

# Global Tropics Hazards And Benefits Outlook

May 20, 2013

Stephen Baxter

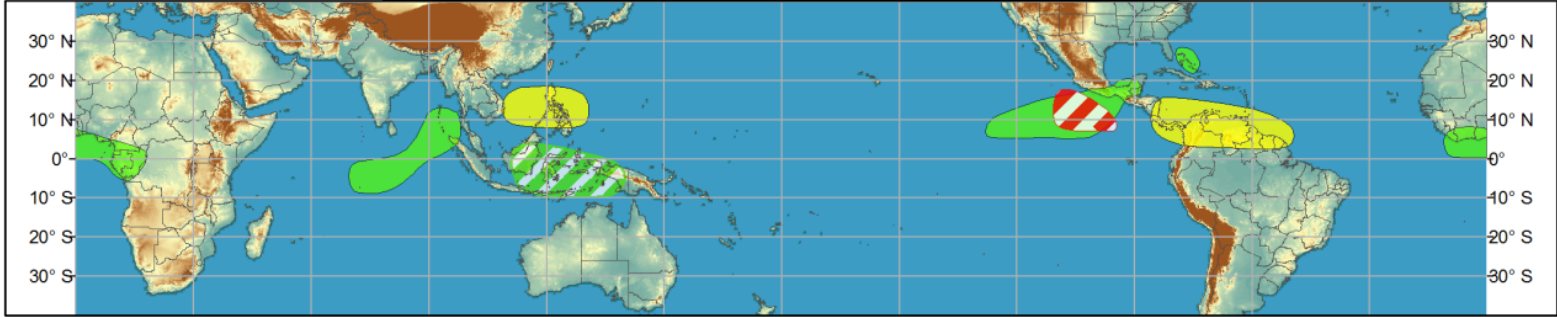
## Outline

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: May 14, 2014 - May 20, 2014**



**Week 2 - Valid: May 14, 2014 - May 20, 2014**

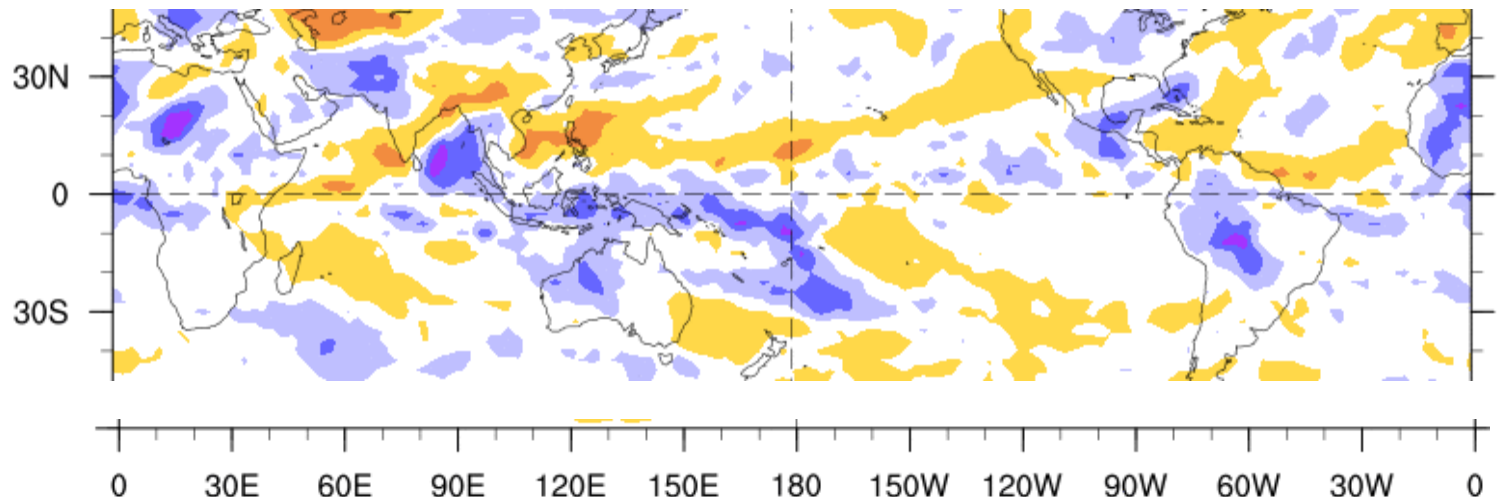


7-Day Average OLR Anomaly

2014/05/12 - 2014/05/18

Cool shading  
More clouds/rain

Warm shading  
Less clouds/rain



# Synopsis of Climate Modes

## ENSO:

- Chance of El Niño increases during the remainder of the year, exceeding 65% during summer.

