

Global Tropics Hazards And Benefits Outlook

August 26, 2013

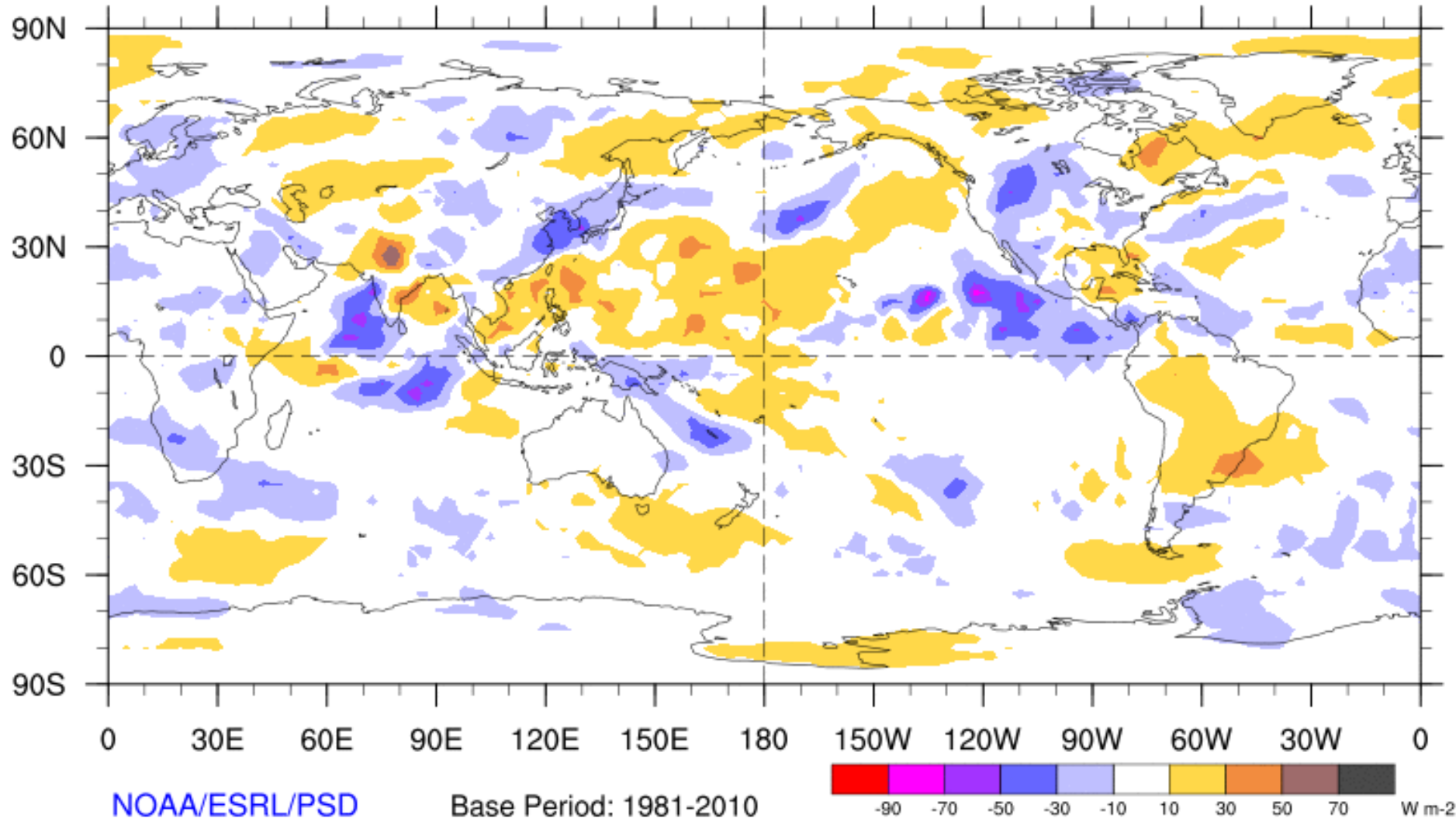
Matthew Rosencrans

Outline

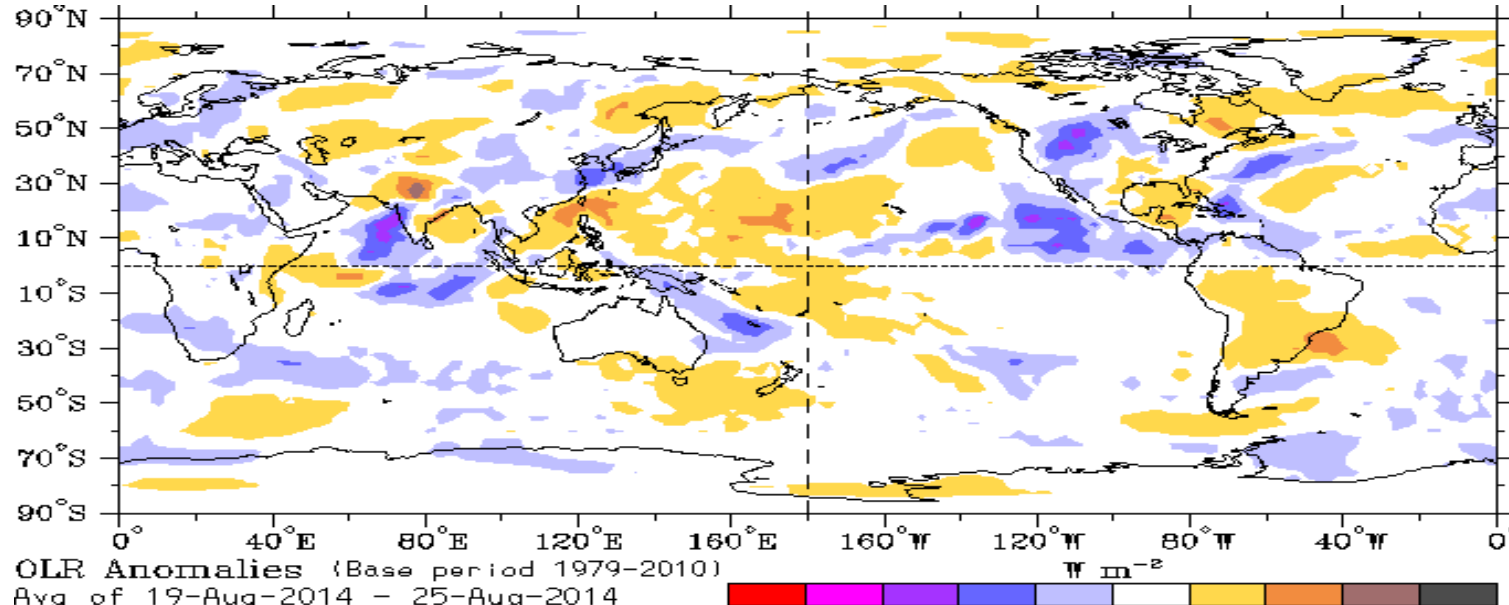
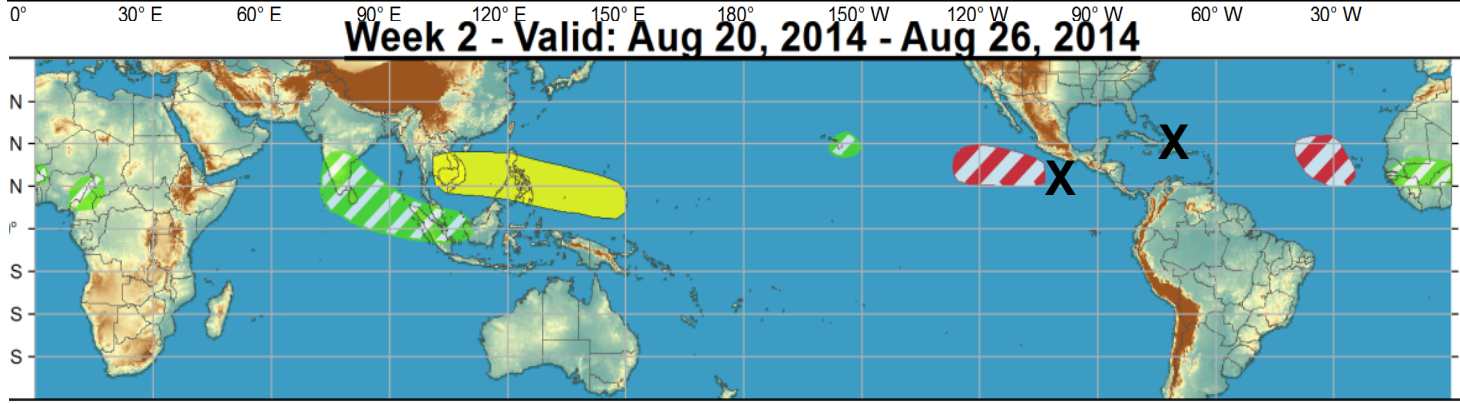
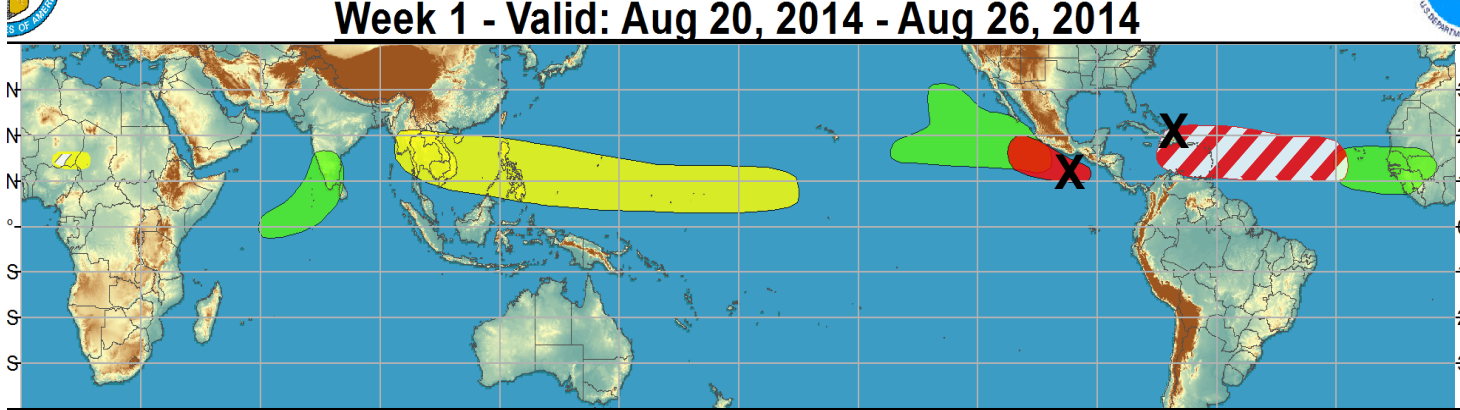
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

