

Global Tropics Hazards And Benefits Outlook

October 7, 2014

Stephen Baxter

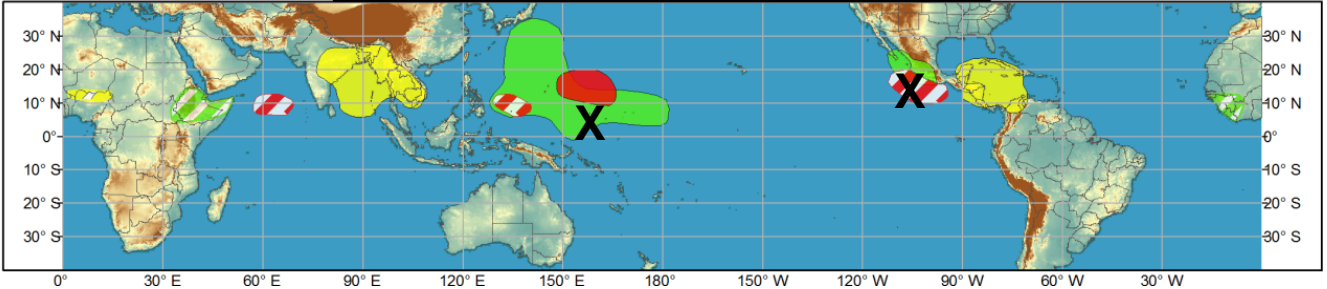
Outline

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: Oct 01, 2014 - Oct 07, 2014

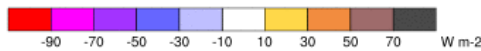
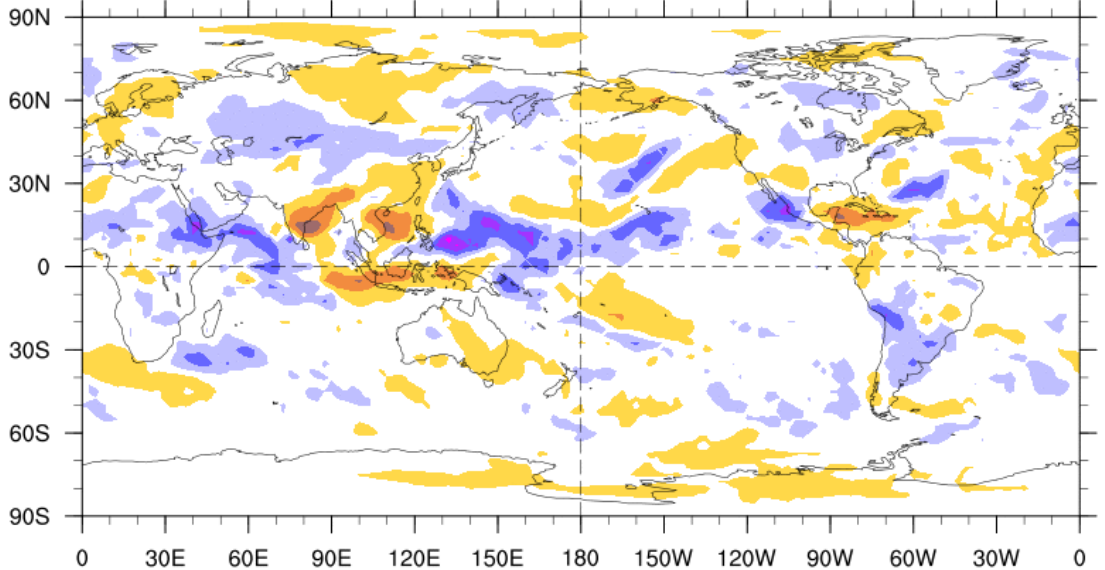


Week 2 - Valid: Oct 01, 2014 - Oct 07, 2014



7-Day Average OLR Anomaly

2014/09/29 - 2014/10/05



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO:

- Current: ENSO-neutral
- Outlook: The chance of El Niño is at 60-65% during the Northern Hemisphere fall and winter.

MJO and other subseasonal tropical variability:

- The MJO remained weak with the atmospheric circulation not consistent with a robust MJO. Equatorial Rossby waves, Kelvin Waves, and tropical cyclones are dominating the tropical convective pattern.
- Dynamical model MJO index forecasts depict some strengthening of the MJO during the next two weeks. However, forecast propagation speeds appear more in line with atmospheric Kelvin waves early in the period. During Week-2, a more coherent MJO signal may emerge over the Western Hemisphere.

Extratropics:

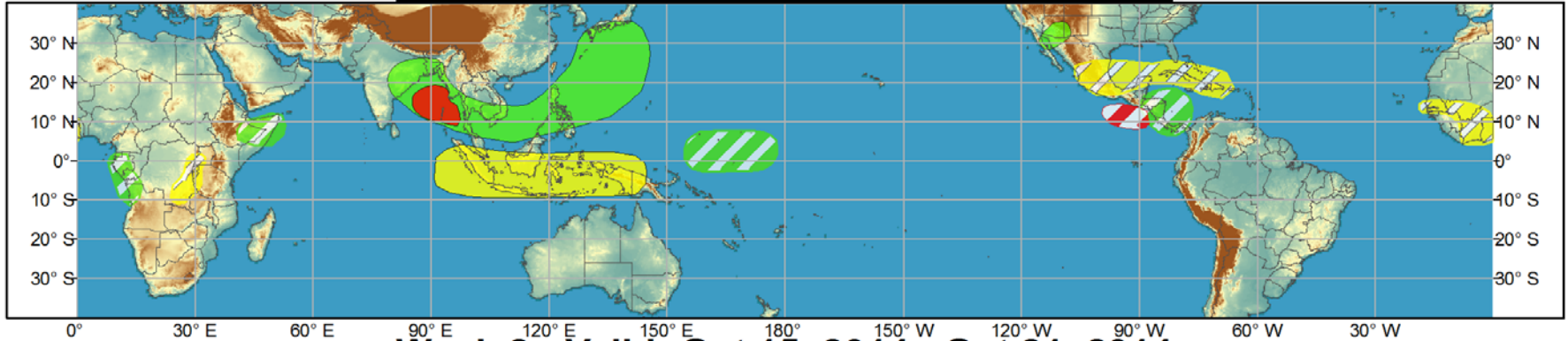
- The extended range forecast for the U.S. is not likely to be largely impacted directly by the MJO. There is a large degree of uncertainty due to the potential recurving West Pacific typhoons.