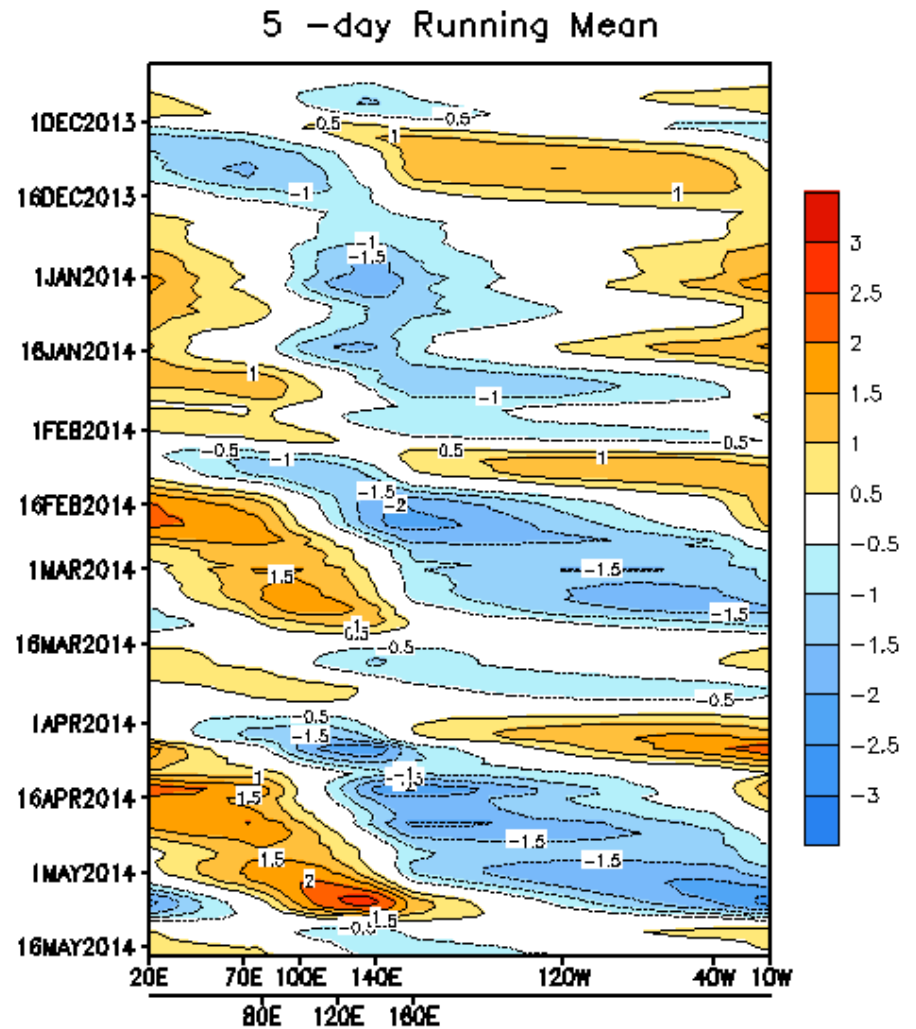
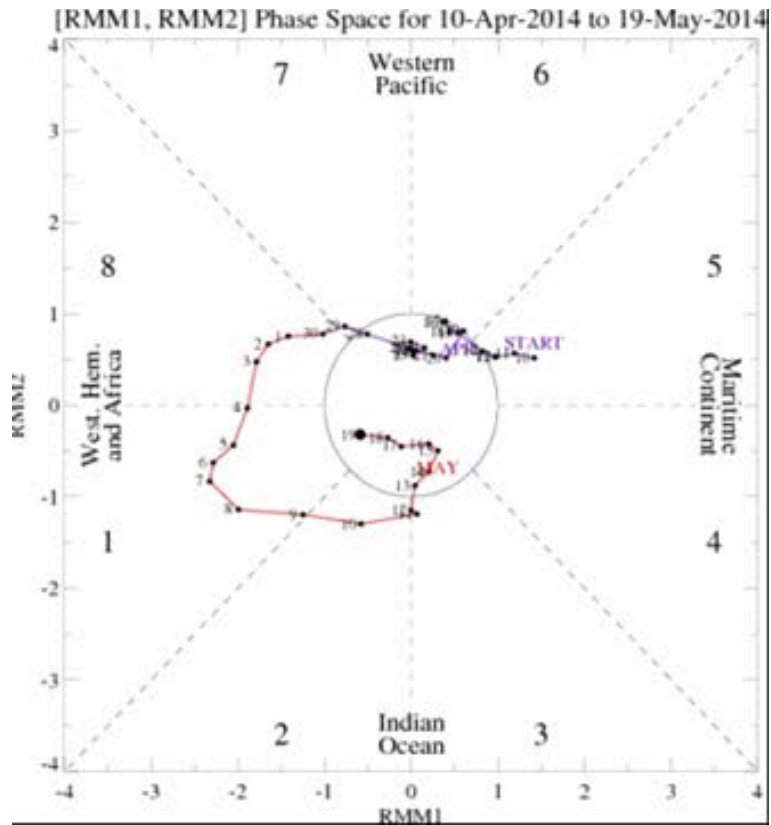
## MJO and other subseasonal tropical variability:

- The MJO weakened during the past two weeks, with any remnant enhanced phase approaching the Maritime Continent.
- A series of Kelvin waves have propagated across the Eastern Hemisphere during the past couple of weeks.
- Dynamical and statistical tools generally suggest weak MJO activity during the next couple of weeks.

## Extratropics:

- It is often challenging to discern extratropical impacts from the MJO during the spring season. Moreover, with only weak MJO activity ongoing, little to no extratropical impacts can be highlighted at this time.

