Global Tropics Hazards And Benefits Outlook

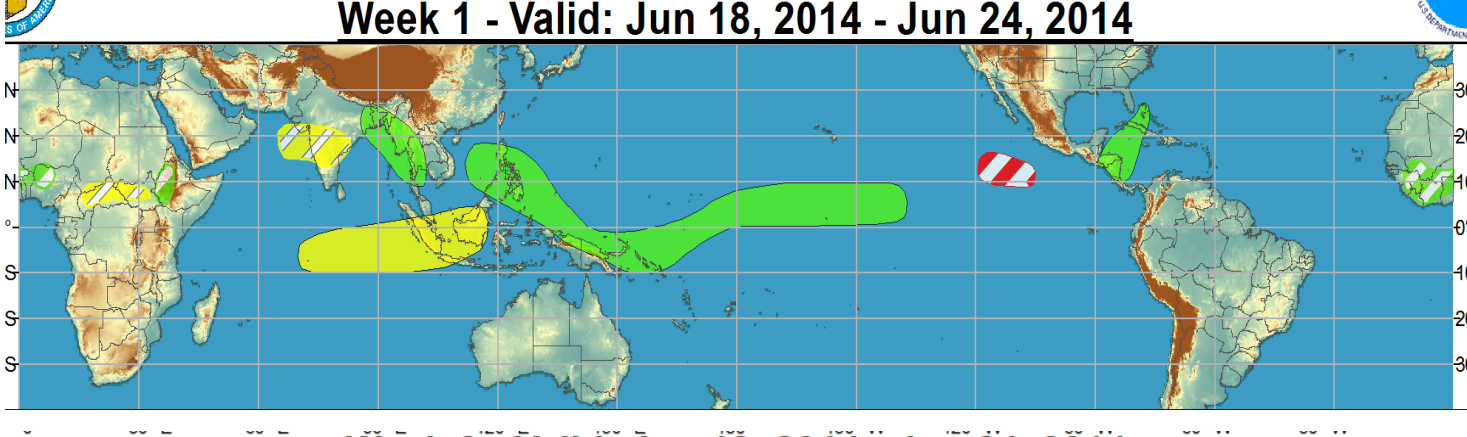
June 24, 2013

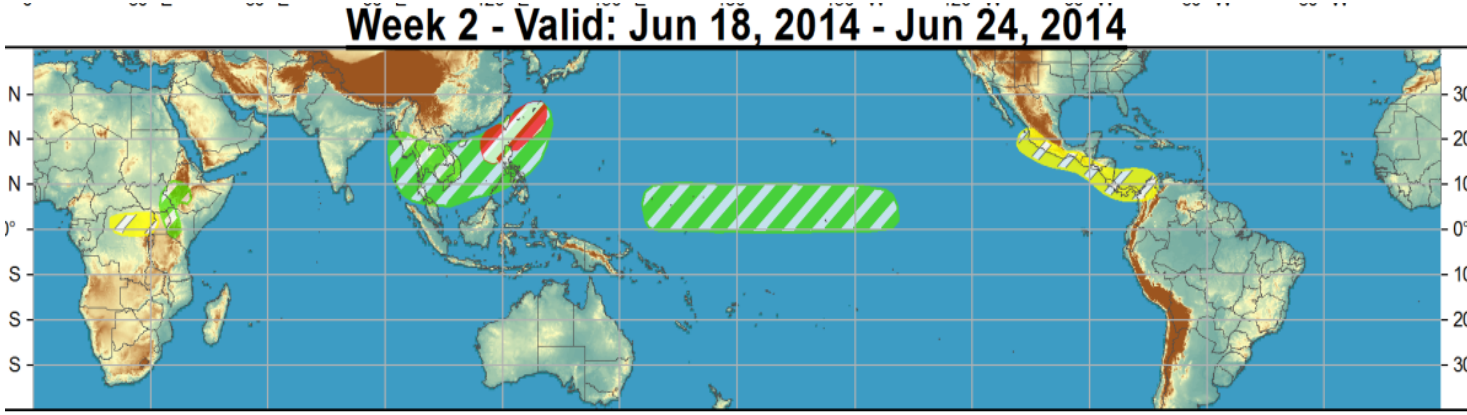
Matthew Rosencrans

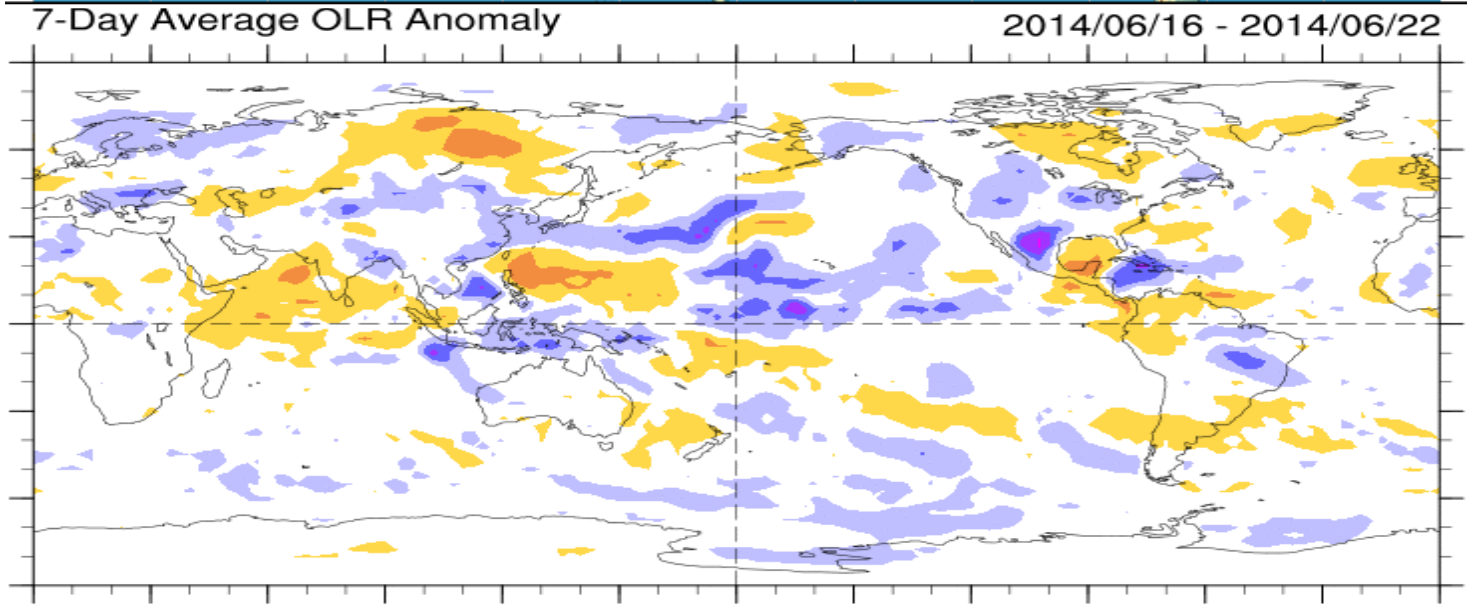
Outline

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

Outlook Review







Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

• El Nino 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 strengthened during the past week.

• Model forecasts of the MJO are highly varied. Some propagate the signal to the Americas/Africa, others center the signal over the Central Pacific (likely linked to evolving ENSO state). The statistical tools also support continued MJO activity, although those reflect a weaker signal with less propagation than the GFS and more than the other models.

Extratropics:

• The extended range forecast for the U.S. aligns well with the typical circulation patterns based on the current and forecast phases of the MJO. These include a trend towards more precipitation across the eastern third of the CONUS.

