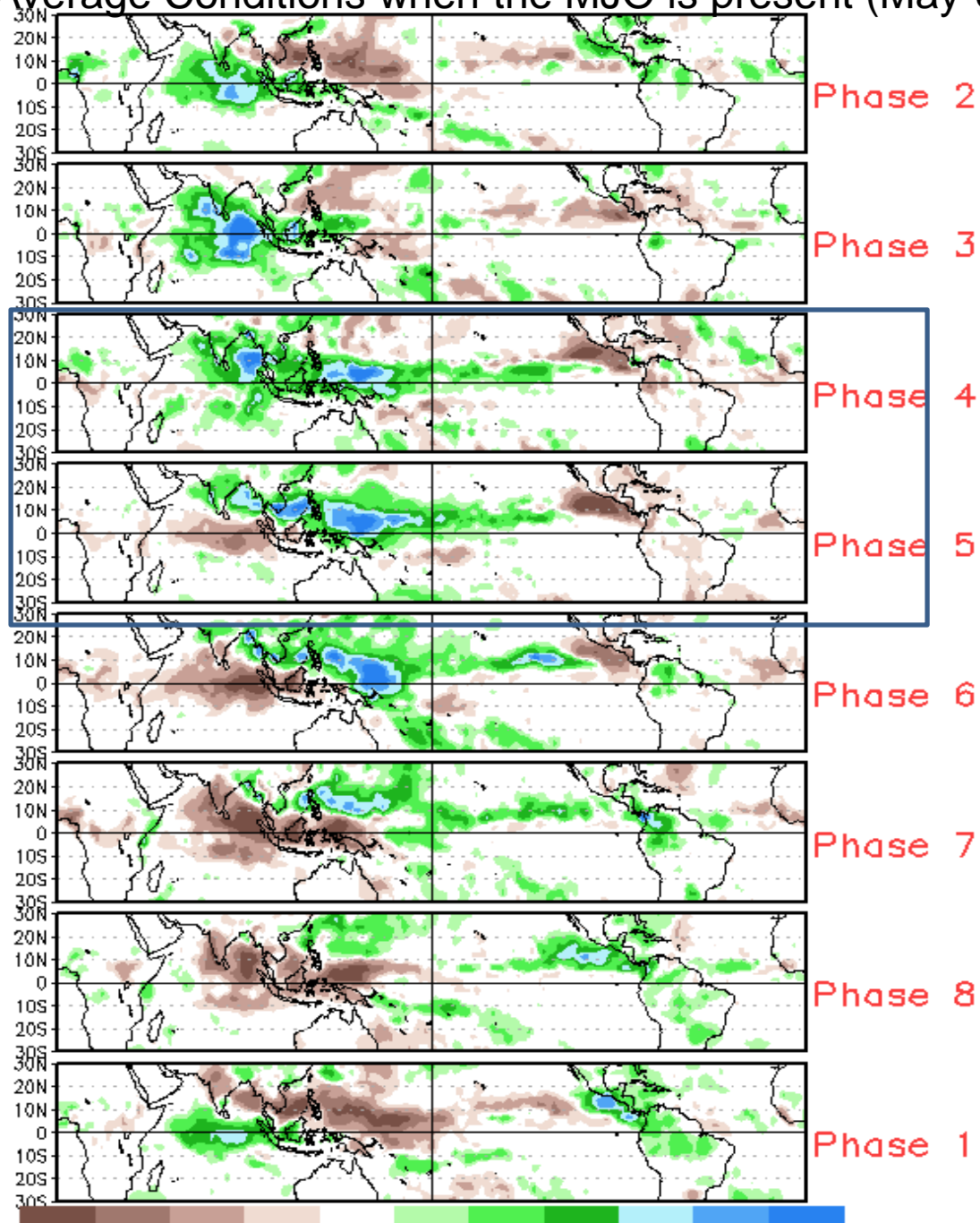


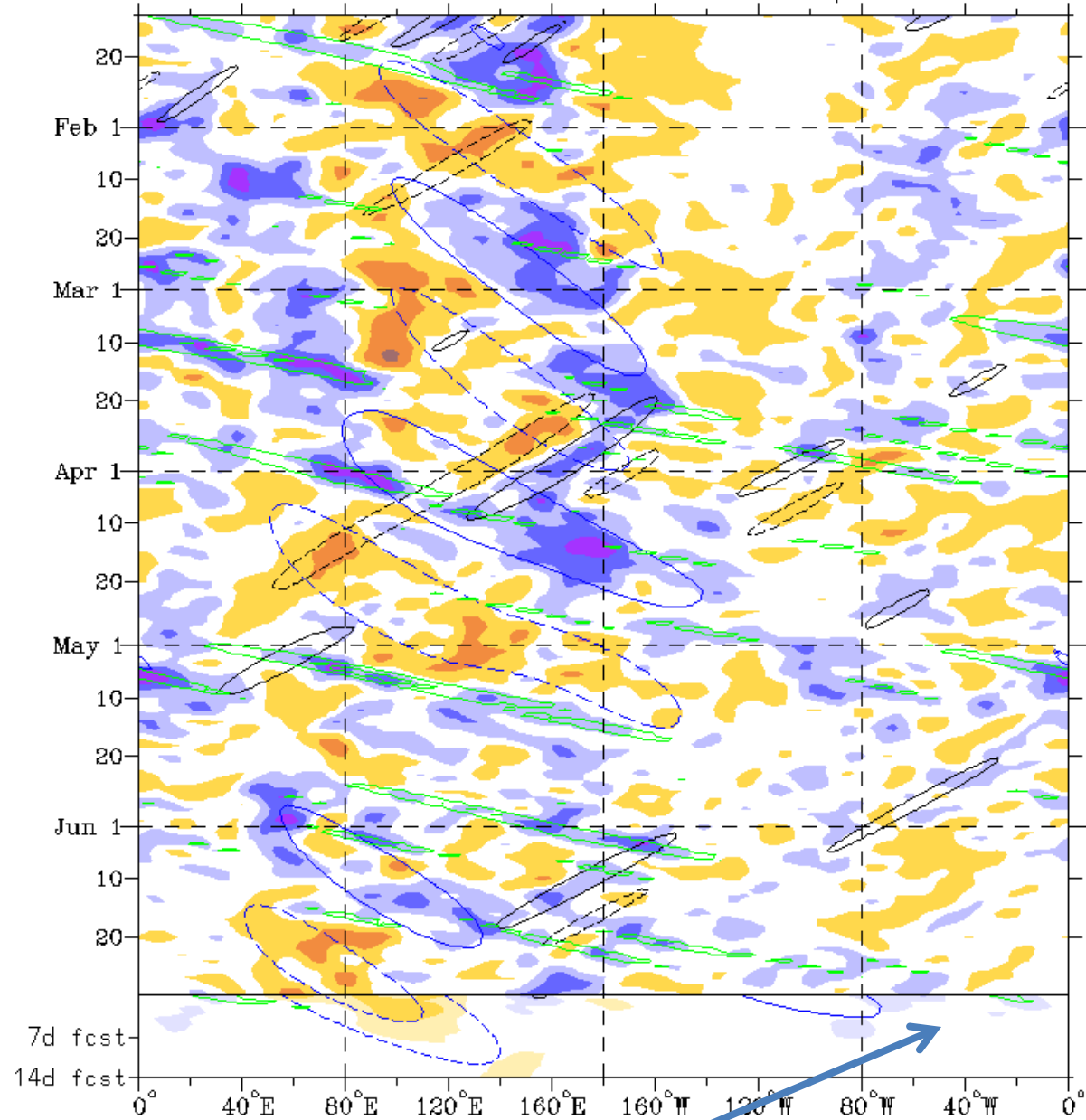
MJO Observation/Forecast



Signal is weak with upper-levels coherent and more noise in the lower levels.