# MJO Indices



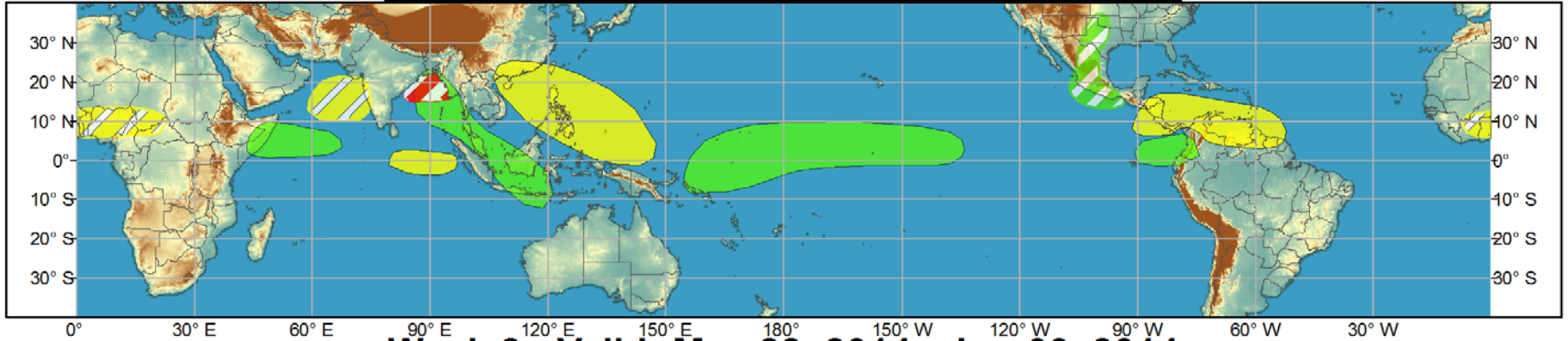
Data updated through 20 May 2014



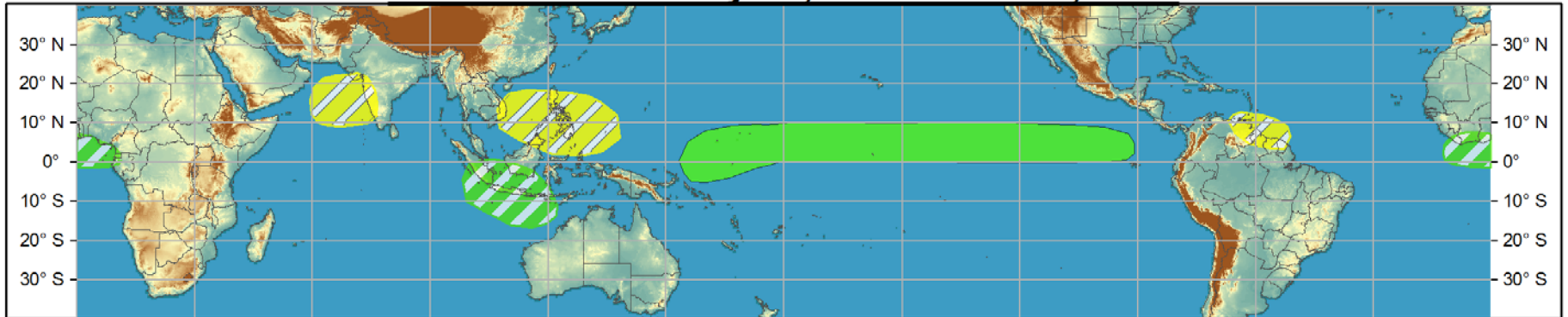
# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



## Week 1 - Valid: May 21, 2014 - May 27, 2014



## Week 2 - Valid: May 28, 2014 - Jun 03, 2014



**Confidence**  
High Moderate

- Tropical Cyclone Formation**
- Above-average rainfall**
- Below-average rainfall**
- Above-normal temperatures**
- Below-normal temperatures**



- Development of a tropical cyclone that eventually reaches tropical storm/cyclone strength.
- Weekly total rainfall in the upper third of the historical range.
- Weekly total rainfall in the lower third of the historical range.
- 7-day mean temperatures in the upper third of the historical range.
- 7-day mean temperatures in the lower third of the historical range.

Produced: 05/20/2014

Forecaster: Baxter

Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



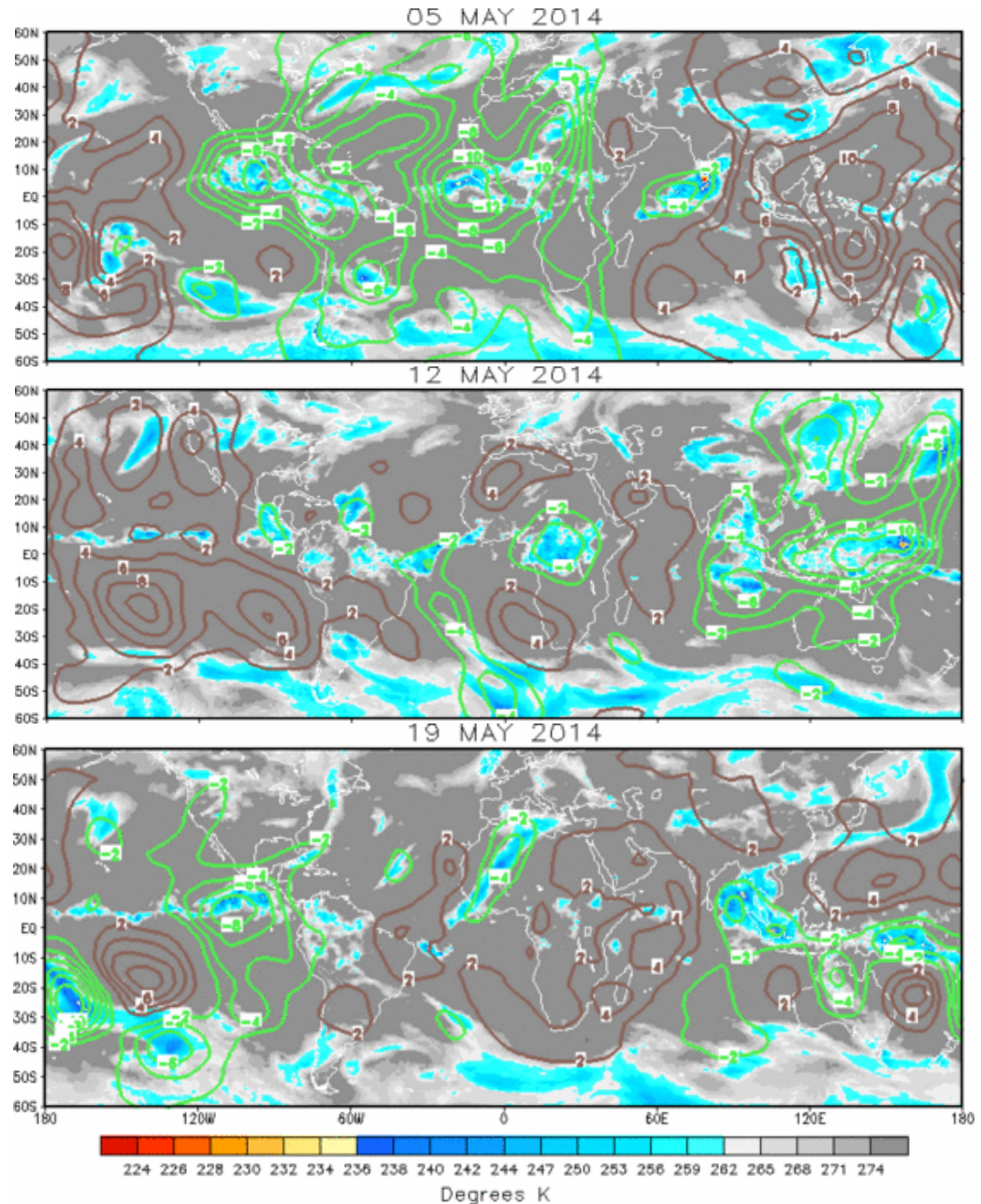
# IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence