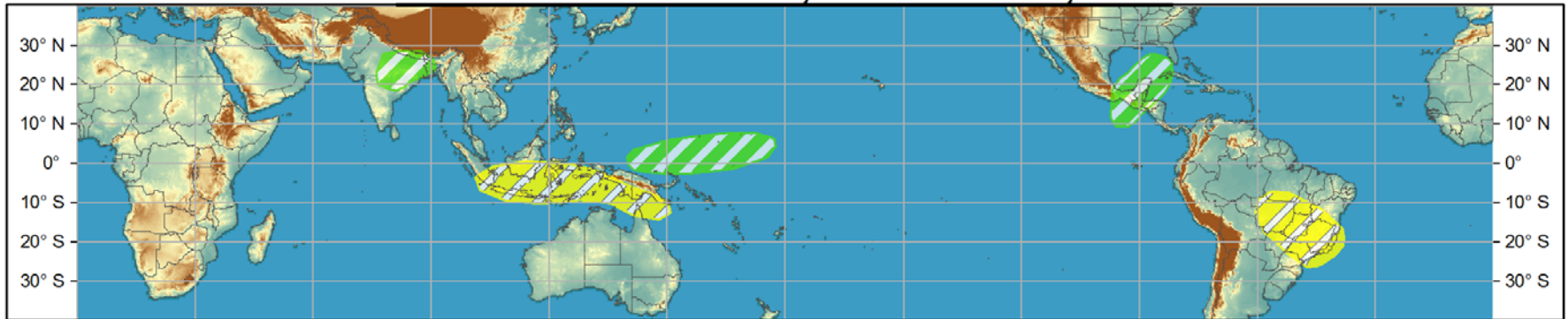
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Oct 08, 2014 - Oct 14, 2014



Week 2 - Valid: Oct 15, 2014 - Oct 21, 2014



Produced: 10/07/2014

Forecaster: Baxter

Confidence
High Moderate

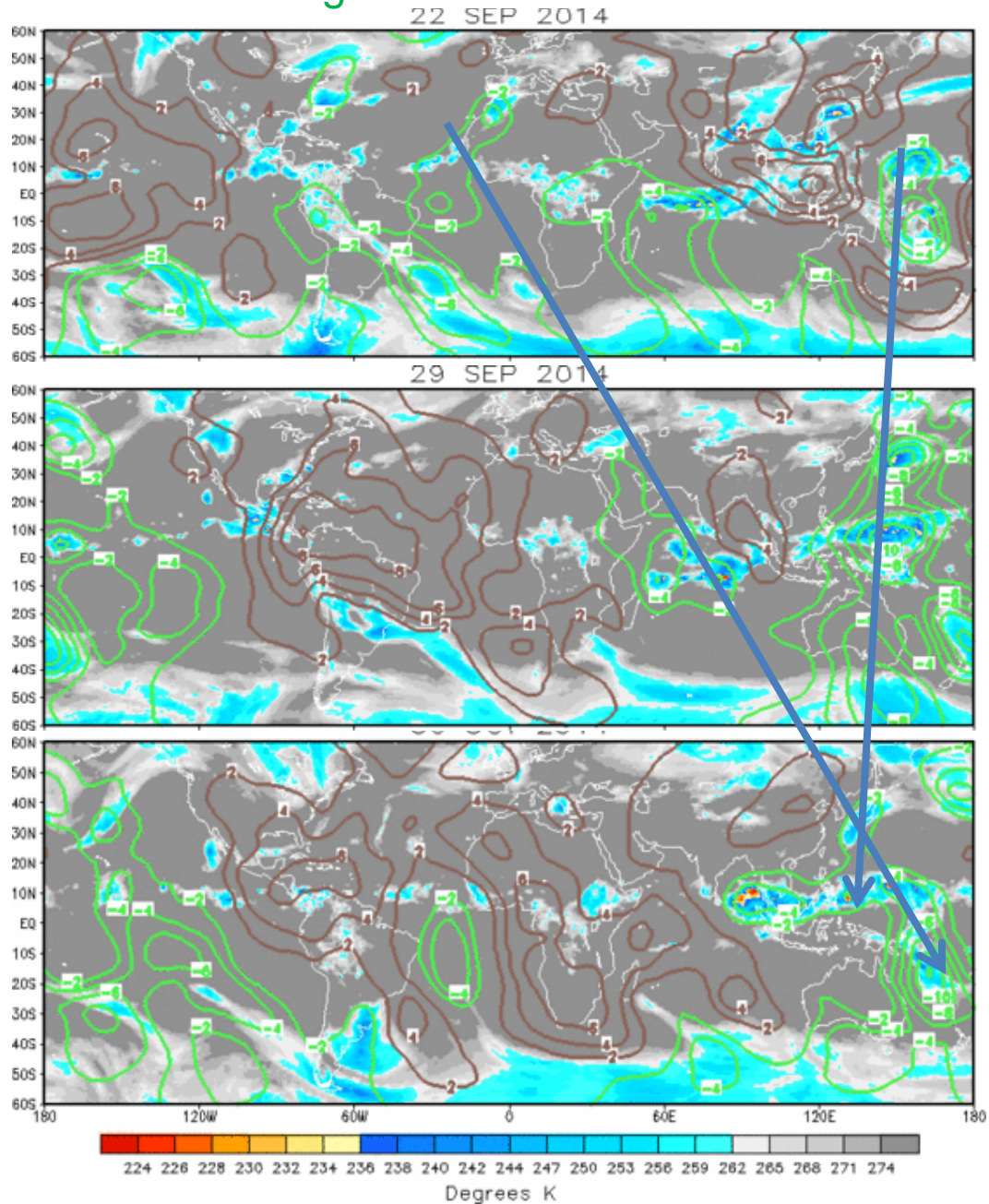
- Tropical Cyclone Formation** Development of a tropical cyclone (tropical depression - TD, or greater strength).
- Above-average rainfall** Weekly total rainfall in the upper third of the historical range.
- Below-average rainfall** Weekly total rainfall in the lower third of the historical range.
- Above-normal temperatures** 7-day mean temperatures in the upper third of the historical range.
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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.