7-Day Average OLR Anomaly

2014/08/18 - 2014/08/24



Outlook Review



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 about 65% during the NH fall and early winter.

MJO and other subseasonal tropical variability:

- The MJO remained weak with atmospheric circulation not coherent with a robust MJO. Equatorial Rossby waves and vacillations in the Asian Monsoon are impacting the overall pattern.
- Dynamical model MJO index forecasts generally support continued eastward propagation but a weak signal (GFS is outlier) The statistical tools also support continued MJO activity, although those reflect a weaker signal.

Extratropics:

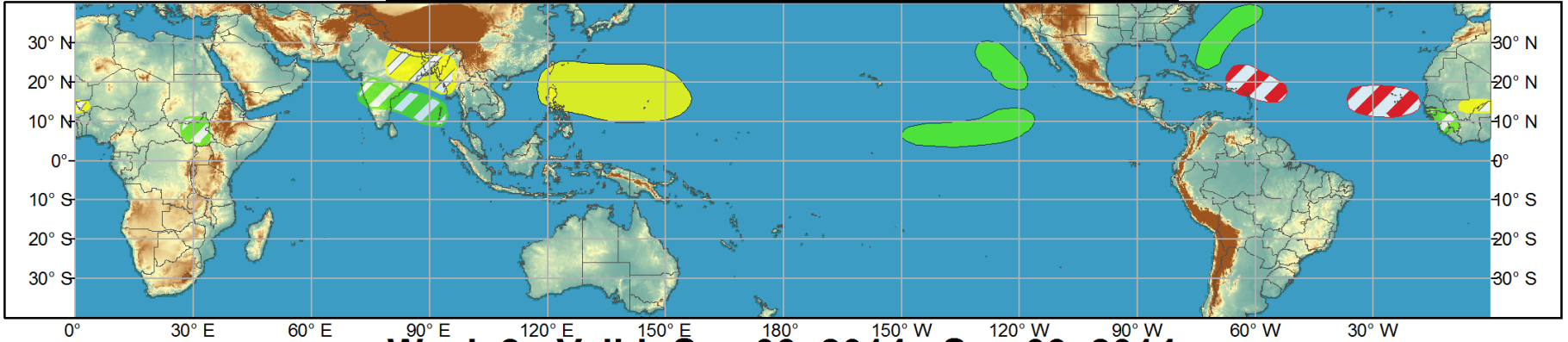
- The extended range forecast for the U.S. aligns well with the typical circulation patterns based on the current and forecast phases of the MJO. These include a trend towards above-normal temperatures across the eastern U.S. and a more active across the central U.S.



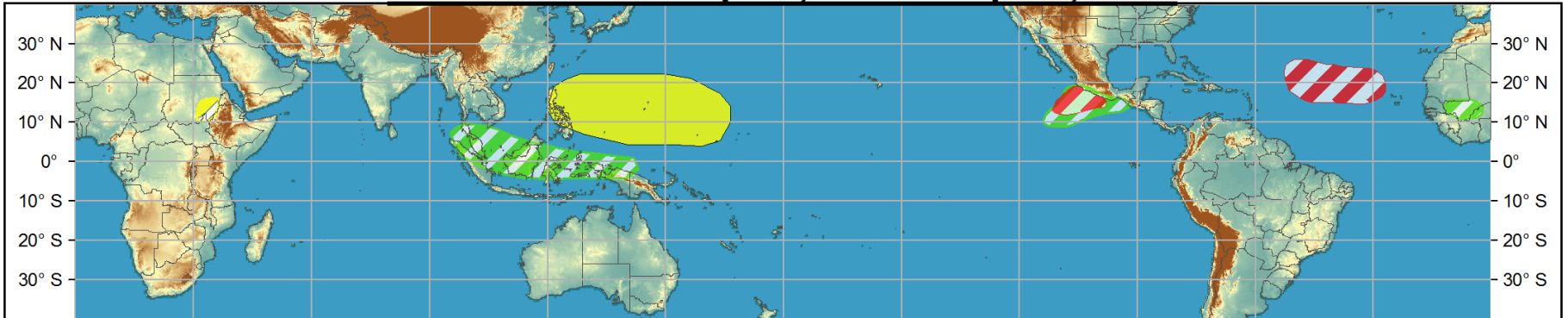
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Week 1 - Valid: Aug 27, 2014 - Sep 02, 2014

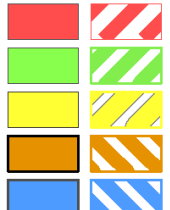


Week 2 - Valid: Sep 03, 2014 - Sep 09, 2014



Confidence
High Moderate

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



- Development of a tropical cyclone (tropical depression - TD, or greater 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: 08/26/2014