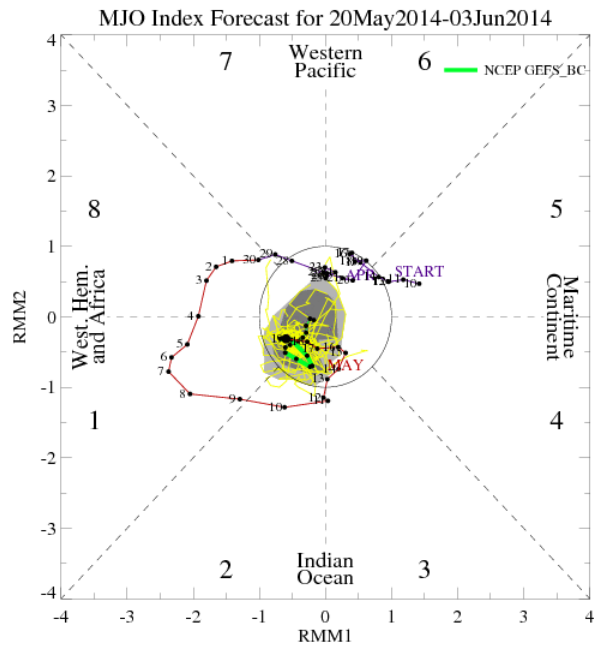
Brown: Enhanced Convergence

Features of note:

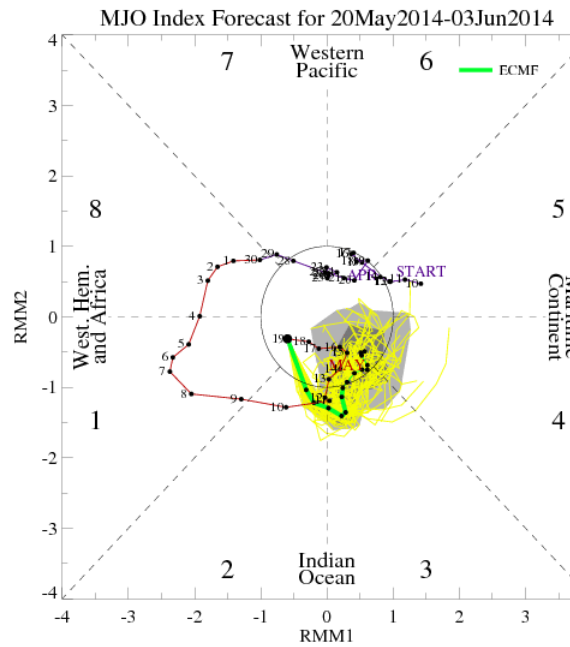
1. Rapid eastward propagation associated with Kelvin wave activity.
2. Tendency for convection over the warmer-than-normal SSTs across the equatorial Pacific.
3. Breakdown of the wave-1 pattern.



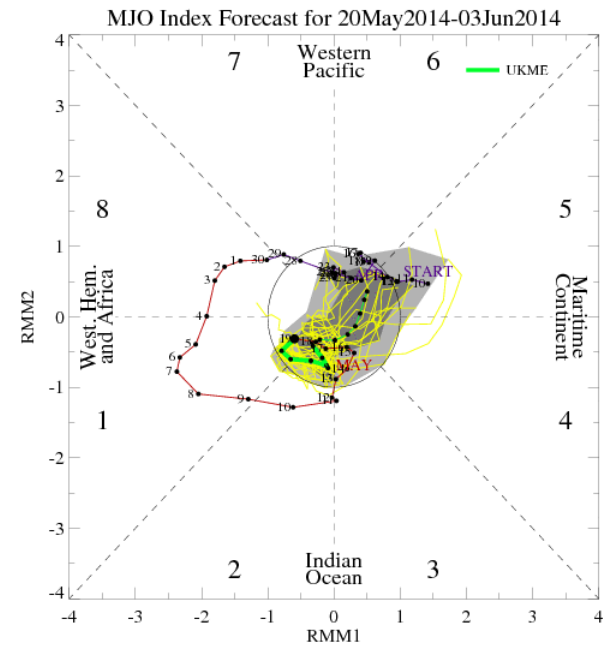
# MJO Observation/Forecast



GFS



ECMWF



UKMET

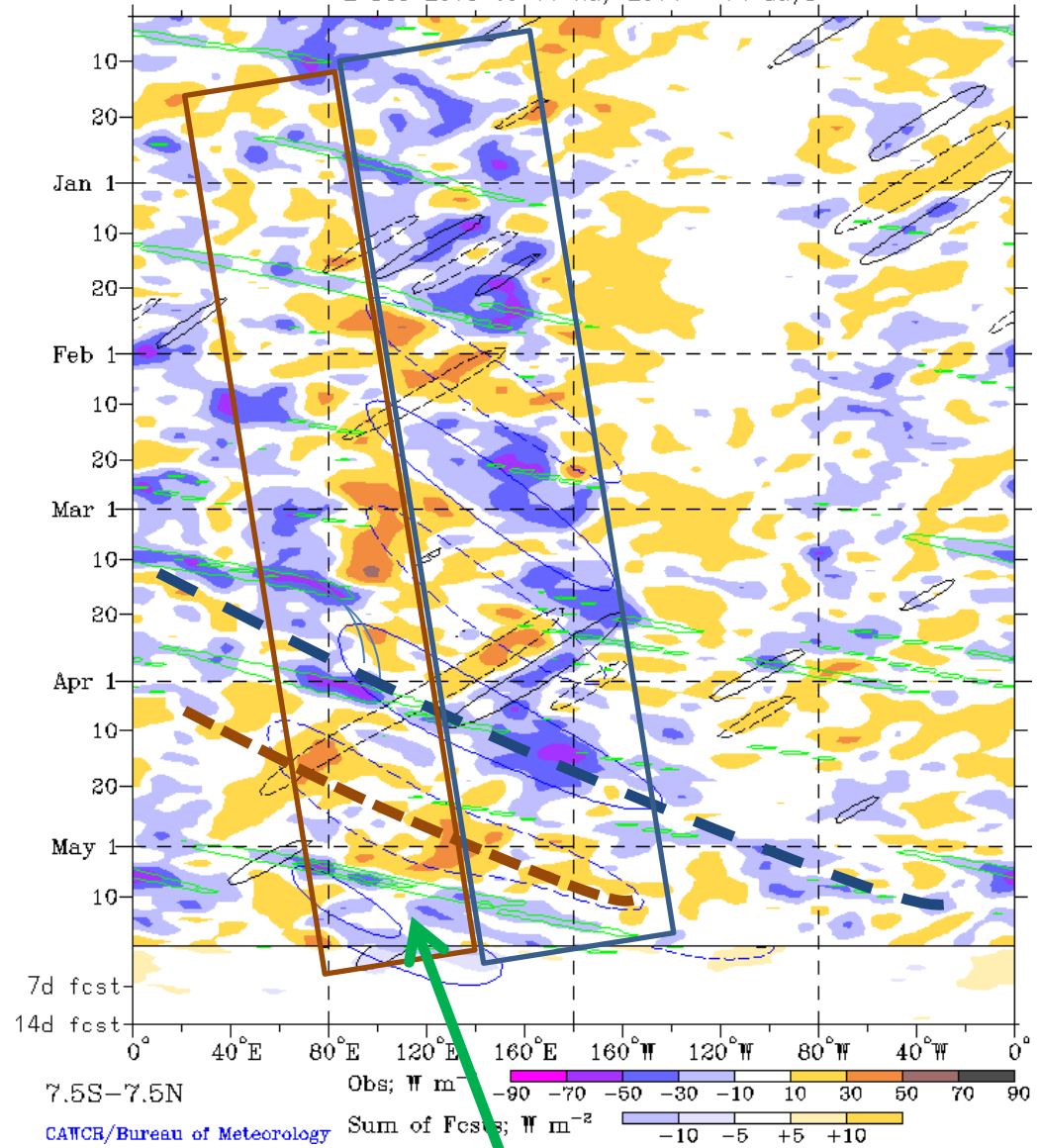
Real-time filtering superimposed upon 1-2-1 filt, R21, OLR Anoms  
MJO blue CINT=10; n1ER black CINT=10; Kelvin green CINT=15  
Negative contours solid, positive dashed (excluding Kelvin)  
2-Dec-2013 to 19-May-2014 + 14 days