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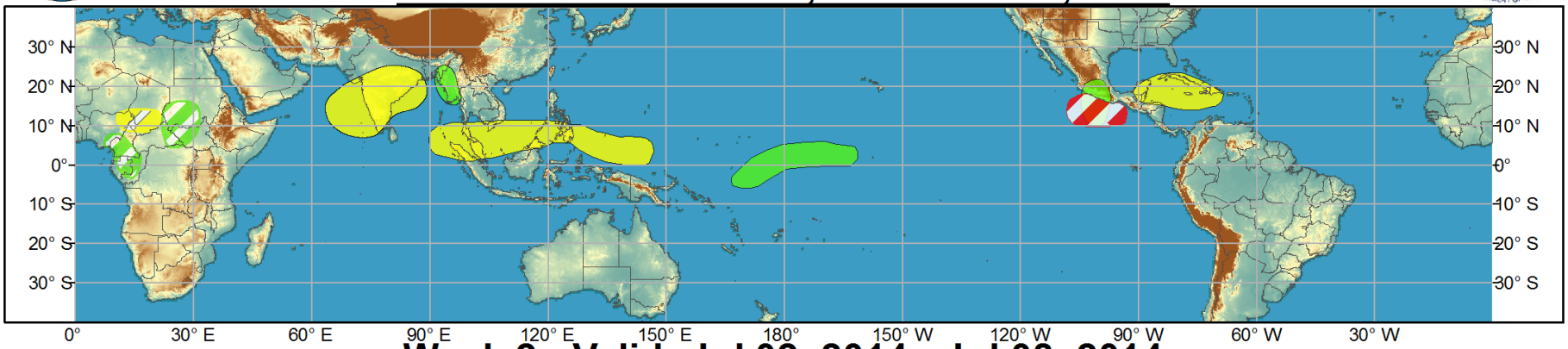
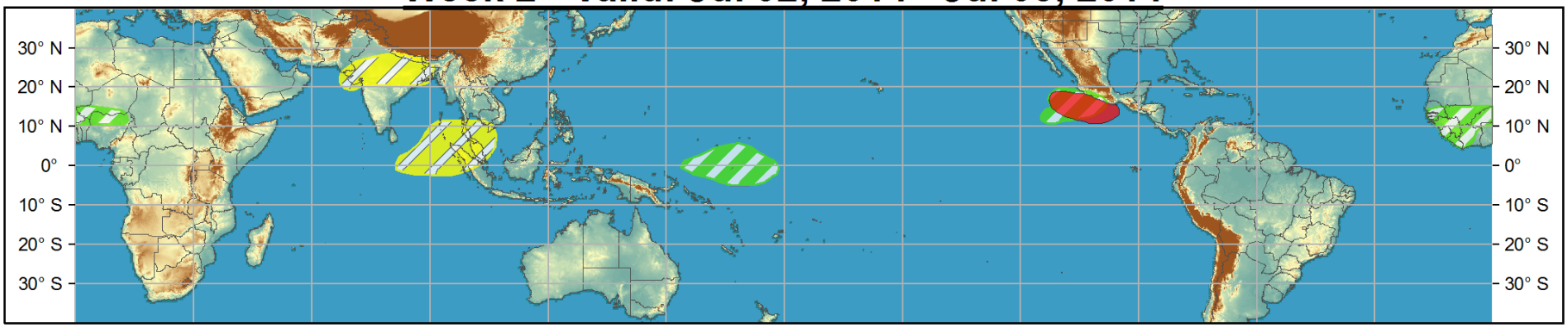
Week 1 - Valid: Jun 25, 2014 - Jul 01, 2014



Week 2 - Valid: Jul 02, 2014 - Jul 08, 2014



Produced: 06/24/2014

Forecaster: Rosencrans

	Confidence: High	Confidence: 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.
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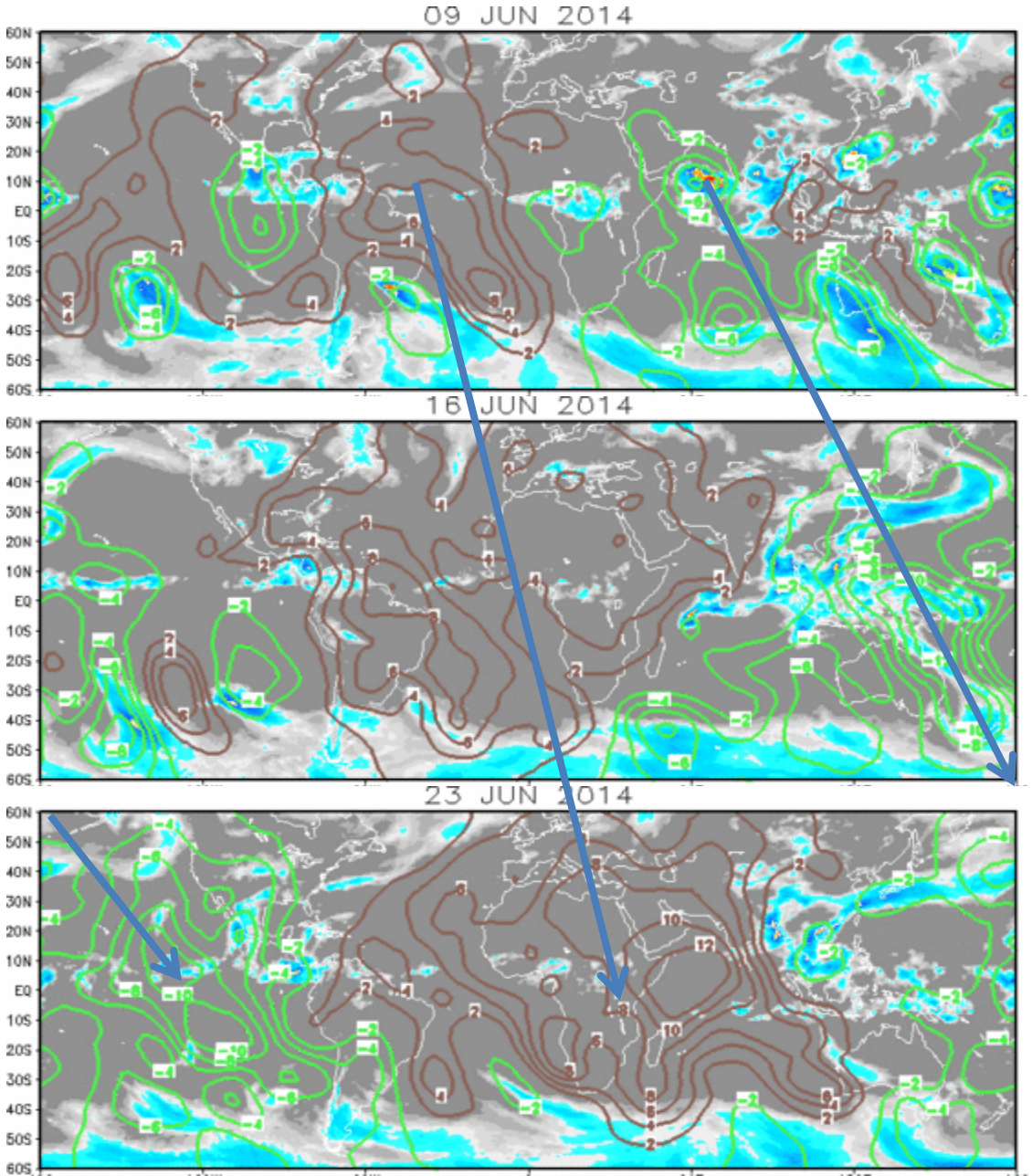
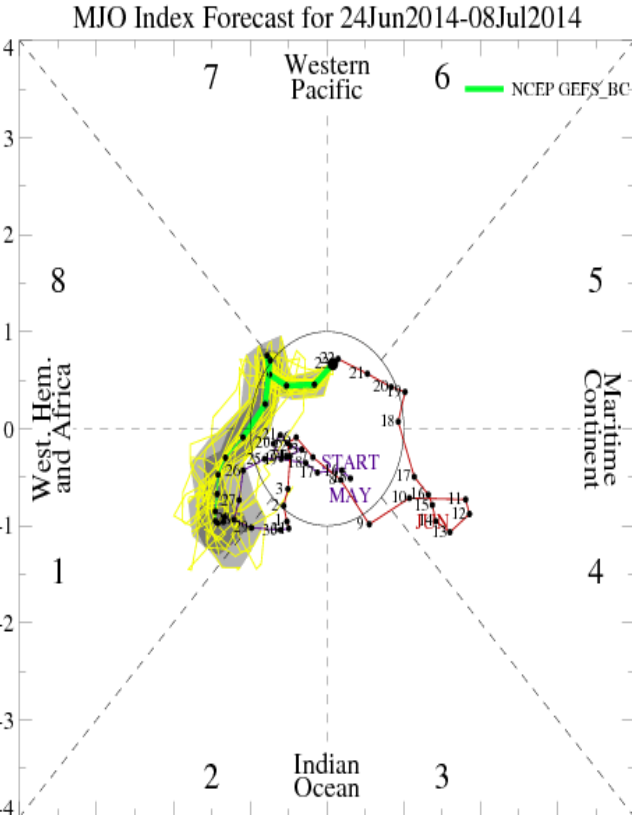
NPS PRAESTANTIA PER SCIENTIAM