Average Conditions when the MJO is present (May-Sep)



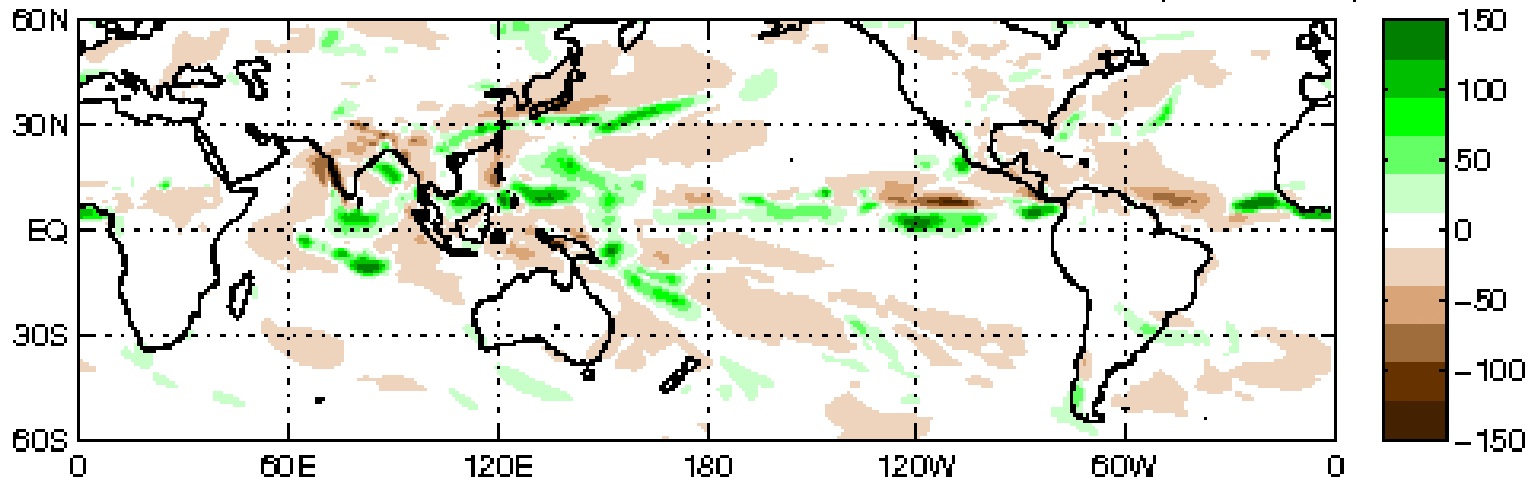


Equatorial Rossby Wave activity likely to impact Maritime Continent.