Active MJO pattern  
(dashed/dotted lines)

Low frequency base state  
(boxes)

The low frequency signal has  
been modulated by subseasonal  
signals (e.g., MJO, Kelvin  
Waves)

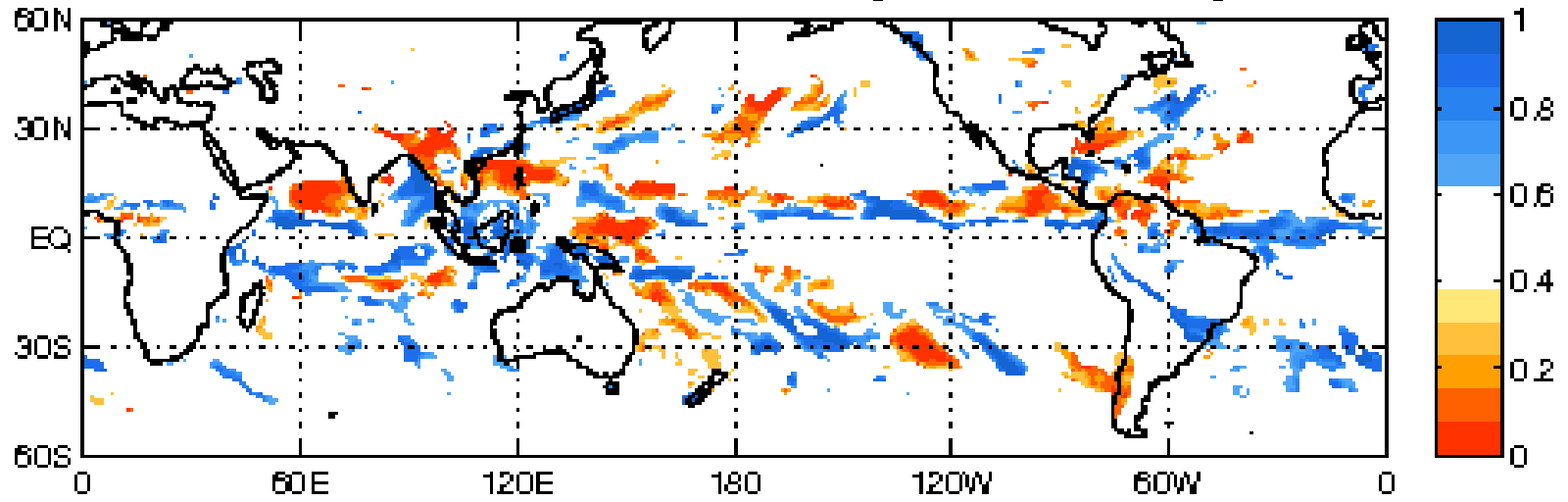
The OLR signal places a weak  
MJO over the eastern Indian  
Ocean.