IR Satellite & 200-hpa Velocity Potential Anomalies

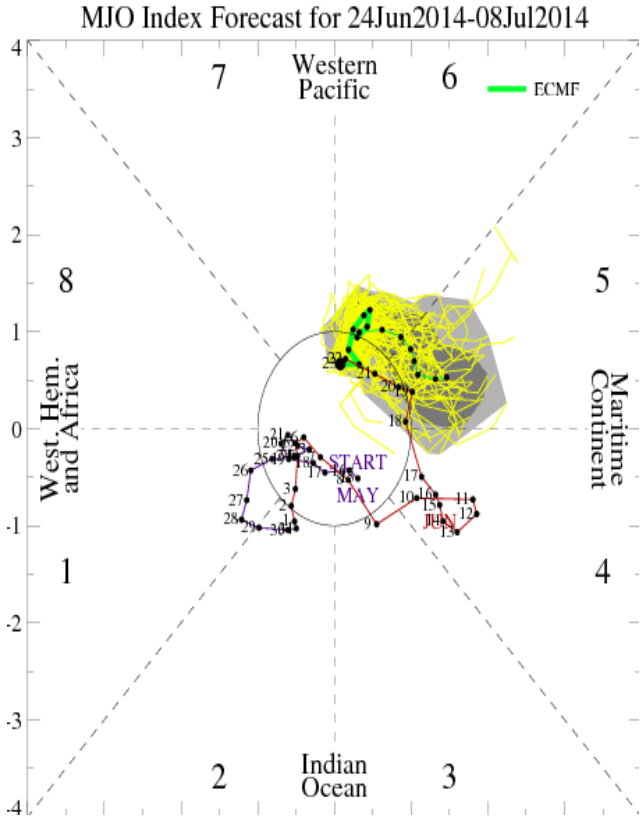
Green: Enhanced Divergence Brown: Enhanced Convergence