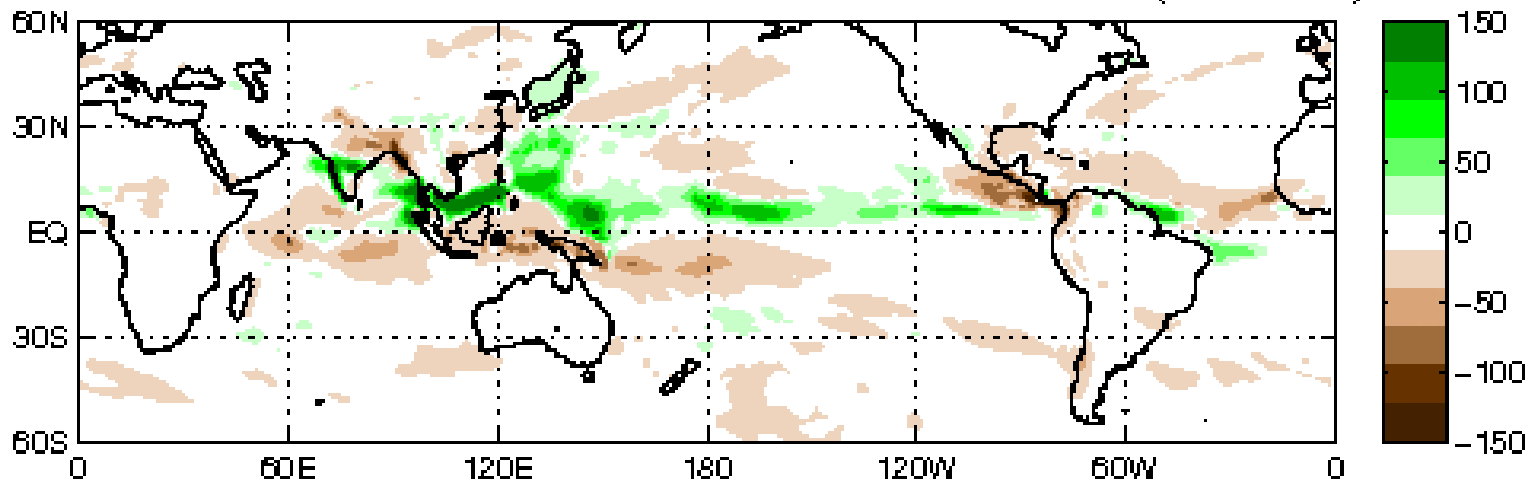
Some models indicate constructive interference of KW and ERW into Week-2.

Atmospheric Kelvin waves to impact Africa.

CFS: Anom. PREC Week1: 01-Jul-2014 to 07-Jul-2014 (mm/week)

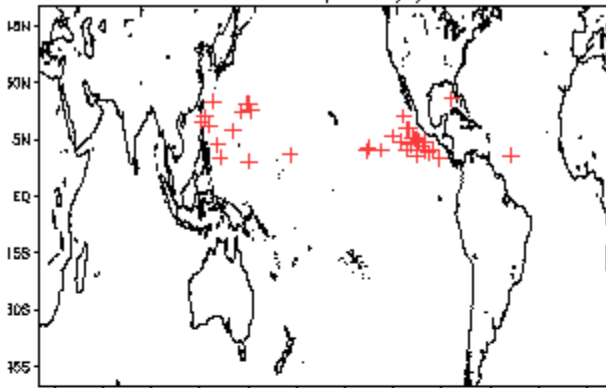


CFS: Anom. PREC Week2: 08-Jul-2014 to 14-Jul-2014 (mm/week)