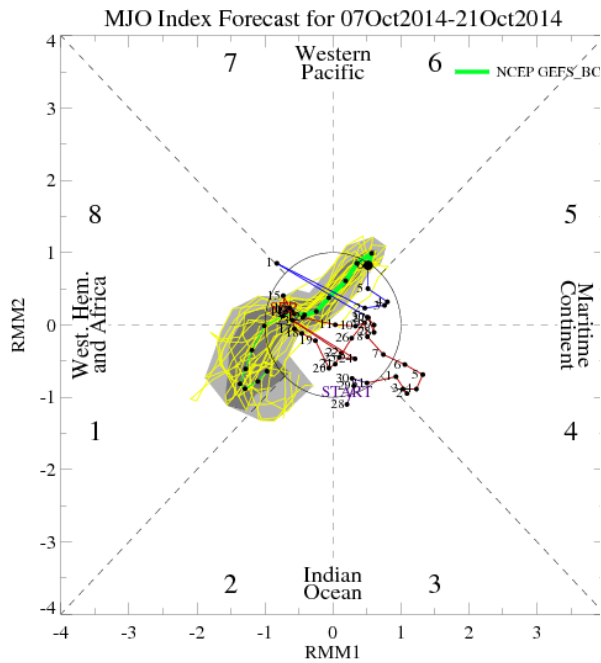


IR Satellite & 200-hpa Velocity Potential Anomalies

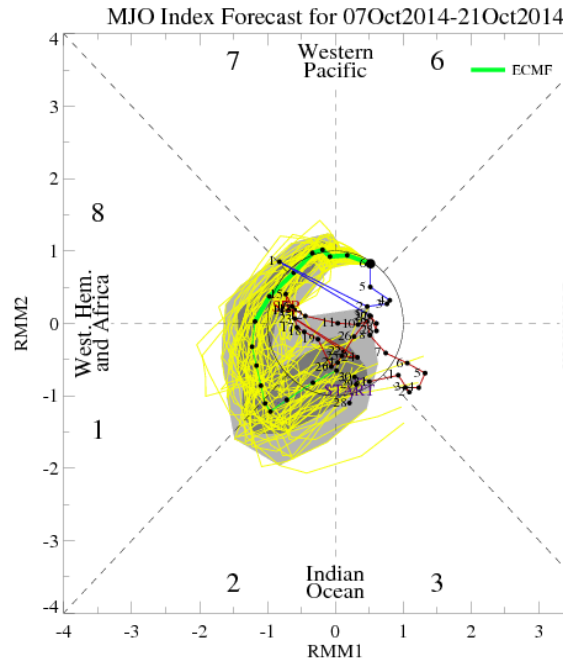
Green: Enhanced Divergence Brown: Enhanced Convergence