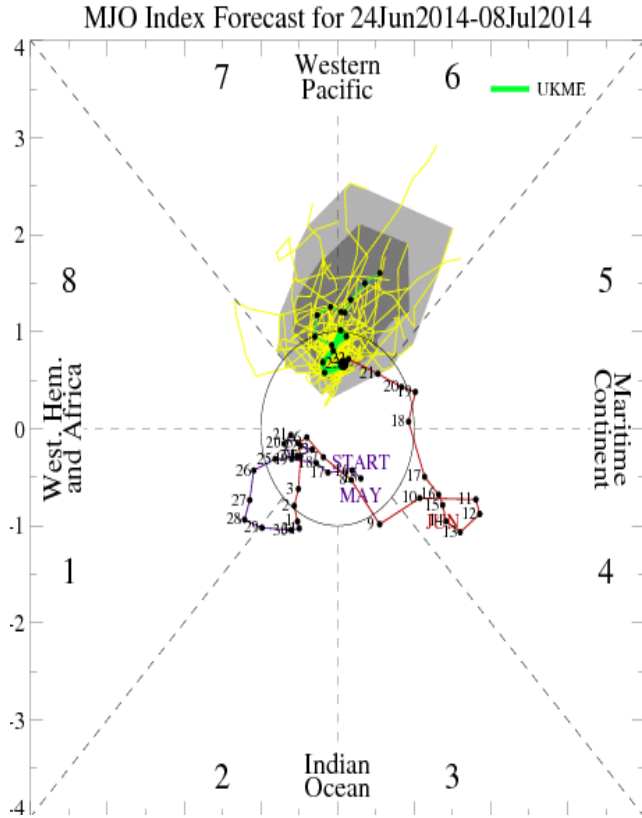
MJO Observation/Forecast



GFS

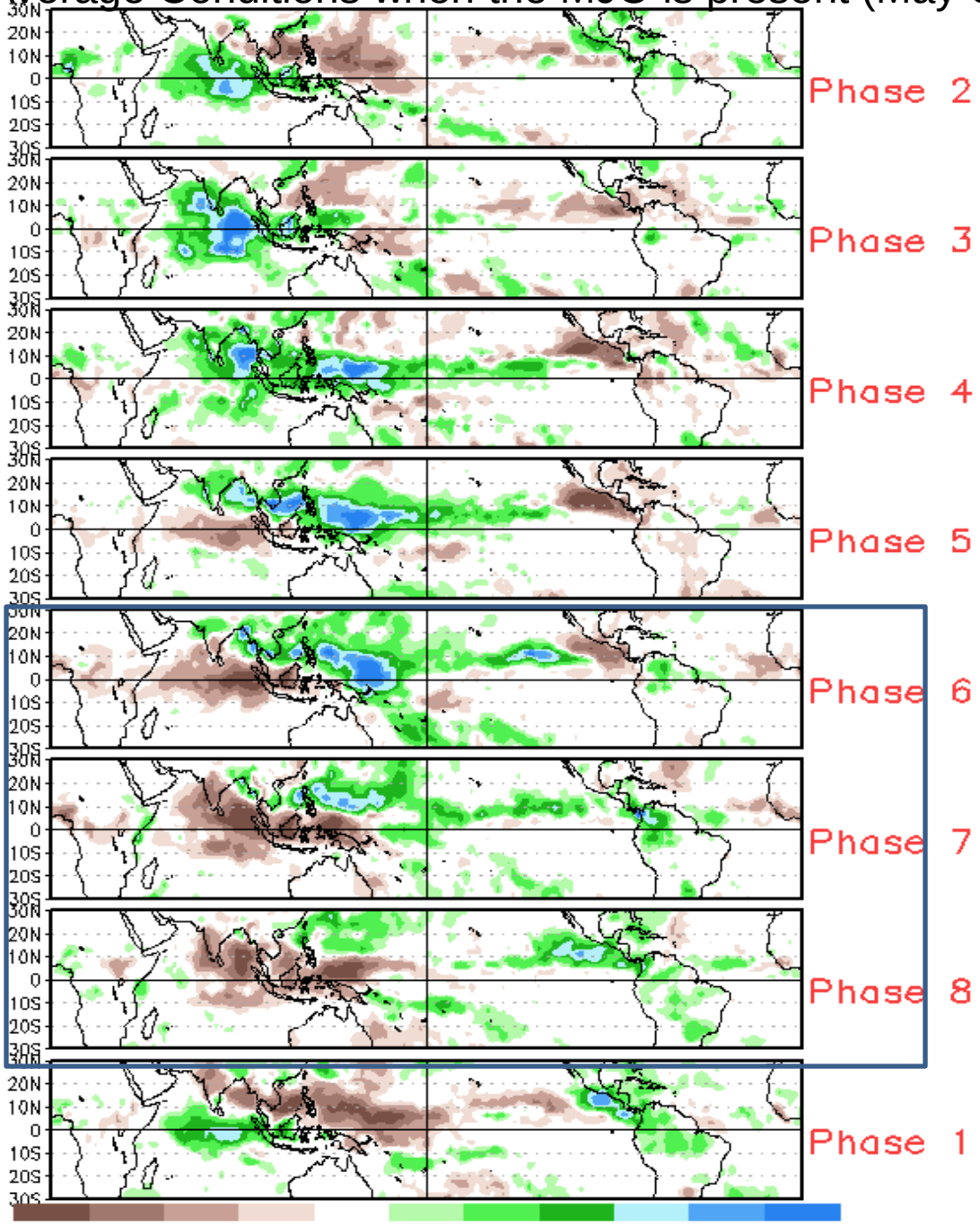


ECMWF

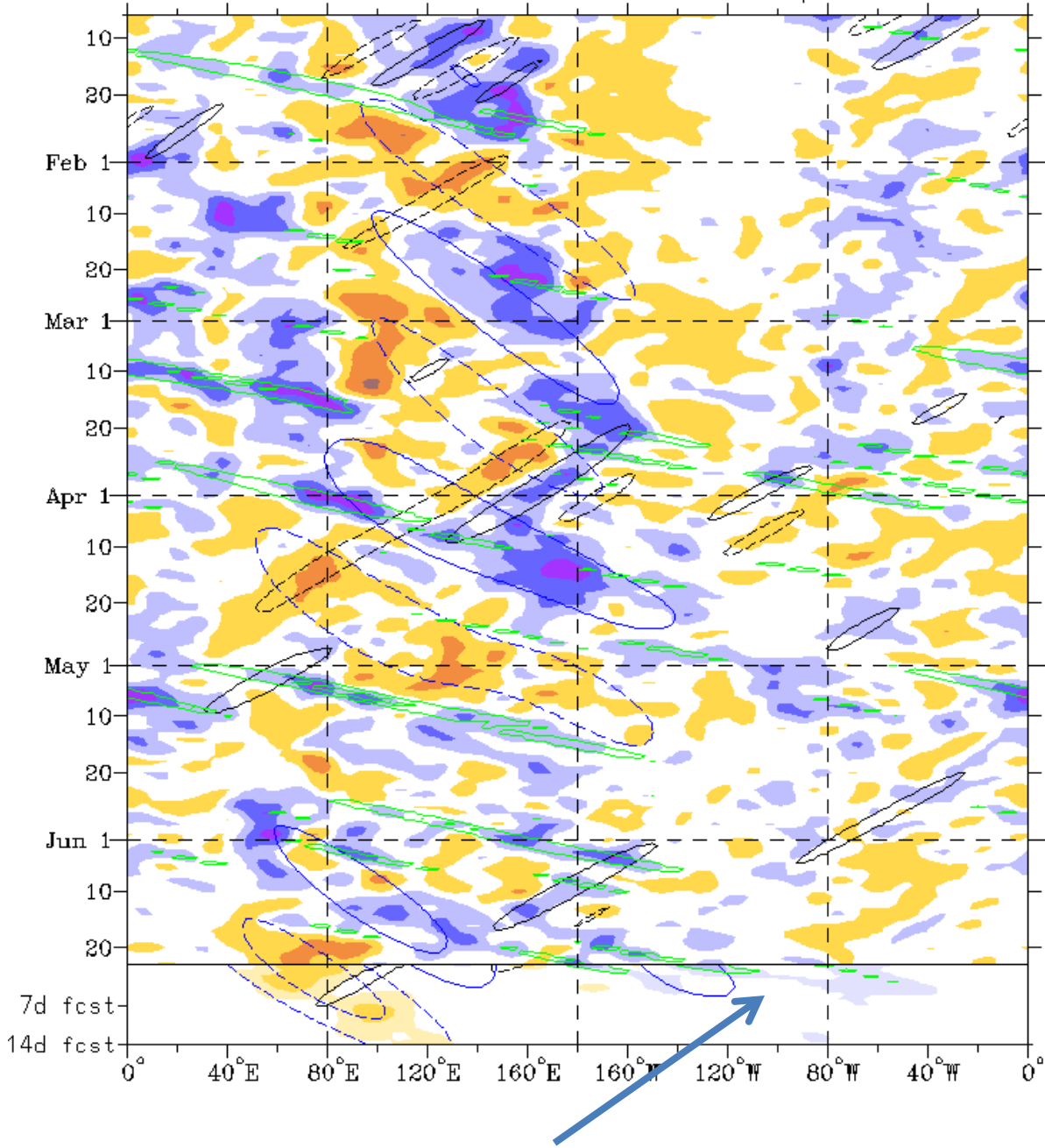


UKMET

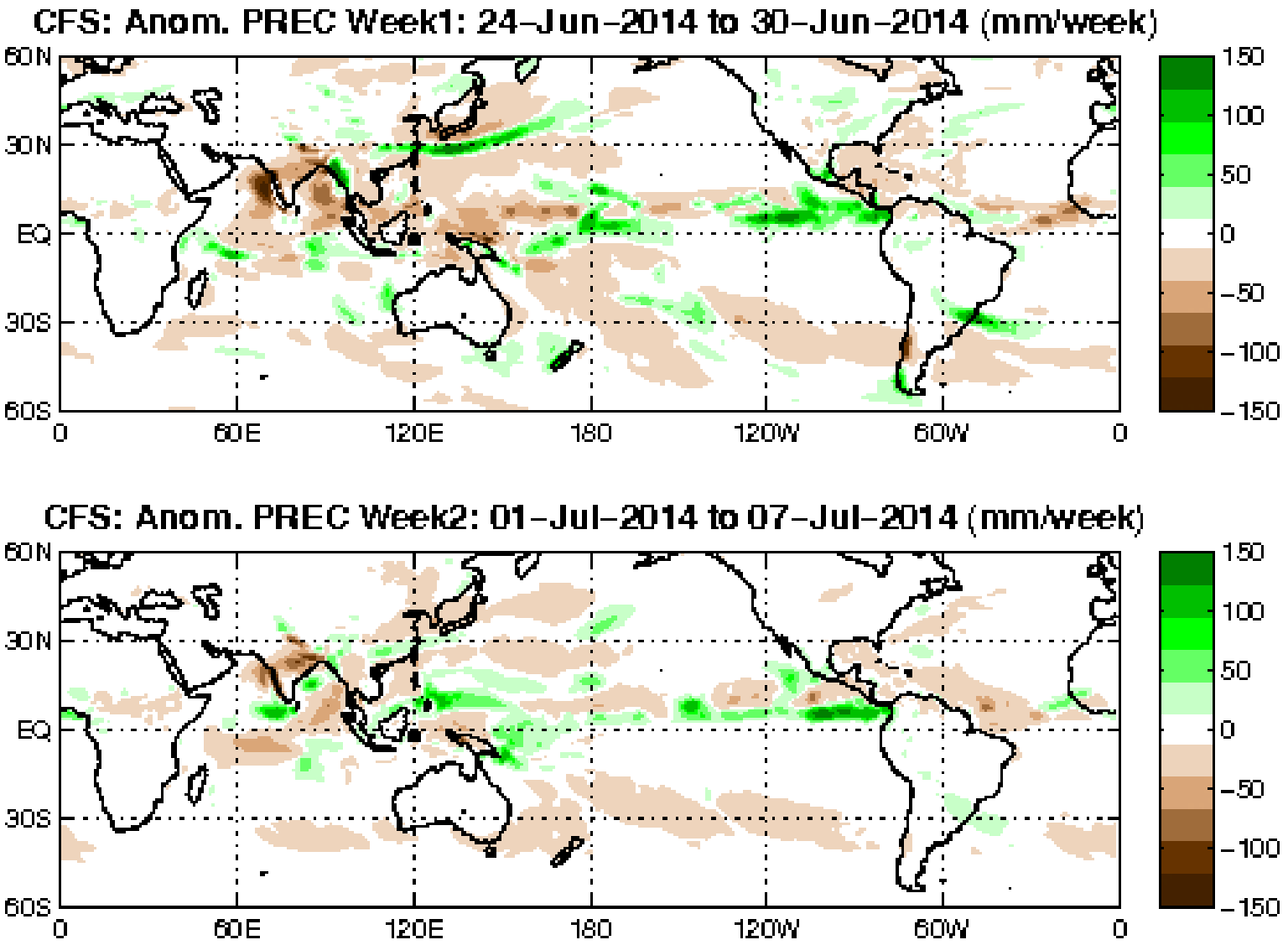
Average Conditions when the MJO is present (May-Sep)



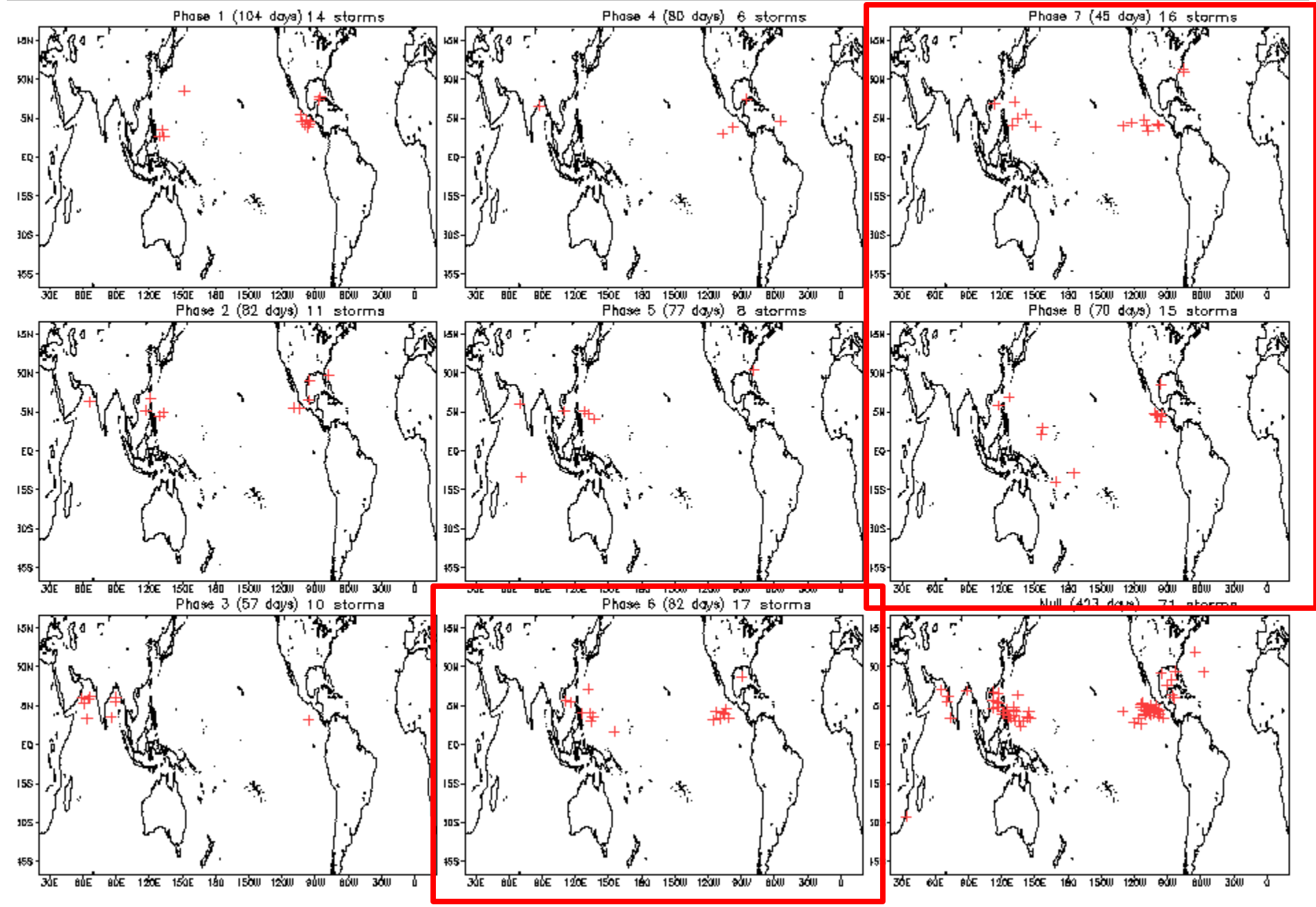
Active phase of the MJO forecast to impact Central Pacific (if it holds together). Suppressed phase over the Indian Ocean.



Atmospheric Kelvin waves to impact Americas.


CFS: Anom. PREC Week1: 24-Jun-2014 to 30-Jun-2014 (mm/week)
60N
30N
EQ
30S
60S
0
60E
120E
180
120W
60W
0
150
100
50
0
-50
-100
-150
CFS: Anom. PREC Week2: 01-Jul-2014 to 07-Jul-2014 (mm/week)
60N
30N
EQ
30S
60S
0
60E
120E
180
120W
60W
0
150
100
50
0
-50
-100
-150

June Tropical Storm Formation by MJO phase



Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida

Outlined areas denote current position of systems discussed in the Tropical Weather Outlook. Color indicates probability of tropical cyclone formation within 48 hours.