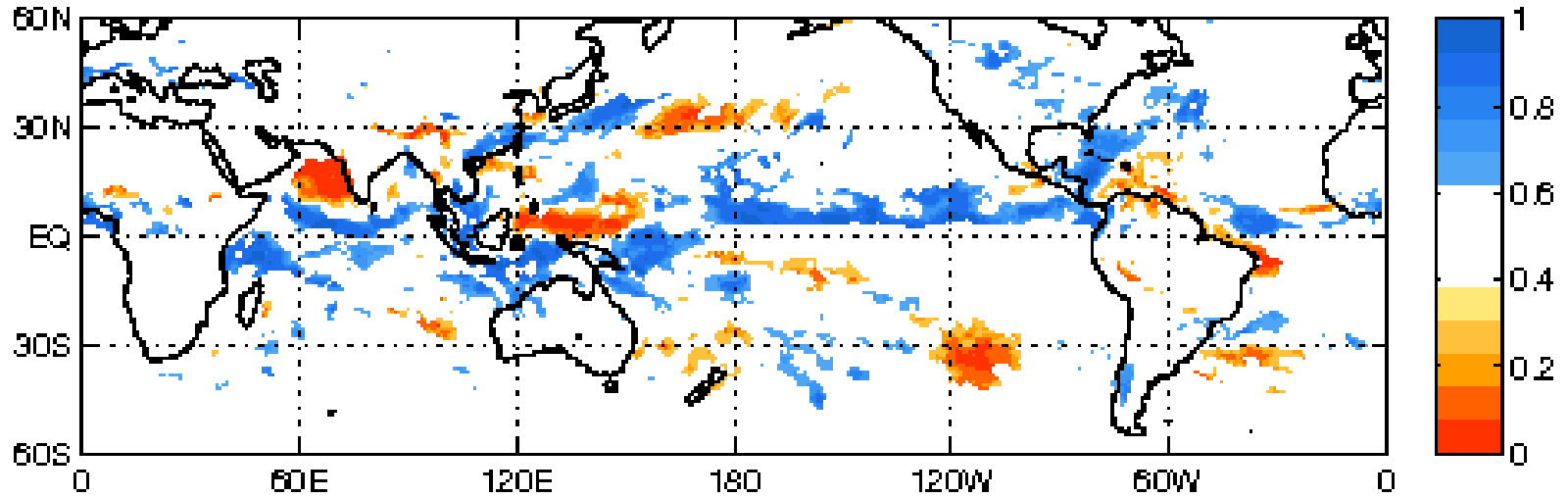
Note the Kelvin Wave activity



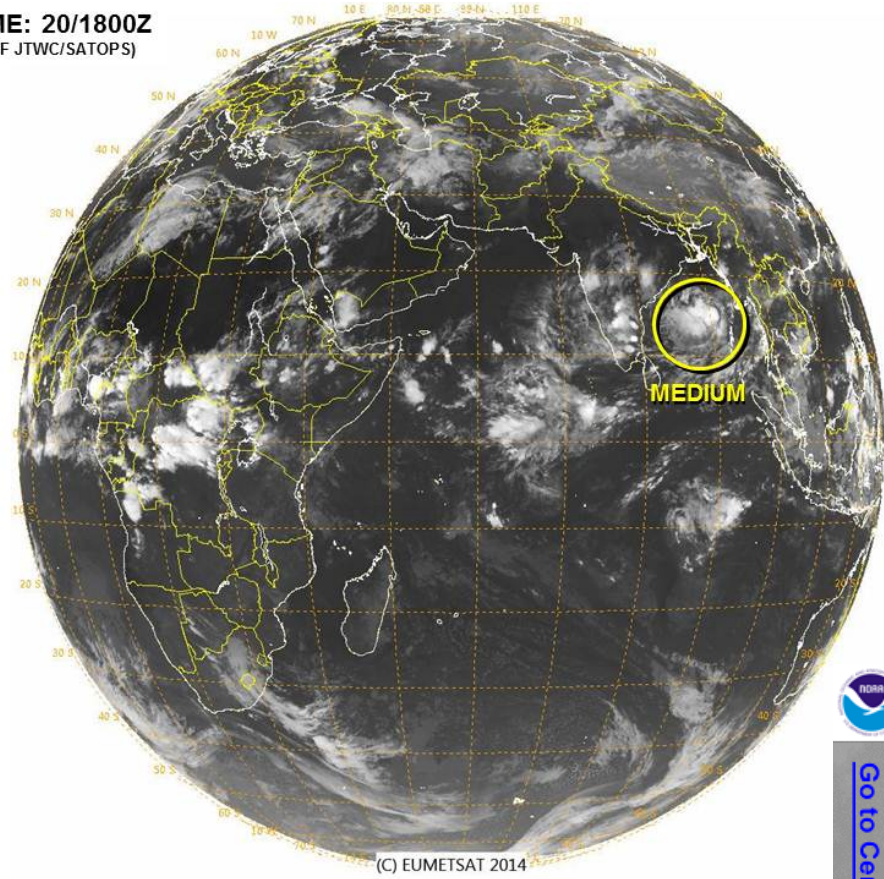
**CFS Prob. Fcst PREC Week1: 20-May-2014 to 26-May-2014**



**CFS Prob. Fcst PREC Week2: 27-May-2014 to 02-Jun-2014**



**VALID TIME: 20/1800Z**  
(PRODUCT OF JTWC/SATOPS)

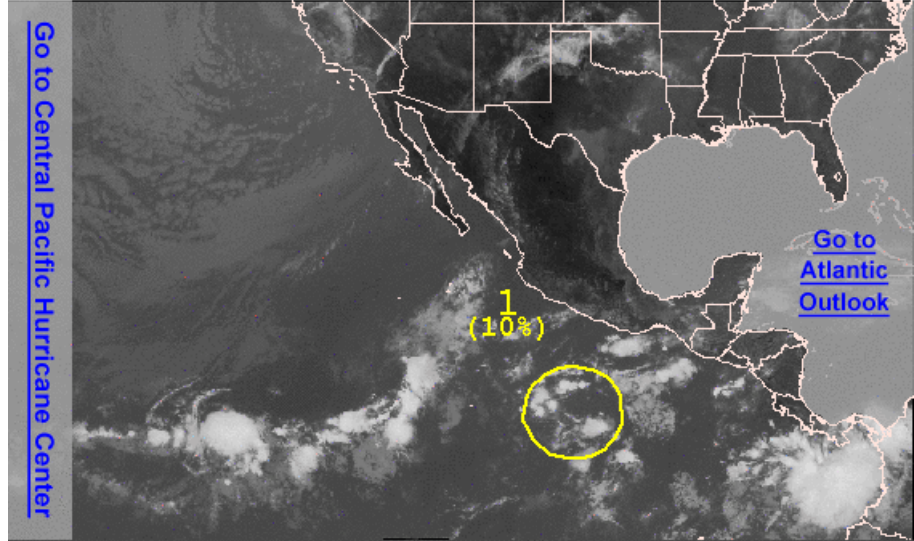


(C) EUMETSAT 2014



### Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



[Go to Central Pacific Hurricane Center](#)

[Go to Atlantic Outlook](#)