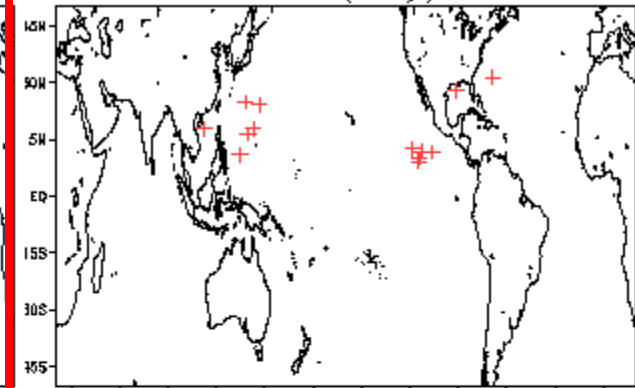


July Tropical Storm Formation by MJO phase

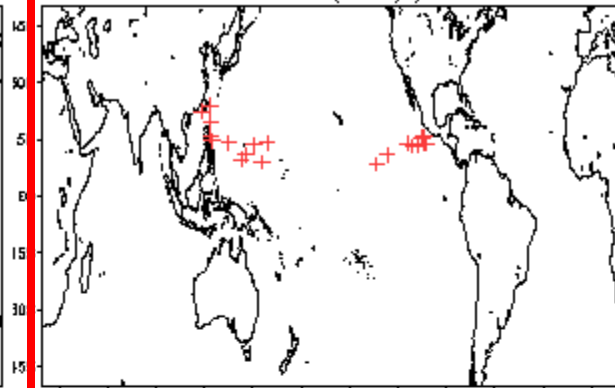
Phase 1 (144 days) 37 storms



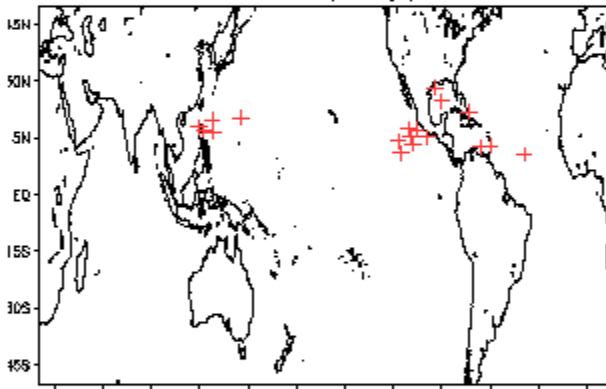
Phase 4 (40 days) 14 storms



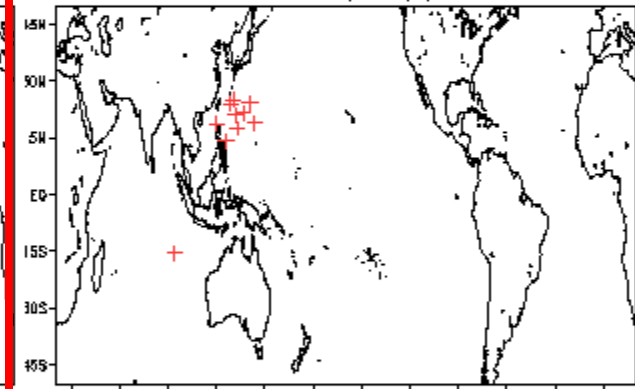
Phase 7 (87 days) 21 storms



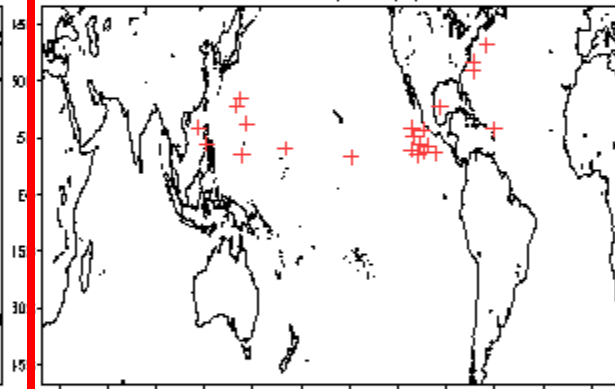
Phase 2 (74 days) 20 storms



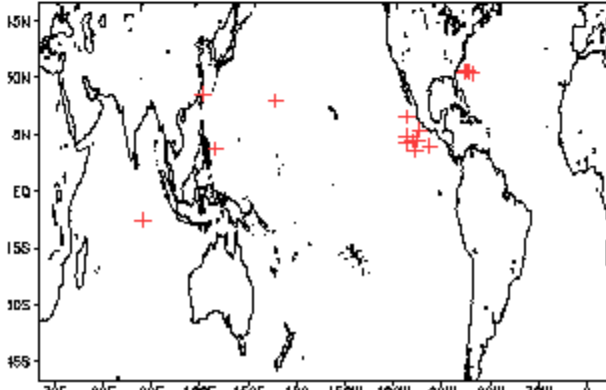
Phase 5 (63 days) 11 storms



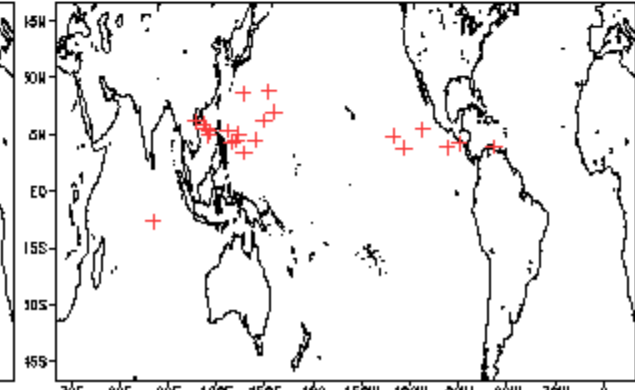
Phase 8 (61 days) 24 storms



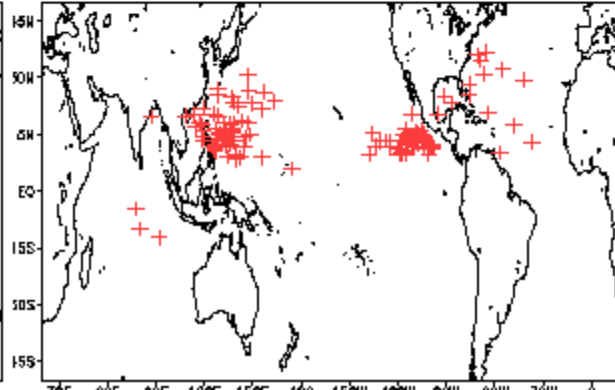
Phase 3 (49 days) 17 storms



Phase 6 (60 days) 27 storms



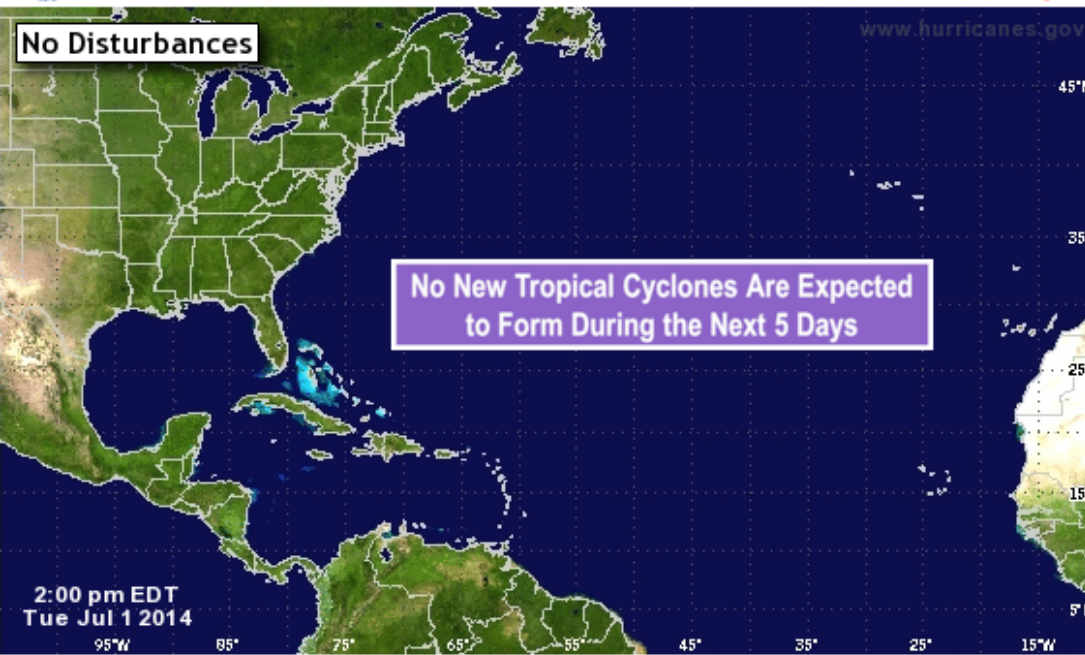
Null (480 days) 130 storms