Low <30% Medium 30-50% High >50%

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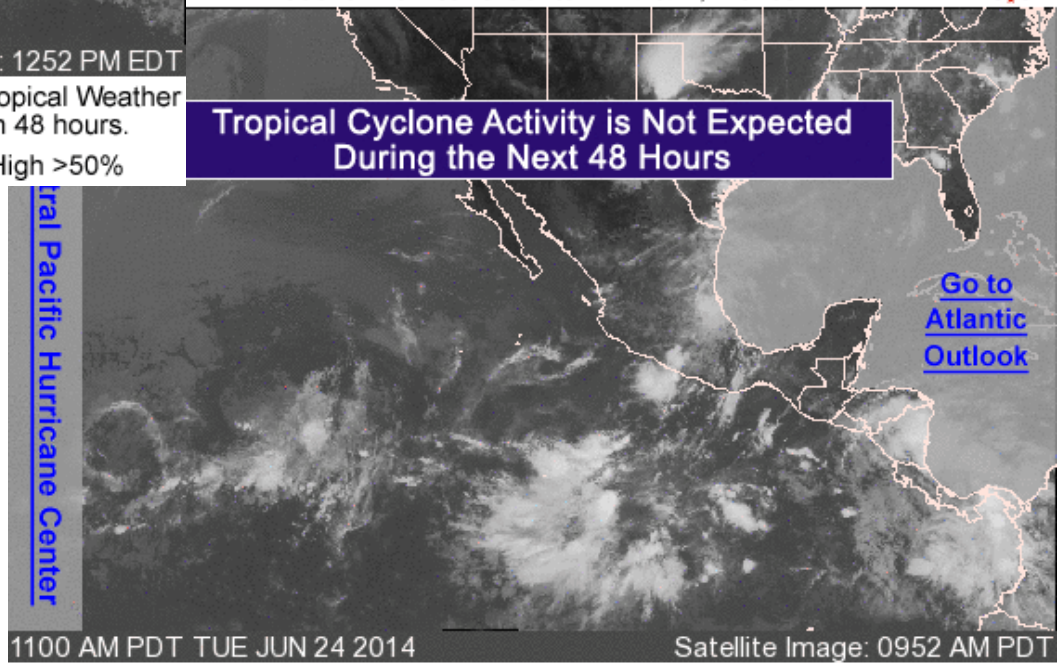

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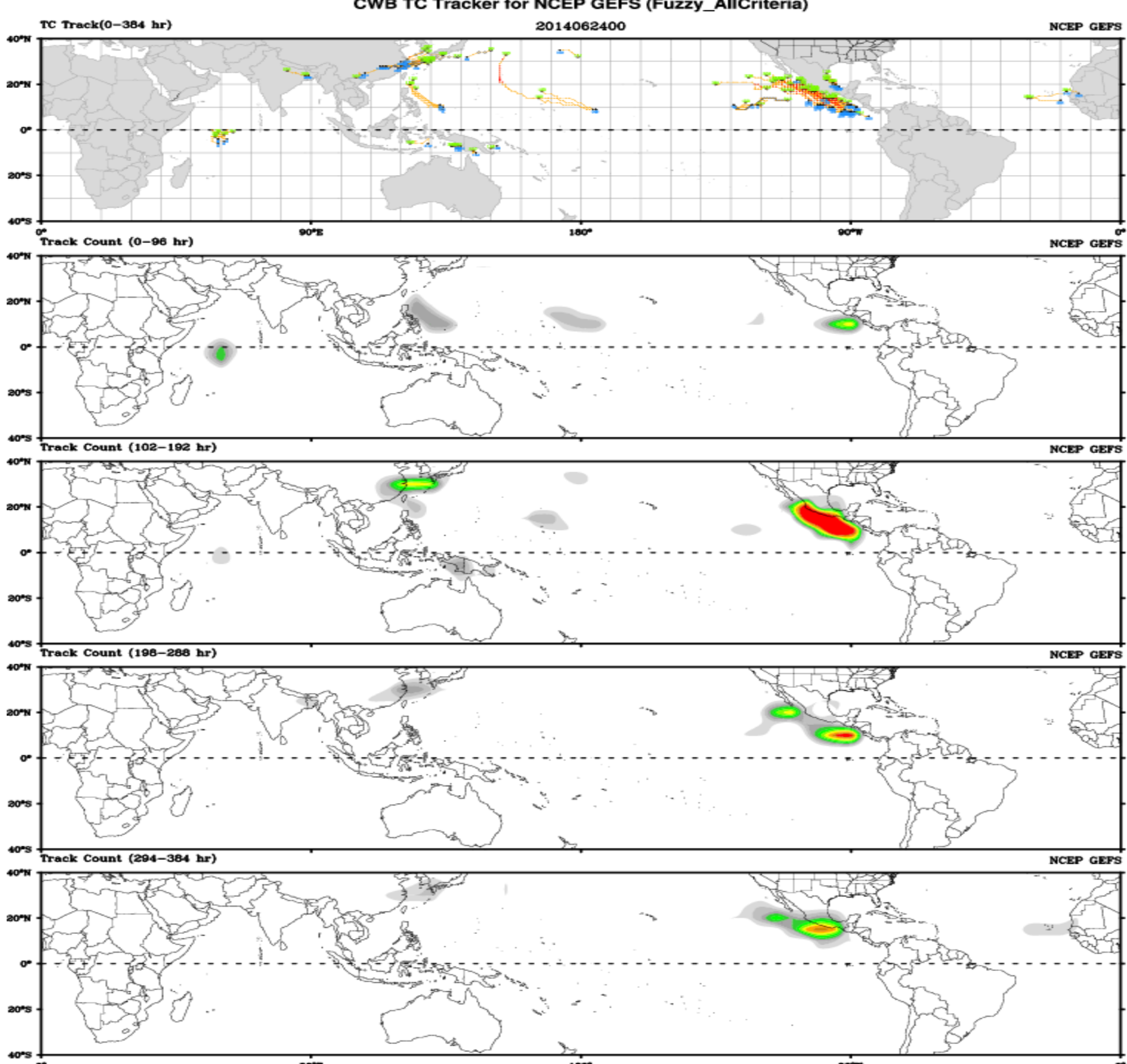