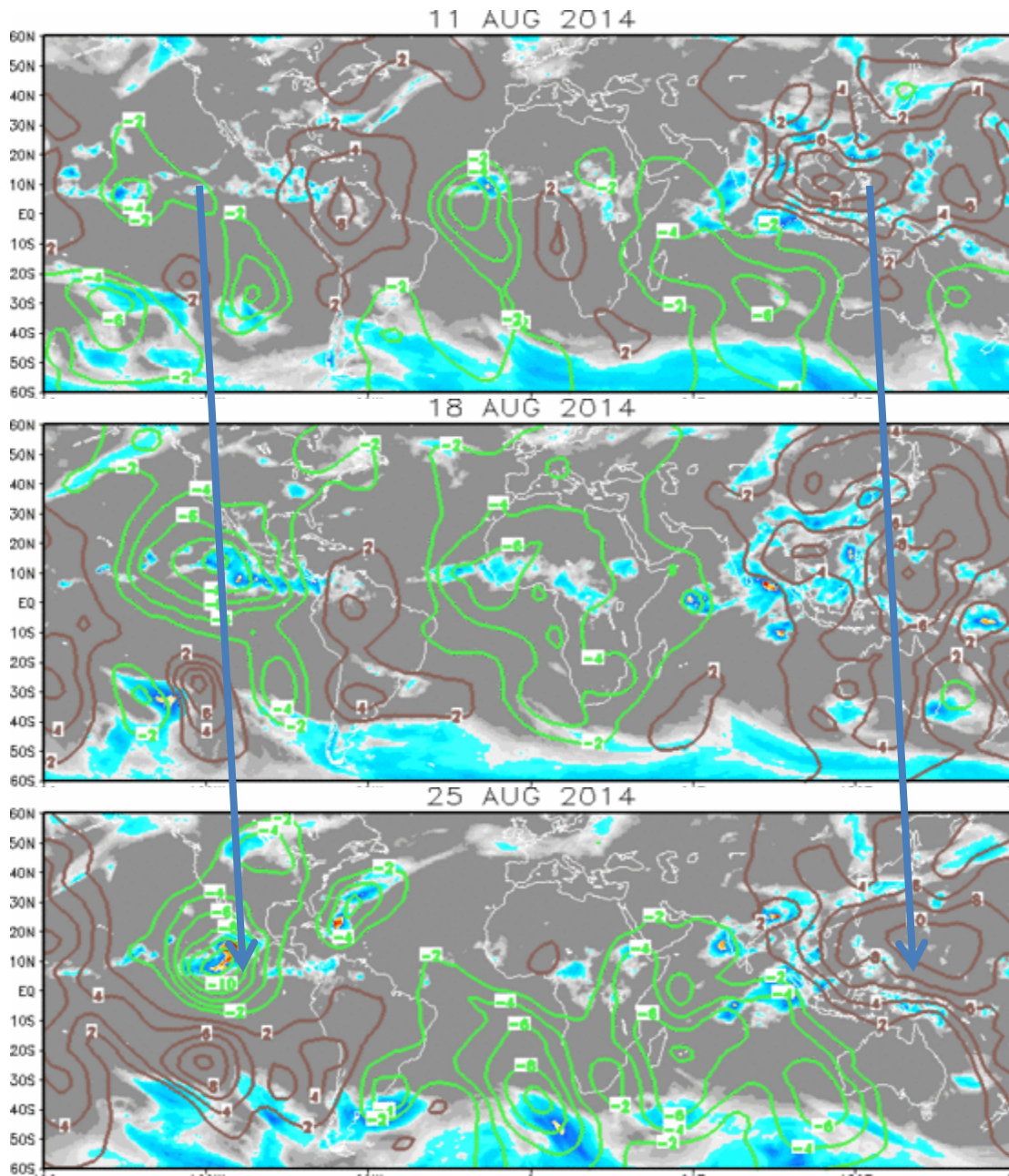
Forecaster: Rosencrans

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.

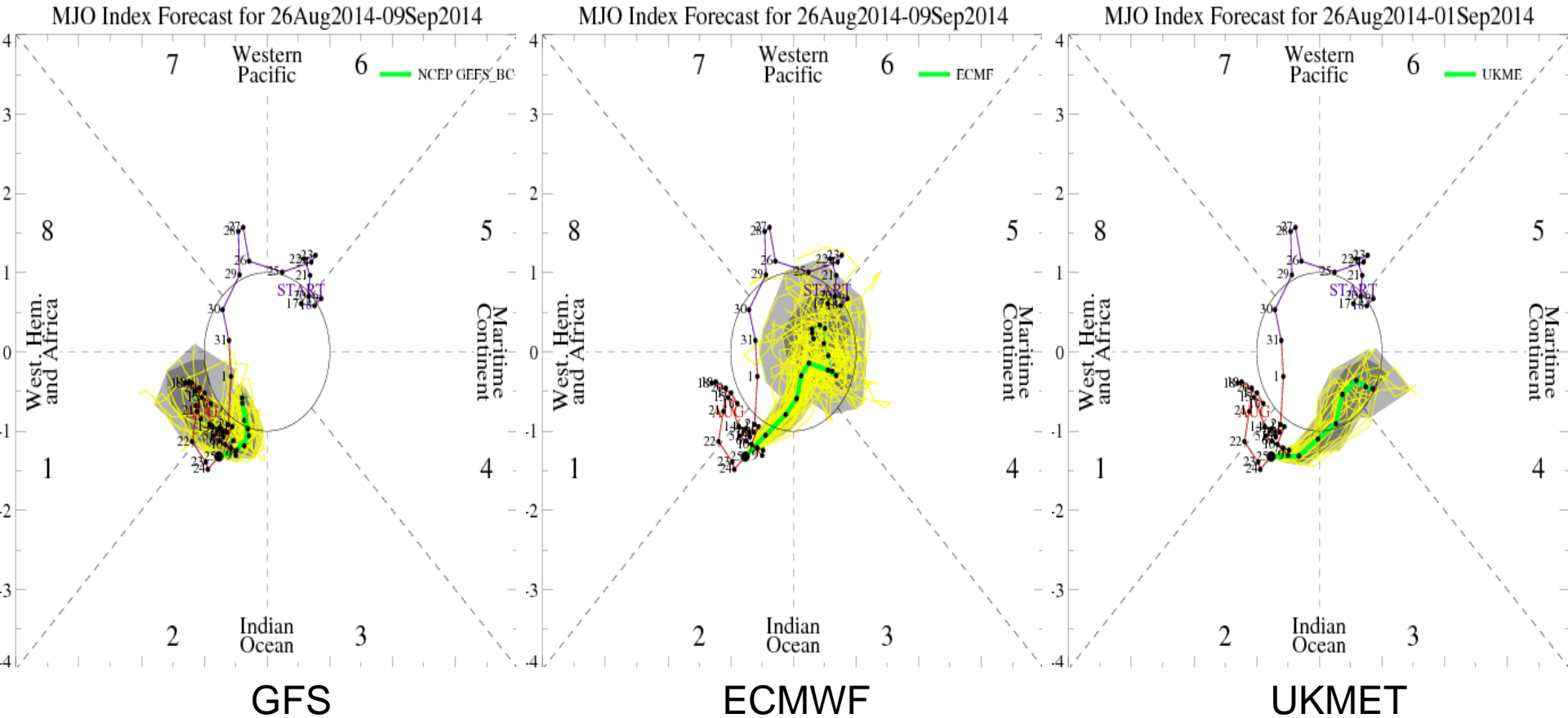


IR Satellite & 200-hpa Velocity Potential Anomalies

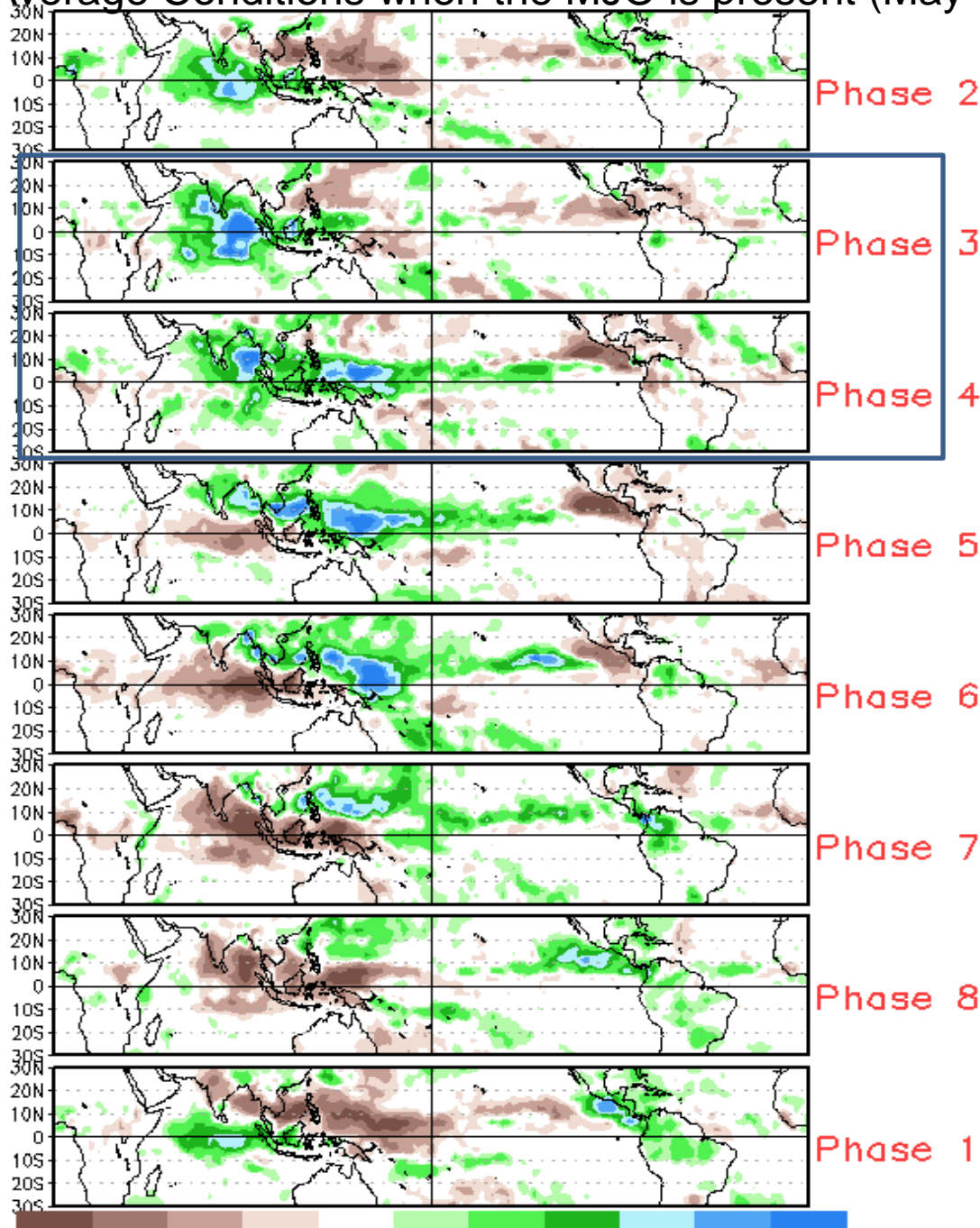
Green: Enhanced Divergence Brown: Enhanced Convergence