Experimental 5-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



2:00 pm EDT
Tue Jul 1 2014

Tropical Cyclone Formation Potential for the 5-Day Period Ending 2:00 pm EDT Sun Jul 6 2014

Chance of Cyclone Formation in 5 Days: ■ Low < 30% ■ Medium 30-50% ■ High > 50%

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

Experimental 5-Day Graphical Tropical Weather Outlook

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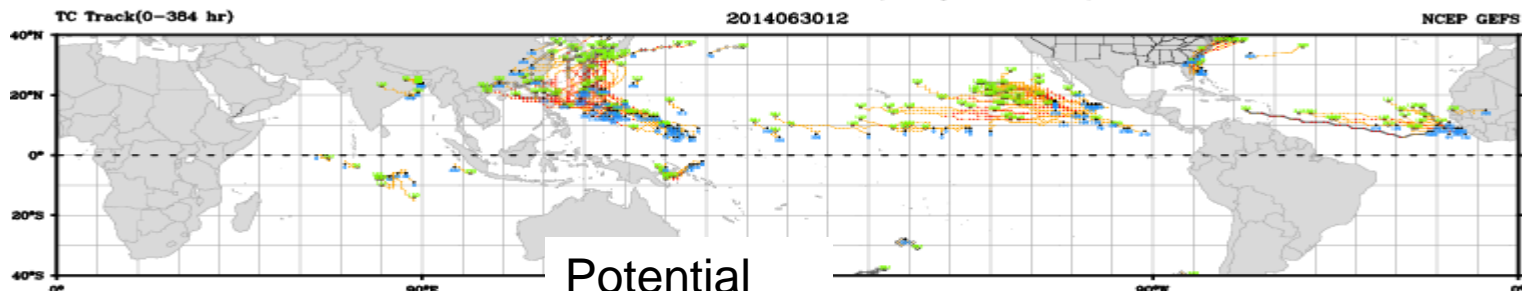


11:00 am PDT
Tue Jul 1 2014

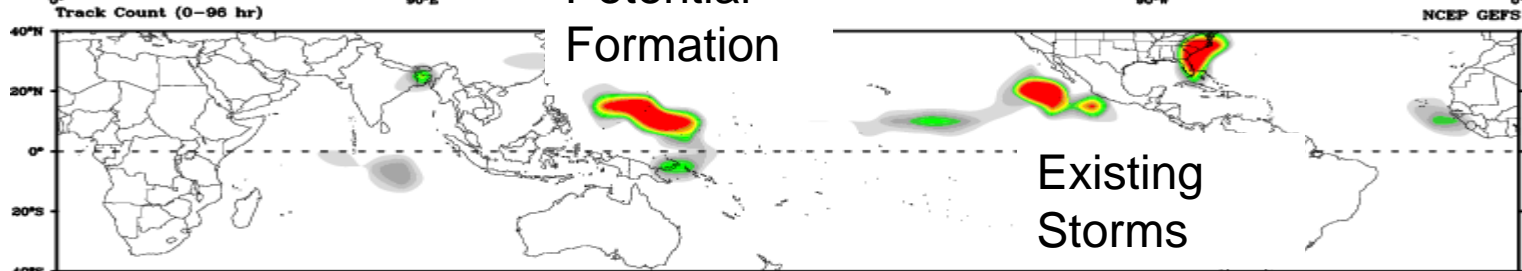
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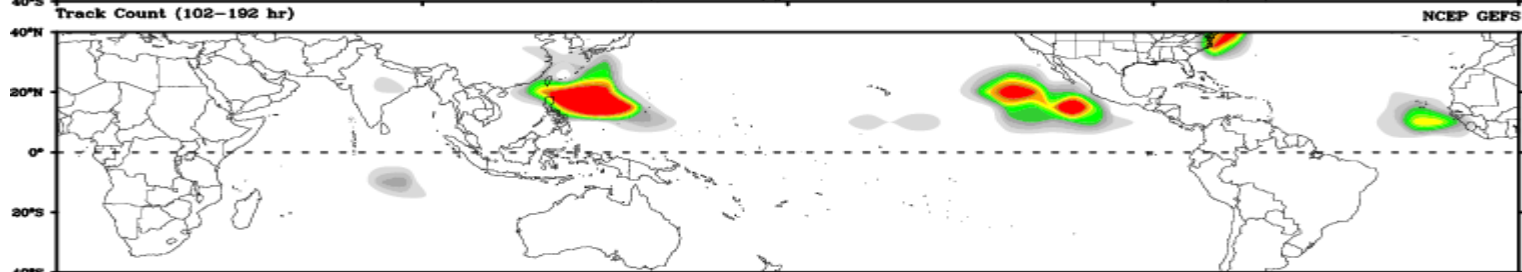
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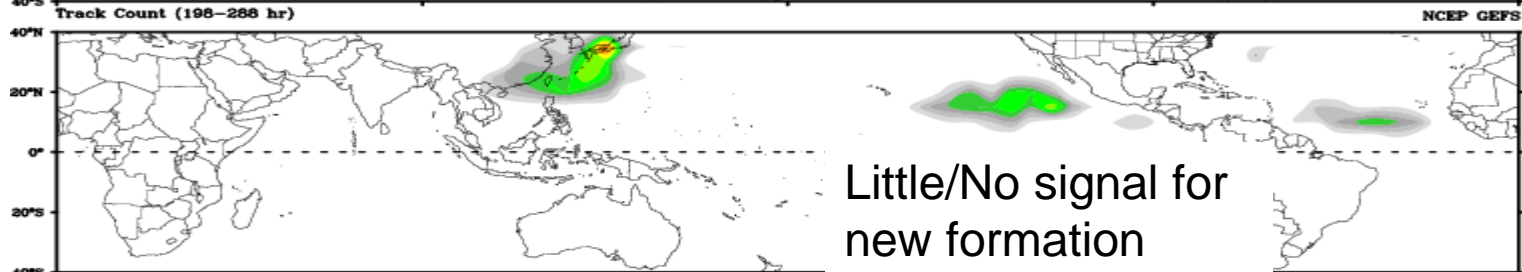
Days 1-4