Days 1-4

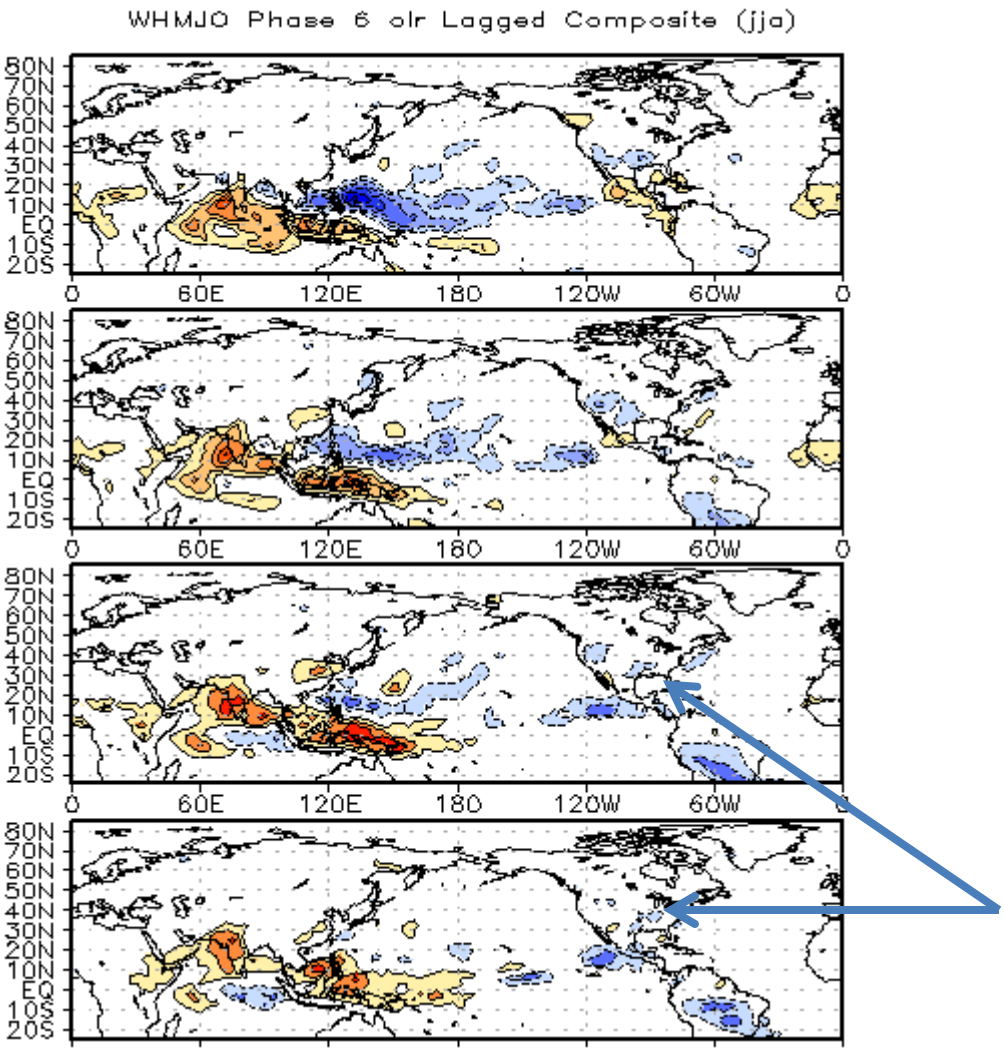
Day 5-8

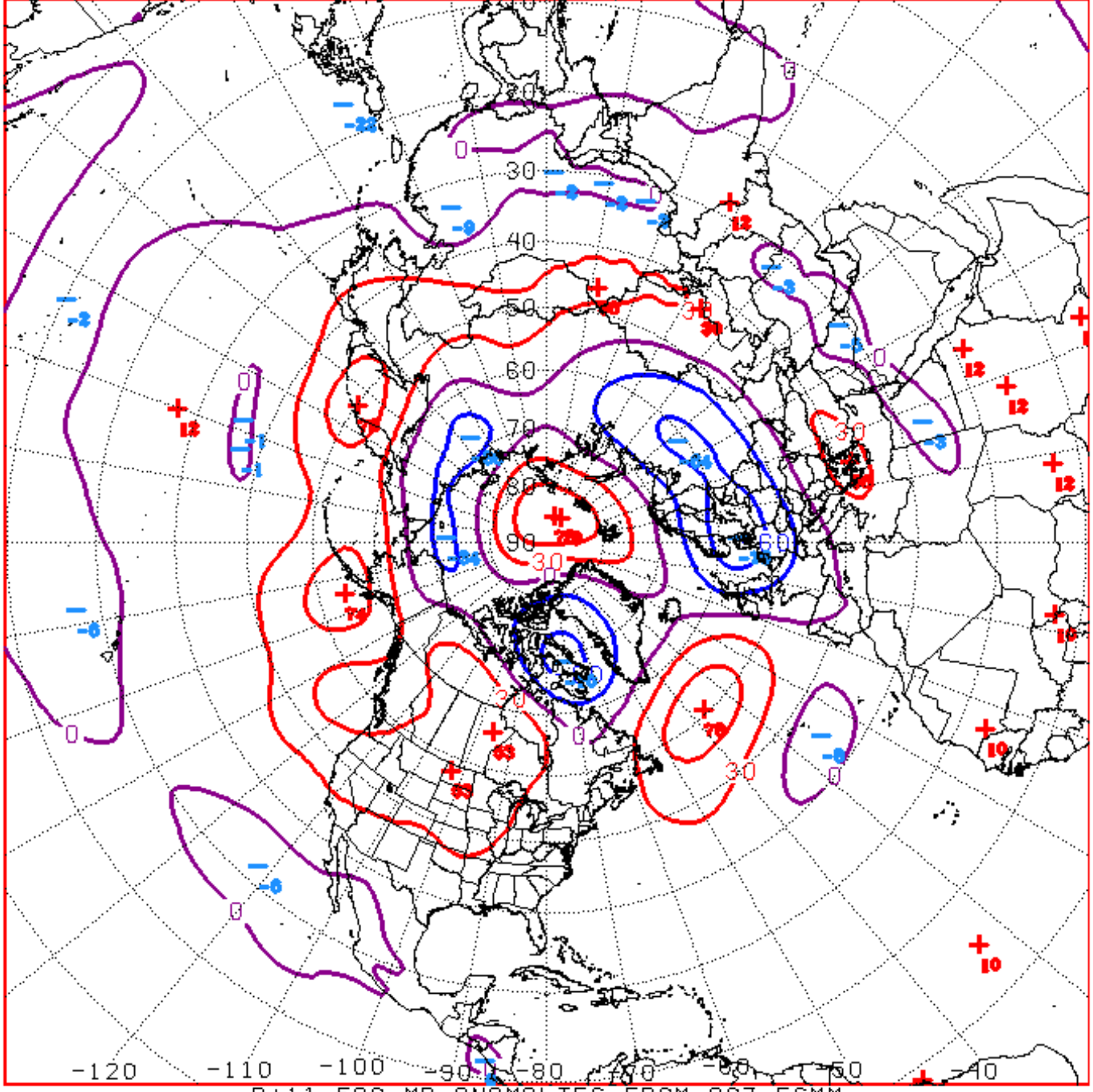
Day 9-12

Day 13-15

Connections to U.S. Impacts

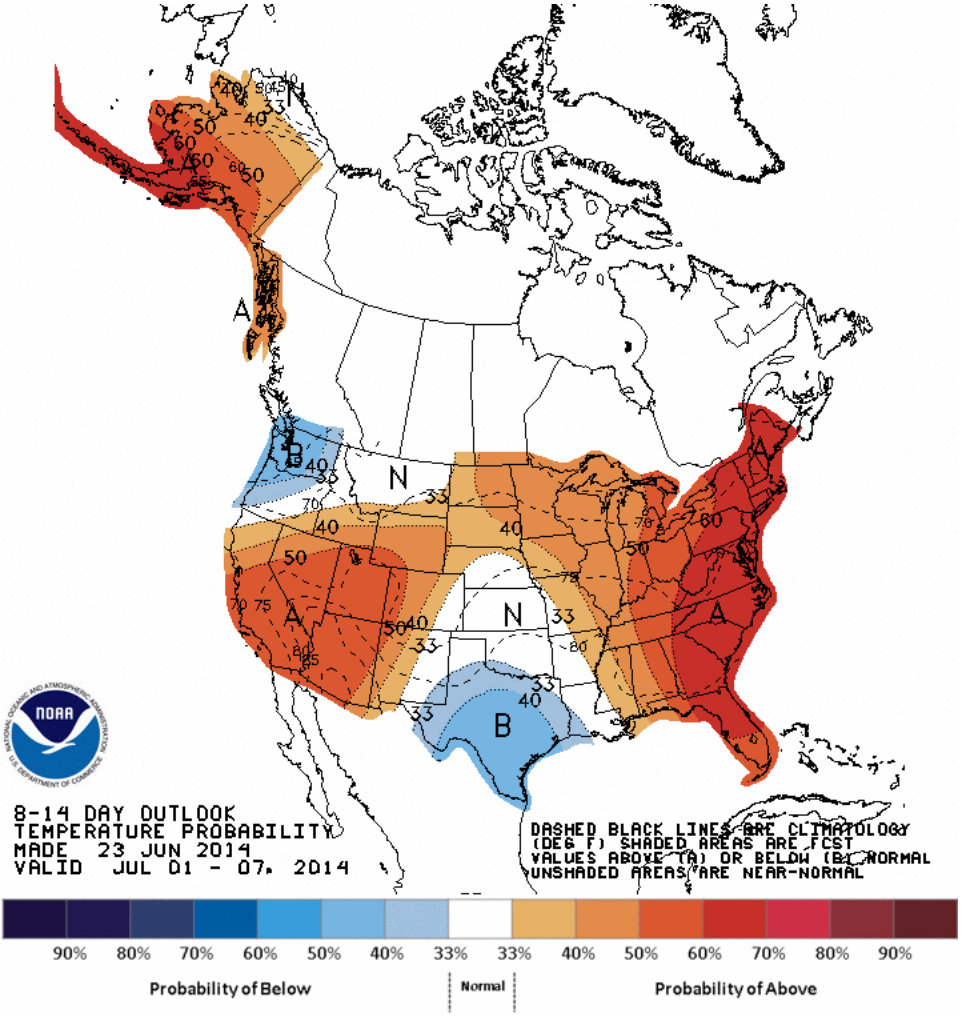
US Composites based on MJO Phase

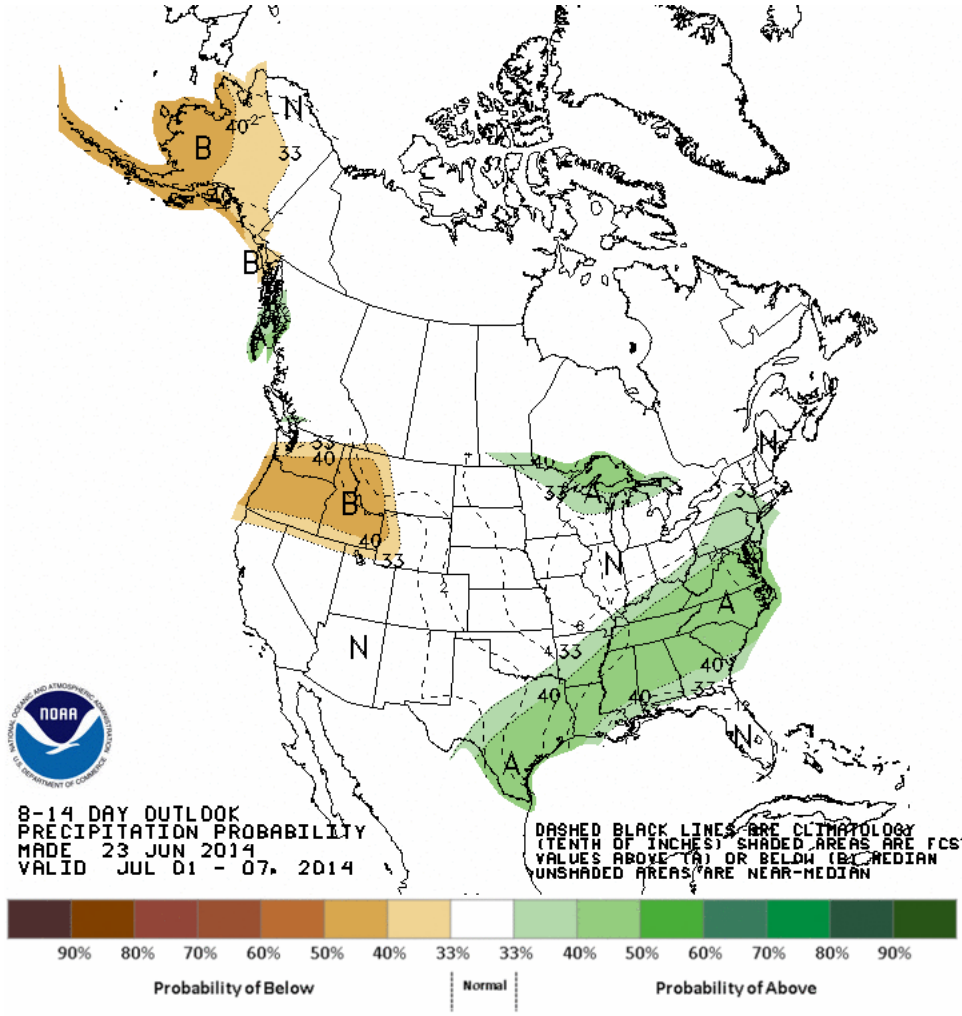




D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE JUN 24 2014 1055 UTC CNTD JUL 05 2014