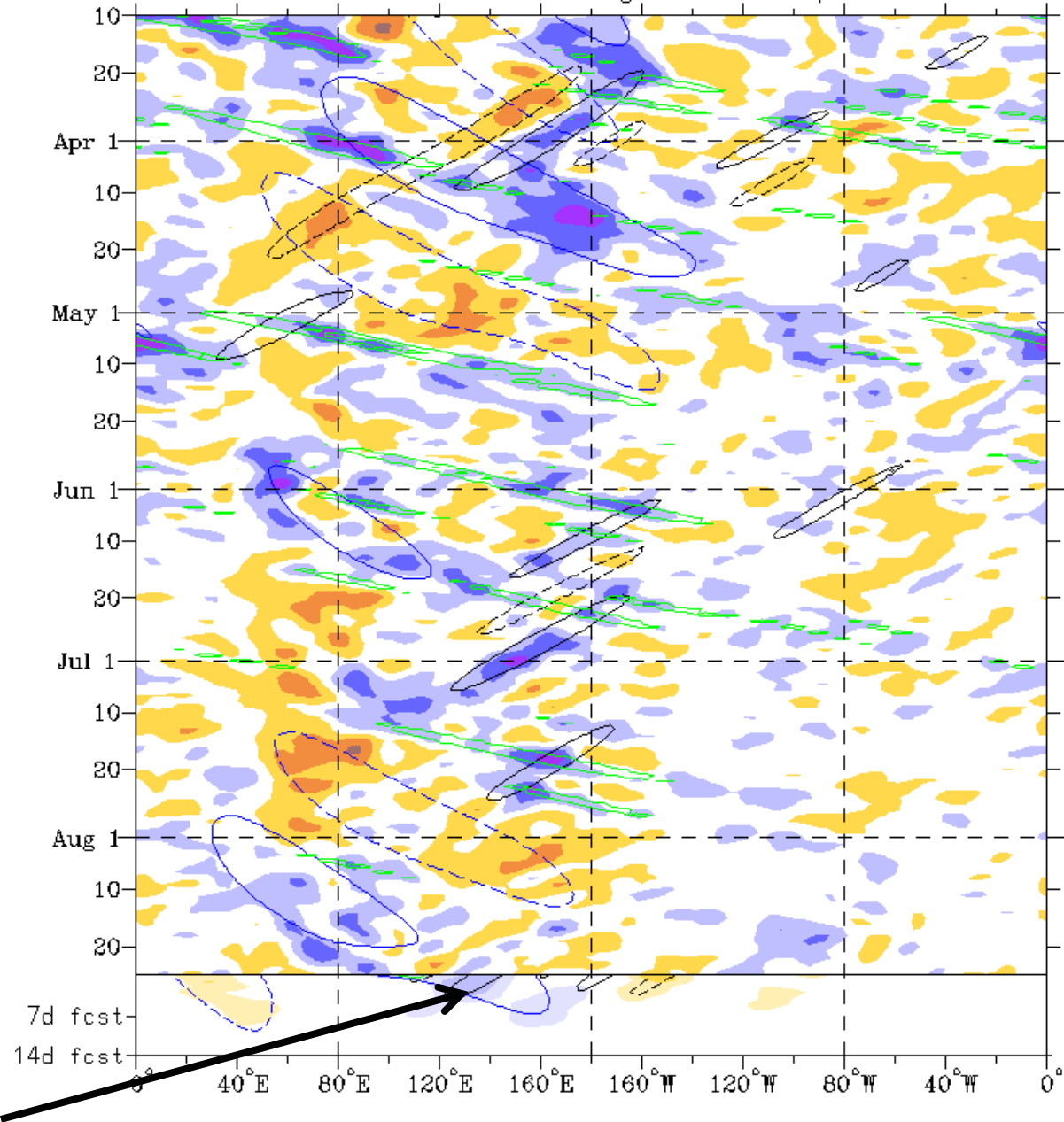
MJO Observation/Forecast



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



CAVEAT: These panels are representative of robust MJO events.

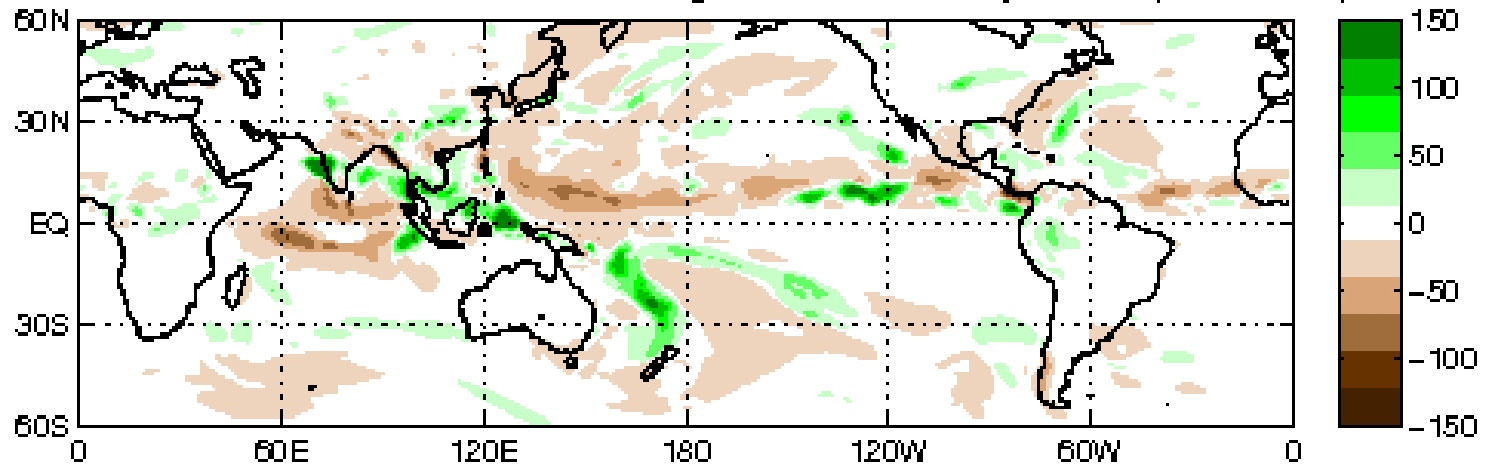


Weak, active phase of the MJO forecast to impact Indian Ocean and Maritime Continent.