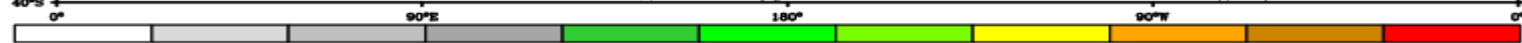
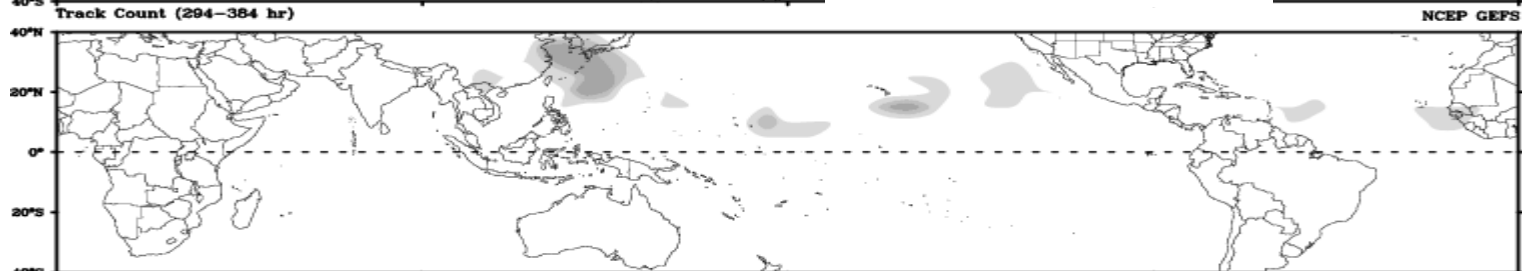
Day 5-8