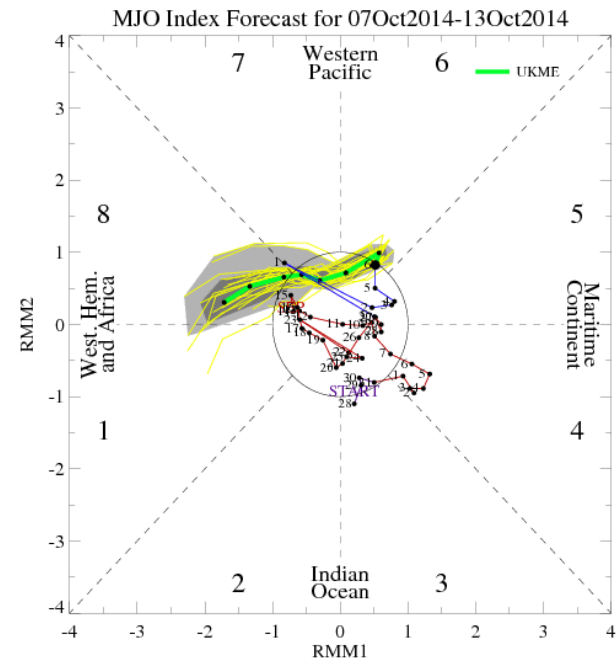
MJO Observation/Forecast



GFS

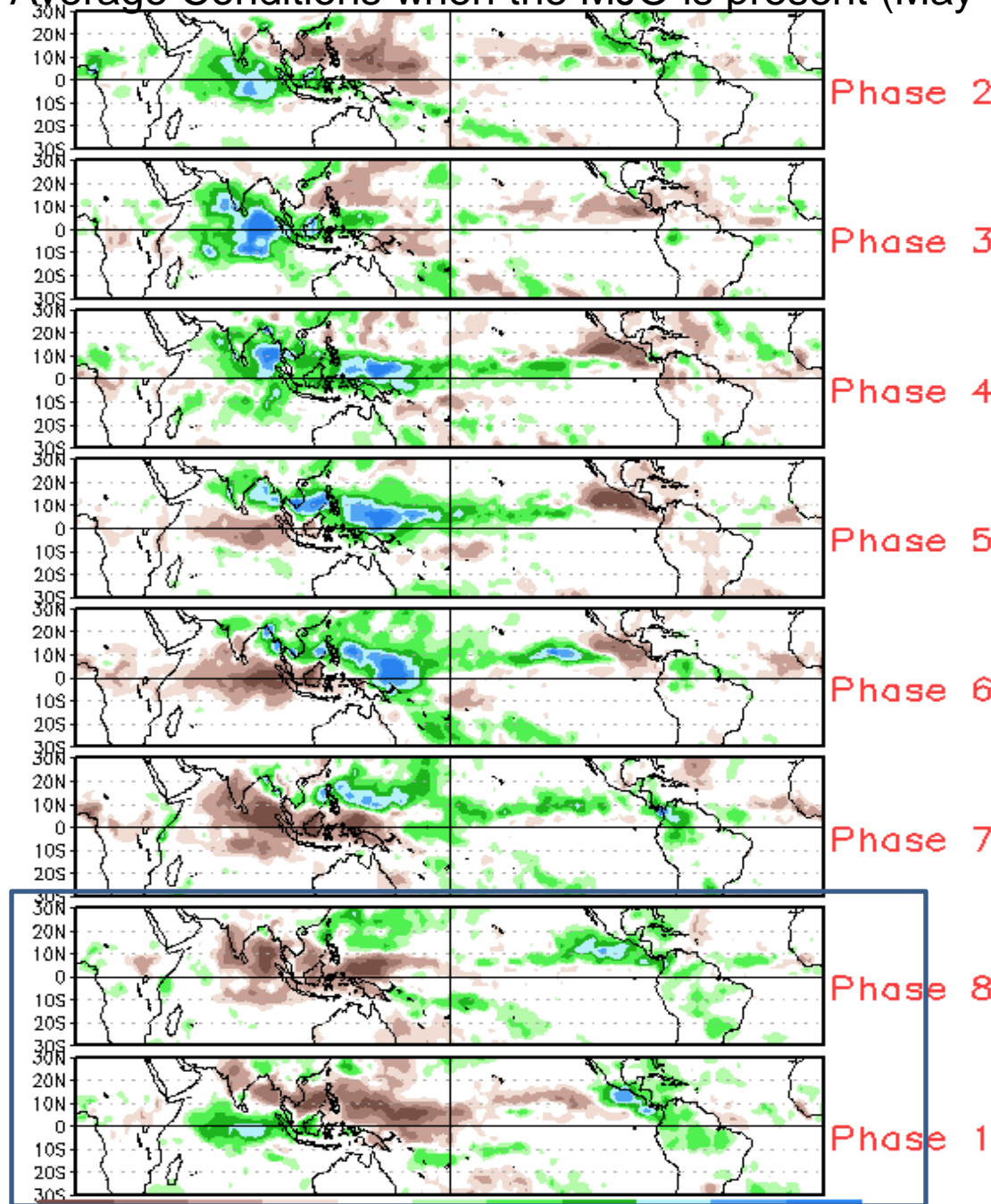


ECMWF



UKMET

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



Phase 2

Phase 3

Phase 4

Phase 5

Phase 6

Phase 7

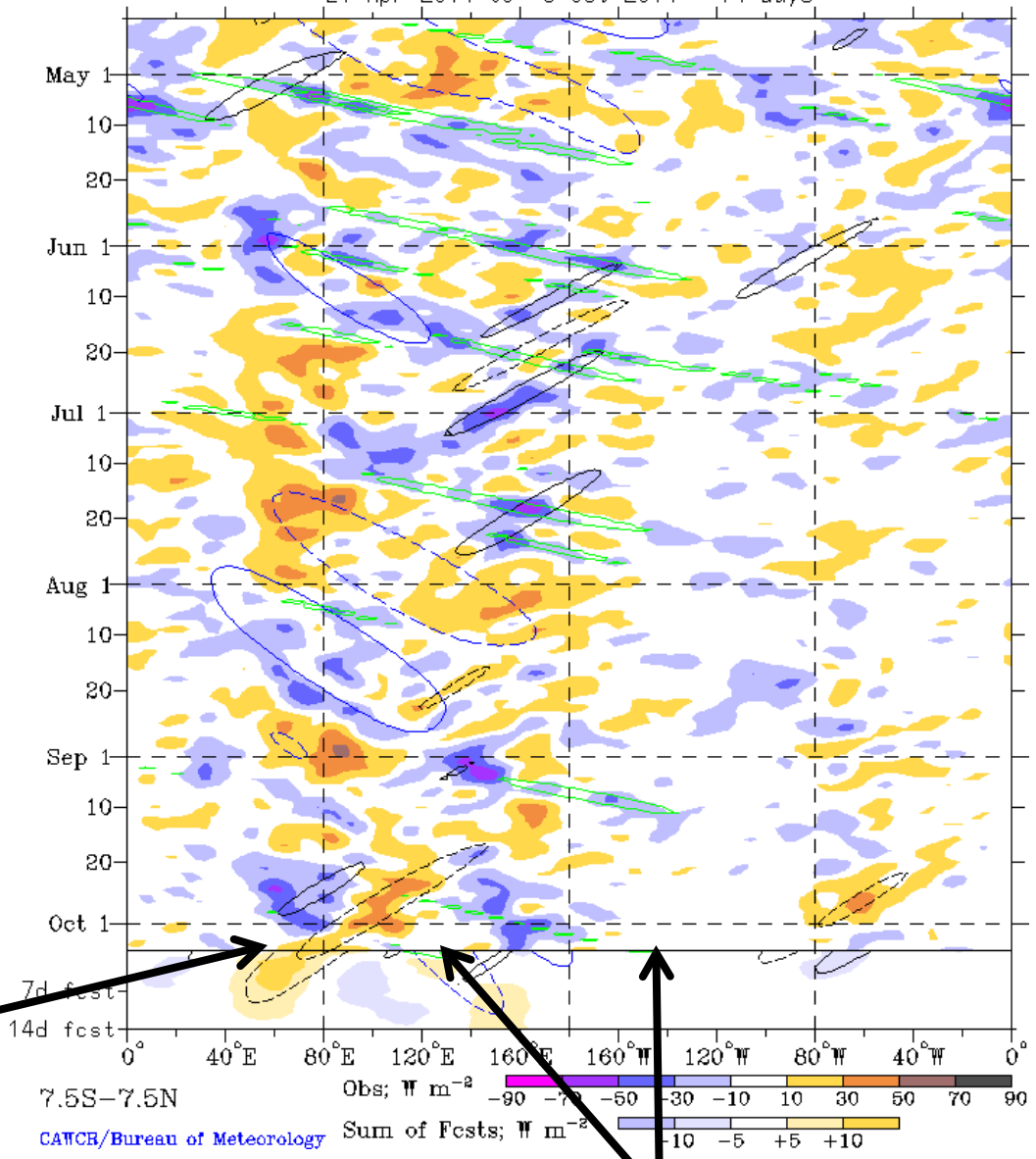
Phase 8

Phase 1

We are in the transition season.



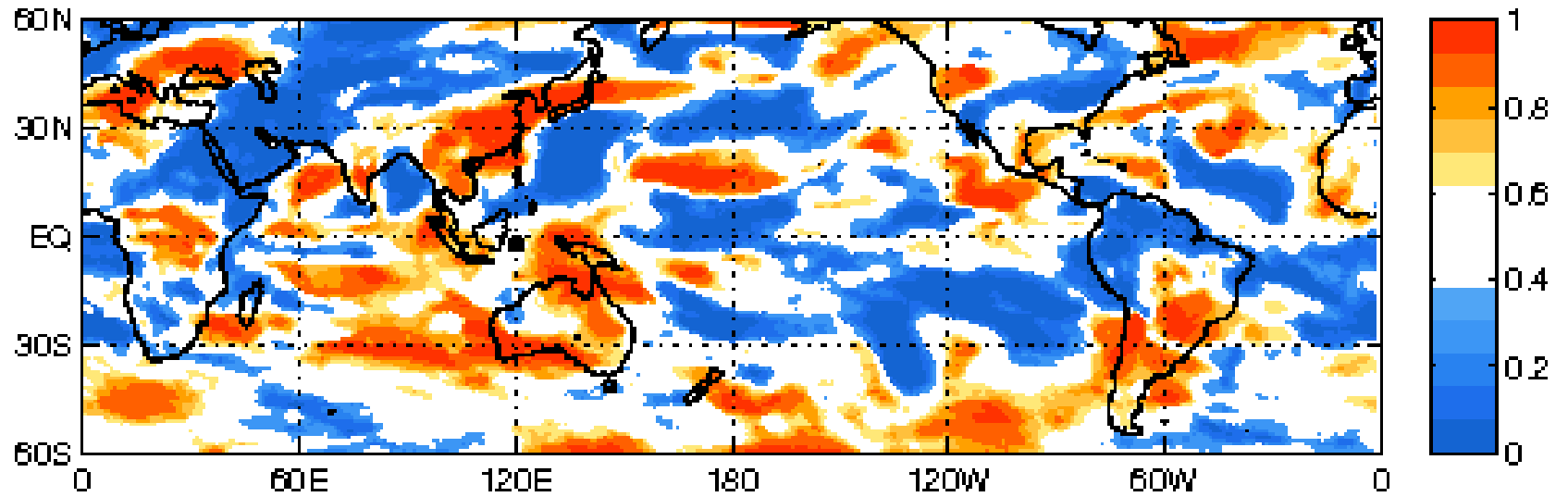
Real-time filtering superimposed upon 1-2-1 filt, R21, OLR Anoms
MJO blue CINT=10; n1ER black CINT=10; Kelvin green CINT=15
Negative contours solid, positive dashed (excluding Kelvin)
21-Apr-2014 to 6-Oct-2014 + 14 days