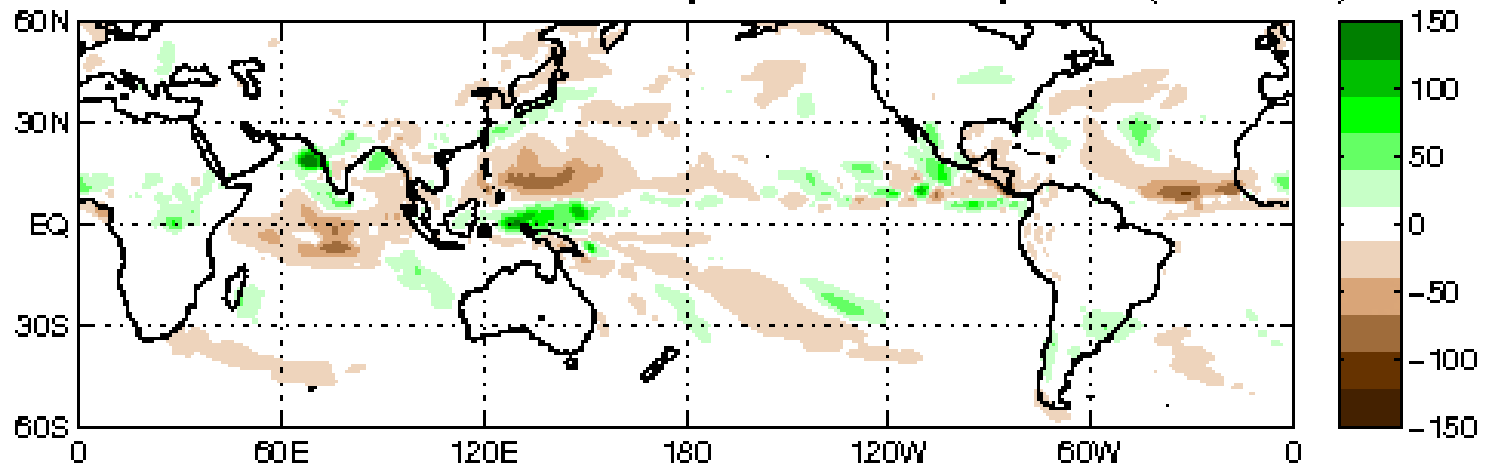
Evolving ENSO also contributing.

Equatorial Rossby Waves to impact western Pacific/Maritime Continent.

CFS: Anom. PREC Week: 1: 26-Aug-2014 to 01-Sep-2014 (mm/week)

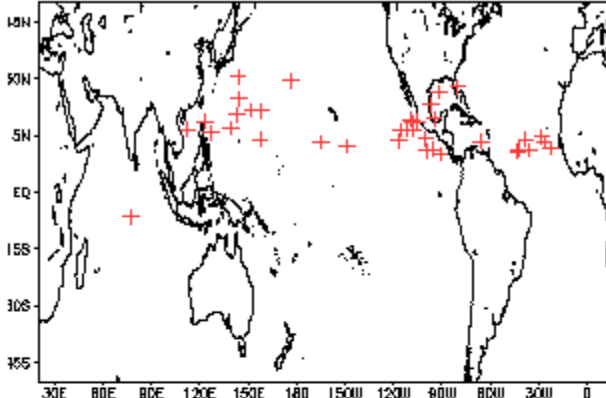


CFS: Anom. PREC Week: 2: 02-Sep-2014 to 08-Sep-2014 (mm/week)