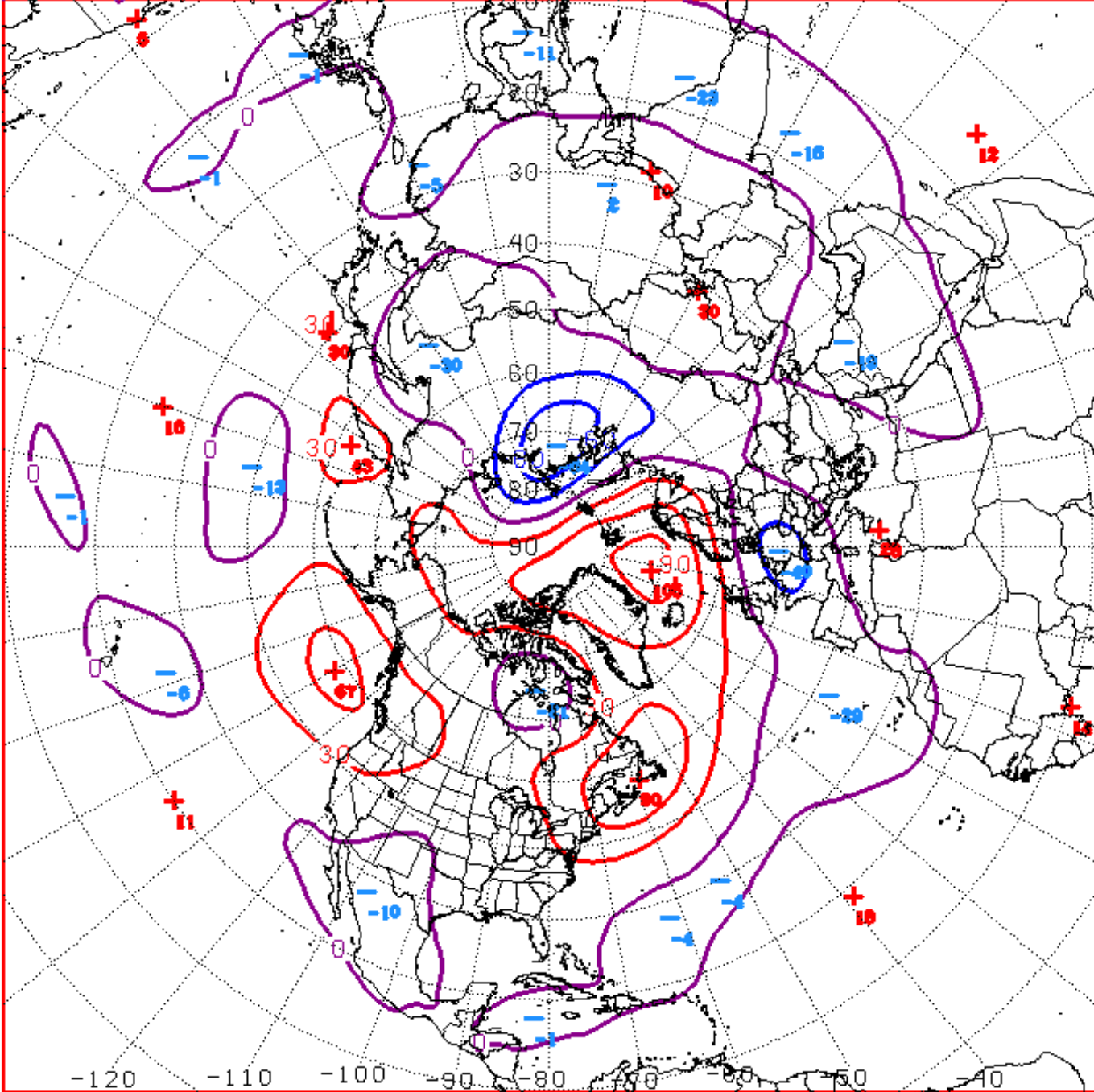
Day 9-12



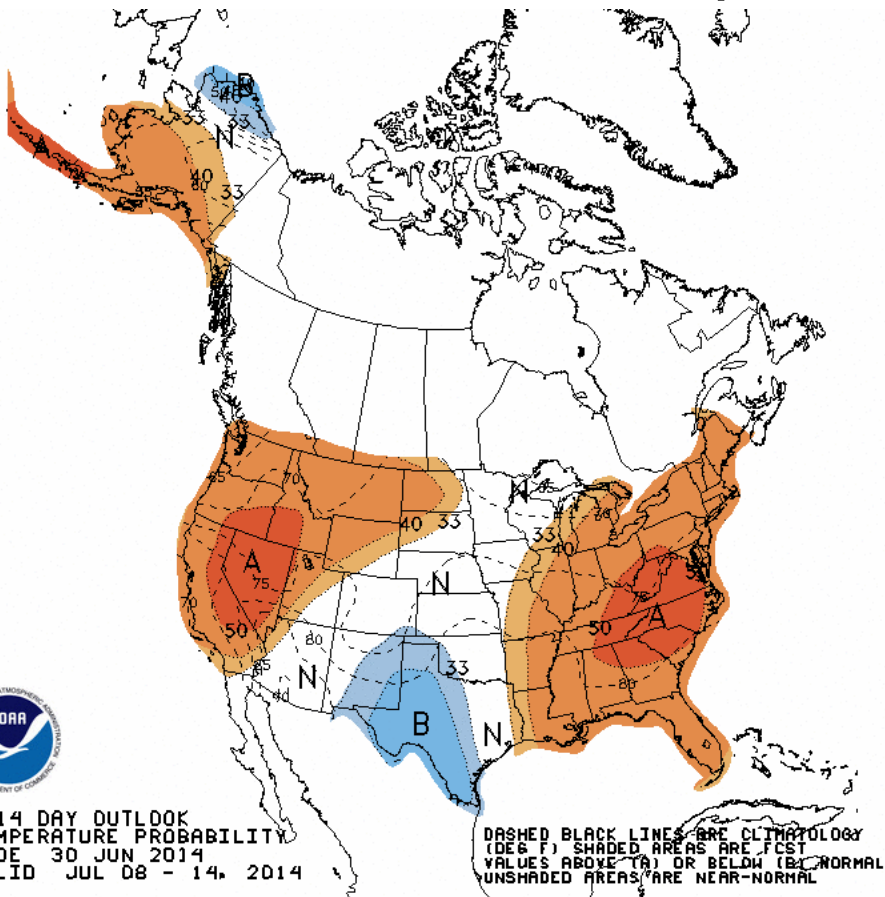
Day 13-15



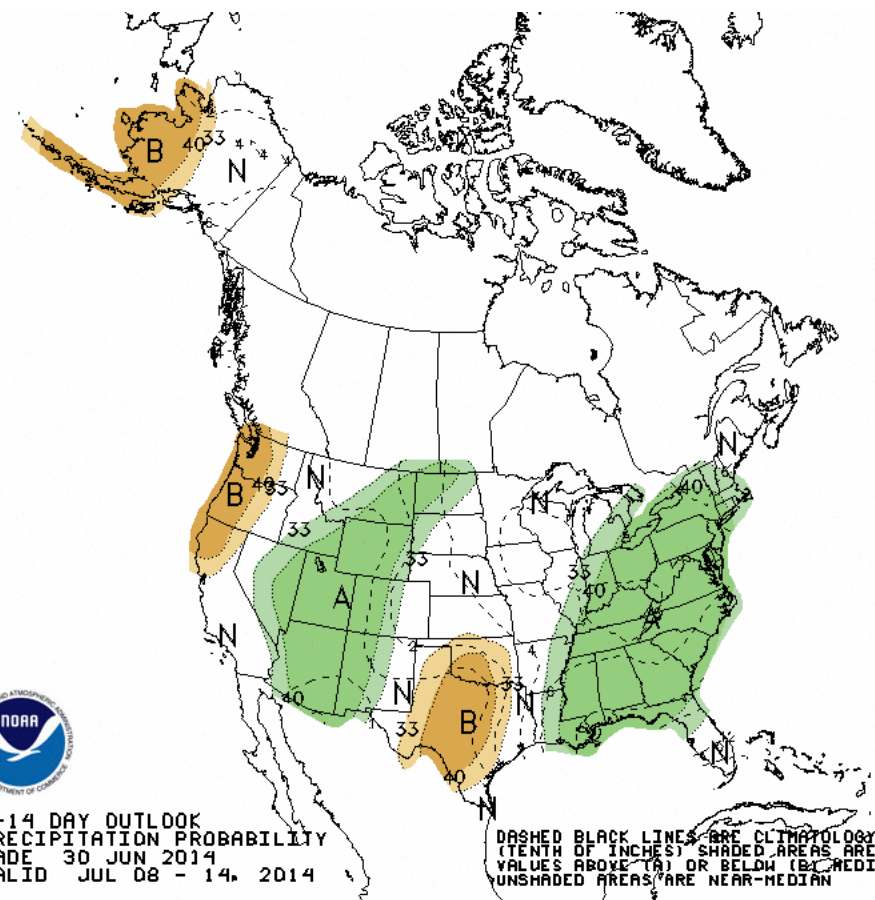
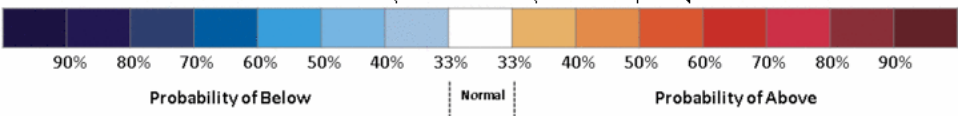
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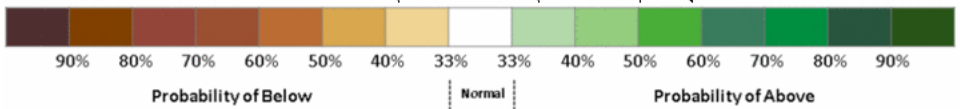
Week 2 – Temperature and Precipitation