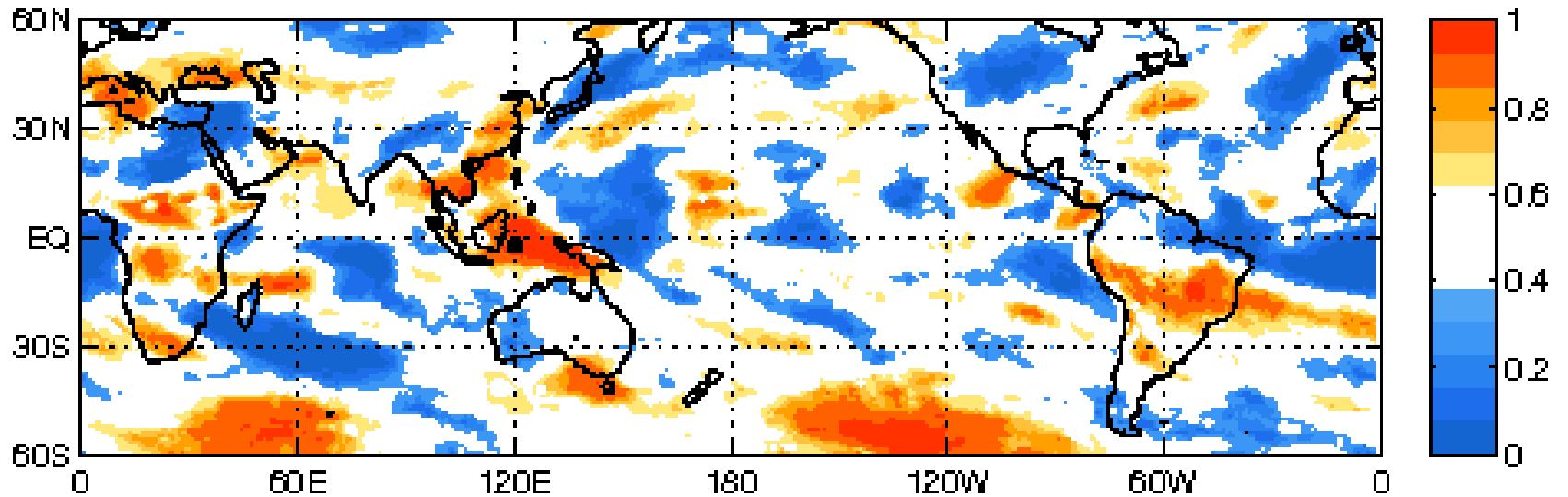
Equatorial Rossby Waves/TCs
also contributing to observed
pattern of convection.

Kelvin Waves to impact ePAC and ATL.

CFS Prob. Fcst OLR Week: 1: 07-Oct-2014 to 13-Oct-2014



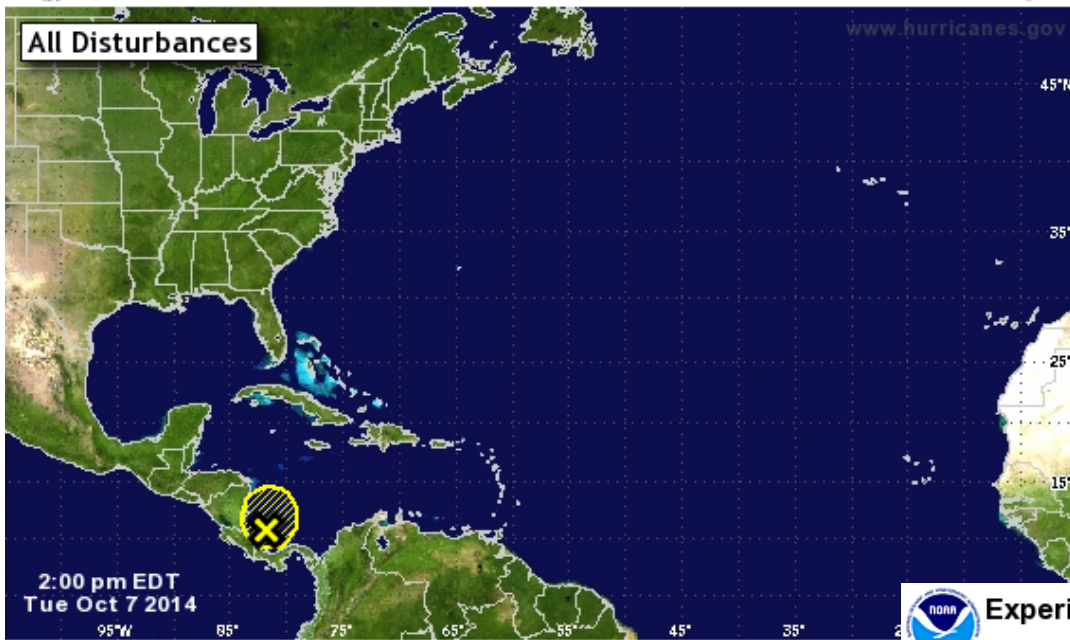
CFS Prob. Fcst OLR Week: 2: 14-Oct-2014 to 20-Oct-2014