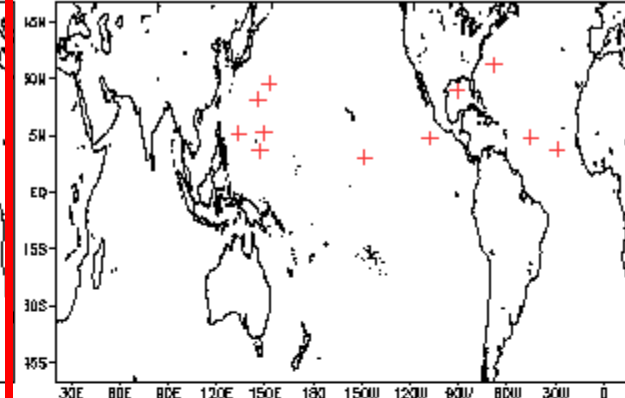


August Tropical Storm Formation by MJO phase

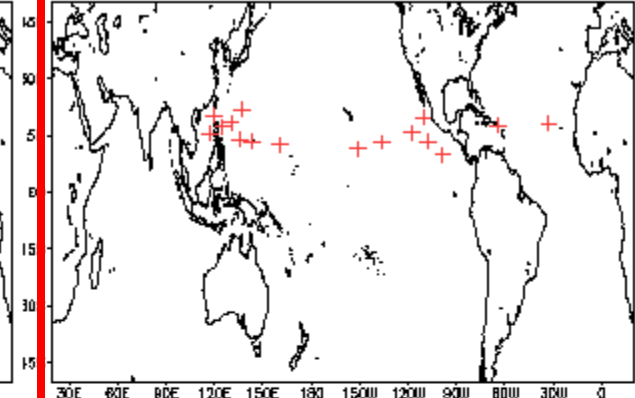
Phase 1 (101 days) 38 storms



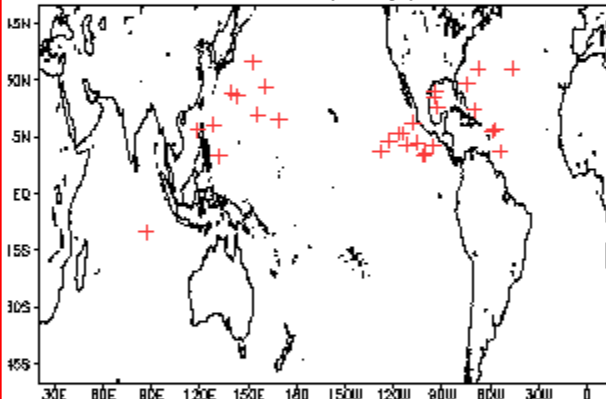
Phase 4 (40 days) 12 storms



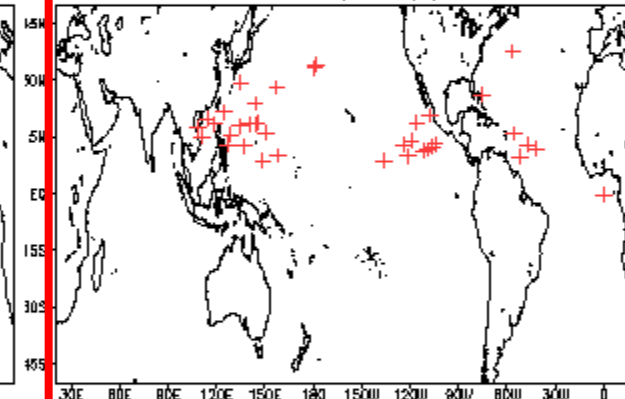
Phase 7 (43 days) 17 storms



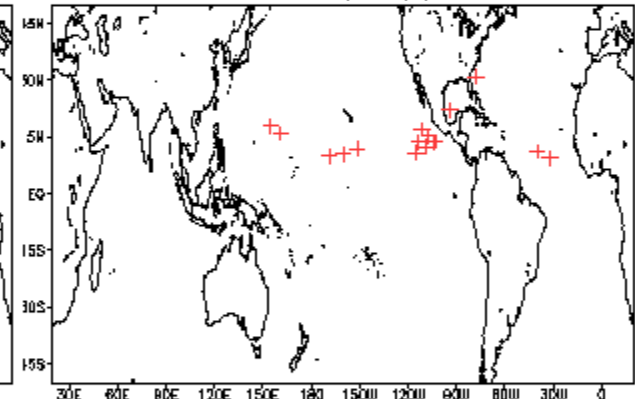
Phase 2 (79 days) 31 storms



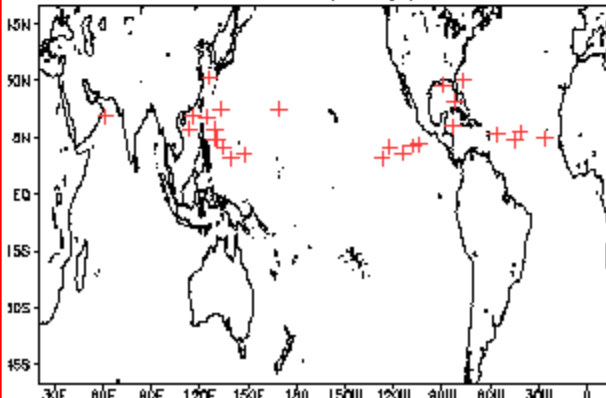
Phase 5 (117 days) 40 storms



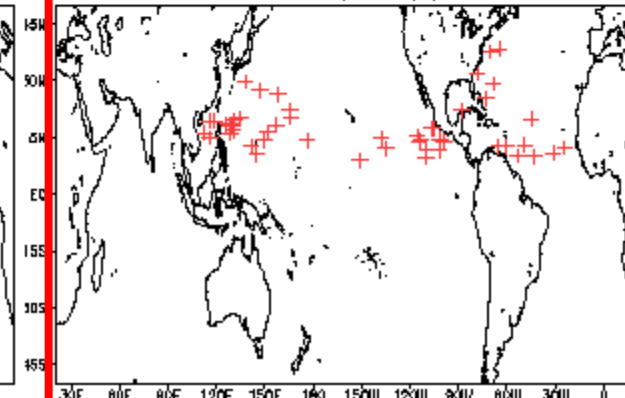
Phase 8 (25 days) 17 storms



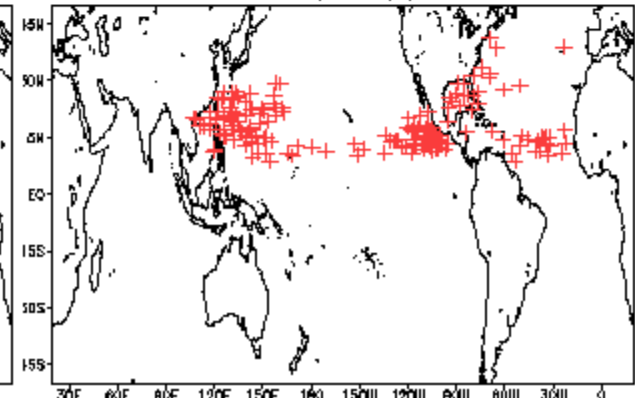
Phase 3 (51 days) 27 storms



Phase 6 (101 days) 50 storms



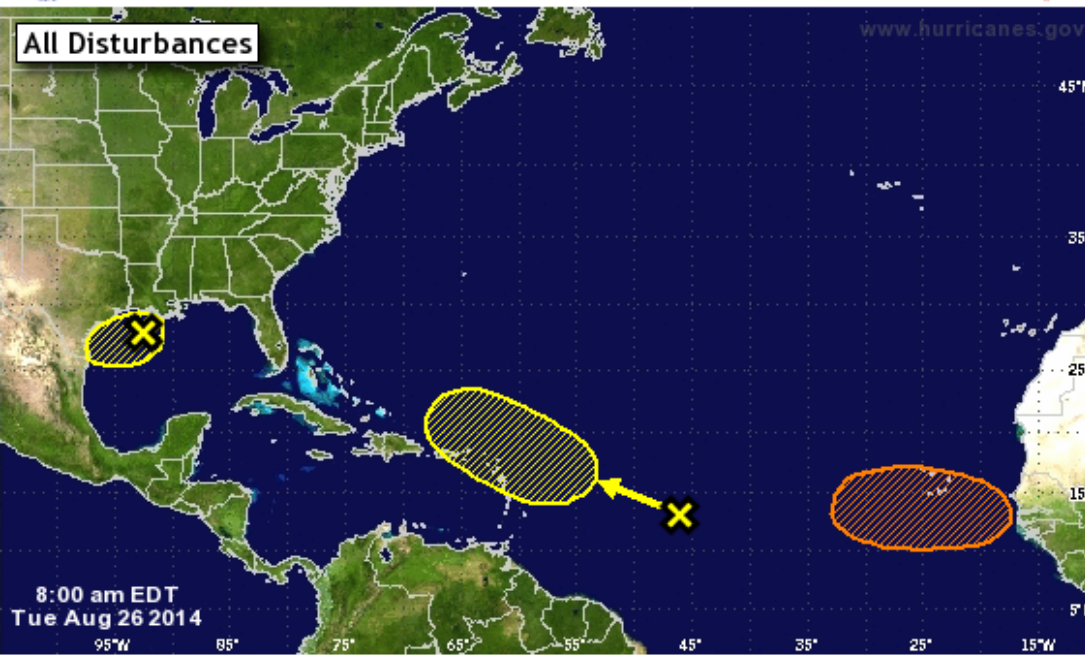
Null (466 days) 189 storms





Experimental 5-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



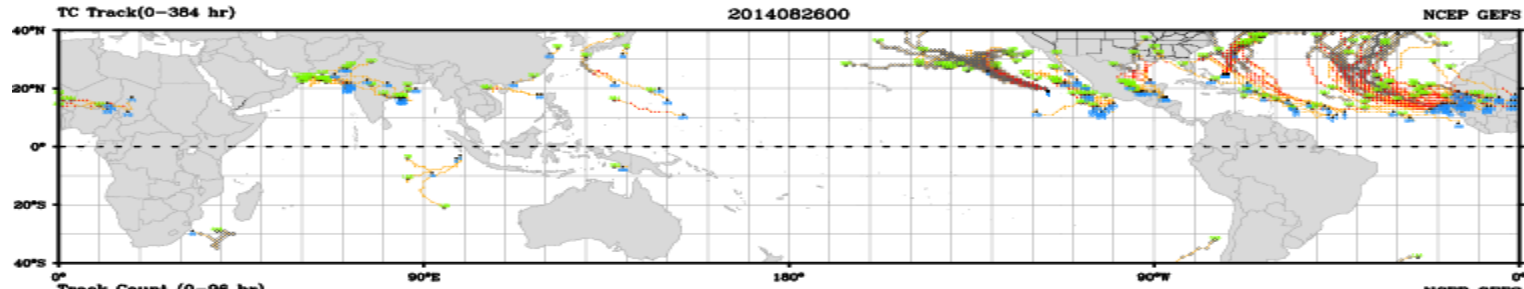
Tropical Cyclone Formation Potential for the 5-Day Period Ending 8:00 am EDT Sun Aug 31 2014
 Chance of Cyclone Formation in 5 Days: ■ Low < 30% ■ Medium 30-50% ■ High > 50%
 X indicates current disturbance location; shading indicates potential formation area.

Experimental 5-Day Graphical Tropical Weather Outlook

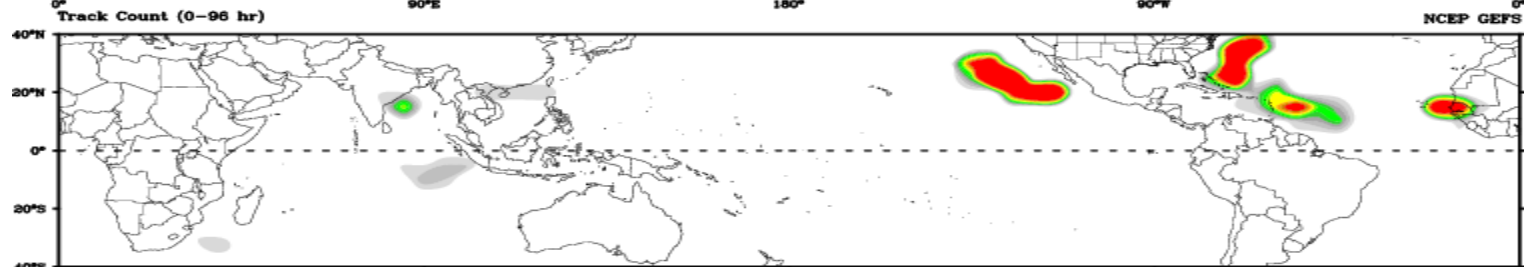
National Hurricane Center Miami, Florida



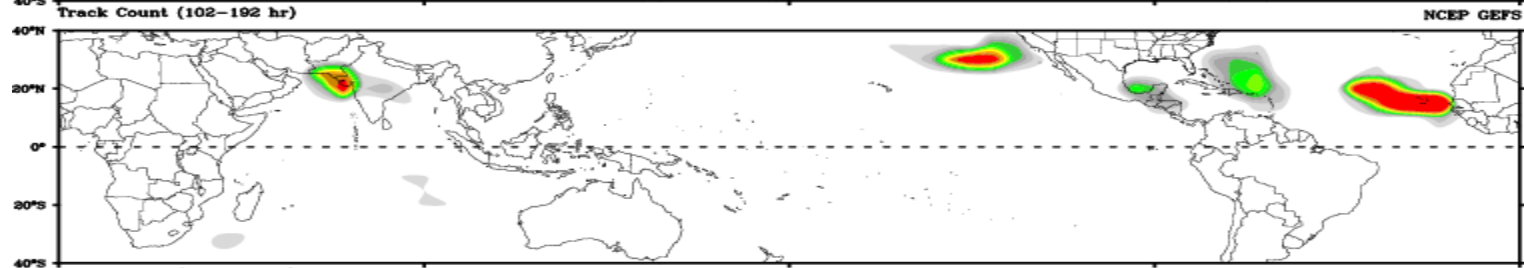
Tropical Cyclone Formation Potential for the 5-Day Period Ending 5:00 am PDT Sun Aug 31 2014
 Chance of Cyclone Formation in 5 Days: ■ Low < 30% ■ Medium 30-50% ■ High > 50%
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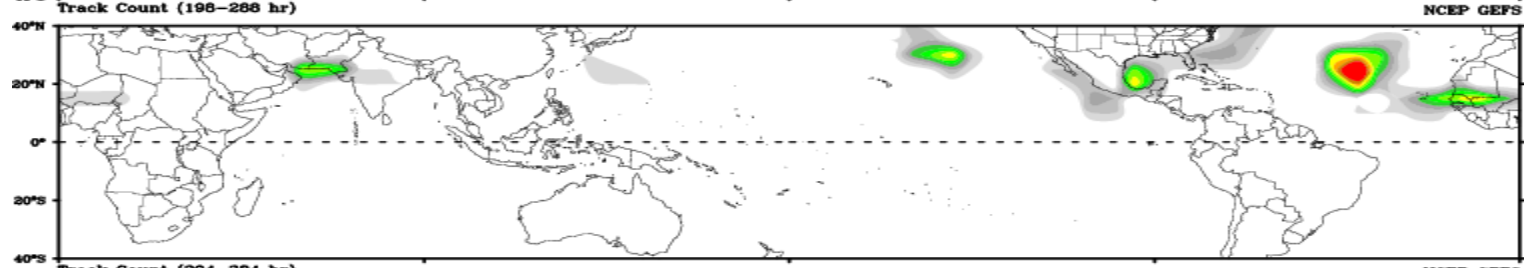
Days 1-4