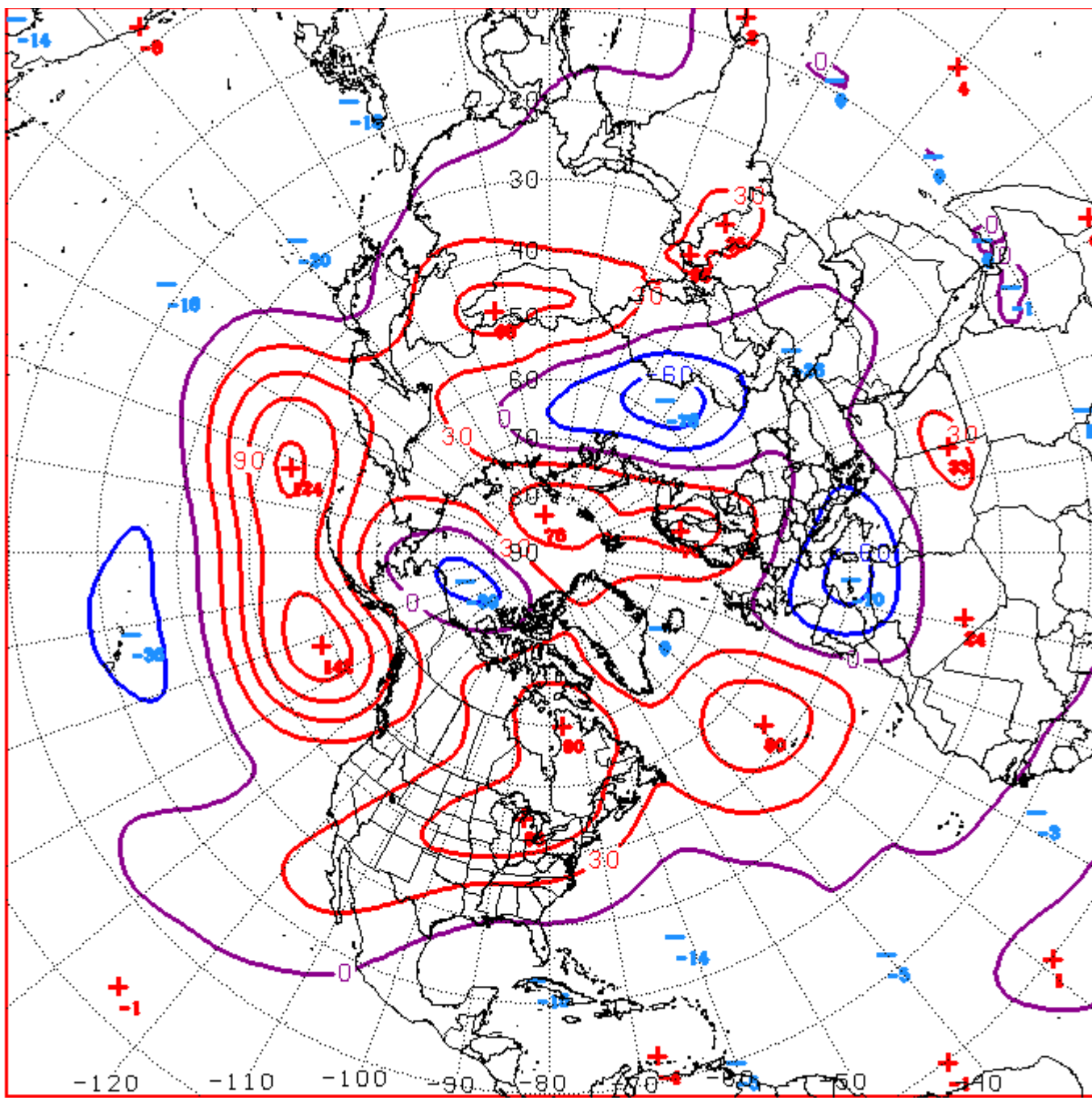
1100 AM PDT TUE MAY 20 2014

Satellite Image: 1000 AM PDT

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%

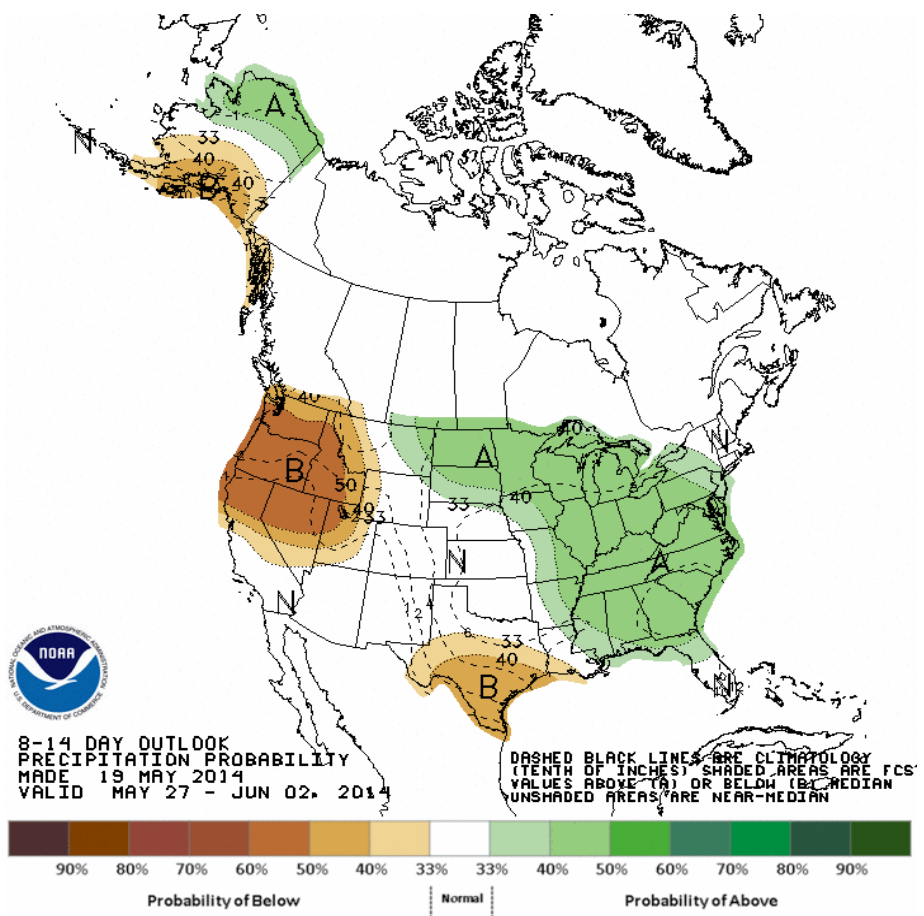
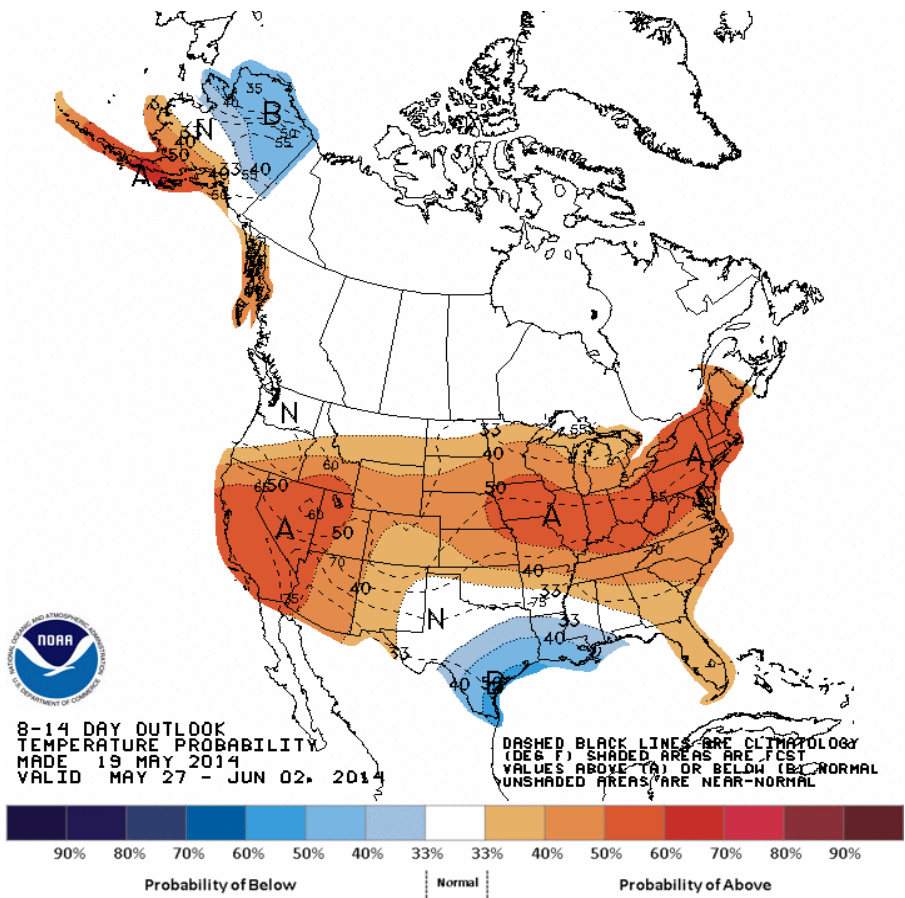
# Connections to U.S. Impacts