Experimental 5-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



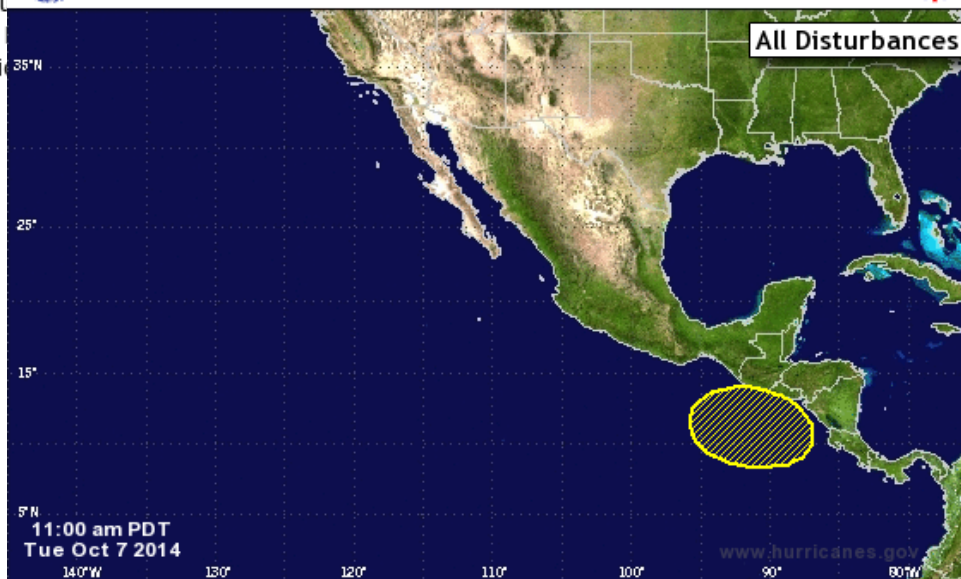
2:00 pm EDT
Tue Oct 7 2014

Tropical Cyclone Formation Potential for the 5-Day Period Ending 2:00 pm EDT Sun Oct 12 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

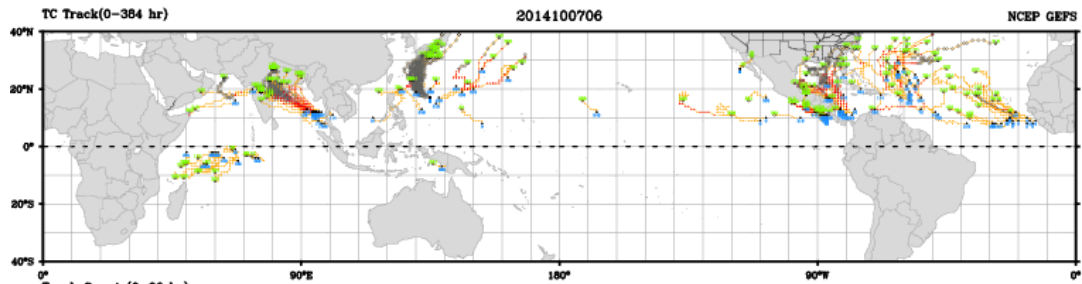
National Hurricane Center Miami, Florida



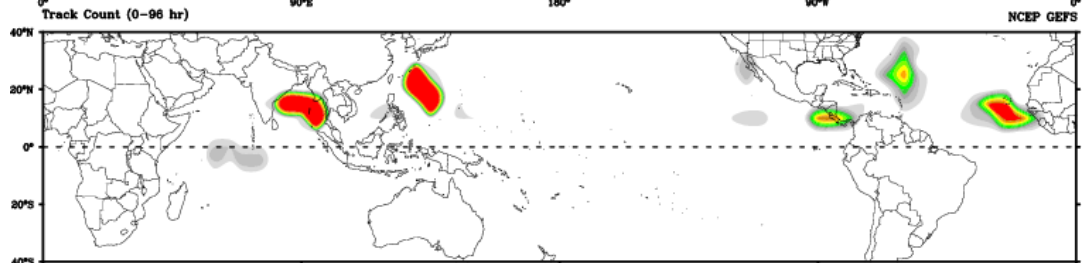
11:00 am PDT
Sun Oct 12 2014

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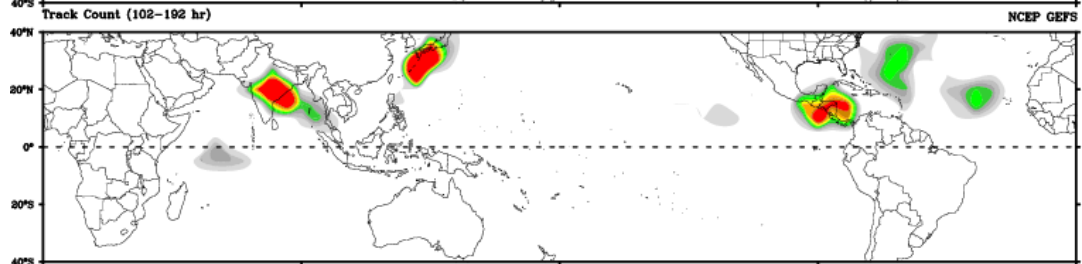
CWB TC Tracker for NCEP GEFS (Fuzzy_AllCriteria)



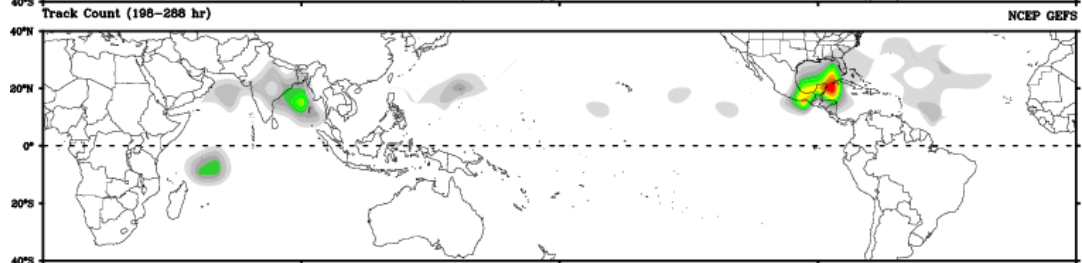
Days 1-4



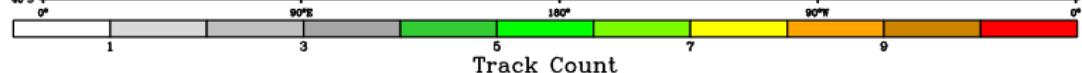
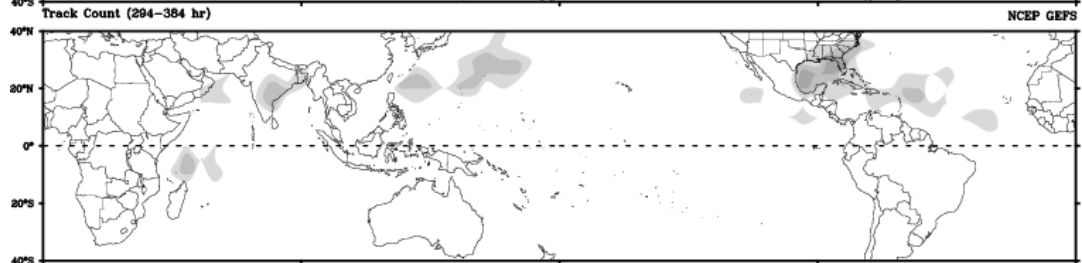
Day 5-8