Week 2 – Temperature and Precipitation





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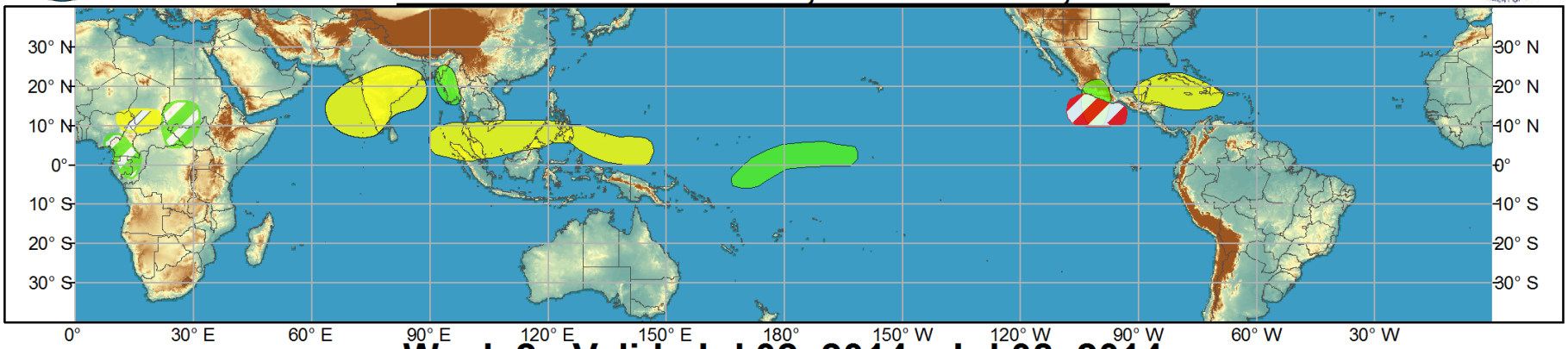

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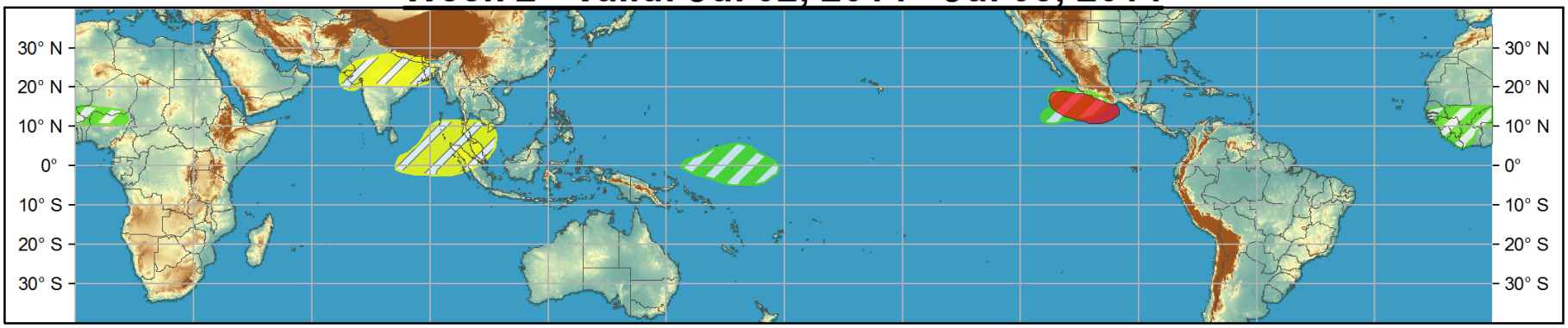

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