8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 30 JUN 2014
VALID JUL 08 - 14, 2014



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 30 JUN 2014
VALID JUL 08 - 14, 2014

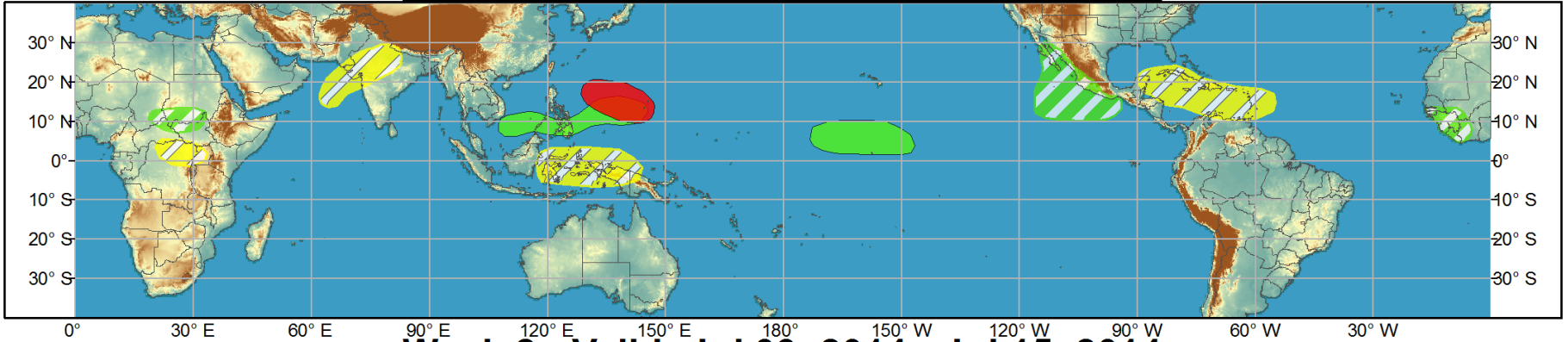




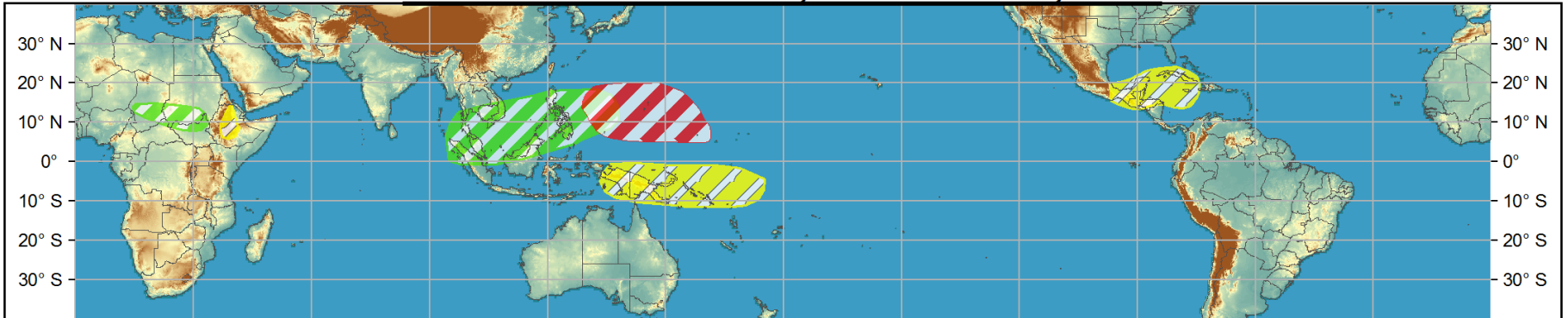
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