-120 -110 -100 -90 -80 -70 -60 -50

D+11 500 MB ANOMALIES FROM 00Z ECMM  
CPC MAP MADE MAY 20 2014 1036 UTC CNTD MAY 31 2014

# Week 2 – Temperature and Precipitation

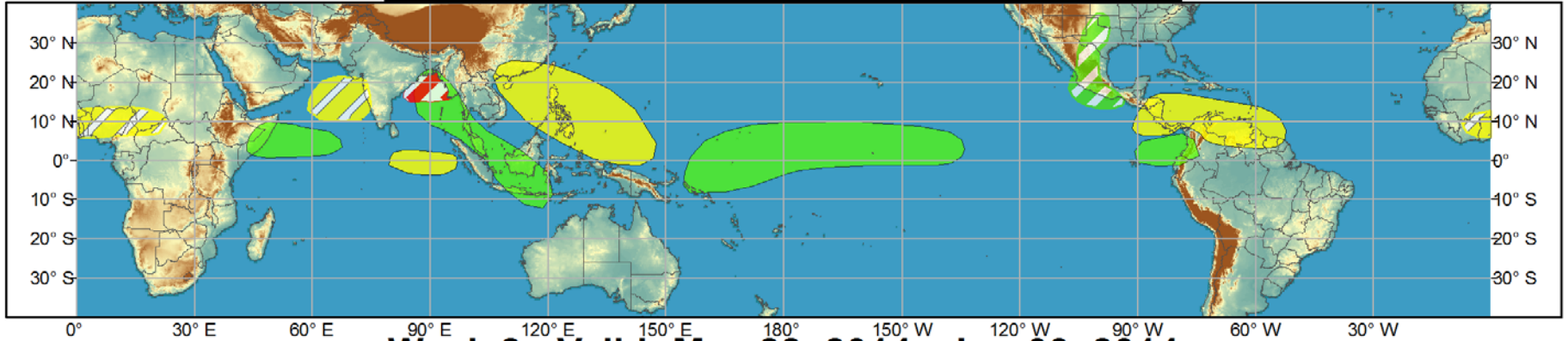




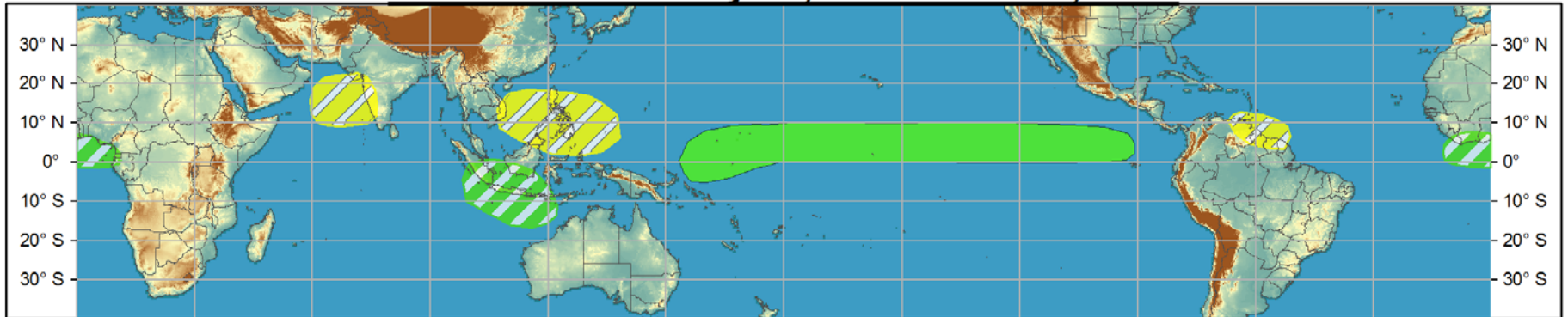
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