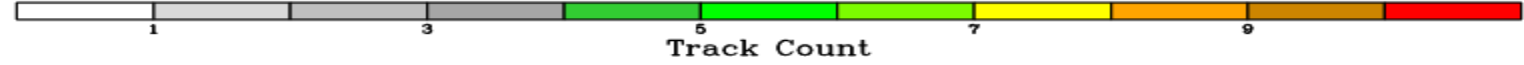
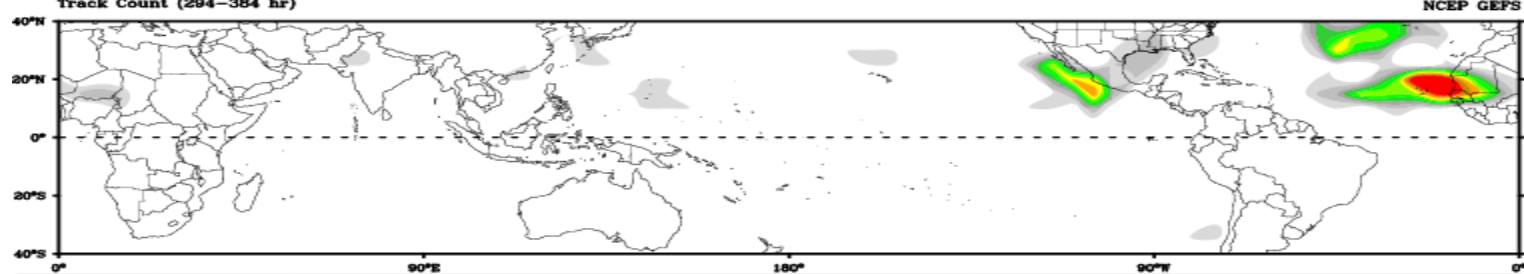
Day 5-8