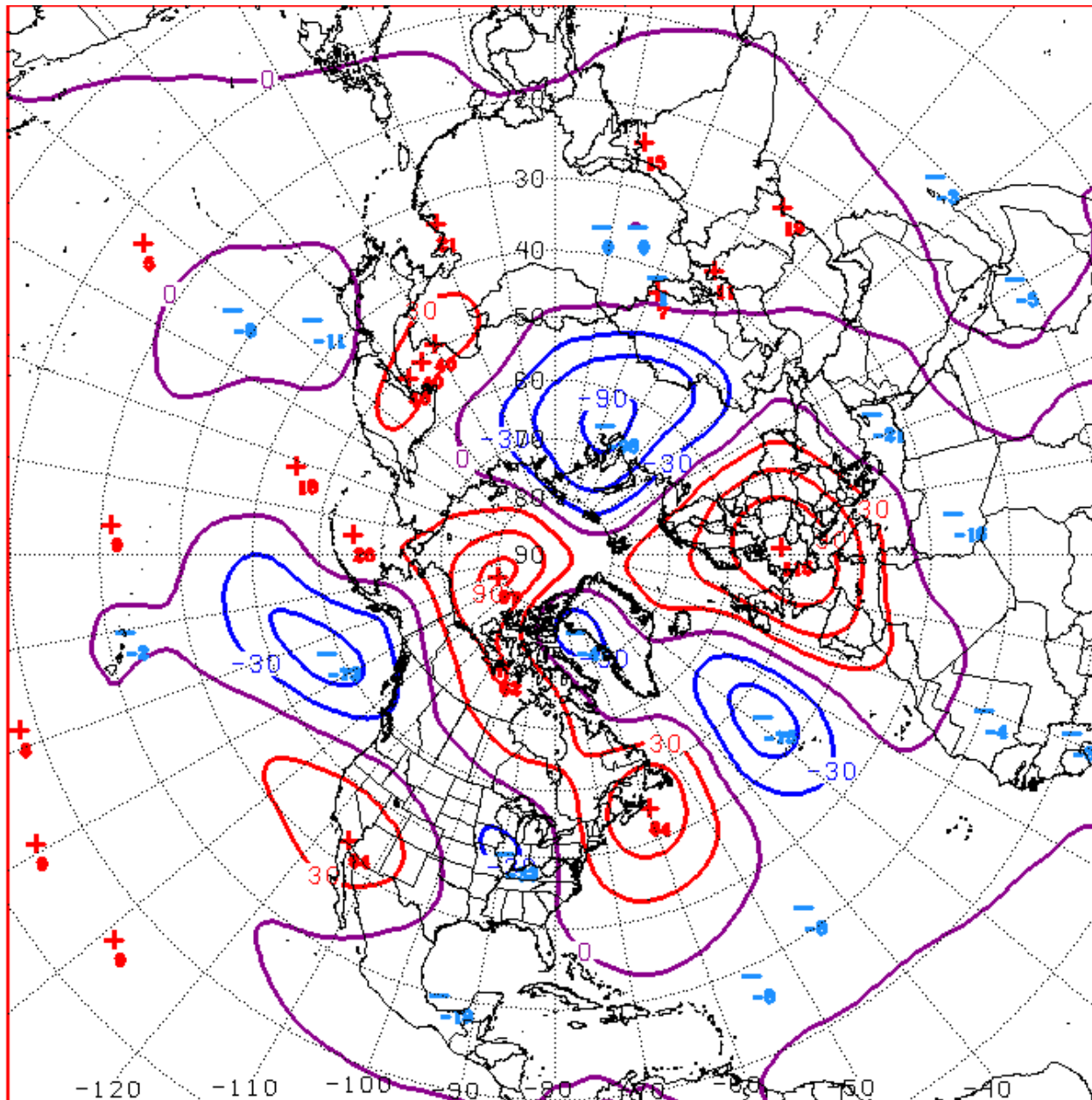
Day 9-12



Day 13-16

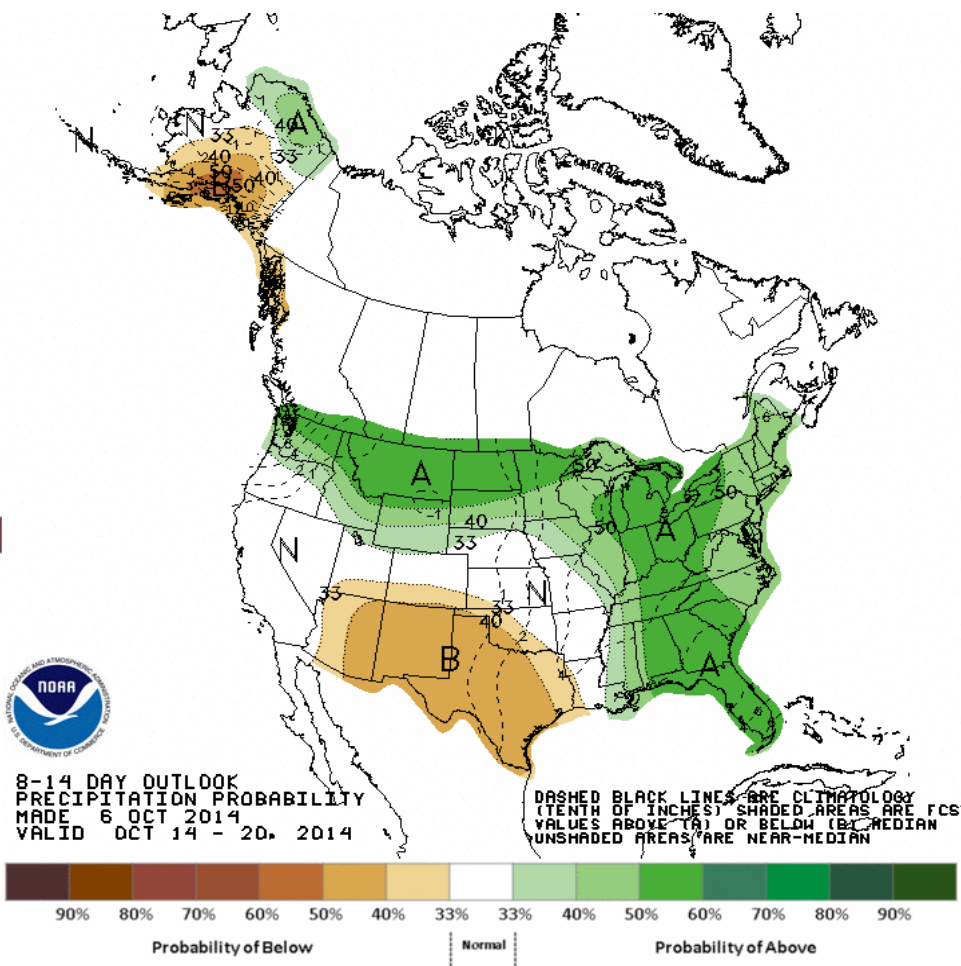
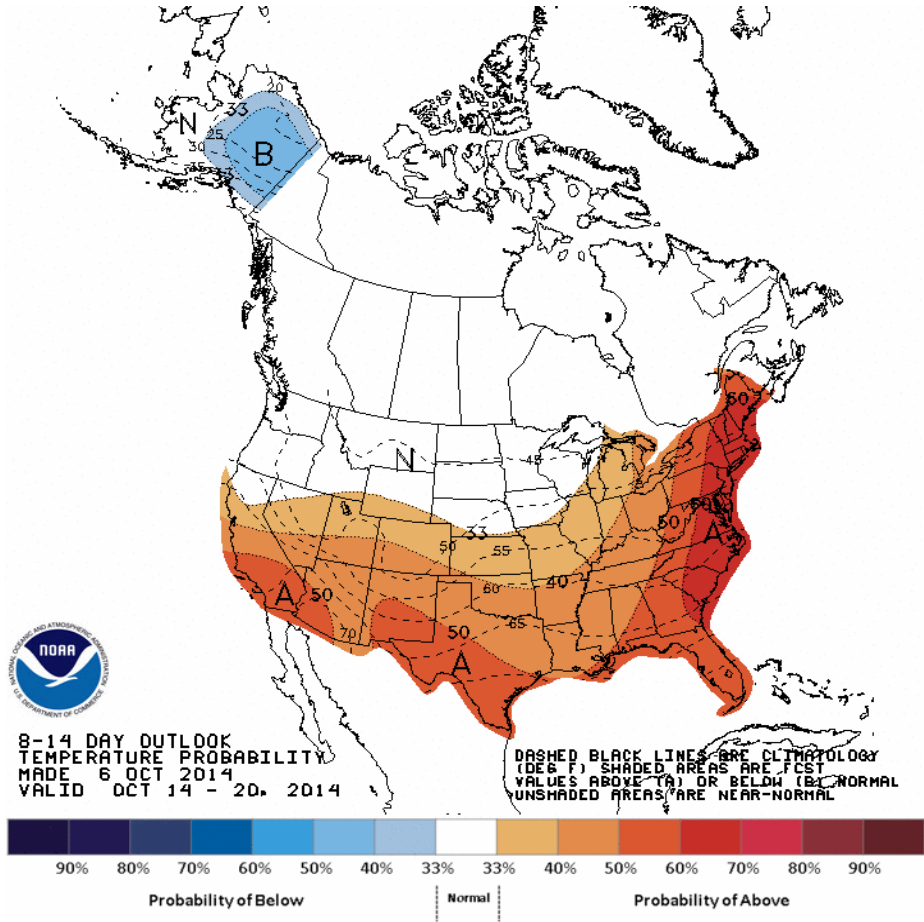


Connections to U.S. Impacts



D+11 500 MB ANOMALIES FROM 00Z ECMM