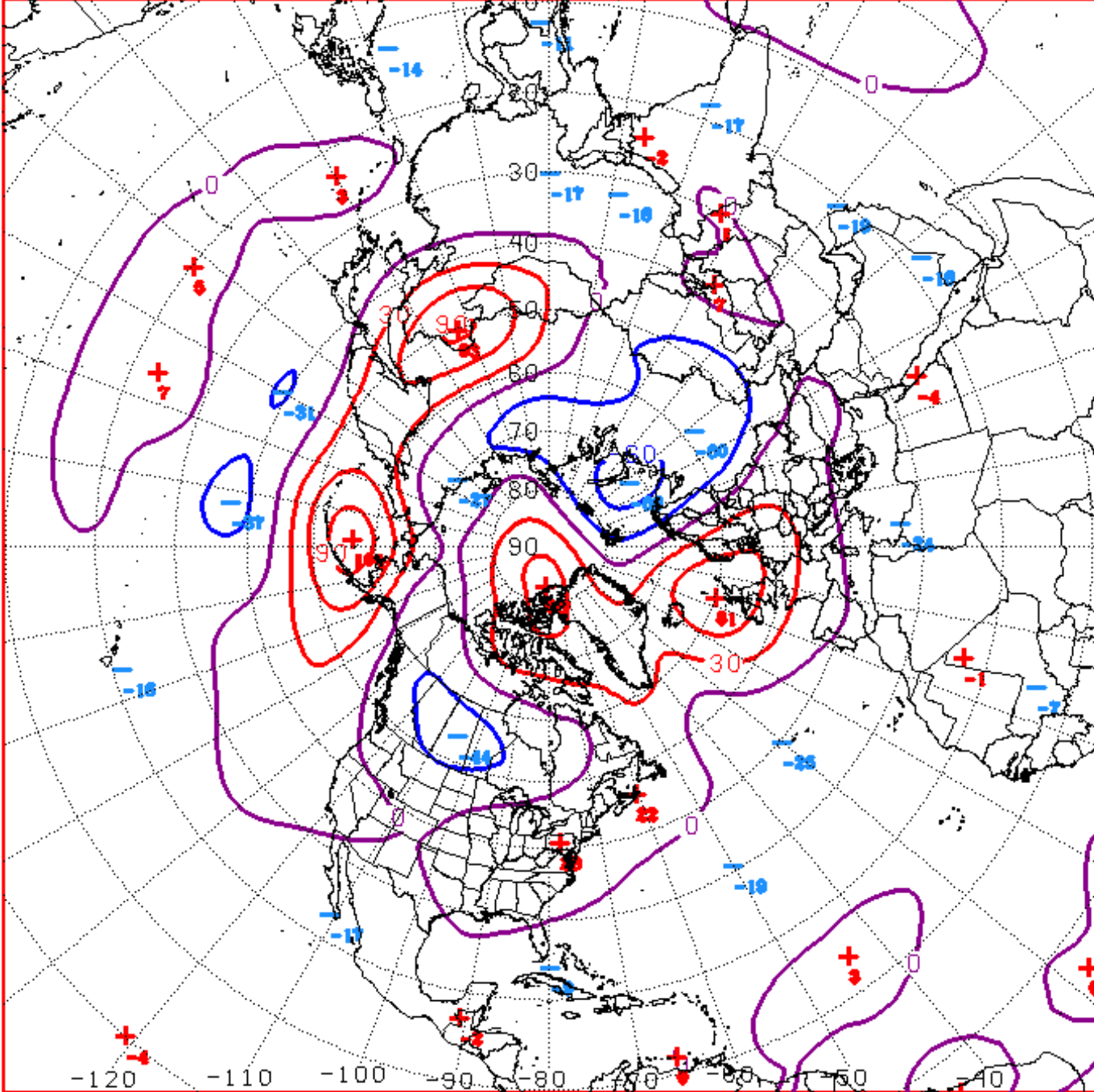
Day 9-12



Day 13-15

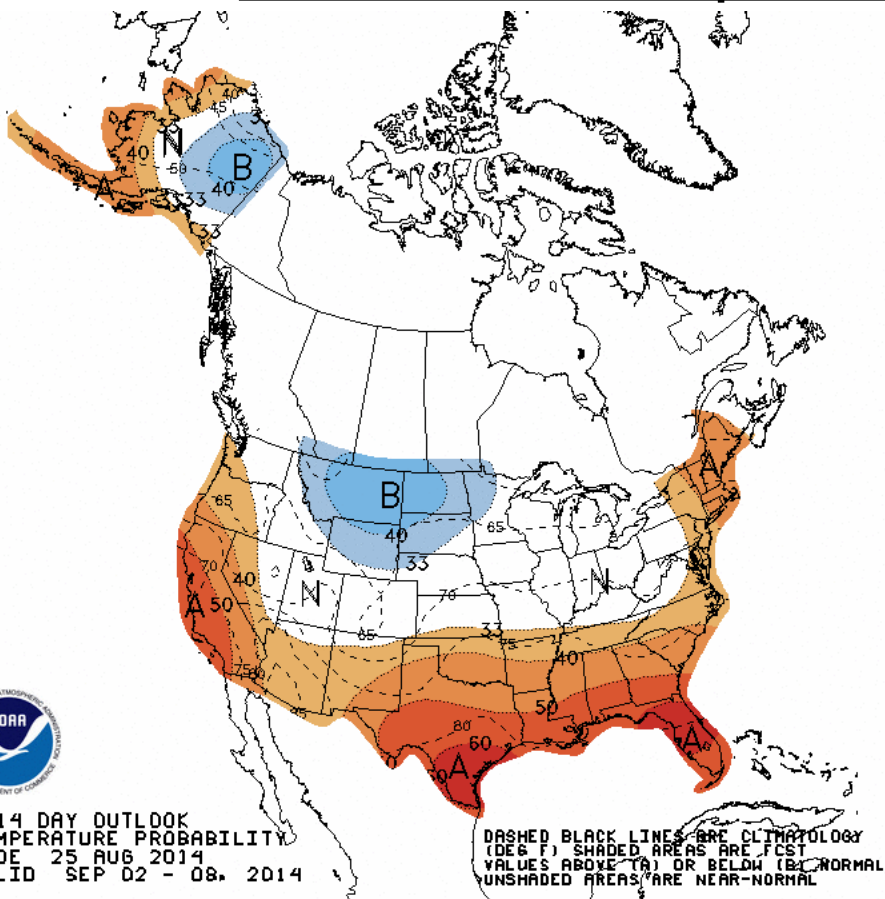


Connections to U.S. Impacts



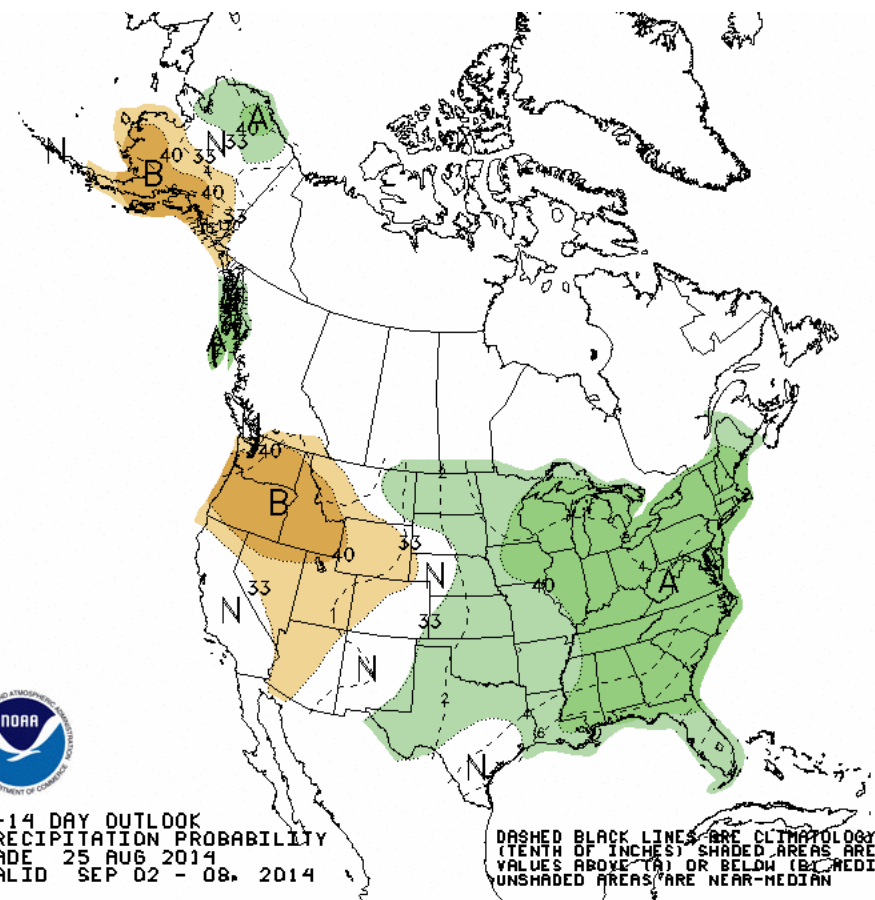
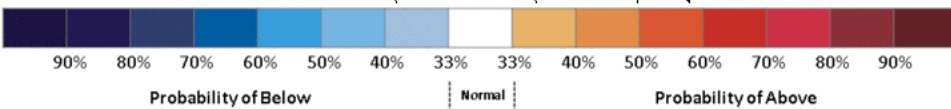
D+11 500 MB ANOMALIES FROM 00Z ECMM
CPC MAP MADE AUG 26 2014 1105 UTC CNTD SEP 06 2014

Week 2 – Temperature and Precipitation



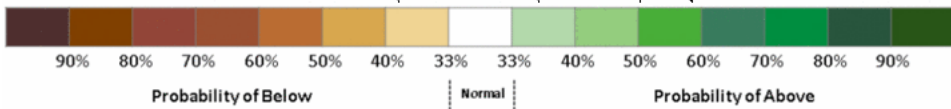
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 25 AUG 2014
VALID SEP 02 - 08, 2014

DASHED BLACK LINES ARE CLIMATE
(DEG F) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) NORMAL
UNSHADED AREAS ARE NEAR-NORMAL



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 25 AUG 2014
VALID SEP 02 - 08, 2014

DASHED BLACK LINES ARE CLIMATE
(TENTH OF INCHES) SHADED AREAS ARE FCST
VALUES ABOVE (A) OR BELOW (B) MEDIAN
UNSHADED AREAS ARE NEAR-MEDIAN

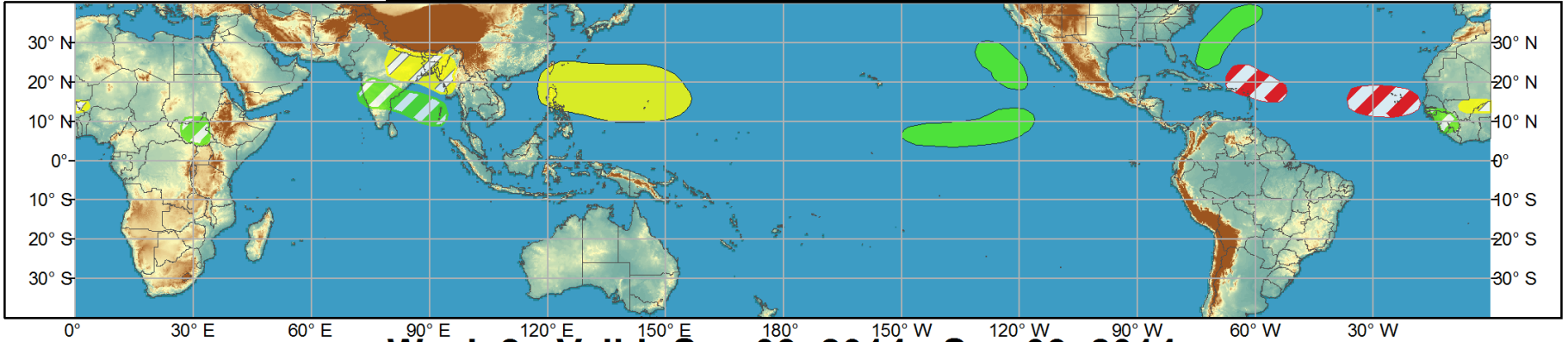




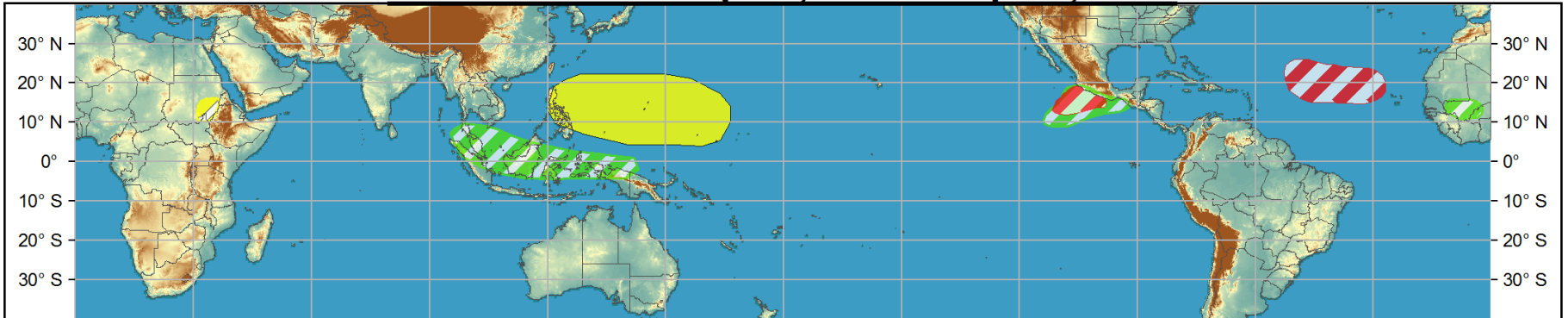
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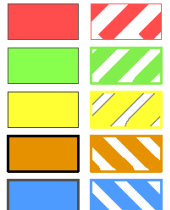


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