 CPC MAP MADE OCT 07 2014 1100 UTC CNTD OCT 18 2014

Week 2 – Temperature and Precipitation

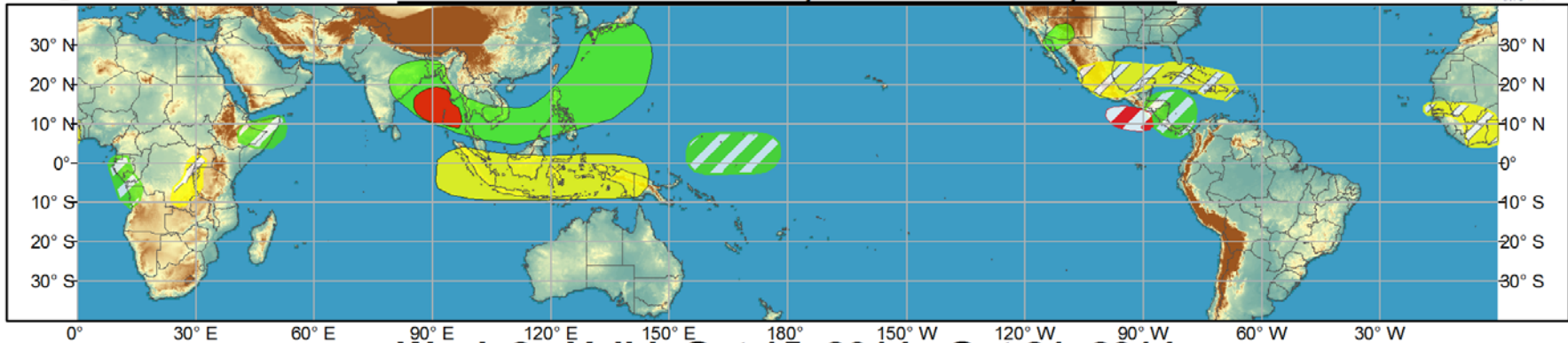




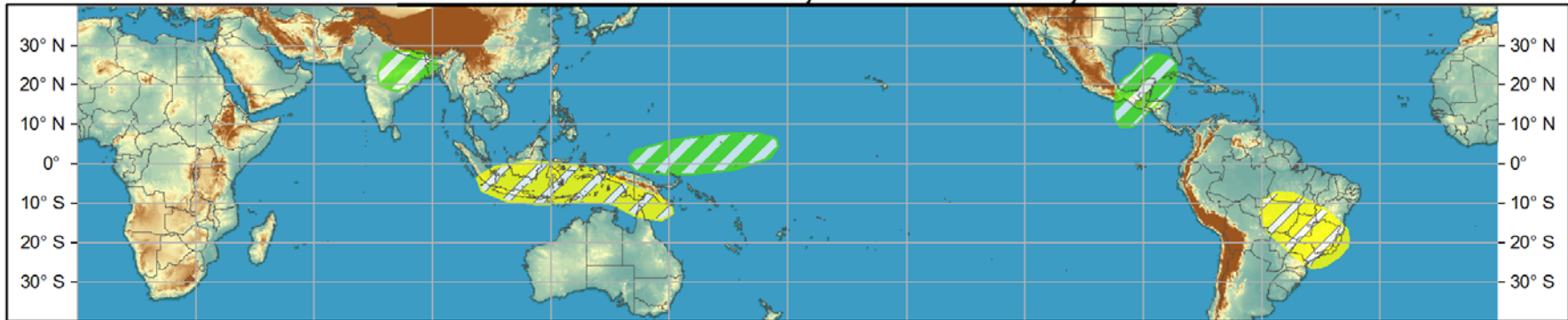
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